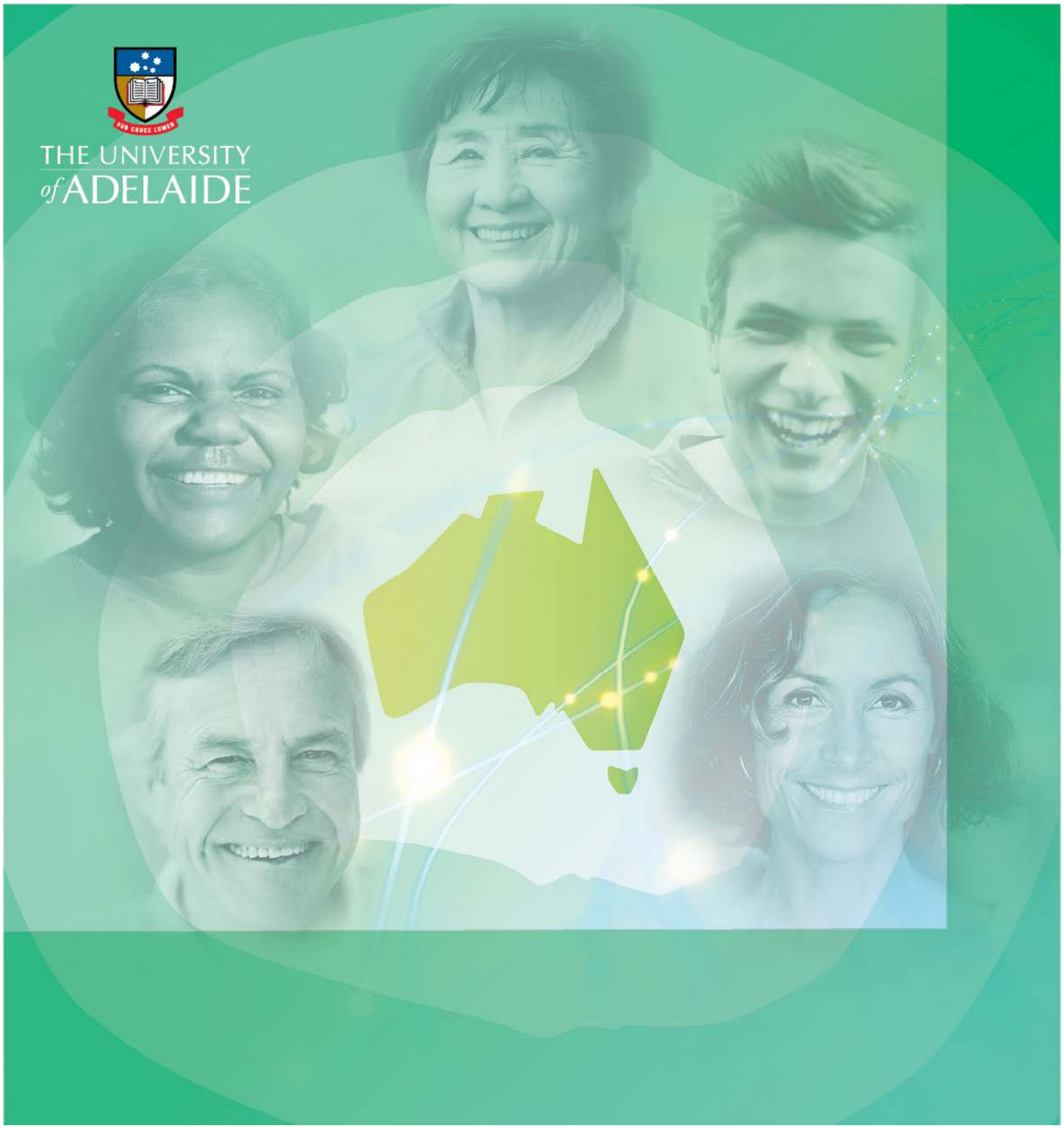

AUSTRALIA'S ORAL HEALTH

National Study of Adult Oral Health 2017-18

Australian Research Centre for Population Oral Health (ARCPOH)

health.adelaide.edu.au

Australia's Oral Health

National Study of Adult Oral Health 2017-18

Australian Research Centre for Population Oral Health, The University of Adelaide

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Contents

Overview of results

This report describes the oral health of the Australian adult population using information from the National Study of Adult Oral Health (NSAOH) 2017–18. NSAOH 2017–18 is only the third national oral examination survey of adults in Australia. It follows from the initial National Oral Health Survey of Australia 1987–88 and the second National Survey of Adult Oral Health (NSAOH) conducted in 2004–06.

Adults are defined in this report as people aged 15 years or more. Oral health status is described for major sociodemographic subgroups according to age, sex, Indigenous identity, residential location, completed years of schooling, and educational qualifications. In addition, subgroups relevant to oral health are presented for dental insurance coverage, eligibility for public dental care, usual reason for dental visits, and presence or absence of natural teeth.

Data collection for the study began in March 2017. Survey participants were selected using a multi stage probability sampling design that began with sampling of postcodes within states/territories in Australia. Persons selected in the sample were invited to participate in the study by either completing a questionnaire online, or completing a computer assisted telephone interview. Participants who reported having one or more of their own natural teeth were then invited to a dental examination conducted by trained and calibrated dental practitioners from each state/territory.

A total of 15,731 persons aged 15 years and over participated in the interview. Of the interviewed adults, 14,944 were dentate (had at least one natural tooth) and 787 were edentulous (no natural teeth). All dentate adults were invited to attend a dental examination with 5,022 receiving an examination.

The application of study weights was employed to adjust the socioeconomic composition of the sample to reflect the target population. Consequently, population estimates derived from the weighted sample will more closely reflect the true population parameters.

Summary of findings

Tooth loss

The percentage of Australians reporting complete tooth was 4.0% of the population aged 15 years and over. Around one in ten dentate persons (10.2%) aged 15 years and over in Australia reported having fewer than 21 teeth. The mean number of missing teeth reported per person was 5.7 teeth. In the Australian dentate adult population the dental examination showed that the mean number of teeth missing due to pathology was 4.4.

Overall, 11.3% of dentate Australians aged 15 years and over reported wearing a denture. The percentage of persons reporting that they had dental implants was 5.6%. In the Australian dentate adult population the dental examination showed that the mean number of missing teeth replaced by prostheses per person was 1.0.

- Variation by age in tooth loss and tooth replacement was observed for all measures. Compared to 15–34 year-olds, those aged 75 years and over had higher percentages of people with complete tooth loss (18.96 times), less than 21 teeth (64.86 times) and with dentures (44.03 times).
- A higher percentage of females reported complete tooth loss (1.39 times) as well as higher numbers of teeth missing for any reason (1.11 times) than males.
- Persons living at residential locations other than capital cities reported a higher percentage with complete tooth loss (1.61 times), less than 21 teeth (1.54 times) and dentures (1.35 times), but a lower percentage with dental implants (0.75 times) than capital city residents.
- A higher percentage of those with Year 10 or less schooling had complete tooth loss (5.26 times), less than 21 teeth (3.65 times) and dentures (3.12 times), as well as higher numbers of teeth missing for any reason (1.76 times), missing due to pathology (2.34 times), and missing and replaced (3.47 times) than those with Year 11 or more years of schooling.
- In comparison to those with a degree or higher qualification, those with other or no qualifications reported a higher percentage with complete tooth loss (7.32 times), less than 21 teeth (4.03 times) and dentures (2.65 times). Not having a degree or higher qualification was also associated with higher number of teeth missing for any reason (1.76 times), missing due to pathology (2.30 times), and missing and replaced (4.03 times).

- Those eligible for public dental care reported higher percentages with complete tooth loss (8.68 times), less than 21 teeth (5.10 times) and dentures (4.04 times) than ineligible persons. Eligible persons also had higher numbers of teeth missing for any reason (1.84 times), missing due to pathology (2.54 times), and missing teeth replaced by prostheses (4.43 times).
- Uninsured persons reported higher percentages with complete tooth loss (3.82 times), less than 21 teeth (2.15 times) and dentures (1.72 times) than dentally insured persons.
- Those usually visiting for a dental problem rather than a check-up reported higher percentages with complete tooth loss (6.80 times), less than 21 teeth (2.99 times) and dentures (2.27 times), as well as higher numbers of teeth missing due to any reason (1.42 times), missing due to pathology (1.72 times), and missing and replaced (2.08 times).

Experience of dental decay

Nearly a third (32.1%) of dentate Australians aged 15 years and over had untreated coronal decay, with a mean number of 1.4 decayed tooth surfaces per person. Some 8.2% of the dentate Australian population aged 15 years and over had untreated root decay.

Approximately three quarters of the Australian dentate population aged 15 years and over had one or more filled teeth (77.4%). Dentate Australians aged 15 years and over had a mean of 15.1 filled tooth surfaces per person, a mean number of 29.7 decayed, missing or filled tooth surfaces per person, and a mean number of 11.2 decayed, missing or filled teeth per person.

- Compared to 15–34 year-olds, those aged 75 years and over had higher percentages of people with root decay (8.94 times), and higher mean numbers of filled coronal surfaces (7.50 times), decayed, missing and filled surfaces (9.77 times), and decayed, missing and filled teeth (5.92 times).
- Indigenous persons had a lower mean number of filled coronal surfaces than non-Indigenous (0.43 times).
- A higher percentage of persons with Year 10 or less schooling than those with Year 11 or more years of schooling had coronal decay (1.22 times) and root decay (2.14 times), as well as having higher mean numbers of decayed coronal surfaces (1.81 times), filled coronal surfaces (1.37 times), decayed, missing and filled surfaces (1.77 times), and decayed, missing and filled teeth (1.61 times).
- Compared to those with a degree or higher qualification those with other or no qualifications had a higher percentage with root decay (2.06 times) and higher mean numbers of decayed coronal surfaces (1.79 times), filled coronal surfaces (1.23 times), decayed, missing and filled surfaces (1.60 times), and decayed, missing and filled teeth (1.45 times).
- Those who were eligible for public dental care in relation to those who were ineligible had a higher percentage with root decay (2.43 times) and higher mean numbers of decayed coronal surfaces (1.76 times), filled coronal surfaces (1.53 times), decayed, missing and filled surfaces (1.93 times), and decayed, missing and filled teeth(1.69 times).
- Persons who were dentally uninsured had a higher percentage of people with coronal decay (1.58 times) and root decay (1.50 times), as well as higher mean numbers of decayed coronal surfaces (2.28 times) than the dentally insured.
- Those who usually visit for a dental problem had higher percentages with coronal decay (1.79 times) and root decay (2.56 times), as well as higher mean numbers of decayed coronal surfaces (3.20 times) than those usually visiting for a check-up.

Gum disease

Prevalence of moderate or severe periodontitis defined by the US Centers for Disease Control and Prevention (CDC) and the American Academy of Periodontology (AAP) case definition was 30.1% among dentate Australians aged 15 years and over. The percentage of people with periodontitis by the US National Center for Health Statistics (NCHS) case definition was 28.3%. Prevalence of 4+ mm periodontal pocket depth was 28.8%. The percentage of people with 2+ mm gingival recession was 56.2%. The percentage with 4+ mm clinical attachment loss (CAL) was 52.7%.

The percentage of tooth sites with 4 mm or more of periodontal pocket depth was 2.1%, while the percentage of tooth sites with 4 mm or more of periodontal attachment loss was 6.4%.

The percentage of people with gingival inflammation was 28.8% overall.

- There were strong age-related gradients in all indicators of gum diseases and conditions, except for the prevalence of people with gingival inflammation. Compared with the youngest age group, the other age groups had consistently higher prevalence of periodontal disease defined by different case definitions and extent of sites with periodontal pocket and clinical attachment loss exceeding 4 mm. People aged 75 years and over had 5.67 times higher prevalence of periodontitis defined by the CDC/AAP case definition than the 15–34 year age group. The relative difference in the extent of sites with CAL of 4+mm was 13.71 times between the two age groups.
- People with fewer years of schooling had consistently higher prevalence and extent of periodontal diseases and conditions than those with at least 11 years of schooling, including a 1.75 times higher prevalence of periodontitis by the CDC/AAP case definition.
- Those without a degree had higher prevalence and extent of periodontal conditions than those who had a degree or higher. The former had more than twice higher extent of sites with CAL of 4+mm than the latter (2.02) and a 1.55 times higher prevalence of periodontitis by the CDC/AAP case definition.
- Those who were eligible for public dental care were more likely to have periodontitis defined by the CDC/AAP and NCHS case definitions than those who were ineligible (1.67 times and 1.25 times, respectively). The former also had higher extent of sites with PPD and CAL of 4+mm than the latter (1.60 times and 2.23 times, respectively).
- Those without dental insurance generally had higher prevalence and extent of periodontal diseases and conditions than those who were insured, including a 1.38 times higher prevalence of periodontitis by the CDC/AAP case definition.
- People who usually visited for a dental problem had consistently higher prevalence and extent of periodontal diseases and conditions than those who usually visited for a check-up, including a 1.41 times higher prevalence of periodontitis by the CDC/AAP case definition. The relative differences were particularly notable with indicators of more acute inflammation, periodontal pocket depth and gingivitis.

Other oral conditions

The percentage of people with enamel wear of lower incisors in the Australian population was 13.5%, while 0.5% had severe wear. Dental fluorosis defined as having a TF score of 2 (very mild) or higher was observed in 9.4% of persons. Xerostomia (feeling of dry mouth) was reported by 13.2% of adults. The percentage of persons with total lack of occlusal contact was 4.8%. Oral mucosal lesions were observed in 21.7% of persons.

- The two measures of enamel wear were strongly associated with age, as was total lack of occlusal contact. People in the 55–74 year and 75 year and over age groups were more likely to have xerostomia (1.90 and 2.86 times, respectively) and oral mucosal lesions (1.67 and 1.79 times, respectively) than the youngest age group.
- Females were more likely to have xerostomia (1.15 times) than males.
- People who had lower level of schooling or qualifications were consistently more likely to have acquired chronic dental conditions. The relative difference between the respective groups was most notable with the prevalence of lack of occlusal contact, which was 5.59 times higher for those with fewer years of schooling and 6.79 times higher for those without a degree or higher qualification.
- Those who were eligible for public dental care were more likely to have chronic oral conditions than those who were not eligible, except for the prevalence of dental fluorosis. The former had 7.69 times higher the prevalence of total lack of occlusal contact than the latter.
- Problem-based visiting was associated with 2.84 times higher prevalence of lack of occlusal contact than those with more favourable visiting.

Most recent dental attendance

Overall, just over half of the Australian population aged 15 years and over attended a dental provider in the previous 12 months (56.4%), while just over one in ten people had not visited a dentist for five or more years (11.4%). Just over four in five people reported that their last dental visit was to a private practice dentist (81.8%). Of those that visited a dentist within the previous five years, nearly nine in ten paid for all or part of their dental care (89.4%).

- Compared to the youngest age group, the 35–54 and 75 years and over age groups were 1.22 and 1.51 times more likely to have last visited 5 or more years ago.
- Indigenous people were less likely to have attended a private practice and less likely to have paid for their last dental visit than non-Indigenous people (0.73 and 0.74 times, respectively).
- People living in areas outside of capital cities were 1.31 times more likely to have not visited for 5 or more years.
- Those with Year 10 or less schooling were 1.56 times more likely than those with Year 11 or more, those with other or no qualification were 1.80 times more likely than those with a degree or above, and those without dental insurance were 3.59 times more likely to have not made a visit to a dentist for 5 or more years.
- Uninsured were 0.62 times less likely than insured persons to have visited in the past 12 months, and those who were eligible for public dental care were 0.63 times less likely than those ineligible for public care to have paid for their dental care.
- Individuals who usually visit for a problem were 0.52 times less likely than those who visit for a check-up to have visited within the previous 12 months, and 5.43 times more likely to have not made a visit in the previous 5 years.
- Those who were edentulous were 0.38 times less likely than dentate people to have visited in the previous 12 months, and 4.06 times more likely to have not visited in the previous 5 years.

Usual pattern of dental attendance

Overall, just over half of the Australian dentate population aged 15 years and over usually visit a dental provider at least once a year (57.5%), over three-quarters have a particular dentist or clinic that they usually attend (78.5%), and nearly two-thirds usually visit a dentist for a check-up (64.9%). Conversely, one in five people had unfavourable visiting patterns (22.0%), in that they visited less than once every 2 years (and usually for a problem), or visited once every 2 years (usually for a problem) and without a regular dental provider.

- Compared to the youngest age group, 35–54 year-olds were less likely to visit at least once a year (0.90 times). All age groups 35 years and over were slightly more likely than the 15–34 year-olds to usually attend the same dentist or clinic, were also less likely to attend for a check-up, and had higher rates of unfavourable visiting.
- Lower rates of visiting at least once a year and usually attending for a check-up were observed for those living outside of capital cities compared with those in capital cities (0.84 and 0.86 times, respectively), those with Year 10 or less compared to Year 11 or more schooling (0.83 and 0.79 times, respectively), other or no qualifications than those with degree or above (0.83 and 0.80 times, respectively), those eligible for public dental care than those ineligible (0.83 and 0.73 times, respectively), and uninsured than insured persons (0.57 and 0.62 times, respectively).
- The composite variable of unfavourable attendance pattern was lower for females than males (0.85 times), but higher for those living outside capital cities than those in capital cities (1.45 times), Year 10 or less schooling than those with Year 11 or more (1.57 times), other or no qualification than those with a degree or higher (1.84 times), and those eligible for public dental care compared to those ineligible (1.55 times). The strongest association was for insurance status with uninsured persons over three times more likely to have unfavourable visiting patterns than those with insurance (3.28 times).

Financial barriers to dental care

Overall, over one-third of the Australian population aged 15 years and over reported that they avoided or delayed visiting a dentist due to cost (38.8%), and just under one-quarter reported they would have a lot of difficulty paying for a $200 dental bill (24.0%). In addition, just under one-quarter of all dentate Australians who visited in the previous 12 months reported that cost prevented the recommended treatment (22.6%).

- Compared to 15–34 year-olds, 35–54 year-olds were more likely to report that cost prevented recommended dental treatment (1.44 times). In contrast, those aged 75 years and over were less likely to report avoiding or delaying visiting due to cost (0.55 times) and cost prevented recommended treatment (0.49 times). All age groups were less likely to report difficulty paying a $200 dental bill when compared to the 15–34 year age group.
- Females were 1.35 times more likely than males to report cost prevented recommend treatment and 1.44 times more likely to report a lot of difficulty paying a $200 dental bill.
- Compared to non-Indigenous, individuals identifying as being Indigenous were 1.70 times more likely to report a lot of difficulty paying a $200 dental bill.
- Individuals with Year 10 or less schooling were 1.42 times more likely to report this barrier than those with Year 11 or more years of schooling.
- There was a two-fold difference between groups in terms of difficulty paying a $200 dental bill. Those with other or no qualification were 1.88 times more likely than those with a degree or higher, and those eligible for public dental care 2.18 times more likely than those ineligible for care to report a lot of difficulty paying a dental bill.
- Uninsured individuals were twice as likely to report avoiding dental care due to cost (2.02 times), 1.65 times more likely to report cost prevented recommended treatment, and 2.20 times more likely to report a lot of difficulty paying a $200 dental bill, compared to those with dental insurance.
- Those who usually visit for a problem were 2.13 times as likely to report avoiding dental care due to cost, 2.72 times more likely to report cost prevented recommended treatment and 2.02 times more likely to report a lot of difficulty paying a $200 dental bill compared to those who usually visit for a check-up.

Perceived oral health problems

Overall, 23.7% of people in Australia aged 15 years and over reported avoiding certain foods due to dental problems. Among dentate people aged 15 years and over in the Australian population, nearly a quarter rated their oral health as fair or poor (23.9%). Approximately one fifth of dentate Australians aged 15 years and over reported experiencing a toothache (20.2%). Overall, 35.2% of Australians aged 15 years and over reported being uncomfortable about their dental appearance.

- A lower percentage of younger persons reported avoiding foods than those aged 35–54 years to 75 years and over where percentages were between 1.33 and 1.47 times higher, and a similar pattern was observed for rating their oral health as fair or poor with percentages between 1.25 and 1.58 times higher.
- Those aged 55–54 years and 75 years and over had lower percentages with toothache (0.80 and 0.52 times, respectively).
- Indigenous persons had higher percentages avoiding foods (1.54 times), reporting toothache (1.75 times) and being uncomfortable about their dental appearance (1.29 times) than non-Indigenous persons.
- Compared to those with a degree or higher qualification, those with other or no qualifications had higher percentages avoiding foods (1.31 times), and rating their oral health as fair or poor (1.28 times).
- Those eligible for public dental care had higher percentages avoiding foods (1.71 times), rating their oral health as fair or poor (1.57 times), and reporting toothache pain (1.43 times) than those ineligible.
- Uninsured persons had higher percentages avoiding foods (1.88 times), rating their oral health as fair or poor (2.11 times), reporting toothache pain (1.77 times) and being uncomfortable about dental appearance (1.35 times) than those who were dentally insured.

- Persons who usually visit a dentist for a dental problem had higher percentages avoiding foods (2.68 times), rating their oral health as fair or poor (3.50 times), reporting toothache pain (2.79 times) and being uncomfortable about dental appearance (1.77 times) than those who usually visit for a check-up.
- Edentulous people reported a higher percentage who avoided foods (1.86 times) than dentate persons.

Perceived treatment needs

Overall, 5.6% of people aged 15 years and over reported a need for dentures. Among dentate people aged 15 years and over, 27.1% perceived a need for an extraction or a filling. The percentage of dentate persons aged 15 years and over who perceived a need for a check-up was 53.4%. Approximately two thirds of dentate Australians aged 15 years and over with a need for an extraction or filling perceived a need for dental treatment within 3 months (67.2%).

- Younger persons aged 15–34 years had lower percentages that reported needing dentures than those aged 35–54 years to 75 years and over where percentages were between 4.06 and 13.78 times higher, and a similar pattern was observed for needing treatment within 3 months with percentages between 1.16 and 1.49 times higher in the older age groups.
- Those aged 55–74 years and 75 years and over had lower percentages with a need for a check-up (0.83 and 0.61 times, respectively). A lower percentage of those aged 75 years and over reported needing an extraction or filling than younger persons aged 15–34 years (0.59 times).
- Indigenous persons reported higher percentages with a perceived need for dentures (2.82 times) and an extraction or filling (1.48 times) than non-Indigenous persons.
- Residents at places other than capital cities reported higher percentages with a perceived need for dentures (1.57 times) than capital city residents.
- Those with Year 10 or less of schooling had higher percentages with a perceived need for dentures (3.29 times) than those with Year 11 or more years of schooling.
- In comparison to those with a degree or higher qualification, those with other or no qualifications reported a higher percentage with a perceived need for dentures (3.34 times), an extraction or filling (1.32 times) and treatment within 3 months (1.24 times).
- Persons who were eligible for public dental care had higher percentages with a perceived need for dentures (4.68 times), and need for an extraction or filling (1.27 times) than those ineligible.
- A higher percentage of those who were uninsured reported a perceived need for dentures (3.04 times), a need for an extraction or filling (1.71 times), and a check-up (1.22 times) than dentally insured persons.
- Those who usually visit for a dental problem had a higher percentage that reported a perceived need for dentures (7.93 times), a need for an extraction or filling (2.95 times), and a check-up (1.30 times) than those who usually visit for a check-up.
- Edentulous persons reported a higher percentage with a perceived need for dentures (6.10 times) than dentate persons.

Trends in oral health and use of dental services

The percentage of Australians aged 15 years and over with complete tooth loss decreased from 14.4% in 1987–88 to 6.4% in 2004–06, and further declined to 4.0% in 2017–18.

- Decreases in the percentage of persons with complete tooth loss since 1987–88 were observed consistently in all age groups from those aged 35–44 years up to those aged 75 years and over.

The percentage of Australians aged 15 years and over with less than 21 natural teeth decreased from 20.6% in 1987–88 to 13.8% in 2004–06, and declined to 10.2% in 2017–18.

- Consistent decreases in the percentage of persons with less than 21 natural teeth since 1987–88 were observed in all age groups from those aged 45–54 years up to those aged 75 years and over.

The percentage of Australians aged 15 years and over that wore dentures decreased from 21.5% in 1987–88 to 14.9% in 2004–06, and declined to 11.3% in 2017–18.

- Consistent decreases since 1987–88 in the percentage of persons who had dentures were observed in all age groups from those aged 25–34 years up to those aged 75 years and over.

The mean number of decayed, missing or filled teeth (DMFT) decreased from 14.9 in in 1987–88 to 12.6 in 2004–06, and declined further to a mean of 11.2 in 2017–18.

- This was reflected in fewer decayed teeth between 1987–88 (1.5) and 2017–18 (0.8), as well as for missing teeth (5.7 and 4.4, respectively) and filled teeth (7.8 and 5.9, respectively).
- DMFT was significantly lower in 2017–18 than in 1987–88 in all age groups except those aged 75 years and over, where there was no change.

The percentage of dentate Australians aged 15 years and over who rated their oral health as fair or poor increased from 16.4% in 2004–06 to 23.9% in 2017–18.

- All age groups from 25–34 to 65–74 years exhibited increases over time in the percentage of persons reporting fair or poor oral health.

There was an increase in the percentage of persons that visited a dentist in the preceding 12 months from 53.3% in 1987–88 to 62.1% in 2004–06, before declining to 57.8% in 2017–18.

- Trends over time in dental attendance were not consistent across age groups.

The majority of people reported attending a private dental practice, but the percentage declined from 87.1% in 1987–88 to 82.9% in 2004–06 and 83.4% in 2017–18.

- The percentage who went to a private practice at their last dental visit was lower in 2004–06 and in 2017–18 than in 1987–88 for those aged 15–24, 25–34 and 35–44 years.

Over time there was an increase in the percentage of persons that had private dental insurance from 48.4% and 47.3%, respectively in 1987–88 and 2004–06, before increasing to 52.4% in 2017–18.

- Those aged 15–24, 65–74 and 75 years or more, all had higher percentages with private dental insurance in 2017–18 than at the beginning of the observation period in 1987–88.

The percentage of Australians aged 15 years and over who avoided or delayed dental care due to cost increased from 30.6% in 2004–06 to 39.2% in 2017–18.

- The increased percentage of Australians aged 15 years and over who avoided or delayed dental care due to cost between 2004–06 and 2017–18 was observed consistently in each age group.

Over time there was an increase in the percentage of persons that reported needing a dental extraction from 6.0% in 1987–88 to 9.7% in 2004–06 and remaining at 9.0% in 2017–18.

- For persons aged between 25–34 and 35–44 years the percentage of persons that reported needing a dental extraction was higher in both 2004–06 (11.7% and 10.0%, respectively) and in 2017–18 (11.7% and 10.2%, respectively) than at the beginning of the period in 1987–88 (5.9% and 5.0%, respectively).

There was an increase in the percentage of persons that reported needing a dental filling from 24.7% in 1987–88 to 28.7% in 2004–06, before declining to 22.5% in 2017–18.

- The time trend towards a decline in the percentage of persons who perceived a need for dental fillings between 2004–06 and 2017–18 was observed for persons aged 15–24 years, 25–34 years, 35–44 years and 45–54 years.

The percentage of persons that reported needing a denture was lower in both 2004–06 (5.1%) and in 2017–18 (4.7%) than in 1987–88 (9.0%).

- Consistent decreases since 1987–88 in the percentage of persons who perceived a need for dentures were observed in all age groups from those aged 35–44 years up to those aged 75 years and over.

1 Introduction

This report describes the state of oral health of the Australian adult population using information from the National Study of Adult Oral Health (NSAOH) 2017–18. Adults are defined here as people aged 15 years or more. Oral health is described for major sociodemographic subgroups defined according to age, sex, Indigenous identity, residential location, completed years of schooling, and educational qualifications. In addition, subgroups relevant to oral health are presented based on dental insurance coverage, eligibility for public dental care, usual reason for dental visits, and presence or absence of natural teeth.

Summary statistics in this report were computed from two data sources. Information about oral disease, particularly dental decay and gum disease, was recorded during examinations of the teeth and gums that were conducted by study dentists. Additional information about perceptions of oral health and patterns of dental care was obtained from responses to standardised questions asked during telephone interviews.

NSAOH 2017–18 is only the third national oral examination survey of adults in Australia. It follows from the second National Survey of Adult Oral Health conducted in 2004–06 (Slade et al., 2007), and the initial National Oral Health Survey of Australia 1987–88 (Barnard 1993). This report includes a comparison of results with the first two surveys, evaluating trends in oral disease and dental care that have occurred over that period. These trends provide insights into historical influences on dental care and likely trends in oral health status.

To provide a background for the study, this chapter describes the circumstances that motivated the study. The aims of the study are presented in Chapter 2 together with a description of the methods. Chapter 3 provides details of the participation in the study and weighting of data.

1.1 Purpose of this report

The purpose of this report is to provide a descriptive 'snapshot' of oral health in the adult population of Australia. The findings are intended to provide up-to-date evidence that can contribute to the development of oral health policies and programs in Australia. Such evidence continues to be essential because oral diseases represent a considerable burden on the health of the public. This calls for information about the distribution of oral disease and provision of dental care among relevant subgroups of the Australian population, which is the focus of Chapters 4, 5 and 6 of this report. Trends observed between surveys are reported in Chapter 7. Analysis of trends provide insights into historical circumstances that have influenced oral health, and permit some predictions about future trends in oral disease.

1.2 Why was the Study undertaken?

Up-to-date information about population oral health is important for the nation because oral diseases have broad implications for the health of the public. Oral conditions affect 3.9 billion people worldwide, with untreated decay in permanent teeth the most prevalent condition in the Global Burden of Disease 2010 Study (Marcenes et al., 2013). Dental problems are ranked among the most frequently reported illness episodes by Australians (AIHW 2000) and dental expenditure is some $10.15 billion or 6% of the health dollar annually (AIHW 2018). In the United States the Surgeon General characterised oral disease as a 'silent epidemic' (Surgeon General 2000).

Developing oral health policies

Information from health surveys is used to develop new policies, change old ones and evaluate the impact of prevention and treatment programs within the community. Many aspects of Australia's oral health and dental care at the beginning of the twenty-first century can be attributed to health policies and programs that have evolved through the twentieth century. There are examples now and in the past of broad-based government actions that affect general health and have additional influences on oral health, including initiatives in education, welfare, nutrition and smoking. Taxation systems provide incentives for the purchase of private health insurance and influence the cost of a range of dental products. Federal and state government programs provide dental care to targeted subgroups of the population. Governments, health professions and private industry are primarily responsible for promoting oral health in the community and for providing population-based preventive programs including community water fluoridation. Governments fund universities that educate dental health professionals, who practise within acts of parliament that provide for

regulation of professions by peers and the community. Most oral health research is funded by governments and industry. Oral health surveys provide the essential benchmarks needed for planning all those initiatives.

National Oral Health Survey of Australia 1987–88

National Oral Health Survey of Australia (NOHSA) 1987–88 was the first oral health examination survey to include a nationally representative sample of Australian adults. The sample comprised 16,897 people aged 5 years or more who were selected from the six states and the Australian Capital Territory (Barnard 1993). Households were sampled in both capital cities and remaining parts of the states, except in Western Australia, where areas outside Perth were excluded. Oral examinations were conducted in subjects' homes by a large number of volunteer dentists who had been advised on the Survey methodology during seminars conducted in each state and the ACT. The dental examination was based on the World Health Organization's basic methods (WHO 1977). Prior to the examination, sampled people completed an interview in which they were asked eight questions about dental visits and preventive dental behaviours.

The 1987–88 survey was administered by a National Planning Committee that drew on resources of the Australian Bureau of Statistics, the Commonwealth Department of Health and individual dentists through the Australian Dental Association. The main publication from the NOHSA 1987–88 provided descriptive statistics that documented prevalence and severity of oral conditions within each state and the ACT (Barnard 1993).

National Survey of Adult Oral Health 2004–06

The National Survey of Adult Oral Health (NSAOH) 2004–06 was the second oral health examination survey to include a nationally representative sample of Australian adults (Slade et al., 2007). In this survey a random sample of Australian adults was interviewed by telephone and those with their own teeth were asked to undergo a standardised dental examination conducted in a local clinic by one of 30 dentists trained in the Survey methods. A three-stage, stratified clustered sampling design was used to select people from the target population of Australian residents aged 15 years or more. The sampling frame was households with listed telephone numbers recorded in an 'electronic white pages' database. The first stage selected postcodes, the second stage selected households within sampled postcodes, and the third stage selected one person aged 15 years or more from each sampled household. A total of 14,123 people aged 15–97 years were interviewed and 5,505 people were dentally examined. The 14,123 people interviewed represented 49% of those asked to participate, while the 5,505 people examined, represented 44% of interviewed people who were invited to the examination. Accuracy of survey examiners was assessed by comparing their examination findings with those of the Survey's principal examiner. The observed levels of agreement for most oral health indicators were equivalent to benchmarks reported for national oral health surveys conducted in the United Kingdom and the United States. Two advisory committees were established to assist in the design and implementation of the NSAOH 2004–06. An expert advisory committee provided technical advice on the design, implementation and analysis of the Survey. An additional community advisory committee provided guidance on the overall coverage and content of the survey.

National Study of Adult Oral Health 2017–18

This report is based on the National Study of Adult Oral Health (NSAOH) 2017–18, the third oral health examination survey to include a nationally representative sample of Australian adults. Data collection for the 2017–18 study began in March 2017. Survey participants were selected using a multi stage probability sampling design that began with sampling of postcodes within states/territories in Australia. Participants in the study had the option to either complete the questionnaire online, or complete a computer assisted telephone interview. Participants who completed an interview and who reported having one or more of their own natural teeth were invited to a dental examination. Examinations were conducted by trained and calibrated dental practitioners from each state/territory.

1.3 Organisation of this report

This introductory chapter outlines the background for undertaking the Study. Chapter 2 presents the study's aims and methods. Chapter 3 describes levels of participation in the study and weighting of the data. Chapter 4 describes statistical findings regarding oral disease, followed by statistical findings regarding dental care (Chapter 5) and perceptions of oral health (Chapter 6). Trends in oral health between the 1987–88 survey, 2004–06 survey and the current study are evaluated in Chapter 7. The Study's findings are summarised in Chapter 8.

The Appendix contains additional tables of oral health statistics, including tables of key outcome variables by state and territory.

2 Study aims and methods

by S Chrisopoulos, A Ellershaw, L Do and L Luzzi

This cross sectional study is Australia's third national oral examination survey of a representative sample of Australian adults. The survey was undertaken primarily to describe levels of oral health in the population and to evaluate trends since the first survey, conducted in 1987–88. Data collection for this 2017–18 study began in March 2017 with the aim to complete 7,200 examinations by the end of 2018, necessitating approximately 15,200 completed interviews. Survey participants were selected using a multi-stage probability sampling design that began with the sampling of postcodes within states/territories in Australia. Individuals within selected postcodes were then selected by the Australian Government Department of Human Services (DHS) from the Medicare database. Following an initial opt-out period, participants were given the option to either complete the questionnaire online, or to complete the questionnaire via a computer assisted telephone interview. Participants were asked a series of questions about their oral health and dental service use. Participants who completed an interview and who reported having one or more of their own natural teeth were invited to undergo a standardised oral examination. Examinations were conducted by state/territory dental practitioners who underwent prior training and calibration in survey procedures by the Australian Research Centre for Population Oral Health (ARCPOH), The University of Adelaide.

This chapter describes the study's aims and provides details of the major methodological steps undertaken to collect data: sampling, interviews and examinations.

2.1 Aims of the Study

This report addresses the three aims of the study:

1. To describe prevalence and severity of dental caries, periodontal disease, tooth loss and related oral conditions.
2. To describe usage patterns of dental services.
3. To evaluate changes in the prevalence and severity of oral diseases in the adult Australian population since the National Survey of Adult Oral Health 2004–06, and the National Oral Health Survey of Australia 1987–88.

2.2 Target sample size

Sample size requirements were calculated for a range of key outcome variables, using both means and proportions. NSAOH 2004–06 was used to generate parameter estimates, variances and design effects. A 10% change in estimates of mean DMFT and 20% change in the prevalence of periodontal disease was nominated as the minimum-detectable thresholds (small effect size[1]) for evaluating changes in the prevalence and extent of oral diseases in the Australian adult population and socioeconomic sub-groups since the 2004–06 study. Table 2.1 summarises the calculations. The required number of dentate interviews assumes a 50% participation rate in the examination. The total number of interviews (dentate + edentulous) was increased to reflect the fact that edentulous persons would be interviewed but not examined. The adjustment for each age group was based on the percentage of edentulous persons reported in the NSAOH 2004–06. Based on these calculations, it was planned to conduct a total of 7,200 dental examinations, necessitating 15,200 interviews.

[1] Cohen J. Statistical power analysis for the behavioral sciences. 2nd ed, Hillsdale. 1988, New Jersey: Lawrence Erlbaum Associates.

Table 2.1: Critical sample size requirements to meet study objectives[a]

	Mean DMFT[b]			Prevalence of moderate-severe periodontal disease				Required no. of interviews	
Age group (years)	Observed mean	DEFF[c]	Required no. of exams	Observed %	DEFF[c]	Required no. of exams	Proposed no. of exams	Dentate	Dentate + edentulous
18–34	4.5	2.54	1651	7.4	1.99	1284	1651	3302	3302
35–44	10.6	1.95	1106	18.5	1.92	1665	1665	3330	3347
45–54	18.5	2.14	364	31.4	1.93	1726	1726	3452	3552
55–64	21.7	1.54	133	40.9	1.94	1122	1122	2244	2464
65-74	23.2	1.52	110	48.9	1.59	646	646	1292	1554
75+	24.9	1.51	97	60.8	1.56	364	364	728	1009
Total							**7,174**	**14,348**	**15,228**

(a) Means and design effects calculated from NSAOH 2004–06. Required number of examinations reflects minimum sample size required to detect a 10% difference in mean number of DMFT (15% in the 18–34 year age group to account for low disease experience) and a 20% difference in the prevalence of moderate–severe periodontal disease (40% in the 18–34 year age group). Type I error=0.05, Type II error=0.20.

(b) DMFT = Decayed, Missing, Filled teeth.

(c) DEFF = sampling design effect.

2.3 Sample design

In this study a three-stage stratified sampling design was used to select a sample of adults aged 15 years and over and a sample of children aged 5-14 years from the Australian population. For the first stage of selection, a sampling frame of postcodes was created that listed all postcodes designated as in-scope of the study. Through consultation with state and territory dental health services, some remote and very remote postcodes were excluded due to the costs and complexities involved in undertaking oral examinations in these postcodes. The postcode sampling frame was stratified by state and territory and further stratified into greater capital city and rest of state/territory regions to create 15 strata. The ABS postcode to Greater Capital City Statistical Area (GCCSA) correspondence file was used to allocate each postcode to the GCCSA strata.

For the majority of strata, a sample of postcodes was selected using systematic sampling with probability of selection proportional to the number of households located within the postcode. For these strata postcodes represented the geographical clustering in the sample design. For the Australian Capital Territory and Greater Darwin strata, all postcodes located within these regions were selected. For the rest of Northern Territory strata, 8 postcodes (846, 847, 850, 860, 870, 873, 875 and 880) were designated as in-scope of the survey and all were selected. These postcodes included Alice Springs, Katherine, Nhulunbuy, Tennant Creek, Larapinta and Adelaide River and comprised just over 50% of the stratum population. The number of postcodes selected by GCCSA strata is provided in Table 2.2.

Table 2.2: Number of postcodes selected in NSAOH 2017-18 by GCCSA[a] strata

State/Territory	Greater Capital City	Rest of State/Territory	Total
NSW	79	40	119
VIC	68	22	90
QLD	36	29	65
SA	29	12	41
WA	29	12	41
TAS	17	16	33
ACT	All 24	—	24
NT	All 13	All in-scope 8	21
AUST	**295**	**139**	**434**

(a) GCCSA: Greater Capital City Statistical Area.

Subsequent stages of selection were undertaken by the Department of Human Services (DHS) using the Medicare database as the sampling frame. Persons aged 15 years and over who were listed on the Medicare database were grouped into household units. For the Australian Capital Territory and Greater Darwin strata, a random sample of households was selected from all postcodes within each region. For the rest of Northern Territory strata, a random sample of households was selected from the 8 in-scope postcodes. For the remaining strata, sampling was undertaken separately for each selected postcode with targets of 30 households per postcode in greater capital city strata and 40 households per postcode in rest of state/territory strata. To ensure these targets were achieved the number of households randomly selected in each postcode was inflated by a factor of 6 to allow for attrition due to non-contact and refusals.

In the final stage of selection undertaken by DHS, one adult aged 15 years and over was randomly selected from each sampled household to participate in the survey. After completion of the adult questionnaire via telephone interview or online survey, participants were asked if there were any children aged 5 to 14 years usually resident in their household. One child was then selected from eligible households by identifying the child who had the last birthday. This sampling methodology was expected to yield approximately 2,000 child interviews across Australia. Table 2.3 presents the target number of adults aged 15 years and over and target number of children aged 5-14 years required to complete an Interview by State and Territory.

Table 2.3: Target number of Interview participants aged 5 years and over by State/Territory

State/Territory	Aged 15 years and over	Aged 5-14 years	Total
NSW	3,970	445	4,415
VIC	2,920	365	3,285
QLD	2,240	330	2,570
SA	1,350	200	1,550
WA	1,350	230	1,580
TAS	1,150	150	1,300
ACT	1,100	140	1,240
NT	1,100	140	1,240
AUST	**15,180**	**2,000**	**17,180**

As this publication reports on persons aged 15 years and over, the remaining tables refer to this age group only. Table 2.4 provides the target number of participants required to complete the Interview by GCCSA strata.

Table 2.4: Target number of Interview participants aged 15 years and over by GCCSA[(a)] strata

State/Territory	Greater Capital City	Rest of State/Territory	Total
NSW	2,370	1,600	3,970
VIC	2,040	880	2,920
QLD	1,080	1,160	2,240
SA	870	480	1,350
WA	870	480	1,350
TAS	510	640	1,150
ACT	1,100	—	1,100
NT	640	460	1,100
AUST	**9,480**	**5,700**	**15,180**

(a) GCCSA: Greater Capital City Statistical Area.

After completion of the Interview, participants aged 15 years and over who reported they had natural teeth remaining (dentate persons) were asked to attend an oral examination at a designated public dental clinic located near them. It was expected that approximately 50% of interviewed participants who were dentate would attend an oral examination yielding approximately 14 examinations per greater capital city strata and 19 examinations per rest of state/territory strata. Table 2.5 presents the target number of persons required to attend an oral examination by GCCSA strata.

Table 2.5: Target number of Examination participants aged 15 years and over by GCCSA strata

State/Territory	Greater Capital City	Rest of State/Territory	Total
NSW	1,133	763	1,896
VIC	972	420	1,392
QLD	513	548	1,061
SA	408	226	634
WA	408	226	634
TAS	235	293	528
ACT	528	—	528
NT	307	221	528
AUST	**4,504**	**2,697**	**7,201**

2.4 Computer assisted telephone interview/online survey

In order to obtain self-reported information about oral health and characteristics associated with it, participants were invited to complete the questionnaire either online or via a telephone interview. Interviewers read questions from a computer screen and recorded answers directly onto the computer. Interviews were conducted from a dedicated computer-assisted telephone interview (CATI) suite at University of Adelaide research offices. Where participants chose to complete the questionnaire online, an identical set of questions were displayed as those read by the interviewers. For the purpose of this report, the CATI interview/online survey will be referred to as the Interview.

Prior to calling participants, a primary approach letter from the Department of Health explaining the study's purpose and encouraging participation was mailed to each selected individual's address. This was accompanied by an information sheet and a study pamphlet from ARCPOH explaining the study. A toll-free telephone number and an email address were provided to allow those who received a primary approach letter to either discuss the study with survey staff, or to opt out of the study during the opt-out period. Instructions were also provided to allow participants to complete the initial questionnaire online, if they chose to do so. When a person contacted the researchers requesting to opt out of the study, their reference number was recorded as a 'refusal'. After a 30–day opt out period, a list of participant reference numbers was provided to the Department of Human Services so that the corresponding participant details could be removed from the sample frame prior to forwarding the frame to ARCPOH.

On receipt of the sample frame, participants missing phone numbers and email addresses were removed from the sample, as well as any subsequent refusals or those who completed online so that they wouldn't be recontacted by the interviewers. Each attempt to contact participants was recorded by the system. Telephone numbers that did not serve residential dwellings were excluded: business numbers; hospitals or nursing homes (where the telephone was not within a private room); caravan parks; hotels and hostels. To ensure that business numbers were identified, sampled telephone numbers were dialled at least once during business hours.

Every effort was made to interview the target person. However, in certain circumstances the questions were answered by another adult in the form of a proxy interview. These interviews included instances where the selected person was unable to communicate by telephone, for example due to hearing impairment, severe speech impediment, illness or language barriers. If the target person did not speak English, an attempt was made to conduct a proxy interview with a resident of the household who spoke English. In other instances, proxy interviews were conducted when the target person was rarely at home but another person in the household was willing to provide the information.

Each sampled telephone number was initially called up to six times at varying times of the day and evening, and on different days of the week. Where no answer was obtained after six calls, the number was abandoned and recorded as a 'non-contact' for the purpose of calculating participation rates. Where it was confirmed that the number was for the target person, up to six calls were made in an attempt to contact that person. Those who refused to participate were recorded as 'unresolved' and subsequently treated as a 'refusal' for the purpose of calculating participation rates.

Interviews were conducted by 21 interviewers, each of whom was trained in the Study methods. Training was in small groups with emphasis placed on the quality of data and highest possible response rate, rather than on speed or performance targets. Interviewers were encouraged to become familiar with the aims of the Study

so that, during the interview, they could explain the importance of the study to participants. During interviewing hours, a senior interviewer worked as a supervisor and was available to answer questions from both interviewers and participants, and to monitor data collection procedures. Queries and concerns from study participants that could not be answered satisfactorily by interviewers were referred to the supervisor.

Questions in the Interview were based on those used in previous National Dental Telephone Interview Surveys conducted by ARCPOH (e.g. Carter & Stewart 2003; Stewart & Ellershaw 2012; Chrisopoulos et al., 2016).

Most of the Interview questions were closed-ended, requiring participants to choose from a limited number of predetermined responses. Open-ended questions were used to collect information such as age, country of birth and language mainly spoken at home. Although most questions had pre-coded responses, some additional information was collected in text fields if an option marked 'Other' was selected. Skip sequences were built into the software so that the questions flowed seamlessly without intervention from the interviewer/participant (for example, people who had no remaining teeth were not asked whether they had toothache or needed fillings).

The CATI operated using a browser-based telephone interviewing system, QueXS[1] on the University of Adelaide network server. The software incorporates the Limesurvey web-based survey software, allowing for participants to complete the survey online if they chose to do so. The software managed both the online version and the CATI version of the questionnaire, providing some additional scripts for CATI interviewers. The software also managed the skip sequences during the interview, call scheduling, monitoring the outcome of calls and supervision of the interviewers. Responses that were entered by interviewers/respondents were saved by the software into an underlying SQL database for subsequent analysis.

2.5 Oral epidemiological examination

Information about clinical oral status was collected during standardised dental examinations conducted by dental practitioners who undertook training in the Study procedures. Examinations were limited to people who reported having some or all of their own natural teeth at the time of the Interview and who agreed to an examination. Appointments for examinations were made by the relevant state/territory coordinators and were primarily at public dental clinics within or near the postcode in which people were sampled. Study participants who attended the examination first completed a consent form and a questionnaire regarding their medical history. Examining dental practitioners followed a standardised protocol to record levels of tooth loss, dental decay experience, tooth wear and —for subjects with no medical contraindications to periodontal probing— signs of gum disease. Additional components of the examination included: oral mucosal lesions, assessments of horizontal tooth wear, dental plaque, dental calculus, and dental fluorosis. During data collection, replicate examinations were conducted for approximately five study participants per examiner to evaluate the consistency of their findings when compared against the principal study examiner.

Selection of examiners

The study was undertaken in collaboration with health departments of the eight Australian states and territories. Their principal role in the study was to coordinate the dental examinations and to provide dental examination teams, each team comprising a dental examiner and a data recorder.

In oral epidemiological studies it is important to have a small number of highly trained examiners to minimise variability. There is always a choice between having a small number with the associated heavy workload and a large number of less well-trained and calibrated examiners. A small number of examiners each with a heavy individual caseload creates a risk that variation in diagnostic criteria of any one examiner could significantly bias the overall results. Alternatively, a large number of examiners undertaking fewer examinations increases the complexity of training, calibration and appointment scheduling.

[1] Australian Consortium for Social and Political Research Incorporated, 763 Heidelberg Road, Alphington Vic 3078.

State and territory public dental services selected 40 dental practitioners to conduct study examinations, although not all practitioners were actually involved in the study. The dental practitioners completed a total of 5,022 examinations, with individual workloads varying from 4 examinations per practitioner to 571 examinations per practitioner (Table 2.6). Most dentists were staff members of the state/territory public dental service, although some were hired specifically for the Study.

Table 2.6: Distribution of examiners and examinations among states and territories

State	No. of examiners	No. of people examined	No. of examinations per examiner		
			Minimum	Maximum	Mean
NSW	14	472	8	144	37
Vic	4	1,201	65	571	300
Qld	5	677	83	198	135
SA	2	673	307	366	337
WA	3	585	174	235	195
Tas	5	543	4	161	109
ACT	2	555	228	327	278
NT	4	317	6	111	79
All states	**39**	**5,022**			

Note: The number of examinations conducted in each jurisdiction varies to the number of records in each jurisdiction due to participants moving state during the selection stage and the actual examination, and those living near state borders.

Examiner training

All 40 examiners undertook a two-day training and calibration session conducted by staff from ARCPOH, the University of Adelaide. Separate training sessions were held for the examination teams from each state and territory, two training sessions were conducted in the Northern Territory and Victoria, and three were conducted in New South Wales.

Prior to the scheduled training session, each examiner was sent a 59-page manual and a DVD detailing the Study protocol, including the criteria and coding for the examination. The manual had been written by staff at ARCPOH and had been reviewed by lead investigators of national oral health surveys in the United Kingdom and the United States of America. The DVD had been filmed over two days at the Australian Dental Association (NSW Branch) Centre for Professional Dental Development, where the NSAOH principal examiners illustrated the intra-oral procedures and demonstrated how criteria should be applied to make diagnoses and to code oral conditions.

Training of examination teams began with a half-day didactic session and discussion with ARCPOH investigators. The ARCPOH investigators included the principal study trainer, Dr Loc Do and assistant study trainers Dr Diep Ha and Dr Karen Peres, and Dr Kaye Roberts-Thomson. The remaining day and a half was devoted to clinical training. During clinical sessions, dental practitioners examined volunteers from a limited pool, across at least four training sessions. Each volunteer was examined by two or three examiners, and the results of the examinations were compared by the trainers. Areas of difference were discussed, and the rationale for decisions was explored by the trainers and examiners. Difficult decisions or interesting problems were shown to the whole group. This facilitated calibration between examiners, although inter-examiner reliability was not assessed during training. At the conclusion of each half-day session a tutorial was held to clarify any outstanding issues.

For the first half-day of training, recorders were instructed in the use of the clinical examination database. The recorders were then involved in the clinical sessions, using laptop computers to record the examination and working with the examiner to whom they had been assigned. A manual detailing the program and the coding system as well as information on forwarding the results of the examinations was provided to the recorders.

Appointment scheduling for study examinations

At the end of the Interview, people who reported having some or all of their own teeth were advised of the intention to additionally conduct a dental examination and asked if they would be willing to be contacted again to schedule an appointment. Those who responded affirmatively were advised that they would be phoned to schedule an appointment. Appointments were arranged by an appointment coordinator in the relevant state or territory. The appointment coordinator attempted to schedule an appointment at a convenient location within or near the Study participant's residential postcode, primarily using public dental clinics operated by state/territory dental health services. Appointment schedules were forwarded to examination teams prior to each day's visits, and the examination team kept records of attendance. Study participants who did not attend a scheduled appointment were noted, and they were contacted again by the appointment coordinator in an attempt to find another timeslot. Most examinations were conducted during working hours on weekdays, although provision was made for visits at other times and on some weekends.

Procedures prior to the examination

On arrival at the clinic, the examiner or recorder checked the participant's understanding of the procedures and if necessary gave them another information sheet and explanation. Study participants were then asked to read and sign a consent form and complete a medical history questionnaire (parental/guardian consent was obtained for participants aged 15–17 years). The medical history questionnaire asked about conditions which, if present, would preclude a periodontal examination (Table 2.7). The medical history was then checked by the dentist, and if any of the relevant medical conditions were confirmed the periodontal component of the examination was omitted.

Table 2.7: Questions asked to assess fitness for periodontal examination[(a)]

1.	Has a doctor or dentist ever told you that you must ALWAYS take antibiotics (for example, penicillin) before you get a dental check-up or care?
2.	Has a doctor ever told you that you have: →congenital heart murmur →heart valve problems →congenital heart disease →bacterial endocarditis.
3.	Have you ever had rheumatic fever?
4.	Do you have kidney disease requiring renal dialysis?
5.	Do you have haemophilia?
6.	Do you have a pacemaker or automatic defibrillator?
7.	Do you have other artificial material in your heart, veins or arteries?
8.	Do you have a hipbone or joint replacement that has been inserted during the last three months?
9.	Do you have any transplanted organs (for example, kidney transplant)?

(a) People who answered 'yes' to one or more questions were excluded from the periodontal component of the examination.

Scope of examination

Study participants were examined in a supine position in standard dental chairs with illumination provided by the chair's overhead dental light. Examiners used an intra-oral mirror that additionally had its own battery-powered light source. A periodontal probe with 2mm markings (Hu Fredy PCP2 probe) was used to record distances, for example when assessing periodontal destruction (described further below). However, sharp explorers were not used, and no radiographs were taken.

The following overview summarises criteria used to assess the main oral health variables reported in this report.

Tooth loss

For people aged less than 45 years, examiners distinguished between missing teeth that had been extracted due to decay or periodontal disease and teeth that were absent for any other reason (that is, congenitally missing, unerupted or extracted for orthodontics, trauma or impaction). For people aged 45 years or more, no such distinction was made, so that an extracted or otherwise absent tooth was recorded as missing. Dental implants, root fragments and deciduous teeth were coded separately and not counted as missing or absent teeth.

Replacement teeth

All lost teeth were further classified as replaced or not replaced by a fixed bridge or a removable denture that was worn to the examination. For people aged less than 45 years, separate codes were used for teeth that had been extracted due to decay or periodontal disease and replaced, versus teeth absent for any other reasons and replaced.

Crowns and implants were also recorded.

Decay experience of coronal tooth surfaces

All teeth present were subdivided into five tooth surfaces: mesial, buccal, distal, lingual, and either occlusal (for premolars or molars) or incisal (for incisors and canines). Each coronal surface was assessed and categorised using visual criteria (no explorer was used) and one of the following codes was assigned.

- Decay: cavitation of enamel or dentinal involvement or both are present;
- Recurrent caries: visible caries that is contiguous with a restoration;
- Filled unsatisfactorily: a filling placed for any reason in a surface that requires replacement but that has none of the above conditions;
- Filling to treat decay: a filling placed to treat decay in a surface that had none of the above conditions;
- Non-cavitated carious lesion: an area with caries-related demineralisation without cavitation or dentinal involvement;
- Filling placed for reasons other than decay: in a surface that has none of the above conditions (incisors and canines only);
- Fissure sealant: where none of the above conditions were found;
- Sound: when none of the above conditions was found.

Decay experience of tooth root surfaces

All teeth present were subdivided into four root surfaces: mesial, buccal, distal and lingual. Each root surface was assessed visually and, if necessary, using a blunt-ended periodontal probe. One of the following codes was assigned:

- Decay: a discrete, well-defined or discoloured lesion on the root surface that is soft to exploration using the periodontal probe;
- Recurrent caries: detectable caries that is contiguous with a restoration;
- Filled unsatisfactorily: a filling placed for any reason in a surface that has unacceptable defects but none of the above conditions;
- Filled root surface: one or more permanent restorations placed for any reason but none of the above conditions;
- Wear of 2 mm or more: recorded only on buccal surfaces with none of the above conditions;
- Sound root surface: when a root surface is exposed but none of the above conditions was found;
- No visible root surface.

Periodontal tissue destruction

The assessment of periodontal tissue destruction was based on methods used in the US National Health and Nutrition Examination Survey (NHANES) (NHANES 2005). Assessments were made of probing pocket depth and gingival recession, both recorded in millimetres using a periodontal probe that had 2 mm markings (Hu Fredy PCP2 probes). Measurements were made at the mesio-buccal, mid-buccal, and disto-buccal aspects of all teeth present, except for third molars. Implants were excluded from periodontal assessment. All fractional millimetre measurements were rounded down to the lowest whole millimetre before calling the number. For recession, the cemento-enamel junction (CEJ) was identified or its position was estimated (for example, if a filling obscured its position), and the distance from the CEJ to the free gingival margin was recorded in millimetres. When the CEJ was subgingival the number called was negative otherwise it was positive. For probing pocket depth, the distance from the free gingival margin to the bottom of the periodontal crevice/pocket was called.

Examiners did not make a direct measurement of clinical attachment loss; instead, it was computed during data analysis.

Gingival inflammation around six index teeth

The Loe and Silness (Loe & Silness 1963) gingival index was used to assess inflammation of the marginal gingival tissues around six index teeth (if present): the most anterior molar in each dental quadrant (up to four teeth), the right maxillary central incisor and the left mandibular central incisor. Pressure was applied to the free gingival margin on the buccal aspect of the tooth by swiping with the side of a periodontal probe that was held at approximately 90 degrees to the long axis of the tooth. One of the following codes was assigned:

- Severe inflammation: marked redness and oedema, ulceration or tendency to spontaneous bleeding;
- Moderate inflammation: redness, oedema, glazing or bleeding after applying pressure with the probe;
- Mild inflammation: slight change in colour or slight oedema but no bleeding after applying pressure with the probe;
- None of the above.

Wear and coronal height assessment of mandibular Incisors

Tooth wear and coronal height were recorded for each of the four lower incisors. Based on visual criteria, one of the following codes for tooth wear was assigned:

- Complete loss of enamel on the incisal surface, exposing dentine encircled by a band of enamel;
- Some incisal dentine is exposed, but some incisal enamel is still in place;
- No exposure of dentine;
- Missing tooth or restored incisal edge or tooth that could not otherwise be assessed.

The periodontal probe was then used to measure the height of the anatomical crown at the midpoint of the labial surface of each incisor. Height was defined as the vertical distance from CEJ to the labial-incisal line angle. Height was recorded in whole millimetres, and fractional millimetres were rounded down to the lower whole millimetre. Horizontal wear of 2 mm or more on the buccal tooth surfaces was recorded separately during the assessment of the buccal root surfaces.

Oral mucosal lesions

Examiners systematically assessed all sections of the mouth cavity to observe presence of oral mucosal lesions. If present, oral mucosal lesions were classified as 'Suspected malignancies', 'Ulcerated', or 'Other' lesion. Location was recorded but further clinical diagnosis was not attempted. If a provisional diagnosis of 'Suspected malignancy was made, the examiner must refer the study participant for urgent assessment. The referral procedure was dependent on organisation of oral pathological services within an individual state/territory.

Dental fluorosis experience

Dental fluorosis was assessed on the two permanent maxillary central incisors. Examiners first assessed exclusion criteria. If present, enamel opacities were differentiated between dental fluorosis and non-fluorotic opacities using the Russell Differential Diagnostic Criteria (Russell 1961). Diagnosed dental fluorotic opacities were assessed for severity using the Thylstrup and Fejectskov Index (TFI) (Fejerskov et al., 1988), which is a 'dry' index. Teeth were dried with compressed air for 20 seconds prior to scoring. Scores ranged from 0 to 5. If a non-fluorotic opacity was diagnosed, a score of 9 was assigned and analysed separately.

Data recording for examinations

Each code called by an examiner was recorded directly onto laptop computers using a Microsoft Access database designed for the purpose. The software included logic checks and skip sequences to reduce the probability of recording errors. Recording was done by state/territory staff who had experience in clinical dental procedures, primarily dental assistants. They were trained in use of the software during the two day training session for examination teams by staff from ARCPOH, the University of Adelaide.

Procedures following the examination

At the end of the examination, study participants received a written report completed by the Study dental practitioner that described the main clinical findings. The report included general advice regarding dental treatment. Study participants who completed the examination were also offered a Colgate gift pack containing oral hygiene products. At the end of each examination session, the examination database was backed-up and sent to the research team.

Assessment of inter-examiner reliability

In this Study, examiners were dental professionals who were employees in the state/territory dental service. A total of 25 dental examiners were involved. Whenever there are multiple examiners, there is potential for variation between examiners in their diagnostic criteria and recording of oral health indices. In order to minimise this variation three approaches were adopted. First, each examiner was given a clinical manual describing the examination protocol and a DVD that demonstrated intra-oral procedures. Each contained simple and clear codes for each component of the examination. Second, a two-day calibration training program was undertaken by all examiners. Third, within a few weeks of beginning Study examinations, each examiner was tested against the 'gold standard examiners' to measure the degree of inter-examiner reliability. The first two approaches are described above. The remainder of this section presents the results of inter-examiner reliability.

The Study trainers were also gold standard examiners who conducted the repeated examinations directly in the field. Arrangement was made with the state/territory Study coordinator and examination teams to organise field visits by one of the gold standard examiners. The repeated examinations were conducted on a day when the examiner was conducting real examinations at a location. The gold standard examiner conducted a masked examination after the field examiner had completed examining a participant. The repeated examinations were conducted in the same way as described above except that plaque and gingival indices were not re-scored because plaque and gingival changes after an examination were expected. Repeated examinations were also recorded on to the data entry screen and extracted for analysis. Data of the gold standard examiners were pooled together.

Reliability of each examiner relative to a gold standard examiner was measured by calculating the intra-class correlation coefficient (ICC). The ICC can range from negative values to a maximum of 1.0, with higher values demonstrating greater agreement. Guidelines for interpreting the related kappa statistic propose that values of 0.2 or less represent 'poor or slight' agreement, values from >0.2–0.4 represent 'fair' agreement, values from >0.4–0.6 represent 'moderate' agreement, values from >0.6–0.8 represent 'substantial' agreement, and values greater than 0.8 represent 'almost perfect' agreement (Landis and Koch 1977).

Replicate pairs of examinations were conducted with 101 Study participants to assess reliability of 25 examiners (Table 2.8). The number of replicate pairs of examinations ranged from two to five depending on the number of participants who arrived and consented to be re-examined on the scheduled particular day. Fewer than 25 examiners or fewer participants could be assessed for some indices, either because a specific condition such as fluorosis was recorded only among participants aged 44 years or younger, or because of contraindication for periodontal probing. Reliability of aspects of the examination was based on person-level summary indices.

Table 2.8: Summary of findings from assessment of inter-examiner reliability

Index	No. of examiners evaluated	No. of replicate pairs evaluated	Median reliability[(a)]
Number of teeth present per person	25	101 people	1.00
Number of teeth missing due to pathology per person	25	101 people	1.00
Number of filled coronal surfaces per person	25	101 people	0.92
Number of decayed, missing or filled teeth per person	25	101 people	0.96
Number of filled root surfaces per person	25	101 people	0.63
Number of sites with periodontal pocket depth of 4+mm per person	25	87 people	0.73
Number of sites with clinical attachment loss of 4+mm per person	25	87 people	0.75
Number of decayed coronal surfaces per person	25	101 people	0.89
Number of decayed root surfaces per person	25	101 people	0.30
Dental fluorosis of maxillary permanent incisors status of individual teeth	21	42 people	0.69
Prevalence of periodontitis by CDC/AAP case definition	25	87 people	0.64
Prevalence of periodontitis by NCHS case definition	25	87 people	0.62

(a) Numbers are intra-class correlation coefficients, except for decayed, missing or filled status of individual teeth, where the kappa statistic is presented.

2.6 Period of data collection

Data collection began in March 2017 with the mailing out of the Primary Approach Letters by the Department of Human Services, DHS. During the 30-day opt out period, participants were able to login to complete the questionnaire online. CATI interviews began one month later, once the opt-out period expired and DHS provided the sample frame. Examinations were intended to begin after CATI interviews began. CATI interviews were completed in July 2018, and dental examinations were completed in January 2019 (Table 2.9).

Table 2.9: Periods of data collection in states and territories

	Dates of interviews		Dates of examinations	
State/Territory	Beginning	End	Beginning	End
SA	Mar, 2017	Aug, 2017	May, 2017	Oct, 2017
Vic	Jun, 2017	Mar, 2018	Oct, 2017	Dec, 2018
NSW	Jul, 2017	May, 2018	Oct, 2017	Dec, 2018
Tas	Sep, 2017	Dec, 2017	Oct, 2017	Feb, 2018
Qld	Dec, 2017	Jun, 2018	Mar, 2018	Jun, 2018
WA	Feb, 2018	Jun, 2018	May, 2018	Jul, 2018
ACT	Feb, 2018	Jun, 2018	Apr, 2018	Oct, 2018
NT	Feb, 2018	Jul, 2018	Aug, 2018	Jan, 2019
Australia	**Mar, 2017**	**Jul, 2018**	**May, 2017**	**Jan, 2019**

2.7 Ethical conduct of research

This project was reviewed and approved by The University of Adelaide's Human Research Ethics Committee (HREC). Interviewed subjects provided verbal consent prior to answering questions. Parental/guardian consent was obtained for participants aged 15-17 years. All examined subjects provided signed, informed consent prior to the examination (parents/guardians of those aged 15-17 years provided signed, informed consent prior to the examination).

Following the receipt of ethical approval from The University of Adelaide's HREC, ethical approval to conduct examinations in each jurisdiction was sought under the National Mutual Acceptance (NMA) system, a necessary step for any multi-jurisdiction research project. A National Ethics Application Form (NEAF) was completed to obtain ethical approval to conduct examinations in public health organisations across South Australia, New South Wales, Victoria, Australian Capital Territory, Queensland and Western Australia. This form was accessed via the Online Forms website (https://au.ethicsform.org), a website for completion and submission of ethics and research governance/site specific assessment (SSA) applications. Ethical approval to conduct examinations in Tasmania was obtained through the Tasmania Health and Medical HREC (University of Tasmania) and for Northern Territory, ethical approval was obtained through the Department of Health and Menzies School of Health Research (Top End HREC) and the Central Australian Human Research Ethics Committee (CAHREC).

Site Specific Assessment is the site governance process (separate to ethical review) completed at any time after receiving ethical approval for the project. An SSA application was required for each site where the research was to be conducted. The assessment helps each site decide if there are resources available to effectively conduct a research project at a nominated site. It considers risks, impacts and practices at each research location. Applications were assessed for eligibility, and were reviewed by the Research Governance Officer (RGO) for the relevant site. The final decision was made by the Chief Executive/Delegate. For this study, SSA applications were required for each health service, local health district or agency in some jurisdictions.

SSA approvals were delayed in some jurisdictions impacting on the conduct of fieldwork. This was an issue for NSW in particular who had to forgo conducting examinations in a small number of areas due to the delays.

2.8 Reporting 95% confidence intervals to express sampling variability

Population estimates derived from a sample of the target population rather than the whole population are subject to sampling variability. In this study 15,731 adults were sampled from a population of approximately 19 million adults and population estimates were derived from this sample. In theory, it is possible to draw a nearly infinite number of different samples of this size and it is likely that the population estimates from each sample will differ to a certain degree. The level of variability in these population estimates can be measured using statistical theory. In this study, the reliability of population estimates presented in the report is expressed using confidence intervals. A confidence interval is a range in which it is estimated that the true population value lies. Confidence intervals of different sizes can be created to represent different levels of confidence that the true population value will lie within a particular range. The most commonly used confidence interval in statistics is the 95% confidence interval (95% CI) and this is the degree of confidence used to measure the reliability of population estimates in this report. To illustrate this, Table 4.1 reports that 4.0% of Australian adults had complete tooth loss with a 95% CI of 3.6–4.4. This can be interpreted as there is a 95% chance that the true percentage of Australian adults with complete tooth loss is within the range 3.6% to 4.4%.

Confidence intervals can also be used to identify whether there is a statistically significant difference in a characteristic being compared for two population subgroups. For example, if 95% CIs are generated and the confidence intervals do not overlap, it can be concluded with 95% confidence that the population subgroups are significantly different in that characteristic. To illustrate this, Table 4.1 reports that 1.1% of 35–54 year-olds (95%CI=0.7–1.6) and 8.1% of 55–74 year-olds (95%CI=7.0–9.3) are edentulous. As there is no overlap between the 95% CIs it can be concluded with 95% confidence that the prevalence of edentulism is significantly higher for Australians in the older age group. In contrast, if the 95% CIs overlap then it can be concluded with 95% confidence that there is no statistically significant difference between the population subgroups for the characteristic being compared.

Hypothesis tests are another widely-used method to identify whether differences between population subgroups are significant. Results from hypothesis tests usually are reported as probabilities, or 'P-values', and by convention, a threshold of P<0.05 is regarded as evidence of a statistically significant difference. There is a mathematical relationship between P-values and 95% CIs that can be summarised by two general guidelines:

- Whenever there is a lack of overlap between the 95% CIs generated for two population subgroups, it is a mathematical certainty that a hypothesis test of the difference between the same population subgroups will yield a P-value of less than 0.05.
- However, the criterion of non-overlapping 95% CIs is a 'conservative' method of identifying whether population subgroups are significantly different, because 95% CIs that overlap to a small degree may, nevertheless, be found to be significantly different using a hypothesis test (that is, the P-value may be slightly lower than 0.05).

2.9 Data analysis

The aim of the data analysis was to generate summary statistics describing oral health for the Australian population. To achieve this, separate data files were constructed from the sampling frame, the telephone interview software and the examination recording software. Out-of-range responses and logical inconsistencies were identified and resolved and the data files were merged. Where necessary, summary measures of disease were computed and response categories were collapsed to create oral health outcome variables of interest. This produced two analytic data files, one representing the 15,731 people who completed the interview, and the other representing the subset of 5,022 people who completed the examination.

Data files were managed and summary variables were computed using SAS software version 9.4[1]. For the results presented in Chapters 4, 5, and 6, percentages, means and their associated standard errors and 95% CIs were generated using SAS callable procedures from SUDAAN software release 11.0.3[2]. The SUDAAN procedures used sampling weights to generate population estimates and calculated 95% CIs that incorporated the complex sampling design used in this study. To reflect the sampling design, the stratification level was defined as the 15 GCCSA regions and the clustering level was defined as the participant's selection postcode. As there was no clustering for the Australian Capital Territory and the Northern Territory, the clustering variable for these jurisdictions was defined at the unit record level to simulate a simple random sample. The Taylor Linearization variance estimation method assuming a 'with replacement' design was used to generate the standard errors (SEs) and 95% CIs. To indicate estimates that are subject to high sampling variability relative to the size of the estimate, Relative Standard Errors (RSEs) were calculated for each estimate in Chapters 4, 5 and 6. RSE was calculated using the formula:

$$RSE\% = \frac{\text{SE}}{\text{Estimate}} * 100$$

where SE is the standard error of the estimate. Estimates with an RSE greater than 25% are preceded with an asterisk (e.g. *3.0) to indicate they are subject to high sampling errors and should be used with caution.

For summary measures derived from the Interview, there was a small proportion of participants who responded don't know to specific Interview questions. These participants were excluded from the derivation of all summary measures. The number of persons who responded don't know is reported in the relevant chapter.

[1] SAS Institute Inc. 100 SAS Campus Drive, Cary, NC 27513–2414, USA.

[2] Research Triangle Institute. PO Box 12194, Research Triangle Park, NC 27709–2194, USA.

Cross-sectional findings

Tables in Chapters 4, 5, and 6 present estimates of the frequency of oral health conditions, behaviours and perceptions in the Australian population. Many of the conditions, behaviours and perceptions were assessed for all survey participants, in which case the table subheading states that the base population was 'all people aged 15 years and over'. However, other aspects of oral health were assessed only for a population subgroup. This includes all oral examination findings that were measured only for dentate people (those with one or more natural teeth). In those instances, the table subheading states the population for whom estimates were generated (for example, dentate people aged 15 years and over who attended an examination).

The tables use two measures to express frequency of oral health conditions, behaviours and perceptions:

- Prevalence is expressed as the percentage of people with a characteristic of interest. This included percentages for some characteristics that were dichotomous (for example, presence versus absence of natural teeth) and for other characteristics that were collapsed to create a single category of interest (for example, presence of one or more decayed tooth surfaces). Some other outcomes represented a composite of characteristics based on several variables (for example, case definitions for periodontitis that were derived from measurements of probing pocket depth and recession at multiple sites throughout the mouth).
- Disease severity is expressed as the mean number, per person, or anatomical sites that had a condition of interest. Sites were teeth, tooth surfaces or periodontal landmarks. The landmarks were identified and their condition was diagnosed by examiners as described for the examination protocol above. To compute severity, the number of affected sites was first counted for each examined person. The mean number of counted sites per person was then computed, together with its 95% CI.

Oral health measures are tabulated for each of four age groups representing the participant's age as reported in the Interview. The four age groups presented are 15–34 years, 35–54 years, 55–74 years and ≥75 years. Furthermore, tables in Chapters 4, 5 and 6 report estimates for a range of key socioeconomic characteristics and oral health characteristics by each age group. These characteristics are described in the relevant section below. The number of participants interviewed and examined for these characteristics is reported in Appendix A – Supplementary tables, Table A.1.

Section summaries

At the end of each section, a summary table is provided that presents prevalence ratios for the categorical outcome variables and mean ratios for the continuous outcome variables reported in the previous tables. These ratios are unadjusted ratios and provide an indication of the strength of the association between the socioeconomic classification variable and the outcome variable of interest. A prevalence ratio of 1 indicates there is no difference in the prevalence of the outcome variable for the 2 classification groups being compared and therefore no relationship between the variables. Similarly, a mean ratio of 1 indicates there is no difference in the mean outcome for the 2 classification groups being compared. To indicate if a prevalence ratio or mean ratio is statistically significant, 95% CIs were generated using the SUDAAN proc LOGLINK procedure. Variances were calculated using the Taylor Linearization variance estimation method assuming a 'with replacement' design and the Robust (Binder, 1983) method specified. If the range of a 95% CI did not contain 1.0 then the ratio was statistically significant. Only statistically significant ratios are reported in the tables. To illustrate this, Table 4.7 reports a prevalence ratio of 1.39 for the comparison of complete tooth loss among females and males (males were specified as the reference category). This prevalence ratio can be interpreted as females were 39% more likely to be edentulous than males. One of the reasons for this finding is that females have a longer life expectancy than males and therefore have an older age distribution. As edentulism is highly correlated with age, age is therefore a confounder. It is beyond the scope of this report to produce age adjusted prevalence ratios and mean ratios that account for different age distributions.

Socioeconomic and oral health characteristics

Sex

Sex was classified as 'Male' or 'Female'.

Indigenous identity

Indigenous identity was based on responses to the question 'Are you of Aboriginal or Torres Strait Islander origin?' People who responded 'Yes, Aboriginal', 'Yes, Torres Strait Islander' or 'Yes, Torres Strait Islander & Aboriginal' were classified as Indigenous. People who responded 'no' were classified as non-Indigenous. Five participants who did not respond or said 'don't know' were excluded from estimates for the two subgroups.

Residential location

Residential location was classified as 'Capital city' or 'Other places' based on the Australian Bureau of Statistics – Greater Capital City Statistical Area (GCCSA) classification, derived from the postcode used in the selection of individuals. For the purpose of this report, 'Capital City' refers to 'Greater Capital City' in the GCCSA classification.

Year level of schooling

Year level of schooling was based on responses to the question 'What is the highest year level of schooling you have completed?' People who responded 'Primary school (Year 7 or less)', 'Year 8', 'Year 9' or 'Year 10' were classified as Year 10 or less. People who responded 'Year 11' or 'Year 12' were classified as Year 11 or more. 178 participants who did not respond or said 'don't know' were excluded from estimates for the two subgroups.

Highest qualification attained

Highest qualification attained was based on responses to the question 'What is the highest qualification or level of education you have completed?' People who responded 'Postgraduate - Masters / PhD', 'Graduate diploma / Graduate certificate level - Graduate specialisation after bachelor degree', or 'Bachelor / Honours degree' were classified as Degree or above. All other responses were classified as Other/None. 311 participants who did not respond were excluded from estimates for the two subgroups.

Eligibility for public dental care

Most people who receive state and territory public dental care are deemed to be eligible for those services based on a means test administered by Centrelink, an agency of the Australian Government's Department of Human Services. The means test assesses individuals based on their household income, assets, family composition and other criteria indicating disadvantage.

For this survey, eligibility for public dental care was based on responses to three questions in the Interview. People were first asked 'Do you currently receive a pension or allowance from the Government, or have a Pensioner Concession Card, a Health Care Card or a Department of Veterans Affairs card (not including Medicare)?' People who responded 'yes' were then given a list of six concession card types and asked to indicate if they were covered by each one. People were classified as eligible for public dental care if they responded 'yes' to the first question and reported that they were covered either by a pensioner concession card, health care card or both. They were classified as ineligible if they responded 'no' to the first question, or if they responded 'yes' to the first question but 'no' to both questions regarding pensioner concession card and health care. 69 participants who replied 'don't know' to the first question were excluded from estimates for the two subgroups.

Dental insurance

Dental insurance coverage was based on responses to three questions. People were first asked 'Do you have private health insurance other than Medicare?' People who responded 'yes' or 'Don't know' were then asked 'What type of private medical insurance do you have?' and were given three options: 'Hospital only', 'Combined hospital and extras/general' and 'Extras/general treatment only'. People who answered 'Combined hospital and extras/general' and 'Extras/general treatment only' or 'Don't know' were asked,

'Does your private health insurance provide cover for dental services?' If people responded 'Yes' to the final question then they were classified as having dental insurance. There were 287 people who responded 'don't know' to all three questions and they were excluded from estimates for the two subgroups.

Oral status

Oral status was based on responses to the question 'Do you have any of your own NATURAL teeth?' People who answered 'yes' were classified as dentate while people who answered 'no' were classified as edentulous.

Usual reason for dental visits

The usual reason for dental visit was asked only of 15,664 people who reported having had a dental visit at some time in their life (67 of the total sample of 15,771 reported that they 'Never visited' a dentist). They were asked 'What is your usual reason for visiting a dental practitioner' and were given two options: 'Check-up' or 'Dental problem'. People who answered 'Check-up' or 'Problem' were classified accordingly. There were 254 people who responded 'Don't know' and, together with the 67 who were not asked the question, were excluded from estimates for the two subgroups.

Analysis of trends between surveys

Assessing trends over time allows for monitoring of changes in oral health and oral health-related factors for selected age groups, either as a result of the accumulation of oral disease with age or because of policy changes targeted at selected age groups or population groups. By making comparisons within age groups across surveys, it can be assumed that differences observed are due to factors other than age-related effects.

Chapter 7 compares data from this report with data from the National Oral Health Survey of Australia (NOHSA) 1987–88 and the National Survey of Adult Oral Health (NSAOH) 2004–06. Briefly, NOHSA 1987–88 was a cross-sectional study of a random sample of Australian residents aged 5+ years selected from the six states and the Australian Capital Territory. The Northern Territory was not included. As previously reported, interviews were conducted with 16,897 people and 14,430 of them (85.4%) had an oral examination (Barnard 1993). Participants in the study underwent an interview consisting of three demographic questions and eight behavioural questions, and were invited to take part in an examination. Examinations were conducted by volunteer dentists who were instructed in the Study protocol during a period of one or two nights. The examination was based on the World Health Organization's protocol (WHO 1987). The examination assessed: tooth loss, dental caries experience of deciduous and permanent teeth and treatment needs for caries and periodontal disease.

NSAOH 2004–06 was a cross-sectional study of a random sample of Australian residents aged 15+ years selected from each state/territory. As previously reported, interviews were conducted with 12,861 people and 5,505 of them had an oral examination (Slade et al. 2007). Participants in the study underwent a telephone interview consisting of 79 questions regarding their oral health, dental visiting patterns, dental behaviours and general sociodemographic status. Participants were invited to take part in an examination. Examinations were conducted by dentists from state and territory dental health services who were instructed in the Study protocol during a two day training session. The examination assessed: tooth loss, dental caries experience of deciduous and permanent teeth and treatment needs for caries and periodontal disease.

Assessment of trends

The method used to describe trends is illustrated in Figure 2.1 for three hypothetical age groups classified as 'youngest', 'middle' and 'oldest'. The height of each bar represents the percentage of people with a health condition measured using comparable methods in each survey. For each age group, the three bars represent each survey point and therefore comparison can be made by comparing the height of each bar. Change that exceeds the margin of sampling error can be identified when there is no overlap between adjacent bars of 95%CIs. This occurs for the youngest age group in the hypothetical data. In contrast, the 95%CI error bars overlap for the middle age group, where the trend between surveys is described as 'no change'. The oldest age group shows a statistically significant change between the first survey and subsequent surveys, but not between the second and third survey.

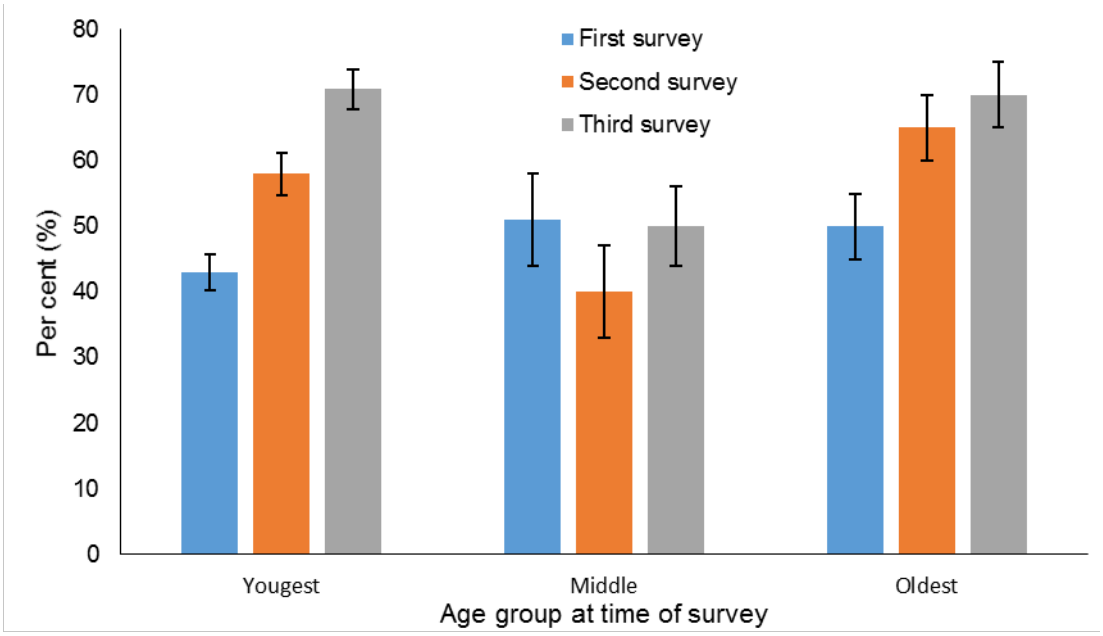


Figure 2.1: Method of age trend analysis (hypothetical data)

3 Study participation and weighting

by A Ellershaw, S Chrisopoulos and L Luzzi

The National Study of Adult Oral Health (NSAOH) 2017–18 collected information from a sample of the Australian population aged 15 years and over. To ensure that population estimates derived from the Study were accurate estimates of population parameters of interest, it was important that the sample was representative of the target population. Conducting national surveys in Australia has become increasingly more challenging over time due to the complexity of establishing a sampling frame that ensures all persons within the target population have a known and non-zero chance of selection. In practice, it is inevitable that some segments of the population will be excluded from selection due to operational and cost constraints. Furthermore, the significant decline in survey participation rates has increased the potential for population estimates derived from sample surveys to be biased due to differences in the characteristics of survey participants and non-participants.

This Study required participants to complete an interview questionnaire either by phone or online (referred to as the Interview) and then attend an examination at a mutually convenient public dental clinic (referred to as the Examination). Participation in the Study was voluntary and therefore relied on the goodwill of selected participants to complete the required Study components. Furthermore, the organisation of public dental clinics to undertake the dental examinations and scheduling of appointments was a challenging and time-consuming exercise for State and Territory Dental Health Services.

This chapter provides a summary of the recruitment and classification of study participants and describes participation rates for the Interview and Examination. The potential for biased population estimates due to variation in participation rates is explored and the weighting procedure implemented to ensure the sample is representative of the target population is described. This chapter finishes with a description of population estimates derived from the weighted sample for key socioeconomic and oral health characteristics of the target population.

3.1 Participation in the Study

For all jurisdictions except the Australian Capital Territory and Northern Territory a three-stage stratified sampling design was applied. In the first stage of selection, postcodes were sampled within each stratum and in subsequent stages of selection households and persons were sampled. For the Australian Capital Territory and Northern Territory, a two-stage sampling design was applied with a sample of households and persons selected from all postcodes designated as in-scope of the survey. These jurisdictions were therefore excluded from the calculation of postcode participation rates. The percentage of sampled postcodes that participated in the Interview was 99.2%. Postcode participation for the Examination was slightly lower at 93.1% due to extensive delays in obtaining the Site Specific Assessment approvals required to conduct dental examinations in some local regions.

Across all jurisdictions, 93,790 persons aged 15 years and over were selected from the Medicare database and sent a primary approach letter (PAL) from DHS explaining the purpose of the study (Figure 3.1). Those that received the letter could either opt-out of the study within one month of receiving the PAL by contacting ARCPOH, The University of Adelaide or complete the Interview either online or by telephone once contacted by a telephone interviewer following the opt-out period. Of the 93,790 persons approached by letter, 9,033 declined participation during the initial opt-out period, 2,100 persons were excluded as the approach letter was returned to DHS as undeliverable and 8,001 persons were classified as out of scope of the study. Persons classified as out of scope included phone numbers that were linked to a business rather than individuals, faxes, modems, disconnected phone numbers, incorrect phone numbers, deceased persons or persons who were not available due to living or travelling overseas at the time of the study.

From the remaining persons selected, 38,841 were approached by ARCPOH, The University of Adelaide either by phone or email. Of these, 23,110 were classified as non-participants and these comprised of 6,721 refusals, 8,223 unable to be contacted and 8,166 unresolved. Those classified as unable to be contacted were telephoned 6 times with either no contact made or no answering service to indicate the telephone number was valid. Those

classified as unresolved included either persons where initial contact was made by phone, a message was left on an answering service, or the person was unable to participate due to language barriers or medical reasons.

In total, 15,731 persons aged 15 years and over participated in the Interview. An additional 2,070 child interviews were conducted, however results for the child sample are excluded from this report. Of the interviewed adults, 14,944 were dentate (had at least one natural tooth) and 787 were edentulous (no natural teeth). All dentate adults were invited to attend a dental examination with 5,022 receiving an examination and 9,922 either declining an examination or unable to attend due to local operational issues within some jurisdictions.

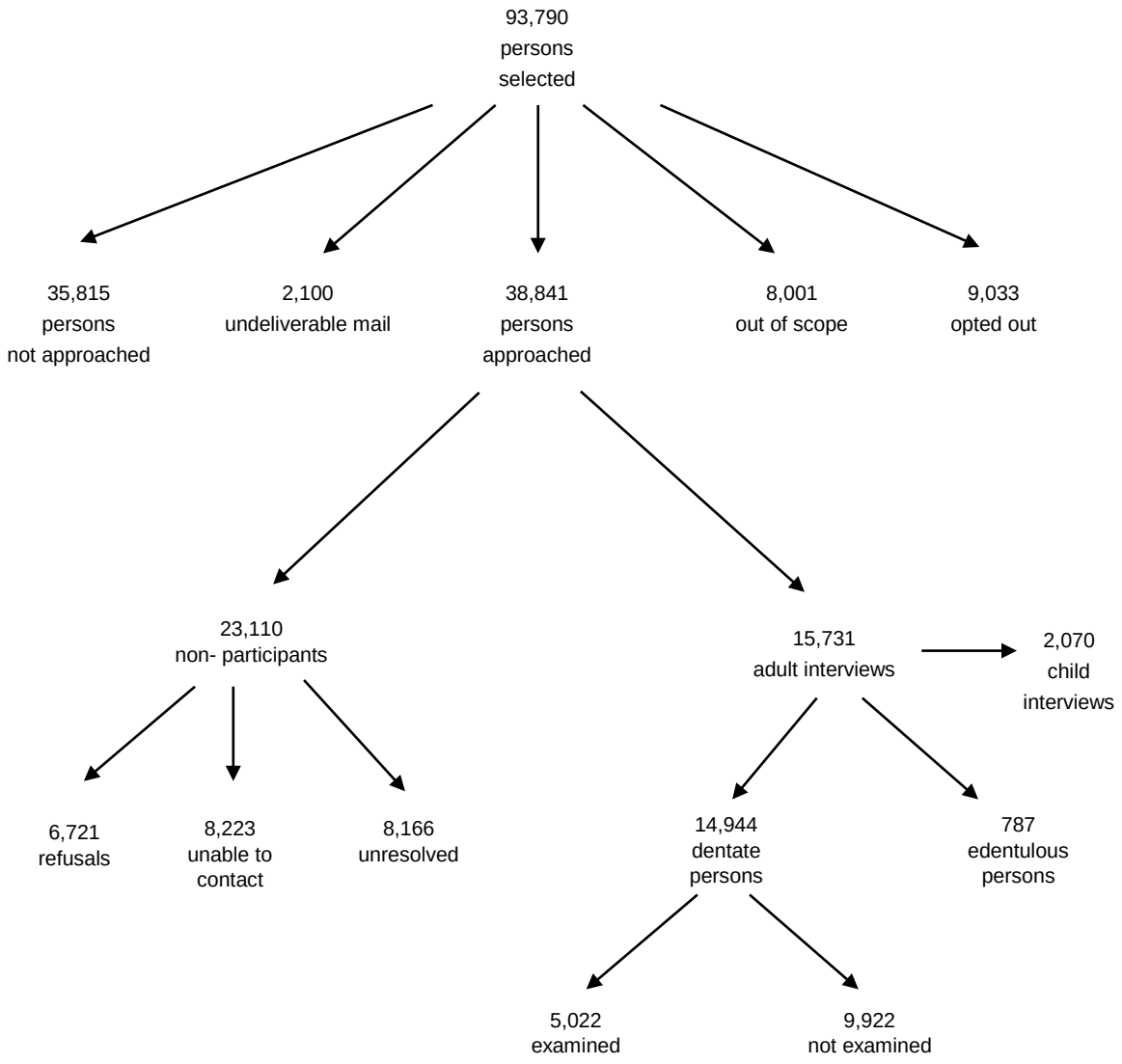


Figure 3.1: Flow chart of the study showing the number and classification of participants

Person level participation rates for this study were calculated differently for the Interview and Examination. The Interview participation rate was defined as the number of persons who completed the Interview (15,731) divided by the number of persons eligible for the Interview (39,651). Eligible persons included persons who completed the Interview (15,731), initial opt-outs (9,033), refusals (6,721) and persons whose status was unresolved (8,166). The overall Interview participation rate was 39.7%. The Examination participation rate was defined as the number of persons examined (5,022) divided by the number of interviewed persons who were dentate (14,944). This definition was consistent with the method used to calculate the Examination participation rate for the NSAOH 2004-06. Overall, the Examination participation rate was 33.6%.

Participation rates were also calculated by jurisdiction and GCCSA region (Table 3.1). Interview participation rates were highest in Tasmania (45.5%) and lowest in Western Australia (35.5%). There was more variation in Examination participation rates, with participation highest in the Australian Capital Territory (48.9%) and lowest in New South Wales (13.6%). The low participation rate in New South Wales was due to local operational issues which included extensive delays in obtaining the Site Specific Assessment approvals required to conduct dental examinations in some Local Health Districts.

Within each jurisdiction, Interview and Examination participation rates were similar for the capital city and rest of state/territory regions. Interview participation was highest in the Greater Hobart region (48.0%) and lowest in the Rest of Western Australia region (32.8%). Examination participation rates were highest in the Australian Capital Territory (48.9%) and Greater Adelaide region (47.0%), and lowest in the Greater Sydney region (11.6%) and Rest of New South Wales region (16.2%).

Table 3.1: Interview and Examination participation rates by geographic region

Region	Interview		Examination	
	Number of participants	Participation rate (%)	Number of participants	Participation rate (%)
Total	**15,731**	**39.7**	**5,022**	**33.6**
State/Territory				
New South Wales	3,968	38.8	512	13.6
Victoria	2,964	38.7	1,178	42.0
Queensland	2,258	41.1	670	31.1
South Australia	1,567	41.3	679	45.7
Western Australia	1,393	35.5	584	43.9
Tasmania	1,351	45.5	549	43.7
Australian Capital Territory	1,099	43.4	529	48.9
Northern Territory	1,131	36.9	321	29.8
GCCSA[(a)] region				
Greater Sydney	2,374	36.9	272	11.9
Rest of New South Wales	1,594	42.1	240	16.2
Greater Melbourne	2,049	37.6	830	42.0
Rest of Victoria	915	41.4	348	42.1
Greater Brisbane	1,125	41.3	331	30.7
Rest of Queensland	1,133	40.9	339	31.5
Greater Adelaide	1,079	41.7	488	47.0
Rest of South Australia	488	40.6	191	42.6
Greater Perth	899	37.2	380	44.3
Rest of Western Australia	494	32.8	204	43.1
Greater Hobart	610	48.0	254	44.2
Rest of Tasmania	741	43.5	295	43.4
Australian Capital Territory	1,099	43.4	529	48.9
Greater Darwin	632	37.0	171	28.4
Rest of Northern Territory	499	36.7	150	31.6

(a) GCCSA: Greater Capital City Statistical Area.

Participation and small area socioeconomic indicators

Participation rates were also calculated for postcodes as this represented the smallest geographic region in the study and the clustering used in the sample design for all jurisdictions except the Australian Capital Territory and Northern Territory. For these jurisdictions, all postcodes that were designated as in-scope of the study were selected and therefore the sample design was equivalent to a simple random sample. Consequently, participation rates were not calculated at the postcode level for these jurisdictions. For the Interview, postcode participation rates varied from 20.8% to 60.0%. For the Examination, postcode participation rates among dentate people who completed an Interview ranged from 2.3% to 69.0%.

The large variation in postcode participation provided an opportunity to investigate the extent to which socioeconomic characteristics of the sampled postcodes were associated with participation, and therefore investigate the potential for and extent of bias. In order to quantify levels of advantage and disadvantage the

Australian Bureau of Statistics Socioeconomic Indices for Areas (SEIFA) was used (ABS 2018). SEIFA consists of 4 different socioeconomic indexes for each Australian postcode.

Each index is an aggregate measure of socioeconomic status based on the characteristics of people living within the postcode as reported in the 2016 Census. This analysis focusses on a single SEIFA index, the Index of Relative Socioeconomic Advantage/Disadvantage (IRSAD), as it captures both aspects of advantage and disadvantage. Characteristics included in the formation of this index were income, education, occupation, employment, housing, family type, car ownership and internet availability. Postcodes with a low IRSAD score were characterised by a high proportion of unemployed persons, low income earners, low education levels and persons employed in low skilled occupations. Conversely, postcodes with a high IRSAD score were characterised by a high proportion of employed persons, high income earners and persons employed as professionals. Postcode level IRSAD scores for all Australian postcodes ranged from 635 to 1181 with 98% of scores in the range 792 to 1159.

In comparison, the scope of IRSAD scores for postcodes sampled in the jurisdictions included in this analysis was slightly narrower ranging from 799 to 1165. To investigate the relationship between participation in the Interview and small area socioeconomic status, a scatter plot of postcode participation rate by postcode IRSAD score is presented in Figure 3.2. This figure indicates a random dispersion of data points around the mean participation rate of 39.6 for postcodes included in the analysis. The correlation between postcode participation rate and IRSAD score was 0.02 (p-value=0.59), representing a non-significant weak positive correlation. Therefore, the potential for bias due to variation in Interview participation rates across postcodes was low.

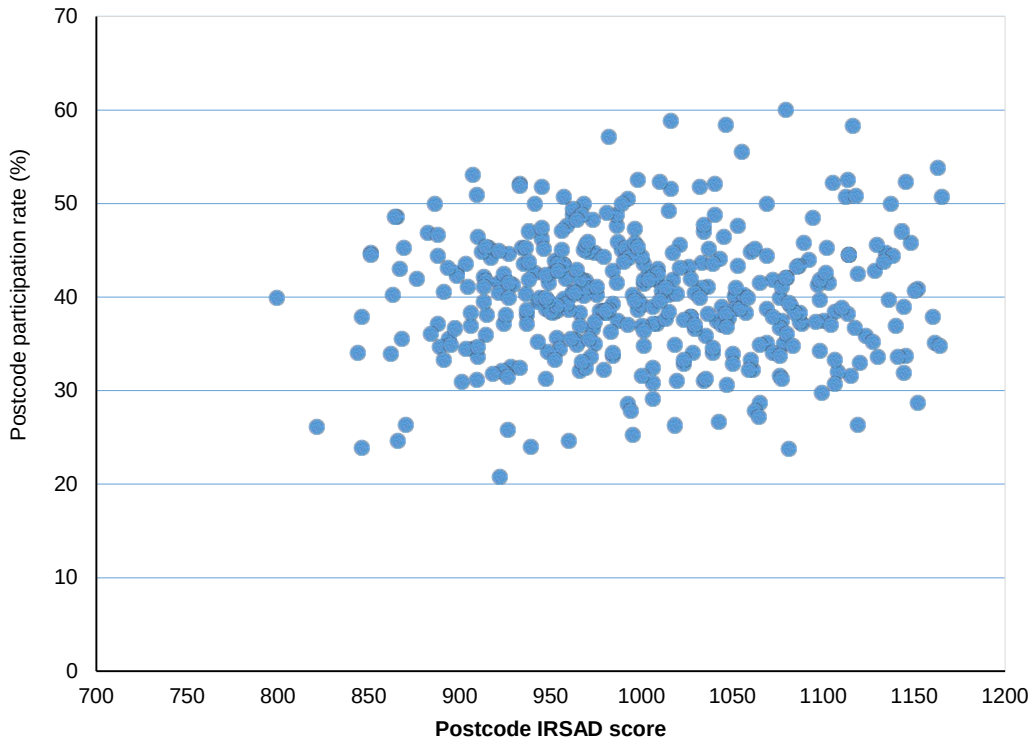


Figure 3.2: Participation in the Interview among postcodes classified by the Index of Socioeconomic Advantage and Disadvantage (IRSAD)

Similarly, to investigate the relationship between participation in the Examination and small area socioeconomic status, a scatter plot of postcode participation rate by postcode IRSAD score is presented in Figure 3.3. This figure indicates a random dispersion of data points around the mean participation rate of 34.7 for postcodes included in the analysis. The correlation between postcode participation rate and IRSAD score was -0.06 (p-value=0.25), representing a non-significant weak negative correlation. Therefore, the potential for bias due to variation in Examination participation rates across postcodes was also low.

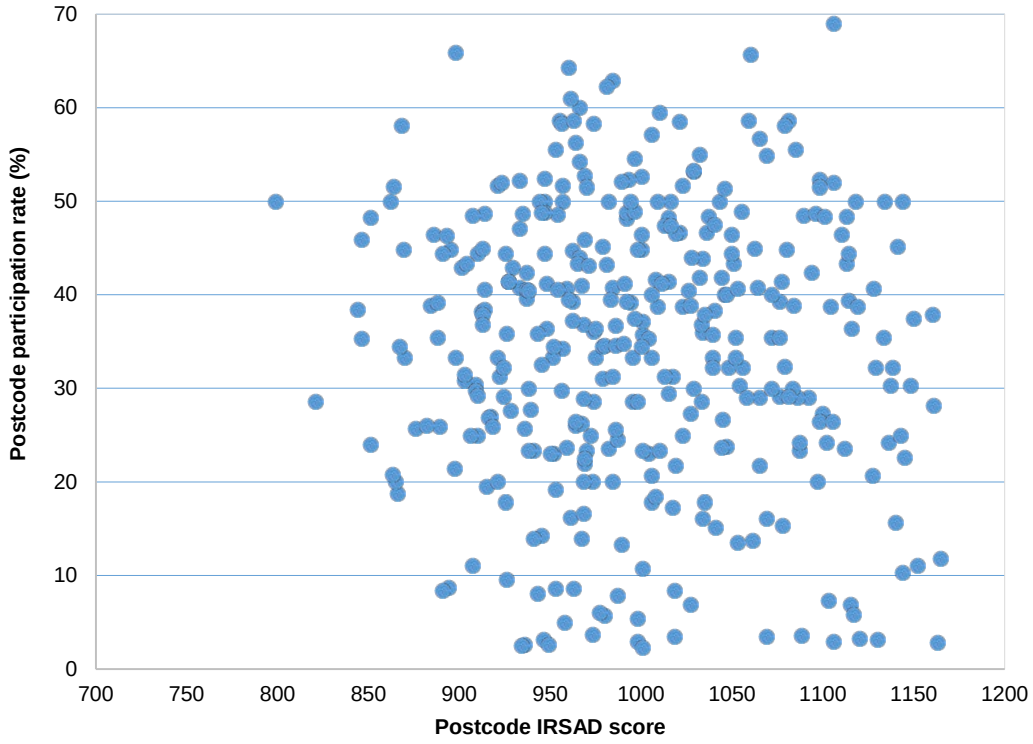


Figure 3.3: Participation in the Examination among postcodes classified by the Index of Socioeconomic Advantage and Disadvantage (IRSAD)

3.2 Weighting the Study

Sample surveys are conducted to make informed inferences about a target population. In order to produce reliable estimates of population parameters a sample should reflect the characteristics of the target population from which it is drawn. This rarely happens in practice as sample designs commonly select participants with unequal probabilities of selection leading to certain groups within the target population being over- or under-represented in the sample. In this study, persons from less populated states and territories were oversampled by design to produce reliable population estimates for all states and territories.

Furthermore, variations in survey participation rates by socioeconomic status can lead to samples that are unrepresentative of the target population and therefore biased population estimates. In this study, there was considerable variation in participation rates by sampling strata and postcode. Analysis of the socioeconomic composition of the Interview and Examination samples also identified significant variation in participation rates by specific socioeconomic characteristics at the stratum and state/territory level. This was in contrast to earlier findings for the composite IRSAD measure of socioeconomic status.

These concerns can be addressed by the application of survey weights that adjust the socioeconomic composition of the sample to reflect the target population. Consequently, population estimates derived from the weighted sample will more closely reflect the true population parameters. For NSAOH 2017-18, 15,731 persons aged 15 years and over completed the Interview and 5,022 of these participants attended an examination. As those attending an examination were a subset of interviewed persons (31.9%), the weighting process is described separately for the Interview and Examination samples.

Weighting the Interview sample

The sampling strategy was designed to ensure households sampled from the same stratum had an equal chance of selection in the study. This was achieved by firstly sampling postcodes with probability proportional to the number of households in the postcode, and secondly, by sampling households within selected postcodes with equal probability. In the final stage of sampling, one person aged 15 years and over was randomly selected from each sampled household, and consequently, persons living in small households had a higher chance of selection in the survey than those in larger households. A person's initial weight was defined as the inverse of their probability of selection in the survey.

Although the sampling design set targets of 30 interviews per postcode in greater capital city strata and 40 interviews per postcode in rest of state/territory strata, analysis of the Interview sample showed variation in the number of persons completing an Interview by postcode. To account for these differential participation rates a person's initial weight was adjusted to allocate higher weights to postcodes with lower participation. The postcode level adjustment was calculated as the ratio of the target number of interviews in the postcode divided by the number of interviews actually achieved. The formulae used to calculate the initial weight is provided below:

s = strata

p = postcode

h = household

i = person

n_s = number of postcodes selected in stratum s

M_s = total number of households in stratum s

r_s = number of households interviewed in stratum s

$r_{p,s}$ = number of households interviewed in postcode p, stratum s

$a_{h,p,s}$ = number of persons aged 15 years and over in household h, postcode p, stratum s

$w_{i,h,p,s}$ = initial weight for interviewed person i in household h, postcode p, stratum s

$$w_{i,h,p,s} = \frac{M_s}{n_s * r_{p,s}} * a_{h,p,s}$$

For the Australian Capital Territory and Northern Territory strata, all postcodes designated as in-scope of the study were selected with certainty. Consequently, the sample design was equivalent to a simple random sample of households within the in-scope geographic regions. The formulae used to calculate the initial weight for these strata is provided below:

$$w_{i,h,p,s} = \frac{M_s}{r_s} * a_{h,p,s}$$

To limit the possibility of extreme initial weights being assigned to interviewed persons, the number of persons aged 15 years and over in a household ($a_{h,p,s}$), as reported in the Interview questionnaire, was capped at 5.

The aim of the next stage of the weighting process was to ensure that the socioeconomic composition of the weighted Interview sample reflected characteristics of the Australian population aged 15 years and over. Population distributions for a range of person and household level socioeconomic characteristics were derived from Australian Bureau of Statistics (ABS) data and compared with the corresponding weighted sample distributions derived using the person's initial weight. Comparisons were undertaken for the following socioeconomic characteristics:

- geographic region
- age
- sex
- country of birth
- Indigenous status
- education status
- labour force status

- tenure status
- household size

The population percentage distributions for geographic region, age and sex were sourced from the ABS catalogue number 3235.0 – Population by Age and Sex, Regions of Australia, available from the link http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3235.02016?OpenDocument. This catalogue provided Estimated Resident Population counts by sex and 5-year age group for the Greater Capital City Statistical Areas regions (GCCSA). Population counts were extracted for the year 2016 for persons aged 15 years and over and aggregated to form GCCSA by sex by 10-year age group population counts. Age groups were defined as: 15-24, 25-34, 35-44, 45-54, 55-65, 65-74 and 75 and over. The sex by age population percentage distribution was then derived separately for each GCCSA region.

Similarly, population percentage distributions for the remaining socioeconomic characteristics were derived separately for each GCCSA region due to large regional variations in the distribution of some socioeconomic characteristics. The population percentage distribution for a person's country of birth was sourced from the ABS 2016 Census Table builder product — select table reference: GCCSA by Country of Birth (BPLP) and AGEP (15 years and over), Counting: Persons, Place of Usual Residence. Population counts were aggregated to form two country of birth categories: 'born in Australia' and 'born overseas'.

The population percentage distribution for a person's Indigenous status was sourced from the ABS 2016 Census Table builder product — select table reference: GCCSA by Indigenous status (INGP) and AGEP (15 years and over), Counting: Persons, Place of Usual Residence. Population counts were aggregated to form two Indigenous status categories: 'non-Indigenous' and 'Indigenous'.

The population percentage distribution for a person's educational status was sourced from the ABS 2016 Census Table builder product — select table reference: GCCSA by Level of Education (Non-School Qualification QALLP) by Type of Educational Institution Attending (TYPP) and AGEP (15 years and over), Counting: Persons, Place of Usual Residence. As younger people may be studying for their first University degree, population counts were aggregated to form two educational status categories: 'completed a Bachelor degree or currently studying at University' and 'other'. The first category included people who had completed a higher qualification than a Bachelor's degree or people who were currently studying towards a Bachelor's degree. The 'other' category included people who had completed a lower qualification than a Bachelor's degree, people who were currently studying but were not attending a University and people who did not have a post-school qualification.

The population percentage distribution for a person's labour force status was sourced from the ABS 2016 Census Table builder product — select table reference: GCCSA by Labour Force Status (LFSP) and AGEP (15 years and over), Counting: Persons, Place of Usual Residence. Population counts were aggregated to form three labour force status categories: 'employed', 'unemployed' and 'not in the labour force'.

The population percentage distribution for the tenure status of a person's current dwelling was sourced from the ABS 2016 Census Table builder product — select table reference: GCCSA by Tenure Type (TEND) and AGEP (15 years and over), Counting: Persons, Location on Census Night. Population counts were aggregated to form four tenure status categories: 'owned outright', 'being purchased', 'rented' and 'other'. The category 'being purchased' was defined as dwellings owned with a mortgage or being purchased under a shared equity scheme. The category 'rented' included dwellings that were occupied rent-free. The 'other' category was defined as dwellings being occupied under a life tenure scheme or any other tenure type not classified elsewhere.

The population percentage distribution for a person's household size was sourced from the ABS 2016 Census Table builder product — select table reference: GCCSA by Number of Persons Usually Resident in Dwelling (NPRD) and AGEP (15 years and over), Counting: Persons, Location on Census Night. Population counts were aggregated to form six household size categories: 'one person', 'two persons', 'three persons', 'four persons', 'five persons' and 'six or more persons'.

As the Census population counts include a 'not stated' category for many of these socioeconomic characteristics, population percentage distributions were derived excluding persons in the 'not stated' category. The 'not stated' category ranged from 0%–10.4% and was highest for educational status.

The method used to calculate the percentage distributions for the rest of Northern Territory GCCSA region was modified to exclude the very remote postcodes that were designated as out of scope of the study. As the

socioeconomic composition of these postcodes was significantly different to the rest of this GCCSA region, only Census population counts for the 8 in-scope postcodes were extracted. Population percentage distributions were then derived to reflect the socioeconomic composition of these postcodes. However, the sex by age group Estimated Resident Population (ERP) counts used in the weighting process still reflected the entire rest of Northern Territory GCCSA region to be consistent with the ERP's used to weight NSAOH 2004-06.

Corresponding percentage distributions were then derived from the Interview sample using the person's initial weight. Interview participants who did not complete a specific socioeconomic question were excluded from the relevant calculation. The percentage of participants with missing socioeconomic information is provided in Table 3.2.

Table 3.2: Interview participants with missing sociodemographic information

	Interview sample	
Sociodemographic characteristic	Number	%
GCCSA[(a)] region	0	0.00
Age	0	0.00
Sex	0	0.00
Birthplace	4	0.03
Indigenous status	5	0.03
Education status	311	1.98
Employment status	116	0.74
Tenure status	583	3.71
Household size	47	0.30

(a) GCCSA: Greater Capital City Statistical Area.

Application of the initial weights ensured the weighted sample percentage distributions for GCCSA region and household size closely approximated the corresponding population distributions, however there remained large differences between the percentage distributions for other socioeconomic characteristics. In particular, the weighted sample over-represented persons who had either completed a University degree or were studying at University level. Differences were evident in all GCCSA regions and ranged from 7.3-19.1 percentage points. Females were also over-represented in every GCCSA region with differences ranging from 2.3-10.0 percentage points.

For country of birth, the weighted sample over-represented persons born in Australia in most strata although Australia born persons were under-represented in the rest of Northern Territory region (11.6 percentage points). The percentage of Indigenous persons derived from the weighted sample was similar to the corresponding population percentage in most GCCSA regions. However, Indigenous persons were significantly under-represented in the rest of Northern Territory region (17.7 percentage points) and to a lesser extent in the rest of Western Australia region (4.0 percentage points).

Distributional differences were also evident by tenure status with the weighted sample under-representing person's living in dwellings that were being purchased in the rest of New South Wales region (11.7 percentage points) and Greater Sydney region (10.4 percentage points). In contrast, this tenure type was over-represented in the rest of Northern Territory region by 5.0 percentage points.

A common weighting strategy to improve the representativeness of a sample is to benchmark sample data to known population totals with survey data commonly weighted to sex by age population totals. However, when a sample requires weighting to a large number of socioeconomic variables, the population totals for the cross-classification of these variables are generally not available for confidentiality reasons. Furthermore, the large number of cross-classification weighting cells can mean the sample is spread too thinly.

To overcome these restrictions an iterative weighting procedure called raking ratio estimation which was original developed by Deming (Deming 1943) was used to weight the Interview sample. The advantage of this procedure is that population totals are only required for single categorical variables rather than the cross-classification of all variables used in the weighting process. However, the weighting procedure does provide the flexibility to define population totals for the cross-classification of a subset of variables if desired. While this weighting technique ensures equivalence between the weighted sample totals and corresponding

population totals for individual variables used in the raking process, the same equivalence is not required for the cross-classification of all variables. A comprehensive explanation of the raking ratio estimation procedure is provided in the paper 'A SAS macro for balancing a weighted sample' (Izrael et al. 2000). This weighting technique was successfully used to weight the National Child Oral Health Study conducted in 2012-14 by the University of Adelaide (Ellershaw et al. 2016).

To perform the raking ratio estimation procedure, Interview sample data was submitted to the 'Rake_and_Trimm' SAS® macro developed by Izrael and colleagues (2009). One of the constraints of this macro is that sample participants must be assigned to a valid classification category for all categorical variables used in the raking process. As the percentage of Interview participants missing relevant socioeconomic information was low for all socioeconomic characteristics, missing data was imputed to ensure the post-imputation percentage distribution closely reflected the pre-imputation percentage distribution for each socioeconomic variable.

A second constraint of the macro is that population totals input into the macro must sum to the same overall population total for each raking variable. To ensure this, the population percentage distribution for each socioeconomic characteristic was applied to the 2016 GCCSA level ERP total. Population totals for each GCCSA region were derived for the socioeconomic characteristics sex by 10 year age group, country of birth, Indigenous status, education status, labour force status, tenure status and household size and input into the macro with the initial Interview weight, $w_{i,h,p,s}$. Output from the macro included each person's final weight, the minimum and maximum weight, and a comparison of the weighted sample percentage distributions and corresponding population distributions for each raking variable.

If the largest weights output from the macro were significantly higher than other high weights in a GCCSA region, these weights were manually reduced, and the raking procedure was repeated. This ensured the highest weights were reduced in size to limit their impact on survey estimates but still ensured they remained among the largest weights. A maximum of 10 weights were adjusted in each GCCSA region. Socioeconomic variables that were imputed prior to the raking process were then reset to missing and the weighted Interview data for each GCCSA region was combined to form a National Interview dataset.

The overall weighting strategy ensured that the joint sex by 10-year age group distributions derived from the weighted National dataset were equivalent to the corresponding population distributions for all GCCSA, State/Territory and National regions. Furthermore, the weighting strategy ensured that the marginal weighted sample distributions for the socioeconomic characteristic's country of birth, Indigenous status, education status, labour force status, tenure status and household size closely approximated the corresponding population distributions for all GCCSA, State/Territory and National regions.

As National level population estimates are the main focus of this report, Table 3.3 provides a National level comparison of the socioeconomic percentage distributions derived from the unweighted Interview sample, the final weighted Interview sample and the corresponding 2016 ABS population data. At the National level, the maximum difference between percentages derived from the final weighted Interview sample and the corresponding population percentages was 0.6 percentage points. This indicates that the socioeconomic composition of the weighted Interview sample was almost identical to the National population for the broad range of socioeconomic characteristics used in the weighting process. Consequently, the application of Interview weights will significantly improve the reliability of National population estimates derived from the Interview sample.

While this report does not present equivalent comparisons at the state and territory level, the maximum divergence between the socioeconomic composition of the final weighted Interview sample and the population was: New South Wales (1.4 percentage points), Victoria (0.7 percentage points), Queensland (0.3 percentage points), South Australia (1.5 percentage points), Western Australia (0.8 percentage points), Tasmania (0.6 percentage points), Australian Capital Territory (1.8 percentage points) and Northern Territory (2.0 percentage points). As these differences are very small, the application of Interview weights will also enable valid state and territory level comparisons despite variations in sample design and participation rates.

Table 3.3: Comparison of the sociodemographic percentage distributions for the Interview sample and the 2016 ABS population

Demographic characteristic		Unweighted Interview sample	Final weighted Interview sample	2016 ABS population
		% of people	% of people	% of people
GCCSA[(a)] region	Greater Sydney	15.1	20.8	20.8
	Rest of New South Wales	10.1	11.2	11.2
	Greater Melbourne	13.0	19.6	19.6
	Rest of Victoria	5.8	6.1	6.1
	Greater Brisbane	7.2	9.7	9.7
	Rest of Queensland	7.2	10.2	10.2
	Greater Adelaide	6.9	5.6	5.6
	Rest of South Australia	3.1	1.6	1.6
	Greater Perth	5.7	8.3	8.3
	Rest of Western Australia	3.1	2.2	2.2
	Greater Hobart	3.9	0.9	0.9
	Rest of Tasmania	4.7	1.2	1.2
	Australian Capital Territory	7.0	1.7	1.7
	Greater Darwin	4.0	0.6	0.6
	Rest of Northern Territory	3.2	0.4	0.4
Age	15-24 years	10.0	16.2	16.2
	25-34 years	17.5	18.4	18.4
	35-44 years	17.3	16.5	16.5
	45-54 years	13.5	16.1	16.1
	55-64 years	15.5	14.2	14.2
	65-74 years	15.7	10.6	10.6
	75 years or more	10.4	8.1	8.1
Sex	Male	43.1	49.2	49.2
	Female	56.9	50.8	50.8
Birthplace	Australian	73.3	67.2	67.2
	Overseas	26.7	32.8	32.8
Indigenous status	Non-Indigenous	97.9	97.7	97.6
	Indigenous	2.1	2.3	2.4
Education status	Bachelor degree or studying at University	40.4	29.4	29.1
	Other	59.7	70.6	70.9
Employment status	Employed	61.2	60.4	60.2
	Unemployed	2.9	4.3	4.4
	Not in labour force	36.0	35.3	35.4
Dwelling ownership	Owned outright	34.1	30.9	30.5
	Being purchased	32.0	38.5	38.6
	Rented	33.0	29.8	30.1
	Other	1.0	0.8	0.8
Household size	One person	25.0	13.1	12.5
	Two persons	35.3	31.8	31.2
	Three persons	15.5	19.1	19.0
	Four persons	15.6	20.5	20.6
	Five persons	6.0	9.5	10.0
	Six or more persons	2.7	6.1	6.6

(a) GCCSA: Greater Capital City Statistical Area.

Weighting the Examination sample

The weighting strategy implemented to derive weights for the Examination sample was very similar to that described for the Interview sample. The initial weight assigned to each examined person was defined as the inverse of their probability of selection in the survey and was then adjusted to reflect the lower participation rate for the examination. In some GCCSA strata, exam participation rates varied significantly across postcodes and hence the initial weight accounted for this. The formulae to calculate the initial examination weight is provided below:

s = strata

p = postcode

h = household

i = person

n_s = number of postcodes selected in stratum s

M_s = total number of households in stratum s

e_s = number of households examined in stratum s

$e_{p,s}$ = number of households examined in postcode p, stratum s

$a_{h,p,s}$ = number of persons aged 15 years and over in household h, postcode p, stratum s

$w_{i,h,p,s}$ = initial weight for examined person i from household h, postcode p, stratum s

$$w_{i,h,p,s} = \frac{M_s}{n_s * e_{p,s}} * a_{h,p,s}$$

For the Australian Capital Territory and Northern Territory strata, where all postcodes designated as in-scope of the survey were selected, the formulae simplifies to:

$$w_{i,h,p,s} = \frac{M_s}{e_s} * a_{h,p,s}$$

As dental examinations were restricted to dentate persons aged 15 years and over, population totals for the dentate only population were estimated from the weighted Interview sample for each GCCSA region. These population totals were then used to weight the Examination sample and represented the estimated number of dentate persons in each sex by 10-year age group.

The next phase of the weighting process was to ensure that the socioeconomic composition of the weighted Examination sample reflected that of the dentate population of Australians aged 15 years and over. Although the population percentage distributions previously described for the other sociodemographic characteristics represented both dentate and edentulous persons, these distributions were also used to weight the Examination sample. This approach is justified as most of the Australian population is dentate (National mean of 96.0%, variation of 91.6% to 99.0% across GCCSA regions) and therefore the Census distributions will closely approximate the dentate only population.

Corresponding percentage distributions were then derived from the weighted Examination sample using the person's initial weight. Examination participants who did not complete a specific socioeconomic question were excluded from the relevant calculation. The percentage of Examination participants with missing socioeconomic information is provided in Table 3.4.

Table 3.4: Examination participants with missing sociodemographic information

Sociodemographic characteristic	Examination sample	
	Number	%
GCCSA[(a)] region	0	0.00
Age	0	0.00
Sex	0	0.00
Birthplace	0	0.00
Indigenous status	1	0.02
Education status	65	1.29
Employment status	40	0.80
Dwelling ownership	131	2.61
Household size	8	0.16

(a) GCCSA: Greater Capital City Statistical Area.

Application of the initial weights ensured the weighted sample percentage distributions for GCCSA region and household size more closely approximated the corresponding population distributions. However, the weighted sample still under-represented the Greater Sydney region by 9.5 percentage points. Differences also remained by household size with persons from households with 4 or more residents under-represented in the Greater Sydney region (13.5 percentage points), rest of NSW region (8.6 percentage points), Greater Perth region (6.4 percentage points), Greater Darwin region (6.4 percentage points) and Greater Brisbane region (6.3 percentage points).

There also remained large differences between the weighted sample and population percentage distributions for other socioeconomic characteristics. In particular, the weighted sample over-represented persons who had either completed a University degree or were studying at University level. Differences were evident in all GCCSA regions and ranged from 8.0-22.6 percentage points.

Females were also over-represented in most GCCSA regions with the largest differences in the rest of Western Australia region (14.3 percentage points) and rest of Victoria region (11.6 percentage points). Similarly, people aged 65-74 years were over-represented in all GCCSA regions with variation highest in the Greater Brisbane region (12.1 percentage points) and Greater Darwin region (12.1 percentage points). Conversely, younger people aged 15-24 years were under-represented in most GCCSA regions with variation highest in the rest of Northern Territory region (16.6 percentage points), rest of Queensland region (9.4 percentage points) and Greater Brisbane region (9.2 percentage points).

For country of birth, the weighted sample distribution was similar to the population distribution in all GCCSA regions except the rest of Northern Territory region where the weighted sample under-represented Australia born persons by 16.3 percentage points. Indigenous persons were also significantly under-represented in the rest of Northern Territory region (21.4 percentage points) and to a much lesser extent the rest of Western Australia region (4.1 percentage points) and Greater Darwin region (4.0 percentage points).

Distributional differences were also evident by tenure status with the weighted sample under-representing person's living in dwellings that were being purchased in the Greater Sydney region (15.2 percentage points), Greater Perth region (10.1 percentage points) and rest of New South Wales region (7.4 percentage points). Conversely, in the rest of Northern Territory region, the 'being purchased' category was over-represented by 19.3 percentage points.

To ensure the socioeconomic composition of the weighted sample more closely approximated the population distributions, Examination data was submitted to the 'Rake and Trimm' raking ratio estimation procedure. Estimates of dentate population totals were derived for the socioeconomic characteristics sex by 10-year age group, country of birth, Indigenous status, education status, labour force status, tenure status and household size and input to the macro with the initial Examination weight, $w_{i,h,p,s}$.

As the Examination sample size was approximately one third of the Interview sample, some socioeconomic categories contained only a few examined persons and consequently several large weights were output from the raking procedure. Due to the small number of Indigenous persons examined in each GCCSA region, Indigenous status was subsequently excluded from the raking process. For other socioeconomic characteristics, categories were combined to ensure an adequate sample size. For age, the 10-year age group categories '15-24' and '25-34' were combined to form a new category '15-34'. For labour force status, the

categories 'unemployed' and 'not in the labour force' were combined to form a new category 'not employed'. For tenure status, the categories 'owned outright' and 'being purchased' were combined and the remaining categories 'rented' and 'other' were combined. For household size, the categories 'four persons', 'five persons' and 'six or more persons' were combined to form a new category 'four or more persons'. Population benchmarks were then aggregated to reflect these broader categories and input to the raking procedure. This modification to the raking variables lowered the extreme weights in each GCCSA region and reduced variation among the weights.

Socioeconomic variables that were imputed prior to the raking process were then reset to missing and the weighted Examination data for each GCCSA region was combined to form a National Examination dataset. The overall weighting strategy ensured that the joint sex by age group distributions derived from the final weighted sample were equivalent to the corresponding population distributions at the GCCSA, State/Territory and National levels for the more broadly defined age categories. However, it did not guarantee equivalence for the separate '15-24' and '25-34' age groups. Furthermore, the weighting strategy ensured that the marginal weighted sample distributions for the more broadly defined socioeconomic characteristics closely approximated the corresponding population distributions for GCCSA, State/Territory and National regions. However, it did not guarantee close approximation for Indigenous status which was excluded from the raking process or for the more detailed socioeconomic categories.

Table 3.5 presents a National level comparison of the socioeconomic percentage distributions derived from the unweighted Examination sample, the final weighted Examination sample and the corresponding 2016 estimated dentate population. To ensure consistency with Table 3.3 these comparisons are presented for the more detailed socioeconomic categories. At the National level, the maximum difference between the weighted Examination distribution and the corresponding dentate population distribution was for education status, where the weighted sample over-represented the percentage of persons who either had a University degree or were studying at a University by 3.7 percentage points. Differences were lower for the other socioeconomic distributions and ranged from 0–2.5 percentage points indicating that the socioeconomic composition of the weighted Examination sample closely approximated the 2016 National dentate population. Consequently, the application of Examination weights will significantly improve the reliability of National population estimates derived from the Examination sample.

While this report does not present equivalent comparisons at the state and territory level, the maximum divergence between the socioeconomic composition of the final weighted sample and the dentate population was: New South Wales (7 percentage points), Victoria (3.4 percentage points), Queensland (4.1 percentage points), South Australia (3.6 percentage points), Western Australia (2.9 percentage points), Tasmania (3.5 percentage points), Australian Capital Territory (3.5 percentage points) and Northern Territory (8.0 percentage points). As these differences are generally small, the application of Examination weights will also enable valid state and territory level comparisons despite variations in sample design and participation rates.

Table 3.5: Comparison of the sociodemographic percentage distributions for the Examination sample and the Estimated 2016 dentate population

Demographic characteristic		Unweighted Exam sample	Final weighted Exam sample	Estimated 2016 dentate population
		% of people	% of people	% of people
GCCSA[(a)] strata	Greater Sydney	5.4	20.9	20.9
	Rest of New South Wales	4.8	11.1	11.1
	Greater Melbourne	16.5	19.7	19.7
	Rest of Victoria	6.9	5.8	5.8
	Greater Brisbane	6.6	9.8	9.8
	Rest of Queensland	6.8	10.2	10.2
	Greater Adelaide	9.7	5.6	5.6
	Rest of South Australia	3.8	1.6	1.6
	Greater Perth	7.6	8.4	8.4
	Rest of Western Australia	4.1	2.2	2.2
	Greater Hobart	5.1	0.9	0.9
	Rest of Tasmania	5.9	1.2	1.2
	Australian Capital Territory	10.5	1.7	1.7
	Greater Darwin	3.4	0.6	0.6
	Rest of Northern Territory	3.0	0.4	0.4
Age	15-24 years	7.8	14.3	16.8
	25-34 years	16.7	21.7	19.2
	35-44 years	18.1	17.1	17.1
	45-54 years	14.1	16.5	16.5
	55-64 years	16.9	13.9	13.9
	65-74 years	17.8	9.8	9.8
	75 years or more	8.6	6.7	6.7
Sex	Male	44.8	49.6	49.6
	Female	55.2	50.4	50.4
Birthplace	Australian	72.2	67.0	67.2
	Overseas	27.8	33.0	32.8
Indigenous status	Non-Indigenous	98.3	98.3	97.6
	Indigenous	1.7	1.7	2.4
Education status	Bachelor degree or studying at University	43.3	32.7	29.1
	Other	56.7	67.3	70.9
Employment status	Employed	61.0	60.5	60.2
	Unemployed	3.1	5.1	4.4
	Not in labour force	35.9	34.4	35.4
Dwelling ownership	Owned outright	36.1	31.7	30.5
	Being purchased	33.1	37.1	38.6
	Rented	30.1	30.9	30.1
	Other	0.8	0.4	0.8
Household size	One person	23.7	14.0	12.5
	Two persons	37.4	32.4	31.2
	Three persons	15.5	19.4	19.0
	Four persons	15.7	18.5	20.6
	Five persons	5.5	10.0	10.0
	Six or more persons	2.3	5.8	6.6

(a) GCCSA: Greater Capital City Statistical Area.

Assessment of weighting procedure using small area socioeconomic indicators

The weighting procedure ensured that the Interview and Examination samples were representative of the target population for a broad range of person and household level socioeconomic characteristics for the National, jurisdictional and GCCSA regions. The aim of this section was to assess whether the socioeconomic composition of the weighted sample reflected that of the Australian population at the small area geographic level. As postcode was the smallest region included in the survey, Australian postcodes were summarised by dividing them into socioeconomic quartiles based on their IRSAD score (ABS 2018). The first quartile contained postcodes with the lowest 25% of IRSAD scores and the fourth quartile contained postcodes with the highest 25% of IRSAD scores. The quartile cut-offs were obtained using the SAS procedure proc univariate with cut-off scores of 937 for quartile 1, 984 for quartile 2 and 1036 for quartile 3.

To determine the percentage of Australian persons aged 15 years and over living in each socioeconomic quartile, postcode level estimated residential population counts by 5-year age group were obtained from the ABS via a consultancy request. These population counts were then aggregated across postcodes within the same quartile, to derive the total number of people aged 15 years and over in each quartile. The population percentage distribution for socioeconomic status, represented by the IRSAD quartiles, was then derived.

To be able to compare this population distribution with the corresponding distribution derived from the weighted Interview sample, postcode level IRSAD scores were merged onto the Interview dataset. Interview participants were classified into socioeconomic quartiles based on the IRSAD score of their postcode using the cut-offs previously defined. The estimated percentage of people aged 15 years and over in each IRSAD quartile was then derived from the weighted Interview sample. Table 3.6 provides a comparison of the IRSAD percentage distributions.

Table 3.6: Comparison of the IRSAD percentage distributions for the weighted Interview sample and ABS Population

Small area socioeconomic status		Final weighted Interview sample	ABS[(a)] population
		% of people	% of people
IRSAD[(b)]	Quartile 1	19.3	18.8
	Quartile 2	24.8	22.4
	Quartile 3	22.7	24.3
	Quartile 4	33.2	34.5

(a) ABS: Australian Bureau of Statistics;
(b) IRSAD: Index of Relative Socioeconomic Advantage/Disadvantage

The maximum difference between percentages derived from the weighted Interview sample and the corresponding population percentages was 2.4 percentage points indicating the weighted Interview distribution closely approximated the corresponding population distribution.

This process was then repeated for the Examination sample with postcode level IRSAD scores merged onto the Examination dataset. Participants were classified into socioeconomic quartiles based on the IRSAD score of their postcode. The estimated percentage of people aged 15 years and over in each IRSAD quartile was then derived from the weighted Examination sample. Table 3.7 provides a comparison of the IRSAD percentage distributions.

Table 3.7: Comparison of the IRSAD percentage distributions for the weighted Examination sample and ABS Population

Small area socioeconomic status		Final weighted Examination sample	ABS[a] population
		% of people	% of people
IRSAD[b]	Quartile 1	18.1	18.8
	Quartile 2	24.6	22.4
	Quartile 3	25.5	24.3
	Quartile 4	31.9	34.5

(a) ABS: Australian Bureau of Statistics;
(b) IRSAD: Index of Relative Socioeconomic Advantage/Disadvantage

The maximum difference between percentages derived from the weighted Examination sample and the corresponding population percentage was 2.6 percentage points indicating the weighted Examination distribution closely approximated the corresponding population distribution.

The analysis presented for small area socioeconomic status, as summarised by the socioeconomic IRSAD quartiles, indicates that the socioeconomic composition of the weighted Interview and Examination samples reflected that of the population of Australian postcodes. As the NSAOH 2004-06 highlighted the association between oral health status and socioeconomic status, this section provides adequate evidence that population estimates derived from the weighted Interview and Examination samples are valid estimates of the Australian population aged 15 years and over.

3.3 Characteristics of the population

Chapters 4 to 7 of this report present population estimates for key indicators of the oral health status and dental visiting patterns of Australians aged 15 years and over. Tables are structured to present these population estimates by a range of socioeconomic characteristics and oral health characteristics. As the prevalence and severity of oral conditions vary significantly by age, population estimates are provided by four age groups defined as 15-34 years, 35-54 years, 55-74 years and 75 years and over. The socioeconomic composition and oral health characteristics of these age groups are presented in Table 3.8. Population estimates included in this table were derived from the weighted Interview sample.

Males and females were evenly distributed in all age groups except the 75 years and over age group which contained fewer males (43.4%). This was due to higher age-specific death rates and shorter life expectancy among males than females.

Age-specific death rates and life expectancy also impacted on the Indigenous population with a steady decline in the proportions of Indigenous persons by age. In the youngest age group 2.8% of the population was Indigenous compared to 1.0% in the oldest age group.

Just over two-thirds (67.2%) of the Australian population lived in greater capital city regions. Younger generations were more likely to live in these regions than older generations. Nearly 72% of persons aged 15-34 years lived in a greater capital city region compared with 61.3% of those aged 75 years and over.

The highest level of schooling completed varied significantly by age group. Nearly 63% of Australians aged 75 years and over had completed year 10 or less of schooling compared to only 18.3% of Australians aged 15-34 years. Age was also a significant factor in the percentage of Australians who had completed a University degree or higher qualification. Percentages were highest among the 35–54 age group (35.4%), followed by the 15-34 age group (28.3%) and lowest for people aged 75 years and over (9.5%).

Three-in-ten Australians (30.2%) were eligible for public dental care. Eligibility varied significantly by age with the majority of Australians aged 75 years and over (83.7%) eligible for public dental care. Eligibility rates were also high in the 55–74 age group (45.0%) but relatively low in the 15–34–year age group (19.6%).

The percentage of Australians with private dental insurance remained fairly steady across age. Percentages were highest in the 35–54 age group (54.7%) and lowest in the 75 years and over age group (42.6%).

Almost two-thirds (63.3%) of Australians usually visited a dental practitioner for a check-up rather than a dental problem (36.7%). Percentages were significantly lower by age with 73.5% of Australians aged 15–34 years usually visiting for a check-up compared to only 53.3% of those aged 75 years and over.

The percentage of Australians who did not have any natural teeth remaining (edentulous) was low at 4.0%. However, edentulism was relatively common in the oldest age group with 20.5% of persons aged 75 years and over without any natural teeth.

In summary, there was considerable variation in the socioeconomic composition and oral health characteristics of these age groups.

Table 3.8: Estimated percentages of people with selected socioeconomic and oral health characteristics within the Australian population

	Population: all people aged 15 years and over				
	Total	**15–34**	**35–54**	**55–74**	**≥75**
Sex					
Male	49.2	50.5	49.4	49.1	43.4
Female	50.8	49.5	50.6	50.9	56.6
Indigenous identity					
Indigenous	2.3	2.8	2.3	1.9	1.0
Non-Indigenous	97.7	97.2	97.7	98.1	99.0
Residential location					
Capital city	67.2	71.6	68.3	61.5	61.3
Other places	32.8	28.4	31.7	38.5	38.7
Year level of schooling					
Year 10 or less	28.9	18.3	20.4	44.0	62.9
Year 11 or more	71.1	81.7	79.6	56.0	37.1
Highest qualification attained					
Degree or higher	26.8	28.3	35.4	18.8	9.5
Other/None	73.2	71.7	64.6	81.2	90.5
Eligibility for public dental care					
Eligible	30.2	19.6	16.7	45.0	83.7
Ineligible	69.8	80.4	83.3	55.0	16.3
Dental insurance					
Insured	51.1	50.1	54.7	50.6	42.6
Uninsured	48.9	49.9	45.3	49.4	57.4
Usually visit dentist					
For a check-up	63.3	73.5	60.7	55.6	53.3
For a dental problem	36.7	26.5	39.3	44.4	46.7
Oral status					
Dentate	96.0	100.0	98.9	91.9	79.5
Edentulous	4.0	0.0	1.1	8.1	20.5

4 Oral health status

by L Do and L Luzzi

This chapter reports prevalence and severity of oral diseases and other conditions that affect the teeth and gums. They are arranged using a common format described in Chapter 2. The tables report findings regarding four sets of oral health conditions:

- tooth loss, including denture wearing and replacement of missing teeth
- experience of dental decay, including untreated cavities, and teeth that have been filled or extracted to treat past decay
- gum diseases, including periodontitis and inflammation of the gums
- other oral conditions, including tooth wear, dental fluorosis, xerostomia, lack of occlusal contact and oral mucosal lesions.

The tables use information collected primarily during the examination. Interview information is limited to questions about tooth loss, denture wearing and dental implants, in response to questions about objective oral health asked in the interview. Xerostomia is also reported under other oral conditions. Other more subjective questions about experience of oral symptoms and perceived needs for dental treatment were also asked in the interview, but they are reported in Chapter 6.

4.1 Tooth loss

Tooth loss generally occurs as a treatment decision to extract one or more teeth rather than use other treatment options. Teeth are extracted due to extensive disease that precludes other treatments, the preference of the patient and also the recommendation of the dentist. Most teeth are extracted because of extensive decay. However, periodontal disease, and less commonly other factors such as trauma and poor alignment, may also result in tooth loss.

Prevalence of complete tooth loss

The loss of all teeth is considered as a fundamental indicator of dental impairment. Complete tooth loss, also known as edentulism, is a consequence of both extensive dental disease and a surgical approach to its treatment. Edentulism is relevant in the Australian population because it is a permanent 'scar' reflecting factors that have affected oral health in the past, and also because people with no natural teeth have limited oral function.

Table 4.1 presents the percentage of adults reporting complete tooth loss in the Australian population. Overall, the percentage of Australians reporting complete tooth was 4.0% of the population aged 15 years and over. The percentage of persons reporting complete tooth loss was higher in successively older age groups from 1.1% for 35–54 year–olds up to 20.5% for those aged 75 years and over. There was a slightly higher percentage of females (4.7%) reporting complete tooth loss than males (3.4%). However, there were no significant differences in the percentage of persons reporting complete tooth loss by sex in any age group.

While there were similar percentages reporting complete tooth loss for Indigenous (7.1%) and non-Indigenous persons (4.0%) overall, there was a higher percentage of Indigenous (29.3%) than non-Indigenous persons (7.7%) who reported complete tooth loss in the 55–74 year age group.

The percentage of persons reporting complete tooth loss was slightly lower for capital city residents (3.3%) than persons at other locations (5.4%). However, this pattern of a lower percentage of persons at capital city locations who reported complete tooth loss was not significant in any age group.

A higher percentage of persons with Year 10 or less schooling reported complete tooth loss (9.4%) than those with Year 11 or more years of schooling (1.8%). This pattern of a higher percentage of persons with Year 10 or less schooling reporting complete tooth loss than those with Year 11 or more years of schooling was observed consistently from the 35–54 year (3.1% and 0.6%, respectively) to 75 years and over (24.9% and 13.1%, respectively) age groups.

Those persons with a degree or higher qualification had a lower percentage that reported complete tooth loss (0.7%) than those with other or no qualifications (5.1%). This pattern of a lower percentage of persons with a degree or higher qualification reporting complete tooth loss than those with other or no qualifications was observed consistently for the 55–74 year (2.0% and 9.4%, respectively) and 75 years and over (5.3% and 22.0%, respectively) age groups.

There was a higher percentage of persons reporting complete tooth loss for those eligible for public dental care (10.5%) than those ineligible (1.2%). This pattern of a higher percentage of persons eligible for public dental care reporting complete tooth loss than those ineligible was observed consistently from the 35–54 year (3.1% and 0.7%, respectively) up to the 75 years and over (22.3% and 11.3%, respectively) age groups.

A lower percentage of insured persons reported complete tooth loss (1.7%) than uninsured persons (6.5%). This pattern of a lower percentage of insured persons reporting complete tooth loss than uninsured persons was observed in the 55–74 year (3.6% and 12.7%, respectively) and the 75 years and over (9.2% and 28.3%, respectively) age groups.

There was a higher percentage of persons reporting complete tooth loss for those who usually visit for a dental problem (7.9%) than those usually visiting for a check-up (1.2%). This pattern of a higher percentage of persons who usually visit for a dental problem reporting complete tooth loss than those usually visiting for a check-up was observed consistently from the 35–54 year (2.2% and 0.3%, respectively) up to the 75 years and over (32.5% and 6.1%, respectively) age groups.

In summary, complete tooth loss was strongly associated with age. It was also associated with level of schooling, highest qualification attained, eligibility for public dental care, dental insurance status and usual reason for visiting a dentist.

Table 4.1: Percentage of adults with complete tooth loss in the Australian population

		Population: all people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**4.0**	**—**	**1.1**	**8.1**	**20.5**
	95%CI	*3.6–4.4*	—	*0.7–1.6*	*7.0–9.3*	*18.1–23.1*
Sex						
Male	%	3.4	—	*1.1	6.5	19.1
	95%CI	*2.9–3.9*	—	*0.6–2.0*	*5.2–8.1*	*15.6–23.2*
Female	%	4.7	—	*1.0	9.6	21.5
	95%CI	*4.1–5.3*	—	*0.6–1.8*	*8.0–11.5*	*18.4–25.0*
Indigenous identity						
Indigenous	%	7.1	—	*0.8	29.3	n.p.
	95%CI	*4.3–11.4*	—	*0.2–2.5*	*17.8–44.1*	*n.p.*
Non-Indigenous	%	4.0	—	1.1	7.7	20.5
	95%CI	*3.6–4.4*	—	*0.7–1.6*	*6.7–8.9*	*18.1–23.1*
Residential location						
Capital city	%	3.3	—	*1.0	7.4	18.1
	95%CI	*2.9–3.8*	—	*0.6–1.6*	*6.0–9.2*	*15.3–21.3*
Other places	%	5.4	—	*1.3	9.1	24.3
	95%CI	*4.7–6.1*	—	*0.7–2.4*	*7.8–10.6*	*20.3–28.9*
Year level of schooling						
Year 10 or less	%	9.4	—	*3.1	11.7	24.9
	95%CI	*8.5–10.5*	—	*1.8–5.2*	*9.9–13.8*	*21.6–28.5*
Year 11 or more	%	1.8	—	*0.6	5.3	13.1
	95%CI	*1.5–2.1*	—	*0.3–1.1*	*4.2–6.7*	*10.2–16.6*
Highest qualification attained						
Degree or higher	%	0.7	—	*0.5	2.0	*5.3
	95%CI	*0.5–1.1*	—	*0.1–1.6*	*1.3–3.1*	*3.0–9.0*
Other/None	%	5.1	—	1.3	9.4	22.0
	95%CI	*4.6–5.7*	—	*0.8–2.0*	*8.1–10.8*	*19.4–24.9*
Eligibility for public dental care						
Eligible	%	10.5	—	*3.1	13.4	22.3
	95%CI	*9.5–11.7*	—	*1.7–5.3*	*11.5–15.6*	*19.6–25.2*
Ineligible	%	1.2	—	*0.7	3.7	11.3
	95%CI	*1.0–1.5*	—	*0.4–1.2*	*2.9–4.9*	*7.6–16.5*
Dental insurance						
Insured	%	1.7	—	*0.5	3.6	9.2
	95%CI	*1.4–2.0*	—	*0.3–1.1*	*2.8–4.5*	*7.0–11.9*
Uninsured	%	6.5	—	1.8	12.7	28.3
	95%CI	*5.8–7.2*	—	*1.1–2.8*	*10.9–14.8*	*24.7–32.3*
Usually visit dentist						
For a check-up	%	1.2	—	*0.3	3.0	6.1
	95%CI	*0.9–1.5*	—	*0.2–0.6*	*2.1–4.2*	*4.4–8.4*
For a dental problem	%	7.9	—	2.2	13.0	32.5
	95%CI	*7.1–8.8*	—	*1.3–3.5*	*11.2–15.0*	*28.5–36.7*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Inadequate natural dentition among dentate people

Dentists aim to retain an optimal number of teeth consistent with oral function and appearance. To attain that goal, dentists may recommend removal of selected teeth such as four wisdom teeth and four premolars to create sufficient space for the remaining 24 teeth. Nonetheless, many people with less than 24 teeth report acceptable levels of function and appearance. In recent decades the concept of an adequate natural dentition was developed to define a threshold of tooth loss that is consistent with professional judgements about function and appearance. An extensive review of the literature concluded that 20 natural teeth were sufficient for satisfactory chewing function (Elias & Sheiham 1998), diet and nutritional status (Sheiham et al. 2002). In contrast, adults with fewer than 20 teeth were more likely to suffer impaired oral health related quality of life compared to adults with more teeth (McGrath & Bedi 2002). Others have used case definitions that differ marginally in the number of remaining teeth or that consider other criteria such as position of remaining teeth. For example, the UK adult dental health survey used a threshold of 21 teeth when reporting the percentage of people with an adequate dentition (Kelly et al. 2000).

Table 4.2 presents the percentage of people that reported having fewer than 21 teeth in the Australian dentate population. Around one in ten dentate persons (10.2%) aged 15 years and over in Australia reported having fewer than 21 teeth. The percentage of persons reporting fewer than 21 teeth was higher across successively older age groups, ranging from 0.7% among 15–34 year-olds up to 45.6% for those aged 75 years and over.

There were similar percentages of males (10.1%) and females (10.3%) that reporting having fewer than 21 teeth, and this pattern did not vary significantly by sex in any age group.

While the percentage of persons reporting that they had fewer than 21 teeth tended to be slightly higher for Indigenous (13.3%) than non-Indigenous (10.1%), this was not statistically significant overall, or in any age group.

There was a lower percentage of persons reporting fewer than 21 teeth at capital city locations (8.7%) than at other locations (13.3%). This pattern of lower percentages of persons reporting fewer than 21 teeth at capital city than other locations was observed for the 35–54 year (3.9% and 6.9%, respectively) and the 55–74 year (19.8% and 26.0%, respectively) age groups.

For those with Year 10 or less schooling there was a higher percentage of persons that reported having fewer than 21 teeth (21.4%) than those with Year 11 or more years of schooling (5.9%). This pattern of higher percentages of persons reporting fewer than 21 teeth for those with Year 10 or less than Year 11 or more years of schooling was observed for those aged 35–54 years (11.7% and 3.2%, respectively), 55–74 years (28.9% and 16.7%, respectively) and 75 years and over (53.0% and 34.9%, respectively).

The percentage of persons reporting fewer than 21 teeth was lower for those with a degree or higher qualification (3.1%) than those with other or no qualifications (12.6%). This pattern of lower percentages of persons reporting fewer than 21 teeth for those with a degree or higher qualification than those with other or no qualifications was observed for those aged 35–54 years (1.4% and 6.5%, respectively), 55–74 years (10.3% and 25.0%, respectively) and 75 years and over (24.1% and 48.4%, respectively).

There was a higher percentage of persons that reported having fewer than 21 teeth among those eligible for public dental care (24.2%) than those ineligible (4.7%). This pattern of higher percentages of persons reporting fewer than 21 teeth for those eligible for public dental care than ineligible was observed for those aged 35–54 years (12.4% and 3.4%, respectively), 55–74 years (32.7% and 14.5%, respectively) and 75 years and over (49.8% and 26.7%, respectively).

Among those with dental insurance there was a lower percentage that reported having fewer than 21 teeth (6.7%) than among the uninsured (14.4%). This pattern of lower percentages of persons reporting fewer than 21 teeth for those who were dentally insured than uninsured was observed for those aged 35–54 years (2.0% and 8.6%, respectively), 55–74 years (15.3% and 30.0%, respectively) and 75 years and over (33.3% and 57.0%, respectively).

There was a higher percentage of persons reporting fewer than 21 teeth among those usually visiting for a dental problem (18.0%) than those usually visiting for a check-up (6.0%). This pattern of higher percentages of persons that reported having fewer than 21 teeth for those who usually visit for a dental problem rather than a check-up was observed for those aged 35–54 years (9.5% and 2.0%, respectively), 55–74 years (32.6% and 14.4%, respectively) and 75 years and over (65.1% and 33.3%, respectively).

In summary, having fewer than 21 teeth was strongly associated with age. It was also associated with residential location, level of schooling, highest qualification attained, eligibility for public dental care, dental insurance status and usual reason for visiting a dentist.

Table 4.2: Percentage of people with fewer than 21 teeth in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**10.2**	***0.7**	**4.9**	**22.2**	**45.6**
	95%CI	*9.5–10.9*	*0.4–1.2*	*4.1–5.7*	*20.5–23.9*	*41.9–49.3*
Sex						
Male	%	10.1	*0.8	4.8	23.0	46.0
	95%CI	*9.2–11.1*	*0.4–1.6*	*3.7–6.1*	*20.7–25.6*	*40.5–51.5*
Female	%	10.3	*0.6	4.9	21.3	45.3
	95%CI	*9.4–11.2*	*0.3–1.3*	*3.8–6.4*	*19.1–23.6*	*40.6–50.0*
Indigenous identity						
Indigenous	%	13.3	*4.3	*10.9	35.7	n.p.
	95%CI	*8.9–19.3*	*0.8–20.4*	*4.9–22.6*	*22.9–51.0*	*n.p.*
Non-Indigenous	%	10.1	*0.6	4.7	22.0	45.5
	95%CI	*9.5–10.8*	*0.4–1.0*	*4.0–5.6*	*20.3–23.7*	*41.8–49.2*
Residential location						
Capital city	%	8.7	*0.7	3.9	19.8	44.5
	95%CI	*7.9–9.5*	*0.4–1.3*	*3.1–5.0*	*17.7–22.0*	*39.7–49.4*
Other places	%	13.3	*0.6	6.9	26.0	47.5
	95%CI	*12.1–14.6*	*0.2–2.1*	*5.4–8.7*	*23.4–28.8*	*41.9–53.2*
Year level of schooling						
Year 10 or less	%	21.4	*0.9	11.7	28.9	53.0
	95%CI	*19.7–23.1*	*0.4–2.0*	*9.1–15.1*	*26.2–31.8*	*48.0–58.0*
Year 11 or more	%	5.9	*0.7	3.2	16.7	34.9
	95%CI	*5.3–6.4*	*0.4–1.3*	*2.5–4.1*	*14.9–18.7*	*30.2–39.9*
Highest qualification attained						
Degree or higher	%	3.1	*0.4	*1.4	10.3	24.1
	95%CI	*2.6–3.7*	*0.1–0.9*	*0.8–2.3*	*8.4–12.6*	*18.1–31.3*
Other/None	%	12.6	*0.7	6.5	25.0	48.4
	95%CI	*11.8–13.6*	*0.4–1.4*	*5.4–7.9*	*23.0–27.1*	*44.4–52.5*
Eligibility for public dental care						
Eligible	%	24.2	*1.4	12.4	32.7	49.8
	95%CI	*22.5–25.9*	*0.5–3.7*	*9.5–16.0*	*30.0–35.5*	*45.6–53.9*
Ineligible	%	4.7	*0.5	3.4	14.5	26.7
	95%CI	*4.3–5.3*	*0.3–1.0*	*2.7–4.3*	*12.8–16.4*	*20.4–34.1*
Dental insurance						
Insured	%	6.7	*0.5	2.0	15.3	33.3
	95%CI	*6.0–7.4*	*0.2–1.1*	*1.4–2.8*	*13.6–17.3*	*28.9–37.9*
Uninsured	%	14.4	*1.0	8.6	30.0	57.0
	95%CI	*13.3–15.5*	*0.5–1.9*	*7.1–10.4*	*27.4–32.8*	*51.6–62.2*
Usually visit dentist						
For a check-up	%	6.0	*0.4	2.0	14.4	33.3
	95%CI	*5.4–6.7*	*0.2–0.8*	*1.3–3.1*	*12.7–16.3*	*29.5–37.4*
For a dental problem	%	18.0	*1.6	9.5	32.6	65.1
	95%CI	*16.7–19.4*	*0.7–3.3*	*7.9–11.4*	*29.8–35.6*	*58.9–70.9*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. n.p. not publishable due to small cell counts.

Denture wearing by dentate people

Removable dentures, also called 'false teeth' can be worn to replace missing teeth, with the goal to improve function (such as eating), appearance or both. The need for dentures arises only after the loss of one or more teeth. Among dentate people a removable denture may replace a single tooth or larger numbers of teeth. Dentate people who have had all teeth extracted from one jaw usually wear one 'complete denture' to replace all those teeth, and they may wear an additional 'partial denture' replacing the teeth missing in the other jaw.

Table 4.3 presents the percentage of dentate people who wear dentures in the Australian population aged 15 years and over. Overall, 11.3% of dentate Australians aged 15 years and over reported wearing a denture. The percentage of persons reporting that they wear a denture was higher across successively older age groups, ranging from 1.1% among 15–34 year-olds up to 47.4% for those aged 75 years and over.

There were similar percentages of males (10.8%) and females (11.8%) that reported wearing a denture, and this pattern did not vary significantly by sex in any age group.

Overall, the percentage of persons that reported wearing a denture was similar for Indigenous (11.4%) and non-Indigenous (11.3%) persons. There was no significant difference in the percentage of persons that reported wearing a denture by Indigenous identity in any age group.

A slightly lower percentage of residents from capital city locations reported wearing a denture (10.2%) than those from other residential locations (13.7%), but there was no significant variation in reported denture wearing by residential location in any age group.

A higher percentage of persons with Year 10 or less schooling reported wearing a denture (22.0%) than those with Year 11 or more years of schooling (7.0%). This pattern of higher percentages of persons that reported wearing a denture for those with Year 10 or less than Year 11 or more years of schooling was observed for those aged 35–54 years (10.2% and 4.4%, respectively), 55–74 years (31.2% and 19.4%, respectively) and 75 years and over (53.2% and 38.5%, respectively).

A lower percentage of persons with a degree or higher qualification reported wearing a denture (5.0%) than those with other or no qualifications (13.3%). This pattern of lower percentages of persons that reported wearing a denture for those with a degree or higher qualification than those with other or no qualifications was observed for those aged 35–54 years (3.8% and 6.6%, respectively), 55–74 years (13.0% and 26.9%, respectively) and 75 years and over (27.4% and 49.7%, respectively).

There was a higher percentage of persons that reported wearing a denture among those eligible for public dental care (24.6%) than those ineligible (6.1%). This pattern of higher percentages of persons that reported wearing a denture for those eligible for public dental care than ineligible was observed for those aged 35–54 years (11.8% and 4.6%, respectively), 55–74 years (34.2% and 17.0%, respectively) and 75 years and over (50.1% and 35.5%, respectively).

A lower percentage of persons with dental insurance reported wearing a denture (8.5%) than those who were uninsured (14.6%). This pattern of lower percentages of dentally insured persons that reported wearing a denture than those who were uninsured was observed for those aged 35–54 years (3.7% and 8.1%, respectively), 55–74 years (18.7% and 31.1%, respectively) and 75 years and over (38.0% and 55.9%, respectively).

There was a higher percentage of persons that reported wearing a denture among those usually visiting for a dental problem (18.0%) than those usually visiting for a check-up (7.9%). This pattern of higher percentages of persons that reported wearing a denture for those who usually visit for a dental problem rather than a check-up was observed for those aged 35–54 years (9.4% and 3.6%, respectively), 55–74 years (33.0% and 18.5%, respectively) and 75 years and over (59.7% and 40.2%, respectively).

In summary, wearing a denture was strongly associated with age. It was also associated with level of schooling, highest qualification attained, eligibility for public dental care, dental insurance status and usual reason for visiting a dentist.

Table 4.3: Percentage of people who wear denture(s) in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**11.3**	**1.1**	**5.8**	**24.5**	**47.4**
	95%CI	*10.7–12.0*	*0.7–1.7*	*5.0–6.7*	*22.8–26.3*	*44.1–50.7*
Sex						
Male	%	10.8	*1.3	6.1	23.2	45.8
	95%CI	*9.8–11.8*	*0.7–2.4*	*4.9–7.6*	*20.8–25.7*	*40.9–50.8*
Female	%	11.8	*0.9	5.5	25.8	48.6
	95%CI	*11.0–12.8*	*0.5–1.5*	*4.4–6.9*	*23.4–28.4*	*44.0–53.2*
Indigenous identity						
Indigenous	%	11.4	*1.1	*8.6	40.0	n.p.
	95%CI	*7.6–16.6*	*0.2–5.3*	*3.6–19.0*	*25.8–56.0*	*n.p.*
Non-Indigenous	%	11.3	1.1	5.7	24.3	47.4
	95%CI	*10.7–12.0*	*0.7–1.7*	*4.9–6.7*	*22.6–26.1*	*44.1–50.7*
Residential location						
Capital city	%	10.2	1.1	5.0	23.5	47.1
	95%CI	*9.4–11.0*	*0.7–1.7*	*4.2–6.1*	*21.2–25.9*	*43.0–51.2*
Other places	%	13.7	*1.0	7.4	26.2	47.9
	95%CI	*12.5–15.0*	*0.3–3.3*	*5.8–9.4*	*23.5–29.0*	*42.4–53.4*
Year level of schooling						
Year 10 or less	%	22.0	*1.2	10.2	31.2	53.2
	95%CI	*20.3–23.7*	*0.4–3.7*	*7.6–13.4*	*28.3–34.3*	*48.6–57.8*
Year 11 or more	%	7.0	0.9	4.4	19.4	38.5
	95%CI	*6.5–7.7*	*0.6–1.4*	*3.7–5.4*	*17.4–21.5*	*33.8–43.4*
Highest qualification attained						
Degree or higher	%	5.0	*1.2	3.8	13.0	27.4
	95%CI	*4.4–5.8*	*0.6–2.2*	*2.8–5.1*	*10.7–15.7*	*21.2–34.7*
Other/None	%	13.3	*0.7	6.6	26.9	49.7
	95%CI	*12.5–14.2*	*0.4–1.5*	*5.4–8.0*	*24.8–29.0*	*46.2–53.3*
Eligibility for public dental care						
Eligible	%	24.6	*1.0	11.8	34.2	50.1
	95%CI	*22.9–26.3*	*0.3–3.6*	*9.1–15.2*	*31.2–37.3*	*46.5–53.8*
Ineligible	%	6.1	1.1	4.6	17.0	35.5
	95%CI	*5.6–6.6*	*0.7–1.6*	*3.8–5.6*	*15.2–18.9*	*28.7–42.9*
Dental insurance						
Insured	%	8.5	*0.7	3.7	18.7	38.0
	95%CI	*7.8–9.2*	*0.4–1.2*	*2.8–4.8*	*16.8–20.7*	*33.4–42.8*
Uninsured	%	14.6	*1.5	8.1	31.1	55.9
	95%CI	*13.6–15.7*	*0.9–2.5*	*6.6–9.8*	*28.6–33.8*	*51.0–60.7*
Usually visit dentist						
For a check-up	%	7.9	*0.6	3.6	18.5	40.2
	95%CI	*7.3–8.6*	*0.3–1.5*	*2.8–4.7*	*16.6–20.5*	*36.1–44.4*
For a dental problem	%	18.0	2.4	9.4	33.0	59.7
	95%CI	*16.7–19.3*	*1.5–3.9*	*7.8–11.3*	*30.3–36.0*	*54.0–65.2*

Notes: 1. Data in this table was taken from the Interview.
2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.
3. n.p. not publishable due to small cell counts.

Dental implants

Dental implants are an alternative to wearing dentures that may be used to replace one or more missing teeth. Table 4.4 presents the percentage of dentate people who reported having dental implants in the Australian population aged 15 years and over. The percentage of persons reporting that they had dental implants was 5.6% overall. There was variation across age groups in the percentage of persons that reported having dental implants, with the lowest percentage observed in the 15–34 year age group (2.5%) and the highest percentage in the 55–74 year age group (10.1%).

There was little difference between males (6.1%) and females (5.0%) in the percentage that reported having dental implants. However, among 15–34 year-olds a higher percentage of males (3.4%) reported having dental implants than females (1.5%).

There was no significant difference overall between Indigenous (2.7%) and non-Indigenous (5.6%) persons in the percentage that reported having dental implants, and there were no significant differences in the percentage of persons reporting dental implants by Indigenous identity in any age group.

A slightly higher percentage of persons at capital city locations reported having dental implants (6.0%) than those at other residential locations (4.5%), but there was no significant variation in the percentage reporting dental implants by residential location within age groups.

There were similar percentage of persons that reported having dental implants for those with Year 10 or less schooling (5.2%) and those with Year 11 or more years of schooling (5.6%). However, in the 55–74 year age group there was a lower percentage of persons that reported having dental implants for those with Year 10 or less schooling (7.9%) than those with Year 11 or more years of schooling (11.7%).

A higher percentage of persons with a degree or higher qualification reported having dental implants (7.2%) than those with other or no qualifications (4.9%). This pattern of a higher percentage of persons with a degree or higher qualification reporting having dental implants than those with other or no qualifications was observed for those aged 55–74 years (15.8% and 8.6%, respectively) and 75 years and over (16.4% and 6.8%, respectively).

There were similar percentages of persons that reported having dental implants for those eligible for public dental care (5.4%) and those ineligible (5.6%). However, a lower percentage of persons who were eligible for public dental care reported having dental implants than those ineligible among those aged 55–74 years (7.1% and 12.3%, respectively) and 75 years and over (5.8% and 17.5%, respectively).

A slightly higher percentage of persons who were dentally insured reported having dental implants (6.4%) than dentally uninsured persons (4.6%). This pattern of a higher percentage of dentally insured than uninsured persons that reported having dental implants was observed for those aged 55–74 years (12.7% and 7.1%, respectively) and 75 years and over (11.5% and 4.6%, respectively).

There were similar percentages of persons that reported having dental implants for those usually visiting a dentist for a dental problem (5.1%) and those usually visiting for a check-up (5.9%). However, a lower percentage of persons who usually visit for a dental problem reported having dental implants than those usually visiting for a dental check-up among those aged 55–74 years (6.1% and 13.0%, respectively).

In summary, having dental implants was associated with age, sex, residential location, highest qualification attained, eligibility for public dental care and dental insurance status.

Table 4.4: Percentage of people who have dental implants in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**5.6**	**2.5**	**5.2**	**10.1**	**7.9**
	95%CI	*5.1–6.1*	*1.9–3.2*	*4.4–6.2*	*8.9–11.3*	*6.1–10.1*
Sex						
Male	%	6.1	3.4	5.8	9.9	8.9
	95%CI	*5.4–6.9*	*2.4–4.8*	*4.5–7.6*	*8.4–11.6*	*6.5–11.9*
Female	%	5.0	1.5	4.6	10.2	7.1
	95%CI	*4.4–5.7*	*1.0–2.2*	*3.7–5.8*	*8.6–12.0*	*4.7–10.5*
Indigenous identity						
Indigenous	%	*2.7	*1.0	*1.6	*4.3	n.p.
	95%CI	*1.3–5.7*	*0.2–4.8*	*0.3–9.2*	*1.1–15.9*	*n.p.*
Non-Indigenous	%	5.6	2.5	5.3	10.2	7.7
	95%CI	*5.2–6.1*	*1.9–3.3*	*4.4–6.3*	*9.0–11.4*	*5.9–9.8*
Residential location						
Capital city	%	6.0	2.7	6.0	11.2	8.7
	95%CI	*5.5–6.7*	*2.0–3.6*	*5.0–7.3*	*9.6–12.9*	*6.4–11.7*
Other places	%	4.5	*1.9	3.4	8.3	6.5
	95%CI	*3.9–5.3*	*1.1–3.4*	*2.3–5.0*	*6.8–10.0*	*4.2–9.8*
Year level of schooling						
Year 10 or less	%	5.2	*2.8	*3.0	7.9	5.7
	95%CI	*4.3–6.3*	*1.3–5.8*	*1.6–5.7*	*6.5–9.6*	*3.6–8.9*
Year 11 or more	%	5.6	2.4	5.5	11.7	11.3
	95%CI	*5.1–6.2*	*1.8–3.1*	*4.6–6.7*	*10.2–13.4*	*8.5–14.9*
Highest qualification attained						
Degree or higher	%	7.2	3.7	6.1	15.8	16.4
	95%CI	*6.3–8.1*	*2.6–5.3*	*5.0–7.5*	*13.3–18.5*	*11.5–22.9*
Other/None	%	4.9	1.9	4.6	8.6	6.8
	95%CI	*4.3–5.5*	*1.3–2.9*	*3.5–6.1*	*7.5–10.0*	*5.0–9.3*
Eligibility for public dental care						
Eligible	%	5.4	*2.8	*5.3	7.1	5.8
	95%CI	*4.5–6.4*	*1.4–5.3*	*3.2–8.6*	*5.7–8.8*	*4.2–8.0*
Ineligible	%	5.6	2.4	5.2	12.3	17.5
	95%CI	*5.1–6.2*	*1.8–3.2*	*4.4–6.2*	*10.7–14.1*	*12.7–23.5*
Dental insurance						
Insured	%	6.4	2.3	5.1	12.7	11.5
	95%CI	*5.8–7.1*	*1.6–3.3*	*4.1–6.4*	*11.1–14.5*	*8.5–15.3*
Uninsured	%	4.6	2.2	5.5	7.1	4.6
	95%CI	*3.9–5.4*	*1.4–3.3*	*4.1–7.3*	*5.7–8.7*	*2.9–7.2*
Usually visit dentist						
For a check-up	%	5.9	2.0	5.4	13.0	9.7
	95%CI	*5.4–6.6*	*1.4–2.9*	*4.3–6.6*	*11.4–14.8*	*7.5–12.5*
For a dental problem	%	5.1	3.9	5.1	6.1	*5.4
	95%CI	*4.3–6.0*	*2.6–5.9*	*3.8–6.9*	*4.8–7.6*	*3.2–8.9*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. n.p. not publishable due to small cell counts.

Severity of tooth loss

Teeth may be missing for a variety of reasons. These may include dental diseases such as dental decay and periodontal (gum) diseases. However, teeth may also be missing because they did not erupt into the mouth, were extracted for orthodontic reasons or because they were impacted and did not grow into the mouth correctly. The mean number of teeth missing for any reason, in people who have at least one natural tooth, are presented in this section.

Table 4.5 presents the mean number of missing teeth for any reason per person reported by the Australian dentate population aged 15 years and over. The overall mean number of missing teeth reported per person was 5.7 teeth. The mean number of missing teeth reported per person was higher across successively older age groups, from 3.2 missing teeth among 15–34 year-olds to 13.2 missing teeth among those aged 75 years and over.

Among people of all ages females had a similar number of missing teeth than males (6.0 and 5.4, respectively). When examined by age group, only in the 15–34 year age group was there a small difference, whereby females had a higher number of missing teeth than males (3.6 and 2.8, respectively).

Both Indigenous (5.7) and non-Indigenous persons (5.7) reported similar numbers of missing teeth per person. A pattern of higher number of missing teeth for those identifying as being Indigenous compared to non-Indigenous, was observed for the 15–34 year age group (4.2 and 3.2, respectively) and the 35–54 year age group (6.4 and 4.7, respectively). No differences were observed for the older two age groups.

The mean number of missing teeth reported per person was lower for residents at capital city locations (5.4) than at other residential locations (6.4). No significant differences in the number of missing teeth were observed by residential location across age groups.

Those with Year 10 or less of schooling reported a higher number of missing teeth (8.4) than those with Year 11 or more years of schooling (4.8). This pattern of a higher number of missing teeth reported by those with Year 10 or less than Year 11 or more years of schooling was observed for those aged 55–74 years (10.2 and 7.7, respectively).

Persons with a degree or higher qualification reported a lower number of missing teeth (3.9) than those with other or no qualifications (6.4). This pattern of a lower number of missing teeth reported by those with a degree or higher qualification than those with other or no qualifications was observed for those aged 35–54 years (3.8 and 5.3, respectively), and 55–74 years (6.0 and 9.4, respectively).

The number of missing teeth reported by those eligible for public dental care was higher (8.4) than for those ineligible (4.6). This pattern of a higher number of missing teeth reported by those eligible for public dental care than those ineligible was observed for those aged 35–54 years (6.0 and 4.5, respectively), and 55–74 years (10.1 and 7.6, respectively).

Dentally insured persons reported a similar number of missing teeth per person (5.3) than dentally uninsured persons (6.2). In the 55–74 year and the 75 years and over age groups those with dental insurance had a lower number of missing teeth than the dentally uninsured (7.6 vs 9.8, and 10.8 vs 15.0, respectively). In contrast, in the 15–34 year age group dentally insured persons had a higher number of missing teeth than uninsured persons (3.6 and 3.0, respectively).

Usually visiting for a dental problem was associated with a higher number of reported missing teeth per person (7.1) than visiting for a check-up (5.0). This pattern of a higher number of missing teeth reported by those usually visiting for a dental problem than those usually visiting for a check-up was observed for those aged 35–54 years (5.4 and 4.3, respectively), 55–74 years (10.6 and 7.3, respectively) and those aged 75 years and over (16.0 and 11.3, respectively).

In summary, the mean number of missing teeth for any reason per dentate person was strongly related to age group. It was also related to Indigenous identity, education, eligibility for public dental care, usual reason for dental visiting, dental insurance, residential location and sex.

Table 4.5: Mean number of missing teeth for any reasons per person in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**5.7**	**3.2**	**4.8**	**8.8**	**13.2**
	95%CI	*5.5–6.0*	*3.0–3.4*	*4.5–5.0*	*8.2–9.4*	*12.2–14.2*
Sex						
Male	mean	5.4	2.8	4.5	8.6	13.6
	95%CI	*5.1–5.8*	*2.5–3.1*	*4.1–5.0*	*8.0–9.3*	*12.5–14.6*
Female	mean	6.0	3.6	5.0	9.0	12.9
	95%CI	*5.7–6.4*	*3.4–3.8*	*4.6–5.3*	*8.0–10.0*	*11.3–14.6*
Indigenous identity						
Indigenous	mean	5.7	4.2	6.4	11.5	n.p.
	95%CI	*4.7–6.6*	*3.7–4.7*	*5.5–7.4*	*7.0–16.0*	*n.p.*
Non-Indigenous	mean	5.7	3.2	4.7	8.8	13.2
	95%CI	*5.5–6.0*	*3.0–3.4*	*4.5–5.0*	*8.2–9.4*	*12.2–14.2*
Residential location						
Capital city	mean	5.4	3.1	4.6	8.4	13.2
	95%CI	*5.1–5.7*	*2.9–3.3*	*4.2–4.9*	*7.6–9.2*	*11.8–14.6*
Other places	mean	6.4	3.4	5.2	9.5	13.3
	95%CI	*6.0–6.8*	*3.0–3.8*	*4.7–5.6*	*8.7–10.3*	*12.0–14.6*
Year level of schooling						
Year 10 or less	mean	8.4	3.7	5.5	10.2	14.0
	95%CI	*7.9–9.0*	*3.2–4.1*	*4.9–6.1*	*9.4–11.1*	*12.5–15.6*
Year 11 or more	mean	4.8	3.1	4.6	7.7	11.8
	95%CI	*4.5–5.0*	*2.9–3.3*	*4.3–4.9*	*6.8–8.6*	*10.7–12.9*
Highest qualification attained						
Degree or higher	mean	3.9	3.0	3.8	6.0	11.0
	95%CI	*3.7–4.2*	*2.7–3.4*	*3.4–4.1*	*5.4–6.6*	*9.1–13.0*
Other/None	mean	6.4	3.3	5.3	9.4	13.4
	95%CI	*6.1–6.7*	*3.1–3.5*	*5.0–5.7*	*8.7–10.1*	*12.2–14.5*
Eligibility for public dental care						
Eligible	mean	8.4	3.5	6.0	10.1	13.6
	95%CI	*7.9–8.9*	*3.1–3.9*	*5.3–6.7*	*9.3–11.0*	*12.5–14.7*
Ineligible	mean	4.6	3.1	4.5	7.6	10.8
	95%CI	*4.3–4.8*	*2.9–3.3*	*4.2–4.8*	*6.7–8.4*	*9.1–12.5*
Dental insurance						
Insured	mean	5.3	3.6	4.3	7.6	10.8
	95%CI	*5.0–5.6*	*3.3–3.8*	*3.9–4.7*	*7.0–8.3*	*9.8–11.8*
Uninsured	mean	6.2	3.0	5.2	9.8	15.0
	95%CI	*5.8–6.6*	*2.7–3.2*	*4.8–5.7*	*9.0–10.7*	*13.4–16.5*
Usually visit dentist						
For a check-up	mean	5.0	3.2	4.3	7.3	11.3
	95%CI	*4.7–5.2*	*3.0–3.5*	*4.0–4.7*	*6.8–7.9*	*10.3–12.3*
For a dental problem	mean	7.1	3.4	5.4	10.6	16.0
	95%CI	*6.6–7.5*	*3.1–3.6*	*5.0–5.8*	*9.5–11.7*	*14.2–17.8*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. n.p. not publishable due to small cell counts.

Severity of tooth loss due to pathology

In order to make an estimation of the mean number of teeth missing due to dental decay and periodontal (gum) disease, an assessment was made of the reason for missing teeth in people less than 45 years of age at the time of examination. This meant that teeth which were missing for reasons other than decay or gum disease could be excluded from the analysis. In older people, the assumption was made that missing teeth had been extracted for dental disease. Teeth missing due to pathology may be extracted because of extensive disease, which makes other treatments very difficult, very expensive or impossible, or because of the preference of the patient or the dentist.

In the Australian dentate adult population, the mean number of teeth missing due to pathology was 4.4 (Table 4.6). The number of missing teeth increased with age of the population. The 15–34 year age group had on average half a tooth missing due to pathology while that number was 13 teeth in the 75 years and over age group.

Among dental adults of all ages, the mean number of missing teeth due to pathology was highest among those with year 10 or less schooling and those who were eligible for public dental care, and lowest among those who had a degree or higher. Differences were associated with all socioeconomic characteristics, except for sex and Indigenous identity. Dentate adults residing in Other places had higher number of missing teeth due to pathology than those residing in Capital city. Those dentate adults with a low level of schooling or without a degree had more than twice the number of teeth missing due to pathology than their respective counterparts. Those who were eligible for public dental care, those who were uninsured and those who usually visited for dental problems also had higher number of teeth missing due to pathology than their counterparts.

Within age groups, there were little variation for the youngest and the oldest age groups. Variations within the other two age groups mimic the variations of the total population of dentate adults. In the 35–54 year age group, the largest difference was between those eligible and ineligible for public dental care (5.2 vs 3.3 teeth) and between those with other or no qualification and those with a degree or higher (4.3 vs 2.4 teeth). In the 55–74 year age group, the largest difference was between those with other or no qualification and those with a degree or higher (9.4 vs 6.0 teeth).

In summary, tooth loss due to pathology among Australian dentate adults increased with age and was higher among those from lower socioeconomic backgrounds. Eligibility for public dental care or lack of dental insurance may reflect lack of affordability of timely private dental care or use of the public system where there are long waiting lists restricting access. Thus, early intervention in the disease process may be limited and late presentation may result in extraction.

Table 4.6: Mean number of missing teeth for pathology per person in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**4.4**	**0.6**	**3.6**	**8.8**	**13.2**
	95%CI	*4.1–4.7*	*0.4–0.7*	*3.3–3.9*	*8.2–9.4*	*12.2–14.2*
Sex						
Male	mean	4.2	0.5	3.4	8.6	13.6
	95%CI	*3.8–4.6*	*0.3–0.8*	*3.0–3.9*	*8.0–9.3*	*12.5–14.6*
Female	mean	4.6	0.7	3.8	9.0	12.9
	95%CI	*4.2–5.0*	*0.4–0.9*	*3.4–4.2*	*8.0–10.0*	*11.3–14.6*
Indigenous identity						
Indigenous	mean	*3.2	*0.9	4.9	11.5	*14.0
	95%CI	*1.6–4.7*	*0.0–1.7*	*3.2–6.7*	*7.0–16.0*	*1.9–26.0*
Non-Indigenous	mean	4.4	0.6	3.6	8.8	13.2
	95%CI	*4.1–4.7*	*0.4–0.7*	*3.3–3.9*	*8.2–9.4*	*12.2–14.2*
Residential location						
Capital city	mean	4.0	0.6	3.4	8.4	13.2
	95%CI	*3.7–4.4*	*0.4–0.8*	*3.0–3.8*	*7.6–9.2*	*11.8–14.6*
Other places	mean	5.2	0.6	4.2	9.5	13.3
	95%CI	*4.7–5.7*	*0.3–0.9*	*3.6–4.7*	*8.7–10.3*	*12.0–14.6*
Year level of schooling						
Year 10 or less	mean	7.7	*0.6	4.7	10.2	14.0
	95%CI	*7.1–8.2*	*0.2–1.0*	*4.0–5.4*	*9.4–11.1*	*12.5–15.6*
Year 11 or more	mean	3.3	0.6	3.4	7.7	11.8
	95%CI	*3.0–3.5*	*0.4–0.7*	*3.0–3.8*	*6.8–8.6*	*10.7–12.9*
Highest qualification attained						
Degree or higher	mean	2.3	0.6	2.4	6.0	11.0
	95%CI	*2.0–2.5*	*0.3–0.8*	*2.0–2.7*	*5.4–6.6*	*9.1–13.0*
Other/None	mean	5.3	0.6	4.3	9.4	13.4
	95%CI	*4.9–5.6*	*0.4–0.8*	*3.9–4.8*	*8.7–10.1*	*12.2–14.5*
Eligibility for public dental care						
Eligible	mean	7.6	1.0	5.2	10.1	13.6
	95%CI	*7.0–8.2*	*0.5–1.4*	*4.5–6.0*	*9.3–11.0*	*12.5–14.7*
Ineligible	mean	3.0	0.5	3.3	7.6	10.8
	95%CI	*2.7–3.3*	*0.4–0.6*	*2.9–3.6*	*6.7–8.4*	*9.1–12.5*
Dental insurance						
Insured	mean	3.9	0.4	3.0	7.6	10.8
	95%CI	*3.5–4.2*	*0.3–0.6*	*2.6–3.4*	*7.0–8.3*	*9.8–11.8*
Uninsured	mean	5.0	0.7	4.3	9.8	15.0
	95%CI	*4.6–5.4*	*0.5–1.0*	*3.8–4.8*	*9.0–10.7*	*13.4–16.5*
Usually visit dentist						
For a check-up	mean	3.5	0.5	3.1	7.3	11.3
	95%CI	*3.2–3.8*	*0.3–0.7*	*2.7–3.5*	*6.8–7.9*	*10.3–12.3*
For a dental problem	mean	6.0	0.8	4.5	10.6	16.0
	95%CI	*5.5–6.5*	*0.6–1.1*	*4.0–5.0*	*9.5–11.7*	*14.2–17.8*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. n.p. not publishable due to small cell counts.

Replacement of missing teeth

Missing teeth can be replaced by removable dentures, fixed prostheses such as bridges, and more recently with dental implants. Table 4.7 reports on the mean number of missing teeth that had been replaced by removable dentures and fixed prostheses among dentate people, identified at the time of examination. This table does not include teeth replaced by dental implants which are reported in Table 4.4.

The mean number of missing and replaced teeth per person is related to access to care (as those who obtain dental care late in the disease process are more likely to have an extraction), the type of dental treatment (as extractions were more common in earlier times) and the need and desire for replacement to restore function.

The number of missing teeth replaced by prostheses per person in the Australian dentate population was 1.0. This number was associated with age. It was negligible in the two youngest age groups but reached one tooth per person in the 55–74 year age group and over two teeth in the oldest age group.

Among people of all ages, the mean number of missing teeth replaced with prostheses was highest among those who were eligible for public dental care and lowest among those who had a degree or higher and those who were ineligible for public dental care. Overall, it was associated with year level of schooling, highest qualification attained, and eligibility for public dental care.

Those with 10 years or less of schooling had more than two times higher mean number of teeth missing and replaced than those with more years of schooling (2.2 and 0.6, respectively). Those without a degree had four times higher mean number of teeth missing and replaced than those with a degree or higher (1.3 and 0.3, respectively).

Dentate adults who were eligible for public dental care had over four times higher mean number of teeth missing and replaced with prostheses than those who were ineligible (2.2 and 0.5, respectively).

In summary, mean number of teeth missing and replaced with prostheses was strongly associated with age. It was also associated with year of schooling, highest qualification obtained and eligibility for public dental care.

Table 4.7: Mean number of missing teeth replaced by prostheses per person in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	1.0	*0.1	0.3	2.2	4.8
	95%CI	0.9–1.2	0.0–0.2	0.2–0.5	1.9–2.6	3.6–6.0
Sex						
Male	mean	0.9	*0.1	*0.3	2.0	4.3
	95%CI	0.7–1.0	0.0–0.1	0.1–0.6	1.5–2.4	3.1–5.5
Female	mean	1.2	*0.2	0.4	2.5	5.2
	95%CI	0.9–1.4	0.0–0.3	0.2–0.5	1.9–3.1	3.3–7.0
Indigenous identity						
Indigenous	mean	*1.1	*1.0	*0.3	*3.0	n.p.
	95%CI	0.2–2.1	0.0–2.5	0.0–0.7	0.4–5.6	n.p.
Non-Indigenous	mean	1.0	*0.1	0.3	2.2	4.8
	95%CI	0.9–1.2	0.0–0.1	0.2–0.5	1.9–2.6	3.6–6.0
Residential location						
Capital city	mean	0.9	*0.1	*0.3	2.0	4.9
	95%CI	0.7–1.1	0.0–0.2	0.1–0.5	1.5–2.4	3.1–6.6
Other places	mean	1.3	*0.1	*0.4	2.7	4.7
	95%CI	1.0–1.5	0.0–0.2	0.2–0.6	2.0–3.4	3.4–6.0
Year level of schooling						
Year 10 or less	mean	2.2	*0.1	*0.3	2.9	5.6
	95%CI	1.7–2.6	0.0–0.1	0.0–0.5	2.2–3.5	3.8–7.4
Year 11 or more	mean	0.6	*0.1	0.4	1.8	3.5
	95%CI	0.5–0.8	0.0–0.2	0.2–0.5	1.3–2.3	2.4–4.6
Highest qualification attained						
Degree or higher	mean	0.3	*0.0	*0.2	1.0	*3.0
	95%CI	0.2–0.4	0.0–0.1	0.0–0.3	0.6–1.5	1.0–5.1
Other/None	mean	1.3	*0.2	*0.4	2.5	4.9
	95%CI	1.1–1.5	0.0–0.3	0.2–0.7	2.0–2.9	3.6–6.3
Eligibility for public dental care						
Eligible	mean	2.2	*0.1	*0.5	2.9	5.1
	95%CI	1.8–2.6	0.0–0.3	0.2–0.9	2.2–3.5	3.7–6.4
Ineligible	mean	0.5	*0.1	*0.3	1.7	*3.1
	95%CI	0.4–0.6	0.0–0.1	0.1–0.5	1.2–2.1	1.2–5.0
Dental insurance						
Insured	mean	0.8	*0.1	*0.2	1.8	3.1
	95%CI	0.6–0.9	0.0–0.1	0.1–0.4	1.2–2.4	2.1–4.1
Uninsured	mean	1.3	*0.2	*0.5	2.6	6.1
	95%CI	1.0–1.5	0.0–0.3	0.2–0.7	2.1–3.2	4.1–8.0
Usually visit dentist						
For a check-up	mean	0.7	*0.1	*0.3	1.6	3.7
	95%CI	0.6–0.9	0.0–0.2	0.1–0.5	1.2–2.0	2.7–4.7
For a dental problem	mean	1.5	*0.1	*0.4	3.1	6.5
	95%CI	1.2–1.8	0.0–0.3	0.2–0.6	2.3–3.8	4.0–8.9

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Summary of findings regarding tooth loss

Table 4.8 presents a summary of tooth loss and tooth replacement in the Australian population.

The percentage of Australians reporting complete tooth was 4.0% of the population aged 15 years and over. Around one in ten dentate persons (10.2%) aged 15 years and over in Australia reported having fewer than 21 teeth. Overall, 11.3% of dentate Australians aged 15 years and over reported wearing a denture. The percentage of persons reporting that they had dental implants was 5.6%. The mean number of missing teeth for any reason reported per person was 5.7 teeth. In the Australian dentate adult population the dental examination showed that the mean number of teeth missing due to pathology was 4.4, and the number of missing teeth replaced by prostheses per person was 1.0.

Variation by age in tooth loss and tooth replacement was observed for all measures. Compared to the reference age group of 35–54 year-olds, those aged 75 years and over had higher percentages of people with complete tooth loss (18.96 times). Compared to the reference age group of 15–34 year-olds, those aged 75 years and over had higher percentages of people with less than 21 teeth (64.86 times) and with dentures (44.03 times), while the highest percentage with dental implants was reported in the 55–74 year age group (4.08 times). Those aged 75 years and over had higher numbers of teeth missing for any reason (4.12 times), missing due to pathology (22.14 times), and missing and replaced (41.54 times) than those aged 15–34 years.

A higher percentage of females reported complete tooth loss (1.39 times) as well as having higher numbers of teeth missing for any reason (1.11 times).

Persons living at residential locations other than capital cities reported a higher percentage with complete tooth loss (1.61 times), less than 21 teeth (1.54 times) and dentures (1.35 times), but a lower percentage with dental implants (0.75 times) than capital city residents. In comparison to capital city residents, those living at other places had higher numbers of teeth missing for any reason (1.19 times), as well as missing due to pathology (1.30 times) and higher numbers of missing teeth replaced by prostheses (1.43 times).

A higher percentage of those with Year 10 or less schooling had complete tooth loss (5.26 times), less than 21 teeth (3.65 times) and dentures (3.12 times), as well as higher numbers of teeth missing for any reason (1.76 times), missing due to pathology (2.34 times), and missing teeth and replaced by prostheses (3.47 times) than those with Year 11 or more years of schooling.

In comparison to those with a degree or higher qualification, those with other or no qualifications reported a higher percentage with complete tooth loss (7.32 times), less than 21 teeth (4.03 times) and dentures (2.65 times), but a lower percentage with dental implants (0.68 times). Not having a degree or higher qualification was also associated with higher number of teeth missing for any reason (1.64 times), missing due to pathology (2.30 times), and missing teeth and replaced by prostheses (4.03 times).

Those eligible for public dental care reported higher percentages with complete tooth loss (8.68 times), less than 21 teeth (5.10 times) and dentures (4.04 times) than ineligible persons. Eligible persons also had higher numbers of teeth missing for any reason (1.84 times), missing due to pathology (2.54 times), and missing teeth replaced by prostheses (4.43 times).

Uninsured persons reported higher percentages with complete tooth loss (3.82 times), less than 21 teeth (2.15 times) and dentures (1.72 times), but lower percentages with dental implants (0.71 times) than dentally insured persons. Uninsured persons also had higher numbers of teeth missing for any reason (1.16 times), missing due to pathology (1.30 times), and missing teeth and replaced by prostheses (1.67 times).

Those usually visiting for a dental problem rather than a check-up reported higher percentages with complete tooth loss (6.80 times), less than 21 teeth (2.99 times) and dentures (2.27 times), as well as higher numbers of teeth missing due to any reason (1.42 times), missing due to pathology (1.72 times), and missing and replaced by prostheses (2.08 times).

Table 4.8: Summary of tooth loss and tooth replacement

	% of people with:				Mean number of teeth:		
	Complete tooth loss	<21 teeth	Dentures	Dental implants	Missing for any reason	Missing due to pathology	Missing and replaced
Age group	Prevalence/Mean ratio						
Ref[a] = 15–34 years							
35–54[b]	[b]	6.92	5.37	2.12	1.48	6.07	3.02
55–74	7.48	31.53	22.77	4.08	2.75	14.75	19.41
≥75	18.96	64.86	44.03	3.20	4.12	22.14	41.54
Sex							
Ref = Male							
Female	1.39	~	~	~	1.11	~	~
Indigenous identity							
Ref = Non-Indigenous							
Indigenous	1.79	~	~	~	~	~	~
Residential location							
Ref = Capital Cities							
Other places	1.61	1.54	1.35	0.75	1.19	1.30	1.43
Year level of schooling							
Ref = Year 11 or morel							
Year 10 or less	5.26	3.65	3.12	~	1.76	2.34	3.47
Highest qualification attained							
Ref= Degree or higher							
Other/None	7.32	4.03	2.65	0.68	1.64	2.30	4.03
Eligibility for public dental care							
Ref = Ineligible							
Eligible	8.68	5.10	4.04	~	1.84	2.54	4.43
Dental Insurance							
Ref = Insured							
Uninsured	3.82	2.15	1.72	0.71	1.16	1.30	1.67
Usually visit dentist							
Ref = For a check-up							
For a dental problem	6.80	2.99	2.27	~	1.42	1.72	2.08

Note: (a) Ref: reference group; ~: difference is not statistically significant; . . Not applicable.

(b) The reference category for 'Complete tooth loss' was set to the 35–54 year age group because of the prevalence of edentulism in the younger age group being zero.

(c) The 95% confidence intervals for these estimates are in Appendix Table B.1.

4.2 Experience of dental decay

Dental decay is a process in which the hard mineral structure of teeth is dissolved by acids produced by bacteria in the presence of free sugars. The process produces demineralisation of enamel that may lead to a cavity on the crown of the tooth or a softening of the root surface. In its early non-cavitated stages the damage can be reversed. Once a cavity has formed a filling is needed to restore the form and function of the tooth. If decay is left untreated pain and infection may occur. Coronal decay may be asymptomatic in its early stages and without regular dental care people are often unaware of the condition, whereas those who usually seek dental care for a check-up are more likely to have dental decay treated in a timely manner.

Dental decay can occur on any tooth surface and is a health issue for all age groups. High sugar intake leads to both an increase in the number of decay-causing bacteria and destructive acid formation. The decay-causing bacteria accumulate in dental plaque and when they are exposed to sugar in the mouth, they produce the acids that dissolve the tooth's minerals. Protective factors such as saliva and the use of fluorides can limit the decay process.

Prevalence of untreated coronal decay

The prevalence of untreated coronal dental decay is reported in Table 4.9 as the percentage of dentate people who have one or more decayed surfaces on the crowns of their teeth. Untreated coronal dental decay reflects both the prevalence of dental decay in the population and access to dental care for treatment.

The prevalence of untreated coronal decay in the Australian dentate adult population was 32.1%, that is, almost one in every three adults had at least one coronal tooth surface with untreated dental decay (Table 4.9). This prevalence was highest among adults in the 35–54 year age group and lowest in the 75+ year age group.

Among people of all ages, people who usually visited dentist for a dental problem had the highest prevalence of untreated dental decay (43.5%) and lowest among those who usually attended for a check-up (24.3%). The prevalence of untreated coronal decay was also associated with dental insurance status.

Males were more likely to have untreated dental decay in the first three age groups. Particularly, males in the 55–74 year age group had a significantly higher prevalence of untreated decay than females of the same age group (38.5% vs 26.0%). Indigenous people of the 55–74 year age group had higher prevalence of untreated decay than the non-Indigenous people of the same age group (72.8% vs 31.6%).

People with 10 or fewer years of schooling were more likely to have untreated dental decay than those that had at least 11 years of schooling. In the 35–54 year age group, there was a higher prevalence of untreated decay in people with 10 years or less than those with 11 years or more of schooling (51.4% vs 31.7%).

Eligibility for public dental care was associated with the prevalence of untreated decay. Those who were eligible in the 35–54 year age group had significantly higher prevalence of untreated decay than those not eligible (54.2% vs 31.4%). People who were uninsured for dental care had a higher prevalence of untreated decay in all age groups except for the oldest group. The absolute difference in the prevalence of untreated decay was largest in the 35–54 year age group (45.7% vs 25.1%).

The prevalence of untreated coronal decay among people who usually visit for a problem was higher than that of people who usually visit for a check-up. The largest difference in the prevalence of coronal decay between people who visit for a problem and people who visit for a check-up was in the 35–54 year age group (49.2% vs 25.4%). The differences were also significant in the 15–34 year and 55–74 year age groups.

In summary, the prevalence of untreated coronal dental was high in the Australian dentate adult population. This prevalence was associated with sex, Indigenous identity, level of schooling, eligibility for public dental care, dental insurance status and usual reason for dental visit.

Table 4.9: Percentage of people with untreated coronal decay in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**32.1**	**30.3**	**35.4**	**32.2**	**24.5**
	95%CI	*29.6–34.7*	*25.7–35.2*	*31.1–40.0*	*28.2–36.6*	*18.8–31.3*
Sex						
Male	%	34.7	32.1	37.1	38.5	22.3
	95%CI	*31.2–38.4*	*25.1–40.0*	*30.9–43.7*	*33.2–44.2*	*14.8–32.2*
Female	%	29.5	28.4	33.8	26.0	26.2
	95%CI	*26.3–32.9*	*23.2–34.2*	*28.3–39.8*	*20.3–32.6*	*18.3–36.0*
Indigenous identity						
Indigenous	%	*27.8	*17.6	*36.1	72.8	n.p.
	95%CI	*15.0–45.5*	*6.8–38.3*	*15.5–63.4*	*45.1–89.7*	*n.p.*
Non-Indigenous	%	32.1	30.6	35.4	31.6	24.5
	95%CI	*29.5–34.7*	*26.0–35.6*	*31.1–40.0*	*27.6–35.9*	*18.8–31.3*
Residential location						
Capital city	%	31.8	28.0	35.3	34.9	25.7
	95%CI	*28.7–35.1*	*23.4–33.2*	*29.9–41.2*	*29.4–40.7*	*18.2–34.9*
Other places	%	32.6	35.9	35.6	28.0	22.5
	95%CI	*28.4–37.1*	*26.0–47.1*	*29.3–42.6*	*22.4–34.4*	*14.9–32.5*
Year level of schooling						
Year 10 or less	%	36.9	32.8	51.4	35.0	25.3
	95%CI	*32.0–42.1*	*22.4–45.3*	*41.1–61.6*	*28.0–42.7*	*17.7–34.7*
Year 11 or more	%	30.2	29.6	31.7	29.7	22.5
	95%CI	*27.3–33.2*	*25.0–34.7*	*27.1–36.8*	*25.1–34.9*	*14.3–33.7*
Highest qualification attained						
Degree or higher	%	30.4	33.1	29.3	27.6	*14.5
	95%CI	*26.3–34.8*	*26.4–40.4*	*23.6–35.7*	*21.4–34.7*	*7.7–25.5*
Other/None	%	32.6	28.6	39.0	32.6	24.9
	95%CI	*29.5–35.8*	*22.9–35.0*	*33.2–45.1*	*27.9–37.6*	*18.7–32.3*
Eligibility for public dental care						
Eligible	%	34.5	29.3	54.2	32.9	24.1
	95%CI	*30.1–39.1*	*18.8–42.6*	*45.5–62.7*	*26.6–39.8*	*18.1–31.5*
Ineligible	%	31.1	30.8	31.4	31.4	*26.7
	95%CI	*28.1–34.2*	*26.0–36.0*	*26.9–36.3*	*26.3–37.0*	*13.8–45.4*
Dental insurance						
Insured	%	24.4	22.3	25.1	25.9	24.9
	95%CI	*21.3–27.7*	*17.3–28.4*	*19.8–31.3*	*21.3–31.1*	*17.0–34.8*
Uninsured	%	38.6	35.9	45.7	37.8	24.3
	95%CI	*35.2–42.1*	*29.8–42.5*	*39.9–51.6*	*31.5–44.5*	*16.3–34.6*
Usually visit dentist						
For a check-up	%	24.3	24.2	25.4	24.4	19.5
	95%CI	*21.4–27.5*	*19.3–29.9*	*20.3–31.3*	*19.6–30.0*	*13.1–28.0*
For a dental problem	%	43.5	43.7	49.2	39.4	30.9
	95%CI	*39.3–47.9*	*35.6–52.2*	*42.5–56.0*	*32.5–46.7*	*20.1–44.3*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. n.p. not publishable due to small cell counts.

Severity of untreated dental decay

The mean number of decayed tooth surfaces per person reflects the burden of untreated disease in people with at least one natural tooth (dentate people). In this study, all teeth were subdivided into five coronal surfaces, and each was assessed for untreated decay, defined as a cavity that had broken the enamel or visibly undermined it. Surfaces of teeth recorded as decayed retained roots were also included as decayed coronal surfaces. Higher mean numbers of decayed teeth reflect both rates of new disease and a lack of dental treatment. Timely and effective dental care reduces levels of untreated decay.

Among all dentate people the mean number of decayed tooth surfaces was 1.4 (Table 4.10).

Among all ages the lowest mean number of decayed surfaces occurred in people who usually made a dental visit for a check-up (0.7 surfaces) and the highest in the Australian Indigenous adult population (2.7). Overall, there were differences according to year level of schooling, highest qualification attained, eligibility for public dental care, dental insurance and usual reason for making a dental visit.

While there was no significant difference overall between males (1.7) and females (1.2) in the mean number of decayed tooth surfaces, males had a higher number of decayed tooth surfaces than females among those aged 55–74 years (2.8 and 0.8, respectively). This probably relates to the difference in use of dental services between males and females.

The mean number of decayed tooth surfaces was related to year level of schooling. People with Year 10 or less schooling had more decayed surfaces than those with Year 11 or more (2.1 and 1.2, respectively). This pattern was observed in every age group but differences were not statistically significant.

An association was also seen between number of decayed tooth surfaces and level of qualification, with people with a degree or higher qualification reporting a lower number of decayed tooth surfaces (0.9) than those with other or no qualifications (1.7). This pattern of a lower number of decayed surfaces reported by those with degree or higher qualification compared to those with other or no qualifications was observed for those aged 35–54 years (0.9 and 1.7, respectively).

People eligible for public dental care had, on average, a greater number of decayed surfaces as people ineligible for public care (2.1 and 1.2, respectively). This relative difference was also seen in the 35-54 year age group where eligible people had more decayed tooth surfaces than ineligible people (2.9 and 1.1, respectively).

People without dental insurance had a higher number of decayed tooth surfaces (1.9) than those with insurance (0.8). This variation was also evident in the 15–34 year age group (1.6 and 0.7, respectively) and 35-54 year age group (2.0 and 0.8, respectively). Rationing in public dental services and lack of dental insurance are factors which reduce access to dental care and thus result in higher rates of untreated disease.

People who usually made a dental visit because of a problem had more decayed tooth surfaces (2.3) than those who visited for a check-up (0.7). The absolute difference was largest in the 55–74 year age group between people who usually visit for a dental problem (2.4 surfaces) and people who usually make a visit for a check-up (0.6 surfaces). In the youngest age group, 15–34 years, those who usually visit for a dental problem had a higher mean number of decayed surfaces (2.4) as people who usually visit for a check-up (0.7). Similarly, the absolute difference was observed in the 35-54 year age group. Less regular dental treatment for people who usually seek dental care because of a dental problem may result in a higher mean number of decayed tooth surfaces as early diagnosis and treatment of asymptomatic decay is less likely.

The mean number of decayed tooth surfaces varied also by Indigenous identity with Indigenous Australians having higher mean numbers of decayed surfaces in all age groups. However, these differences were not statistically significant. The greatest apparent difference was seen in the 35-54 years age group where Indigenous Australians had a mean of 3.2 decayed surfaces compared to 1.4 for non-Indigenous Australians. Smaller differences were seen in the 15-34 year age group (1.2 surfaces) and the 55-74 year age group (1.0 surface).

In summary, usual reason for making a dental visit was strongly associated with the severity of untreated decay. The mean number of decayed surfaces was also associated with level of schooling and qualifications attained, eligibility for public dental care and dental insurance status. The data also suggests that Indigenous Australians had higher numbers of decayed surfaces.

Table 4.10: Mean number of decayed tooth surfaces per person in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**1.4**	**1.3**	**1.4**	**1.8**	**1.1**
	95%CI	*1.2–1.6*	*0.9–1.7*	*1.1–1.7*	*1.3–2.3*	*0.6–1.5*
Sex						
Male	mean	1.7	1.3	1.6	2.8	*1.1
	95%CI	*1.4–2.0*	*0.8–1.7*	*1.1–2.1*	*1.9–3.6*	*0.3–1.9*
Female	mean	1.2	1.4	1.3	0.8	1.1
	95%CI	*0.9–1.4*	*0.8–1.9*	*0.9–1.7*	*0.5–1.0*	*0.6–1.6*
Indigenous identity						
Indigenous	mean	*2.7	*2.5	*3.2	*2.8	n.p.
	95%CI	*0.5–4.9*	*0.0–5.7*	*0.2–6.3*	*0.0–6.5*	*n.p.*
Non-Indigenous	mean	1.4	1.3	1.4	1.8	1.1
	95%CI	*1.2–1.6*	*0.9–1.6*	*1.1–1.7*	*1.3–2.2*	*0.6–1.6*
Residential location						
Capital city	mean	1.4	1.2	1.5	1.7	*1.2
	95%CI	*1.1–1.6*	*0.8–1.6*	*1.1–1.9*	*1.1–2.2*	*0.5–1.9*
Other places	mean	1.6	1.6	1.3	1.9	*0.9
	95%CI	*1.2–1.9*	*0.9–2.3*	*0.9–1.7*	*1.1–2.8*	*0.4–1.4*
Year level of schooling						
Year 10 or less	mean	2.1	*2.6	2.2	2.2	*1.3
	95%CI	*1.6–2.6*	*1.0–4.2*	*1.5–2.9*	*1.4–3.0*	*0.6–2.0*
Year 11 or more	mean	1.2	1.1	1.3	1.3	0.7
	95%CI	*1.0–1.4*	*0.8–1.4*	*0.9–1.6*	*0.9–1.6*	*0.4–1.0*
Highest qualification attained						
Degree or higher	mean	0.9	0.9	0.9	1.1	*0.9
	95%CI	*0.7–1.2*	*0.6–1.3*	*0.5–1.2*	*0.6–1.7*	*0.2–1.7*
Other/None	mean	1.7	1.5	1.7	2.0	1.1
	95%CI	*1.4–1.9*	*0.9–2.1*	*1.3–2.2*	*1.4–2.5*	*0.5–1.6*
Eligibility for public dental care						
Eligible	mean	2.1	*1.8	2.9	2.3	1.1
	95%CI	*1.6–2.5*	*0.6–3.0*	*2.1–3.8*	*1.4–3.1*	*0.6–1.7*
Ineligible	mean	1.2	1.2	1.1	1.3	*0.8
	95%CI	*1.0–1.4*	*0.8–1.5*	*0.8–1.4*	*0.9–1.8*	*0.3–1.3*
Dental insurance						
Insured	mean	0.8	0.7	0.8	1.1	0.6
	95%CI	*0.6–1.0*	*0.4–0.9*	*0.5–1.1*	*0.7–1.6*	*0.4–0.9*
Uninsured	mean	1.9	1.6	2.0	2.3	*1.4
	95%CI	*1.6–2.2*	*1.1–2.1*	*1.6–2.5*	*1.6–3.1*	*0.6–2.3*
Usually visit dentist						
For a check-up	mean	0.7	0.7	0.8	0.6	0.5
	95%CI	*0.6–0.9*	*0.5–0.9*	*0.5–1.2*	*0.5–0.8*	*0.3–0.7*
For a dental problem	mean	2.3	2.4	2.1	2.4	*1.8
	95%CI	*1.9–2.6*	*1.5–3.3*	*1.7–2.6*	*1.7–3.2*	*0.7–2.9*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. n.p. not publishable due to small cell counts.

Prevalence of untreated root decay

The prevalence of untreated root decay is reported as the percentage of people who had at least one natural tooth and who had one or more surfaces of the roots of their teeth decayed. Decay of the root surface of the tooth requires that the root surface be exposed to factors which cause dental decay and thus root caries is associated with recession of the gums or gum disease. Such recession is usually associated with increased age and therefore decay of root surfaces of teeth is more common in older people. Timely access to dental care enables early intervention in the treatment of root decay, conversely poor access may result in untreated disease so that people with less access to dental care will have higher percentages of people with untreated disease.

The prevalence of untreated root decay in the Australian adult population was 8.2% (Table 4.11) which was far lower than the prevalence of untreated decay of the tooth crown (Table 4.9). The prevalence varied between age groups with the 75 and over age group having the highest prevalence of root decay (17.8%) compared to those with the lowest who were aged 15-34 years (2.0%).

Among people of all ages, adults eligible for public dental care had the highest proportion of people with untreated root decay (14.2%) and those had a degree or higher qualification the lowest (4.8%). The differences between population groups were seen for years of schooling, highest qualification attained, eligibility for public dental care and usual reason for making a dental visit.

The prevalence of untreated root decay varied by educational attainment. People who had completed year 10 or less (13.6%) had more than twice the prevalence of root decay than those who attained year 11 or more (6.4%). However, there was no significant variation in the prevalence of people with untreated root decay by years of schooling in any age group.

The prevalence of untreated root decay also varied by highest qualification attained. People who had a degree or higher (4.8%) had half the prevalence of root decay than those who had other or no qualification (9.8%). However, there was no significant variation in the prevalence of people with untreated root decay by highest qualification attained in any age group.

The prevalence of untreated root decay was higher in people who were eligible for public dental care (14.2%) than in those who were not (5.8%). However, there was no significant variation in the prevalence of people with untreated root decay by eligibility for public dental care in any age group.

While there was no significant difference overall between people with dental insurance (6.6%) and those without (9.9%) in the proportion with untreated root decay, dentally insured people had a lower prevalence of untreated root decay than those without dental insurance among those aged 55–74 years (10.7% compared to 20.9%).

Among people of all ages, a higher prevalence of untreated root decay was seen in people who usually visit for a problem (12.9%) than in those who usually visit for a check-up (5.0%). The greatest absolute difference in this population grouping was seen in the 35-54 years age group between people who usually visit a dentist for a problem (14.5%) and people who usually visit for a check-up (4.0%). Root decay itself may be asymptomatic in its early stages as is gingival recession with which it is associated, and without regular dental care people are often unaware of the condition, whereas those who usually seek dental care for a check-up are more likely to have dental decay treated in a timely manner.

In summary, years of schooling, highest qualification attained, eligibility for public dental care, dental insurance status and usual reason for making a dental visit were associated with prevalence of untreated root decay.

Table 4.11: Percentage of people with untreated root decay in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**8.2**	***2.0**	**8.3**	**16.0**	**17.8**
	95%CI	*6.9–9.7*	*1.0–3.8*	*6.3–10.8*	*12.7–19.9*	*12.6–24.5*
Sex						
Male	%	9.3	*1.8	10.6	17.6	18.5
	95%CI	*7.6–11.2*	*0.7–5.1*	*7.6–14.5*	*13.8–22.2*	*11.4–28.7*
Female	%	7.2	*2.1	6.1	14.3	17.2
	95%CI	*5.6–9.3*	*1.0–4.6*	*4.0–9.2*	*9.4–21.3*	*10.7–26.5*
Indigenous identity						
Indigenous	%	*8.9	*0.3	*28.3	*18.1	n.p.
	95%CI	*3.8–19.8*	*0.0–2.3*	*10.9–56.1*	*3.6–56.8*	*n.p.*
Non-Indigenous	%	8.2	*2.0	8.1	16.0	17.8
	95%CI	*6.9–9.7*	*1.1–3.9*	*6.1–10.6*	*12.7–20.0*	*12.6–24.5*
Residential location						
Capital city	%	7.7	*1.4	7.8	16.5	18.0
	95%CI	*6.2–9.6*	*0.6–3.3*	*5.7–10.7*	*12.0–22.3*	*11.8–26.4*
Other places	%	9.3	*3.4	*9.3	15.0	*17.3
	95%CI	*7.3–11.9*	*1.3–8.7*	*5.5–15.2*	*11.2–19.8*	*9.3–30.0*
Year level of schooling						
Year 10 or less	%	13.6	*2.5	13.3	19.1	16.5
	95%CI	*10.6–17.4*	*0.6–9.4*	*8.5–20.0*	*13.5–26.3*	*10.1–25.6*
Year 11 or more	%	6.4	*1.9	7.2	13.2	19.1
	95%CI	*5.2–7.8*	*0.9–3.9*	*5.1–10.0*	*9.6–17.9*	*11.9–29.3*
Highest qualification attained						
Degree or higher	%	4.8	*0.9	5.6	11.2	*25.3
	95%CI	*3.6–6.3*	*0.3–3.1*	*3.5–8.9*	*7.9–15.7*	*14.2–41.0*
Other/None	%	9.8	*2.5	9.8	17.6	17.3
	95%CI	*8.1–11.9*	*1.2–5.1*	*7.1–13.4*	*13.6–22.4*	*11.6–25.0*
Eligibility for public dental care						
Eligible	%	14.2	*4.7	14.5	19.9	16.3
	95%CI	*11.4–17.4*	*2.0–10.6*	*9.4–21.8*	*14.7–26.3*	*11.1–23.5*
Ineligible	%	5.8	*1.3	7.0	12.7	*25.8
	95%CI	*4.6–7.3*	*0.5–3.3*	*5.1–9.6*	*8.8–17.9*	*12.7–45.4*
Dental insurance						
Insured	%	6.6	*1.8	5.4	10.7	23.5
	95%CI	*5.2–8.2*	*0.5–6.4*	*3.5–8.2*	*8.1–14.0*	*15.3–34.4*
Uninsured	%	9.9	*2.3	11.1	20.9	12.7
	95%CI	*7.9–12.2*	*1.1–4.9*	*8.0–15.3*	*15.5–27.6*	*7.5–20.7*
Usually visit dentist						
For a check-up	%	5.0	*1.3	4.0	10.8	16.0
	95%CI	*3.9–6.5*	*0.4–3.9*	*2.6–6.1*	*7.3–15.9*	*10.4–23.8*
For a dental problem	%	12.9	*3.8	14.5	20.2	16.0
	95%CI	*10.5–15.7*	*1.6–8.5*	*10.4–19.8*	*14.9–26.7*	*8.9–27.2*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Percentage of people with filled teeth

Fillings for the treatment of tooth decay leave a permanent mark on the tooth and are one measure of people's experience of dental decay. Filled teeth can also indicate patterns of dental treatment and access to dental care. Table 4.12 presents the percentage of people with one or more filled teeth in the Australian population. Approximately three quarters (77.4%) of the Australian dentate population aged 15 years and over had one or more filled teeth. The percentage of persons with one or more filled teeth was lower for those aged 15–34 years (61.6%) than older age groups where it ranged from 85.2% for those aged 75 years and over to 88.0% for those aged 55–74 years.

There were similar percentages of males (74.4%) and females (80.4%) with one or more filled teeth in the Australian population. There were no significant differences in the percentage of persons with one or more filled teeth by sex in any age group.

Overall, there was no statistically significant difference between Indigenous (55.4%) and non-Indigenous (77.8%) persons in the percentage with one or more filled teeth. There were also no significant differences in the percentage of persons with one or more filled teeth by Indigenous status in any age group.

There were similar percentages of people with one or more fillings for residents at capital city (77.7%) and other locations (76.8%). There were no significant differences in the percentage of persons with one or more filled teeth by residential location in any age group.

A similar percentage of persons had one or more fillings for those with Year 10 or less (76.2%) and Year 11 or more years of schooling (77.8%). However, a lower percentage of persons with Year 10 or less than Year 11 or more years of schooling had one or more fillings for the 15–34 year age group (44.2% and 64.2%, respectively) and 55–74 year age group (81.5% and 93.0%, respectively).

The percentage of persons with one or more fillings was similar for those with a degree or higher qualification (79.0%) and those with other or no qualifications (77.4%). However, a higher percentage of persons with a degree or higher qualification than those with other or no qualifications had one or more fillings for the 15–34 year age group (70.6% and 56.8%, respectively) and 55–74 year age group (97.2% and 87.5%, respectively).

Those eligible for public dental care were equally likely to have one or more fillings (77.8%) as those ineligible (77.5%). However, a lower percentage of persons eligible for public dental care had one or more fillings (83.3%) than those ineligible (92.3%) for those aged 55–74 years.

A higher percentage of persons with dental insurance had one or more fillings (82.0%) than uninsured persons (74.6%). This pattern of a higher percentage of dentally insured persons with one or more fillings than uninsured persons was observed for those aged 75 years and over (93.2% and 79.5%, respectively).

Similar percentages of persons who usually visit for a check-up had one or more fillings (77.0%) as those usually visiting for a dental problem (80.6%). However, a higher percentage of those who usually visit for a check-up had one or more fillings than those usually visiting for a dental problem among those aged 55–74 years (93.3% and 81.7%, respectively) and those aged 75 years and over (90.9% and 76.2%, respectively). This pattern was reversed for the 15–34 year age group, with those who usually visit for a check-up less likely to have at least one filling, compared to those who usually visit for a problem (59.6% and 7.3%, respectively).

In summary, having one or more filled teeth was associated with age, year level of schooling, highest qualification attained, eligibility for public dental care, dental insurance status, usual reason for visiting a dentist.

Table 4.12: Percentage of people with one or more filled teeth in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**77.4**	**61.6**	**85.3**	**88.0**	**85.2**
	95%CI	*74.9–79.7*	*56.7–66.3*	*81.8–88.3*	*84.4–90.8*	*80.3–89.1*
Sex						
Male	%	74.4	55.8	84.3	86.9	82.6
	95%CI	*70.5–77.9*	*48.5–63.0*	*79.5–88.2*	*81.3–91.1*	*75.0–88.2*
Female	%	80.4	67.5	86.3	89.0	87.3
	95%CI	*77.3–83.1*	*61.2–73.2*	*80.9–90.4*	*84.2–92.5*	*79.8–92.2*
Indigenous identity						
Indigenous	%	55.4	*35.3	92.6	90.9	n.p.
	95%CI	*32.8–76.0*	*15.4–61.9*	*73.4–98.3*	*70.6–97.6*	*n.p.*
Non-Indigenous	%	77.8	62.4	85.2	87.9	85.3
	95%CI	*75.2–80.1*	*57.3–67.2*	*81.6–88.2*	*84.3–90.8*	*80.3–89.2*
Residential location						
Capital city	%	77.7	63.0	85.3	89.0	86.6
	95%CI	*74.5–80.6*	*56.9–68.7*	*80.9–88.9*	*83.9–92.6*	*80.5–90.9*
Other places	%	76.8	58.2	85.2	86.4	82.9
	95%CI	*72.6–80.6*	*49.9–66.0*	*78.9–89.8*	*81.0–90.4*	*73.5–89.4*
Year level of schooling						
Year 10 or less	%	76.2	44.2	90.0	81.5	81.3
	95%CI	*71.8–80.1*	*33.0–56.1*	*79.9–95.3*	*74.8–86.7*	*73.3–87.3*
Year 11 or more	%	77.8	64.2	84.4	93.0	92.0
	95%CI	*74.9–80.4*	*59.0–69.1*	*80.5–87.6*	*89.3–95.5*	*87.0–95.1*
Highest qualification attained						
Degree or higher	%	79.0	70.6	81.0	97.2	95.0
	95%CI	*75.2–82.4*	*63.6–76.7*	*75.9–85.2*	*94.6–98.5*	*86.6–98.3*
Other/None	%	77.4	56.8	88.4	87.5	84.9
	95%CI	*74.5–80.1*	*50.7–62.7*	*83.4–92.0*	*84.1–90.2*	*79.6–89.0*
Eligibility for public dental care						
Eligible	%	77.8	58.4	85.7	83.3	83.6
	95%CI	*73.2–81.8*	*46.4–69.4*	*77.9–91.1*	*76.7–88.3*	*78.0–88.1*
Ineligible	%	77.5	63.1	85.2	92.3	95.2
	95%CI	*74.5–80.3*	*57.4–68.4*	*81.1–88.5*	*89.2–94.5*	*85.6–98.5*
Dental insurance						
Insured	%	82.0	64.4	88.3	92.2	93.2
	95%CI	*78.7–84.8*	*57.2–71.1*	*82.7–92.2*	*87.4–95.2*	*88.0–96.2*
Uninsured	%	74.6	60.0	83.9	84.3	79.5
	95%CI	*71.2–77.7*	*53.3–66.3*	*78.9–87.8*	*78.6–88.6*	*71.2–85.8*
Usually visit dentist						
For a check-up	%	77.0	59.6	85.1	93.3	90.9
	95%CI	*73.8–80.0*	*53.5–65.4*	*80.3–88.9*	*90.5–95.4*	*85.9–94.2*
For a dental problem	%	80.6	72.3	87.2	81.7	76.2
	95%CI	*77.1–83.7*	*65.5–78.3*	*80.7–91.7*	*74.9–86.9*	*65.4–84.5*

Notes: 1. Data in this table was taken from the Examination.
2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.
3. n.p. not publishable due to small cell counts.

Mean number of filled tooth surfaces

In this study, all five coronal surfaces of every tooth were assessed for the presence of a filling placed to treat decay. The assessment was made for up to 160 tooth surfaces. The mean number of filled surfaces per person reflects both the history of tooth decay and also the adequacy of dental treatment. Filled surfaces leave a permanent mark of the experience of dental decay.

Table 4.13 presents the mean number of filled tooth surfaces per person in the Australian population. Dentate Australians aged 15 years and over had a mean of 15.1 filled tooth surfaces per person. The mean number of filled tooth surfaces per person was higher across successively older age groups, ranging from 4.6 filled surfaces for those aged 15–34 years to 34.6 filled surfaces for those aged 75 years and over.

The mean number of filled tooth surfaces per person was higher for females (17.3) than males (12.8). This pattern of a higher number of filled tooth surfaces for females than males was observed for those aged 35–54 years (14.9 and 10.3, respectively) and 55–74 years (33.0 and 24.8, respectively).

Indigenous persons had a lower mean number of filled tooth surfaces (6.5) than non-Indigenous (15.2). This pattern of a lower mean number of filled tooth surfaces for Indigenous than non-Indigenous persons was observed for those aged 15–34 years (1.9 and 4.7, respectively).

Capital city residents had the same number of filled tooth surfaces as residents of other places. There were no significant differences in the mean number of filled tooth surfaces by residential location in any age group.

Those with Year 10 or less schooling had higher mean numbers of filled tooth surfaces (18.9) than those with Year 11 or more years of schooling (13.8). However, among persons aged 55–74 years those with Year 10 or less schooling had lower mean number of filled tooth surfaces (24.2) than those with Year 11 or more years of schooling (32.9).

The mean number of filled tooth surfaces per persons was lower for those with a degree or higher qualification (13.1) than those with no or other qualifications (16.0). However, in the 55–74 year age group the mean number of filled tooth surfaces per persons was higher for those with a degree or higher qualification (36.6) than those with no or other qualifications (27.7).

Persons who were eligible for public dental care had a higher mean number of filled tooth surfaces per person (19.9) than those ineligible (13.0). However, the mean number of filled tooth surfaces was lower for those eligible for public dental care than those ineligible in the 55–74 year age group (26.3 and 31.3, respectively).

Those with dental insurance had a higher mean number of filled tooth surfaces per person (18.2) than uninsured persons (12.9). This pattern of a higher mean number of filled tooth surfaces per person for dentally insured than uninsured persons was observed for those aged 55–74 years (35.4 and 23.4, respectively) and 75 years and over (43.2 and 28.2, respectively).

The mean number of filled tooth surfaces per person was the same for those who usually visit for a check-up and those who usually visit for a dental problem. However, a higher mean number of filled tooth surfaces was observed for those aged 55–74 years (34.2 and 23.6, respectively) and 75 years and over (41.1 and 25.4, respectively).

In summary, the number of filled tooth surfaces was strongly associated with age. It was also associated with sex, Indigenous identity, level of schooling, highest qualification attained, eligibility for public dental care, dental insurance status and usual reason for a dental visit.

Table 4.13: Mean number of filled tooth surfaces per person in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**15.1**	**4.6**	**12.6**	**28.9**	**34.6**
	95%CI	*14.3–15.9*	*4.0–5.2*	*11.6–13.6*	*27.1–30.7*	*31.2–38.0*
Sex						
Male	mean	12.8	4.4	10.3	24.8	29.7
	95%CI	*11.7–13.8*	*3.6–5.3*	*8.9–11.6*	*22.5–27.1*	*25.1–34.4*
Female	mean	17.3	4.8	14.9	33.0	38.4
	95%CI	*16.2–18.5*	*4.0–5.6*	*13.6–16.3*	*30.4–35.6*	*33.3–43.5*
Indigenous identity						
Indigenous	mean	*6.5	*1.9	*9.4	26.4	n.p.
	95%CI	*2.9–10.2*	*0.5–3.3*	*4.4–14.5*	*14.5–38.4*	*n.p.*
Non-Indigenous	mean	15.2	4.7	12.7	28.9	34.6
	95%CI	*14.4–16.1*	*4.1–5.3*	*11.7–13.6*	*27.1–30.7*	*31.2–38.0*
Residential location						
Capital city	mean	15.1	4.9	12.8	30.1	37.0
	95%CI	*14.1–16.1*	*4.1–5.6*	*11.6–14.0*	*27.6–32.6*	*32.3–41.8*
Other places	mean	15.1	3.9	12.2	26.9	30.4
	95%CI	*13.7–16.5*	*3.0–4.9*	*10.6–13.9*	*24.5–29.3*	*26.2–34.6*
Year level of schooling						
Year 10 or less	mean	18.9	3.1	13.7	24.2	32.1
	95%CI	*17.1–20.7*	*1.8–4.4*	*11.2–16.2*	*21.6–26.8*	*27.1–37.1*
Year 11 or more	mean	13.8	4.8	12.4	32.9	38.7
	95%CI	*12.9–14.7*	*4.2–5.4*	*11.3–13.4*	*30.7–35.1*	*34.5–42.9*
Highest qualification attained						
Degree or higher	mean	13.1	5.8	11.0	36.6	42.2
	95%CI	*11.9–14.2*	*4.9–6.8*	*9.8–12.2*	*33.9–39.3*	*37.1–47.3*
Other/None	mean	16.0	4.0	13.6	27.7	34.5
	95%CI	*15.0–17.0*	*3.3–4.7*	*12.2–14.9*	*25.8–29.7*	*30.7–38.3*
Eligibility for public dental care						
Eligible	mean	19.9	4.0	13.8	26.3	33.6
	95%CI	*18.2–21.6*	*2.8–5.2*	*11.3–16.3*	*23.5–29.0*	*29.8–37.4*
Ineligible	mean	13.0	4.8	12.3	31.3	41.0
	95%CI	*12.1–13.9*	*4.1–5.5*	*11.3–13.4*	*29.2–33.4*	*36.3–45.7*
Dental insurance						
Insured	mean	18.2	5.5	13.3	35.4	43.2
	95%CI	*16.9–19.4*	*4.5–6.4*	*11.9–14.7*	*32.7–38.0*	*39.0–47.3*
Uninsured	mean	12.9	4.1	12.2	23.4	28.2
	95%CI	*11.9–14.0*	*3.5–4.8*	*10.8–13.7*	*21.0–25.8*	*23.1–33.3*
Usually visit dentist						
For a check-up	mean	15.4	4.3	11.7	34.2	41.1
	95%CI	*14.3–16.4*	*3.6–4.9*	*10.5–13.0*	*31.9–36.4*	*37.1–45.1*
For a dental problem	mean	15.4	5.9	14.3	23.6	25.4
	95%CI	*14.2–16.6*	*4.8–7.1*	*12.5–16.0*	*21.0–26.2*	*19.4–31.4*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. n.p. not publishable due to small cell counts.

Severity of dental decay experience—DMFS

The number of decayed, missing and filled surfaces (DMFS) reflects a person's lifetime experience of dental caries. This is because cavities in enamel cannot 'heal', and treatment of dental decay leaves a permanent mark, either as a filling or the loss of tooth surfaces by extraction. Table 4.14 presents the mean number of decayed, missing or filled tooth surfaces per person in the Australian population. Among dentate Australians aged 15 years and over there was a mean number of 29.7 decayed, missing or filled tooth surfaces per person. The mean number of decayed, missing or filled tooth surfaces per person was higher across successively older age groups, ranging from 7.7 among those aged 15–34 years and up to 75.3 among those aged 75 years and over.

Females had a higher mean number of decayed, missing or filled tooth surfaces per person (32.3) than males (27.1). This pattern of a higher mean number of decayed, missing or filled tooth surfaces per person for females than males was observed among those aged 35–54 years (27.6 and 22.2, respectively) and 55–74 years (60.7 and 53.5, respectively).

Indigenous persons had a lower mean number of decayed, missing or filled tooth surfaces per person (18.7) than non-Indigenous (29.9). However, there were no significant differences in the mean number of decayed, missing or filled tooth surfaces per person by Indigenous identity in any age group.

The mean number of decayed, missing or filled tooth surfaces per person was similar for those at capital city (28.5) and other residential locations (32.3). There were no significant differences in the mean number of decayed, missing or filled tooth surfaces per person by residential location in any age group.

Those with Year 10 or less schooling had a higher mean number of decayed, missing or filled tooth surfaces per person (43.9) than those with Year 11 or more years of schooling (24.8). This pattern of a higher mean number of decayed, missing or filled tooth surfaces per person for those with Year 10 or less than those with Year 11 or more years of schooling was observed for those aged 35–54 years (29.9 and 23.9, respectively).

The mean number of decayed, missing or filled tooth surfaces per person was lower for those with a degree or higher qualification (20.9) than those with other or no qualifications (33.4). This pattern of a lower mean number of decayed, missing or filled tooth surfaces per person for those with a degree or higher qualification than those with other or no qualifications was observed for those aged 35–54 years (19.0 and 28.3, respectively).

Those eligible for public dental care had a higher mean number of decayed, missing or filled tooth surfaces per person (44.8) than those ineligible (23.2). This pattern of a higher mean number of decayed, missing or filled tooth surfaces per person for those eligible for public dental care than those ineligible was observed for those aged 35–54 years (32.5 and 23.3, respectively).

There was a similar mean number of decayed, missing or filled tooth surfaces per person for those who were dentally insured (30.6) and those uninsured (29.9). No significant differences were observed in the mean number of decayed, missing or filled tooth surfaces per person by dental insurance in any age group.

The mean number of decayed, missing or filled tooth surfaces per person was lower for those who usually visit for a check-up (26.6) than those who usually visit for a dental problem (35.7). This pattern of a lower mean number of decayed, missing or filled tooth surfaces per person for those who usually visit for a check-up than those who usually visit for a dental problem was observed for those aged 15–34 years (6.5 and 10.8, respectively) and 35–54 years (21.9 and 29.8, respectively).

In summary, mean number of decayed, missing or filled tooth surfaces was associated with age, sex, year level of schooling, highest qualification attained, eligibility for public dental care, and usual reason for dental visit.

Table 4.14: Mean number of decayed, missing or filled tooth surfaces per person in the Australian population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**29.7**	**7.7**	**24.9**	**57.1**	**75.3**
	95%CI	*28.4–31.1*	*6.9–8.5*	*23.3–26.5*	*54.8–59.4*	*72.2–78.4*
Sex						
Male	mean	27.1	7.3	22.2	53.5	71.5
	95%CI	*25.2–29.1*	*6.0–8.5*	*19.8–24.5*	*50.5–56.4*	*67.1–76.0*
Female	mean	32.3	8.1	27.6	60.7	78.3
	95%CI	*30.5–34.1*	*6.9–9.4*	*25.6–29.6*	*57.3–64.2*	*74.5–82.1*
Indigenous identity						
Indigenous	mean	18.7	*6.9	27.5	63.9	n.p.
	95%CI	*10.3–27.1*	*1.1–12.7*	*22.7–32.3*	*54.9–72.8*	n.p.
Non-Indigenous	mean	29.9	7.7	24.9	57.1	75.4
	95%CI	*28.5–31.3*	*6.9–8.6*	*23.3–26.5*	*54.8–59.5*	*72.3–78.5*
Residential location						
Capital city	mean	28.5	7.8	24.4	57.0	77.8
	95%CI	*26.9–30.1*	*6.8–8.9*	*22.5–26.3*	*53.6–60.4*	*73.8–81.7*
Other places	mean	32.3	7.3	26.0	57.2	71.1
	95%CI	*29.8–34.8*	*5.9–8.8*	*23.1–28.9*	*54.7–59.7*	*66.9–75.4*
Year level of schooling						
Year 10 or less	mean	43.9	7.6	29.9	57.0	75.6
	95%CI	*41.1–46.8*	*4.6–10.6*	*26.1–33.8*	*53.4–60.7*	*71.2–80.0*
Year 11 or more	mean	24.8	7.6	23.9	57.3	74.8
	95%CI	*23.4–26.2*	*6.8–8.5*	*22.1–25.6*	*54.3–60.3*	*71.2–78.4*
Highest qualification attained						
Degree or higher	mean	20.9	8.4	19.0	55.8	76.3
	95%CI	*19.2–22.5*	*7.2–9.6*	*17.1–20.8*	*52.9–58.7*	*72.0–80.6*
Other/None	mean	33.4	7.3	28.3	58.0	75.7
	95%CI	*31.8–35.1*	*6.2–8.4*	*26.1–30.5*	*55.4–60.5*	*72.1–79.2*
Eligibility for public dental care						
Eligible	mean	44.8	8.8	32.5	58.9	75.5
	95%CI	*42.0–47.6*	*6.8–10.7*	*28.6–36.4*	*55.2–62.5*	*72.0–79.0*
Ineligible	mean	23.2	7.5	23.3	55.4	74.1
	95%CI	*21.8–24.5*	*6.6–8.4*	*21.6–25.0*	*52.5–58.3*	*69.2–79.0*
Dental insurance						
Insured	mean	30.6	7.5	23.2	59.4	76.4
	95%CI	*28.8–32.4*	*6.2–8.7*	*21.1–25.4*	*57.0–61.8*	*72.8–79.9*
Uninsured	mean	29.9	7.9	27.1	55.3	74.6
	95%CI	*27.9–31.8*	*6.8–9.1*	*24.6–29.5*	*51.6–59.0*	*69.8–79.3*
Usually visit dentist						
For a check-up	mean	26.6	6.5	21.9	56.7	75.5
	95%CI	*25.0–28.1*	*5.6–7.3*	*19.8–23.9*	*54.3–59.2*	*71.1–79.8*
For a dental problem	mean	35.7	10.8	29.8	57.7	75.3
	95%CI	*33.4–37.9*	*8.9–12.7*	*27.2–32.4*	*53.5–61.9*	*71.1–79.4*

Notes: 1. Data in this table was taken from the Examination.
2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.
3. n.p. not publishable due to small cell counts.

Severity of dental decay experience—DMFT

The number of decayed, missing and filled teeth (DMFT) reflects a person's lifetime experience of dental caries. Total number of teeth (T) that are decayed (D), missing because of pathology (M) or filled (F), is a measure that is widely referred to as the DMFT. In this study all missing teeth in people 45 years and over were counted as missing due to pathology, while for people aged less than 45 years, the count included only teeth where the examiner judged that dental decay or gum disease was the likely reason for extraction.

Table 4.15 presents the mean number of decayed, missing or filled teeth per person in the Australian population. Among dentate Australians aged 15 years and over there was a mean number of 11.2 decayed, missing or filled teeth per person. The mean number of decayed, missing or filled teeth per person was higher across successively older age groups, ranging from 4.1 among those aged 15–34 years up to 24.4 among those aged 75 years and over.

Females had a higher mean number of decayed, missing or filled teeth per person (12.0) than males (10.4). While females tended to have a higher mean number of decayed, missing or filled teeth per person than males generally, this was only significantly different for those aged 35–54 years (11.3 and 9.3, respectively) and aged 55–74 years (20.4 and 18.5, respectively).

The mean number of decayed, missing or filled teeth per person was not significantly different for Indigenous (7.5) and non-Indigenous persons (11.3) overall, and was not significantly different in any age group.

There were similar mean numbers of decayed, missing or filled teeth per person at capital city (10.8) and other residential locations (12.1). No significant differences in the mean number of decayed, missing or filled teeth per person were observed by residential location in any age group.

The mean number of decayed, missing or filled teeth per person was higher for those with Year 10 or less (15.6) than Year 11 or more years of schooling (9.7). This pattern of a higher mean number of decayed, missing or filled teeth per person for those with Year 10 or less than Year 11 or more years of schooling was observed for those aged 35–54 years (12.2 and 9.9, respectively).

Those with a degree or higher qualification had a lower mean number of decayed, missing or filled teeth per person (8.5) than those with other or no qualifications (12.3). This pattern of a lower mean number of decayed, missing or filled teeth for persons with a degree or higher than those with other or no qualifications was observed for those aged 35–54 years (8.3 and 11.5, respectively).

People who were eligible for public dental care had a higher mean number of decayed, missing or filled teeth per person (15.7) than those ineligible (9.3). This pattern of a higher mean number of decayed, missing or filled teeth for persons eligible for public dental care than those ineligible was observed for those aged 35–54 years (12.6 and 9.8, respectively).

The mean number of decayed, missing or filled teeth per person was similar for those who were dentally insured (11.4) and those who were uninsured (11.3). No significant differences in the mean number of decayed, missing or filled teeth per person were observed by dental insurance status in any age group.

Those who usually visit for a dental problem had a higher mean number of decayed, missing or filled teeth per person (13.2) than those usually visiting for a check-up (10.1). This pattern of a higher mean number of decayed, missing or filled teeth per person for those who usually visit for a dental problem than those usually visiting for a check-up was observed for those aged 15–34 years (5.4 and 3.6, respectively) and 35–54 years (12.0 and 9.3, respectively).

In summary, mean number of decayed, missing or filled teeth was associated with age, sex, year level of schooling, highest qualification attained, eligibility for public dental care, and usual reason for dental visit.

Table 4.15: Mean number of decayed, missing or filled teeth per person in the Australian population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**11.2**	**4.1**	**10.3**	**19.4**	**24.4**
	95%CI	*10.8–11.6*	*3.7–4.5*	*9.8–10.9*	*18.8–20.1*	*23.8–25.1*
Sex						
Male	mean	10.4	3.9	9.3	18.5	23.6
	95%CI	*9.8–11.0*	*3.3–4.5*	*8.5–10.1*	*17.6–19.3*	*22.5–24.6*
Female	mean	12.0	4.4	11.3	20.4	25.1
	95%CI	*11.5–12.6*	*3.8–5.0*	*10.6–12.0*	*19.5–21.3*	*24.4–25.9*
Indigenous identity						
Indigenous	mean	7.5	*3.1	12.2	21.2	n.p.
	95%CI	*4.2–10.9*	*0.7–5.4*	*9.7–14.8*	*19.1–23.2*	*n.p.*
Non-Indigenous	mean	11.3	4.2	10.3	19.4	24.5
	95%CI	*10.8–11.7*	*3.8–4.6*	*9.7–10.9*	*18.8–20.1*	*23.8–25.1*
Residential location						
Capital city	mean	10.8	4.1	10.2	19.2	24.8
	95%CI	*10.3–11.3*	*3.7–4.6*	*9.5–10.9*	*18.3–20.1*	*23.9–25.7*
Other places	mean	12.1	4.1	10.6	19.8	23.9
	95%CI	*11.3–12.9*	*3.4–4.8*	*9.6–11.5*	*19.1–20.6*	*23.0–24.8*
Year level of schooling						
Year 10 or less	mean	15.6	3.7	12.2	19.7	24.5
	95%CI	*14.7–16.5*	*2.5–4.8*	*10.9–13.6*	*18.6–20.8*	*23.6–25.4*
Year 11 or more	mean	9.7	4.2	9.9	19.3	24.4
	95%CI	*9.2–10.1*	*3.8–4.6*	*9.3–10.5*	*18.6–20.0*	*23.5–25.4*
Highest qualification attained						
Degree or higher	mean	8.5	4.6	8.3	18.6	24.2
	95%CI	*8.0–9.0*	*4.1–5.2*	*7.6–9.0*	*17.8–19.4*	*22.5–25.9*
Other/None	mean	12.3	3.9	11.5	19.8	24.6
	95%CI	*11.8–12.9*	*3.4–4.4*	*10.7–12.3*	*19.1–20.5*	*23.9–25.3*
Eligibility for public dental care						
Eligible	mean	15.7	4.5	12.6	20.0	24.5
	95%CI	*14.8–16.5*	*3.6–5.4*	*11.4–13.9*	*18.9–21.1*	*23.8–25.3*
Ineligible	mean	9.3	4.1	9.8	18.9	24.0
	95%CI	*8.8–9.7*	*3.7–4.5*	*9.2–10.4*	*18.2–19.6*	*22.3–25.6*
Dental insurance						
Insured	mean	11.4	4.1	9.8	19.9	24.4
	95%CI	*10.8–12.0*	*3.5–4.6*	*9.0–10.6*	*19.3–20.4*	*23.5–25.2*
Uninsured	mean	11.3	4.2	11.0	19.1	24.5
	95%CI	*10.7–11.9*	*3.7–4.7*	*10.2–11.8*	*18.1–20.2*	*23.5–25.5*
Usually visit dentist						
For a check-up	mean	10.1	3.6	9.3	19.3	24.4
	95%CI	*9.6–10.6*	*3.2–4.0*	*8.6–10.1*	*18.7–19.9*	*23.5–25.3*
For a dental problem	mean	13.2	5.4	12.0	19.7	24.5
	95%CI	*12.5–13.9*	*4.7–6.2*	*11.1–12.8*	*18.5–20.9*	*23.5–25.6*

Notes: 1. Data in this table was taken from the Examination.
2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.
3. n.p. not publishable due to small cell counts.

People with no experience of dental decay in permanent teeth

People whose examination showed no untreated decay, no fillings and no teeth missing due to pathology were classified as having no experience of dental decay. These people have a DMFT index of zero. They have experienced no fillings and no extractions of diseased teeth, and the dental examination found no cavities.

Table 4.16 presents the percentage of people in the Australian population with no experience of dental decay in the permanent teeth. Overall, 10.7% of dentate Australians aged 15 years and over had no experience of dental decay in their permanent teeth. The highest percentage with no experience of dental decay in the permanent teeth was observed for those aged 15–34 years (25.6%). There were no dentate Australians aged 55 years and over who were free of dental decay experience.

The percentage of people in the Australian population with no experience of dental decay in the permanent teeth was similar for males (12.4%) and females (9.1%). There was no significant difference in the percentage of people with no experience of dental decay in the permanent teeth by sex in any age group.

The percentage of Indigenous people with no experience of dental decay in the permanent teeth was higher (38.3%) than non-Indigenous people (10.3%). This pattern of a higher percentage of Indigenous than non-Indigenous persons with no experience of dental decay in the permanent teeth was observed for those aged 15–34 years (57.4% and 24.6%, respectively).

There were similar percentages of people with no experience of dental decay in the permanent teeth at capital city (11.5%) and other residential locations (9.1%). However, for those aged 35–54 years the percentage of people with no experience of dental decay in the permanent teeth was higher at capital city (5.8%) than other locations (1.9%).

Those with Year 10 or less schooling had a similar percentage with no experience of dental decay in the permanent teeth (8.4%) as those with Year 11 or more years of schooling (11.6%). No significant differences in the percentage of persons with no experience of dental decay in the permanent teeth were observed by Year level of schooling in any age group.

Overall, there were similar percentages of people with no experience of dental decay in the permanent teeth for those with a degree or higher qualification (10.6%) and those with other or no qualifications (10.5%). However, for those aged 15–34 years the percentage of persons with no experience of dental decay in the permanent teeth was lower for those with degree or higher qualification than those with other or no qualifications (17.3% and 29.8%, respectively), while for those aged 35–54 years the percentage was higher (7.5% and 2.2%, respectively).

The percentage of persons with no experience of dental decay in the permanent teeth was lower for those eligible for public dental care (6.1%) than those ineligible (12.5%). No significant differences in the percentage of persons with no experience of dental decay in the permanent teeth were observed by eligibility for public dental care in any age group.

There were similar percentages of persons with no experience of dental decay in the permanent teeth for those who were dentally insured (10.2%) and those uninsured (10.3%). No significant differences in the percentage of persons with no experience of dental decay in the permanent teeth were observed by dental insurance status in any age group.

A lower percentage of persons had no experience of dental decay in the permanent teeth for those who usually visit for a dental problem (5.1%) than those who usually visit for a check-up (13.0%). This pattern of a lower percentage of persons who usually visit for a dental problem rather than a check-up with no experience of dental decay in the permanent teeth was observed for those aged 15–34 years (15.6% and 28.0%, respectively).

Table 4.16: Percentage of people with no experience of dental decay in the permanent teeth in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	%	**10.7**	**25.6**	**4.6**	**—**	**—**
	95%CI	*9.1–12.6*	*21.5–30.1*	*3.2–6.5*	—	—
Sex						
Male	%	12.4	29.8	4.4	—	—
	95%CI	*9.9–15.5*	*23.4–37.1*	*2.8–6.8*	—	—
Female	%	9.1	21.2	*4.7	—	—
	95%CI	*7.3–11.3*	*16.6–26.7*	*2.7–8.1*	—	—
Indigenous identity						
Indigenous	%	*38.3	57.4	*7.4	—	n.p.
	95%CI	*17.8–64.1*	*29.9–81.0*	*1.7–26.6*	—	*n.p.*
Non-Indigenous	%	10.3	24.6	4.5	—	—
	95%CI	*8.7–12.1*	*20.6–29.1*	*3.1–6.5*	—	—
Residential location						
Capital city	%	11.5	25.1	5.8	—	—
	95%CI	*9.6–13.8*	*20.5–30.4*	*3.9–8.5*	—	—
Other places	%	9.1	26.7	*1.9	—	—
	95%CI	*6.5–12.5*	*19.1–36.0*	*1.0–3.7*	—	—
Year level of schooling						
Year 10 or less	%	8.4	39.8	*2.8	—	—
	95%CI	*5.7–12.3*	*28.2–52.6*	*0.7–10.3*	—	—
Year 11 or more	%	11.6	23.4	5.0	—	—
	95%CI	*9.7–13.9*	*19.2–28.2*	*3.5–7.2*	—	—
Highest qualification attained						
Degree or higher	%	10.6	17.3	7.5	—	—
	95%CI	*8.1–13.7*	*12.1–24.0*	*5.4–10.4*	—	—
Other/None	%	10.5	29.8	*2.2	—	—
	95%CI	*8.7–12.7*	*24.8–35.4*	*1.2–3.9*	—	—
Eligibility for public dental care						
Eligible	%	6.1	23.5	*1.9	—	—
	95%CI	*4.1–8.9*	*15.7–33.7*	*0.9–4.1*	—	—
Ineligible	%	12.5	25.4	5.1	—	—
	95%CI	*10.5–14.8*	*21.0–30.3*	*3.5–7.4*	—	—
Dental insurance						
Insured	%	10.2	27.6	3.9	—	—
	95%CI	*8.1–12.8*	*21.6–34.5*	*2.6–5.8*	—	—
Uninsured	%	10.3	24.0	3.8	—	—
	95%CI	*8.2–12.9*	*18.8–30.2*	*2.4–6.1*	—	—
Usually visit dentist						
For a check-up	%	13.0	28.0	5.5	—	—
	95%CI	*10.7–15.6*	*23.0–33.7*	*3.5–8.6*	—	—
For a dental problem	%	5.1	15.6	*2.0	—	—
	95%CI	*3.6–7.3*	*11.1–21.6*	*0.8–4.8*	—	—

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Summary of findings regarding experience of dental decay

Table 4.17 presents a summary of findings regarding dental decay experience in the Australian population.

Nearly a third (32.1%) of dentate Australians aged 15 years and over had untreated coronal decay, with a mean number of 1.4 decayed tooth surfaces per person. Some 8.2% of the dentate Australian population aged 15 years and over had untreated root decay. Approximately three quarters of the Australian dentate population aged 15 years and over had one or more filled teeth (77.4%). Dentate Australians aged 15 years and over had a mean of 15.1 filled tooth surfaces per person, a mean number of 29.7 decayed, missing or filled tooth surfaces per person, and a mean number of 11.2 decayed, missing or filled teeth per person. Overall, 10.7% of dentate Australians aged 15 years and over had no experience of dental decay in their permanent teeth.

Compared to the reference group of 15–34 year-olds, most indicators of dental decay experience were higher in older age groups. For the percentage of people with coronal fillings the highest rate was observed for those aged 55–74 years (1.43 times). However, the highest rates were observed for those aged 75 years and over for percentage of people with root decay (8.94 times), and mean number of filled coronal surfaces (7.50 times), decayed, missing and filled surfaces (9.77 times) , and decayed, missing and filled teeth (5.92 times).

Females had a lower percentage of people with coronal decay (0.85 times) than males, and a lower mean number of decayed coronal surfaces (0.68 times). However, higher percentages of females than males had coronal fillings (1.08 times) and females had higher mean numbers of coronal filled surfaces (1.36 times), decayed, missing and filled surfaces (1.19), and decayed, missing and filled teeth (1.16 times).

Indigenous persons had a lower mean number of filled coronal surfaces (0.43 times) and lower mean number of decayed, missing and filled surfaces (0.63) than non-Indigenous.

Residents at locations other than capital cities had slightly higher mean numbers of decayed, missing and filled surfaces (1.13 times) and higher mean numbers of decayed, missing and filled teeth (1.13 times).

A higher percentage of persons with Year 10 or less schooling than those with Year 11 or more years of schooling had coronal decay (1.22 times) and root decay (2.14 times), as well as having higher mean numbers of decayed coronal surfaces (1.81 times), filled coronal surfaces (1.37 times), decayed, missing and filled surfaces (1.77 times), and decayed, missing and filled teeth (1.61 times).

Compared to those with a degree or higher qualification those with other or no qualifications had a higher percentage with root decay (2.06 times) and higher mean numbers of decayed coronal surfaces (1.79 times), filled coronal surfaces (1.23 times), decayed, missing and filled surfaces (1.60 times), and decayed, missing and filled teeth (1.45 times).

Those who were eligible for public dental care in relation to those who were ineligible had a higher percentage with root decay (2.43 times) and higher mean numbers of decayed coronal surfaces (1.76 times), filled coronal surfaces (1.53 times), decayed, missing and filled surfaces (1.93 times), and decayed, missing and filled teeth (1.69 times).

Persons who were dentally uninsured had a higher percentage of people with coronal decay (1.58 times) and root decay (1.50 times), but a lower percentage with coronal fillings (0.90 times) as well as higher mean numbers of decayed coronal surfaces (2.28 times) but lower numbers of filled coronal surfaces (0.71 times) than the dentally insured.

Those who usually visit for a dental problem had higher percentages with coronal decay (1.79 times) and root decay (2.56 times), as well as higher mean numbers of decayed coronal surfaces (3.20 times), decayed, missing and filled surfaces (1.34 times), and decayed, missing and filled teeth (1.31 times) than those usually visiting for a check-up.

Table 4.17: Summary of dental decay experience

	Coronal decay		Root decay	Coronal fillings			
	% of people	Mean no. of surfaces	% of people	% of people	Mean no. of surfaces	Mean DMFS	Mean DMFT
Age group			Prevalence/Mean ratio				
Ref[(a)] = 15–34 years							
35–54	~	~	4.18	1.39	2.74	3.24	2.50
55–74	~	~	8.04	1.43	6.26	7.41	4.70
≥75	~	~	8.94	1.40	7.50	9.77	5.92
Sex							
Ref = Male							
Female	0.85	0.68	~	1.08	1.36	1.19	1.16
Indigenous identity							
Ref = Non-Indigenous							
Indigenous	~	~	~	~	0.43	0.63	~
Residential location							
Ref = Capital cities							
Other places	~	~	~	~	~	1.13	1.13
Year level of schooling							
Ref = Year 11 or more							
Year 10 or less	1.22	1.81	2.14	~	1.37	1.77	1.61
Highest qualification attained							
Ref= Degree or higher							
Other/None	~	1.79	2.06	~	1.23	1.60	1.45
Eligibility for public dental care							
Ref = Ineligible							
Eligible	~	1.76	2.43	~	1.53	1.93	1.69
Dental insurance							
Ref = Insured							
Uninsured	1.58	2.28	1.50	0.90	0.71	~	~
Usually visit dentist							
Ref = For a check-up							
For a dental problem	1.79	3.20	2.56	~	~	1.34	1.31

Note: (a) Ref: reference group; ~: difference is not statistically significant; . . Not applicable.
(b) The 95% confidence intervals for these estimates are in Appendix Table B.2.

4.3 Gum diseases

People examined in NSAOH 2017–18 were assessed for gum diseases provided they had no medical conditions that are contraindications for periodontal probing. Two types of diseases were assessed: gingivitis and periodontitis.

- Gingivitis, or inflammation of the gums, occurs in response to the bacteria in plaque that accumulates near the gum line. It is characterised by redness, swelling or bleeding of the gums. NSAOH 2017–18 examiners assessed gingivitis by visual inspection and by application of pressure to the gum closest to the neck of up to six index teeth. Usually, gingivitis is a painless condition.
- Periodontitis is inflammation of the tissues surrounding the tooth affecting the gum, the ligaments and the bone. Globally, periodontitis is the sixth most prevalent chronic condition (Kassebaum et al JDR 2014). Its epidemiological feature is destruction of tooth-supporting tissues manifested by clinical attachment loss. In some instances, the infection can cause an abscess and become painful. In its severe forms there can be loss of bone that supports the tooth, resulting in the tooth becoming loose and even causing tooth loss. The loss of supporting structures can result in the formation of 'pockets' between the gum and the tooth. The depth of the pocket and recession of gum, measured in millimetres using a periodontal probe, is an indication of the severity of the destructive process. In NSAOH 2017–18 gum recession and pocket depth were measured using a blunt PCP2 periodontal probe at three buccal/labial sites on each tooth excluding third molars.

The underlying cause of both gingivitis and periodontitis is bacteria that accumulate in dental plaque, the sticky film that adheres to teeth. When plaque accumulates, typically due to infrequent or ineffective oral hygiene, the risk of both conditions increases. However, aspects of general health play additional roles in the severity of inflammation in response to plaque, and poor general health is a critical determinant of progression of disease from gingivitis to periodontitis. One such aspect of general health is smoking, which plays a prominent role in the development of periodontitis. Medical conditions such as diabetes and osteoporosis increase the risk of periodontitis. Regular and timely dental treatment can prevent moderate periodontitis from progressing to the severe form.

In order to permit comparison with other studies that have used a range of indices when reporting gingivitis and periodontitis, the following sections contain multiple tables that report subtly different aspects of each disease. Periodontitis is a site-specific condition. Hence, it is important to report the main components of periodontitis: prevalence based on specific case definitions, and extent of the disease (percentage of tooth sites affected at certain threshold).

Prevalence of moderate or severe periodontitis

A case definition of periodontitis has been developed jointly by the US Centers for Disease Control and Prevention (CDC) and the American Academy of Periodontology (AAP) to describe prevalence of moderate and severe periodontitis in health surveys. The CDC/AAP defines moderate periodontitis as the presence of either at least two proximal sites not on the same tooth with attachment loss of 4 mm or more, or at least two such sites that have pockets of 5 mm or more. Severe periodontitis has been defined as having at least two proximal sites not on the same tooth with attachment loss of 6 mm or more, and there is at least one periodontal pocket of 5 mm or greater depth. The percentage of Australian dentate adults who had either moderate or severe periodontitis as defined by the CDC/AAP definition is presented in Table 4.18.

The prevalence of moderate or severe periodontitis in the Australian population was 30.1% (Table 4.18). Periodontitis was strongly related to age, with the youngest age group having markedly lower prevalence (12.2%), than the older age groups. Almost seven in every ten Australian dentate adults aged 75 years and over had moderate or severe periodontitis.

Among people of all ages, the prevalence of moderate or severe periodontitis was highest in people who had 10 years or less schooling (45.0%), and lowest for Indigenous Australians (11.0%) and those with a degree or higher (21.7%). However, estimates for the Indigenous population should be treated with caution due to small sample sizes. Overall, the prevalence of periodontitis was associated with sex, Indigenous status, year level of schooling, highest qualification attainment, eligibility for public dental care, dental insurance status, and usual reason for making a dental visit.

Males were more likely to have periodontitis than females (34.9% vs 25.5%). This difference was already evident in the youngest age group and continued in the next two age groups. The highest absolute difference in the prevalence of periodontitis between males and females was in the 55–74 year age group (59.5% vs 43.5%).

Table 4.18: Percentage of people with moderate or severe periodontitis in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**30.1**	**12.2**	**32.7**	**51.1**	**69.3**
	95%CI	*27.9–32.4*	*9.5–15.6*	*28.5–37.3*	*46.2–56.0*	*60.5–76.9*
Sex						
Male	%	34.9	16.6	38.9	59.5	63.1
	95%CI	*31.2–38.8*	*11.8–22.8*	*32.1–46.3*	*53.3–65.4*	*48.1–75.9*
Female	%	25.5	7.8	26.6	43.5	73.0
	95%CI	*22.7–28.5*	*5.3–11.3*	*21.7–32.2*	*37.1–50.2*	*62.3–81.6*
Indigenous identity						
Indigenous	%	*11.0	*3.9	*21.0	*49.7	n.p.
	95%CI	*5.3–21.3*	*0.8–17.2*	*8.2–44.1*	*15.4–84.3*	*n.p.*
Non-Indigenous	%	30.3	12.5	32.9	50.8	69.2
	95%CI	*28.1–32.7*	*9.7–15.9*	*28.6–37.5*	*46.0–55.6*	*60.4–76.8*
Residential location						
Capital city	%	28.8	12.4	30.7	51.1	73.6
	95%CI	*26.1–31.6*	*9.0–16.7*	*25.6–36.3*	*44.9–57.2*	*63.1–81.9*
Other places	%	33.0	11.8	37.3	51.2	61.2
	95%CI	*29.1–37.2*	*7.8–17.6*	*29.9–45.4*	*43.1–59.1*	*45.8–74.6*
Year level of schooling						
Year 10 or less	%	45.0	*7.7	50.0	55.9	72.2
	95%CI	*39.6–50.5*	*3.3–16.7*	*39.8–60.3*	*47.8–63.7*	*61.0–81.1*
Year 11 or more	%	25.6	12.9	29.2	47.8	64.7
	95%CI	*23.2–28.2*	*9.8–16.8*	*24.8–34.1*	*42.3–53.3*	*49.2–77.7*
Highest qualification attained						
Degree or higher	%	21.7	*11.6	22.7	49.7	59.6
	95%CI	*18.2–25.6*	*6.7–19.1*	*18.1–28.1*	*42.6–56.7*	*35.9–79.6*
Other/None	%	33.6	12.6	38.4	50.9	69.9
	95%CI	*30.6–36.6*	*9.5–16.5*	*32.5–44.6*	*45.3–56.5*	*60.6–77.8*
Eligibility for public dental care						
Eligible	%	42.5	*15.7	41.3	54.8	70.6
	95%CI	*37.9–47.2*	*9.0–25.9*	*32.1–51.2*	*47.5–61.9*	*61.5–78.3*
Ineligible	%	25.5	11.5	30.9	47.7	59.3
	95%CI	*22.9–28.2*	*8.7–14.9*	*26.2–36.0*	*41.8–53.7*	*33.3–80.9*
Dental insurance						
Insured	%	25.4	8.4	24.5	45.2	67.4
	95%CI	*22.7–28.3*	*5.1–13.4*	*19.8–30.0*	*39.0–51.6*	*53.1–79.1*
Uninsured	%	35.0	15.7	41.1	56.9	70.7
	95%CI	*31.8–38.4*	*11.5–20.9*	*34.8–47.7*	*49.7–63.8*	*59.7–79.8*
Usually visit dentist						
For a check-up	%	26.1	8.8	29.5	49.0	72.5
	95%CI	*23.4–29.0*	*6.0–12.9*	*23.9–35.8*	*43.0–55.0*	*60.4–81.9*
For a dental problem	%	36.8	18.8	37.2	53.0	64.3
	95%CI	*32.6–41.3*	*13.4–25.8*	*30.4–44.5*	*45.6–60.2*	*50.3–76.2*

Notes: 1. Data in this table was taken from the Examination for people who had a periodontal examination.
2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.
3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

People with 10 years or less of schooling of all ages had higher prevalence of periodontitis than those with more years of schooling (45.0% vs 25.6%). This pattern was observed within all age groups except for the youngest age group where the number of people with fewer than 10 years of schooling was low. The only statistically significant difference by year level of schooling was for the 35–54 year age group (50.0% vs 29.2%). Moderate or severe periodontitis was also associated with highest qualification attained. Overall, Australians with a degree or higher were less likely than those with a lower level of education to have periodontitis (21.7% vs 33.6%). Differences within each age group were only evident for those aged 35–54 years (22.7% vs 38.4%).

People of all ages who were eligible for public dental care were more likely to have periodontitis than those who were ineligible (42.5% vs 25.5%). Such trend was observed in all age groups, however, the 95%CIs of the estimates overlap due to smaller sample sizes in individual age groups. Among people of all ages, adults who did not have dental insurance were more likely to have periodontitis than those who were insured (35.0% vs 25.4%). The largest difference in the prevalence of periodontitis between insured and uninsured adults was observed in the 35–54 year age group (41.1% vs 24.5%).

People who usually make a dental visit for a problem had higher prevalence of periodontitis than people who visit for a check-up (36.8% vs 26.1%). This pattern was also observed in the youngest age group (22.7% vs 38.4%).

In summary, the prevalence of moderate to severe periodontitis based on the CDC/AAP case definition was high in the Australian adult population and was strongly associated with people's age. The prevalence of periodontitis was also associated with sex, education attainment, dental insurance status, eligibility for public dental care and usual reason for dental visit.

Prevalence of periodontitis defined by the US National Center for Health Statistics

The US National Center for Health Statistics (NCHS) uses the following as the case definition for periodontitis: at least one periodontal pocket with a probing depth of 4 mm or more and a periodontal attachment loss of 3 mm or more at the same site.

The prevalence of periodontitis according to the NCHS definition was 28.3% among Australian adults (Table 4.19). This prevalence was associated with age. Some one in five adults aged 15–34 years had periodontitis using the NCHS case definition. This prevalence gradually increased to 45.8% in those aged 75 years and over.

Among Australian adults of all ages, the prevalence of periodontitis by the NCHS case definition was highest in people who usually visited for dental problems (34.9%) and lowest in females (22.1%). The prevalence of periodontitis was associated with sex, year level of schooling, highest qualification attained, dental insurance status and usual reason for a dental visit.

Among people of all ages, males were more likely to have periodontitis than females (34.8% vs 22.1%). This variation was observed within all age groups although some differences were not statistically significant. The absolute difference between males and females was largest in the 55–74 year age group (46.1% vs 22.4%).

People with a lower level of education were more likely to have periodontitis than their counterparts. Such differences were statistically significant in the 35–54 year age group. Among people of all ages, those who were uninsured were more likely to have periodontitis defined by the NCHS case definition (33.1% vs 23.6%). The largest absolute difference between the two groups was in the 35–54 year age group (39.0% vs 24.5%).

In summary, the prevalence of periodontitis defined by the NCHS case definition was high in the Australian dentate adult population. It was associated with age, sex, dental insurance status and usual reason for visiting a dentist.

Table 4.19: Percentage of people with periodontitis by NCHS case definition in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	%	**28.3**	**20.9**	**31.8**	**33.9**	**45.8**
	95%CI	*25.6–31.2*	*17.0–25.5*	*27.4–36.6*	*29.1–39.0*	*36.1–55.9*
Sex						
Male	%	34.8	27.1	36.4	46.1	49.8
	95%CI	*30.6–39.4*	*20.4–35.0*	*29.3–44.1*	*39.4–53.0*	*33.6–66.1*
Female	%	22.1	14.7	27.3	22.4	43.7
	95%CI	*19.1–25.4*	*10.9–19.5*	*22.3–32.9*	*17.9–27.6*	*30.8–57.5*
Indigenous identity						
Indigenous	%	*16.8	*5.8	*42.6	*25.9	n.p.
	95%CI	*7.3–34.3*	*1.6–18.8*	*17.6–72.1*	*5.3–68.5*	*n.p.*
Non-Indigenous	%	28.6	21.4	31.7	34.1	45.9
	95%CI	*25.9–31.5*	*17.3–26.1*	*27.2–36.5*	*29.4–39.3*	*36.2–56.0*
Residential location						
Capital city	%	28.9	20.4	32.9	37.8	43.8
	95%CI	*25.6–32.5*	*15.7–26.1*	*27.4–38.8*	*31.2–44.9*	*31.3–57.3*
Other places	%	27.0	22.3	29.3	26.9	50.0
	95%CI	*22.5–32.0*	*15.7–30.7*	*22.2–37.6*	*21.2–33.4*	*36.6–63.3*
Year level of schooling						
Year 10 or less	%	34.5	*17.1	44.7	34.5	48.8
	95%CI	*29.0–40.5*	*8.1–32.4*	*34.4–55.4*	*26.1–43.9*	*35.1–62.6*
Year 11 or more	%	26.5	21.3	29.1	33.5	41.8
	95%CI	*23.5–29.7*	*16.8–26.5*	*24.4–34.2*	*28.2–39.2*	*28.4–56.5*
Highest qualification attained						
Degree or higher	%	24.6	21.9	24.4	33.6	*36.9
	95%CI	*20.2–29.7*	*14.8–31.2*	*19.7–29.8*	*26.5–41.6*	*16.2–64.0*
Other/None	%	29.9	20.4	35.9	32.8	49.3
	95%CI	*26.7–33.2*	*15.7–26.0*	*30.2–42.1*	*27.6–38.5*	*38.4–60.3*
Eligibility for public dental care						
Eligible	%	33.2	20.2	37.4	37.8	46.1
	95%CI	*28.9–37.9*	*13.1–29.9*	*29.5–46.1*	*30.2–46.2*	*35.5–57.1*
Ineligible	%	26.7	21.4	30.6	30.6	*44.2
	95%CI	*23.5–30.1*	*16.9–26.5*	*25.6–36.1*	*25.5–36.3*	*21.4–69.8*
Dental insurance						
Insured	%	23.6	15.7	24.5	32.3	38.4
	95%CI	*20.4–27.2*	*11.0–22.1*	*19.3–30.4*	*26.9–38.3*	*25.6–53.0*
Uninsured	%	33.1	25.7	39.0	35.7	52.5
	95%CI	*29.4–37.1*	*20.1–32.3*	*32.8–45.6*	*28.2–43.9*	*38.5–66.2*
Usually visit dentist						
For a check-up	%	23.8	15.4	29.6	28.5	43.5
	95%CI	*20.6–27.2*	*11.5–20.3*	*23.7–36.3*	*23.6–34.1*	*31.3–56.6*
For a dental problem	%	34.9	29.6	34.2	40.9	50.4
	95%CI	*30.5–39.6*	*22.0–38.4*	*28.0–41.1*	*32.6–49.7*	*34.6–66.2*

Notes: 1. Data in this table was taken from the Examination for people who had a periodontal examination.
2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.
3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Prevalence of deep periodontal pockets

Deep periodontal pockets have been defined as 4 mm or more. The depth of the pocket, measured in millimetres from the free gingival margin to the bottom of a pocket using a periodontal probe, is an indication of the severity of periodontal destruction or of gingival inflammation. Table 4.20 reports on the percentage of people who had at least one site in their mouths with a periodontal pocket of 4 mm or more.

The prevalence of periodontal pocketing of 4+ mm in the Australian population was 28.8%. This prevalence was associated with age, being lowest in the 15–34 year age group (23.5%) and highest for people aged 75 years and over.

Among people of all ages, the prevalence of deep periodontal pockets was highest in males (34.9%). The prevalence of deep pockets was associated with sex, dental insurance status and usual reason for vising a dentist.

Overall, males were more likely to have deep periodontal pockets than females (34.9% vs 23.0%), but differences within age groups were only statistically significant for the 55–74 year age group (43.2% vs 21.4%).

Among people of all ages, those who were uninsured were more likely to have deep periodontal pockets (32.9% vs 24.2%). This tendency was observed between insured and uninsured people in all age groups although some differences were not statistically significant. The largest absolute difference between these two groups was in the 35–54 year age group (39.1% vs 24.3%).

People who usually visited a dentist for a dental problem had a higher prevalence of deep periodontal pockets than those who usually visited for check-up (33.8% vs 24.8%). A more favourable dental visiting pattern may help reducing gingival inflammation and hence, prevalence of deep periodontal pockets.

In summary, the prevalence of deep periodontal pockets was high in the Australian adult population. Its prevalence was associated with age, sex, dental insurance status and usual reason for dental visiting.

Table 4.20: Percentage of people with 4+ mm periodontal pocket depth in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	%	**28.8**	**23.5**	**31.8**	**31.7**	**39.2**
	95%CI	*26.1–31.7*	*19.1–28.5*	*27.4–36.5*	*27.2–36.6*	*30.4–48.8*
Sex						
Male	%	34.9	29.1	36.2	43.2	39.5
	95%CI	*30.7–39.3*	*22.3–37.0*	*29.2–43.8*	*36.8–49.9*	*26.1–54.6*
Female	%	23.0	17.7	27.4	21.4	39.1
	95%CI	*19.8–26.5*	*13.1–23.6*	*22.4–33.0*	*17.1–26.4*	*27.1–52.5*
Indigenous identity						
Indigenous	%	*16.6	*5.8	*42.6	*22.3	n.p.
	95%CI	*7.2–33.8*	*1.6–18.5*	*17.6–72.1*	*4.9–61.5*	*n.p.*
Non-Indigenous	%	29.1	24.0	31.6	32.0	39.3
	95%CI	*26.3–31.9*	*19.5–29.1*	*27.2–36.4*	*27.4–36.9*	*30.5–48.9*
Residential location						
Capital city	%	30.0	24.0	32.9	35.8	38.9
	95%CI	*26.6–33.7*	*18.6–30.3*	*27.5–38.8*	*29.5–42.6*	*27.6–51.5*
Other places	%	26.1	22.2	29.2	24.8	39.8
	95%CI	*22.0–30.7*	*15.6–30.5*	*22.1–37.3*	*19.3–31.2*	*27.0–54.1*
Year level of schooling						
Year 10 or less	%	32.8	*19.3	44.2	31.0	40.0
	95%CI	*27.6–38.5*	*9.9–34.2*	*33.9–54.9*	*23.5–39.7*	*28.2–53.0*
Year 11 or more	%	27.5	23.9	29.2	32.4	38.2
	95%CI	*24.5–30.8*	*19.0–29.6*	*24.5–34.2*	*27.3–38.1*	*25.6–52.6*
Highest qualification attained						
Degree or higher	%	24.9	22.3	24.7	33.3	*33.6
	95%CI	*20.5–29.9*	*15.2–31.5*	*20.0–30.1*	*26.3–41.2*	*14.5–60.2*
Other/None	%	30.5	24.1	35.7	30.4	41.7
	95%CI	*27.4–33.7*	*19.2–29.9*	*30.0–41.8*	*25.5–35.8*	*31.8–52.3*
Eligibility for public dental care						
Eligible	%	32.8	24.6	37.5	34.3	38.9
	95%CI	*28.1–37.9*	*15.0–37.8*	*29.7–46.2*	*27.3–41.9*	*29.4–49.3*
Ineligible	%	27.4	23.4	30.5	29.4	*41.5
	95%CI	*24.2–30.8*	*19.0–28.6*	*25.5–36.0*	*24.4–35.0*	*19.8–67.0*
Dental insurance						
Insured	%	24.2	19.1	24.3	30.0	35.1
	95%CI	*20.9–27.9*	*13.4–26.5*	*19.2–30.2*	*24.8–35.7*	*23.1–49.4*
Uninsured	%	32.9	26.6	39.1	33.6	42.4
	95%CI	*29.3–36.7*	*21.0–33.1*	*32.9–45.6*	*26.7–41.3*	*30.3–55.5*
Usually visit dentist						
For a check-up	%	24.8	18.3	29.4	28.1	39.7
	95%CI	*21.6–28.3*	*13.9–23.6*	*23.5–36.0*	*23.3–33.4*	*28.1–52.6*
For a dental problem	%	33.8	30.3	34.4	36.1	38.5
	95%CI	*29.6–38.2*	*22.8–39.1*	*28.2–41.2*	*28.5–44.5*	*25.7–53.2*

Notes: 1. Data in this table was taken from the Examination for people who had a periodontal examination.
2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.
3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Prevalence of gingival recession

Gingival recession is a problem when gums recede exposing root surface. This problem may be caused by a number of factors including destruction of tooth supporting tissues and incorrect tooth brushing technique. It is a problem because it exposes the more susceptible root surface to decay-causing risk factors for disease, and in severe cases may jeopardise the tooth itself. In NSAOH 2017–18, gingival recession was measured using a periodontal probe at three sites on each tooth as a distance from the free gingival margin to the cemento-enamel junction.

The prevalence of gingival recession of 2+mm in the Australian dentate population was 56.2% (Table 4.21). This prevalence was strongly associated with people's age. Over one in four 15-34 year olds had gingival recession of 2+mm and over four in five people aged 55 years and over had this condition.

Among people of all ages, the prevalence of gingival recession of 2+mm was highest among people who had 10 years of schooling or less (65.7%), which was significantly higher than that of people who had more years of schooling (53.3%). The prevalence of gingival recession was also associated with eligibility for public dental care. Those who were eligible were more likely to have gingival recession than those who were ineligible (62.0% vs 53.8%).

In summary, the prevalence of gingival recession of 2+mm was high in the Australian dentate population.

Table 4.21: Percentage of people with 2+ mm gingival recession in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**56.2**	**27.7**	**68.5**	**83.1**	**81.9**
	95%CI	*53.4–58.9*	*23.4–32.6*	*64.8–71.9*	*79.5–86.2*	*74.3–87.7*
Sex						
Male	%	59.0	30.4	73.5	86.9	78.2
	95%CI	*55.0–62.9*	*24.2–37.4*	*68.6–77.9*	*82.8–90.1*	*65.1–87.4*
Female	%	53.4	25.0	63.6	79.6	84.2
	95%CI	*49.8–57.0*	*20.1–30.7*	*58.1–68.7*	*73.8–84.5*	*73.5–91.1*
Indigenous identity						
Indigenous	%	*37.7	*29.9	*48.6	86.1	n.p.
	95%CI	*17.2–63.8*	*6.5–72.2*	*22.3–75.7*	*50.8–97.4*	*n.p.*
Non-Indigenous	%	56.4	27.7	68.8	83.0	81.9
	95%CI	*53.6–59.2*	*23.3–32.5*	*65.1–72.2*	*79.4–86.1*	*74.3–87.6*
Residential location						
Capital city	%	53.9	24.5	67.8	83.9	88.1
	95%CI	*50.4–57.4*	*19.5–30.4*	*63.3–72.0*	*79.6–87.5*	*81.1–92.8*
Other places	%	61.1	36.1	70.0	81.6	70.4
	95%CI	*56.8–65.2*	*28.8–44.0*	*63.4–75.9*	*74.8–86.9*	*54.4–82.5*
Year level of schooling						
Year 10 or less	%	65.7	*17.0	76.2	83.0	80.3
	95%CI	*60.3–70.7*	*10.0–27.4*	*67.3–83.3*	*77.1–87.7*	*70.0–87.7*
Year 11 or more	%	53.3	29.3	67.0	84.0	84.8
	95%CI	*50.1–56.6*	*24.4–34.7*	*62.9–70.8*	*79.5–87.7*	*70.4–92.9*
Highest qualification attained						
Degree or higher	%	54.2	34.1	66.2	85.4	88.3
	95%CI	*49.5–58.9*	*26.8–42.3*	*60.9–71.1*	*80.4–89.2*	*73.5–95.3*
Other/None	%	57.3	24.3	70.9	83.2	80.6
	95%CI	*54.0–60.5*	*19.6–29.8*	*65.7–75.6*	*78.9–86.8*	*71.5–87.3*
Eligibility for public dental care						
Eligible	%	62.0	27.6	65.3	81.5	80.3
	95%CI	*56.9–66.9*	*19.0–38.3*	*55.5–74.0*	*75.3–86.4*	*71.8–86.8*
Ineligible	%	53.8	27.1	69.2	84.3	93.8
	95%CI	*50.7–56.9*	*22.5–32.4*	*65.3–72.8*	*80.1–87.8*	*77.3–98.5*
Dental insurance						
Insured	%	58.8	27.5	69.1	84.2	85.9
	95%CI	*55.2–62.4*	*22.3–33.4*	*64.5–73.3*	*78.9–88.4*	*72.1–93.5*
Uninsured	%	55.4	28.8	69.2	81.9	78.8
	95%CI	*51.0–59.6*	*22.6–35.8*	*63.4–74.4*	*76.8–86.1*	*68.2–86.5*
Usually visit dentist						
For a check-up	%	53.9	25.4	67.8	86.2	87.2
	95%CI	*50.4–57.3*	*20.2–31.4*	*62.5–72.7*	*82.3–89.4*	*76.7–93.4*
For a dental problem	%	61.5	33.8	70.5	79.2	73.5
	95%CI	*57.0–65.9*	*26.1–42.6*	*65.0–75.6*	*72.8–84.3*	*59.1–84.2*

Notes: 1. Data in this table was taken from the Examination for people who had a periodontal examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Prevalence of periodontal clinical attachment loss

Clinical attachment loss (CAL) is a measure of loss of supporting periodontal structure around the tooth. Attachment may be lost through gum recession or the development of periodontal pocketing from the inflammatory disease. CAL is measured as a distance from the cemento-enamel junction to the bottom of periodontal pocket. In NSAOH 2017–18, CAL was measured using a combination of gum recession and periodontal probing depth on three sites per tooth, excluding third molars. CAL measurement of 4 or more mm is considered pathological.

The percentage of the Australian population with clinical attachment loss of 4 mm or more at one or more sites was 52.7% (Table 4.22). This prevalence was strongly associated with age. Over three in ten people aged 15–34 years (31.5%) and over four in five people aged 75 years and over (82.5%) had CAL of 4+mm at one or more sites.

Among people of all ages, the prevalence of CAL of 4+mm was highest among people with Year 10 or less schooling (64.7%), which was significantly higher than that for persons with a higher level of schooling (49.1%). The prevalence of CAL of 4+mm was also associated with sex, Indigenous status, eligibility for public dental care, and usual reason for dental a visit.

Males of all ages were more likely to have CAL of 4+mm than females (57.4% vs 48.2%). Within age groups, the largest absolute difference between males and females was observed in the 15–34 year age group (38.3% vs 24.7%).

People who were eligible for public dental care had a higher prevalence of CAL of 4+mm than those who were not eligible (60.3% vs 50.0%). There were no within age group differences between groups by eligibility of public dental care.

In summary, the prevalence of clinical loss of attachment of 4 mm or more was high and associated with age, years of schooling, usual reason for making a dental visit, eligibility for public dental care and sex.

Table 4.22: Percentage of people with 4+ mm clinical attachment loss in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**52.7**	**31.5**	**58.5**	**76.4**	**82.5**
	95%CI	*50.1–55.4*	*27.2–36.2*	*54.0–62.8*	*72.4–80.0*	*75.9–87.6*
Sex						
Male	%	57.4	38.3	63.6	81.1	77.2
	95%CI	*53.3–61.4*	*31.2–45.8*	*56.6–70.0*	*76.6–84.9*	*64.1–86.6*
Female	%	48.2	24.7	53.5	72.2	85.7
	95%CI	*44.7–51.8*	*20.1–30.0*	*47.6–59.3*	*65.7–77.9*	*77.6–91.2*
Indigenous identity						
Indigenous	%	*20.6	*6.7	*43.7	86.1	n.p.
	95%CI	*10.9–35.6*	*2.0–20.2*	*19.8–71.0*	*50.8–97.4*	n.p.
Non-Indigenous	%	53.2	32.3	58.7	76.3	82.4
	95%CI	*50.5–55.8*	*27.9–37.0*	*54.2–63.0*	*72.3–79.8*	*75.8–87.5*
Residential location						
Capital city	%	51.1	29.8	57.3	77.9	85.4
	95%CI	*47.8–54.3*	*24.5–35.6*	*51.9–62.5*	*73.1–82.1*	*78.2–90.6*
Other places	%	56.4	36.1	61.1	73.9	76.9
	95%CI	*51.9–60.8*	*29.2–43.7*	*53.2–68.6*	*66.6–80.1*	*63.1–86.7*
Year level of schooling						
Year 10 or less	%	64.7	26.8	71.9	77.8	79.5
	95%CI	*59.2–69.7*	*16.0–41.3*	*62.5–79.8*	*70.9–83.4*	*69.3–86.9*
Year 11 or more	%	49.1	32.1	55.6	76.2	87.6
	95%CI	*46.2–52.0*	*27.3–37.2*	*50.7–60.5*	*71.3–80.5*	*80.5–92.3*
Highest qualification attained						
Degree or higher	%	47.9	34.8	53.1	74.0	84.7
	95%CI	*43.6–52.2*	*27.1–43.5*	*47.2–58.9*	*67.6–79.5*	*69.8–92.9*
Other/None	%	55.0	29.8	62.1	77.4	81.8
	95%CI	*51.8–58.2*	*24.8–35.4*	*56.1–67.8*	*72.8–81.4*	*73.9–87.7*
Eligibility for public dental care						
Eligible	%	60.3	30.8	61.1	76.6	81.2
	95%CI	*55.4–65.1*	*22.4–40.6*	*51.0–70.3*	*70.4–81.7*	*73.8–86.9*
Ineligible	%	50.0	32.1	57.9	76.1	91.7
	95%CI	*46.8–53.2*	*27.2–37.4*	*53.0–62.6*	*70.7–80.8*	*76.5–97.4*
Dental insurance						
Insured	%	50.5	28.9	52.5	73.1	87.2
	95%CI	*46.8–54.1*	*23.4–35.1*	*45.9–59.1*	*66.7–78.7*	*78.5–92.7*
Uninsured	%	56.2	34.7	65.4	80.0	78.7
	95%CI	*52.6–59.7*	*28.7–41.3*	*59.6–70.7*	*74.9–84.2*	*68.2–86.4*
Usually visit dentist						
For a check-up	%	47.6	26.3	53.7	76.9	87.0
	95%CI	*44.3–51.0*	*21.5–31.6*	*47.5–59.7*	*71.5–81.5*	*79.4–92.1*
For a dental problem	%	60.6	40.0	65.4	75.6	75.2
	95%CI	*56.1–64.9*	*31.4–49.2*	*58.4–71.8*	*69.4–80.9*	*61.1–85.5*

Notes: 1. Data in this table was taken from the Examination for people who had a periodontal examination.
2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.
3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Extent of deep periodontal pockets

Periodontal destruction is site specific. Number of sites affected may vary between people. Extent of periodontal destruction is percentage of sites with periodontal measurements exceeding certain thresholds over the total number of sites within a person.

Percentage of tooth sites with 4 mm or more of periodontal pocket depth is presented in Table 4.23. In the Australian adult population, some 2.1% of all periodontal sites were found to have periodontal pocket depth of 4+mm. This indicator was associated with age. The percentage of sites affected was lowest among people aged 15–34 years (1.3%) and highest for those aged 55 years and over (2.8%).

Among people of all ages, the extent of sites with periodontal pocket depth of 4 mm or more was highest in people who usually visited for a dental problem (3.3%) and lowest among those with dental insurance (1.2%). The extent of deep periodontal pockets was associated with sex, year level of schooling, qualification attainment, dental insurance status and usual reason for a dental visit.

Males of all ages had a higher percentage of sites with deep pockets than females (2.9% vs 1.3%). The largest absolute difference between males and females was in the 55–74 year age group (4.2% vs 1.4%).

People with 10 years of schooling or less had higher extent of deep periodontal pockets than those with more years of schooling (3.1% vs 1.8%). Similarly, those who had no degree had higher extent of deep pockets than those who had a degree or higher (2.4% vs 1.4%).

People who did not have dental insurance had a higher percentage of sites with periodontal pocket of 4+mm than those who had dental insurance (2.8% vs 1.2%). This difference was consistent across all age groups. People who usually visited for a dental problem had a higher extent of deep pockets than those who usually visited for a check-up (3.3% vs 1.3%). This difference was also consistent across age groups although some differences were not statistically significant.

In summary, the extent of periodontal pockets of 4+mm was associated with sex, year level of schooling, dental insurance status and usual reason for a dental visit.

Table 4.23: Percentage of tooth sites with 4 mm or more of periodontal pocket depth in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**2.1**	**1.3**	**2.4**	**2.8**	**2.8**
	95%CI	*1.7–2.4*	*0.9–1.7*	*1.9–3.0*	*1.7–3.8*	*1.7–3.9*
Sex						
Male	%	2.9	1.9	3.3	4.2	2.6
	95%CI	*2.2–3.5*	*1.1–2.7*	*2.3–4.2*	*2.5–6.0*	*1.4–3.7*
Female	%	1.3	0.7	1.6	1.4	*2.9
	95%CI	*1.0–1.6*	*0.4–1.0*	*1.0–2.3*	*0.9–1.9*	*1.3–4.5*
Indigenous identity						
Indigenous	%	*1.0	*0.6	*2.1	*1.1	n.p.
	95%CI	*0.1–2.0*	*0.0–1.7*	*0.3–3.9*	*0.0–2.8*	n.p.
Non-Indigenous	%	2.1	1.3	2.4	2.8	2.8
	95%CI	*1.7–2.5*	*0.9–1.8*	*1.9–3.0*	*1.7–3.9*	*1.7–3.9*
Residential location						
Capital city	%	2.3	1.4	2.6	3.4	*3.1
	95%CI	*1.8–2.8*	*0.9–2.0*	*1.8–3.3*	*1.8–5.0*	*1.6–4.7*
Other places	%	1.6	*1.0	2.1	1.6	2.0
	95%CI	*1.2–2.0*	*0.4–1.5*	*1.2–3.0*	*1.0–2.3*	*1.2–2.8*
Year level of schooling						
Year 10 or less	%	3.1	*0.9	3.9	*4.0	*3.1
	95%CI	*2.1–4.1*	*0.0–1.9*	*2.4–5.3*	*1.6–6.4*	*1.4–4.9*
Year 11 or more	%	1.8	1.4	2.1	1.9	2.2
	95%CI	*1.4–2.1*	*0.9–1.8*	*1.5–2.8*	*1.4–2.5*	*1.2–3.3*
Highest qualification attained						
Degree or higher	%	1.4	*1.3	1.5	1.4	*2.8
	95%CI	*0.9–1.9*	*0.6–2.1*	*0.8–2.2*	*0.9–1.8*	*0.5–5.1*
Other/None	%	2.4	1.3	3.0	3.1	2.9
	95%CI	*1.9–2.8*	*0.8–1.8*	*2.2–3.7*	*1.8–4.4*	*1.6–4.1*
Eligibility for public dental care						
Eligible	%	2.9	*1.8	2.9	*3.9	2.8
	95%CI	*2.0–3.8*	*0.6–3.0*	*1.7–4.1*	*1.9–5.9*	*1.6–4.0*
Ineligible	%	1.8	1.2	2.3	1.9	*2.6
	95%CI	*1.4–2.1*	*0.8–1.6*	*1.7–3.0*	*1.4–2.5*	*0.6–4.5*
Dental insurance						
Insured	%	1.2	*0.6	1.5	1.5	*2.2
	95%CI	*1.0–1.5*	*0.3–1.0*	*1.0–2.1*	*1.1–1.9*	*1.1–3.4*
Uninsured	%	2.8	1.8	3.4	*4.0	*3.2
	95%CI	*2.2–3.5*	*1.1–2.5*	*2.4–4.3*	*2.0–6.0*	*1.4–5.0*
Usually visit dentist						
For a check-up	%	1.3	*0.8	1.7	1.5	1.8
	95%CI	*1.0–1.6*	*0.4–1.2*	*1.0–2.4*	*1.0–2.0*	*1.1–2.5*
For a dental problem	%	3.3	2.3	3.3	*4.3	*4.7
	95%CI	*2.5–4.1*	*1.3–3.4*	*2.4–4.3*	*2.1–6.6*	*1.8–7.5*

Notes: 1. Data in this table was taken from the Examination for people who had a periodontal examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Extent of periodontal clinical attachment loss

Clinical attachment loss (CAL) is a measure of the loss of the supporting structures attached to the tooth. CAL is measured by adding together the amount of gum recession and the depth of the periodontal pocket at each site. This was measured in millimetres using a periodontal probe. In NSAOH 2017–18, three sites were measured per tooth. Table 4.24 shows the percentages of tooth sites with 4 mm or more CAL within all measured tooth sites within a person.

Percentage of tooth sites with CAL of 4+mm among people of all ages was 6.4%. This indicator was strongly associated with age. While only 1.6% of tooth sites in the 15–34 year age group had this level of clinical attachment loss, this percentage increased to 13.6% in the 55–74 year age group and 22.4% in the 75 years and over age group.

Among people of all ages, people who had 10 years of schooling or less had the highest extent of sites with CAL 4+mm (11.6%) and people who had a degree qualification or higher had the lowest (3.8%). The extent of sites with CAL of 4+mm was associated with sex, year level of schooling, highest qualification attained, eligibility for public dental care, dental insurance status and usual reason for a dental visit.

Males of all ages had a higher percentage of sites with CAL of 4+mm than females (8.2% vs 4.7%). This difference was consistent across all age groups and this was statistically significant for the three younger age groups. The largest absolute difference was observed in the 55–74 year age group (17.6% vs 9.8%).

People of all ages who had 10 years of schooling or less had 11.6% of their tooth sites with CAL of 4+mm compared to 5.0% among those who had more years of schooling. Those who did not have a degree qualification had a higher extent of sites with CAL of 4+mm (7.6% vs 3.8%). Such differences were also observed in the 35–54 year and 55–74 year age groups.

People who were eligible for public dental care had a higher extent of sites with CAL of 4+mm than those who were ineligible (10.9% vs 4.9%). Similarly, those who did not have dental insurance had a higher percentage of their tooth sites with CAL of 4+mm than those with dental insurance (7.9% vs 5.0%). Such differences were consistent across age groups, being statistically significant in the 55–74 year age group.

A person's usual reason for making a dental visit was associated with the extent of sites with CAL of 4+mm. Those who usually visited for a dental problem had a higher percentage of sites than those who usually visited for check-up (8.9% vs 5.0%). This pattern was evident in all age groups but only statistically significant for those aged 15–34 years.

In summary, the extent of periodontal sites with clinical attachment loss of 4 mm or more was associated with sex, year of schooling, highest qualification attained, eligibility for public dental care, dental insurance status and usual reason for a dental visit.

Table 4.24: Percentage of tooth sites with 4 mm or more of periodontal attachment loss in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**6.4**	**1.6**	**6.3**	**13.6**	**22.4**
	95%CI	*5.8–7.1*	*1.2–2.1*	*5.2–7.3*	*11.7–15.5*	*18.8–26.0*
Sex						
Male	%	8.2	2.3	8.5	17.6	25.2
	95%CI	*7.1–9.4*	*1.5–3.1*	*6.7–10.4*	*14.7–20.5*	*19.6–30.8*
Female	%	4.7	0.9	4.0	9.8	20.9
	95%CI	*4.1–5.4*	*0.6–1.2*	*3.1–5.0*	*8.2–11.3*	*16.3–25.5*
Indigenous identity						
Indigenous	%	*3.4	*0.5	*5.0	*41.9	n.p.
	95%CI	*0.5–6.3*	*0.0–1.3*	*0.5–9.5*	*3.4–80.4*	*n.p.*
Non-Indigenous	%	6.5	1.7	6.3	13.5	22.4
	95%CI	*5.8–7.2*	*1.2–2.1*	*5.2–7.4*	*11.6–15.4*	*18.8–26.0*
Residential location						
Capital city	%	6.1	1.6	5.6	14.0	23.6
	95%CI	*5.3–6.9*	*1.0–2.1*	*4.4–6.7*	*11.2–16.7*	*19.1–28.1*
Other places	%	7.3	1.8	7.9	12.9	19.8
	95%CI	*6.1–8.5*	*1.2–2.3*	*5.6–10.1*	*10.8–14.9*	*14.3–25.4*
Year level of schooling						
Year 10 or less	%	11.6	*1.2	10.2	16.5	23.9
	95%CI	*9.7–13.5*	*0.2–2.3*	*7.4–12.9*	*12.6–20.3*	*18.8–29.0*
Year 11 or more	%	5.0	1.7	5.5	11.5	20.3
	95%CI	*4.4–5.6*	*1.2–2.2*	*4.3–6.6*	*9.9–13.2*	*15.2–25.4*
Highest qualification attained						
Degree or higher	%	3.8	1.6	3.8	9.9	17.7
	95%CI	*3.2–4.4*	*0.9–2.3*	*2.8–4.7*	*8.3–11.5*	*11.2–24.3*
Other/None	%	7.6	1.7	7.6	14.4	22.6
	95%CI	*6.7–8.5*	*1.1–2.2*	*6.1–9.2*	*12.1–16.7*	*18.6–26.7*
Eligibility for public dental care						
Eligible	%	10.9	*2.2	8.3	16.4	23.2
	95%CI	*9.2–12.6*	*1.1–3.4*	*5.8–10.8*	*13.0–19.8*	*19.3–27.0*
Ineligible	%	4.9	1.5	5.8	11.3	17.3
	95%CI	*4.3–5.5*	*1.1–1.9*	*4.7–7.0*	*9.7–12.9*	*9.4–25.3*
Dental insurance						
Insured	%	5.0	1.0	4.4	10.3	18.9
	95%CI	*4.4–5.7*	*0.7–1.4*	*3.2–5.7*	*8.7–11.9*	*14.3–23.5*
Uninsured	%	7.9	2.2	8.2	16.8	25.6
	95%CI	*6.8–8.9*	*1.4–2.9*	*6.5–9.8*	*13.5–20.0*	*20.7–30.5*
Usually visit dentist						
For a check-up	%	5.0	1.1	5.2	11.1	19.3
	95%CI	*4.3–5.7*	*0.7–1.4*	*3.7–6.6*	*9.3–13.0*	*15.3–23.3*
For a dental problem	%	8.9	2.9	7.8	16.3	28.6
	95%CI	*7.6–10.3*	*1.8–4.0*	*6.1–9.4*	*12.9–19.7*	*22.8–34.4*

Notes: 1. Data in this table was taken from the Examination for people who had a periodontal examination.
2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.
3. n.p. not publishable due to small cell counts.

Prevalence of gingival inflammation

The gingival index is a measure of gingivitis, inflammation of the gums. Gingivitis occurs as a response to the bacteria in plaque accumulation near the gum line. In NSAOH 2017–18, gingivitis was assessed on six index teeth. A gingival index score of two or three indicated bleeding on pressing on the gum line or spontaneous bleeding. A person was considered to have gingivitis if a gingival index score of two or three was recorded on at least one index tooth.

Some 28.8% of Australian dentate adults had gingival inflammation. Prevalence was slightly higher in the younger age groups (Table 4.25).

The prevalence of gingival inflammation was highest in males (34.7%), and lowest for residents living outside of capital cities (21.7%).

Differences between males and females in the prevalence of gingival inflammation was consistent across age groups. The largest absolute difference was observed in the 55–74 year age group (34.1% vs 15.7%).

Indigenous people aged 35–54 years had a higher prevalence of gingival inflammation than non-Indigenous people of the same age (63.3% vs 29.1%). People aged 15–34 years who did not have a degree qualification had a higher prevalence of gingivitis than those people of the same age group who had a degree (36.7% vs 21.3%).

People who usually visited for a dental problem were more likely to have gingivitis than those usually visited for a check-up (33.2% vs 25.2%). This pattern was consistent within age groups but not statistically significant.

In summary, the prevalence of gingivitis in the Australian adult population was high. The prevalence of gingival inflammation was associated with sex, residential location, and usual reason for visiting a dentist.

Table 4.25: Percentage of people with gingival inflammation in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**28.8**	**31.3**	**29.5**	**24.4**	**20.9**
	95%CI	*26.1–31.6*	*27.1–35.8*	*25.2–34.2*	*20.7–28.6*	*15.0–28.2*
Sex						
Male	%	34.7	34.9	35.6	34.1	27.4
	95%CI	*30.7–39.0*	*28.5–41.8*	*29.3–42.4*	*28.0–40.8*	*17.0–41.1*
Female	%	23.1	27.6	23.7	15.7	16.7
	95%CI	*20.3–26.1*	*22.7–33.0*	*18.8–29.3*	*12.1–20.3*	*10.3–26.0*
Indigenous identity						
Indigenous	%	*38.6	*30.5	63.3	*9.9	n.p.
	95%CI	*19.9–61.4*	*11.1–60.7*	*36.2–84.0*	*1.2–49.2*	*n.p.*
Non-Indigenous	%	28.7	31.3	29.1	24.6	20.9
	95%CI	*26.0–31.5*	*27.0–35.9*	*24.8–33.8*	*20.8–28.9*	*15.1–28.2*
Residential location						
Capital city	%	31.9	33.1	32.9	29.1	24.4
	95%CI	*28.5–35.5*	*28.1–38.6*	*27.3–38.9*	*23.7–35.2*	*16.8–34.0*
Other places	%	21.7	26.4	22.0	16.3	*14.1
	95%CI	*17.8–26.3*	*19.5–34.7*	*16.2–29.1*	*12.5–21.0*	*6.7–27.0*
Year level of schooling						
Year 10 or less	%	28.6	40.2	30.4	23.3	18.6
	95%CI	*24.0–33.8*	*27.5–54.3*	*22.1–40.1*	*17.5–30.2*	*11.4–28.8*
Year 11 or more	%	28.9	29.9	29.3	25.6	24.5
	95%CI	*25.9–32.1*	*25.5–34.7*	*24.6–34.6*	*21.0–30.9*	*15.7–36.0*
Highest qualification attained						
Degree or higher	%	24.0	21.3	27.3	24.2	*22.2
	95%CI	*20.5–28.0*	*16.8–26.6*	*21.2–34.3*	*17.5–32.5*	*11.3–39.1*
Other/None	%	31.2	36.7	31.0	25.2	20.7
	95%CI	*27.9–34.6*	*31.1–42.7*	*25.6–37.0*	*20.9–30.0*	*14.1–29.3*
Eligibility for public dental care						
Eligible	%	30.4	31.9	38.1	28.4	19.6
	95%CI	*26.0–35.3*	*22.8–42.5*	*29.1–48.0*	*22.2–35.5*	*13.5–27.6*
Ineligible	%	28.3	31.3	27.8	21.4	*29.6
	95%CI	*25.3–31.5*	*26.7–36.4*	*23.3–32.8*	*17.0–26.4*	*14.1–51.8*
Dental insurance						
Insured	%	25.2	29.9	25.0	20.4	14.9
	95%CI	*22.0–28.8*	*24.0–36.5*	*19.8–31.1*	*16.2–25.3*	*9.1–23.6*
Uninsured	%	31.1	30.1	34.8	28.4	25.8
	95%CI	*27.5–34.9*	*24.6–36.1*	*28.6–41.6*	*22.5–35.1*	*16.9–37.3*
Usually visit dentist						
For a check-up	%	25.2	27.5	25.2	20.7	20.5
	95%CI	*22.0–28.7*	*22.5–33.1*	*20.2–31.1*	*16.7–25.3*	*13.6–29.9*
For a dental problem	%	33.2	35.4	35.7	28.7	*21.4
	95%CI	*29.3–37.4*	*27.9–43.6*	*29.3–42.8*	*22.6–35.8*	*12.2–34.9*

Notes: 1. Data in this table was taken from the Examination for people who had a periodontal examination.
2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.
3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Summary of findings regarding gum diseases

Chronic conditions related to gums and tooth-supporting tissues were related to age of people in the Australian adult population (Table 4.26). There were strong age-related gradients in all indicators of gum diseases and related conditions, except for the prevalence of people with gingivitis. Compared with the youngest age group, the other three age groups consistently had higher prevalence of periodontal disease defined by different case definitions and extent of sites with periodontal pocket and clinical attachment loss exceeding 4 mm. People aged 75 years and over had 5.67 times higher prevalence of periodontitis defined by the CDC/AAP case definition than the 15–34 year age group. The relative difference in the extent of sites with CAL of 4+mm was 13.71 times between the two age groups.

Females consistently had lower prevalence and extent of periodontal diseases and related conditions than males. Comparisons between Indigenous and non-Indigenous people were mostly not possible due to the low number of Indigenous participants. Indigenous people had lower prevalence of periodontitis by CDC/AAP case definition and lower prevalence of CAL 4+mm than non-Indigenous people. These comparisons were likely biased by the relatively young age of Indigenous people who also retained fewer diseased teeth.

People with fewer years of schooling consistently had higher prevalence and extent of periodontal diseases and related conditions than those with at least 11 years of schooling. Those who did not have a degree also had higher prevalence and extent of periodontal conditions than those who had a degree or higher. In particular, the former had more than twice the extent of sites with CAL of 4+mm than the latter.

Dental visiting was also a significant factor related to periodontal diseases and related conditions. Those who were eligible for public dental care were more likely to have periodontitis defined by the CDC/AAP and NCHS case definitions than those who were ineligible (1.67 times and 1.25 times, respectively). The former also had higher extent of sites with PPD and CAL of 4+mm than the latter (1.60 times and 2.23 times, respectively).

Those who did not have dental insurance consistently had higher prevalence and extent of periodontal diseases and related conditions than those who were insured, except for the prevalence of gingival recession of 2+mm. People who usually visited for a dental problem consistently had higher prevalence and extent of periodontal diseases and related conditions than those who usually visited for a check-up. The relative differences were particularly notable with indicators of more acute inflammation, periodontal pocket depth and gingivitis.

In summary, periodontal diseases and related conditions in the Australian adult population are strongly age-related. These conditions are also related to socioeconomic status and dental visiting behaviours.

Table 4.26: Summary of gum disease

Note:

	Prevalence: % of people with periodontitis case definitions[a]					Extent: % of sites		
	CDC/AAP	NCHS	4+mm PPD	2+mm REC	4+mm CAL	4+mm PPD	4+mm CAL	% of people with gingivitis
Age group	Prevalence/Mean ratio							
Ref[b] = 15–34 years								
35–54	2.68	1.52	1.35	2.47	1.85	1.86	3.83	~
55–74	4.18	1.62	1.35	3.00	2.42	2.12	8.30	0.78
≥75	5.67	2.19	1.67	2.95	2.61	2.11	13.71	0.67
Sex								
Ref = Male								
Female	0.73	0.63	0.66	0.91	0.84	0.45	0.58	0.66
Indigenous identity								
Ref = Non-Indigenous								
Indigenous	0.36	~	~	~	0.39	~	~	~
Residential location								
Ref = Capital cities								
Other places	~	~	~	1.13	~	0.70	~	0.68
Year level of schooling								
Ref = Year 11 or more								
Year 10 or less	1.75	1.30	~	1.23	1.32	1.77	2.34	~
Highest qualification attained								
Degree or higher								
Other/None	1.55	~	~	~	1.15	1.68	2.02	1.30
Eligibility for public dental care								
Ref= Ineligible								
Eligible	1.67	1.25	~	1.15	1.21	1.60	2.23	~
Dental insurance								
Ref = Insured								
Uninsured	1.38	1.40	1.36	~	1.11	2.30	1.56	1.23
Usually visit dentist								
Ref = For a check-up								
For a dental problem	1.41	1.47	1.36	1.14	1.27	2.57	1.78	1.32

(a) CDC/AAP = Centers for Disease Control and Prevention/American Academy of Periodontology moderate or severe case definition; NCHS = National Center for Health Statistics case definition; PPD = probing pocket depth; REC = gingival recession; CAL = clinical attachment loss.

(b) Ref: reference group; ~: difference is not statistically significant; . . Not applicable.

(c) The 95% confidence intervals for these estimates are in Appendix Table B.3.

4.4 Other oral conditions

Prevalence of enamel wear of lower incisors

While some tooth wear is inevitable as a consequence of aging and normal oral function, wear can be accelerated by an excessive load on biting and chewing surfaces of teeth that remain following loss of some other teeth. Other factors contribute to excessive wear, for example, habitual biting on hard objects (for example, a tobacco pipe) or consumption of acidic foods in the diet.

In NSAOH 2017–18, wear of dental enamel was measured on the four lower incisor teeth at the front of the mouth. Enamel wear of lower incisors was defined as the complete loss of tooth enamel on the biting (incisal) surface of the tooth.

Some 13.5% of Australian adults had enamel wear on their lower incisors (Table 4.27). The prevalence of incisal wear was strongly associated with age, increasing from 3.7% in the youngest age group to 35.7% in the 75 years and over age group.

Among people of all ages, the prevalence of incisal wear was highest for people who had 10 years of schooling or less (20.0%) and lowest for people who had a degree or higher (9.2%). The prevalence of incisal wear was associated with sex, year level of schooling, highest qualification attained, eligibility for public dental care, and usual reasons for dental visit.

Males had higher prevalence of incisal wear than females (17.3% vs 9.8%). This pattern was evident within every age group although some differences were not statistically significant. Those who had fewer years of schooling had higher prevalence of incisal wear than those with 11 years of schooling or more (20.0% vs 11.7%). Similarly, those who did not have a degree qualification had higher prevalence of incisal wear than those who had a degree (15.6% vs 9.2%).

People who were eligible for public dental care were more likely to have incisal wear than those who were ineligible (19.7% vs 11.3%). Dental insurance status was not associated with the prevalence of incisal wear. People who usually visited a dentist for a problem had higher prevalence of incisal wear than those who usually visited for a check-up (17.2% vs 11.3%). The differences were mostly consistent across age groups. This pattern was generally evident within each age group but differences were not statistically significant.

In summary, nearly one in seven Australian adults had incisal wear. This condition was related to sex, educational attainment and patterns of dental visiting.

Table 4.27: Percentage of people with enamel wear of lower incisors in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**13.5**	**3.7**	**14.5**	**28.5**	**35.7**
	95%CI	*11.9–15.2*	*2.5–5.4*	*11.6–18.1*	*24.2–33.1*	*27.6–44.9*
Sex						
Male	%	17.3	6.0	18.9	35.5	47.4
	95%CI	*14.8–20.1*	*3.8–9.4*	*14.2–24.6*	*29.4–42.2*	*31.9–63.5*
Female	%	9.8	*1.4	10.3	21.9	29.7
	95%CI	*8.1–11.9*	*0.7–2.6*	*7.1–14.8*	*16.8–27.9*	*20.7–40.5*
Indigenous identity						
Indigenous	%	*7.2	—	*25.4	*16.2	n.p.
	95%CI	*2.6–18.9*	—	*8.5–55.4*	*2.0–65.1*	*n.p.*
Non-Indigenous	%	13.6	3.8	14.4	28.7	35.8
	95%CI	*12.0–15.4*	*2.6–5.5*	*11.4–18.0*	*24.4–33.4*	*27.6–45.0*
Residential location						
Capital city	%	12.8	4.0	14.3	28.1	28.5
	95%CI	*10.9–15.0*	*2.5–6.2*	*10.7–18.9*	*22.8–34.2*	*20.1–38.8*
Other places	%	15.0	*3.0	14.9	29.1	48.2
	95%CI	*12.5–18.0*	*1.6–5.8*	*10.5–20.9*	*22.7–36.5*	*33.0–63.8*
Year level of schooling						
Year 10 or less	%	20.0	*7.4	20.7	24.1	38.4
	95%CI	*16.4–24.2*	*3.1–16.7*	*13.8–29.8*	*18.2–31.3*	*27.0–51.2*
Year 11 or more	%	11.7	3.1	13.3	32.0	31.9
	95%CI	*10.0–13.7*	*2.1–4.8*	*10.2–17.2*	*26.6–37.9*	*21.2–45.1*
Highest qualification attained						
Degree or higher	%	9.2	*2.2	11.0	27.8	*25.9
	95%CI	*7.7–10.9*	*1.3–3.8*	*8.4–14.3*	*21.9–34.6*	*12.8–45.4*
Other/None	%	15.6	4.6	16.4	29.3	37.8
	95%CI	*13.3–18.1*	*2.9–7.3*	*12.0–21.9*	*24.3–34.9*	*28.7–47.9*
Eligibility for public dental care						
Eligible	%	19.7	*4.1	18.9	29.9	37.1
	95%CI	*16.5–23.3*	*1.6–10.1*	*12.7–27.2*	*23.6–36.9*	*27.8–47.5*
Ineligible	%	11.3	3.5	13.6	27.5	*28.0
	95%CI	*9.6–13.3*	*2.3–5.3*	*10.4–17.5*	*22.3–33.3*	*13.2–49.9*
Dental insurance						
Insured	%	13.9	*3.3	14.7	27.2	32.7
	95%CI	*11.7–16.4*	*1.6–6.6*	*10.6–19.9*	*22.4–32.6*	*22.2–45.3*
Uninsured	%	13.7	4.3	14.8	29.8	39.2
	95%CI	*11.5–16.2*	*2.7–6.7*	*10.6–20.1*	*23.4–37.1*	*27.2–52.8*
Usually visit dentist						
For a check-up	%	11.3	*3.2	12.7	25.3	30.8
	95%CI	*9.6–13.3*	*1.9–5.3*	*9.3–17.2*	*20.9–30.2*	*21.6–41.8*
For a dental problem	%	17.2	*4.5	16.5	32.6	45.4
	95%CI	*14.2–20.5*	*2.3–8.5*	*11.7–22.8*	*25.4–40.6*	*30.7–60.9*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Prevalence of other oral health conditions

Information on a number of dental conditions were collected for the Australian adult population (Table 4.28). Most of these conditions were assessed during dental examination. Only xerostomia (feeling of dry mouth) was collected via the Interview questionnaire.

Severe wear of lower incisors was defined as complete loss of enamel from the incisal surface and a remaining height of the tooth crown in the bottom 5% of all crown heights. One in two hundred Australian adults (0.5%) were found to have this level of incisal wear.

Dental fluorosis was assessed during the dental examination on the upper two central incisors using the Thylstrup and Fejerskov (TF) index. Dental fluorosis can result from excess of fluoride intake during the first few years of life. In NSAOH 2017–18, fluorosis was assessed among people aged 15–44 years. The TF index is a 'dry' index: teeth are dried with compressed air for 20 seconds before assessment. The prevalence of dental fluorosis is defined as having at least one central incisor with a TF score of 2 (fine white lines with small cloudy areas) or higher. Some 9.4% of Australian adults aged 15–44 years had dental fluorosis. The highest prevalence of dental fluorosis was in people who had dental insurance (14.7%) and lowest among those who did not have dental insurance (5.5%).

Xerostomia is a subjective feeling of dry mouth. People in NSAOH 2017–18 were asked to report their feeling of dry mouth through the CATI questionnaire. Some 13.2% of Australian adults aged 15 years and over reported having xerostomia with this condition more prevalent among the two oldest age groups. The prevalence of xerostomia was highest in people who were eligible for public dental care (22.5%) and lowest among those had a degree qualification or higher (8.9%). The prevalence of xerostomia was associated with year level of schooling, highest qualification attained, eligibility for public dental care, dental insurance status and usual reason for a dental visit.

Teeth of opposing arches need to have contact in order to perform masticatory function. When people lose posterior teeth, some important occlusal contacts (contact between opposing molars and premolars) may be lost, resulting in loss of masticatory function, even though people retain some teeth. In NSAOH 2017–18, lack of occlusal contacts between molars and premolars of opposing arches was assessed by dental examiners. For this report, lack of occlusal contact was defined as total lack of contact between lower molars or premolars with teeth in the upper arch. Some 4.8% of Australian adults had total lack of occlusal contact. Prevalence of this condition was strongly associated with age, increasing from 0.2% in the youngest age group to 23.3% in the 75 years and over age group. Among people of all ages, prevalence of lack of occlusal contact prevalence was highest among those who had 10 years of schooling or less (12.4%), and lowest among those who were ineligible for public dental care (1.6%). The prevalence of lack of occlusal contact was associated with residential location, year level of schooling, highest qualification attained, eligibility for public dental care, dental insurance status, and usual reason for a dental visit. Lack of timely dental care, combined with higher levels of dental diseases can lead to tooth loss that results in reduced masticatory function among dentate people.

Various conditions can cause oral mucosal lesions. In NSAOH 2017–18, oral mucosal lesions were collected in three major groups: suspected malignancies, ulcerated oral mucosal lesions and other lesions. This report presents prevalence of any oral mucosal lesions in examined adults. The prevalence of suspected malignancies was very low. Those cases were referred by the dental teams for further specialist assessment. Over one in five Australian adults (21.7%) had oral mucosal lesions with this condition more prevalent among the two oldest age groups. Among people of all ages, prevalence of oral mucosal lesions was highest in people who usually visited for a dental problem (26.2%) and lowest among those who had a degree qualification or higher (15.9%). Indigenous people had a high prevalence of oral mucosal lesions (35.1%) although this estimate was based on a small sample size. The prevalence of oral mucosal lesions was higher in those who did not have a degree, those who were eligible for public dental care and those who usually visited for a dental problem than their counterparts.

Table 4.28: Percentage of people with other oral conditions in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Severe wear of lower incisors	Dental fluorosis	Xerostomia	Lack of occlusal contact	Oral mucosal lesions
All people	**%**	**0.5**	**9.4**	**13.2**	**4.8**	**21.7**
	95%CI	*0.3–0.8*	*7.2–12.2*	*12.4–14.0*	*4.1–5.7*	*19.9–23.7*
Age group						
15–34 years	%	—	9.4	9.3	*0.2	17.2
	95%CI	—	*6.8–12.9*	*7.9–10.8*	*0.1–0.4*	*14.4–20.4*
35–54 years	%	*0.4	9.3	11.0	*1.6	19.8
	95%CI	*0.1–1.1*	*5.8–14.5*	*9.7–12.3*	*0.9–3.0*	*16.7–23.4*
55–74 years	%	1.3	. .	17.6	11.2	28.7
	95%CI	*0.8–2.0*	. .	*16.2–19.1*	*9.0–13.9*	*25.0–32.7*
≥75 years	%	*4.1	. .	26.5	23.3	30.7
	95%CI	*1.4–11.2*	. .	*23.3–30.0*	*17.1–31.0*	*23.7–38.7*
Sex						
Male	%	*0.8	9.5	12.2	5.5	22.3
	95%CI	*0.5–1.4*	*6.2–14.3*	*11.0–13.5*	*4.4–6.8*	*19.7–25.2*
Female	%	*0.2	9.2	14.1	4.2	21.1
	95%CI	*0.1–0.5*	*6.8–12.5*	*13.0–15.2*	*3.1–5.6*	*18.5–24.0*
Indigenous identity						
Indigenous	%	—	*0.5	18.9	*2.5	*35.1
	95%CI	—	*0.1–2.5*	*13.3–26.2*	*0.9–6.7*	*18.9–55.6*
Non-Indigenous	%	0.5	9.6	13.0	4.9	21.5
	95%CI	*0.3–0.8*	*7.4–12.5*	*12.2–13.9*	*4.1–5.8*	*19.7–23.5*
Residential location						
Capital city	%	*0.5	10.1	12.5	3.5	21.2
	95%CI	*0.3–0.8*	*7.4–13.6*	*11.5–13.5*	*2.7–4.6*	*19.0–23.5*
Other places	%	*0.6	*7.5	14.6	7.6	22.9
	95%CI	*0.3–1.4*	*4.3–12.7*	*13.1–16.2*	*6.1–9.4*	*19.5–26.7*
Year level of schooling						
Year 10 or less	%	*1.3	*6.9	19.8	12.4	25.6
	95%CI	*0.7–2.4*	*3.1–14.5*	*17.9–21.7*	*10.0–15.2*	*22.0–29.4*
Year 11 or more	%	*0.3	9.6	10.8	2.2	20.5
	95%CI	*0.2–0.6*	*7.2–12.7*	*10.0–11.7*	*1.6–3.0*	*18.2–22.9*
Highest qualification attained						
Degree or higher	%	*0.1	10.5	8.9	*0.9	15.9
	95%CI	*0.0–0.3*	*7.4–14.6*	*8.0–10.0*	*0.4–2.0*	*13.6–18.4*
Other/None	%	0.7	9.0	14.9	6.3	24.2
	95%CI	*0.4–1.2*	*6.1–13.0*	*13.8–16.0*	*5.3–7.6*	*21.6–26.9*
Eligibility for public dental care						
Eligible	%	*1.2	*8.4	22.5	12.2	26.0
	95%CI	*0.6–2.1*	*4.2–16.2*	*20.8–24.3*	*10.1–14.8*	*22.6–29.7*
Ineligible	%	*0.3	9.7	9.6	1.6	19.9
	95%CI	*0.1–0.6*	*7.3–12.9*	*8.8–10.5*	*1.1–2.2*	*17.7–22.4*
Dental insurance						
Insured	%	*0.6	14.7	10.3	2.7	22.5
	95%CI	*0.3–1.1*	*10.4–20.3*	*9.4–11.3*	*1.9–3.9*	*19.5–25.7*
Uninsured	%	*0.5	5.5	16.6	6.7	20.8
	95%CI	*0.2–1.0*	*3.9–7.7*	*15.4–17.8*	*5.5–8.2*	*18.3–23.6*
Usually visit dentist						
For a check-up	%	*0.4	9.9	10.3	2.9	18.9
	95%CI	*0.2–0.6*	*7.1–*13.6	*9.5–11.2*	*2.2–3.8*	*16.8–21.3*
For a dental problem	%	*0.8	8.4	18.2	8.2	26.2
	95%CI	*0.4–1.7*	*5.4–13.0*	*16.7–19.9*	*6.5–10.3*	*23.0–29.6*

Notes: 1. Data in this table was taken from the Examination, except for Xerostomia which was taken from the Interview.
2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.
3. — zero or rounded to zero; n.p. not publishable due to small cell counts; . . not applicable.

Summary of findings for other oral conditions

Various acquired chronic dental conditions accumulate with age within a population. The two measures of enamel wear were strongly associated with age. Similarly, total lack of occlusal contact was strongly associated with age because it is related with tooth loss. People of the 55–74 year and 75 years and over age groups were more likely to have xerostomia and oral mucosal lesions than the youngest age group (Table 4.29).

The prevalence of dental fluorosis was not associated with age. This developmental condition is associated with intake of fluoride during early childhood. Lack of changes across age groups indicates a stable level of exposure to fluoride available in the population during the time period the study sample were born.

Females were less likely to have enamel wear but more likely to have xerostomia than males.

People who had a lower level of schooling or qualification were consistently more likely to have acquired chronic dental conditions. The relative difference between the respective groups was most notable with the prevalence of lack of occlusal contact. This condition is associated with tooth loss.

Those who were eligible for public dental care were more likely to have chronic oral conditions than those who were not eligible, except for the prevalence of dental fluorosis. In particular, the former had 7.69 times higher prevalence of lack of occlusal contact than the latter.

People who usually visited for a dental problem had higher prevalence of the chronic oral conditions, except for severe enamel wear and dental fluorosis. Problem-based visiting was associated with 2.84 times the prevalence of lack of occlusal contact than check-up based visiting.

Table 4.29: Summary for other oral conditions

	Enamel wear of lower incisors	Severe enamel wear of lower incisors	Dental fluorosis	Xerostomia	Lack of occlusal contact	Oral mucosal lesions
Age group			**Prevalence/Mean ratio**			
Ref[(a)] = 15–34 years						
35–54	3.91	15.92	~	~	10.44	~
55–74	7.67	56.77	. .	1.90	72.88	1.67
≥75	9.63	180.54	. .	2.86	151.66	1.79
Sex						
Ref = Male						
Female	0.57	0.29	~	1.15	~	~
Indigenous identity						
Ref = Non-Indigenous						
Indigenous	~	~	0.05	1.45	~	~
Residential location						
Ref = Capital cities						
Other places	~	~	~	1.17	2.15	~
Year level of schooling						
Ref = Year 11 or more						
Year 10 or less	1.71	4.07	~	1.83	5.59	1.25
Highest qualification attained						
Ref= Degree or higher						
Other/None	1.70	6.02	~	1.67	6.79	1.52
Eligibility for public dental care						
Ref = Ineligible						
Eligible	1.74	3.93	~	2.34	7.69	1.31
Dental insurance						
Ref = Insured						
Uninsured	~	~	0.38	1.61	2.47	~
Usually visit dentist						
Ref = For a check-up						
For a dental problem	1.52	~	~	1.77	2.84	1.38

Note: (a) Ref: reference group; ~: difference is not statistically significantly different; . . Not applicable.
(b) The 95% confidence intervals for these estimates are in Appendix Table B.4.

5 Dental care

by S Chrisopoulos, L Luzzi and A Ellershaw

Several approaches are used to describe access to dental care among populations. While the most common approaches are focussed on the last dental visit, how long ago it occurred, and the place of the visit, there is also a strong interest in capturing a longer-term view of people's access to dental care. Another approach asks people about their usual pattern of visits to a dentist. This section uses both approaches, and additionally describes people's experience of financial barriers in obtaining dental care.

5.1 People's most recent dental visit

Dental attendance within the last 12 months

Time since last visiting a dentist is a key indicator of access to dental care. Two aspects of the time interval are important. The percentage of adults who last visited within 12 months indicates the recency of the last visit. Some of those visits will be for a regular check-up; while other visits will be for dental treatment as a result of experiencing a dental problem. Visiting at least every 12 months for a check-up is widely recommended by the dental profession. Such visits provide the opportunity for provision of specific preventive services, early diagnosis and prompt treatment of dental disease.

On the other hand not having visited in the last 5 years can be regarded as effectively not being within the dental care system. The reasons for not visiting within the last 5 years may be varied. They range from no perceived need through to barriers to visiting when there is a perceived need and desire to visit, but either individual factors prevent visiting, or dental services are not available or obtainable.

In NSAOH 2017–18, time since last visit was assessed in the interview by asking people 'How long ago did you last visit a dental professional about your teeth, dentures or gums?' People were able to answer 'Less than 12 months', '1–<2 years', '2–<5 years', '5–<10 years', '10+ years', 'Never visited' or 'Don't know'. Table 5.1 presents the percentage of people aged 15 years and over, who visited a dental professional in the previous 12 months, by age group. Overall, 56.4% of the Australian population aged 15 years and over reported visiting a dentist in the previous 12 months. There was minor variation across age groups, ranging from 53.8% for 35–54 year-olds to 59.4% in the 55–74 year-olds (Table 5.1).

For all ages, a higher percentage of females visited a dentist, compared to males (58.2% and 54.5%, respectively). Across the four age groups, differences between females and males were only evident for 35–54 year-olds (56.9% vs 50.5%). There was a lower percentage of individuals who identified as Indigenous, aged 55–74 years who visited in the previous 12 months compared to others (41.1% and 59.8%, respectively).

A higher proportion of individuals living in capital cities reported visiting in the previous 12 months (58.6%) compared to those living in other places (51.7%).

Australians with at least year 11 schooling had higher rates of visiting than those with year 10 or less (58.3% and 52.0%, respectively). Similarly, those who had completed a degree or higher were more likely to have visited in the last 12 months than other (62.2% and 54.5%, respectively). These findings were consistent among the three older age groups.

Differences in attendance were also evident for those who were eligible for public dental care (51.0%) compared to those ineligible for public dental care (58.6%).

Marked differences in visiting a dentist in the previous 12 months are seen for dental insurance. The proportion of individuals with dental insurance visiting a dentist was 1.5 times higher than those who did not have insurance (69.7% and 43.3%, respectively). This difference was evident across all age groups. Similarly, there was a two-fold difference in visiting for those that reported usually visiting a dentist for a check-up compared to those who reported usually visiting for a problem (69.6% and 36.4%, respectively).

Table 5.1: Percentage of people visiting dentist within last 12 months in the Australian population

		Population: all people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**56.4**	**56.8**	**53.8**	**59.4**	**56.0**
	95%CI	*55.1–57.6*	*54.6–58.9*	*51.8–55.8*	*57.3–61.5*	*52.7–59.2*
Sex						
Male	%	54.5	55.9	50.5	57.4	54.8
	95%CI	*52.6–56.3*	*52.7–59.1*	*47.4–53.6*	*54.4–60.4*	*49.9–59.6*
Female	%	58.2	57.6	56.9	61.3	56.9
	95%CI	*56.7–59.7*	*54.8–60.3*	*54.2–59.6*	*58.6–63.9*	*52.5–61.2*
Indigenous identity						
Indigenous	%	51.4	63.2	44.4	41.1	*34.6
	95%CI	*44.0–58.7*	*51.9–73.3*	*30.8–59.0*	*29.1–54.2*	*11.9–67.4*
Non-Indigenous	%	56.5	56.6	54.0	59.8	56.2
	95%CI	*55.2–57.8*	*54.4–58.7*	*52.0–56.0*	*57.7–61.9*	*52.9–59.4*
Residential location						
Capital city	%	58.6	58.7	57.3	60.7	57.9
	95%CI	*57.0–60.3*	*55.9–61.4*	*54.9–59.8*	*57.8–63.6*	*53.8–61.9*
Other places	%	51.7	51.9	46.1	57.2	52.9
	95%CI	*49.8–53.6*	*49.0–54.8*	*42.8–49.4*	*54.3–60.1*	*47.5–58.2*
Year level of schooling						
Year 10 or less	%	52.0	60.7	44.0	52.4	50.5
	95%CI	*49.7–54.2*	*54.9–66.2*	*39.1–49.0*	*49.4–55.4*	*46.2–54.7*
Year 11 or more	%	58.3	55.9	56.3	65.3	65.4
	95%CI	*56.9–59.6*	*53.7–58.1*	*54.2–58.3*	*62.7–67.9*	*60.7–69.8*
Highest qualification attained						
Degree or higher	%	62.2	56.6	61.1	73.8	79.3
	95%CI	*60.5–63.9*	*53.8–59.4*	*58.6–63.6*	*70.4–77.0*	*72.6–84.7*
Other/None	%	54.5	56.9	50.1	56.5	53.6
	95%CI	*53.0–56.0*	*54.2–59.7*	*47.3–52.8*	*54.2–58.8*	*50.1–57.1*
Eligibility for public dental care						
Eligible	%	51.0	51.8	47.5	51.1	52.7
	95%CI	*49.0–52.9*	*47.0–56.5*	*42.2–52.8*	*48.3–54.0*	*49.2–56.2*
Ineligible	%	58.6	57.9	55.0	66.0	72.7
	95%CI	*57.1–60.1*	*55.5–60.2*	*52.8–57.2*	*63.2–68.6*	*66.3–78.3*
Dental insurance						
Insured	%	69.7	69.7	65.6	74.2	74.0
	95%CI	*68.1–71.3*	*66.8–72.5*	*63.1–68.1*	*71.7–76.5*	*69.7–78.0*
Uninsured	%	43.3	45.1	40.5	44.5	42.6
	95%CI	*41.7–45.0*	*42.2–48.1*	*37.5–43.6*	*41.7–47.4*	*38.4–46.8*
Usually visit dentist						
For a check-up	%	69.6	65.7	67.2	77.8	77.1
	95%CI	*68.2–71.0*	*63.3–68.0*	*64.9–69.5*	*75.5–79.9*	*73.5–80.3*
For a dental problem	%	36.4	36.7	35.2	38.0	35.5
	95%CI	*34.5–38.4*	*32.8–40.7*	*32.1–38.4*	*35.1–40.9*	*31.0–40.2*
Oral status						
Dentate	%	57.8	56.8	53.9	62.5	66.0
	95%CI	*56.5–59.1*	*54.6–58.9*	*51.9–55.9*	*60.3–64.6*	*62.3–69.5*
Edentulous	%	22.2	—	*38.7	24.0	16.5
	95%CI	*18.3–26.7*	—	*20.8–60.3*	*18.3–30.7*	*11.9–22.4*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero.

The largest difference in visiting was between those who have their own natural teeth (dentate) and those who were edentulous. The proportion of dentate individuals visiting a dental provider in the previous 12 months was nearly three times that of edentulous individuals (57.8% and 22.2%, respectively).

In summary, 56% of Australians aged 15 years and over, visited a dental provider in the previous 12 months. Living in capital cities, having achieved at least year 11 at school, having a degree or higher, being ineligible for public dental care, having dental insurance, usually visiting a dentist for a check-up and being dentate are all associated with having made a recent dental visit.

Dental attendance 5 years ago or longer

In contrast to people who have visited a dentist within the last 12 months, those adults who have not visited within the last 5 years are regarded as being 'outside' the dental care system and are described in Table 5.2. Overall, 11.4% of Australians aged 15 years and over reported not having visited a dentist for at least 5 years, ranging from 9.9% for 15–34 year-olds to 15.0% for 75 years and over. A higher proportion of males (12.8%) reported not having visited at least 5 years, compared to females (10.1%).

A higher percentage of people living in areas outside of capital cities reported not visiting a dentist for over 5 years (13.6%) than those living in capital cities (10.4%), although this difference was not found for any specific age group.

Individuals with a school level of year 10 or less were more likely to have not visited within the last 5 years (15.3%) compared to those with at least year 11 level school education (9.8%). The difference between the two groups was noticeable for the two older age groups – increasing to 11.4 percentage points in the 75 years and over. Similarly, the percentage of people reporting not having visited for 5 years or more was higher for those without a degree qualification than those with a degree qualifications (12.9% and 7.2%, respectively). Similar percentages and differences were present across all four age groups.

There was a higher percentage of people not seeing a dentist for more than 5 years for those who were eligible for public dental care (14.5%) compared to those that were ineligible (10.2%). There was a marked difference for those without dental insurance who were more likely to have not visited in the previous 5 years (17.8%) compared to those with insurance (5.0%). The magnitude of this difference was consistent across all age groups. Even larger differences were reported for those who usually visit a dentist for a problem (20.8%) compared to those who usually visit for a check-up (3.8%), and for those who were edentulous (41.4%) compared to those who were dentate (10.2%).

Infrequent dental visiting was also associated with oral health status with edentulous people in the two oldest age groups far more likely to have not visited for 5 years or more than dentate people.

In summary, one in ten Australian adults (11.4%) reported that they had not visited a dentist in the previous 5 years. This pattern of visiting was associated with living outside of capital cities, having schooling of year 10 or less, being without a degree qualification, being eligible for public dental care, not having dental insurance, usually visiting for a problem or being edentulous.

Table 5.2: Percentage of people whose last dental visit was 5 or more years ago in the Australian population

		Population: all people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**11.4**	**9.9**	**12.1**	**11.4**	**15.0**
	95%CI	*10.7–12.2*	*8.7–11.3*	*10.8–13.5*	*10.1–12.9*	*12.9–17.4*
Sex						
Male	%	12.8	11.1	13.4	13.4	15.6
	95%CI	*11.7–13.9*	*9.2–13.4*	*11.6–15.4*	*11.5–15.5*	*12.4–19.5*
Female	%	10.1	8.7	10.9	9.5	14.6
	95%CI	*9.3–11.1*	*7.4–10.3*	*9.3–12.6*	*8.0–11.3*	*12.0–17.6*
Indigenous identity						
Indigenous	%	13.8	*5.9	*20.0	*16.0	*37.7
	95%CI	*9.6–19.4*	*2.6–12.7*	*10.8–33.9*	*8.2–29.0*	*14.5–68.3*
Non-Indigenous	%	11.4	10.1	11.9	11.3	14.8
	95%CI	*10.6–12.2*	*8.8–11.4*	*10.7–13.3*	*10.0–12.8*	*12.7–17.1*
Residential location						
Capital city	%	10.4	9.2	11.1	10.4	12.7
	95%CI	*9.4–11.5*	*7.7–10.9*	*9.7–12.8*	*8.7–12.4*	*10.2–15.8*
Other places	%	13.6	11.8	14.2	13.0	18.6
	95%CI	*12.4–14.8*	*9.9–14.0*	*11.9–16.9*	*11.1–15.2*	*15.2–22.4*
Year level of schooling						
Year 10 or less	%	15.3	11.9	14.4	16.0	19.4
	95%CI	*13.7–17.0*	*8.9–15.6*	*11.3–18.0*	*13.9–18.3*	*16.4–22.9*
Year 11 or more	%	9.8	9.5	11.6	7.4	8.0
	95%CI	*9.0–10.7*	*8.3–10.9*	*10.3–13.1*	*6.1–9.0*	*5.8–11.1*
Highest qualification attained						
Degree or higher	%	7.2	7.6	8.2	4.0	*4.8
	95%CI	*6.3–8.1*	*6.2–9.3*	*6.9–9.8*	*2.9–5.5*	*2.4–9.1*
Other/None	%	12.9	11.0	14.1	12.8	16.3
	95%CI	*12.0–13.9*	*9.4–12.7*	*12.3–16.1*	*11.3–14.4*	*13.9–18.9*
Eligibility for public dental care						
Eligible	%	14.5	9.8	16.0	15.1	16.8
	95%CI	*13.1–15.9*	*7.4–13.0*	*12.8–19.8*	*13.1–17.4*	*14.4–19.5*
Ineligible	%	10.2	10.0	11.3	8.4	*6.0
	95%CI	*9.3–11.1*	*8.7–11.6*	*10.0–12.8*	*6.9–10.2*	*3.6–10.0*
Dental insurance						
Insured	%	5.0	3.6	6.2	4.9	5.1
	95%CI	*4.3–5.7*	*2.6–5.1*	*5.0–7.6*	*3.8–6.4*	*3.5–7.2*
Uninsured	%	17.8	15.9	18.5	17.9	22.0
	95%CI	*16.6–19.1*	*13.9–18.2*	*16.2–21.1*	*15.8–20.3*	*18.7–25.7*
Usually visit dentist						
For a check-up	%	3.8	4.3	4.5	2.1	3.4
	95%CI	*3.3–4.4*	*3.4–5.4*	*3.6–5.8*	*1.4–3.2*	*2.1–5.4*
For a dental problem	%	20.8	18.6	20.9	21.3	24.1
	95%CI	*19.2–22.4*	*15.8–21.8*	*18.3–23.7*	*18.9–23.8*	*20.4–28.2*
Oral status						
Dentate	%	10.2	9.9	12.1	8.8	6.5
	95%CI	*9.4–11.0*	*8.7–11.3*	*10.8–13.5*	*7.7–10.1*	*4.9–8.4*
Edentulous	%	41.4	—	*12.3	40.6	48.6
	95%CI	*36.6–46.2*	—	*5.3–25.9*	*33.4–48.2*	*41.9–55.4*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero.

Attendance at private dental practice

The Australian dental care system is predominantly a fee-for-service private practice system. Two main alternative public sector programs exist. School dental services provide dental care to about 50% of primary school-aged children, although the percentage coverage varies between states and territories. The percentage coverage by the school dental service is lower among secondary school aged children. The school dental service has generally been universally available to children, but policies on targeting of services have gradually eroded this organisational characteristic. The second alternative program is public dental care for adults, provided through dental hospitals, community health centres and regional facilities. Public dental services are available only to means tested eligible adults. In practice, eligibility depends on adults holding a government concession card.

In NSAOH 2017–18, people who reported that they had visited a dentist at least once were asked 'Where did you make your last dental visit'. There were a number of response categories that have been collapsed into private practice (private dental practices including specialist practices, and dental clinics associated with a health insurance fund) and the remainder. The remainder are predominantly the school dental services and public dental services.

The proportion of people who visited a private dental provider at their last visit is shown in Table 5.3. Overall, 81.8% of Australians visited a private practice dentist at their last visit, varying from 70.5% for those 75 years and over to 86.4% for those aged 35 to 54 years. The lower rates in the younger and older age groups likely reflects access to public care, either through the Child Dental Benefits Schedule or coverage under their parents' dental insurance for the younger age group, or via eligibility for public care due to holding a government healthcare card.

For most characteristics there were moderate differences. For instance, a higher percentage of Australians who were non-Indigenous had visited a private practice at their last visit compared to Indigenous (82.3% and 60.2%, respectively); Australians living in capital cities compared to other areas (83.9% and 77.7%, respectively); those with a year 11 or higher level of schooling compared to year 10 or less (85.5% and 73.0%, respectively); those with a degree or higher (89.9%) compared to other or no qualifications (79.2%); and those who usually visit for a check-up (87.9%) compared to those who usually visit for a problem (72.6%).

There were marked differences in the percentage who visited a private practice dentist for Australians who had private dental insurance (94.6%) compared to those without insurance (68.3%); and for those who were dentate (83.4%) compared to those who were edentulous (45.2%).

In summary, the vast majority of Australians (81.8%) visited a private practice dentist at their last dental visit. Visiting a private dentist was associated with being non-Indigenous, living in a capital city, having a year 11 or more level of schooling, having a degree or higher, ineligibility for public care, having dental insurance, usually visiting for a check-up and being dentate.

Table 5.3: Percentage of people who attended a private dental practice at last dental visit in the Australian population

		Population: all people who visited a dentist at least once				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**81.8**	**79.9**	**86.4**	**82.1**	**70.5**
	95%CI	*80.8–82.8*	*78.1–81.6*	*84.8–87.9*	*80.3–83.7*	*67.4–73.4*
Sex						
Male	%	80.9	78.8	83.9	83.9	67.2
	95%CI	*79.4–82.3*	*76.0–81.3*	*81.3–86.2*	*81.7–86.0*	*62.6–71.5*
Female	%	82.7	81.1	88.8	80.3	73.0
	95%CI	*81.5–83.9*	*78.7–83.2*	*87.0–90.4*	*77.8–82.5*	*68.9–76.8*
Indigenous identity						
Indigenous	%	60.2	61.9	71.5	43.0	*36.7
	95%CI	*52.6–67.3*	*49.3–73.0*	*58.1–81.9*	*31.2–55.5*	*14.7–66.1*
Non-Indigenous	%	82.3	80.5	86.8	82.8	70.8
	95%CI	*81.2–83.4*	*78.6–82.1*	*85.2–88.2*	*81.0–84.5*	*67.8–73.7*
Residential location						
Capital city	%	83.9	82.2	88.3	83.3	73.4
	95%CI	*82.5–85.1*	*80.1–84.2*	*86.5–90.0*	*80.8–85.6*	*69.6–76.9*
Other places	%	77.7	74.0	82.3	80.1	65.9
	95%CI	*75.9–79.3*	*70.7–77.1*	*79.3–85.0*	*77.6–82.3*	*60.6–70.8*
Year level of schooling						
Year 10 or less	%	73.0	68.2	78.7	76.4	63.7
	95%CI	*71.1–74.9*	*62.8–73.2*	*74.6–82.3*	*73.5–79.0*	*59.7–67.5*
Year 11 or more	%	85.5	82.5	88.4	86.9	81.9
	95%CI	*84.4–86.6*	*80.6–84.2*	*86.8–89.8*	*84.9–88.7*	*77.7–85.5*
Highest qualification attained						
Degree or higher	%	89.9	87.5	90.6	93.3	88.8
	95%CI	*88.5–91.2*	*85.2–89.6*	*88.5–92.3*	*91.2–94.9*	*81.9–93.3*
Other/None	%	79.2	77.2	84.2	80.2	68.6
	95%CI	*78.0–80.4*	*74.9–79.3*	*82.0–86.1*	*78.2–82.0*	*65.2–71.7*
Eligibility for public dental care						
Eligible	%	64.1	59.6	59.2	67.7	66.4
	95%CI	*62.0–66.1*	*54.3–64.6*	*54.4–63.9*	*64.7–70.5*	*62.9–69.7*
Ineligible	%	89.5	84.7	91.9	93.9	91.8
	95%CI	*88.5–90.4*	*82.9–86.3*	*90.5–93.1*	*92.4–95.2*	*86.4–95.2*
Dental insurance						
Insured	%	94.6	92.6	96.8	95.0	91.4
	95%CI	*93.8–95.3*	*90.8–94.0*	*95.7–97.7*	*93.6–96.1*	*88.5–93.5*
Uninsured	%	68.3	66.8	73.8	68.7	54.9
	95%CI	*66.6–69.9*	*63.8–69.7*	*70.9–76.6*	*65.8–71.5*	*50.4–59.3*
Usually visit dentist						
For a check-up	%	87.9	84.0	91.7	90.5	85.1
	95%CI	*86.8–89.0*	*82.0–85.8*	*90.0–93.1*	*88.5–92.1*	*81.9–87.9*
For a dental problem	%	72.6	69.9	79.3	72.6	55.8
	95%CI	*70.9–74.3*	*66.1–73.5*	*76.3–82.0*	*69.7–75.3*	*50.9–60.6*
Oral status						
Dentate	%	83.4	79.9	86.9	85.2	77.3
	95%CI	*82.3–84.3*	*78.1–81.6*	*85.3–88.3*	*83.5–86.7*	*74.0–80.2*
Edentulous	%	45.2	—	46.0	46.8	43.1
	95%CI	*40.5–50.1*	—	*27.1–66.1*	*39.9–53.8*	*36.9–49.5*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero.

Payment by patients for dental care

While the place of the last visit was dominated by private practice, it cannot be assumed automatically that all visits were paid for by the individual. Some visits made to private dentists are paid for by public funds, such as the Child Dental Benefit Scheme, and the arrangements for veterans (Department of Veterans Affairs), and the more limited general dental schemes with contracted private dentists funded by state and territory governments.

In NSAOH 2017–18, people who had visited within the last 5 years were asked 'Did the government or an insurance fund pay any part of the expense for your last dental visit?' Response options included 'Paid all own expenses', 'Insurance paid some – patient paid some', 'Insurance paid all', 'Government paid some – patient paid some' or 'Government paid all'. People who reported one of the first three payment options were classified as having paid for their care. Those who reported 'Government paid some – patient paid some' were classified as 'Government paid' as the patient paid component would be a co-payment associated with publicly funded dental care in the majority of cases. Furthermore, those ineligible for public dental care who had visited within the last 5 years were classified as having paid for their dental care and were included in Table 5.4.

Overall, 89.4% of people who visited a dentist within the last 5 years paid for their last dental visit, either directly or through their insurance premiums. Across the age groups, the 15–34 and 35–54 year age groups had the highest proportion that paid for their dental care (92.3% and 92.8%, respectively), while the 75 years and over age group had the lowest (74.0%). A higher proportion of non-Indigenous Australians paid for their last dental visit (89.9%) compared to Indigenous Australians (66.7%), and this was consistent across all age groups. Similarly, a higher percentage of people living in capital cities paid for their last dental care (91.4%) compared to those in other areas (85.3%), although there was no significant difference in the older two age groups

The proportion paying for their dental care was also higher for those with year 11 or higher schooling (93.1%) compared to those with year 10 or less (79.9%), those with a degree or higher (97.4%) compared to those with other or no qualifications (86.2%), those with dental insurance (98.3%) compared to those without insurance (78.2%), and people who usually visit for a check-up (94.3%) compared to those that usually visit for a problem (79.4%). These differences were consistent across each age group, with the gap between those that paid and those that didn't, increasing with older age groups.

The greatest variation in those that paid for their last dental care and those that didn't was seen for dentate (90.3%) compared to edentulous (56.3%). As seen in Table 5.1, edentulous individuals were considerably more likely to be eligible for public dental care than dentate individuals (10.5% compared to 1.2%) and over three times more likely to be uninsured. Therefore, the lower percentage of edentulous individuals that paid for the last dental care may reflect specific programs that provide public funding for pensioners to obtain dentures from private practitioners.

In summary, the vast majority of Australians (89.4%) pay for their dental care, either in full or through premiums associated with their insurance. Lower rates of paying for dental care may reflect financial barriers to access to dental care and is associated with the following sociodemographic variables: being Indigenous, living in regions outside of capital cities, having year 10 or less schooling, having other or no qualifications, being eligible for public dental care, being uninsured, usually visiting a dentist for a problem, or being edentulous.

Table 5.4: Percentage of people who paid for their last dental visit in the Australian population

		Population: all people who visited in the last 5 years				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**89.4**	**92.3**	**92.8**	**85.6**	**74.0**
	95%CI	*88.5–90.3*	*90.8–93.5*	*91.5–94.0*	*84.0–87.1*	*70.6–77.1*
Sex						
Male	%	89.8	91.5	92.9	88.0	72.7
	95%CI	*88.6–90.9*	*89.1–93.4*	*90.8–94.6*	*85.9–89.8*	*67.8–77.1*
Female	%	89.0	93.0	92.8	83.5	75.0
	95%CI	*87.9–90.1*	*91.3–94.4*	*91.2–94.1*	*81.0–85.7*	*70.4–79.1*
Indigenous identity						
Indigenous	%	66.7	74.9	67.5	51.0	*44.0
	95%CI	*58.2–74.3*	*62.5–84.2*	*51.5–80.2*	*36.3–65.6*	*13.1–80.4*
Non-Indigenous	%	89.9	92.8	93.4	86.3	74.2
	95%CI	*89.0–90.7*	*91.4–94.0*	*92.1–94.5*	*84.6–87.7*	*70.9–77.3*
Residential location						
Capital city	%	91.4	93.5	95.0	86.9	77.5
	95%CI	*90.2–92.4*	*91.8–94.9*	*93.6–96.1*	*84.6–88.9*	*73.2–81.2*
Other places	%	85.3	89.1	88.0	83.6	68.1
	95%CI	*83.5–86.8*	*85.8–91.7*	*84.7–90.7*	*81.4–85.5*	*62.5–73.2*
Year level of schooling						
Year 10 or less	%	79.9	85.7	83.7	78.8	69.3
	95%CI	*78.1–81.7*	*81.7–89.0*	*79.3–87.3*	*76.0–81.3*	*64.8–73.5*
Year 11 or more	%	93.1	93.8	95.0	90.6	81.8
	95%CI	*92.1–93.9*	*92.1–95.1*	*93.7–96.0*	*88.8–92.1*	*77.4–85.6*
Highest qualification attained						
Degree or higher	%	97.4	98.2	97.8	95.9	90.6
	95%CI	*96.5–98.0*	*96.5–99.1*	*96.8–98.5*	*94.2–97.1*	*84.9–94.3*
Other/None	%	86.2	89.8	89.9	82.8	72.2
	95%CI	*85.0–87.3*	*87.7–91.5*	*87.9–91.6*	*80.9–84.6*	*68.6–75.6*
Eligibility for public dental care						
Eligible	%	62.6	58.2	53.9	66.3	68.2
	95%CI	*60.2–65.0*	*52.5–63.7*	*47.9–59.8*	*63.2–69.2*	*64.3–71.9*
Ineligible	%	100.0	100.0	100.0	100.0	100.0
	95%CI	—	—	—	—	—
Dental insurance						
Insured	%	98.3	98.1	99.6	97.8	93.5
	95%CI	*97.8–98.6*	*96.8–98.9*	*99.2–99.8*	*96.9–98.5*	*90.9–95.4*
Uninsured	%	78.2	85.1	83.2	70.7	55.9
	95%CI	*76.5–79.9*	*82.2–87.7*	*80.2–85.8*	*67.7–73.5*	*50.9–60.8*
Usually visit dentist						
For a check-up	%	94.3	94.0	97.5	92.4	86.7
	95%CI	*93.4–95.0*	*92.4–95.3*	*96.4–98.3*	*90.7–93.8*	*83.4–89.4*
For a dental problem	%	79.4	86.6	84.0	75.1	57.0
	95%CI	*77.7–81.1*	*83.1–89.4*	*80.9–86.6*	*71.9–78.1*	*51.4–62.5*
Oral status						
Dentate	%	90.3	92.3	93.1	87.3	76.9
	95%CI	*89.4–91.1*	*90.8–93.5*	*91.8–94.3*	*85.9–88.6*	*73.4–80.1*
Edentulous	%	56.3	—	64.2	56.7	53.0
	95%CI	*49.5–62.9*	—	*40.5–82.6*	*47.1–65.7*	*43.5–62.4*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero.

Summary of findings regarding most recent dental attendance

Table 5.5 presents an overview of aspects of dental attendance based on the last dental visit. Using information from the previous four tables, unadjusted prevalence ratios were calculated for attendance, comparing population groups defined by socioeconomic and oral health characteristics. The aspects of dental attendance covered include time since last visit (percentage who visited within the last 12 months and five or more years ago), whether the visit was made to a private dentist and whether people paid for their last dental visit. Only significant ratios are reported.

Overall, just over half of the Australian population aged 15 years and over attended a dental provider in the previous 12 months, while just over one in ten people had not visited a dentist for five or more years. Just over four in five people reported that their last dental visit was to a private practice dentist. Of those that visited a dentist within the previous five years, nearly nine in ten paid for all or part of their dental care.

Compared to the youngest age group (the reference group), there was no difference in the proportion visiting a dentist in the previous 12 months by age group. In contrast, the 35–54 and 75 years and over age groups were 1.22 and 1.51 times more likely to have last visited 5 or more years ago. The 35–54 year-olds were slightly more likely to visit a private practice at their last dental visit (1.08), while the 75 years and over age group were less likely to visit a private practitioner (0.88 times that of the youngest age group). The older two age groups were also less likely to have paid for their last dental visit compared to the youngest age group (0.93 and 0.80 times, respectively).

Females were 1.07 times more likely to have visited in the previous 12 months than males, and 0.79 times less likely to have last visited 5 or more years ago. There was no difference in attendance to a private practitioner or paying for their last visit. There was no significant difference between Indigenous and non-Indigenous in terms of visiting, however Indigenous people were less likely to have attended a private practice and less likely to have paid for their last dental visit than non-Indigenous people (0.73 and 0.74 times, respectively).

People living in areas outside of capital cities were 0.88 times less likely than those in capital cities to have visited in the previous 12 months, 1.31 times more likely to have not visited in 5 or more years, 0.93 times less likely to have visited a private dental provider and 0.93 times less likely to have paid for their own dental care. A similar pattern in terms of size and direction was observed for those with year 10 or less schooling compared to those with year 11 or more, those with other or no qualifications compared to those with a degree or higher, those eligible for public dental care compared to those not eligible for public care, and those without dental insurance compared to those with insurance. In particular, those with year 10 or less schooling were 1.56 times more likely than those with year 11 or more, those with other or no qualification were 1.80 times more likely than those with a degree or above, and those without dental insurance were 3.59 times more likely to have not made a visit to a dentist for 5 or more years. Other differences of note were those who were uninsured were 0.62 times less likely than insured persons to have visited in the past 12 months, and those who were eligible for public dental care were 0.63 times less likely than those ineligible for public care to have paid for their dental care.

The largest variation in attendance were seen for usual reason for visiting and oral status. Individuals who usually visit for a problem were 0.52 times less likely than those who visit for a check-up to have visited within the previous 12 months, and 5.43 times more likely to have not made a visit in the previous 5 years. Similarly, those who were edentulous were 0.38 times less likely than dentate people to have visited in the previous 12 months, and 4.06 times more likely to have not visited in the previous 5 years.

Table 5.5: Summary of dental attendance at the most recent visit

	% who visited dentist within the last 12 months	% who last visited 5 or more years ago	% who attended a private dental practice	% who paid for their last dental visit
	Prevalence ratio			
Age group				
Ref[(a)] = 15–34 years				
35–54 years	~	1.22	1.08	~
55–74 years	~	~	~	0.93
≥75 years	~	1.51	0.88	0.80
Sex				
Ref = Male				
Female	1.07	0.79	~	~
Indigenous identity				
Ref = Non-Indigenous				
Indigenous	~	~	0.73	0.74
Residential location				
Ref = Capital city				
Other places	0.88	1.31	0.93	0.93
Year level of schooling				
Ref = Year 11 or more				
Year 10 or less	0.89	1.56	0.85	0.86
Highest qualification attained				
Ref = Degree or higher				
Other/None	0.88	1.80	0.88	0.89
Eligibility for public dental care				
Ref = Ineligible				
Eligible	0.87	1.42	0.71	0.63
Dental insurance				
Ref = Insured				
Uninsured	0.62	3.59	0.73	0.80
Usually visit dentist				
Ref = For a check-up				
For a dental problem	0.52	5.43	0.82	0.84
Oral status				
Ref = Dentate				
Edentulous	0.38	4.06	0.54	0.62

Note: (a) Ref: reference group; ~: difference is not statistically significant; . . Not applicable.
(b) The 95% confidence intervals for these estimates are in Appendix Table B.5.

5.2 People's usual pattern of dental visits

The last dental visit gives a snapshot of dental attendance patterns. Questions about usual visiting patterns reflects longer term behaviours and intentions. This section reports on three components of usual visiting behaviour; usual frequency of dental visits, the use of a regular dentist, and usual reason for dental visiting, and combines them into a single variable, 'visiting pattern'.

Usual pattern of dental visits

In NSAOH 2017–18 people who were dentate were asked 'How often on average do you seek care from a dental professional?' The responses included 'Two or more times a year', 'Once a year', 'Once in two years', 'Less often than that' or 'Don't know'. The first two response categories have been combined into the percentage of people who usually visit a dentist at least once a year. The results are presented in Table 5.6.

Just over half of dentate Australians reported usually visiting a dentist at least once a year (57.5%). Similar rates were reported across age groups, ranging from 53.4% for the 35–54 year-olds to 60.6% for those aged 75 years and over. The percentage of males who reported usually visiting at least once a year was less than that reported by females (54.8% and 60.2%, respectively), although this pattern did not hold in the youngest and oldest age group.

The percentage of Indigenous Australians who usually visited at least once a year was generally lower than non-Indigenous, however due to wide confidence intervals, this difference was not significant. Those living in capital cities were more likely to report usually visiting at least once a year (60.8%) compared to those in other areas (50.8%). This difference was generally consistent across age groups, with the exception of the older age group, where there was no significant difference in usual visiting between capital cities and other areas.

The proportion of people who reported visiting at least once a year was higher for those with year 11 or more schooling (60.4%) compared to those with year 10 or less schooling (49.9%); people with a degree or above (65.9%) compared to those with other or no qualifications (54.4%); and those eligible for public dental care (50.1%) compared to those not eligible for public dental care (60.3%). For each of these three characteristics, the frequency of usual visiting was consistent across all age groups except for those aged 15 to 34 years.

The largest difference between groups in terms of usual frequency of visiting was for dental insurance and usual reason for visiting. There was a 31 percentage point difference in frequency of visiting between those with dental insurance (72.3%) and those without (41.3%). There was a three-fold difference in usual frequency of visiting between those that usually visit for a check-up (76.1%) and those that usually visit for a problem (23.9%).

In summary, over half of the adult dentate population usually visit a dentist at least once a year. Usual frequency of visiting was strongly associated with usually visiting for a check-up, and having dental insurance. Usual frequency of visiting was also higher for females, those living in capital cities, year 11 or more schooling, having a degree or higher, and being ineligible for public dental care.

Table 5.6: Percentage of people who usually visit a dental professional at least once a year in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**57.5**	**59.5**	**53.4**	**59.6**	**60.6**
	95%CI	*56.1–59.0*	*57.3–61.6*	*51.1–55.7*	*57.5–61.8*	*56.9–64.1*
Sex						
Male	%	54.8	59.3	49.4	54.9	58.2
	95%CI	*52.9–56.7*	*56.1–62.4*	*46.2–52.5*	*51.8–57.9*	*52.7–63.5*
Female	%	60.2	59.6	57.3	64.4	62.4
	95%CI	*58.5–61.9*	*57.0–62.2*	*54.3–60.3*	*61.6–67.1*	*57.3–67.3*
Indigenous identity						
Indigenous	%	53.3	62.2	47.1	46.4	*24.4
	95%CI	*44.9–61.6*	*50.1–73.0*	*33.0–61.7*	*30.7–62.7*	*6.0–62.0*
Non-Indigenous	%	57.7	59.4	53.6	59.9	60.9
	95%CI	*56.2–59.1*	*57.1–61.6*	*51.3–55.9*	*57.7–62.0*	*57.3–64.5*
Residential location						
Capital city	%	60.8	61.9	58.1	62.5	62.2
	95%CI	*58.8–62.7*	*59.1–64.6*	*55.1–61.1*	*59.6–65.3*	*57.7–66.5*
Other places	%	50.8	53.4	43.3	55.0	57.7
	95%CI	*48.8–52.8*	*50.0–56.7*	*40.0–46.5*	*51.7–58.2*	*51.3–64.0*
Year level of schooling						
Year 10 or less	%	49.9	60.5	39.7	48.7	52.3
	95%CI	*47.5–52.3*	*54.9–65.9*	*34.9–44.8*	*45.5–51.9*	*47.1–57.4*
Year 11 or more	%	60.4	59.3	56.7	67.5	73.4
	95%CI	*58.9–62.0*	*57.0–61.7*	*54.3–59.0*	*64.9–70.1*	*68.7–77.6*
Highest qualification attained						
Degree or higher	%	65.9	62.0	64.4	75.6	80.7
	95%CI	*64.1–67.7*	*58.9–64.9*	*61.7–67.1*	*72.1–78.8*	*73.2–86.4*
Other/None	%	54.4	58.6	47.3	55.6	58.2
	95%CI	*52.7–56.1*	*55.8–61.4*	*44.3–50.2*	*53.2–58.0*	*54.2–62.0*
Eligibility for public dental care						
Eligible	%	50.1	54.0	39.1	50.0	56.5
	95%CI	*47.9–52.4*	*48.5–59.4*	*34.2–44.2*	*46.9–53.1*	*52.6–60.5*
Ineligible	%	60.3	60.6	56.2	66.4	78.4
	95%CI	*58.7–61.8*	*58.3–62.8*	*53.7–58.6*	*63.7–69.0*	*70.9–84.3*
Dental insurance						
Insured	%	72.3	73.4	68.1	74.9	79.4
	95%CI	*70.7–73.8*	*70.6–76.1*	*65.5–70.6*	*72.4–77.3*	*74.9–83.3*
Uninsured	%	41.3	45.3	35.7	42.1	42.6
	95%CI	*39.5–43.1*	*42.3–48.3*	*32.6–39.0*	*39.0–45.2*	*37.4–48.0*
Usually visit dentist						
For a check-up	%	76.1	73.5	73.9	82.2	82.0
	95%CI	*74.7–77.4*	*71.3–75.6*	*71.4–76.3*	*80.0–84.2*	*78.3–85.1*
For a dental problem	%	23.9	21.7	22.1	27.6	26.6
	95%CI	*22.1–25.7*	*18.4–25.4*	*19.5–24.9*	*24.7–30.7*	*21.6–32.3*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

Usual attendance at the same dentist

A pattern of usual attendance at the same dentist implies an ongoing relationship with a particular dentist and a continuity of dental care. In NSAOH 2017–18 people who were dentate and had made a dental visit within the last 5 years were asked 'Is there a dentist you usually go to for dental care?' People could answer yes or no.

Table 5.7 presents the percentage who replied 'yes'. Just of three-quarters of the adult dentate population (78.5%) reported that they had a regular dentist or clinic that they visited. The two older age groups were more likely to report having a regular dentist (84.8% and 87.1%, respectively), compared to the 15–34 and 35–54 year age groups (73.2% and 77.8%, respectively).

For all dentate adults, there were no significant differences in the reporting of having a regular dentist by sex, Indigenous status, residential location, level of schooling, highest qualification attained, and eligibility for public dental care. Percentages were marginally higher for females than for males (79.6% compared to 77.3%), non-Indigenous than Indigenous (78.6% compared to 74.3%), year 10 or less schooling than year 11 or more (80.8% compared to 77.8%), other or no qualification than degree or higher (79.0% compared to 77.6%), being ineligible for public dental care than those eligible (79.3% compared to 76.3%).

There were moderate differences in reporting visiting a regular dentist for dental insurance and usual reason for visiting. Higher percentages were reported for those with dental insurance (86.8%) than those without insurance (68.5%), and for those who usually visit for a check-up (85.5%) compared to those that usually visit for a problem (63.5%).

In summary, the majority of dentate Australians (78.5%) reported visiting a usual dentist or clinic. Higher percentages were reported for those with dental insurance and those who usually visit a dentist for a check-up. There were minimal differences across the remaining socio-demographic variables.

Table 5.7: Percentage of people who have a dentist they usually attend in the Australian dentate population

		Population: dentate people aged 15 years and over who visited in the last 5 years				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**78.5**	**73.2**	**77.8**	**84.8**	**87.1**
	95%CI	*77.4–79.5*	*71.2–75.2*	*75.8–79.6*	*83.1–86.3*	*84.0–89.7*
Sex						
Male	%	77.3	73.6	75.0	83.3	87.9
	95%CI	*75.7–78.8*	*70.7–76.3*	*72.0–77.7*	*81.0–85.4*	*83.8–91.1*
Female	%	79.6	72.8	80.4	86.2	86.5
	95%CI	*78.3–80.9*	*70.2–75.3*	*78.0–82.7*	*83.8–88.2*	*82.0–90.0*
Indigenous identity						
Indigenous	%	74.3	76.3	62.2	89.4	89.2
	95%CI	*65.6–81.4*	*63.4–85.7*	*44.7–77.0*	*73.0–96.4*	*49.4–98.6*
Non-Indigenous	%	78.6	73.1	78.2	84.7	87.1
	95%CI	*77.5–79.6*	*71.0–75.1*	*76.2–80.0*	*83.0–86.2*	*83.9–89.7*
Residential location						
Capital city	%	78.4	72.9	78.1	85.9	87.2
	95%CI	*77.0–79.8*	*70.3–75.4*	*75.7–80.3*	*83.8–87.7*	*83.0–90.4*
Other places	%	78.5	74.0	77.0	83.0	87.0
	95%CI	*76.8–80.2*	*70.7–76.9*	*73.5–80.2*	*80.1–85.5*	*81.7–90.9*
Year level of schooling						
Year 10 or less	%	80.8	81.2	74.0	82.8	86.4
	95%CI	*78.8–82.7*	*76.6–85.1*	*68.8–78.5*	*80.3–85.1*	*81.8–90.0*
Year 11 or more	%	77.8	71.4	79.1	86.3	89.1
	95%CI	*76.5–79.0*	*69.1–73.6*	*77.0–81.0*	*84.2–88.2*	*85.2–92.1*
Highest qualification attained						
Degree or higher	%	77.6	68.1	79.0	91.6	93.9
	95%CI	*75.8–79.3*	*64.7–71.3*	*76.5–81.2*	*89.5–93.4*	*88.9–96.8*
Other/None	%	79.0	75.6	77.2	83.2	86.2
	95%CI	*77.7–80.2*	*73.1–77.8*	*74.5–79.7*	*81.2–85.0*	*82.7–89.1*
Eligibility for public dental care						
Eligible	%	76.3	71.2	66.9	79.6	85.1
	95%CI	*74.0–78.4*	*66.1–75.7*	*60.9–72.4*	*76.7–82.3*	*81.4–88.3*
Ineligible	%	79.3	73.6	79.7	88.4	95.3
	95%CI	*78.0–80.5*	*71.3–75.7*	*77.8–81.5*	*86.7–90.0*	*91.2–97.5*
Dental insurance						
Insured	%	86.8	82.7	85.6	92.4	93.1
	95%CI	*85.7–87.8*	*80.4–84.8*	*83.6–87.4*	*90.9–93.7*	*89.9–95.3*
Uninsured	%	68.5	62.7	66.9	75.2	80.9
	95%CI	*66.6–70.2*	*59.4–66.0*	*63.4–70.1*	*72.3–78.0*	*75.7–85.1*
Usually visit dentist						
For a check-up	%	85.5	80.0	85.6	92.9	93.5
	95%CI	*84.4–86.5*	*77.9–81.9*	*83.7–87.4*	*91.4–94.1*	*90.5–95.6*
For a dental problem	%	63.5	51.5	63.1	71.6	76.6
	95%CI	*61.2–65.7*	*47.0–56.0*	*59.1–66.8*	*68.3–74.7*	*70.0–82.2*

Notes: Data in this table was taken from the Interview.

Usual dental attendance for a check-up

The usual reason for visiting a dentist, whether for a check-up or a dental problem, is a defining characteristic of people's long-term patterns of visiting. In NSAOH 2017–18 dentate people were asked 'What is your usual reason for visiting a dental professional?' Respondents are given the following options: 'for a check-up', 'for a dental problem', or 'Don't know'. The percentage of dentate Australians aged 15 years and over who usually visit a dental provider for a check-up is shown in Table 5.8. Approximately two-thirds of respondents (64.9%) reported usually visiting for a check-up. Young adults aged 15–34 years were more likely to report usually visiting for a check-up (73.5%) compared to the remaining age groups (ranging from 58.3% for 55–74 year-olds to 61.3% for 75 years and over).

A higher proportion of individuals who were non-Indigenous reported usually visiting for a check-up (65.2%) compared to Indigenous (50.4%). Across age groups, the gap was larger for 35–54 year-olds, with 61.6% of non-Indigenous who reported usually visiting for check-up, compared to 39.3% for Indigenous. No other age groups were significant. Dentate adults living in capital cities reported higher rates of visiting for a check-up (68.0%), compared to those living in other areas (58.4%). Similar differences were seen across most age groups, with the exception of those aged 75 years and over.

Higher rates of usually visiting for a check-up was also reported for year 11 or more schooling (68.9%) than year 10 or less (54.7%), a pattern that was similar across the age groups, with the exception of the 15-34 year-olds. Similarly, highest rates were reported for those with a degree or more (76.2%) than those with other or no qualification (60.9%). Across age groups, the largest difference between the two groups was reported for 35–54 and 54–74 year-olds (21.7 and 18.8 percentage points, respectively).

Eligibility for public dental care and insurance status displayed the greatest variation in usual reason for visiting. A greater percentage of adults not eligible for public dental care reported usually visiting for a check-up than those eligible for public dental care (70.1% compared to 51.3%). Across age groups, differences between groups ranged from 13 percentage points for the 15–34 year-olds to 28 percentage points for the 35–54 year-olds. Adults with dental insurance reported a higher percentage of visiting for a check-up (79.0%) than uninsured persons (48.8%), a 30.2 percentage point difference. The variation ranged from 24.0 percentage points for 15–34 year-olds to 36.7 percentage points for 55–74 year-olds.

In summary, approximately two-thirds of dentate adults reported that their usual reason for a dental visit was for a check-up. There was considerable variation across the socio-demographic variables with visiting for a check-up associated with being non-Indigenous, living in a capital city, having a year 11 or higher schooling, having a degree or higher, being ineligible for public dental care and having dental insurance.

Table 5.8: Percentage of people who usually visit a dentist for a check-up in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**64.9**	**73.5**	**61.1**	**58.3**	**61.3**
	95%CI	*63.5–66.2*	*71.5–75.4*	*59.0–63.2*	*56.1–60.4*	*57.9–64.7*
Sex						
Male	%	64.1	75.4	58.8	55.7	59.2
	95%CI	*62.2–65.9*	*72.5–78.0*	*55.8–61.7*	*52.7–58.7*	*54.1–64.1*
Female	%	65.6	71.7	63.3	60.8	63.0
	95%CI	*64.1–67.2*	*69.2–74.1*	*60.6–66.0*	*58.0–63.6*	*57.8–67.9*
Indigenous identity						
Indigenous	%	50.4	62.4	39.3	44.1	*24.4
	95%CI	*42.2–58.6*	*50.5–73.0*	*26.6–53.7*	*26.4–63.5*	*6.0–62.0*
Non-Indigenous	%	65.2	73.9	61.6	58.5	61.7
	95%CI	*63.8–66.6*	*71.8–75.8*	*59.5–63.6*	*56.2–60.7*	*58.3–65.0*
Residential location						
Capital city	%	68.0	75.2	65.4	61.0	63.2
	95%CI	*66.2–69.7*	*72.7–77.5*	*62.7–68.0*	*57.9–63.9*	*59.0–67.2*
Other places	%	58.4	69.4	51.9	53.9	58.2
	95%CI	*56.3–60.5*	*66.0–72.6*	*48.4–55.3*	*50.9–56.9*	*52.0–64.2*
Year level of schooling						
Year 10 or less	%	54.7	73.9	45.1	48.4	55.3
	95%CI	*52.3–57.2*	*69.0–78.2*	*40.3–50.0*	*45.2–51.7*	*50.3–60.3*
Year 11 or more	%	68.9	73.7	65.1	65.7	71.4
	95%CI	*67.4–70.3*	*71.5–75.7*	*62.9–67.2*	*63.0–68.3*	*66.7–75.6*
Highest qualification attained						
Degree or higher	%	76.2	78.8	75.2	73.7	74.3
	95%CI	*74.5–77.9*	*76.1–81.2*	*72.7–77.6*	*70.1–77.0*	*66.6–80.7*
Other/None	%	60.9	71.8	53.5	54.9	60.0
	95%CI	*59.4–62.5*	*69.3–74.2*	*50.9–56.1*	*52.5–57.3*	*56.2–63.7*
Eligibility for public dental care						
Eligible	%	51.3	63.0	37.7	47.1	57.7
	95%CI	*49.1–53.5*	*58.2–67.6*	*32.4–43.3*	*43.9–50.2*	*53.8–61.6*
Ineligible	%	70.1	75.9	65.7	66.4	77.3
	95%CI	*68.6–71.6*	*73.8–78.0*	*63.5–67.8*	*63.7–68.9*	*69.8–83.3*
Dental insurance						
Insured	%	79.0	85.2	75.7	75.3	78.8
	95%CI	*77.6–80.4*	*82.7–87.3*	*73.3–78.0*	*72.7–77.6*	*74.5–82.5*
Uninsured	%	48.8	61.2	43.3	38.6	45.1
	95%CI	*47.1–50.6*	*58.4–63.8*	*40.3–46.4*	*35.8–41.6*	*39.9–50.4*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

Unfavourable attendance pattern

The previous three components of visiting have been previously combined to form a single composite variable 'dental attendance pattern' for Australian adults (Ellershaw & Spencer 2011). It categorises adults' dental attendance into three groups - 'favourable' to 'unfavourable' - which reflect how closely the pattern of attendance reflects that recommended by the dental profession. Favourable attendance is visiting a dentist once or more per year (usually for a check-up) and having a usual dental provider. Unfavourable attendance is visiting less than once every 2 years (and usually for a problem), or visiting once every 2 years (usually for a problem) and without a regular dental provider. The remaining combinations are classified as intermediate visiting patterns.

This section reports on the prevalence of unfavourable visiting pattern as reported in Table 5.9. Overall, 22% of the adult dentate population reported an unfavourable attendance pattern, ranging from 17.4% for 15–34 year-olds to 25.3% for the 35–54 year-olds. Males reported higher rates of unfavourable attendance than females (23.8% compared to 20.3%), most noticeably in the 55–74 year age group where there was a 9.1 percentage point difference. There was a tendency for people identifying as Indigenous to report higher rates of unfavourable visiting than non-Indigenous, however, wide confidence intervals prevent interpretation.

Similar variations in rates of unfavourable visiting were observed for residential location, level of schooling, eligibility for public dental care. Adults living in areas outside of capital cities reported higher rates of unfavourable attendance patterns than those living in capital cities (27.9% compared to 19.2, respectively), a pattern that was consistent across the age groups, although the difference was not significant for the 75 years and over age group. Similarly, there were higher rates of unfavourable visiting for those with year 10 or less schooling (29.9%) than year 11 or more (19.0%), and those eligible for public dental care (29.7%) than those ineligible for public care (19.2%). A slightly lower level of unfavourable visiting was seen across level of qualification attained, with 13.7% of those with a degree or higher reporting unfavourable attendance patterns compared to 25.3% for those with other or no qualifications.

The greatest variation between groups was for insurance status. There was a 24.3 percentage point difference between uninsured people (35.0%) and those with insurance (10.7%), which was consistent for all age groups.

In summary, just over one-in-five dentate adults (22%) reported unfavourable attendance patterns. This pattern of visiting was associated with being male, living outside capital cities, having a year 10 or less schooling, having other or no qualification, being eligible for public dental care, and being uninsured.

Table 5.9: Percentage of people who reported unfavourable attendance patterns in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**22.0**	**17.4**	**25.3**	**24.2**	**22.2**
	95%CI	*20.9–23.3*	*15.9–19.1*	*23.5–27.3*	*22.4–26.1*	*19.0–25.6*
Sex						
Male	%	23.8	16.4	27.9	28.8	25.8
	95%CI	*22.2–25.6*	*14.2–19.0*	*25.2–30.8*	*26.1–31.6*	*21.1–31.1*
Female	%	20.3	18.4	22.8	19.7	19.3
	95%CI	*19.0–21.7*	*16.5–20.5*	*20.5–25.3*	*17.5–22.1*	*15.3–24.1*
Indigenous identity						
Indigenous	%	28.8	*18.7	38.1	33.5	*57.0
	95%CI	*21.8–37.1*	*10.7–30.7*	*25.3–52.8*	*20.7–49.2*	*22.9–85.5*
Non-Indigenous	%	21.9	17.4	25.1	24.1	21.8
	95%CI	*20.7–23.1*	*15.8–19.0*	*23.2–27.0*	*22.2–26.1*	*18.7–25.2*
Residential location						
Capital city	%	19.2	15.3	22.1	21.4	19.9
	95%CI	*17.8–20.8*	*13.5–17.3*	*19.8–24.5*	*19.0–24.0*	*16.0–24.5*
Other places	%	27.9	22.7	32.5	28.9	26.0
	95%CI	*26.0–29.9*	*19.8–25.9*	*29.2–36.0*	*26.2–31.7*	*21.0–31.7*
Year level of schooling						
Year 10 or less	%	29.9	19.2	37.3	32.7	28.2
	95%CI	*27.8–32.2*	*15.3–23.7*	*32.3–42.6*	*29.9–35.6*	*23.8–33.2*
Year 11 or more	%	19.0	17.0	22.3	18.1	13.2
	95%CI	*17.9–20.3*	*15.4–18.7*	*20.5–24.3*	*16.0–20.4*	*10.2–17.0*
Highest qualification attained						
Degree or higher	%	13.7	12.8	15.7	11.1	11.2
	95%CI	*12.5–15.1*	*11.0–14.9*	*13.7–18.0*	*9.0–13.6*	*7.0–17.5*
Other/None	%	25.3	19.1	30.8	27.6	23.8
	95%CI	*23.9–26.7*	*17.1–21.3*	*28.3–33.5*	*25.5–29.8*	*20.3–27.6*
Eligibility for public dental care						
Eligible	%	29.7	22.1	40.2	31.7	25.2
	95%CI	*27.7–31.9*	*18.2–26.6*	*35.0–45.7*	*28.7–34.9*	*21.6–29.2*
Ineligible	%	19.2	16.4	22.5	18.9	*8.6
	95%CI	*17.9–20.5*	*14.8–18.2*	*20.6–24.5*	*16.9–21.2*	*4.9–14.5*
Dental insurance						
Insured	%	10.7	8.1	13.0	11.1	9.6
	95%CI	*9.7–11.7*	*6.5–10.0*	*11.3–15.0*	*9.5–13.0*	*6.7–13.6*
Uninsured	%	35.0	27.6	40.2	39.5	34.0
	95%CI	*33.3–36.8*	*25.0–30.3*	*37.1–43.5*	*36.5–42.6*	*28.9–39.5*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

Summary of findings regarding usual pattern of dental attendance

Table 5.10 presents an overview of dental attendance based on usual behaviour. Using information from the previous four tables, unadjusted prevalence ratios were calculated for patterns of attendance, comparing population groups defined by sociodemographic and oral health characteristics. The aspects of visiting covered include usually visiting at least once per year, usual attendance at the same dentist/clinic and usual attendance for a check-up. The composite variable of dental attendance pattern has also been included, focusing on unfavourable visiting patterns. Only significant ratios are reported.

Overall, just over half of the Australian dentate population aged 15 years and over usually visit a dental provider at least once a year, three-quarters have a particular dentist or clinic that they usually attend, and nearly two-thirds usually visit a dentist for a check-up. Conversely, one in five people had unfavourable visiting patterns, in that they visited less than once every 2 years (and usually for a problem), or visited once every 2 years (usually for a problem) and without a regular dental provider.

Compared to the youngest age group (the reference group), 35–54 year-olds were less likely to visit at least once a year (0.90 times). All age groups 35 years and over were slightly more likely than the 15–34 year-olds to usually attend the same dentist or clinic, were also less likely to attend for a check-up, and had higher rates of unfavourable visiting.

Across other characteristics, lower rates of visiting at least once a year and usually attending for a check-up were observed for those living outside of capital cities compared with those in capital cities, those with year 10 or less compared to year 11 or more schooling, those with other or no qualifications compared to those with degree or above, those eligible for public dental care than those ineligible, and uninsured than insured persons. The usual reason for visiting a dentist was strongly associated with frequency of dental visiting. People that usually visit a dentist for a problem were far less likely to visit at least once a year than those who usually visit for a check-up (0.31 times).

Usually attending the same dentist or clinic was slightly higher for females than males, and year 10 or less than year 11 or more schooling, but was lower for those eligible for public dental care than those ineligible, and those uninsured than insured, with the largest association for those usually visiting for a problem.

Having unfavourable attendance patterns were less likely for females than males, but more likely for those living outside capital cities than those in capital cities, those with year 10 or less schooling than those with year 11 or more, those with other or no qualification than those with a degree or higher, and those eligible for public dental care compared to those ineligible. The strongest association was for insurance status with uninsured persons over three times more likely to have unfavourable visiting patterns than those with dental insurance.

Table 5.10: Summary of usual pattern of dental attendance

	Usually attend at least once a year	Usually attend same dentist	Usually attend for a check-up	Unfavourable attendance pattern
		Prevalence ratio		
Age group				
Ref[(a)] = 15–34 years				
35–54	0.90	1.06	0.83	1.45
55–74	~	1.16	0.79	1.39
≥75	~	1.19	0.83	1.27
Sex				
Ref = Male				
Female	1.10	1.03	~	0.85
Indigenous identity				
Ref = Non-Indigenous				
Indigenous	~	~	0.77	~
Residential location				
Ref = Capital city				
Other places	0.84	~	0.86	1.45
Year level of schooling				
Ref = Year 11 or more				
Year 10 or less	0.83	1.04	0.79	1.57
Highest qualification attained				
Ref = Degree or higher				
Other/None	0.83	~	0.80	1.84
Eligibility for public dental care				
Ref = Ineligible				
Eligible	0.83	0.96	0.73	1.55
Dental insurance				
Ref = Insured				
Uninsured	0.57	0.79	0.62	3.28
Usually visit dentist				
Ref = For a check-up				
For a dental problem	0.31	0.74	. .	. .

Note: (a) Ref: reference group; ~: difference is not statistically significant; . . Not applicable.
(b) The 95% confidence intervals for these estimates are in Appendix Table B.6.

5.3 Financial barriers to dental care

Financial barriers may reduce the likelihood of dental attendance and it can adversely influence the timeliness and comprehensiveness of care that is sought and provided. Reported avoidance or delay in seeking dental care because of cost represents a barrier prior to seeking care, while foregoing treatment due to cost is an indicator of a barrier to the receipt of treatment that is needed. Difficulty paying a $200 dental bill provides an indication that a person would face a financial barrier if they soon had a need for dental care. Such a barrier would be substantial if treatment was paid for out-of-pocket in the private dental sector.

Dental care avoided or delayed due to cost

In NSAOH 2017–18 cost as a barrier to receipt of dental care was assessed with the question 'During the last 12 months, have you avoided or delayed visiting a dental professional because of the cost?' People who answered 'Yes' were classified as having delayed or avoided dental care due to cost and represented 38.8% of Australians aged 15 years and over, ranging from 22.0% for those aged 75 years and over, to 44.8% for those aged 35–54 years (Table 5.11).

For people of all ages the percentage of people who reported avoiding dental care due to cost varied between most groups defined by sociodemographic characteristics, with the exception of residential location and level of schooling. The greatest variation was seen for usual reason for visiting and dental insurance. Individuals who usually visit for a problem where twice as likely to report cost as a barrier to dental care than those who usually visited for a check-up (58.3% compared to 27.4%, respectively). The gap between groups ranged from a two-fold difference for the 15–34 year-olds (58.3% compared to 27.4%), to over a three-fold difference for the 75 years and over age group (10.6% compared to 35.0%). Similarly, uninsured individuals were twice as likely to report cost as a barrier to care than those with insurance (52.4% compared to 25.9%).

The proportion of people who reported avoiding dental care due to cost was higher for females (42.9%) than for males (34.6%). Across age groups, females the in two younger age groups had higher rates of avoiding dental care than males, whereas there were no statistical differences in the two older age groups. People identifying as Indigenous had a higher proportion of avoiding due to cost than non-Indigenous (49.1% compared to 38.6%), while there was no difference across age groups.

Although the overall variation by level of schooling was not significant, there were some differences across age groups. People aged 15–34 years with year 11 or more schooling were more likely to report avoiding care due to cost than those with year 10 or less (42.2% compared to 30.9%). In contrast, for those aged 35–54 years, the percentage avoiding due to cost was higher for year 10 or less schooling (53.2%) than for those with year 11 or more (42.4%).

Individuals with other or no qualifications had higher rates of avoiding care due to cost (39.6%) than those with a degree or higher (35.2%). Across age groups, the difference was more pronounced for 35–54 and 54–74 year-olds (14.2 and 12.5 percentage points, respectively). Similarly, the proportion of avoidance was higher for those eligible for public dental care than those ineligible (42.7% compared to 37.1%). This difference was most noticeable for the 35–54 year age group (63.6% compared to 41.1%).

In summary, nearly 40% of Australians reported that they avoided or delayed seeking dental care because of cost, increasing to nearly 60% for those who usually visit a dentist for a problem. Cost as a barrier to seeking dental care was associated with age, being female, being Indigenous, having other or no qualifications, not having dental insurance, usually only visiting for a problem and being dentate.

Table 5.11: Percentage of people who avoided or delayed dental care in the Australian population

		Population: all people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**38.8**	**40.1**	**44.8**	**34.5**	**22.0**
	95%CI	*37.5–40.1*	*38.0–42.2*	*42.7–47.0*	*32.5–36.6*	*19.3–25.0*
Sex						
Male	%	34.6	34.6	39.7	31.8	20.5
	95%CI	*32.8–36.4*	*31.6–37.7*	*36.8–42.7*	*29.1–34.6*	*16.8–24.8*
Female	%	42.9	45.8	49.9	37.2	23.2
	95%CI	*41.4–44.5*	*43.2–48.4*	*47.1–52.6*	*34.6–39.9*	*19.5–27.4*
Indigenous identity						
Indigenous	%	49.1	44.1	60.0	42.6	*43.7
	95%CI	*41.3–57.0*	*32.9–56.0*	*44.8–73.4*	*26.7–60.0*	*17.7–73.7*
Non-Indigenous	%	38.6	40.0	44.4	34.4	21.8
	95%CI	*37.2–39.9*	*37.9–42.2*	*42.3–46.6*	*32.4–36.4*	*19.2–24.7*
Residential location						
Capital city	%	37.8	38.9	42.5	34.6	20.9
	95%CI	*36.1–39.5*	*36.4–41.5*	*39.8–45.2*	*31.9–37.3*	*17.7–24.5*
Other places	%	40.9	43.1	49.8	34.5	23.8
	95%CI	*38.9–42.9*	*39.6–46.7*	*46.5–53.2*	*31.7–37.3*	*19.3–29.0*
Year level of schooling						
Year 10 or less	%	37.0	30.9	53.2	36.7	23.9
	95%CI	*34.8–39.2*	*26.2–36.0*	*48.5–57.8*	*33.8–39.7*	*20.3–28.0*
Year 11 or more	%	39.4	42.2	42.4	32.5	19.2
	95%CI	*37.9–40.9*	*39.9–44.5*	*40.0–44.8*	*30.1–35.0*	*15.7–23.2*
Highest qualification attained						
Degree or higher	%	35.2	41.6	35.4	23.8	18.7
	95%CI	*33.2–37.3*	*38.4–45.0*	*32.6–38.3*	*20.6–27.4*	*13.4–25.6*
Other/None	%	39.6	39.1	49.6	36.3	21.6
	95%CI	*38.1–41.2*	*36.5–41.7*	*47.0–52.2*	*34.1–38.6*	*18.8–24.8*
Eligibility for public dental care						
Eligible	%	42.7	43.6	63.6	42.9	24.9
	95%CI	*40.6–44.9*	*39.3–48.0*	*58.5–68.4*	*40.0–45.8*	*21.8–28.2*
Ineligible	%	37.1	39.4	41.1	27.6	7.7
	95%CI	*35.6–38.6*	*37.1–41.7*	*38.9–43.3*	*25.2–30.2*	*4.7–12.4*
Dental insurance						
Insured	%	25.9	26.8	31.3	21.1	10.9
	95%CI	*24.5–27.4*	*24.4–29.4*	*28.9–33.9*	*19.0–23.5*	*8.4–13.9*
Uninsured	%	52.4	53.8	61.2	48.1	30.7
	95%CI	*50.6–54.2*	*50.8–56.8*	*58.3–64.0*	*45.3–51.0*	*26.7–35.1*
Usually visit dentist						
For a check-up	%	27.4	29.8	32.7	20.6	10.6
	95%CI	*26.1–28.7*	*27.6–32.1*	*30.2–35.2*	*18.5–22.8*	*8.3–13.5*
For a dental problem	%	58.3	66.9	64.0	52.3	35.0
	95%CI	*56.4–60.2*	*63.1–70.5*	*60.8–67.1*	*49.3–55.3*	*30.3–40.1*
Oral status						
Dentate	%	39.2	40.1	44.8	34.6	22.2
	95%CI	*37.8–40.6*	*38.0–42.2*	*42.7–47.0*	*32.5–36.8*	*19.1–25.5*
Edentulous	%	29.3	—	44.8	33.1	21.5
	95%CI	*25.2–33.9*	—	*26.1–65.2*	*27.0–39.8*	*16.4–27.6*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero.

Recommended dental treatment foregone due to cost

Foregoing recommended dental treatment due to cost occurs when, after making an initial dental visit, cost prevents people from proceeding with recommended care. It indicates the likelihood of ongoing dental damage caused by untreated disease due to financial barriers to accessing dental care.

In NSAOH 2017–18, treatment foregone due to cost was assessed with the question 'Has the cost prevented you from having any dental treatment that was recommended during the last 2 years?' People who answered 'Yes' were classified as having foregone dental treatment due to cost and they represented 22.6% of the Australian population aged 15 years and over (Table 5.12). Across age groups the proportion of people who reported foregoing recommended treatment ranged from 9.8% for those aged over 75 years to 28.6% for those aged 35–54 years.

For people of all ages there was very little variation across groups in the percentage who reported foregoing recommend treatment due to cost for a number of sociodemographic characteristics. The greatest variation was found for reason for usual visiting. Those who usually visited for a problem were 2.7 times more likely than those who usually visit for a check-up to report that cost had prevented the recommended treatment (44.2% compared to 16.3%). This relative difference increased to 3.5 times for those aged 35–54 years.

Dental insurance was also associated with cost preventing recommended treatment. Those without dental insurance were more likely to report foregoing recommend treatment due to cost than those with insurance (30.1% and 18.3%, respectively). Across age groups, those in the 35–54 year age group had the greatest variation, with 40.6% of uninsured reporting financial barriers to recommended treatment compared to 22.5% for insured.

Females were also more likely to report cost as a barrier to recommended treatment than males (25.7% compared to 19.1%). Across age groups the variation was only statistically significant for 15–34 year-olds, with 24.8% of females, compared to 15.0% for males, reporting cost prevented recommended treatment.

Across age groups, the proportion reporting barriers to recommended treatment were higher for adults with year 11 or more schooling than those year 10 or less for 15–34 year-olds (22.3% and 10.7%, respectively); those with other or no qualifications than those with degree or above for 35–54 year-olds (34.0% and 20.6%, respectively); and those who were eligible for public dental care than those who were ineligible, for both 35–54 year-olds (40.6% and 26.7%, respectively) and those aged 55–74 years (27.8% and 19.6%, respectively).

In summary, approximately 23% of Australian adults aged 15 years and over who visited a dentist within the previous two years, reported that cost was a barrier to receiving recommended treatment, increasing to 44.2% for those that usually visit a dentist for a problem. Cost as a barrier to receiving recommended treatment was associated with age, being female, not having dental insurance, and usually visiting a dentist for a problem.

Table 5.12: Percentage of people who reported that cost had prevented recommended dental treatment in the Australian dentate population

		Population: dentate people aged 15 years and over who visited a dental practitioner in the last year				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**22.6**	**19.9**	**28.6**	**22.6**	**9.8**
	95%CI	*21.3–23.9*	*17.9–22.2*	*26.3–31.0*	*20.5–24.8*	*7.5–12.6*
Sex						
Male	%	19.1	15.0	25.5	20.0	7.8
	95%CI	*17.3–20.9*	*12.3–18.2*	*22.2–29.1*	*17.2–23.3*	*5.0–11.8*
Female	%	25.7	24.8	31.4	24.9	11.1
	95%CI	*24.0–27.6*	*21.8–28.0*	*28.2–34.7*	*21.9–28.1*	*8.2–15.0*
Indigenous identity						
Indigenous	%	25.7	*21.5	*41.3	*13.6	n.p.
	95%CI	*16.7–37.3*	*11.5–36.8*	*21.6–64.2*	*3.5–40.3*	*n.p.*
Non-Indigenous	%	22.5	19.9	28.4	22.7	9.8
	95%CI	*21.2–23.9*	*17.8–22.1*	*26.0–30.8*	*20.6–24.9*	*7.6–12.6*
Residential location						
Capital city	%	22.9	20.6	28.4	22.9	10.2
	95%CI	*21.3–24.7*	*18.0–23.4*	*25.7–31.3*	*20.2–25.8*	*7.6–13.6*
Other places	%	21.7	18.1	29.2	22.0	*8.9
	95%CI	*19.7–23.8*	*15.2–21.4*	*25.0–33.8*	*19.0–25.4*	*5.4–14.4*
Year level of schooling						
Year 10 or less	%	20.6	10.7	34.1	25.4	9.0
	95%CI	*18.4–23.1*	*7.5–15.0*	*27.7–41.1*	*21.8–29.2*	*6.1–13.2*
Year 11 or more	%	23.3	22.3	27.5	20.9	10.9
	95%CI	*21.8–24.9*	*19.9–24.9*	*25.0–30.2*	*18.5–23.4*	*7.7–15.1*
Highest qualification attained						
Degree or higher	%	20.7	23.7	20.6	17.6	12.3
	95%CI	*18.9–22.7*	*20.3–27.4*	*17.8–23.6*	*14.5–21.1*	*7.8–18.9*
Other/None	%	23.1	18.4	34.0	23.6	8.7
	95%CI	*21.5–24.8*	*15.8–21.3*	*30.8–37.4*	*21.2–26.2*	*6.5–11.8*
Eligibility for public dental care						
Eligible	%	24.4	21.2	40.6	27.8	10.4
	95%CI	*21.9–27.1*	*16.3–27.0*	*33.0–48.6*	*24.3–31.5*	*7.8–13.7*
Ineligible	%	22.0	19.8	26.7	19.6	*7.5
	95%CI	*20.5–23.6*	*17.6–22.2*	*24.2–29.3*	*17.2–22.3*	*4.1–13.5*
Dental insurance						
Insured	%	18.3	15.5	22.5	19.1	8.7
	95%CI	*16.9–19.8*	*13.3–18.0*	*20.0–25.3*	*16.8–21.7*	*6.1–12.3*
Uninsured	%	30.1	27.3	40.6	28.9	11.4
	95%CI	*27.9–32.5*	*23.5–31.5*	*35.8–45.6*	*25.0–33.0*	*7.8–16.2*
Usually visit dentist						
For a check-up	%	16.3	14.1	21.0	16.1	8.2
	95%CI	*15.0–17.6*	*12.2–16.2*	*18.6–23.6*	*14.2–18.2*	*5.9–11.2*
For a dental problem	%	44.2	49.6	51.9	39.8	13.7
	95%CI	*41.1–47.4*	*43.5–55.8*	*46.2–57.5*	*34.8–45.0*	*8.8–20.8*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Difficulty paying a $200 dental bill

Many people who have difficulty paying a $200 dental bill would be unable to afford to pay for a routine dental care visit. The cost of a basic preventive dental-care package was originally selected as the threshold for measuring the level of difficulty in paying a dental bill. In 2016, the Australian Dental Association Dental Fees Survey reported that the mean cost for a dental visit comprising a dental examination, two bitewing X-rays and a scale and clean service was approximately $274 (ADA 2016). The use of "difficulty paying a $200 dental bill" provides a conservative measure of a financial barrier or hardship in purchasing dental care. This captures both people who have and have not made a recent dental visit.

In NSAOH 2017–18 difficulty paying for dental care was assessed with the question 'At most times of the year, how much difficulty would you have paying a $200 dental bill? Would you say none, hardly any, a little, a lot of difficulty' or 'don't know?' People who answered 'A lot' were classified as having difficulty paying a $200 dental bill and they represented 24.0% of the Australian population aged 15 years or more (Table 5.13), ranging from 27.2% for 15–34 year-olds to 18.2% for those aged 75 years and over.

For people of all ages there was variation between groups across most sociodemographic variables. The greatest variation between groups was for eligibility to access public dental care. Individuals eligible to access public care were more likely to report financial barriers to dental care than those who were ineligible for public care (38.6% compared to 17.7%). Across age groups, the difference was more pronounced, with 60.0% of 35–54 year-olds eligible for public care reported difficulty paying a $200 dental bill, compared to 16.3% for those not eligible.

Moderate variation in reported difficulty paying a $200 dental bill was reported for Indigenous status, insurance status, and usual reason for visiting a dentist. The percentage reporting financial barriers to care was higher for Indigenous (40.2%) than non-Indigenous (23.6%), those without dental insurance (33.4%) than those with insurance (15.2%), and those who usually visit for a problem (35.2%) than those who usually visit for a check-up (17.4%).

Smaller variations were also seen for sex, level of schooling, highest qualification attained, and oral status. The percentage reporting financial barriers to care was higher for females (28.2%) than males (19.7%). Across age groups, this difference was only apparent for age groups with the exception of those aged 75 years and over. Similarly, a higher proportion of individuals with year 10 or less schooling reported financial barriers to care than those with year 11 or more (30.4% and 21.4%, respectively), and higher for those with other or no qualifications (27.3%) than those with a degree or more (14.5%).

In summary, nearly one-quarter of the adult population reported a lot of difficulty paying a $200 dental bill, representing another aspect to financial barriers to accessing a basic preventive dental care package. Difficulty paying a $200 dental bill was associated with being younger, being female, being Indigenous, having year 10 or less schooling, other or no post-secondary qualification, being eligible for public dental care, not having dental insurance, usually visiting a dentist for a problem, and being edentulous.

Table 5.13: Percentage of people who would have a lot of difficulty paying a $200 dental bill in the Australian population

		Population: all people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**24.0**	**27.2**	**23.6**	**22.1**	**18.2**
	95%CI	*22.9–25.2*	*25.3–29.1*	*21.8–25.5*	*20.4–24.0*	*15.9–20.7*
Sex						
Male	%	19.7	23.4	17.7	17.6	17.5
	95%CI	*18.1–21.3*	*20.8–26.2*	*15.3–20.4*	*15.3–20.1*	*14.0–21.5*
Female	%	28.2	31.0	29.3	26.5	18.7
	95%CI	*26.7–29.8*	*28.5–33.7*	*26.7–32.0*	*24.0–29.2*	*15.8–22.0*
Indigenous identity						
Indigenous	%	40.2	32.9	44.3	50.0	*29.7
	95%CI	*32.8–48.1*	*23.0–44.5*	*30.9–58.7*	*34.0–66.0*	*9.7–62.6*
Non-Indigenous	%	23.6	27.0	23.0	21.6	18.1
	95%CI	*22.4–24.8*	*25.1–29.0*	*21.2–25.0*	*19.9–23.5*	*15.8–20.6*
Residential location						
Capital city	%	23.7	27.3	22.3	22.0	17.8
	95%CI	*22.2–25.3*	*25.0–29.7*	*20.1–24.7*	*19.6–24.6*	*15.0–21.1*
Other places	%	24.6	26.9	26.2	22.4	18.8
	95%CI	*22.9–26.4*	*24.0–30.0*	*23.1–29.6*	*20.1–24.8*	*15.2–22.9*
Year level of schooling						
Year 10 or less	%	30.4	40.2	31.8	28.5	20.0
	95%CI	*28.2–32.6*	*35.2–45.4*	*27.1–37.0*	*25.8–31.4*	*17.1–23.4*
Year 11 or more	%	21.4	24.3	21.4	16.7	14.8
	95%CI	*20.1–22.7*	*22.3–26.5*	*19.5–23.4*	*14.8–18.8*	*11.8–18.5*
Highest qualification attained						
Degree or higher	%	14.5	15.9	15.0	10.3	14.3
	95%CI	*13.1–16.0*	*13.6–18.4*	*13.2–17.0*	*8.3–12.7*	*9.7–20.6*
Other/None	%	27.3	31.4	28.2	24.5	18.5
	95%CI	*25.9–28.7*	*28.9–33.9*	*25.8–30.7*	*22.6–26.5*	*16.1–21.2*
Eligibility for public dental care						
Eligible	%	38.6	44.1	60.0	35.8	20.7
	95%CI	*36.5–40.7*	*39.1–49.1*	*54.5–65.3*	*33.0–38.7*	*18.0–23.6*
Ineligible	%	17.7	23.1	16.3	10.8	*5.4
	95%CI	*16.6–18.9*	*21.1–25.2*	*14.7–18.0*	*9.2–12.6*	*3.1–9.5*
Dental insurance						
Insured	%	15.2	21.0	13.5	11.3	9.4
	95%CI	*13.9–16.5*	*18.5–23.7*	*11.8–15.5*	*9.6–13.2*	*7.2–12.1*
Uninsured	%	33.4	33.7	35.8	33.4	25.0
	95%CI	*31.7–35.2*	*30.8–36.8*	*32.9–38.8*	*30.6–36.2*	*21.5–28.8*
Usually visit dentist						
For a check-up	%	17.4	22.7	15.4	12.2	12.7
	95%CI	*16.3–18.6*	*20.7–24.9*	*13.5–17.4*	*10.4–14.2*	*10.2–15.6*
For a dental problem	%	35.2	39.6	36.3	34.3	23.3
	95%CI	*33.3–37.1*	*35.9–43.3*	*33.0–39.8*	*31.4–37.4*	*19.5–27.6*
Oral status						
Dentate	%	23.8	27.2	23.4	21.2	16.7
	95%CI	*22.6–25.0*	*25.3–29.1*	*21.6–25.3*	*19.4–23.1*	*14.3–19.5*
Edentulous	%	30.0	—	*38.8	33.3	24.0
	95%CI	*25.5–34.9*	—	*21.8–59.2*	*27.2–40.0*	*18.5–30.4*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero.

Summary of findings regarding financial barriers to dental care

Affordability and hardship in purchasing dental care are barriers to visiting a dentist and obtaining the recommended treatment when visits are made. Table 5.14 presents an overview of financial barriers to dental attendance including avoiding or delaying visiting a dentist due to cost, and cost preventing recommended treatment by the dentist, as well as difficulty paying a $200 dental bill. Using information from the previous three tables, unadjusted prevalence ratios were calculated for financial barriers to dental care. Only significant ratios are reported.

Overall, nearly four in ten Australians aged 15 years and over reported that they avoided or delayed visiting a dentist due to cost, and just under one-quarter reported they would have a lot of difficulty paying for a $200 dental bill. In addition, just under one-quarter of all dentate Australians who visited in the previous 12 months reported that cost prevented the recommended treatment.

Compared to 15–34 year-olds (the reference group), 35–54 year-olds were more likely to report avoiding or delaying care (1.12 times), and that cost had prevented recommended dental treatment (1.44 times). In contrast, those aged 75 years and over were far less likely to report avoiding or delaying visiting due to cost (0.55 times) and cost prevented recommended treatment (0.49 times). All age groups were less likely to report difficulty paying a $200 dental bill when compared to the 15–34 year age group.

Females were 1.24 times more likely than males to report avoiding due to cost, 1.35 times more likely to report cost prevented recommend treatment and 1.44 times more likely to report a lot of difficulty paying a $200 dental bill. Compared to non-Indigenous, individuals identifying as being Indigenous were 1.27 times more likely to report avoiding dental care due to cost and 1.70 times more likely to report a lot of difficulty paying a $200 dental bill. in the percentages of people reporting financial barriers to accessing dental care by residential location.

The only difference in the percentages reporting financial barriers to accessing dental care by level of schooling was for difficulty paying a $200 dental bill. Individuals with year 10 or less schooling were 1.42 times more likely to report this barrier than those with year 11 or more schooling.

There were minimal differences in terms of avoiding dental care due to cost for those with other or no qualifications compared to degree or higher (1.13 times), and those eligible for public dental care than those ineligible (1.15 times). However, there was a much larger difference between these groups in terms of difficulty paying a $200 dental bill. Those with other or no qualification were 1.88 times more likely than those with a degree or higher, and those eligible for public dental care 2.18 times more likely than those ineligible for care to report a lot of difficulty paying a $200 dental bill. Edentulous individuals were 0.75 times less likely to report avoiding visiting a dentist due to cost compared to dentate people, but 1.26 times more likely to report a lot of difficulty paying a $200 dental bill.

The strongest associations for financial barriers to accessing dental care were for insurance status and usual reason for visiting. Uninsured individuals were twice as likely to report avoiding dental care due to cost (2.02 times), 1.65 times more likely to report cost prevented recommended treatment, and 2.2 times more likely to report a lot of difficulty paying a $200 dental bill, compared to those with dental insurance. Similarly, those who usually visit for a dental problem were 2.13, 2.72 and 2.0 times, respectively, more likely to report financial barriers compared to those who usually visit for a check-up.

Table 5.14: Summary of financial barriers to dental care

	% who avoided or delayed care due to cost	% cost had prevented recommended dental treatment	% difficulty paying a $200 dental bill
		Prevalence ratio	
Age group			
Ref[a] = 15–34 years			
35–54	1.12	1.44	0.87
55–74	0.86	~	0.82
≥75	0.55	0.49	0.67
Sex			
Ref = Male			
Female	1.24	1.35	1.44
Indigenous identity			
Ref = Non-Indigenous			
Indigenous	1.27	~	1.70
Residential location			
Ref = Capital city			
Other places	1.08	~	~
Year level of schooling			
Ref = Year 11 or more			
Year 10 or less	~	~	1.42
Highest qualification attained			
Ref = Degree or higher			
Other/None	1.13	~	1.88
Eligibility for public dental care			
Ref = Ineligible			
Eligible	1.15	~	2.18
Dental insurance			
Ref = Insured			
Uninsured	2.02	1.65	2.20
Usually visit dentist			
Ref = For a check-up			
For a dental problem	2.13	2.72	2.02
Oral status			
Ref = Dentate			
Edentulous	0.75	. .	1.26

Note: (a) Ref: reference group; ~: difference is not statistically significant; . . Not applicable.
(b) The 95% confidence intervals for these estimates are in Appendix Table B.7.

6 Oral health perceptions

by DS Brennan, L Luzzi, A Ellershaw and M Peres

Oral health examination surveys measure visible signs of oral disease and its treatment, providing indicators of impairment. Yet, there are many aspects of oral health that cannot be assessed systematically during a standardised oral epidemiological examination, including pain, function and quality of life (Slade & Sanders 2003). This chapter adds to the examination findings presented in Chapter 4 by describing rates of pain and difficulty eating due to oral problems. In addition, perceived needs for the most common dental treatments are presented to provide an additional indicator of subjective oral health in the Australian adult population.

6.1 Oral health problems

Avoidance of foods because of oral health problems

Avoiding food due to dental problems is an impact of poor oral health and may reflect an inability to chew properly. This reduces enjoyment of food and could affect the ability to maintain a healthy nutritional status. In NSAOH 2017–18, avoiding foods because of oral health problems was assessed in the interview by asking people 'How often have you had to avoid eating some foods because of problems with your teeth, mouth or dentures during the last 12 months? Was it: Very often, Often, Sometimes, Hardly Ever, Never, Don't know?'. People who answered 'Very often', 'Often' or 'Sometimes' were classified as having avoided certain foods.

The percentage of people avoiding foods due to dental problems is presented in Table 6.1 for the Australian population. Overall, 23.7% of people in Australia aged 15 years and over reported avoiding foods due to dental problems. The percentage of people avoiding foods due to dental problems varied by age, being lower for younger people (18.9% for those aged 15–34 years) than older people (where it ranged from 25.1% for 35–54 year-olds to 27.7% for 55–74 year-olds). A higher percentage for females reported avoiding food due to dental problems (27.2%) than males (20.1%). This pattern by sex was observed for all age groups, and was significantly higher for those aged between 15–34 and 55–74 years.

Indigenous persons reported a higher percentage avoiding foods due to dental problems (36.1%) than non-Indigenous (23.4%). This pattern by Indigenous status occurred in all age groups, and was significantly higher for Indigenous persons aged 35–54 years and those aged 75 years and over.

Overall, the percentage of persons reporting avoiding food due to dental problems was similar for those at capital city (23.0%) and other locations (25.2%). This similar pattern by residential location in the percentage of people reporting avoiding food due to dental problems was observed in all age groups.

Those how completed Year 10 or less had higher percentages avoiding food due to dental problems (29.2%) than those who completed Year 11 or more at school (21.2%). This pattern by level of schooling was observed in all age groups, but was only significantly higher for those with lower levels of schooling in the 15–34 and 55–74 year age groups. People with a degree or higher qualification reported lower percentages of avoiding food due to dental problems (19.0%) than those with other or no qualifications (24.9%). This pattern by qualification was observed in all groups, being significantly different in the 35–54 and 55–74 year age groups.

People who were eligible for public dental care reported a higher percentage avoiding food due to dental problems (33.4%) than those ineligible (19.6%). This pattern was observed consistently in all age groups. A higher percentage of uninsured persons reported avoiding food due to dental problems (31.3%) than insured persons (16.7%). This pattern of higher percentage of food avoidance due to dental problems among the uninsured was observed consistently in all age groups. Those who usually visit for a dental problem reported higher percentages of avoiding food due to dental problems (39.2%) than those who usually visit for a check-up (14.6%). This pattern of higher percentage of food avoidance due to dental problems among those who usually for a dental problem was observed consistently in all age groups.

A higher percentage of edentulous persons avoided food due to dental problems (42.6%) than dentate persons (22.9%). This pattern by oral status was observed consistently in all age groups.

Table 6.1: Percentage of people avoiding foods due to dental problems in the Australian population

		Population: all people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	***23.7***	**18.9**	**25.1**	**27.7**	**26.4**
	95%CI	*22.7–24.7*	*17.3–20.6*	*23.3–26.9*	*26.1–29.4*	*23.6–29.5*
Sex						
Male	%	20.1	15.5	20.4	24.9	25.0
	95%CI	*18.8–21.4*	*13.3–17.9*	*18.2–22.8*	*22.8–27.1*	*21.2–29.4*
Female	%	27.2	22.4	29.6	30.5	27.5
	95%CI	*25.8–28.6*	*20.0–24.9*	*27.2–32.2*	*28.1–33.0*	*23.7–31.6*
Indigenous identity						
Indigenous	%	36.1	24.3	44.6	40.0	76.1
	95%CI	*29.2–43.5*	*16.2–34.7*	*31.1–58.9*	*27.7–53.7*	*46.2–92.2*
Non-Indigenous	%	23.4	18.7	24.6	27.5	25.9
	95%CI	*22.4–24.5*	*17.1–20.4*	*22.9–26.4*	*25.9–29.2*	*23.2–28.9*
Residential location						
Capital city	%	23.0	18.6	23.4	28.2	26.2
	95%CI	*21.7–24.3*	*16.7–20.7*	*21.4–25.6*	*26.0–30.6*	*23.0–29.7*
Other places	%	25.2	19.5	28.6	26.9	26.7
	95%CI	*23.6–26.9*	*16.8–22.5*	*25.5–31.9*	*24.6–29.3*	*21.7–32.5*
Year level of schooling						
Year 10 or less	%	29.2	23.6	29.5	32.4	28.8
	95%CI	*27.4–31.0*	*19.4–28.4*	*25.4–33.9*	*29.7–35.2*	*24.9–33.0*
Year 11 or more	%	21.2	17.4	23.8	23.5	23.0
	95%CI	*20.0–22.3*	*15.8–19.1*	*21.8–25.8*	*21.5–25.7*	*19.4–26.9*
Highest qualification attained						
Degree or higher	%	19.0	16.1	21.0	20.7	17.9
	95%CI	*17.6–20.6*	*13.8–18.6*	*18.7–23.5*	*17.7–23.9*	*12.8–24.5*
Other/None	%	24.9	19.5	26.9	28.6	27.1
	95%CI	*23.7–26.1*	*17.4–21.7*	*24.6–29.4*	*26.8–30.5*	*24.0–30.3*
Eligibility for public dental care						
Eligible	%	33.4	27.9	41.2	35.8	28.7
	95%CI	*31.6–35.3*	*23.7–32.5*	*36.2–46.5*	*33.1–38.5*	*25.5–32.0*
Ineligible	%	19.6	16.8	21.8	21.2	15.0
	95%CI	*18.5–20.7*	*15.1–18.5*	*20.1–23.6*	*19.4–23.1*	*10.7–20.7*
Dental insurance						
Insured	%	16.7	13.9	17.2	19.5	16.9
	95%CI	*15.6–17.8*	*12.0–16.2*	*15.3–19.3*	*17.5–21.6*	*13.9–20.4*
Uninsured	%	31.3	24.3	34.6	36.0	33.6
	95%CI	*29.8–32.9*	*21.7–27.0*	*31.7–37.7*	*33.5–38.6*	*29.6–37.9*
Usually visit dentist						
For a check-up	%	14.6	12.2	15.1	17.8	16.3
	95%CI	*13.7–15.6*	*10.6–13.9*	*13.4–17.0*	*16.1–19.7*	*13.5–19.7*
For a dental problem	%	39.2	37.5	40.6	39.8	37.0
	95%CI	*37.5–41.0*	*33.9–41.2*	*37.3–43.9*	*37.1–42.7*	*32.2–42.0*
Oral status						
Dentate	%	22.9	18.9	24.6	26.2	24.1
	95%CI	*21.9–23.9*	*17.3–20.6*	*22.9–26.5*	*24.5–28.0*	*21.0–27.5*
Edentulous	%	42.6	—	64.5	44.4	35.6
	95%CI	*38.3–46.9*	—	*44.5–80.4*	*38.1–50.9*	*29.5–42.2*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero.

Perception of fair or poor oral health

Self-reported global measures of oral health reflect an individual's own experience of their oral health. Single item, self-rated oral health measures are associated with functional impairment and discomfort as well as clinical measures of oral health. They are used widely in research and provide a summary measure of oral symptoms and functioning (Sanders & Slade 2006).

In NSAOH 2017–18, self-rated oral health was assessed in the interview by asking dentate people 'And how would you rate your own dental health. Would you say that it is: Excellent, Very good, Good, Fair, Poor, Don't know?' People who answered 'Fair' or 'Poor' were classified as having fair or poor self-rated oral health.

Table 6.2 presents the percentage of people rating their oral health as fair or poor in the Australian population. Among dentate people aged 15 years and over in the Australian population, nearly a quarter rated their oral health as fair or poor (23.9%). The percentage of people rating their oral health as fair or poor varied by age, being lower for younger people (18.4% for those aged 15–34 years) than older people aged 35–54 years (26.2%) and 55–74 years (29.2%).

Similar percentages of males (25.1%) and females (22.7%) rated their oral health as fair or poor overall, and this was observed consistently in each age group.

Overall, similar percentages of Indigenous (28.5%) and non-Indigenous persons (23.8%) rated their oral health as fair or poor, with no significant differences in perception of fair or poor oral health by Indigenous status in any age group.

Capital city residents reported a similar percentage of fair or poor oral health (23.3%) as residents of other places (25.1%). No significant variation in perception of fair or poor oral health by residential location was observed in any age group.

A higher percentage of persons with Year 10 or less schooling reported fair or poor oral health (29.6%) than those with Year 11 or more years of schooling (21.5%). This pattern of higher percentages with fair or poor oral health for those with lower rather than higher levels of schooling was observed for those aged 35–54 years (35.9% and 23.5%, respectively) and 55–74 years (33.5% and 25.7%, respectively).

Perceptions of fair or poor oral health were related to highest qualification attained, with those having a degree or higher qualification reporting lower percentages of fair or poor oral health (19.5%) than those with other or no qualifications (25.0%). This pattern of lower percentages with fair or poor oral health for those with higher rather than lower levels of qualifications was observed for those aged 35–54 years (20.7% and 28.7%, respectively) and 55–74 years (21.4% and 30.5%, respectively).

Those eligible for public dental care reported a higher percentage with fair or poor oral health (32.3%) than those ineligible (20.6%). This pattern in perception of oral health by eligibility for public dental care was observed consistently in each age group.

A higher percentage of uninsured people reported fair or poor oral health (32.8%) than insured people (15.5%). This pattern of perceptions of fair or poor oral health by dental insurance status was observed consistently in each age group.

Those who usually visit a dentist for a dental problem reported higher percentages with fair or poor oral health (44.1%) than those who usually visit for a check-up (12.6%). The higher percentages of people with fair or poor oral health for those usually visiting a dentist for a problem rather than a check-up was observed consistently in each age group.

Table 6.2: Percentage of people rating their oral health fair or poor in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**23.9**	**18.4**	**26.2**	**29.2**	**23.0**
	95%CI	*22.8–25.0*	*16.8–20.2*	*24.4–28.0*	*27.3–31.1*	*20.2–26.2*
Sex						
Male	%	25.1	19.1	27.5	30.6	25.7
	95%CI	*23.6–26.7*	*16.6–21.9*	*25.0–30.2*	*27.9–33.5*	*21.5–30.4*
Female	%	22.7	17.7	24.9	27.7	21.0
	95%CI	*21.3–24.2*	*15.8–19.8*	*22.5–27.5*	*25.2–30.3*	*17.2–25.3*
Indigenous identity						
Indigenous	%	28.5	19.9	33.6	*34.6	*66.0
	95%CI	*22.4–35.6*	*12.2–31.0*	*21.9–47.8*	*19.8–53.1*	*30.4–89.6*
Non-Indigenous	%	23.8	18.4	26.0	29.1	22.6
	95%CI	*22.7–24.9*	*16.7–20.2*	*24.2–27.9*	*27.2–31.0*	*19.8–25.7*
Residential location						
Capital city	%	23.3	18.1	24.7	30.0	23.7
	95%CI	*21.9–24.8*	*16.2–20.3*	*22.5–27.1*	*27.4–32.8*	*20.0–27.7*
Other places	%	25.1	19.2	29.3	27.7	22.0
	95%CI	*23.5–26.8*	*16.6–22.1*	*26.5–32.4*	*25.3–30.3*	*17.6–27.1*
Year level of schooling						
Year 10 or less	%	29.6	19.7	35.9	33.5	25.7
	95%CI	*27.5–31.9*	*15.6–24.6*	*31.3–40.8*	*30.6–36.6*	*21.6–30.3*
Year 11 or more	%	21.5	17.9	23.5	25.7	19.0
	95%CI	*20.3–22.7*	*16.2–19.7*	*21.7–25.4*	*23.4–28.1*	*15.5–23.2*
Highest qualification attained						
Degree or higher	%	19.5	17.2	20.7	21.4	20.4
	95%CI	*18.1–21.1*	*14.8–19.8*	*18.6–23.0*	*18.6–24.5*	*14.9–27.3*
Other/None	%	25.0	18.5	28.7	30.5	23.0
	95%CI	*23.6–26.4*	*16.4–20.7*	*26.2–31.3*	*28.3–32.7*	*19.9–26.3*
Eligibility for public dental care						
Eligible	%	32.3	26.0	39.1	36.9	25.1
	95%CI	*30.2–34.4*	*22.2–30.2*	*34.3–44.1*	*33.7–40.2*	*21.8–28.8*
Ineligible	%	20.6	16.6	23.6	23.2	13.9
	95%CI	*19.4–21.8*	*15.0–18.4*	*21.7–25.6*	*21.0–25.5*	*9.6–19.7*
Dental insurance						
Insured	%	15.5	11.0	17.9	18.9	13.8
	95%CI	*14.4–16.7*	*9.4–12.9*	*15.9–20.1*	*16.9–21.0*	*11.1–16.9*
Uninsured	%	32.8	25.4	35.6	40.7	32.1
	95%CI	*31.2–34.4*	*22.9–28.2*	*33.0–38.4*	*37.8–43.6*	*27.3–37.3*
Usually visit dentist						
For a check-up	%	12.6	10.2	13.7	15.5	13.1
	95%CI	*11.6–13.6*	*8.8–11.7*	*11.8–15.7*	*13.8–17.3*	*10.5–16.1*
For a dental problem	%	44.1	39.4	45.5	48.1	38.7
	95%CI	*42.2–46.0*	*35.8–43.0*	*42.3–48.8*	*44.9–51.4*	*32.7–45.0*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

Experience of toothache

Toothache can be caused by dental diseases, including dental decay and gum disease that cause pain directly, or that create a painful infection. Other causes of toothache include broken (fractured) teeth, or severe sensitivity of the nerves inside the tooth to hot or cold foods or drinks. While some forms of toothache are short-lived, others can persist and become disabling. In NSAOH 2017–18, experience of toothache was assessed in the interview by asking dentate people 'During the last 12 months how often have you had toothache? Was it: Very often, Often, Sometimes, Hardly ever, Never, Don't know?'. This represents a global question about oral pain that cannot be attributed to any single cause among those cited above (Slade 2001). For this report, people who answered 'Very often', 'Often' or 'Sometimes' to the question about toothache were classified as having experienced toothache.

Table 6.3 presents the percentage of people experiencing toothache in the Australian population. Approximately one fifth of dentate Australians aged 15 years and over reported experiencing a toothache (20.2%). Experience of toothache varied by age, with higher percentages of younger people aged 15–34 years (21.6%) and 35–54 years (22.6%) reporting toothache pain than older persons aged 55–74 years (17.2%) and 75 years and over (11.2%).

A slightly higher percentage of females (21.6%) reported toothache pain than males (18.7%). This difference in percentage reporting toothache by sex was observed for the 15–34 year age group (24.7% for females and 18.5% for males).

Indigenous persons reported a higher percentage with toothache (34.8%) than non-Indigenous persons (19.9%). This difference in percentage reporting toothache by Indigenous identity was observed for the 15–34 year (34.9% and 21.2%, respectively) and the 35–54 year age groups (42.1% and 22.2%, respectively).

There were similar percentages with toothache at capital city (20.9%) and other locations (18.6%), with no significant variation in toothache by residential location in any age group.

Overall, those with Year 10 or less schooling had similar percentages reporting toothache (20.7%) as those with Year 11 or more (19.7%). However, there was some variation in toothache by year level of schooling among older persons, with 12.5% of those with Year 10 or less schooling aged 75 years and over reporting toothache while 9.4% of those with Year 11 or more reported toothache among the oldest age group.

The percentage of persons with toothache was similar overall for those with a degree or higher qualification (17.9%) and those with other or no qualifications (20.7%). However, among those aged 35–54 years the percentage with toothache was lower for those with a degree or higher qualification (18.6%) than those with other or no qualifications (24.6%).

Those eligible for public dental care had a higher percentage reporting toothache pain (25.7%) than those who were ineligible (18.0%). This pattern of higher percentages reporting toothache for those eligible for public dental care than those were ineligible was observed for the for the 15–34 year (31.7% and 19.2%, respectively), 35–54 year (37.5% and 19.8%, respectively) and 55–74 year age groups (22.8% and 12.7%, respectively).

A lower percentage of dentally insured persons reported toothache (14.8%) than the uninsured (26.2%). This pattern of lower percentages reporting toothache for the insured than the uninsured was observed for the 15–34 year (15.8% and 27.8%, respectively), 35–54 year (16.7% and 30.1%, respectively) and 55–74 year age groups (12.4% and 22.4%, respectively).

A higher percentage of those who usually visit a dentist for a dental problem reported toothache (34.4%) than those who usually visit for a check-up (12.3%). This pattern of higher percentages reporting toothache for those usually visiting for a problem than those usually visiting for a check-up was observed consistently for the for the 15–34 year (42.6% and 13.7%, respectively), 35–54 year (38.3% and 12.8%, respectively), 55–74 year (26.6% and 10.4%, respectively) and 75 year and over age groups (15.6% and 8.2%, respectively).

Table 6.3: Percentage of people experiencing toothache in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**20.2**	**21.6**	**22.6**	**17.2**	**11.2**
	95%CI	*19.2–21.2*	*19.9–23.4*	*20.9–24.4*	*15.5–18.9*	*9.2–13.7*
Sex						
Male	%	18.7	18.5	22.0	16.3	11.1
	95%CI	*17.3–20.1*	*16.2–21.0*	*19.7–24.5*	*14.3–18.5*	*8.0–15.3*
Female	%	21.6	24.7	23.2	18.0	11.3
	95%CI	*20.4–22.9*	*22.5–27.1*	*21.0–25.6*	*15.8–20.5*	*8.7–14.7*
Indigenous identity						
Indigenous	%	34.8	34.9	42.1	*21.3	*18.6
	95%CI	*27.8–42.4*	*24.7–46.8*	*28.6–56.8*	*10.4–38.8*	*2.6–66.1*
Non-Indigenous	%	19.9	21.2	22.2	17.1	11.2
	95%CI	*18.8–20.9*	*19.5–23.0*	*20.5–24.0*	*15.5–18.9*	*9.1–13.6*
Residential location						
Capital city	%	20.9	21.6	23.3	18.2	13.2
	95%CI	*19.6–22.3*	*19.6–23.9*	*21.2–25.5*	*16.0–20.6*	*10.4–16.6*
Other places	%	18.6	21.4	21.1	15.5	7.9
	95%CI	*17.3–20.1*	*18.7–24.4*	*18.6–24.0*	*13.3–17.9*	*5.3–11.6*
Year level of schooling						
Year 10 or less	%	20.7	22.3	25.7	19.5	12.5
	95%CI	*19.0–22.6*	*18.3–26.9*	*21.8–30.1*	*17.0–22.3*	*9.6–16.3*
Year 11 or more	%	19.7	21.1	21.5	14.8	9.4
	95%CI	*18.5–20.9*	*19.4–23.0*	*19.6–23.6*	*12.9–17.0*	*6.8–12.8*
Highest qualification attained						
Degree or higher	%	17.9	19.5	18.6	14.0	*10.4
	95%CI	*16.4–19.5*	*16.9–22.4*	*16.5–20.9*	*11.4–17.0*	*6.2–17.0*
Other/None	%	20.7	22.1	24.6	17.4	11.0
	95%CI	*19.5–21.9*	*20.0–24.3*	*22.4–26.9*	*15.5–19.5*	*8.8–13.6*
Eligibility for public dental care						
Eligible	%	25.7	31.7	37.5	22.8	11.6
	95%CI	*23.7–27.8*	*27.2–36.5*	*32.4–43.0*	*20.1–25.7*	*9.2–14.4*
Ineligible	%	18.0	19.2	19.8	12.7	9.9
	95%CI	*17.0–19.1*	*17.5–21.0*	*18.2–21.4*	*11.0–14.6*	*6.2–15.2*
Dental insurance						
Insured	%	14.8	15.8	16.7	12.4	8.4
	95%CI	*13.8–15.9*	*13.9–18.0*	*14.8–18.6*	*10.6–14.4*	*6.3–11.2*
Uninsured	%	26.2	27.8	30.1	22.4	14.1
	95%CI	*24.7–27.8*	*25.1–30.6*	*27.5–32.9*	*19.7–25.3*	*10.5–18.6*
Usually visit dentist						
For a check-up	%	12.3	13.7	12.8	10.4	8.2
	95%CI	*11.4–13.4*	*12.1–15.5*	*11.2–14.6*	*8.8–12.2*	*6.1–10.9*
For a dental problem	%	34.4	42.6	38.3	26.6	15.6
	95%CI	*32.5–36.4*	*39.0–46.3*	*34.9–41.8*	*23.6–29.8*	*11.7–20.5*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

Uncomfortable about dental appearance

Table 6.4 presents the percentage of people who were uncomfortable about their dental appearance in the Australian population. Overall, 35.2% of Australians aged 15 years and over reported being uncomfortable about their dental appearance. Persons in the 35–54 years age group had the highest percentage uncomfortable about their dental appearance (38.9%), while the lowest percentage was observed in the 75 years and over age group (26.2%).

A higher percentage of females reported being uncomfortable with their dental appearance (38.4%) than males (31.9%). This pattern of higher percentages of females than males being uncomfortable about their dental appearance was observed for the 15–34 year (37.9% and 31.6%, respectively), 35–54 year (42.8% and 35.0%, respectively) and 55–74 year age groups (37.7% and 29.7%, respectively).

The percentage of persons uncomfortable about their dental appearance was higher for Indigenous (45.1%) than non-Indigenous persons (35.0%). However, this pattern was not consistent for each age group.

There was little variation in the percentage of people who were uncomfortable about their dental appearance for capital city (35.2%) and other residential locations (35.4%), with no differences by location in any age group.

A higher percentage of persons with Year 10 or less schooling were uncomfortable about their dental appearance (37.6%) than those with Year 11 or more years of schooling (34.1%). This pattern of higher percentages of persons with Year 10 or less schooling being uncomfortable about their dental appearance than those with Year 11 or more years of schooling was observed for the 35–54 year (46.0% and 36.9%, respectively) and 55–74 year age groups (37.3% and 30.9%, respectively).

Persons with a degree or higher qualification reported a lower percentage who were uncomfortable about their dental appearance (31.8%) than those with other or no qualifications (36.3%). This pattern of lower percentages of persons with a degree or higher qualification being uncomfortable about their dental appearance than those with other or no qualifications was observed for the 35–54 year (33.2% and 41.9%, respectively) and 55–74 year age groups (27.1% and 35.3%, respectively).

Those who were eligible for public dental care had a higher percentage who were uncomfortable about their dental appearance (39.6%) than those who were ineligible (33.4%). This pattern of higher percentages of persons eligible for public dental care being uncomfortable about their dental appearance than those who were ineligible was observed for the 15–34 year (42.5% and 33.0%, respectively), 35–54 year (50.3% and 36.6%, respectively) and 55–74 year age groups (39.6% and 28.9%, respectively).

A lower percentage of dentally insured persons were uncomfortable about their dental appearance (30.2%) than uninsured persons (40.7%). This pattern of lower percentages of dentally insured persons reporting that they were uncomfortable about their dental appearance than uninsured persons was observed consistently in each age group.

Usually visiting a dentist for a dental problem was associated with a higher percentage of people who were uncomfortable about their dental appearance (48.8%) than those who usually visit for a check-up (27.6%). This pattern of higher percentages of persons who usually visit for a dental problem reporting that they were uncomfortable about their dental appearance than persons who usually visit for a check-up was observed consistently in each age group.

A higher percentage of dentate persons reported that they were uncomfortable about their dental appearance (35.5%) than edentulous persons (29.1%). However, there was no consistent difference in being uncomfortable about dental appearance by age group.

Table 6.4: Percentage of people who were uncomfortable about dental appearance in the Australian population

		Population: all people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**35.2**	**34.7**	**38.9**	**33.8**	**26.2**
	95%CI	*34.1–36.4*	*32.7–36.8*	*37.0–41.0*	*32.0–35.6*	*23.4–29.2*
Sex						
Male	%	31.9	31.6	35.0	29.7	26.0
	95%CI	*30.2–33.6*	*28.3–35.1*	*32.1–37.9*	*27.3–32.3*	*21.9–30.6*
Female	%	38.4	37.9	42.8	37.7	26.3
	95%CI	*37.0–39.9*	*35.3–40.5*	*40.2–45.4*	*35.3–40.2*	*22.7–30.3*
Indigenous identity						
Indigenous	%	45.1	41.4	56.8	31.2	*62.9
	95%CI	*37.7–52.7*	*30.6–53.0*	*42.1–70.4*	*19.3–46.2*	*29.7–87.1*
Non-Indigenous	%	35.0	34.6	38.5	33.8	25.8
	95%CI	*33.9–36.2*	*32.5–36.7*	*36.6–40.6*	*32.0–35.6*	*23.1–28.8*
Residential location						
Capital city	%	35.2	35.7	37.9	32.9	26.4
	95%CI	*33.7–36.7*	*33.1–38.3*	*35.5–40.4*	*30.6–35.3*	*23.2–29.8*
Other places	%	35.4	32.4	41.1	35.1	25.9
	95%CI	*33.7–37.0*	*29.3–35.6*	*37.7–44.6*	*32.5–37.8*	*21.0–31.6*
Year level of schooling						
Year 10 or less	%	37.6	37.8	46.0	37.3	26.4
	95%CI	*35.6–39.7*	*32.9–43.0*	*40.9–51.2*	*34.4–40.2*	*22.6–30.5*
Year 11 or more	%	34.1	33.8	36.9	30.9	26.2
	95%CI	*32.7–35.4*	*31.6–36.1*	*34.8–39.0*	*28.7–33.2*	*22.3–30.6*
Highest qualification attained						
Degree or higher	%	31.8	33.0	33.2	27.1	25.3
	95%CI	*30.1–33.6*	*29.9–36.2*	*30.7–35.8*	*23.9–30.4*	*19.2–32.6*
Other/None	%	36.3	35.2	41.9	35.3	26.0
	95%CI	*34.9–37.7*	*32.6–37.8*	*39.1–44.7*	*33.2–37.3*	*23.1–29.2*
Eligibility for public dental care						
Eligible	%	39.6	42.5	50.3	39.6	27.5
	95%CI	*37.8–41.4*	*37.6–47.5*	*45.0–55.7*	*37.0–42.4*	*24.4–30.8*
Ineligible	%	33.4	33.0	36.6	28.9	19.8
	95%CI	*32.1–34.7*	*30.9–35.2*	*34.6–38.7*	*26.7–31.2*	*14.7–26.1*
Dental insurance						
Insured	%	30.2	30.8	34.5	25.9	20.6
	95%CI	*28.7–31.8*	*27.8–33.8*	*32.0–37.1*	*23.7–28.2*	*17.6–24.0*
Uninsured	%	40.7	38.9	44.4	42.0	30.6
	95%CI	*39.1–42.3*	*36.1–41.8*	*41.4–47.5*	*39.2–44.9*	*26.3–35.3*
Usually visit dentist						
For a check-up	%	27.6	28.9	29.9	24.0	20.6
	95%CI	*26.3–28.9*	*26.6–31.3*	*27.6–32.2*	*22.0–26.0*	*17.5–24.1*
For a dental problem	%	48.8	50.4	53.2	46.6	34.4
	95%CI	*46.9–50.6*	*46.4–54.4*	*49.7–56.7*	*43.9–49.3*	*29.5–39.6*
Oral status						
Dentate	%	35.5	34.7	38.8	33.9	28.0
	95%CI	*34.3–36.6*	*32.7–36.8*	*36.8–40.8*	*32.1–35.7*	*24.8–31.4*
Edentulous	%	29.1	—	54.8	33.0	18.6
	95%CI	*24.7–33.9*	—	*34.1–74.0*	*27.0–39.5*	*13.7–24.9*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero.

Summary of oral health problems

Table 6.5 presents a summary of findings regarding the impact of oral health in the Australian population. Using information from the previous four tables, unadjusted prevalence ratios were calculated for the measures regarding impact of oral health. Only significant ratios are reported.

Overall, 23.7% of people in Australia aged 15 years and over reported avoiding certain foods due to dental problems. Among dentate people aged 15 years and over in the Australian population, nearly a quarter rated their oral health as fair or poor (23.9%). Approximately one fifth of dentate Australians aged 15 years and over reported experiencing toothache in the last 12 months (20.2%). Overall, 35.2% of Australians aged 15 years and over reported being uncomfortable about their dental appearance.

Younger persons had lower percentages reporting avoiding certain foods than older age groups where percentages were between 1.33 and 1.47 times higher, and a similar pattern was observed for rating their oral health as fair or poor with percentages between 1.25 and 1.58 times higher. In contrast those aged 55–74 years and 75 years and over had lower percentages with toothache (0.80 and 0.52 times, respectively). There were mixed results for reporting being uncomfortable about their dental appearance, with those aged 35–54 years 1.12 times higher and those aged 75 years and over 0.75 times lower than younger persons aged 15–34 years.

Females had higher percentages avoiding certain foods (1.35 times), reporting toothache (1.16 times) and being uncomfortable about their dental appearance (1.21 times) but reported lower percentages with fair or poor oral health (0.91 times) than males.

Indigenous persons had higher percentages avoiding certain foods (1.54 times), reporting toothache (1.75 times) and being uncomfortable about their dental appearance (1.29 times) than non-Indigenous persons.

Residents at places other than capital cities report were more likely to report avoiding certain foods (1.10 times) but less likely to report toothache in the last 12 months (0.89 times) than capital city residents.

Year 10 or less of schooling was associated with higher percentages of avoiding certain foods (1.38 times), rating their oral health as fair or poor (1.38 times) and being uncomfortable about their dental appearance (1.11 times) than those with Year 11 or more years of schooling.

Compared to those with a degree or higher qualification, those with other or no qualifications had higher percentages avoiding certain foods (1.31 times), rating their oral health as fair or poor (1.28 times), reporting toothache pain (1.16 times) and being uncomfortable about dental appearance (1.14 times).

Those eligible for public dental care had higher percentages avoiding certain foods (1.71 times), rating their oral health as fair or poor (1.57 times), reporting toothache pain (1.43 times) and being uncomfortable about dental appearance (1.19 times) than those ineligible for public dental care.

Uninsured persons had higher percentages avoiding certain foods (1.88 times), rating their oral health as fair or poor (2.11 times), reporting toothache pain (1.77 times) and being uncomfortable about their dental appearance (1.35 times) than those who were dentally insured.

Persons who usually visit a dentist for a dental problem had higher percentages avoiding certain foods (2.68 times), rating their oral health as fair or poor (3.50 times), reporting toothache pain (2.79 times) and being uncomfortable about their dental appearance (1.77 times) than those who usually visit for a check-up.

Edentulous people reported a higher percentage who avoided certain foods (1.86 times), but a lower percentage who reported being uncomfortable about their dental appearance (0.82 times) than dentate persons.

Overall, highest qualification, eligibility for public dental care, dental insurance and reason for usually visiting a dentist were each associated with all four indicators of oral health impact, with the largest effects observed for usually visiting for a dental problem.

Table 6.5: Summary of findings regarding impact of oral health

	% who avoided certain foods	% reporting Fair/poor self-rated oral health	% reporting Toothache in the last 12 months	% who were uncomfortable about dental appearance
	Prevalence ratio			
Age group				
Ref[(a)] = 15–34 years				
35–54	1.33	1.42	~	1.12
55–74	1.47	1.58	0.80	~
≥75	1.40	1.25	0.52	0.75
Sex				
Ref = Male				
Female	1.35	0.91	1.16	1.21
Indigenous identity				
Ref = Non-Indigenous				
Indigenous	1.54	~	1.75	1.29
Residential location				
Ref = Capital city				
Other places	1.10	~	0.89	~
Year level of schooling				
Ref = Year 11 or more				
Year 10 or less	1.38	1.38	~	1.11
Highest qualification attained				
Ref = Degree or higher				
Other/None	1.31	1.28	1.16	1.14
Eligibility for public dental care				
Ref = Ineligible				
Eligible	1.71	1.57	1.43	1.19
Dental insurance				
Ref = Insured				
Uninsured	1.88	2.11	1.77	1.35
Usually visit dentist				
Ref = For a check-up				
For a dental problem	2.68	3.50	2.79	1.77
Oral status				
Ref = Dentate				
Edentulous	1.86	. .	. .	0.82

Note: (a) Ref: reference group; ~: difference is not statistically significant; . . Not applicable.
(b) The 95% confidence intervals for these estimates are in Appendix Table B.8.

6.2 Perceived need for dental treatment

People's perception of their need for dental care is regarded as a factor in their visiting a dentist. For this reason perceived need has been included in a number of models that endeavour to predict the probability of dental visits. Dental attendance should reduce people's perceived needs, whereas onset of oral disease or other disorders may produce symptoms that create a perception that treatment is needed.

Perceived need for different types of dental care gives an indication of the dental services that could be required. However, the actual services provided in a dental visit are the result of a professional diagnosis and negotiated treatment plan, where both the professional judgement of a dentist and the perceptions of the 'patient' are both weighed in a cost benefit assessment.

In NSAOH 2017–18, people were asked 'Currently which of the following dental treatments do you think that you need to have?' at the time of the interview. The possible response categories varied for dentate and edentulous people. All people were asked if they felt they need dentures. Dentate people were asked about additional dental services including an extraction, a restoration or a check-up. Further, those people who reported a need for an extraction or restoration were asked about the urgency of their need for those dental treatments.

Perceived need for dentures

Table 6.6 presents the percentage of people who perceived a need for dentures in the Australian population. Overall, 5.6% of people aged 15 years and over reported a need for dentures. This varied by age, from 1.1% for 15–34 year-olds to 14.8% for those aged 75 years and over. The percentage reporting a need for denture was similar for males (5.4%) and females (5.8%), and did not vary significantly by sex for any age group.

A higher percentage of Indigenous persons reported needing dentures (15.2%) than non-Indigenous (5.4%). This difference by Indigenous identity was present in each age group, but some estimates had high relative standard errors. Capital city residents had a lower percentage reporting a need for dentures (4.7%) than those at other locations (7.4%), reflecting a difference in the 35–54 year age group (3.4% and 6.4%, respectively).

A higher percentage of persons with Year 10 or less schooling reported needing a denture (10.8%) than those with Year 11 or more years of schooling (3.3%). This pattern of higher percentages of persons with Year 10 or less schooling needing a denture than those with Year 11 or more years of schooling was observed for the 35–54 year (9.0% and 3.0%, respectively), 55–74 year (13.6% and 7.6%, respectively) and 75 year and over (19.1% and 7.8%, respectively) age groups. A lower percentage of persons with a degree or higher qualification reported needing a denture (2.0%) than those with other or no qualifications (6.8%). This pattern of lower percentages of persons with a degree or higher needing a denture than those with other or no qualifications was observed for the 35–54 year (2.2% and 5.4%, respectively), 55–74 year (3.9% and 12.0%, respectively) and 75 year and over (5.2% and 15.6%, respectively) age groups.

A higher percentage of persons eligible for public dental care reported needing a denture (12.4%) than those who were ineligible (2.7%). This pattern of higher percentages of persons eligible for public dental care needing a denture than those ineligible was observed for the 35–54 year (13.0% and 2.6%, respectively), 55–74 year (15.6% and 6.6%, respectively) and 75 years and over (17.1% and 3.0%, respectively) age groups.

Uninsured persons reported a higher percentage with a need for a denture (8.7%) than dentally insured persons (2.9%). This pattern of higher percentages of uninsured persons needing a denture than those insured was observed for the 35–54 year (6.7% and 2.5%, respectively), 55–74 year (16.3% and 5.2%, respectively) and 75 years and over (20.3% and 7.6%, respectively) age groups.

A higher percentage of those who usually visit for a dental problem needed a denture (12.4%) than those who usually visit for a check-up (1.6%). This difference by usual reason for visit tended to be present in each age group, but some of these estimates had high relative standard errors.

Edentulous persons reported a higher percentage with a need for a denture (28.4%) than dentate persons (4.7%). This pattern of higher percentages of edentulous persons needing a denture than dentate persons was observed for the 35–54 year (21.6% and 4.2%, respectively), 55–74 year (32.3% and 8.7%, respectively) and 75 years and over (25.2% and 12.1%, respectively) age groups.

Table 6.6: Percentage of people who need dentures in the Australian population

		Population: all people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**5.6**	**1.1**	**4.4**	**10.6**	**14.8**
	95%CI	*5.1–6.1*	*0.7–1.6*	*3.6–5.2*	*9.5–11.9*	*12.5–17.3*
Sex						
Male	%	5.4	*1.2	4.8	10.7	11.0
	95%CI	*4.7–6.2*	*0.7–2.1*	*3.7–6.1*	*9.0–12.6*	*8.3–14.5*
Female	%	5.8	*0.9	4.0	10.6	17.6
	95%CI	*5.2–6.5*	*0.6–1.6*	*3.0–5.2*	*9.1–12.3*	*14.3–21.5*
Indigenous identity						
Indigenous	%	15.2	*5.6	*16.3	28.1	*47.7
	95%CI	*10.4–21.6*	*1.4–19.5*	*8.4–29.1*	*16.9–43.1*	*19.1–77.9*
Non-Indigenous	%	5.4	0.9	4.1	10.3	14.5
	95%CI	*4.9–5.9*	*0.6–1.4*	*3.4–4.9*	*9.2–11.5*	*12.3–17.1*
Residential location						
Capital city	%	4.7	*0.9	3.4	9.8	13.9
	95%CI	*4.2–5.4*	*0.6–1.6*	*2.6–4.4*	*8.4–11.5*	*11.2–17.3*
Other places	%	7.4	*1.4	6.4	11.9	16.1
	95%CI	*6.6–8.3*	*0.7–2.7*	*4.9–8.1*	*10.1–13.9*	*12.6–20.4*
Year level of schooling						
Year 10 or less	%	10.8	*1.5	9.0	13.6	19.1
	95%CI	*9.8–12.0*	*0.7–2.9*	*6.9–11.6*	*11.7–15.7*	*15.8–22.8*
Year 11 or more	%	3.3	*1.0	3.0	7.6	7.8
	95%CI	*2.9–3.8*	*0.6–1.6*	*2.3–3.9*	*6.4–9.0*	*5.6–10.8*
Highest qualification attained						
Degree or higher	%	2.0	*0.7	2.2	3.9	*5.2
	95%CI	*1.6–2.6*	*0.4–1.4*	*1.5–3.3*	*2.7–5.5*	*3.1–8.4*
Other/None	%	6.8	*1.1	5.4	12.0	15.6
	95%CI	*6.2–7.4*	*0.7–1.8*	*4.4–6.7*	*10.6–13.5*	*13.1–18.5*
Eligibility for public dental care						
Eligible	%	12.4	*2.2	13.0	15.6	17.1
	95%CI	*11.2–13.7*	*1.0–4.7*	*10.1–16.6*	*13.6–17.8*	*14.4–20.0*
Ineligible	%	2.7	0.8	2.6	6.6	*3.0
	95%CI	*2.3–3.1*	*0.5–1.2*	*2.0–3.4*	*5.4–8.0*	*1.5–5.9*
Dental insurance						
Insured	%	2.9	*0.6	2.5	5.2	7.6
	95%CI	*2.4–3.4*	*0.3–1.2*	*1.8–3.5*	*4.2–6.4*	*5.1–11.1*
Uninsured	%	8.7	1.6	6.7	16.3	20.3
	95%CI	*7.9–9.5*	*1.0–2.6*	*5.4–8.3*	*14.4–18.4*	*17.0–24.2*
Usually visit dentist						
For a check-up	%	1.6	*0.2	*1.1	3.6	5.3
	95%CI	*1.3–1.9*	*0.1–0.6*	*0.7–1.8*	*2.8–4.6*	*3.7–7.5*
For a dental problem	%	12.4	*3.1	9.4	19.0	25.7
	95%CI	*11.3–13.6*	*1.9–5.0*	*7.7–11.4*	*16.9–21.4*	*21.5–30.3*
Oral status						
Dentate	%	4.7	1.1	4.2	8.7	12.1
	95%CI	*4.2–5.1*	*0.7–1.6*	*3.4–5.0*	*7.6–9.9*	*9.8–14.9*
Edentulous	%	28.4	—	*21.6	32.3	25.2
	95%CI	*24.4–32.8*	—	*9.8–41.1*	*26.2–39.1*	*20.1–31.1*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero.

Perceived need for dental extraction or filling

Other response options to the question in the NSAOH 2017–18 interview about which dental treatments people thought they needed to have were 'Any extractions' and 'Any fillings'. These responses have been analysed for dentate respondents only. The response options have been combined so that the respondents are indicating that they perceive a dental problem for which one or other of these two aspects of routine dental care is thought to be required. Extractions and fillings (sometimes with additional dental services like endodontics and advanced restorative services like crowns) are alternative treatments for teeth affected by dental caries and its sequelae. Just which treatment people proceed with would be determined frequently by fees in the private sector and resource scarcity in the public dental services.

Table 6.7 presents the percentage of people who need an extraction or filling in the Australian population. Among dentate people aged 15 years and over, 27.1% perceived a need for an extraction or a filling. The percentage needing an extraction or filling varied by age, being lowest in the 75 years and over age group (16.4%).

There were similar percentages of males and females reporting a need for an extraction or filling (26.6% and 27.6%, respectively), with little variation in perceived need for an extraction or filling by sex in each age group.

Indigenous persons reported a higher percentage with a perceived need for an extraction or filling (39.8%) than non-Indigenous persons (26.9%). This pattern of a higher percentage of Indigenous persons with a perceived need for an extraction or filling than non-Indigenous persons was observed for the 15–34 year (36.5% and 27.5%, respectively) and 35–54 year age groups (48.8% and 28.7%, respectively).

Capital city residents had a slightly lower percentage with a perceived need for an extraction or filling (26.0%) than residents of other locations (29.6%), which was reflected in the 35–54 year age group (26.2% and 35.5%, respectively).

Persons with Year 10 or less schooling had a slightly higher percentage with a perceived need for an extraction or filling (29.7%) than those with Year 11 or more years of schooling (26.0%), which was reflected in the 35–54 year (38.5% and 26.6%, respectively) and 55–74 year age groups (30.9% and 22.9%, respectively).

A lower percentage of persons with a degree or higher qualification reported a need for an extraction or filling (21.8%) than those with other or no qualifications (28.9%). This pattern by qualification was reflected in the 35–54 year (21.7% and 33.1%, respectively) and 55–74 year age groups (18.5% and 28.4%, respectively).

Those eligible for public dental care reported a higher percentage with a perceived need for an extraction or filling (31.9%) than those ineligible (25.2%). This pattern was observed consistently in each age group, with the highest percentage perceiving a need for an extraction or filling observed for those eligible for public dental care in the 35–54 year age group (44.5% and 26.0%, respectively).

Uninsured persons reported a higher percentage with a need for an extraction or filling (34.9%) than dentally insured persons (20.4%). This pattern of a higher percentage of uninsured than insured persons perceiving a need for an extraction or filling was observed consistently in each age group.

A higher percentage of those who usually visit for a dental problem needed an extraction or filling (47.5%) than those who usually visit for a check-up (16.1%). This pattern of a higher percentage of those who usually visit for a problem than those persons who usually visit for a check-up perceiving a need for an extraction or filling was observed consistently in each age group. The highest percentage perceiving a need for an extraction or filling observed for those who usually visit for a dental problem than a check-up in the 15–34 year age group (55.3% and 17.9%, respectively).

Table 6.7: Percentage of people who need an extraction or filling in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**27.1**	**27.8**	**29.1**	**26.5**	**16.4**
	95%CI	*26.0–28.3*	*25.8–29.8*	*27.2–31.2*	*24.6–28.4*	*13.6–19.5*
Sex						
Male	%	26.6	25.0	29.4	28.5	13.7
	95%CI	*25.1–28.3*	*22.4–27.9*	*26.6–32.5*	*25.9–31.3*	*10.4–17.8*
Female	%	27.6	30.6	28.8	24.4	18.4
	95%CI	*26.1–29.2*	*27.9–33.5*	*26.4–31.4*	*22.1–26.9*	*14.7–22.9*
Indigenous identity						
Indigenous	%	39.8	36.5	48.8	31.3	*22.7
	95%CI	*32.0–48.3*	*26.0–48.5*	*34.3–63.5*	*18.2–48.2*	*3.4–71.2*
Non-Indigenous	%	26.9	27.5	28.7	26.4	16.3
	95%CI	*25.7–28.1*	*25.6–29.6*	*26.7–30.7*	*24.6–28.3*	*13.6–19.4*
Residential location						
Capital city	%	26.0	27.2	26.2	26.1	16.9
	95%CI	*24.5–27.5*	*24.8–29.8*	*24.1–28.4*	*23.6–28.8*	*13.5–20.9*
Other places	%	29.6	29.2	35.5	27.0	15.5
	95%CI	*27.7–31.5*	*26.2–32.3*	*31.3–39.9*	*24.6–29.6*	*11.3–20.9*
Year level of schooling						
Year 10 or less	%	29.7	25.0	38.5	30.9	19.1
	95%CI	*27.5–31.9*	*20.4–30.2*	*33.7–43.5*	*28.2–33.8*	*15.2–23.8*
Year 11 or more	%	26.0	28.4	26.6	22.9	11.9
	95%CI	*24.7–27.4*	*26.3–30.5*	*24.5–28.7*	*20.7–25.2*	*8.8–16.0*
Highest qualification attained						
Degree or higher	%	21.8	24.5	21.7	18.5	10.4
	95%CI	*20.2–23.6*	*21.8–27.4*	*19.5–24.0*	*15.8–21.6*	*6.6–16.1*
Other/None	%	28.9	28.6	33.1	28.4	16.0
	95%CI	*27.5–30.3*	*26.1–31.3*	*30.4–35.9*	*26.4–30.6*	*13.1–19.5*
Eligibility for public dental care						
Eligible	%	31.9	34.0	44.5	31.3	18.1
	95%CI	*29.9–34.0*	*29.8–38.5*	*39.0–50.1*	*28.3–34.4*	*15.0–21.8*
Ineligible	%	25.2	26.3	26.0	22.9	*8.3
	95%CI	*23.9–26.6*	*24.1–28.6*	*24.1–28.0*	*20.7–25.3*	*5.0–13.6*
Dental insurance						
Insured	%	20.4	21.7	21.7	19.3	10.6
	95%CI	*19.0–21.8*	*19.1–24.4*	*19.5–24.1*	*17.3–21.6*	*7.7–14.5*
Uninsured	%	34.9	34.5	38.7	34.3	22.1
	95%CI	*33.2–36.6*	*31.6–37.6*	*35.6–41.9*	*31.4–37.3*	*17.9–27.0*
Usually visit dentist						
For a check-up	%	16.1	17.9	16.9	13.9	8.3
	95%CI	*15.0–17.3*	*15.9–20.1*	*15.1–18.9*	*12.3–15.7*	*6.2–11.0*
For a dental problem	%	47.5	55.3	48.1	44.3	29.5
	95%CI	*45.5–49.5*	*51.3–59.1*	*44.5–51.6*	*41.2–47.5*	*24.0–35.7*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

Perceived need for a dental check-up

Perceived need for a check-up is an indicator of an acceptance of the recommendation from dentists to visit regularly when not suffering any symptoms (that is, asymptomatic) so as to receive preventive services and the early diagnosis and prompt treatment of any oral disease. It is therefore related to the indicators of access described in Chapter 0 such as reported frequency of visiting for a check-up and usually visiting at least once a year.

In NSAOH 2017–18, people who were dentate were asked 'Currently which of the following dental treatments do you think you need to have?'. The responses included 'A dental check-up'.

Table 6.8 presents the percentage of dentate people who perceived a need for a check-up in the Australian population. The percentage of dentate persons aged 15 years and over who perceived a need for a check-up was 53.4%. The percentage of people perceiving a need for a check-up was higher in the 15–34 year (57.0%) and 35–54 year age groups (57.3%) than in the 55–74 year (47.6%) and 75 years and over age groups (34.8%).

There was little difference in perceived need for a check-up between males (52.3%) and females (54.5%), with no differences in perceived need for a check-up by sex in any age groups.

Perceived need for a check-up was similar for Indigenous (51.4%) and non-Indigenous persons (53.4%), with no differences in perceived need for a check-up by Indigenous identity in any age groups.

Capital city residents reported a similar percentage with a perceived need for a check-up (53.1%) as residents from other locations (54.0%). There were no significant differences in perceived need for a check-up by residential location in any age groups.

Those with Year 11 or more years of schooling reported a higher perceived need for a check-up (54.7%) than those with Year 10 or less schooling (49.9%), but there were no significant differences in perceived need for a check-up by year level of schooling in any age groups.

There were similar percentages of persons with a perceived need for a check-up among those with a degree or higher qualification (55.3%) as for those with other or no qualifications (52.4%). However, the percentage of persons with a perceived need for a check-up was higher for those with a degree or higher qualification (61.5%) than those with other or no qualifications (55.0%) in the 15–34 year age group.

The percentage of persons with a perceived need for a check-up was similar for those eligible for public dental care (52.2%) and those ineligible (53.7%). However, the percentage of persons with a perceived need for a check-up was higher for those eligible for public dental care (65.8%) than those ineligible (55.4%) in the 35–54 year age group.

Perceived need for a check-up was higher for uninsured (58.8%) than insured persons (48.2%). This pattern of a higher perceived need for a check-up for uninsured than insured persons was observed in the 15–34 year (62.1% and 52.0%, respectively), 35–54 year (63.6% and 51.7%, respectively) and the 55–74 year age groups (54.0% and 41.8%, respectively).

Those who usually visit for a dental problem reported a higher perceived need for a check-up (62.8%) than those who usually visit for a check-up (48.4%). This pattern of a higher perceived need for a check-up for those usually visiting for a dental problem rather than a check-up was observed in the 15–34 year (68.7% and 52.7%, respectively), 35–54 year (67.1% and 51.3%, respectively) and the 55–74 year age groups (58.1% and 40.3%, respectively).

Table 6.8: Percentage of people perceiving a need for a check-up in the Australian dentate population

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**53.4**	**57.0**	**57.3**	**47.6**	**34.8**
	95%CI	*52.2–54.6*	*54.9–59.1*	*55.2–59.4*	*45.5–49.7*	*31.7–38.0*
Sex						
Male	%	52.3	53.8	56.8	48.2	33.5
	95%CI	*50.4–54.1*	*50.5–57.0*	*53.6–60.0*	*45.4–51.0*	*28.7–38.6*
Female	%	54.5	60.2	57.7	47.0	35.9
	95%CI	*53.0–56.0*	*57.6–62.8*	*55.2–60.2*	*44.2–49.7*	*31.6–40.3*
Indigenous identity						
Indigenous	%	51.4	48.2	57.7	43.4	69.0
	95%CI	*42.5–60.2*	*33.9–62.8*	*42.5–71.6*	*30.2–57.6*	*31.8–91.4*
Non-Indigenous	%	53.4	57.3	57.2	47.6	34.5
	95%CI	*52.2–54.6*	*55.1–59.4*	*55.1–59.3*	*45.5–49.7*	*31.4–37.7*
Residential location						
Capital city	%	53.1	56.8	55.8	48.3	32.3
	95%CI	*51.6–54.6*	*54.2–59.4*	*53.3–58.4*	*45.5–51.2*	*28.4–36.4*
Other places	%	54.0	57.5	60.4	46.4	39.2
	95%CI	*51.9–56.0*	*53.9–61.1*	*56.6–64.0*	*43.4–49.4*	*34.3–44.4*
Year level of schooling						
Year 10 or less	%	49.9	52.4	57.4	49.2	34.4
	95%CI	*47.6–52.2*	*47.2–57.6*	*52.2–62.4*	*45.8–52.6*	*30.1–39.0*
Year 11 or more	%	54.7	58.0	57.1	46.7	34.8
	95%CI	*53.3–56.0*	*55.6–60.3*	*54.8–59.3*	*44.1–49.2*	*30.5–39.4*
Highest qualification attained						
Degree or higher	%	55.3	61.5	56.1	43.6	33.8
	95%CI	*53.6–57.0*	*58.4–64.4*	*53.5–58.7*	*40.0–47.3*	*27.0–41.3*
Other/None	%	52.4	55.0	57.8	48.3	34.7
	95%CI	*50.9–53.9*	*52.2–57.7*	*55.0–60.5*	*45.8–50.8*	*31.2–38.4*
Eligibility for public dental care						
Eligible	%	52.2	58.1	65.8	49.4	36.2
	95%CI	*50.0–54.5*	*52.9–63.2*	*60.5–70.7*	*46.2–52.5*	*32.6–39.9*
Ineligible	%	53.7	56.7	55.4	46.2	28.9
	95%CI	*52.4–55.1*	*54.5–58.9*	*53.2–57.7*	*43.5–49.0*	*23.0–35.7*
Dental insurance						
Insured	%	48.2	52.0	51.7	41.8	33.1
	95%CI	*46.6–49.8*	*49.0–55.0*	*49.0–54.4*	*39.2–44.4*	*29.1–37.4*
Uninsured	%	58.8	62.1	63.6	54.0	36.6
	95%CI	*57.0–60.6*	*59.2–64.9*	*60.3–66.8*	*50.9–57.0*	*31.9–41.5*
Usually visit dentist						
For a check-up	%	48.4	52.7	51.3	40.3	34.2
	95%CI	*47.0–49.8*	*50.2–55.2*	*48.7–53.8*	*37.9–42.8*	*30.5–38.1*
For a dental problem	%	62.8	68.7	67.1	58.1	37.0
	95%CI	*60.8–64.7*	*64.6–72.5*	*64.0–70.2*	*54.9–61.3*	*31.2–43.2*

Notes: Data in this table was taken from the Interview.

Perceived urgency of dental treatment needs

Another aspect of perceived need for dental care is the urgency with which dental treatment is perceived to be required. Some dental problems are acute in the urgency with which treatment is required. These problems include dental trauma, swelling in or around the jaws and bleeding (usually as a complication of surgical dental treatment). However, these are reasonably rare events. For many more dental problems the urgency of dental treatment is not acute but is certainly desirable in a short period of time. Then there is a hierarchy in the priority of urgency which falls away to those dental problems which are not urgent at all.

In NSAOH 2017–18, people were asked 'How soon do you think you need this dental treatment?' The responses included a wide range of time periods. For this report only dentate people who perceived that they needed an extraction or filling were included and the response categories have been collapsed into those who considered that they needed dental treatment within 3 months and those who could wait longer than 3 months.

Table 6.9 presents the percentage of people who perceived a need for dental treatment within 3 months in the Australian population. Approximately two thirds of dentate Australians aged 15 years and over with a need for an extraction or filling perceived a need for dental treatment within 3 months (67.2%). The percentage of people perceiving a need for dental treatment within 3 months was lowest in the 15–34 year (59.2%) and highest in the 75 years and over age groups (88.2%).

The percentage of persons perceiving a need for dental treatment within 3 months was similar for males (66.2%) and females (68.0%). There were no significant differences in perceiving a need for treatment by sex in any of the age groups.

A similar percentage of Indigenous (70.7%) and non-Indigenous persons (67.0%) reported a perceived need for dental treatment within 3 months, and there was little variation in perceived need by Indigenous identity by age.

Residents at capital city locations reported a similar percentage with a perceived need for treatment within 3 months (66.1%) as residents of other locations (69.1%), with no significant differences in perceived need for treatment within 3 months by residential location in any age group.

Persons with Year 10 or less of schooling had a higher percentage with a perceived need for treatment within 3 months (74.1%) than those with Year 11 or more years of schooling (64.4%), but there were no significant differences in perceived need for treatment within 3 months by year level of schooling in any age group.

Those with a degree or higher qualification had a lower percentage with a perceived need for treatment within 3 months (56.5%) than those with other or no qualifications (70.1%), but this was only observed in the 35–54 year age group (55.5% and 73.6%, respectively).

A higher percentage of those eligible for public dental care perceived a need for treatment within 3 months (75.2%) than those ineligible (63.1%), but this pattern by eligibility was not observed in any of the age groups.

There were similar percentages of persons who perceived a need for dental treatment for insured (63.8%) and uninsured persons (70.0%), and no significant differences in perceived need for treatment within 3 months by dental insurance status were observed in any age group.

The percentage of persons who perceived a need for dental treatment within 3 months was higher for those usually visiting for a dental problem (71.1%) than for those usually visiting for a check-up (61.2%). This pattern of higher percentages of those visiting for a dental problem rather than a check-up perceiving a need for treatment within 3 months was only observed in the 35–54 year age group (73.4% and 61.7%, respectively).

Table 6.9: Percentage of people perceiving a need for treatment within 3 months in the Australian dentate population

		Population: dentate people aged 15 years and over with a perceived need for an extraction or filling				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**67.2**	**59.2**	**68.9**	**72.7**	**88.2**
	95%CI	*64.9–69.4*	*54.9–63.4*	*65.0–72.6*	*68.6–76.4*	*80.9–93.0*
Sex						
Male	%	66.2	61.0	65.6	71.2	88.3
	95%CI	*62.8–69.5*	*54.2–67.4*	*59.8–70.9*	*65.8–76.1*	*76.3–94.6*
Female	%	68.0	57.7	72.2	74.3	88.2
	95%CI	*64.9–71.0*	*52.4–62.9*	*66.7–77.2*	*68.3–79.6*	*78.0–94.1*
Indigenous identity						
Indigenous	%	70.7	70.5	67.1	79.0	n.p.
	95%CI	*56.6–81.7*	*49.1–85.6*	*43.0–84.6*	*43.5–94.9*	*n.p.*
Non-Indigenous	%	67.0	58.8	69.0	72.6	88.1
	95%CI	*64.7–69.3*	*54.3–63.1*	*64.9–72.8*	*68.4–76.4*	*80.6–92.9*
Residential location						
Capital city	%	66.1	57.9	68.4	72.6	88.2
	95%CI	*63.2–68.9*	*52.5–63.1*	*63.4–73.0*	*67.3–77.4*	*77.4–94.2*
Other places	%	69.1	62.2	69.7	72.8	88.3
	95%CI	*65.5–72.5*	*55.2–68.8*	*63.2–75.6*	*66.2–78.5*	*77.2–94.4*
Year level of schooling						
Year 10 or less	%	74.1	62.5	76.9	74.1	88.7
	95%CI	*69.9–77.8*	*50.1–73.6*	*69.0–83.2*	*68.2–79.2*	*78.0–94.6*
Year 11 or more	%	64.4	58.9	66.3	71.5	88.8
	95%CI	*61.8–67.0*	*54.3–63.4*	*61.7–70.5*	*65.7–76.6*	*77.6–94.7*
Highest qualification attained						
Degree or higher	%	56.5	53.3	55.5	65.1	84.1
	95%CI	*51.8–61.0*	*45.8–60.6*	*48.6–62.2*	*56.0–73.2*	*64.7–93.8*
Other/None	%	70.1	61.3	73.6	73.9	89.2
	95%CI	*67.4–72.8*	*55.9–66.4*	*68.7–77.9*	*69.2–78.1*	*81.3–94.0*
Eligibility for public dental care						
Eligible	%	75.2	66.1	76.4	76.6	88.2
	95%CI	*71.6–78.5*	*57.0–74.1*	*68.1–83.0*	*71.2–81.2*	*80.3–93.2*
Ineligible	%	63.1	57.1	66.2	68.9	88.8
	95%CI	*60.2–65.8*	*52.3–61.7*	*61.6–70.4*	*63.2–74.1*	*58.7–97.8*
Dental insurance						
Insured	%	63.8	56.5	64.1	70.0	95.8
	95%CI	*60.0–67.5*	*49.2–63.4*	*58.2–69.5*	*63.7–75.7*	*86.8–98.7*
Uninsured	%	70.0	62.5	72.3	74.7	84.5
	95%CI	*67.1–72.8*	*57.0–67.6*	*67.0–77.0*	*69.1–79.6*	*74.2–91.2*
Usually visit dentist						
For a check-up	%	61.2	54.4	61.7	72.2	83.1
	95%CI	*57.4–64.9*	*48.1–60.6*	*55.4–67.7*	*65.6–78.1*	*66.2–92.5*
For a dental problem	%	71.1	63.4	73.4	72.7	90.5
	95%CI	*68.3–73.8*	*57.3–69.1*	*68.6–77.7*	*67.7–77.2*	*82.3–95.1*

Notes: 1. Data in this table was taken from the Interview.
2. n.p. not publishable due to small cell counts.

Summary of findings regarding perceived treatment needs

Table 6.10 presents a summary of findings regarding perceived need for dental treatment in the Australian population. Using information from the previous four tables, unadjusted prevalence ratios (PR) were calculated for the measures regarding perceived need. Only significant ratios are reported.

Overall, 5.6% of people aged 15 years and over reported a need for dentures. Among dentate people aged 15 years and over, 27.1% perceived a need for an extraction or a filling. The percentage of dentate persons aged 15 years and over who perceived a need for a check-up was 53.4%. Approximately two thirds of dentate Australians aged 15 years and over with a need for an extraction or filling reported needing the dental treatment within 3 months (67.2%).

Older age groups were more likely to report needing dentures than younger people aged 15–34 years, with percentages between 4.06 and 13.78 times higher in the older age groups. A similar pattern was observed for needing treatment within 3 months with percentages between 1.16 and 1.49 times higher in the older age groups than for those age 15–34 years. In contrast, those aged 55–74 years and 75 years and over had lower percentages with a need for a check-up (0.83 and 0.61 times, respectively). A lower percentage of those aged 75 years and over reported needing an extraction or filling than younger persons aged 15–34 years (0.59 times).

Indigenous persons reported higher percentages with a perceived need for dentures (2.82 times) and an extraction or filling (1.48 times) than non-Indigenous persons.

Residents at places other than capital cities reported higher percentages with a perceived need for dentures (1.57 times) and an extraction or filling (1.14 times) than capital city residents.

Those with Year 10 or less of schooling had higher percentages with a perceived need for dentures (3.29 times), need for an extraction or filling (1.14 times) and a need for treatment within 3 months (1.15 times), but a lower percentage with a perceived need for a check-up (0.91 times lower) than those with Year 11 or more years of schooling.

In comparison to those with a degree or higher qualification, those with other or no qualifications reported a higher percentage with a perceived need for dentures (3.34 times), an extraction or filling (1.32 times) and treatment within 3 months (1.24 times), but a lower percentage with a perceived need for a check-up (0.95 times lower).

Persons who were eligible for public dental care had higher percentages with a perceived need for dentures (4.68 times), need for an extraction or filling (1.27 times) and a need for treatment within 3 months (1.19 times), than those ineligible for public dental care.

A higher percentage of those who were uninsured reported a perceived need for dentures (3.04 times), a need for an extraction or filling (1.71 times), a check-up (1.22 times) and a need for dental treatment within 3 months (1.10 times) than dentally insured persons.

Those who usually visit for a dental problem had a higher percentage that reported a perceived need for dentures (7.93 times), a need for an extraction or filling (2.95 times), a check-up (1.30 times) and a need for dental treatment within 3 months (1.16 times) than those who usually visit for a check-up.

Edentulous persons reported a higher percentage with a perceived need for dentures (6.10 times) than dentate persons.

Table 6.10: Summary of findings regarding perceived need for dental care

	% who reported needing dentures	% reported needing an extraction or filling	% reported needing a check-up	% reported needing treatment within 3 months
	Prevalence ratio			
Age group				
Ref = 15–34 years				
35–54	4.06	~	~	1.16
55–74	9.91	~	0.83	1.23
≥75	13.78	0.59	0.61	1.49
Sex				
Ref = Male				
Female	~	~	~	~
Indigenous identity				
Ref = Non-Indigenous				
Indigenous	2.82	1.48	~	~
Residential location				
Ref = Capital city				
Other places	1.57	1.14	~	~
Year level of schooling				
Ref = Year 11 or more				
Year 10 or less	3.29	1.14	0.91	1.15
Highest qualification attained				
Ref = Degree or higher				
Other/None	3.34	1.32	0.95	1.24
Eligibility for public dental care				
Ref = Ineligible				
Eligible	4.68	1.27	~	1.19
Dental insurance				
Ref = Insured				
Uninsured	3.04	1.71	1.22	1.10
Usually visit dentist				
Ref = For a check-up				
For a dental problem	7.93	2.95	1.30	1.16
Oral status				
Ref = Dentate				
Edentulous	6.10	. .	. .	. .

Note: (a) Ref: reference group; ~: difference is not statistically significant; . . Not applicable.
(b) The 95% confidence intervals for these estimates are in Appendix Table B.9.

7 Trends in oral health and use of dental services 1987–2017

by DS Brennan, L Luzzi and S Chrisopoulos

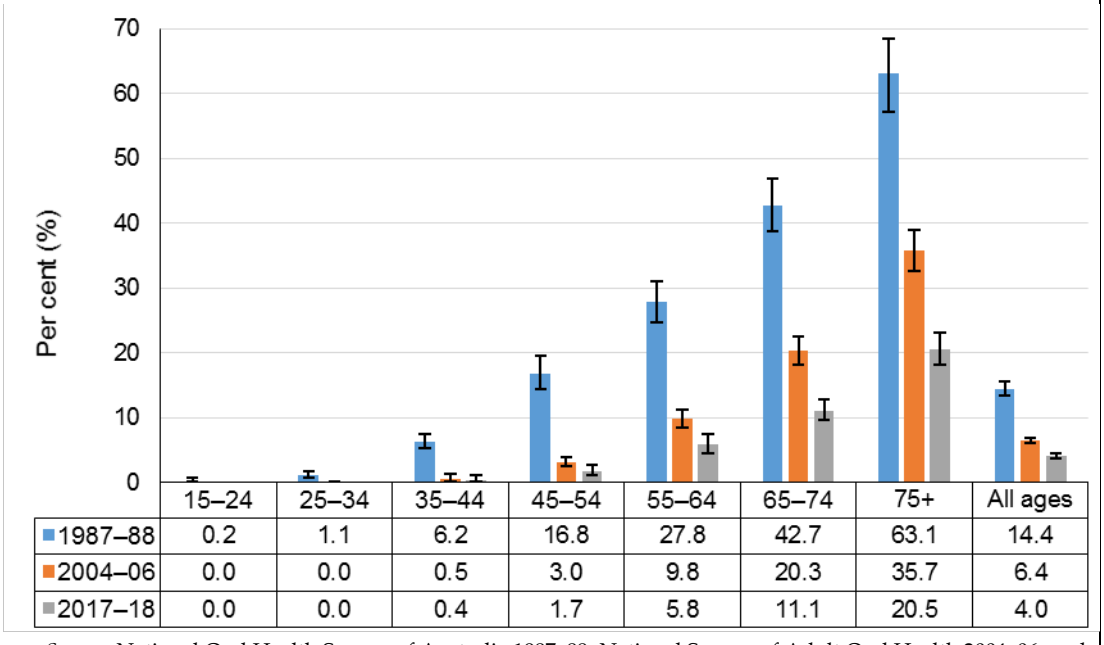
This chapter evaluates trends in oral health and use of dental services in the Australian population over a 30-year period. The trends are based on comparisons of data from three Australian surveys of adult oral health. These sources comprise the National Oral Health Survey of Australia 1987–88, the National Survey of Adult Oral Health from 2004–06 and the National Study of Adult Oral Health 2017–18.

7.1 Trends in oral health status

Prevalence of complete tooth loss

Complete tooth loss is an objective population marker of oral status, reflecting past experience of dental disease and a surgical approach to its treatment. Time trends in the percentage of persons with complete tooth loss are presented by age in Figure 7.1. The percentage of Australians aged 15 years and over with complete tooth loss decreased from 14.4% in 1987–88 to 6.4% in 2004–06, and declined further to 4.0% in 2017–18.

Large decreases in the percentage of persons with complete tooth loss since 1987–88 were observed consistently in all age groups from those aged 35–44 years to those aged 75 years and over. For example, in 1987–88 edentulous persons comprised 27.8% of those aged 55–64 years compared to 5.8% in 2017–18. Among persons aged 65–74 years the percentage who were edentulous dropped from 42.7% in 1987–88 to 11.1% in 2017–18. For those aged 75 years and over the percentage who were edentulous dropped from 63.1% in 1987–88 to 20.5% in 2017–18.



	15–24	25–34	35–44	45–54	55–64	65–74	75+	All ages
1987–88	0.2	1.1	6.2	16.8	27.8	42.7	63.1	14.4
2004–06	0.0	0.0	0.5	3.0	9.8	20.3	35.7	6.4
2017–18	0.0	0.0	0.4	1.7	5.8	11.1	20.5	4.0

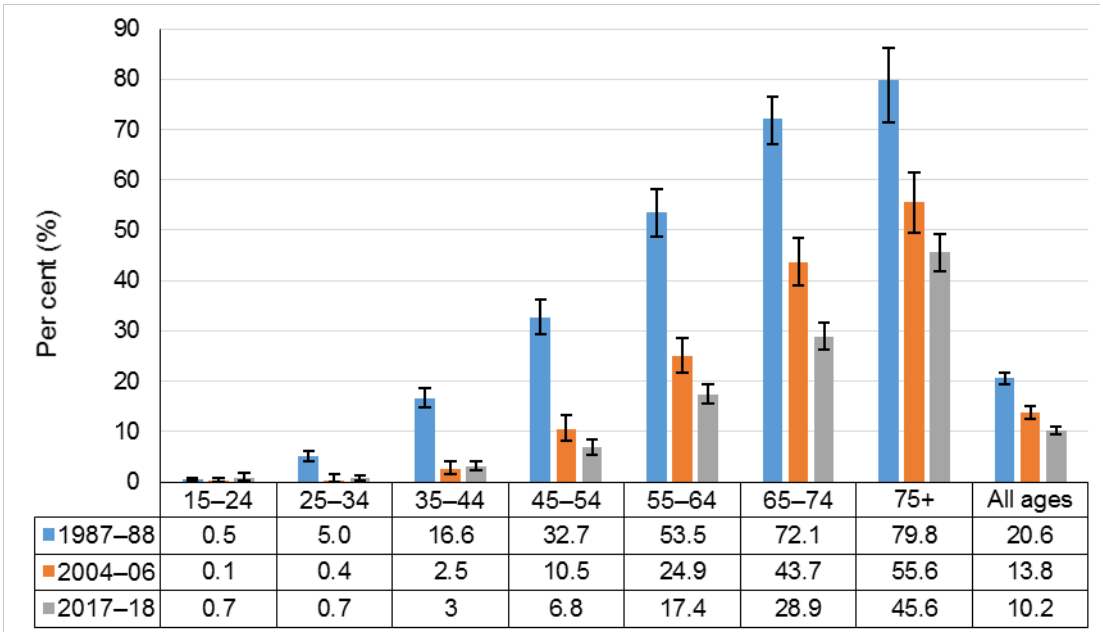
Source: National Oral Health Survey of Australia 1987–88, National Survey of Adult Oral Health 2004–06, and National Study of Adult Oral Health 2017–18.

Figure 7.1: The percentage of people with complete tooth loss among Australians aged 15 years and over, 1987–88, 2004–06, and 2017–18

Inadequate natural dentition among dentate people

An alternative marker of oral status is retention of less than 21 teeth. As a marker of oral status, this represents loss of one third or more of the complete dentition of permanent teeth. Time trends in the percentage of persons with an inadequate dentition are presented by age in Figure 7.2. The percentage of Australians aged 15 years and over with less than 21 natural teeth decreased from 20.6% in 1987–88 to 13.8% in 2004–06, and declined to 10.2% in 2017–18.

Consistent and large decreases in the percentage of persons with less than 21 natural teeth since 1987–88 were observed in all age groups from those aged 35–44 years up to those aged 75 years and over. For example, in 1987–88 persons with less than 21 natural teeth comprised 53.5% of those aged 55–64 years which decreased to 17.4% in 2017–18. Among persons aged 65–74 years the percentage who had less than 21 natural teeth dropped from 72.1% in 1987–88 to 28.9% in 2017–18. For those aged 75 years and over the percentage who had less than 21 natural teeth dropped from 79.8% in 1987–88 to 45.6% in 2017–18.



	15–24	25–34	35–44	45–54	55–64	65–74	75+	All ages
1987–88	0.5	5.0	16.6	32.7	53.5	72.1	79.8	20.6
2004–06	0.1	0.4	2.5	10.5	24.9	43.7	55.6	13.8
2017–18	0.7	0.7	3	6.8	17.4	28.9	45.6	10.2

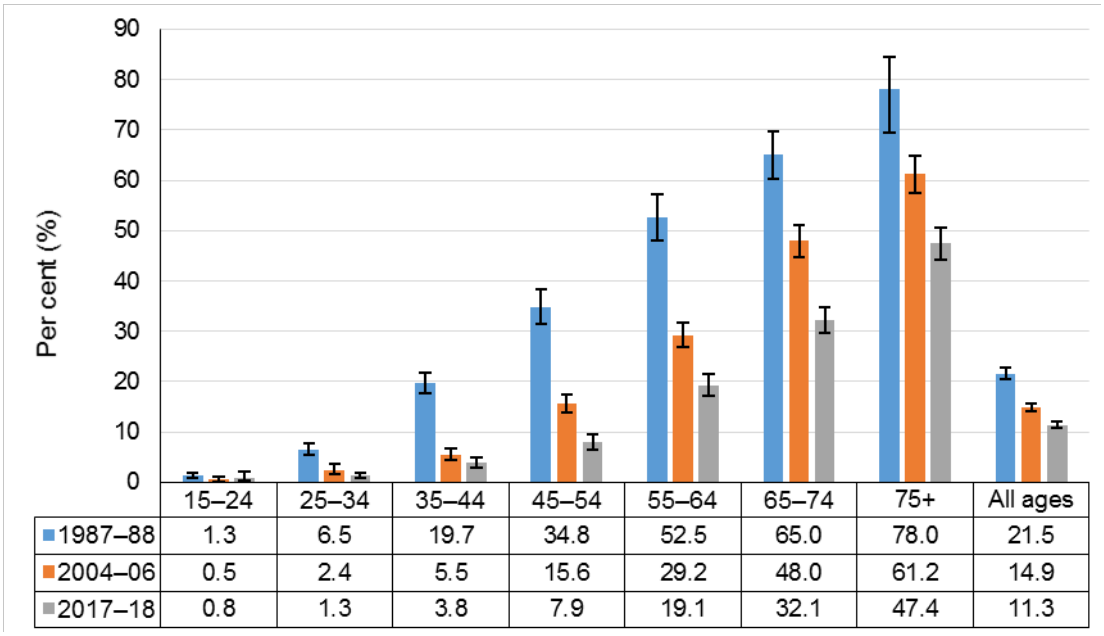
Source: National Oral Health Survey of Australia 1987–88, National Survey of Adult Oral Health from 2004–06, and National Study of Adult Oral Health 2017–18.

Figure 7.2: The percentage of people with less than 21 natural teeth among dentate Australians aged 15 years and over, 1987–88, 2004–06, and 2017–18

Denture wearing among dentate people

Dentate people may choose to wear a partial denture to replace a single tooth or larger numbers of teeth and, if they have lost all teeth in one jaw, they usually choose to wear a complete denture in that jaw. Time trends in the percentage of persons wearing dentures are presented by age in Figure 7.3. The percentage of Australians aged 15 years and over that had dentures decreased from 21.5% in 1987–88 to 14.9% in 2004–06, and declined to 11.3% in 2017–18.

Consistent deceases since 1987–88 in the percentage of persons who had dentures were observed in all age groups from those aged 25–34 years up to those aged 75 years and over. For example, in 1987–88 persons with dentures comprised 52.5% of those aged 55–64 years compared to 29.2% in 2004–06 and 19.1% in 2017–18. Among persons aged 65–74 years the percentage who had dentures dropped from 65.0% in 1987–88 to 48.0% in 2004–06 and 32.1% in 2017–18. For those aged 75 years and over the percentage who had dentures dropped from 78.0% in 1987–88 to 61.2% in 2004–06 and 47.4% in 2017–18.



	15–24	25–34	35–44	45–54	55–64	65–74	75+	All ages
1987–88	1.3	6.5	19.7	34.8	52.5	65.0	78.0	21.5
2004–06	0.5	2.4	5.5	15.6	29.2	48.0	61.2	14.9
2017–18	0.8	1.3	3.8	7.9	19.1	32.1	47.4	11.3

Source: National Oral Health Survey of Australia 1987–88, National Survey of Adult Oral Health 2004–06, and National Study of Adult Oral Health 2017–18.

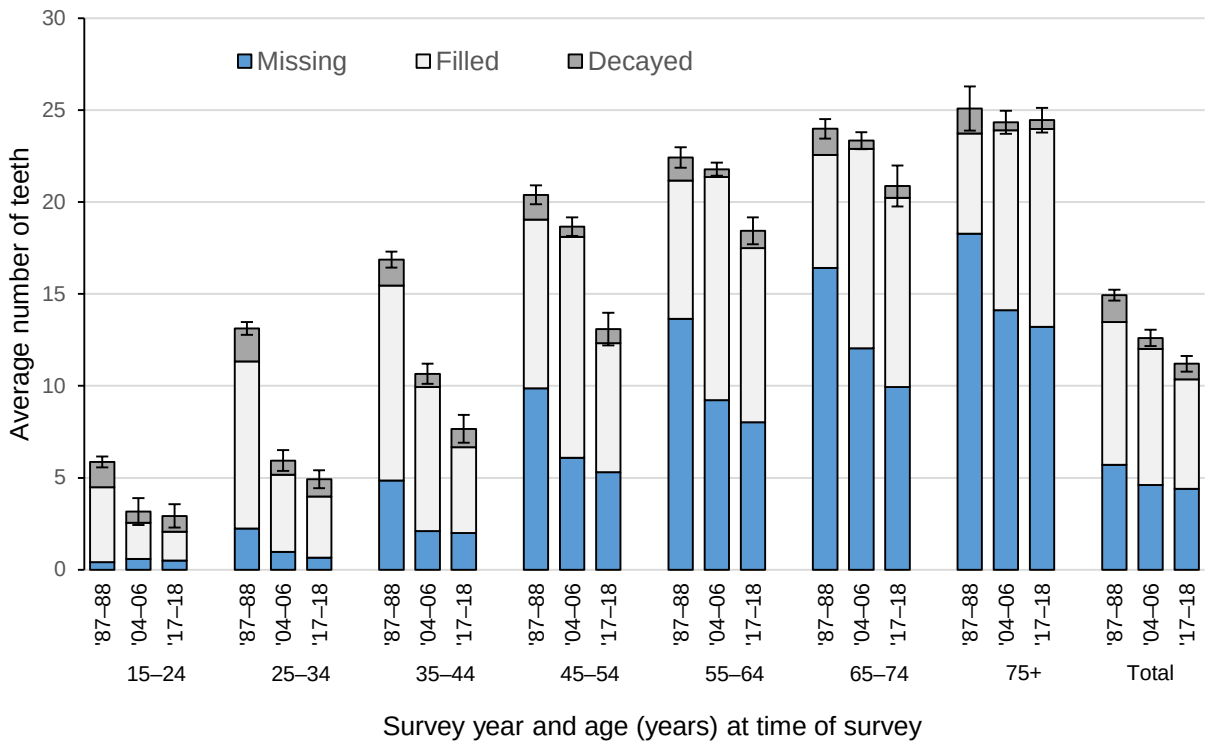
Figure 7.3: The percentage of people wearing denture(s) among dentate Australians aged 15 years and over, 1987–88, 2004–06, and 2017–18

Severity of dental decay experience—DMFT

Time trends in the severity of dental decay experiences (DMFT) for dentate Australians aged 15 years and over are presented by age in Figure 7.4. By convention, dental decay experience is quantified as the sum of three components: decayed (D), missing (M) and filled (F) teeth (T). The index is cumulative, so an individual's DMFT index cannot decrease over time. For example, a decayed tooth that contributes to the index in early adulthood continues to contribute in later years even if the tooth becomes filled or is extracted. However, individual components of the index may change in either direction. For instance, a single tooth may be recorded as decayed when first surveyed, but recorded as missing or filled in subsequent surveys. The lowest segment of each stacked bar shows the average number of teeth missing (M) due to dental disease. The white segment shows the average number of teeth that have been filled (F) and the top segment shows the average number of teeth with untreated decay (D). The error bars illustrate the precision of the DMFT estimate as a whole – not just the decayed component.

The mean number of decayed, missing or filled teeth (DMFT) decreased from 14.9 in in 1987–88 to 12.6 in 2004–06, and declined further to a mean of 11.2 in 2017–18. This was reflected in fewer mean number of teeth with untreated decay (D) between 1987–88 (1.5) and 2004–06, followed by a slight increase by 2017–18 (0.8). The mean number of missing teeth due to pathology (M) declined across the 3 time points, from 5.7 teeth in 1987–88 to 4.4 teeth in 2017–18. Similarly, the number of filled teeth (F) declined from 7.8 in 1987–88 to 5.9 in 2017–18.

DMFT was significantly lower in 2017–18 than in 1987–88 across all age groups except those aged 75 years and over. While DMFT tended to be higher among older age groups, large absolute decreases in DMFT were noted between 1987–88 and 2017–18 for those aged 25–34 years (13.1 and 4.9, respectively) and 35–44 years (16.9 and 7.7, respectively).



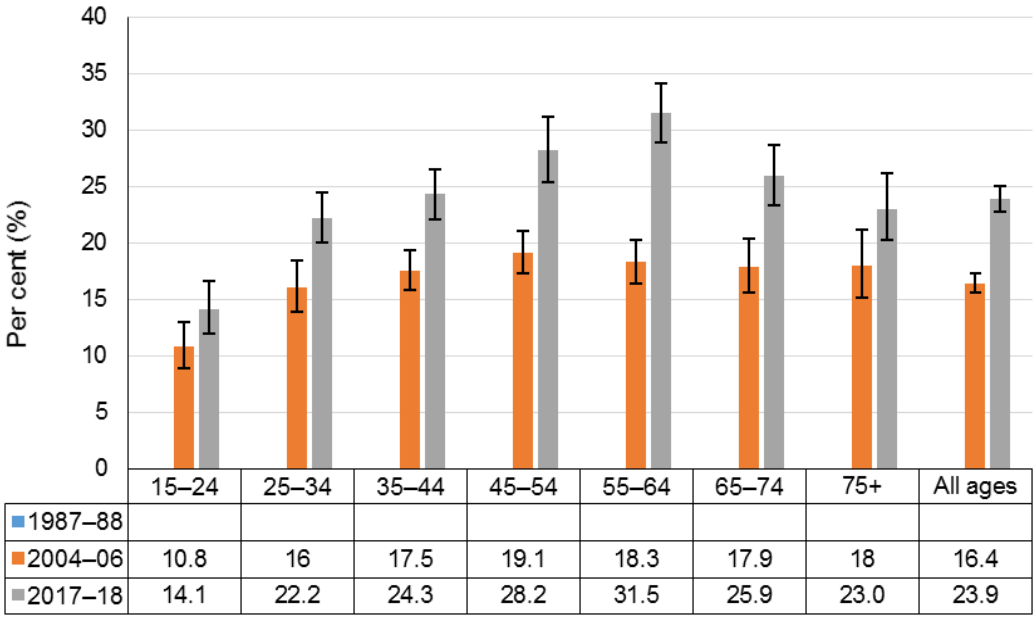
		15–24	25–34	35–44	45–54	55–64	65–74	75+	Total
1987–88	Decayed	1.4	1.8	1.4	1.3	1.3	1.4	1.4	1.5
	Filled	4.1	9.1	10.6	9.2	7.5	6.1	5.4	7.8
	Missing	0.4	2.3	4.9	9.9	13.6	16.4	18.3	5.7
	DMFT	**5.9**	**13.1**	**16.9**	**20.4**	**22.4**	**24.0**	**25.1**	**14.9**
2004–06	Decayed	0.6	0.8	0.7	0.6	0.4	0.4	0.4	0.6
	Filled	2.0	4.2	7.8	12.0	12.1	10.9	9.8	7.4
	Missing	0.6	1.0	2.1	6.1	9.2	12.0	14.1	4.6
	DMFT	**3.2**	**5.9**	**10.7**	**18.7**	**21.8**	**23.3**	**24.3**	**12.6**
2017–18	Decayed	0.9	0.9	1.0	0.8	0.9	0.6	0.5	0.8
	Filled	1.6	3.3	4.7	7.0	9.5	10.3	10.7	5.9
	Missing	0.5	0.7	2.0	5.3	8.0	9.9	13.2	4.4
	DMFT	**2.9**	**4.9**	**7.7**	**13.1**	**18.4**	**20.9**	**24.4**	**11.2**

Figure 7.4: Age group trends in dental decay experience among dentate Australians aged 15 years and over, 1987–88, 2004–06, and 2017–18

Self-rated oral health

Self-rated oral health measures reflect an individual's own experience of their oral health and are associated with functional impairment and discomfort as well as clinical measures of oral health. Time trends in the percentage of persons rating their oral health as fair or poor are limited to 2004–06 and 2017–18 as this item was not assessed in 1987–88. The percentage of dentate Australians aged 15 years and over who rated their oral health as fair or poor increased from 16.4% in 2004–06 to 23.9% in 2017–18 (Figure 7.5).

While the percentage of persons that rated their oral health as fair or poor was consistently higher in 2017–18 than in 2004–06 in each age group, the differences were not statistically significant in the youngest and oldest age groups where confidence intervals overlapped. However, all age groups from 25–34 to 65–74 years exhibited increases over time in the percentage of persons reporting fair or poor oral health. The highest percentages of persons with fair or poor oral health were observed for those aged 45–54 (28.2%) and 55–64 years (31.5%) in 2017–18, which had increased from 19.1% and 18.3%, respectively in 2004–06.



	15–24	25–34	35–44	45–54	55–64	65–74	75+	All ages
1987–88								
2004–06	10.8	16	17.5	19.1	18.3	17.9	18	16.4
2017–18	14.1	22.2	24.3	28.2	31.5	25.9	23.0	23.9

Note: Data for 1987—88 were not available.

Source: National Survey of Adult Oral Health 2004–06, and National Study of Adult Oral Health 2017–18.

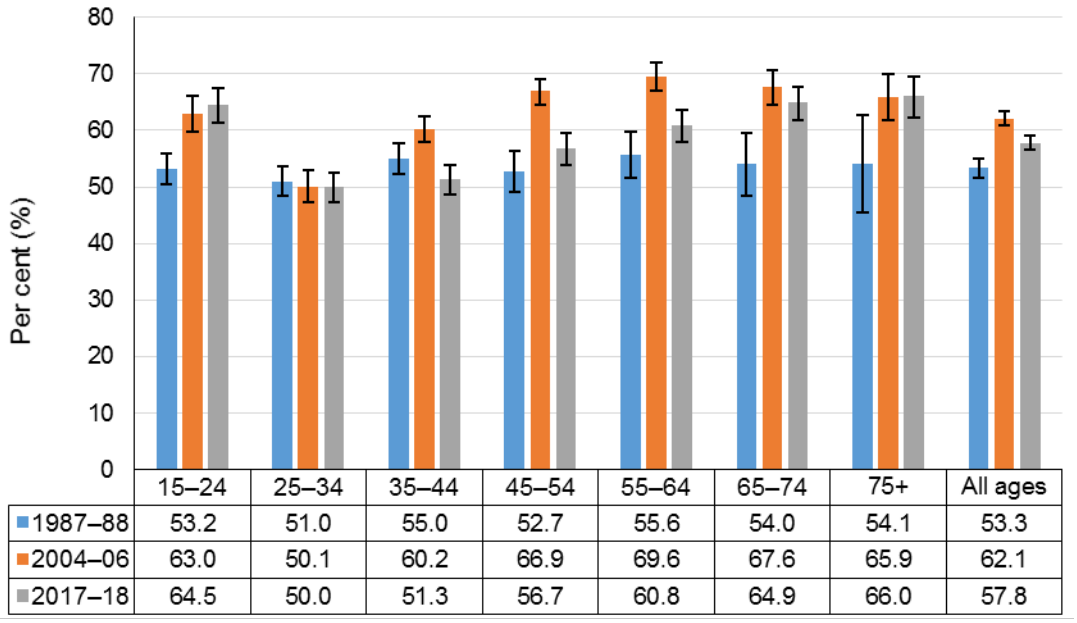
Figure 7.5: The percentage of people reporting their oral health status as fair or poor, dentate Australians aged 15 years and over, 2004–06, and 2017–18

7.2 Trends in dental attendance

Dental attendance during the preceding 12 months

Time trends in the percentage of persons visiting a dentist in the preceding 12 months are presented by age in Figure 7.6. Over time there was an initial increase in the percentage of persons that visited a dentist in the preceding 12 months from 53.3% in 1987–88 to 62.1% in 2004–06, before declining to 57.8% in 2017–18.

Trends over time in dental attendance were not consistent across age groups. The 25–34 year age group had the lowest percentage of persons that visited a dentist in the preceding 12 months in 1987–88 (51.0%), and this remained at a similar level in 2004–06 (50.1%) and 2017–18 (50.0%). The 15–24, 65–74 and 75 years and over age groups tended to increase between 1987–88 and 2004–06, and remained at these levels in 2017–18. The overall pattern of an increase between 1987–88 and 2004–06, with a decline in 2017–18 was observed for the 35–44, 45–54 and 55–64 year age groups.



	15–24	25–34	35–44	45–54	55–64	65–74	75+	All ages
1987–88	53.2	51.0	55.0	52.7	55.6	54.0	54.1	53.3
2004–06	63.0	50.1	60.2	66.9	69.6	67.6	65.9	62.1
2017–18	64.5	50.0	51.3	56.7	60.8	64.9	66.0	57.8

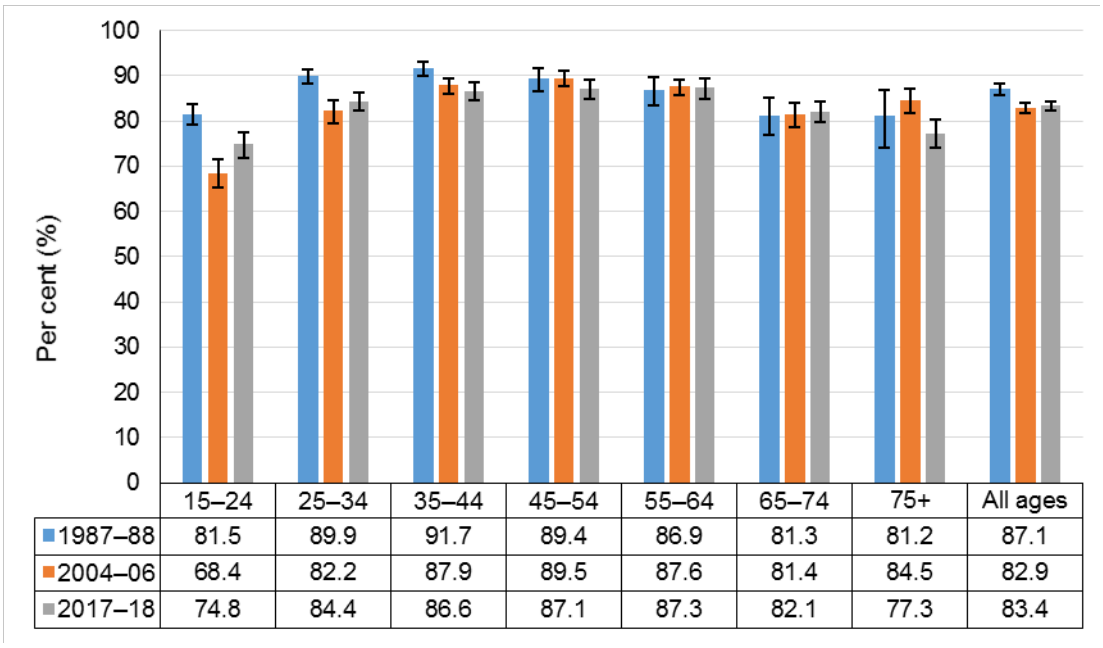
Source: National Oral Health Survey of Australia 1987–88, National Survey of Adult Oral Health 2004–06, and National Study of Adult Oral Health 2017–18.

Figure 7.6: The percentage of people visiting a dentist during the preceding 12 months among dentate Australians aged 15 years and over, 1987–88, 2004–06, and 2017–18

Attendance at private dental practice

Time trends in the percentage of persons who attended a private dental practice at their last dental visit are presented by age in Figure 7.7. The majority of people reported attending a private dental practice, but the percentage declined from 87.1% in 1987–88 to 82.9% in 2004–06 and 83.4% in 2017–18.

There was no change over time in the percentage of persons who attended a private practice at their last dental visit in the 45–54, 55–64 and 65–74 year age groups. The percentage who went to a private practice at their last dental visit was lower in 2004–06 and in 2017–18 than in 1987–88 for those aged 15–24, 25–34 and 35–44 years. For those aged 75 years and over, the percentage making their last dental visit to a private practice was lower in 2017–18 than in 2004–06.



	15–24	25–34	35–44	45–54	55–64	65–74	75+	All ages
1987–88	81.5	89.9	91.7	89.4	86.9	81.3	81.2	87.1
2004–06	68.4	82.2	87.9	89.5	87.6	81.4	84.5	82.9
2017–18	74.8	84.4	86.6	87.1	87.3	82.1	77.3	83.4

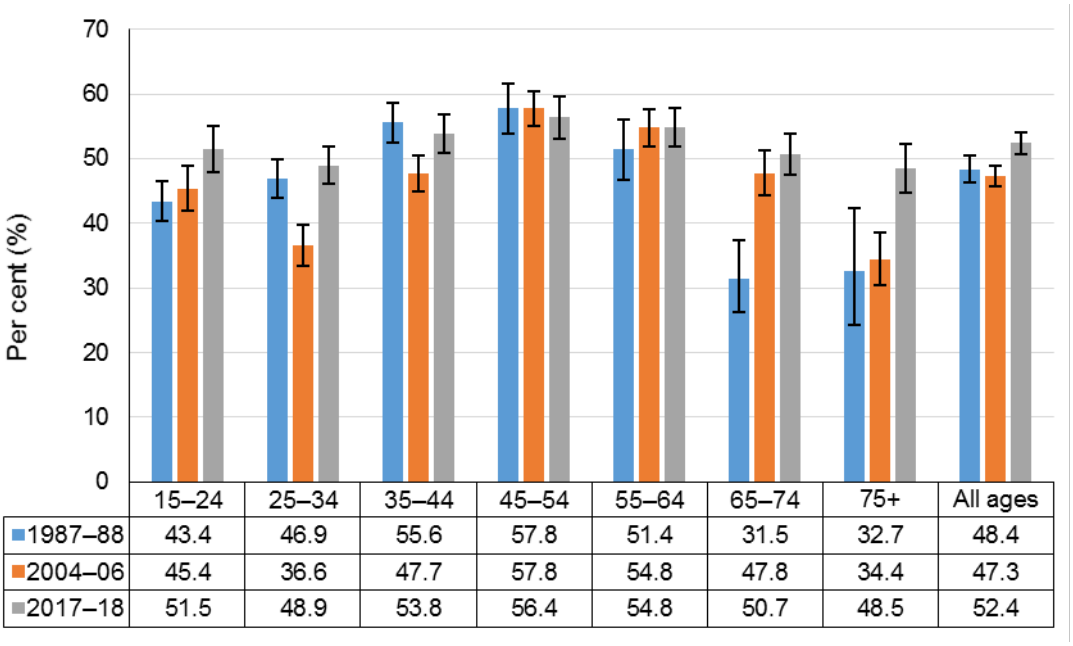
Source: National Oral Health Survey of Australia 1987–88, National Survey of Adult Oral Health 2004–06, and National Study of Adult Oral Health 2017–18.

Figure 7.7: The percentage of people who attended a private practice at their last dental visit, dentate Australians aged 15 years and over, 1987–88, 2004–06, and 2017–18

Dental insurance

Time trends in the percentage of persons with private dental insurance are presented by age in Figure 7.8. Over time there was an increase in the percentage of persons that had private dental insurance from 48.4% and 47.3%, respectively in 1987–88 and 2004–06, before increasing to 52.4% in 2017–18.

Persons aged 45–54 and 55–64 years tended to have a relatively high level with private dental insurance (over 50%) at all three time points, and this did not vary significantly over time. Persons aged 25–34 and 35–44 years had a significantly lower percentage with private dental insurance in 2004–06 than in either 1987–88 or in 2017–18. Those aged 15–24, 65–74 and 75 years and over, all had higher percentages with private dental insurance in 2017–18 than at the beginning of the observation period in 1987–88.



	15–24	25–34	35–44	45–54	55–64	65–74	75+	All ages
1987–88	43.4	46.9	55.6	57.8	51.4	31.5	32.7	48.4
2004–06	45.4	36.6	47.7	57.8	54.8	47.8	34.4	47.3
2017–18	51.5	48.9	53.8	56.4	54.8	50.7	48.5	52.4

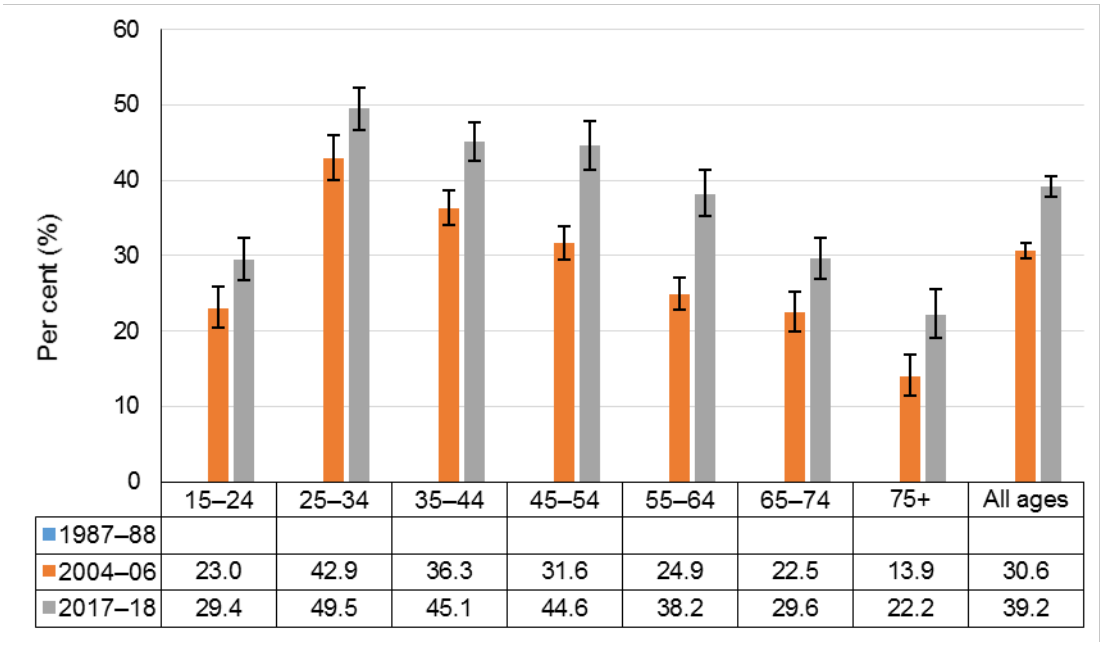
Source: National Oral Health Survey of Australia 1987–88, National Survey of Adult Oral Health 2004–06, and National Study of Adult Oral Health 2017–18.

Figure 7.8: The percentage of people who had private dental insurance, dentate Australians aged 15 years and over, 1987–88, 2004–06, and 2017–18

Avoiding or delaying dental care due to cost

Time trends in the percentage of persons who avoided or delayed dental care due to cost are presented by age in Figure 7.9. The percentage of Australians aged 15 years and over who avoided or delayed dental care due to cost increased from 30.6% in 2004–06 to 39.2% in 2017–18.

The increased percentage of Australians aged 15 years and over who avoided or delayed dental care due to cost between 2004–06 and 2017–18 was observed consistently in each age group. Those persons aged 25–34 years had the highest percentage who avoided or delayed dental care in both 2004–06 (42.9%) and 2017–18 (49.5%). High percentages of persons who avoided or delayed dental care in 2017–18 were also observed in the 35–44 (45.1%) and 45–54 year (44.6%) age groups, which had increased from 36.3% and 31.6%, respectively in 2004–06.



	15–24	25–34	35–44	45–54	55–64	65–74	75+	All ages
1987–88								
2004–06	23.0	42.9	36.3	31.6	24.9	22.5	13.9	30.6
2017–18	29.4	49.5	45.1	44.6	38.2	29.6	22.2	39.2

Note: Data for 1987—88 were not available.

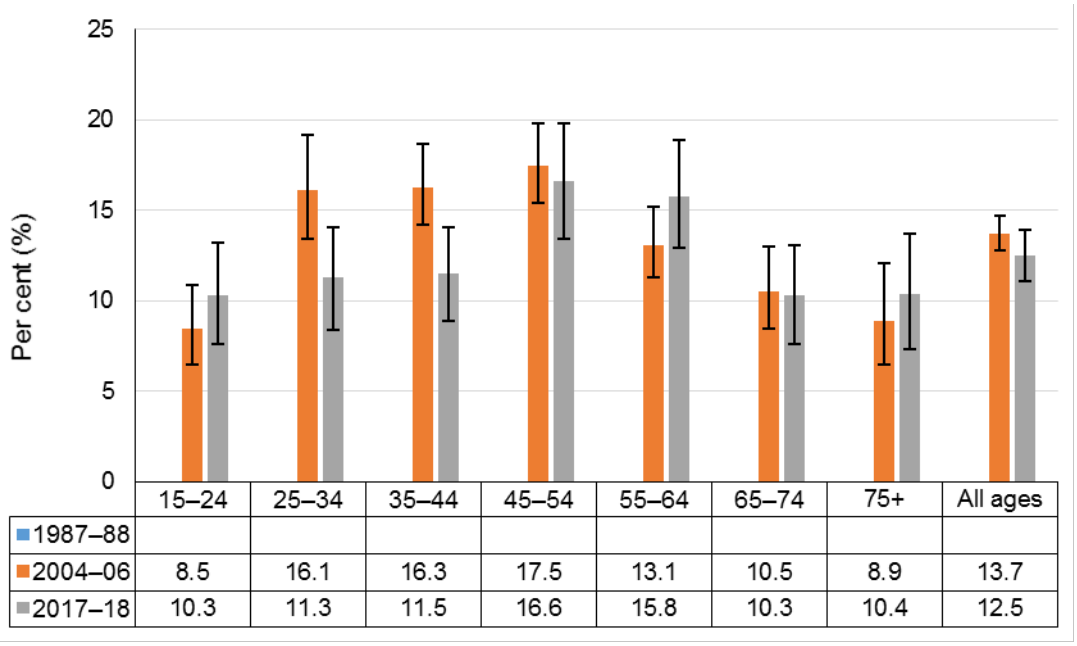
Source: National Oral Health Survey of Australia 1987–88, National Survey of Adult Oral Health 2004–06, and National Study of Adult Oral Health 2017–18.

Figure 7.9: The percentage of people who avoided or delayed dental care due to cost, dentate Australians aged 15 years and over, 2004–06, and 2017–18

Financial burden of dental care

Time trends in the percentage of persons who reported that the cost of dental care was a large financial burden are presented by age in Figure 7.10. The percentage of Australians aged 15 years and over who reported that the cost of dental visits caused a large financial burden was similar in 2004–06 (13.7%) and in 2017–18 (12.5%).

The only significant variation over time in the percentage of persons who reported that the cost of dental visits caused a large financial burden was observed in the 35–44 year age group where there was a decrease between 2004–06 (16.3%) and 2017–18 (11.5%).



	15–24	25–34	35–44	45–54	55–64	65–74	75+	All ages
1987–88								
2004–06	8.5	16.1	16.3	17.5	13.1	10.5	8.9	13.7
2017–18	10.3	11.3	11.5	16.6	15.8	10.3	10.4	12.5

Note: Data for 1987—88 was not available.

Source: National Oral Health Survey of Australia 1987–88, National Survey of Adult Oral Health 2004–06, and National Study of Adult Oral Health 2017–18.

Figure 7.10: The percentage of people who reported that the cost of dental visits caused a large financial burden, dentate Australians aged 15 years and over, 2004–06, and 2017–18

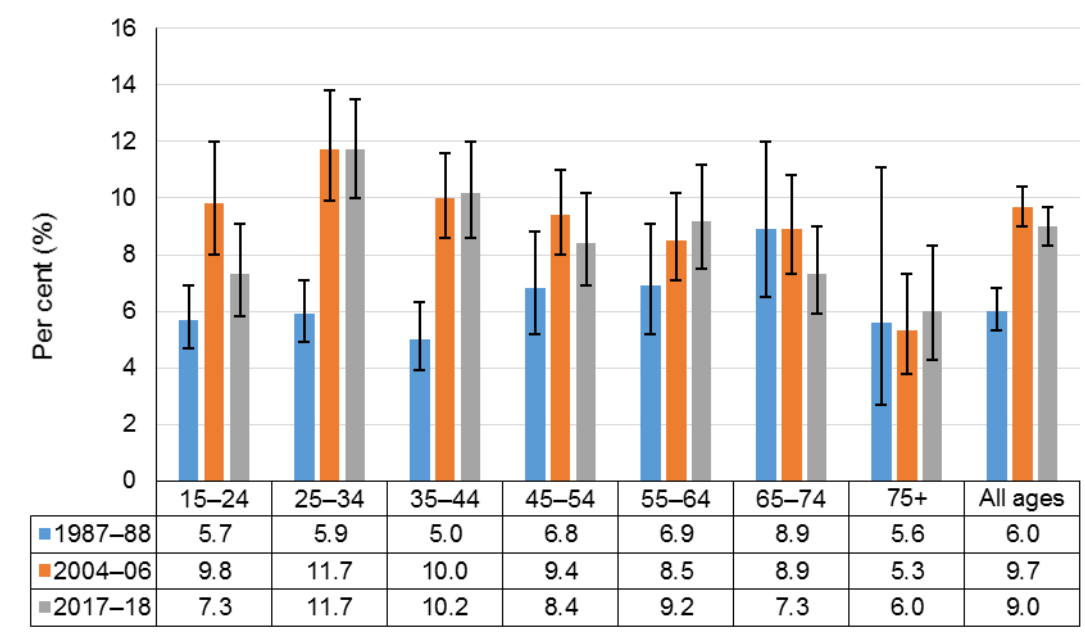
7.3 Trends in perceived dental treatment needs

The following series of figures documents change in the population's perceived need for three common dental services: dental extractions, dental fillings and dentures. The analyses are limited to people who retained some or all of their natural teeth.

Perceived need for dental extraction

Time trends in the percentage of persons who reported needing a dental extraction are presented by age in Figure 7.11. Over time there was an increase in the percentage of persons that reported needing a dental extraction from 6.0% in 1987–88 to 9.7% in 2004–06 and remaining at 9.0% in 2017–18.

There was no significant change over time in the percentage of persons that reported needing a dental extraction in any of the age groups from 45–54 years to 75 years and over. However, there was a significant increase in the percentage of persons that reported needing a dental extraction among 15–24 year-olds between 1987–88 (5.7%) and 2004–06 (9.8%). For persons aged between 25–34 and 35–44 years the percentage of persons that reported needing a dental extraction was higher in both 2004–06 (11.7% and 10.0%, respectively) and in 2017–18 (11.7% and 10.2%, respectively) than at the beginning of the period in 1987–88 (5.9% and 5.0%, respectively).



	15–24	25–34	35–44	45–54	55–64	65–74	75+	All ages
1987–88	5.7	5.9	5.0	6.8	6.9	8.9	5.6	6.0
2004–06	9.8	11.7	10.0	9.4	8.5	8.9	5.3	9.7
2017–18	7.3	11.7	10.2	8.4	9.2	7.3	6.0	9.0

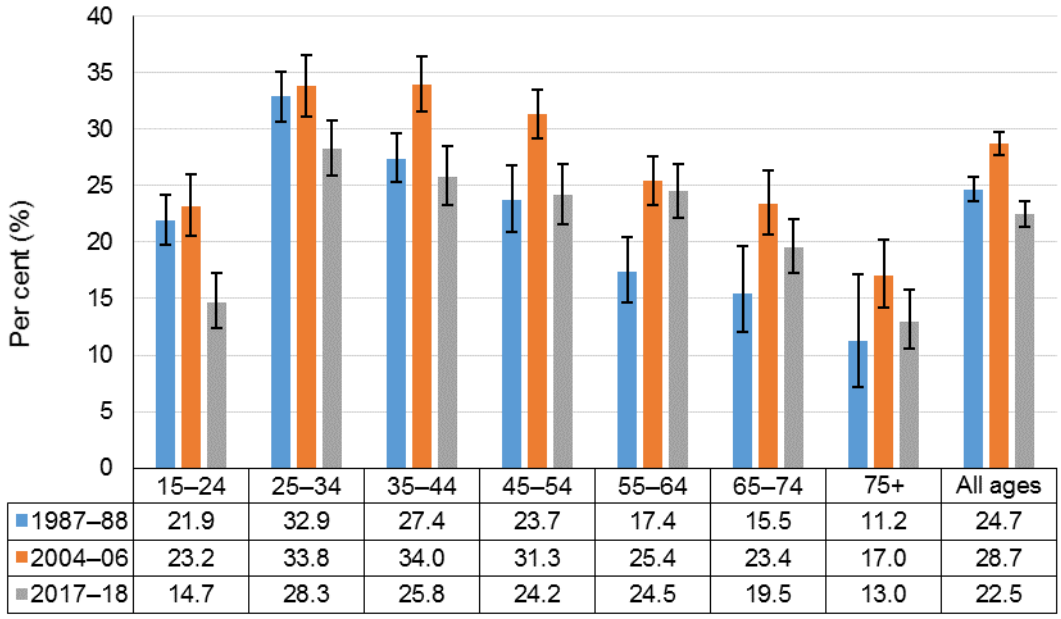
Source: National Oral Health Survey of Australia 1987–88, National Survey of Adult Oral Health 2004–06, and National Study of Adult Oral Health 2017–18.

Figure 7.11: The percentage of people who reported needing a dental extraction, dentate Australians aged 15 years and over, 1987–88, 2004–06, and 2017–18

Perceived need for dental fillings

Time trends in the percentage of persons who perceived a need for dental fillings are presented by age in Figure 7.12. There was an increase in the percentage of persons that reported needing a dental filling from 24.7% in 1987–88 to 28.7% in 2004–06, before declining to 22.5% in 2017–18.

The time trend towards an initial increase in the percentage of persons who perceived a need for dental fillings between 1987–88 and 2004–06 was observed for persons aged 35–44 years, 45–54 years, 55–64 years and 65–74 years. The time trend towards a subsequent decline in the percentage of persons who perceived a need for dental fillings between 2004–06 and 2017–18 was observed for persons aged 15–24 years, 25–34 years, 35–44 years and 45–54 years.



	15–24	25–34	35–44	45–54	55–64	65–74	75+	All ages
1987–88	21.9	32.9	27.4	23.7	17.4	15.5	11.2	24.7
2004–06	23.2	33.8	34.0	31.3	25.4	23.4	17.0	28.7
2017–18	14.7	28.3	25.8	24.2	24.5	19.5	13.0	22.5

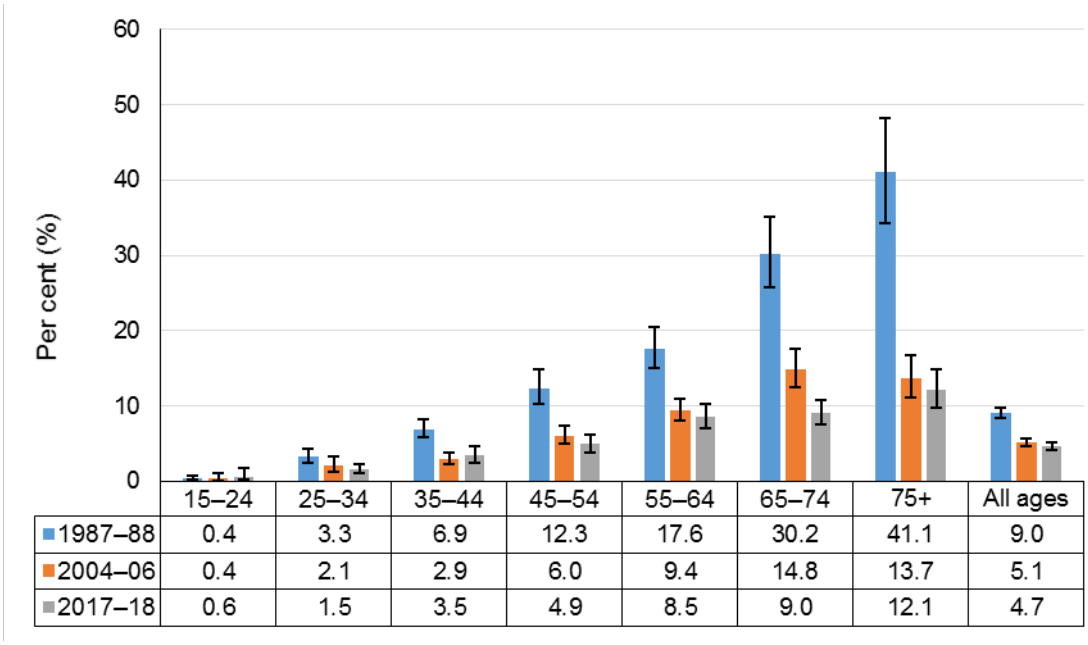
Source: National Oral Health Survey of Australia 1987–88, National Survey of Adult Oral Health 2004–06, and National Study of Adult Oral Health 2017–18.

Figure 7.12: The percentage of people who reported needing a filling, dentate Australians aged 15 years and over, 1987–88, 2004–06, and 2017–18

Perceived need for dentures

Time trends in the percentage of persons with a perceived need for dentures are presented by age in Figure 7.13. The percentage of persons that reported needing a denture was lower in both 2004–06 (5.1%) and in 2017–18 (4.7%) than in 1987–88 (9.0%).

Consistent decreases since 1987–88 in the percentage of persons who perceived a need for dentures were observed in all age groups from those aged 35–44 years up to those aged 75 years and over. For example, in 1987–88 persons with a perceived need for dentures comprised 17.6% of those aged 55–64 years which decreased to 8.5% in 2017–18. Among persons aged 65–74 years the percentage who had a perceived need for dentures dropped from 30.2% in 1987–88 to 9.0% in 2017–18. For those aged 75 years and over the percentage who had a perceived need for dentures dropped from 41.1% in 1987–88 to 12.1% in 2017–18.



	15–24	25–34	35–44	45–54	55–64	65–74	75+	All ages
1987–88	0.4	3.3	6.9	12.3	17.6	30.2	41.1	9.0
2004–06	0.4	2.1	2.9	6.0	9.4	14.8	13.7	5.1
2017–18	0.6	1.5	3.5	4.9	8.5	9.0	12.1	4.7

Source: National Oral Health Survey of Australia 1987–88, National Survey of Adult Oral Health 2004–06, and National Study of Adult Oral Health 2017–18.

Figure 7.13: The percentage of people who reported needing dentures, dentate Australians aged 15 years and over, 1987–88, 2004–06, and 2017–18

8 Summary of findings

For ease of reference, this summary chapter collates summaries from Chapters 4 to 6. A summary of the trends in oral health and service use across the period 1987-2017 is also provided. Prevalence is expressed as the percentage of people with a characteristic of interest. Disease severity is expressed as the mean number, per person, or anatomical sites that had a condition of interest. Prevalence ratios (PR) or mean ratios (MR), as appropriate, are used as summary measures. These ratios are unadjusted ratios and provide an indication of the strength of the association between the socioeconomic classification variable and the outcome variable of interest. A prevalence/mean ratio of 1 indicates there is no difference in the prevalence/mean of the outcome variable for the 2 classification groups being compared and therefore no relationship between the variables. A prevalence/mean ratio greater than 1 indicates that the prevalence/mean of the condition is higher than the reference group. Conversely, a prevalence/mean ratio less than 1 indicates that the prevalence/mean of the condition is lower than the reference group.

8.1 Oral health status

Tooth loss

The percentage of Australians reporting complete tooth was 4.0% of the population aged 15 years and over. Around one in ten dentate persons (10.2%) aged 15 years and over in Australia reported having fewer than 21 teeth. Overall, 11.3% of dentate Australians aged 15 years and over reported wearing a denture. The percentage of persons reporting that they had dental implants was 5.6%. The mean number of missing teeth for any reason reported per person was 5.7 teeth. In the Australian dentate adult population, the dental examination showed that the mean number of teeth missing due to pathology was 4.4, and the number of missing teeth replaced by prostheses per person was 1.0.

Variation by age in tooth loss and tooth replacement was observed for all measures. Compared to 35–54 year-olds, those aged 75 years and over had higher percentages of people with complete tooth loss (PR=18.96). Compared to the reference age group of 15–34 year-olds, those aged 75 years and over had higher percentages of people with less than 21 teeth (64.86 times) and with dentures (44.03 times), while the highest percentage with dental implants was reported in the 55–74 year age group (4.08 times). Those aged 75 years and over had higher numbers of teeth missing for any reason (4.12 times), missing due to pathology (22.14 times), and missing and replaced (41.54 times) than those aged 15–34 years.

A higher percentage of females reported complete tooth loss (1.39 times) as well as having higher numbers of teeth missing for any reason (1.11 times).

Persons living at residential locations other than capital cities reported a higher percentage with complete tooth loss (1.61 times), less than 21 teeth (1.54 times) and dentures (1.35 times), but a lower percentage with dental implants (0.75 times) than capital city residents. In comparison to capital city residents, those living at other places had higher numbers of teeth missing for any reason (1.19 times), as well as missing due to pathology (1.30 times) and higher numbers of missing teeth replaced by prostheses (1.43 times).

A higher percentage of those with Year 10 or less schooling had complete tooth loss (5.26 times), less than 21 teeth (3.65 times) and dentures (3.12 times), as well as higher numbers of teeth missing for any reason (1.76 times), missing due to pathology (2.34 times), and missing and replaced by prostheses (3.47 times) than those with Year 11 or more years of schooling.

In comparison to those with a degree or higher qualification, those with other or no qualifications reported a higher percentage with complete tooth loss (7.32 times), less than 21 teeth (4.03 times) and dentures (2.65 times), but a lower percentage with dental implants (0.68 times). Not having a degree or higher qualification was also associated with higher number of teeth missing for any reason (1.76 times), missing due to pathology (2.30 times), and missing and replaced by prostheses (4.03 times).

Those who were eligible for public dental care in relation to those who were ineligible reported a higher percentage with complete tooth loss (8.68 times), less than 21 teeth (5.10 times) and dentures (4.04 times). Being eligible for public dental care was also associated with higher number of teeth missing for any reason (1.84 times), missing due to pathology (2.54 times), and missing and replaced by prostheses (4.43 times).

Uninsured persons reported higher percentages with complete tooth loss (3.82 times), less than 21 teeth (2.15 times) and dentures (1.72 times), but lower percentages with dental implants (0.71 times) than dentally insured persons. Uninsured persons also had higher numbers of teeth missing for any reason (1.16 times), missing due to pathology (1.30 times), and missing and replaced by prostheses (1.67 times).

Those usually visiting for a dental problem rather than a check-up reported higher percentages with complete tooth loss (6.80 times), less than 21 teeth (2.99 times) and dentures (2.27 times), as well as higher numbers of teeth missing due to any reason (1.42 times), missing due to pathology (1.72 times), and missing and replaced by prostheses (2.08 times).

Experience of dental decay

Nearly a third (32.1%) of dentate Australians aged 15 years and over had untreated coronal decay, with a mean number of 1.4 decayed tooth surfaces per person. Some 8.2% of the dentate Australian population aged 15 years and over had untreated root decay. Approximately three quarters of the Australian dentate population aged 15 years and over had one or more filled teeth (77.4%). Dentate Australians aged 15 years and over had a mean of 15.1 filled tooth surfaces per person, a mean number of 29.7 decayed, missing or filled tooth surfaces per person, and a mean number of 11.2 decayed, missing or filled teeth per person. Overall, 10.7% of dentate Australians aged 15 years and over had no experience of dental decay in their permanent teeth.

Compared to the reference group of 15–34 year-olds, most indicators of dental decay experience were higher in older age groups. For the percentage of people with coronal fillings the highest rate was observed for those aged 55–74 years (1.43 times). However, the highest rates were observed for those aged 75 years and over for percentage of people with root decay (8.94 times), and mean number of filled surfaces (7.50 times), decayed, missing and filled surfaces (9.77 times), and decayed, missing and filled teeth (5.92 times).

Females had a lower percentage of people with coronal decay (0.85 times) than males, and a lower mean number of decayed coronal surfaces (0.68 times). However, higher percentages of females than males had coronal fillings (1.08 times) and females had higher mean numbers of coronal filled surfaces (1.36 times), decayed, missing and filled surfaces (1.19 times), and decayed, missing and filled teeth (1.16 times).

Indigenous persons had a lower mean number of filled coronal surfaces (0.43 times) and lower mean number of decayed, missing and filled surfaces (0.63) than non-Indigenous.

Residents at locations other than capital cities had slightly higher mean numbers of decayed, missing and filled surfaces (1.13 times) and higher mean numbers of decayed, missing and filled teeth (1.13 times).

A higher percentage of persons with Year 10 or less schooling than those with Year 11 or more years of schooling had coronal decay (1.22 times) and root decay (2.14 times), as well as having higher mean numbers of decayed coronal surfaces (1.81 times), filled coronal surfaces (1.37 times), decayed, missing and filled surfaces (1.77 times), and decayed, missing and filled teeth (1.61 times).

Compared to those with a degree or higher qualification those with other or no qualifications had a higher percentage with root decay (2.06 times) and higher mean numbers of decayed coronal surfaces (1.79 times), filled coronal surfaces (1.23 times), decayed, missing and filled surfaces (1.60 times), and decayed, missing and filled teeth (1.45 times).

Those who were eligible for public dental care in relation to those who were ineligible had a higher percentage with root decay (2.43 times) and higher mean numbers of decayed coronal surfaces (1.76 times), filled coronal surfaces (1.53 times), decayed, missing and filled surfaces (1.93 times), and decayed, missing and filled teeth (1.69 times).

Persons who were dentally uninsured had a higher percentage of people with coronal decay (1.58 times) and root decay (1.50 times), but a lower percentage with coronal fillings (0.90 times) as well as higher mean numbers of decayed coronal surfaces (2.28 times) but lower numbers of filled coronal surfaces (0.71 times) than the dentally insured.

Those who usually visit for a dental problem had higher percentages with coronal decay (1.79 times) and root decay (2.56 times), as well as higher mean numbers of decayed coronal surfaces (3.20 times), decayed, missing and filled surfaces (1.34 times), and decayed, missing and filled teeth (1.31 times) than those usually visiting for a check-up.

Gum diseases

Chronic conditions related to gums and tooth-supporting tissues were related to age of people in the Australian adult population. There were strong age-related gradients in all indicators of gum diseases and related conditions, except for the prevalence of people with gingivitis. Compared with the youngest age group, the other three age groups consistently had higher prevalence of periodontal disease defined by different case definitions and extent of sites with periodontal pocket and clinical attachment loss exceeding 4 mm. People aged 75+ years had 5.67 times higher prevalence of periodontitis defined by the CDC/AAP case definition than the 15–34 year age group. The relative difference in the extent of sites with CAL of 4+mm was 13.71 times between the two age groups.

Females consistently had lower prevalence and extent of periodontal diseases and related conditions than males. Comparison between Indigenous and non-Indigenous people were mostly not possible due to low number of Indigenous participants. Indigenous people had lower prevalence of periodontitis by CDC/AAP case definition and lower prevalence of CAL 4+mm than non-Indigenous people. These comparisons were likely biased by relatively young age of Indigenous people who also retained fewer diseased teeth.

People with fewer years of schooling consistently had higher prevalence and extent of periodontal diseases and related conditions than those with at least 11 years of schooling. Those who did not have a degree also had higher prevalence and extent of periodontal conditions than those who had a degree or higher. The former had more than twice higher extent of sites with CAL of 4+mm than the latter.

Dental visiting was also a significant factor related to periodontal diseases and related conditions. Those who were eligible for public dental care were more likely to have periodontitis defined by the CDC/AAP and NCHS case definitions than those who were ineligible (1.67 times and 1.25 times, respectively). The former also had higher extent of sites with PPD and CAL exceeding 4mm than the latter (1.60 times and 2.23 times, respectively). Those who did not have dental insurance consistently had higher prevalence and extent of periodontal diseases and related conditions than those who were insured, except for the prevalence of gingival recession of 2+mm. People who usually visited for a dental problem consistently had higher prevalence and extent of periodontal diseases and related conditions than those who usually visited for a check-up. The relative differences were particularly notable with indicators of more acute inflammation, periodontal pocket depth and gingivitis.

In summary, periodontal diseases and related conditions in the Australian adult population are strongly age-related. These conditions are also related to socioeconomic status and dental visiting behaviours.

Other oral conditions

Various acquired chronic dental conditions accumulate with age within a population. The two measures of enamel wear were strongly associated with age. Similarly, lack of occlusal contact was strongly associated with age because it is related with tooth loss. People of the 55–74 year and 75+year age groups were more likely to have xerostomia and oral mucosal lesions than the youngest age group.

The prevalence of dental fluorosis was not associated with age. This development condition is associated with intake of fluoride during early childhood. Lack of changes across age groups indicates a stable level of exposure to fluoride available in the population during the time period the study sample were born.

Females were less likely to have enamel wear but more likely to have xerostomia than males.

People who had lower level of schooling or qualification were consistently more likely to have acquired chronic dental conditions. The relative difference between the respective groups was most notable with the prevalence of lack of occlusal contact. This condition is associated with tooth loss.

Those who were eligible for public dental care were more likely to have chronic oral conditions than those who were not eligible, except for the prevalence of dental fluorosis. The former had 7.69 times higher prevalence of lack of occlusal contact than the latter.

People who usually visited for dental problem had higher prevalence of the chronic oral conditions, except for severe enamel wear and dental fluorosis. Problem-based visiting was associated with 2.84 times the prevalence of lack of occlusal contact than the more favourable visiting.

8.2 Dental care

Most recent dental attendance

Overall, just over half of the Australian population aged 15 years and over attended a dental provider in the previous 12 months, while just over one in ten people had not visited a dentist for five or more years. Just over four in five people reported that their last dental visit was to a private practice dentist. Of those that visited a dentist within the previous five years, nearly nine in ten paid for all or part of their dental care.

Compared to the youngest age group (the reference group), there was no difference in the proportion visiting a dentist in the previous 12 months by age group. In contrast, the 35–54 and 75 years and over age groups were 1.22 and 1.51 times more likely to have last visited 5 or more years ago. The 35–54 year-olds were slightly more likely to visit a private practice at their last dental visit (1.08 times), while the 75 years and over age group were less likely to visit a private practitioner (0.88 times). The older two age groups were also less likely to have paid for their last dental visit compared to the youngest age group (0.93 times and 0.80 times, respectively).

Females were 1.07 times more likely to have visited in the previous 12 months than males, and 0.79 times less likely to have last visited 5 or more years ago. There was no difference in attendance to a private practitioner or paying for their last visit. There was no significant difference between Indigenous and non-Indigenous in terms of visiting, however Indigenous people were less likely to have attended a private practice and less likely to have paid for their last dental visit than non-Indigenous people (0.73 times and 0.74 times, respectively).

People living in areas outside of capital cities were 0.88 times less likely than those in capital cities to have visited in the previous 12 months, 1.31 times more likely to have not visited in five or more years, 0.93 times less likely to have visited a private dental provider and 0.93 times less likely to have paid for their own dental care. A similar pattern in terms of size and direction was observed for those with year 10 or less schooling compared to those with year 11 or more, those with other or no qualifications compared to those with a degree or higher, those eligible for public dental care compared to those not eligible for public care, and those without dental insurance compared to those with insurance. In particular, those with year 10 or less schooling were 1.56 times more likely than those with year 11 or more, those with other or no qualification were 1.80 times more likely than those with a degree or above, and those without dental insurance were 3.59 times more likely to have not made a visit to a dentist for 5 or more years. Other differences of note were those who were uninsured were 0.62 times less likely than insured persons to have visited in the past 12 months, and those who were eligible for public dental care were 0.63 times less likely than those ineligible for public care to have paid for their dental care.

The largest variation in attendance were seen for usual reason for visiting and oral status. Individuals who usually visit for a problem were 0.52 times less likely than those who visit for a check-up to have visited within the previous 12 months, and 5.43 times more likely to have not made a visit in the previous 5 years. Similarly, those who were edentulous were 0.38 times less likely than dentate people to have visited in the previous 12 months, and 4.06 times more likely to have not visited in the previous 5 years.

Usual pattern of dental attendance

Overall, just over half of the Australian dentate population aged 15 years and over usually visit a dental provider at least once a year, three-quarters have a particular dentist or clinic that they usually attend, and nearly two-thirds usually visit a dentist for a check-up. Conversely, one in five people had unfavourable visiting patterns, in that they visited less than once every 2 years (and usually for a problem), or visited once every 2 years (usually for a problem) but were without a regular dental provider.

Compared to the youngest age group (the reference group), 35–54 year-olds were less likely to visit at least once a year (0.90 times). All age groups 35 years and over were slightly more likely than the 15–34 year-olds to usually attend the same dentist or clinic, but were less likely to attend for a check-up, and had higher rates of unfavourable visiting.

Across other characteristics, lower rates of visiting at least once a year and usually attending for a check-up were observed for those living outside of capital cities compared with those in capital cities, those with year 10 or less compared to year 11 or more schooling, those with other or no qualifications compared to those with

degree or above, those eligible for public dental care compared to those ineligible, and those uninsured compared to insured persons. The usual reason for visiting a dentist was strongly associated with frequency of dental visiting. People that usually visit a dentist for a problem were far less likely to visit at least once a year than those who usually visit for a check-up (0.3 times).

Having unfavourable attendance patterns were less likely for females than males, but more likely for those living outside capital cities than those in capital cities, those with year 10 or less schooling than those with year 11 or more, those with other or no qualification than those with a degree or higher, and those eligible for public dental care compared to those ineligible. The strongest association was for insurance status with uninsured persons over three times more likely to have unfavourable visiting patterns than those with dental insurance.

Financial barriers to dental care

Overall, nearly four in ten Australians aged 15 years and over reported that they avoided or delayed visiting a dentist due to cost, and just under one-quarter reported they would have a lot of difficulty paying for a $200 dental bill. In addition, just under one-quarter of all dentate Australians who visited in the previous 12 months reported that cost had prevented the recommended dental treatment.

Compared to 15–34 year-olds (the reference group), 35–54 year-olds were more likely to report avoiding or delaying care (1.12 times), and that cost prevented recommended dental treatment (1.44 times). In contrast, those aged 75 years and over were far less likely to report avoiding or delaying visiting due to cost (0.55 times) or that cost had prevented recommended treatment (0.49 times). All age groups were less likely to report difficulty paying a $200 dental bill when compared to the 15–34 year age group.

Females were 1.24 times more likely than males to report avoiding visiting due to cost, 1.35 times more likely to report cost prevented recommend treatment and 1.44 times more likely to report a lot of difficulty paying a $200 dental bill. Compared to non-Indigenous, individuals identifying as being Indigenous were 1.27 times more likely to report avoiding dental care due to cost and 1.70 times more likely to report a lot of difficulty paying a $200 dental bill. There were minimal differences in the percentages of people reporting financial barriers to accessing dental care by residential location

The only difference in the percentages reporting financial barriers to accessing dental care by level of schooling was for difficulty paying a $200 dental bill. Individuals with year 10 or less schooling were 1.42 times more likely to report this barrier than those with year 11 or more schooling.

There were minimal differences in terms of avoiding dental care due to cost for those with other or no qualifications compared to degree or higher (1.13 times), and those eligible for public dental care than those ineligible (1.15 times). However, there was a much larger difference between these groups in terms of difficulty paying a $200 dental bill. Those with other or no qualification were 1.88 times more likely than those with a degree or higher, and those eligible for public dental care 2.18 times more likely than those ineligible for care to report a lot of difficulty paying a $200 dental bill. Edentulous individuals were 0.75 times less likely to report avoiding visiting a dentist due to cost compared to dentate people, but 1.26 times more likely to report a lot of difficulty paying a $200 dental bill.

The strongest associations for financial barriers to accessing dental care were for insurance status and usual reason for visiting. Uninsured individuals were twice as likely to report avoiding dental care due to cost (2.02 times), 1.65 times more likely to report cost prevented recommended treatment, and 2.2 times more likely to report a lot of difficulty paying a $200 dental bill, compared to those with dental insurance. Similarly, those who usually visit for a dental problem were 2.13, 2.72 and 2.02 times, respectively, more likely to report financial barriers compared to those who usually visit for a check-up.

8.3 Oral health perceptions

Oral health problems

Overall, 23.7% of people in Australia aged 15 years and over reported avoiding foods due to dental problems. Among dentate people aged 15 years and over in the Australian population, nearly a quarter rated their oral health as fair or poor (23.9%). Approximately one fifth of dentate Australians aged 15 years and over reported experiencing toothache in the last 12 months (20.2%). Overall, 35.2% of Australians aged 15 years and over reported being uncomfortable about their dental appearance.

Younger persons had lower percentages reporting avoiding certain foods than older age groups where percentages were between 1.33 and 1.47 times higher, and a similar pattern was observed for rating their oral health as fair or poor with percentages between 1.25 and 1.58 times higher. In contrast, those aged 55–74 years and 75 years and over had lower percentages with toothache (0.80 times and 0.52 times, respectively). There were mixed results for reporting being uncomfortable about their dental appearance, with those aged 35–54 years 1.12 times higher and those aged 75 years and over 0.75 times lower than younger persons aged 15–34 years.

Females had higher percentages avoiding foods (1.35 times), reporting toothache (1.16 times) and being uncomfortable about their dental appearance (1.21 times) but reported lower percentages with fair or poor oral health (0.91 times) than males.

Indigenous persons had higher percentages avoiding certain foods (1.54 times), reporting toothache (1.75 times) and being uncomfortable about their dental appearance (1.29 times) than non-Indigenous persons.

Residents at places other than capital cities were more likely to report avoiding certain foods (1.10 times) but less likely to report toothache in the last 12 months (0.89 times) than capital city residents.

Year 10 or less of schooling was associated with higher percentages of avoiding certain foods (1.38 times), rating their oral health as fair or poor (1.38 times) and being uncomfortable about their dental appearance (1.11 times) than those with Year 11 or more years of schooling.

Compared to those with a degree or higher qualification, those with other or no qualifications had higher percentages avoiding certain foods (1.31 times), rating their oral health as fair or poor (1.28 times), reporting toothache pain (1.16 times) and being uncomfortable about dental appearance (1.14 times).

Those eligible for public dental care had higher percentages avoiding certain foods (1.71 times), rating their oral health as fair or poor (1.57 times), reporting toothache pain (1.43 times) and being uncomfortable about dental appearance (1.19 times) than those ineligible for public dental care.

Uninsured persons had higher percentages avoiding certain foods (1.88 times), rating their oral health as fair or poor (2.11 times), reporting toothache pain (1.77 times) and being uncomfortable about their dental appearance (1.35 times) than those who were dentally insured.

Persons who usually visit a dentist for a dental problem had higher percentages avoiding foods (2.68 times), rating their oral health as fair or poor (3.50 times), reporting toothache pain (2.79 times) and being uncomfortable about their dental appearance (1.77 times) than those who usually visit for a check-up.

Edentulous people reported a higher percentage who avoided certain foods (1.86 times), but a lower percentage who reported being uncomfortable about their dental appearance (0.82 times) than dentate persons.

Overall, highest qualification, eligibility for public dental care, dental insurance and reason for usually visiting a dentist were each associated with all four indicators of oral health impact with the largest effects observed for usually visiting for a dental problem.

Perceived treatment needs

Overall, 5.6% of people aged 15 years and over reported a need for dentures. Among dentate people aged 15 years and over, 27.1% perceived a need for an extraction or a filling. The percentage of dentate persons aged 15 years and over who perceived a need for a check-up was 53.4%. Approximately two thirds of dentate Australians aged 15 years and over with a perceived need for an extraction or filling reported needing the dental treatment within 3 months (67.2%).

Older age groups were more likely to report needing dentures than younger people aged 15–34 years, with percentages between 4.06 and 13.78 times higher in the older age groups. A similar pattern was observed for needing treatment within 3 months with percentages between 1.16 and 1.49 times higher in the older age groups than for those aged 15–34 years. In contrast, those aged 55–74 years and 75 years and over had lower percentages with a need for a check-up (0.83 times and 0.61 times, respectively). A lower percentage of those aged 75 years and over reported needing an extraction or filling than younger persons aged 15–34 years (0.59 times).

Indigenous persons reported higher percentages with a perceived need for dentures (2.82 times) and an extraction or filling (1.48 times) than non-Indigenous persons.

Residents at places other than capital cities reported higher percentages with a perceived need for dentures (1.57 times) and an extraction or filling (1.14 times) than capital city residents.

Those with Year 10 or less of schooling had higher percentages with a perceived need for dentures (3.29 times), need for an extraction or filling (1.14 times) and a need for treatment within 3 months (1.15 times), but a lower percentage with a perceived need for a check-up (0.91 times) than those with Year 11 or more years of schooling.

In comparison to those with a degree or higher qualification, those with other or no qualifications reported a higher percentage with a perceived need for dentures (3.34 times), an extraction or filling (1.32 times) and treatment within 3 months (1.24 times), but a lower percentage with a perceived need for a check-up (0.95 times).

Persons who were eligible for public dental care had higher percentages with a perceived need for dentures (4.68 times), need for an extraction or filling (1.27 times) and a need for treatment within 3 months (1.19 times), than those ineligible for public dental care.

A higher percentage of those who were uninsured reported a perceived need for dentures (3.04 times), a need for an extraction or filling (1.71 times), a check-up (1.22 times) and a need for dental treatment within 3 months (1.10 times) than dentally insured persons.

Those who usually visit for a dental problem had a higher percentage that reported a perceived need for dentures (7.93 times), a need for an extraction or filling (2.95 times), a check-up (1.30 times) and a need for dental treatment within 3 months (1.16 times) than those who usually visit for a check-up.

Edentulous persons reported a higher percentage with a perceived need for dentures (6.10 times) than dentate persons.

8.4 Trends in oral health and use of dental services

The percentage of Australians aged 15 years and over with complete tooth loss decreased from 14.4% in 1987–88 to 6.4% in 2004–06, and further declined to 4.0% in 2017–18.

- Decreases in the percentage of persons with complete tooth loss since 1987–88 were observed consistently in all age groups from those aged 35–44 years up to those aged 75 years and over.

The percentage of Australians aged 15 years and over with less than 21 natural teeth decreased from 20.6% in 1987–88 to 13.8% in 2004–06, and declined to 10.2% in 2017–18.

- Consistent decreases in the percentage of persons with less than 21 natural teeth since 1987–88 were observed in all age groups from those aged 45–54 years up to those aged 75 years and over.

The percentage of Australians aged 15 years and over that wore dentures decreased from 21.5% in 1987–88 to 14.9% in 2004–06, and declined to 11.3% in 2017–18.

- Consistent decreases since 1987–88 in the percentage of persons who had dentures were observed in all age groups from those aged 25–34 years up to those aged 75 years and over.

The mean number of decayed, missing or filled teeth (DMFT) decreased from 14.9 in in 1987–88 to 12.6 in 2004–06, and declined further to a mean of 11.2 in 2017–18.

- This was reflected in fewer decayed teeth between 1987–88 (1.5) and 2017–18 (0.8), as well as for missing teeth (5.7 and 4.4, respectively) and filled teeth (7.8 and 5.9, respectively).
- DMFT was significantly lower in 2017–18 than in 1987–88 in all age groups except those aged 75 years and over, where there was no change.

The percentage of dentate Australians aged 15 years and over who rated their oral health as fair or poor increased from 16.4% in 2004–06 to 23.9% in 2017–18.

- All age groups from 25–34 to 65–74 years exhibited increases over time in the percentage of persons reporting fair or poor oral health.

There was an increase in the percentage of persons that visited a dentist in the preceding 12 months from 53.3% in 1987–88 to 62.1% in 2004–06, before declining to 57.8% in 2017–18.

- Trends over time in dental attendance were not consistent across age groups.

The majority of people reported attending a private dental practice, but the percentage declined from 87.1% in 1987–88 to 82.9% in 2004–06 and 83.4% in 2017–18.

- The percentage who went to a private practice at their last dental visit was lower in 2004–06 and in 2017–18 than in 1987–88 for those aged 15–24, 25–34 and 35–44 years.

Over time there was an increase in the percentage of persons that had private dental insurance from 48.4% and 47.3%, respectively in 1987–88 and 2004–06, before increasing to 52.4% in 2017–18.

- Those aged 15–24, 65–74 and 75 years or more, all had higher percentages with private dental insurance in 2017–18 than at the beginning of the observation period in 1987–88.

The percentage of Australians aged 15 years and over who avoided or delayed dental care due to cost increased from 30.6% in 2004–06 to 39.2% in 2017–18.

- The increased percentage of Australians aged 15 years and over who avoided or delayed dental care due to cost between 2004–06 and 2017–18 was observed consistently in each age group.

Over time there was an increase in the percentage of persons that reported needing a dental extraction from 6.0% in 1987–88 to 9.7% in 2004–06 and remaining at 9.0% in 2017–18.

- For persons aged between 25–34 and 35–44 years the percentage of persons that reported needing a dental extraction was higher in both 2004–06 (11.7% and 10.0%, respectively) and in 2017–18 (11.7% and 10.2%, respectively) than at the beginning of the period in 1987–88 (5.9% and 5.0%, respectively).

There was an increase in the percentage of persons that reported needing a dental filling from 24.7% in 1987–88 to 28.7% in 2004–06, before declining to 22.5% in 2017–18.

- The time trend towards a decline in the percentage of persons who perceived a need for dental fillings between 2004–06 and 2017–18 was observed for persons aged 15–24 years, 25–34 years, 35–44 years and 45–54 years.

The percentage of persons that reported needing a denture was lower in both 2004–06 (5.1%) and in 2017–18 (4.7%) than in 1987–88 (9.0%).

- Consistent decreases since 1987–88 in the percentage of persons who perceived a need for dentures were observed in all age groups from those aged 35–44 years up to those aged 75 years and over.

Appendix A – Supplementary tables

Table A.1: Sample counts of People who completed the Interview

	Population: all people aged 15 years and over				
	Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**15,731**	**4,335**	**4,848**	**4,910**	**1,638**
Sex					
Male	6,781	1,696	2,064	2,303	718
Female	8,950	2,639	2,784	2,607	920
Indigenous identity					
Indigenous	334	130	105	85	14
Non-Indigenous	15,392	4,205	4,741	4,822	1,624
missing	5	—	2	3	—
Residential location					
Capital city	9,867	2,794	3,246	2,834	993
Other places	5,864	1,541	1,602	2,076	645
Year level of schooling					
Year 10 or less	4,198	591	748	1,946	913
Year 11 or more	11,355	3,706	4,052	2,911	686
missing	178	38	48	53	39
Highest qualification attained					
Degree or higher	5,836	1,770	2,382	1,412	272
Other/None	9,584	2,485	2,384	3,393	1,322
missing	311	80	82	105	44
Eligibility for public dental care					
Eligible	4,976	740	727	2,187	1,322
Ineligible	10,686	3,568	4,105	2,702	311
missing	69	27	16	21	5
Dental insurance					
Insured	8,238	2,119	2,762	2,619	738
Uninsured	7,206	2,063	2,021	2,246	876
missing	287	153	65	45	24
Usually visit dentist					
For a check-up	9,790	3,044	3,071	2,800	875
For a dental problem	5,620	1,187	1,702	2,034	697
missing	321	104	75	76	66
Oral status					
Dentate	14,944	4,335	4,803	4,515	1,291
Edentulous	787	—	45	395	347

Note. — zero.

Table A.2: Sample counts of examined people

	Population: examined people				
	Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**5,022**	**1,230**	**1,617**	**1,742**	**433**
Sex					
Male	2,249	495	665	867	222
Female	2,773	735	952	875	211
Indigenous identity					
Indigenous	84	36	30	15	3
Non-Indigenous	4,937	1,194	1,587	1,726	430
missing	1	—	—	1	—
Residential location					
Capital city	3,255	822	1,099	1,056	278
Other places	1,767	408	518	686	155
Year level of schooling					
Year 10 or less	1,190	142	217	621	210
Year 11 or more	3,793	1,083	1,389	1,105	216
missing	39	5	11	16	7
Highest qualification attained					
Degree or higher	2,026	573	827	537	89
Other/None	2,931	642	770	1,184	335
missing	65	15	20	21	9
Eligibility for public dental care					
Eligible	1,634	215	267	798	354
Ineligible	3,373	1,010	1,347	939	77
missing	15	5	3	5	2
Dental insurance					
Insured	2,548	535	854	940	219
Uninsured	2,385	649	734	790	212
missing	89	46	29	12	2
Usually visit dentist					
For a check-up	3,135	820	1,019	1,028	268
For a dental problem	1,796	369	574	693	160
missing	91	41	24	21	5
Oral status					
Dentate	5,022	1,230	1,617	1,742	433
Edentulous	. .	. .	. .	. .	. .

Note. — zero.

Table A.3: Sample counts of examined people who underwent a periodontal examination

	Population: periodontally examined people				
	Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**4402**	**1203**	**1539**	**1391**	**269**
Sex					
Male	1906	484	636	664	122
Female	2496	719	903	727	147
Indigenous identity					
Indigenous	71	33	29	8	1
Non-Indigenous	4330	1170	1510	1382	268
missing	1	—	—	1	—
Residential location					
Capital city	2880	807	1054	849	170
Other places	1522	396	485	542	99
Year level of schooling					
Year 10 or less	943	139	205	476	123
Year 11 or more	3427	1060	1323	902	142
missing	32	4	11	13	4
Highest qualification attained					
Degree or higher	1865	564	791	449	61
Other/None	2477	625	728	923	201
missing	60	14	20	19	7
Eligibility for public dental care					
Eligible	1264	208	245	593	218
Ineligible	3123	990	1291	793	49
missing	15	5	3	5	2
Dental insurance					
Insured	2261	529	814	780	138
Uninsured	2058	631	696	601	130
missing	83	43	29	10	1
Usually visit dentist					
For a check-up	2775	803	971	832	169
For a dental problem	1548	360	544	546	98
missing	79	40	24	13	2

Note. — zero.

Table A.4: Oral health status among 10-year age groups

Indicator	Age group (years) 15–24	25–34	35–44	45–54	55–64	65–74	75–84	≥85
				Percent (%)				
% edentulous	—	—	*0.4	1.7	5.8	11.1	18.9	26.5
% with <21 teeth	*0.7	*0.7	3.0	6.8	17.4	28.9	41.5	62.1
% with 1+ decayed teeth	25.0	33.7	38.3	32.5	34.6	28.9	21.4	41.8
% with 1+ filled teeth	*49.9	*69.3	79.5	91.3	90.4	84.5	87.1	74.5
% with 1+ missing teeth due to pathology	16.3	22.2	49.4	92.3	96.5	98.4	100.0	100.0
% with DMF 0+	64.3	81.1	91.4	99.6	100.0	100.0	100.0	100.0
% with moderate or severe periodontitis	*8.6	14.6	24.3	41.7	49.5	53.8	72.2	*49.3
% with CAL 4+ mm	20.5	38.9	49.6	68.0	75.1	78.6	83.0	79.1
% with PPD 4+ mm	19.3	26.3	27.9	35.9	32.1	31.1	39.4	*37.7
% with REC 2+ mm	15.7	35.7	61.4	76.1	82.7	83.8	84.8	62.1
% with REC 4+ mm	*1.7	*4.5	12.3	24.6	39.7	43.3	54.1	*36.3
% with enamel wear on lower incisors	*2.9	4.3	11.0	18.3	28.1	29.2	36.8	*29.1
				95% Confidence Intervals				
% edentulous	—	—	*0.2–1.0*	*1.1–2.7*	*4.5–7.5*	*9.6–12.8*	*16.2–21.8*	*21.5–32.2*
% with <21 teeth	*0.3–1.8*	*0.4–1.3*	*2.2–4.1*	*5.5–8.4*	*15.6–19.5*	*26.3–31.6*	*37.7–45.5*	*54.0–69.7*
% with 1+ decayed teeth	*18.6–32.8*	*28.5–39.3*	*32.3–44.7*	*26.6–38.9*	*28.8–41.0*	*23.5–35.0*	*15.9–28.1*	*23.7–62.5*
% with 1+ filled teeth	41.9–57.8	63.3–74.8	74.2–84.0	85.5–94.9	86.3–93.4	77.9–89.4	82.6–90.6	53.2–88.2
% with 1+ missing teeth	*10.3–24.9*	*17.6–27.5*	*43.0–55.7*	*88.0–95.2*	*91.0–98.7*	*96.5–99.3*	—	—
% with DMF 0+	*55.9–71.9*	*76.1–85.3*	*87.7–94.1*	*98.9–99.9*	—	—	—	—
% with moderate or severe periodontitis	*4.8–15.0*	*11.2–18.9*	*19.2–30.3*	*35.4–48.4*	*43.2–55.8*	*46.8–60.7*	*63.2–79.7*	*23.5–75.4*
% with CAL 4+ mm	*14.7–27.8*	*33.4–44.7*	*43.1–56.2*	*61.5–73.9*	*69.4–80.0*	*73.4–83.1*	*76.2–88.1*	*51.7–93.0*
% with PPD 4+ mm	*12.9–27.8*	*21.5–31.6*	*22.8–33.6*	*29.7–42.7*	*26.4–38.5*	*24.7–38.3*	*30.2–49.5*	*13.3–70.3*
% with REC 2+ mm	*10.4–23.0*	*30.0–41.9*	*55.5–67.1*	*70.6–80.8*	*77.5–86.8*	*79.0–87.7*	*77.9–89.9*	*32.2–85.0*
% with REC 4+ mm	*0.4–6.5*	*2.7–7.3*	*8.9–16.6*	*19.5–30.5*	*33.6–46.2*	*36.8–49.9*	*44.1–63.8*	*14.6–65.7*
% with enamel wear on lower incisors	*1.3–6.1*	*2.7–6.5*	*7.5–15.8*	*13.7–24.0*	*22.7–34.1*	*23.1–36.1*	*28.1–46.5*	*11.2–57.2*

Note. 1. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.
2. — zero or rounded to zero.

Table A.4 (continued): Oral health status among 10-year age groups

Indicator	Age group (years)							
	15–24	25–34	35–44	45–54	55–64	65–74	75–84	≥85
	mean number							
Number of teeth missing due to pathology	*0.5	0.7	2.0	5.3	8.0	9.9	12.8	15.5
Number of replacement teeth	*0.2	*0.1	*0.2	*0.5	1.8	2.9	4.3	7.6
Number of coronal decayed surfaces	*1.3	1.3	1.5	1.4	2.1	1.3	*1.0	*1.3
Number of coronal filled surfaces	2.6	5.9	9.3	16.0	26.7	31.9	34.6	34.2
Decayed, Filled, Missing Surfaces (DMFS)	5.4	9.2	16.9	33.3	52.9	63.0	74.1	82.0
Decayed, Filled, Missing Teeth (DMFT)	2.9	4.9	7.7	13.1	18.4	20.9	24.1	26.2
Number of decayed root surfaces	*	*	0.2	*0.2	0.5	0.4	0.3	*0.3
Number of filled root surfaces	*	*0.1	0.3	0.8	1.5	2.5	3.4	3.1
	95% Confidence intervals							
Number of teeth missing due to pathology	*0.2–0.8*	*0.5–0.8*	*1.6–2.4*	*4.8–5.8*	*7.2–8.8*	*9.1–10.7*	*11.7–13.9*	*12.6–18.3*
Number of replacement teeth	*0.0–0.3*	*0.0–0.2*	*0.1–0.4*	*0.2–0.7*	*1.3–2.3*	*2.3–3.5*	*2.9–5.7*	*5.8–9.4*
Number of coronal decayed surfaces	*0.6–2.0*	*1.0–1.6*	*1.1–1.9*	*0.9–1.8*	*1.4–2.9*	*0.9–1.7*	*0.5–1.6*	*0.4–2.3*
Number of coronal filled surfaces	*2.0–3.2*	*5.1–6.8*	*8.1–10.6*	*14.4–17.6*	*24.4–29.1*	*29.0–34.9*	*31.0–38.3*	*24.8–43.7*
Decayed, Filled, Missing Surfaces (DMFS)	*4.0–6.7*	*8.1–10.3*	*14.8–18.9*	*30.8–35.9*	*50.1–55.8*	*59.3–66.8*	*70.7–77.6*	*76.9–87.0*
Decayed, Filled, Missing Teeth (DMFT)	*2.3–3.6*	*4.4–5.4*	*6.9–8.4*	*12.2–14.0*	*17.7–19.2*	*19.7–22.0*	*23.4–24.9*	*25.0–27.3*
Number of decayed root surfaces	—	*0.0–0.1*	*0.1–0.2*	*0.1–0.4*	*0.3–0.8*	*0.2–0.5*	*0.2–0.5*	*0.0–0.7*
Number of filled root surfaces	—	*0.0–0.2*	*0.2–0.5*	*0.5–1.0*	*1.2–1.8*	*2.0–3.0*	*2.5–4.4*	*2.1–4.1*

Note. 1. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.
2. — zero or rounded to zero.

Table A.5: Oral health perceptions among 10-year age groups

Indicator	Age group (years)							
	15–24	25–34	35–44	45–54	55–64	65–74	75–84	≥85
	Per cent (%)							
% who avoided food because of dental problems	17.0	20.6	23.9	26.3	27.9	27.5	27.3	23.3
% with fair/poor self-rated oral health	85.9	77.8	75.7	71.8	68.5	74.1	78.1	72.3
% with toothache	18.8	24.0	22.7	22.5	19.1	14.4	11.8	9.0
% uncomfortable about dental appearance	14.6	15.7	18.0	18.7	19.8	16.6	12.3	14.1
% who perceive a need for dentures	0.6	1.5	3.6	5.1	9.7	11.9	15.6	11.8
% who perceive a need for extraction or filling	20.4	34.3	29.8	28.4	28.1	24.2	16.9	14.0
% who perceive a need for a dental check-up	50.9	62.3	60.2	54.3	50.2	44.0	36.7	27.3
% who need dental care within 3 months	41.7	40.3	35.8	26.0	27.4	27.1	13.5	3.4
	95% Confidence Intervals							
% who avoided food because of dental problems	*14.5–19.7*	*18.5–22.8*	*21.7–26.2*	*23.7–29.1*	*25.7–30.2*	*25.2–29.9*	*24.2–30.6*	*17.9–29.7*
% with fair/poor self-rated oral health	*83.4–88.0*	*75.5–80.0*	*73.5–77.9*	*68.9–74.6*	*65.9–71.1*	*71.4–76.7*	*74.8–81.1*	*64.2–79.1*
% with toothache	*16.4–21.4*	*21.9–26.3*	*20.4–25.1*	*20.0–25.2*	*16.9–21.6*	*12.4–16.5*	*9.4–14.7*	*5.2–15.1*
% uncomfortable about dental appearance	*12.5–17.0*	*13.9–17.7*	*16.0–20.1*	*16.5–21.0*	*17.8–22.0*	*14.7–18.7*	*10.2–14.9*	*9.7–20.0*
% who perceive a need for dentures	*0.2–1.7*	*1.0–2.2*	*2.6–4.8*	*4.1–6.5*	*8.2–11.3*	*10.3–13.8*	*13.0–18.6*	*7.8–17.4*
% who perceive a need for extraction or filling	*17.8–23.3*	*31.8–36.8*	*27.2–32.7*	*25.7–31.3*	*25.6–30.7*	*21.7–26.9*	*13.8–20.5*	*9.1–20.9*
% who perceive a need for a dental check-up	*47.6–54.2*	*60.0–64.6*	*57.4–62.9*	*51.2–57.3*	*47.3–53.1*	*41.1–46.8*	*33.1–40.4*	*21.3–34.3*
% who need dental care within 3 months	*34.2–49.7*	*35.5–45.3*	*31.0–41.0*	*20.9–31.8*	*22.6–32.8*	*21.7–33.4*	*7.8–22.4*	*1.1–10.1*

Note. 1. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

2. — zero or rounded to zero.

Table A.6: Dental care among 10-year age groups

Indicator	Age group (years)							
	15–24	25–34	35–44	45–54	55–64	65–74	75–84	≥85
	Per cent (%)							
% usually visit 1+ time/yr	69.3	50.8	52.7	53.7	56.8	54.9	50.7	47.2
% dental visit <12 months	64.5	50.0	51.1	56.5	58.6	60.5	57.2	51.6
% dental visit 5+ years	5.8	13.6	12.1	12.2	11.2	11.7	14.6	16.5
% visited private dentist	74.8	84.4	86.5	86.3	85.0	78.1	70.0	72.4
% avoided or delayed dental care due to cost	29.4	49.5	45.0	44.6	38.0	29.8	24.2	14.1
% cost prevented recommended dental treatment	10.8	30.3	26.7	30.4	24.7	19.7	10.9	5.0
% with a lot of difficulty paying $200 dental bill	66.9	78.0	76.5	76.4	78.0	77.7	80.8	85.5
% paid for own dental care	88.8	95.5	93.5	92.1	89.3	80.8	73.4	76.4
% who have a dentist they usually go to for dental care	79.6	67.1	73.6	82.1	84.4	85.3	88.2	82.9
	95% Confidence Interval							
% usually visit 1+ time/yr	*66.0–72.3*	*48.1–53.6*	*49.9–55.4*	*50.6–56.9*	*53.9–59.5*	*52.0–57.7*	*46.9–54.4*	*40.9–53.6*
% dental visit <12 months	*61.4–67.4*	*47.4–52.6*	*48.5–53.7*	*53.6–59.3*	*55.7–61.4*	*57.7–63.2*	*53.6–60.6*	*44.6–58.4*
% dental visit 5+ years	*4.5–7.4*	*11.8–15.6*	*10.4–14.0*	*10.4–14.2*	*9.4–13.2*	*10.1–13.6*	*12.3–17.4*	*12.3–21.7*
% visited private dentist	*71.7–77.6*	*82.4–86.3*	*84.4–88.4*	*84.0–88.3*	*82.5–87.2*	*75.7–80.4*	*66.6–73.2*	*65.9–78.1*
% avoided or delayed dental care due to cost	*26.7–32.3*	*46.6–52.3*	*42.4–47.6*	*41.4–47.9*	*35.2–40.9*	*27.4–32.4*	*21.2–27.4*	*9.9–19.8*
% cost prevented recommended dental treatment	*8.8–13.3*	*27.1–33.7*	*23.8–29.8*	*26.8–34.4*	*21.8–27.9*	*17.2–22.6*	*8.4–14.1*	*2.1–11.4*
% with a lot of difficulty paying $200 dental bill	*63.8–69.9*	*75.6–80.2*	*74.0–78.9*	*73.6–78.9*	*75.5–80.3*	*75.3–79.9*	*77.9–83.4*	*80.4–89.5*
% paid for own dental care	*86.1–91.1*	*94.2–96.5*	*91.7–94.9*	*90.2–93.7*	*87.1–91.2*	*78.5–82.8*	*69.6–76.9*	*69.9–81.9*
% who have a dentist they usually go to for dental care	*76.8–82.1*	*64.4–69.8*	*70.7–76.4*	*79.7–84.3*	*82.1–86.5*	*83.0–87.3*	*85.2–90.6*	*72.7–89.7*

Note. 1. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.
2. — zero or rounded to zero.

Appendix B – 95% Confidence intervals

Table B.1: Confidence intervals for Table 4.8 – Summary of tooth loss and tooth replacement

	% of people with:				Mean number of teeth:		
	Complete tooth loss	<21 teeth	Dentures	Dental implants	Missing for any reason	Missing due to pathology	Missing and replaced
Age group	95% Confidence interval						
Ref[a] = 15–34 years							
35–54[b]		*3.96–12.08*	*2.75–10.63*	*1.55–2.89*	*1.36–1.62*	*4.65–7.94*	*1.29–7.05*
55–74	*4.93–11.35*	*18.46–53.85*	*13.08–48.86*	*3.05–5.46*	*2.52–2.99*	*11.34–19.20*	*9.44–39.92*
≥75	*12.49–28.77*	*38.22–100.0*	*27.27–100.0*	*2.23–4.60*	*3.75–4.53*	*17.14–28.59*	*18.68–92.34*
Sex							
Ref = Male							
Female	*1.15–1.69*	~	~	~	*1.02–1.21*	~	~
Indigenous identity							
Ref = Non-Indigenous							
Indigenous	*1.09–2.96*	~	~	~	~	~	~
Residential location							
Ref = Capital Cities							
Other places	*1.33–1.95*	*1.35–1.75*	*1.42–1.94*	*0.62–0.91*	*1.09–1.30*	*1.14–1.47*	*1.08–1.89*
Year level of schooling							
Ref = Year 11 or morel							
Year 10 or less	*4.30–6.44*	*3.24–4.10*	*3.25–4.36*	~	*1.63–1.91*	*2.10–2.60*	*2.57–4.68*
Highest qualification attained							
Ref= Degree or higher							
Other/None	*4.71–11.37*	*3.36–4.85*	*2.70–4.14*	*0.57–0.82*	*1.52–1.78*	*2.03–2.60*	*2.70–6.02*
Eligibility for public dental care							
Ref = Ineligible							
Eligible	*6.78–11.11*	*4.51–5.76*	*3.56–4.75*	~	*1.71–1.98*	*2.29–2.82*	*3.26–6.02*
Dental Insurance							
Ref = Insured							
Uninsured	*3.13–4.67*	*1.90–2.44*	*1.41–1.91*	*0.59–0.86*	*1.07–1.26*	*1.16–1.46*	*1.25–2.22*
Usually visit dentist							
Ref = For a check-up							
For a dental problem	*5.30–8.71*	*2.64–3.40*	*1.84–2.48*	~	*1.31–1.54*	*1.53–1.93*	*1.57–2.75*

Note: Ref: reference group; ~: difference is not statistically significant; . . Not applicable.

Table B.2: Confidence intervals for Table 4.17— Summary of dental decay experience

	Coronal decay		Root decay	Coronal fillings			
	% of people	Mean no. of surfaces	% of people	% of people	Mean no. of surfaces	Mean DMFT	Mean DMFS
Age group	95% Confidence interval						
Ref[a] = 15–34 years							
35–54[b]	~	~	*2.05–8.52*	*1.28–1.52*	*2.36–3.18*	*2.24–2.79*	*2.85–3.68*
55–74	~	~	*4.01–16.11*	*1.31–1.56*	*5.43–7.23*	*4.27–5.18*	*6.62–8.30*
≥75	~	~	*4.26–18.76*	*1.26–1.54*	*6.46–8.71*	*5.35–6.55*	*8.68–11.01*
Sex							
Ref = Male							
Female	*0.73–0.98*	*0.52–0.90*	~	*1.02–1.15*	*1.22–1.51*	*1.08–1.25*	*1.09–1.30*
Indigenous identity							
Ref = Non-Indigenous							
Indigenous	~	~	~	~	*0.24–0.76*	~	*0.40–0.99*
Residential location							
Ref = Capital Cities							
Other places	~	~	~	~	~	*1.04–1.22*	*1.03–1.25*
Year level of schooling							
Ref = Year 11 or morel							
Year 10 or less	*1.03–1.45*	*1.37–2.39*	*1.58–2.90*	~	*1.23–1.53*	*1.50–1.73*	*1.64–1.92*
Highest qualification attained							
Ref= Degree or higher							
Other/None	*0.91–1.27*	*1.33–2.41*	*1.45–2.93*	~	*1.11–1.36*	*1.34–1.56*	*1.46–1.76*
Eligibility for public dental care							
Ref = Ineligible							
Eligible	*0.94–1.30*	*1.32–2.34*	*1.82–3.24*	~	*1.38–1.69*	*1.58–1.81*	*1.78–2.10*
Dental Insurance							
Ref = Insured							
Uninsured	*1.37–1.83*	*1.76–2.96*	*1.12–2.01*	*0.86–0.96*	*0.64–0.79*	~	~
Usually visit dentist							
Ref = For a check-up							
For a dental problem	*1.53–2.09*	*2.52–4.07*	*1.89–3.47*	~	~	*1.22–1.40*	*1.24–1.46*

Note: Ref: reference group; ~: difference is not statistically significant; . . Not applicable.

Table B.3: Confidence intervals for Table 4.26 – Summary of gum disease

	Prevalence: % of people with periodontitis case definitions(a)					Extent: % of sites		% of people with gingivitis
	CDC/AAP	NCHS	4+mm PPD	2+mm REC	4+mm CAL	4+mm PPD	4+mm CAL	
Age group				*95% Confidence interval*				
Ref[a] = 15–34 years	*2.02–3.55*	*1.19–1.93*	*1.06–1.72*	*2.07–2.94*	*1.58–2.18*	*1.27–2.72*	*2.83–5.18*	~
35–54[b]	*3.21–5.45*	*1.27–2.07*	*1.06–1.73*	*2.54–3.54*	*2.10–2.80*	*1.34–3.33*	*6.24–11.04*	*0.64–0.96*
55–74	*4.25–7.56*	*1.63–2.94*	*1.24–2.24*	*2.44–3.58*	*2.22–3.08*	*1.29–3.47*	*10.10–18.59*	*0.47–0.94*
≥75								
Sex								
Ref = Male	*0.62–0.86*	*0.53–0.77*	*0.54–0.80*	*0.83–0.99*	*0.76–0.93*	*0.33–0.62*	*0.48–0.70*	*0.57–0.78*
Female								
Indigenous identity								
Ref = Non-Indigenous	*0.18–0.73*	~	~	~	*0.21–0.71*	~	~	~
Indigenous								
Residential location								
Ref = Capital Cities	~	~	~	*1.03–1.25*	~	*0.50–0.98*	~	*0.54–0.85*
Other places								
Year level of schooling								
Ref = Year 11 or morel	*1.50–2.05*	*1.06–1.59*	~	*1.12–1.36*	*1.20–1.45*	*1.22–2.56*	*1.93–2.83*	~
Year 10 or less								
Highest qualification attained								
Ref= Degree or higher	*1.28–1.88*	~	~	~	*1.04–1.27*	*1.14–2.45*	*1.66–2.45*	*1.09–1.55*
Other/None								
Eligibility for public dental care								
Ref = Ineligible	*1.43–1.95*	*1.04–1.49*	~	*1.05–1.27*	*1.09–1.34*	*1.13–2.27*	*1.85–2.69*	~
Eligible								
Dental Insurance								
Ref = Insured	*1.20–1.58*	*1.19–1.66*	*1.15–1.60*	~	*1.02–1.22*	*1.73–3.06*	*1.32–1.85*	*1.04–1.45*
Uninsured								
Usually visit dentist								
Ref = For a check-up	*1.20–1.66*	*1.23–1.75*	*1.14–1.62*	*1.04–1.26*	*1.15–1.41*	*1.93–3.43*	*1.45–2.18*	*1.12–1.56*
For a dental problem	*2.02–3.55*	*1.19–1.93*	*1.06–1.72*	*2.07–2.94*	*1.58–2.18*	*1.27–2.72*	*2.83–5.18*	~

Ref: reference group; ~: difference is not statistically significant; . . Not applicable

Table B.4: Confidence intervals for Table 4.29— Summary of other oral conditions

	Enamel wear of lower incisors	Severe enamel wear of lower incisors	Dental fluorosis	Xerostomia	Lack of Occlusal contact	Oral mucosal lesions
Age group			**95% Confidence intervals**			
Ref[a] = 15–34 years						
35–54[b]	2.57–5.96	1.62–156.34	~	~	3.39–32.14	~
55–74	5.10–11.53	7.51–429.27	~	1.34–2.79	27.81–191.03	1.35–2.07
≥75	6.27–14.79	19.43–1,677.37	~	2.31–5.31	57.81–397.88	1.31–2.43
Sex						
Ref = Male						
Female	0.45–0.72	0.11–0.76	~	1.02–1.71	~	~
Indigenous identity						
Ref = Non-Indigenous						
Indigenous	~	0.00–0.00	0.01–0.27	0.08–0.93	~	~
Residential location						
Ref = Capital Cities						
Other places	~	~	~	~	1.51–3.04	~
Year level of schooling						
Ref = Year 11 or morel						
Year 10 or less	1.33–2.19	1.63–10.12	~	1.83–3.12	3.80–8.22	1.03–1.51
Highest qualification attained						
Ref= Degree or higher						
Other/None	1.34–2.15	2.07–17.53	~	1.14–2.02	3.03–15.23	1.25–1.85
Eligibility for public dental care						
Ref = Ineligible						
Eligible	1.38–2.20	1.55–9.95	~	1.70–2.76	5.22–11.32	1.09–1.57
Dental Insurance						
Ref = Insured						
Uninsured	~	~	0.24–0.59	1.09–1.84	1.60–3.81	~
Usually visit dentist						
Ref = For a check-up						
For a dental problem	1.19–1.93	~	~	1.26–2.21	2.01–4.03	1.17–1.63

Ref: reference group; ~: difference is not statistically significant; . . Not applicable

Table B.5: Confidence intervals for Table 5.5— dental attendance at the most recent visit

	% who visited dentist within the last 12 months	% who last visited more than 5 years ago	% who attended a private dental practice	% who paid for their last dental visit
	Prevalence ratio (95% confidence interval)			
Age group				
Ref[a] = 15–34 years				
35–54	~	*1.03–1.44*	*1.05–1.11*	~
55–74	~	~	~	*0.91–0.95*
≥75	~	*1.25–1.82*	*0.84–0.92*	*0.77–0.84*
Sex				
Ref = Male				
Female	*1.03–1.11*	*0.71–0.89*	~	~
Indigenous identity				
Ref = Non-Indigenous				
Indigenous	~	~	*0.65–0.83*	*0.66–0.84*
Residential location				
Ref = Capital city				
Other places	*0.84–0.92*	*1.15–1.49*	*0.90–0.95*	*0.91–0.95*
Year level of schooling				
Ref = Year 11 or more				
Year 10 or less	*0.85–0.93*	*1.36–1.78*	*0.83–0.88*	*0.84–0.88*
Highest qualification attained				
Ref = Degree or higher				
Other/None	*0.85–0.91*	*1.57–2.07*	*0.87–0.90*	*0.87–0.90*
Eligibility for public dental care				
Ref = Ineligible				
Eligible	*0.83–0.91*	*1.26–1.61*	*0.69–0.74*	*0.60–0.65*
Dental insurance				
Ref = Insured				
Uninsured	*0.60–0.65*	*3.10–4.17*	*0.71–0.74*	*0.78–0.81*
Usually visit dentist				
Ref = For a check-up				
For a dental problem	*0.49–0.55*	*4.58–6.43*	*0.80–0.85*	*0.82–0.86*
Oral status				
Ref = Dentate				
Edentulous	*0.32–0.47*	*3.55–4.65*	*0.49–0.60*	*0.55–0.70*

Ref: reference group; ~: difference is not statistically significant; . . Not applicable

Table B.6: Confidence intervals for Table 5.10— Summary of usual pattern of dental attendance

	Usually attend at least once a year	Usually attend same dentist	Usually attend for a check-up	Unfavourable attendance pattern
	95% confidence interval			
Age group				
Ref[(a)] = 15–34 years				
35–54	*0.85–0.95*	*1.02–1.10*	*0.80–0.86*	*1.31–1.62*
55–74	~	*1.12–1.20*	*0.76–0.83*	*1.24–1.56*
≥75	~	*1.14–1.24*	*0.79–0.89*	*1.09–1.49*
Sex				
Ref = Male				
Female	*1.06–1.14*	*1.01–1.06*	~	*0.78–0.92*
Indigenous identity				
Ref = Non-Indigenous				
Indigenous	~	~	*0.66–0.91*	~
Residential location				
Ref = Capital city				
Other places	*0.80–0.88*	~	*0.82–0.90*	*1.31–1.61*
Year level of schooling				
Ref = Year 11 or more				
Year 10 or less	*0.79–0.87*	*1.01–1.07*	*0.76–0.83*	*1.44–1.71*
Highest qualification attained				
Ref = Degree or higher				
Other/None	*0.80–0.86*	~	*0.78–0.82*	*1.66–2.03*
Eligibility for public dental care				
Ref = Ineligible				
Eligible	*0.79–0.87*	*0.93–0.99*	*0.70–0.76*	*1.41–1.70*
Dental insurance				
Ref = Insured				
Uninsured	*0.55–0.60*	*0.77–0.81*	*0.59–0.64*	*2.97–3.63*
Usually visit dentist				
Ref = For a check-up				
For a dental problem	*0.29–0.34*	*0.71–0.77*	. .	. .

Ref: reference group; ~: difference is not statistically significant; . . Not applicable.

Table B.7: Confidence intervals for Table 5.14— Summary of financial barriers to dental care

	% who avoided or delayed care due to cost	% cost had prevented recommended dental treatment	% difficulty paying a $200 dental bill
		95% confidence interval	
Age group			
Ref[a] = 15–34 years			
35–54	*1.05–1.19*	*1.26–1.64*	*0.79–0.96*
55–74	*0.80–0.92*	~	*0.74–0.90*
≥75	*0.48–0.63*	*0.37–0.65*	*0.58–0.77*
Sex			
Ref = Male			
Female	*1.17–1.31*	*1.20–1.52*	*1.31–1.57*
Indigenous identity			
Ref = Non-Indigenous			
Indigenous	*1.08–1.50*	~	*1.39–2.08*
Residential location			
Ref = Capital city			
Other places	*1.01–1.16*	~	~
Year level of schooling			
Ref = Year 11 or more			
Year 10 or less	~	~	*1.30–1.56*
Highest qualification attained			
Ref = Degree or higher			
Other/None	*1.05–1.20*	~	*1.69–2.10*
Eligibility for public dental care			
Ref = Ineligible			
Eligible	*1.09–1.22*	~	*2.01–2.37*
Dental insurance			
Ref = Insured			
Uninsured	*1.90–2.15*	*1.47–1.84*	*2.00–2.43*
Usually visit dentist			
Ref = For a check-up			
For a dental problem	*2.02–2.24*	*2.45–3.02*	*1.87–2.19*
Oral status			
Ref = Dentate			
Edentulous	*0.64–0.87*	. .	*1.07–1.48*

Ref: reference group; ~: difference is not statistically significant; . . Not applicable.

Table B.8: Confidence intervals for Table 6.5— Summary of findings regarding impact of oral health

	% who avoided certain foods	% reporting Fair/poor self-rated oral health	% reporting Toothache in the last 12 months	% who were uncomfortable about dental appearance
		95% confidence interval		
Age group				
Ref[(a)] = 15–34 years				
35–54	*1.20–1.47*	*1.28–1.58*	~	*1.04–1.21*
55–74	*1.33–1.62*	*1.42–1.76*	*0.70–0.90*	~
≥75	*1.21–1.62*	*1.07–1.47*	*0.42–0.65*	*0.67–0.85*
Sex				
Ref = Male				
Female	*1.25–1.47*	*0.84–0.98*	*1.06–1.26*	*1.13–1.28*
Indigenous identity				
Ref = Non-Indigenous				
Indigenous	*1.26–1.89*	~	*1.40–2.19*	*1.09–1.53*
Residential location				
Ref = Capital city				
Other places	*1.01–1.20*	~	*0.81–0.98*	~
Year level of schooling				
Ref = Year 11 or more				
Year 10 or less	*1.28–1.49*	*1.27–1.50*	~	*1.03–1.18*
Highest qualification attained				
Ref = Degree or higher				
Other/None	*1.19–1.43*	*1.16–1.41*	*1.05–1.28*	*1.07–1.22*
Eligibility for public dental care				
Ref = Ineligible				
Eligible	*1.58–1.84*	*1.45–1.71*	*1.30–1.57*	*1.12–1.26*
Dental insurance				
Ref = Insured				
Uninsured	*1.73–2.04*	*1.95–2.28*	*1.62–1.93*	*1.26–1.44*
Usually visit dentist				
Ref = For a check-up				
For a dental problem	*2.48–2.91*	*3.20–3.83*	*2.53–3.08*	*1.67–1.88*
Oral status				
Ref = Dentate				
Edentulous	*1.67–2.07*			*0.70–0.97*

Ref: reference group; ~: difference is not statistically significant; . . Not applicable.

Table B.9: Confidence intervals for Table 6.10—Summary of findings regarding perceived need for dental care

	% who reported needing dentures	% reported needing an extraction or filling	% reported needing a check-up	% reported needing treatment within 3 months
		95% confidence interval		
Age group				
Ref[(a)] = 15–34 years				
35–54	*2.59–6.36*	~	~	*1.06–1.28*
55–74	*6.54–15.02*	~	*0.79–0.88*	*1.12–1.34*
≥75	*8.91–21.33*	*0.49–0.71*	*0.56–0.67*	*1.36–1.64*
Sex				
Ref = Male				
Female	~	~	~	~
Indigenous identity				
Ref = Non-Indigenous				
Indigenous	*1.92–4.12*	*1.20–1.83*	~	~
Residential location				
Ref = Capital city				
Other places	*1.32–1.86*	*1.04–1.24*	~	~
Year level of schooling				
Ref = Year 11 or more				
Year 10 or less	*2.79–3.87*	*1.05–1.24*	*0.87–0.96*	*1.08–1.23*
Highest qualification attained				
Ref = Degree or higher				
Other/None	*2.56–4.35*	*1.21–1.44*	*0.91–0.99*	*1.13–1.36*
Eligibility for public dental care				
Ref = Ineligible				
Eligible	*3.92–5.60*	*1.17–1.37*	~	*1.12–1.27*
Dental insurance				
Ref = Insured				
Uninsured	*2.51–3.67*	*1.58–1.86*	*1.17–1.28*	*1.02–1.18*
Usually visit dentist				
Ref = For a check-up				
For a dental problem	*6.36–9.89*	*2.71–3.20*	*1.24–1.35*	*1.08–1.25*
Oral status				
Ref = Dentate				
Edentulous	*5.10–7.31*	. .	. .	. .

Ref: reference group; ~: difference is not statistically significant; . . Not applicable.

Appendix C – State/territory tables

New South Wales

Table C.1: Percentage of adults with complete tooth loss, New South Wales

		Population: all people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**4.1**	**—**	***1.2**	**8.3**	**18.6**
	95%CI	*3.4–4.9*	—	*0.6–2.5*	*6.2–10.9*	*14.6–23.4*
Sex						
Male	%	3.7	—	*2.2	7.0	16.0
	95%CI	*2.8–4.9*	—	*1.0–4.9*	*4.6–10.7*	*10.6–23.3*
Female	%	4.4	—	*0.2	9.4	20.6
	95%CI	*3.4–5.7*	—	*0.1–0.9*	*6.4–13.7*	*15.2–27.3*
Indigenous identity						
Indigenous	%	*11.5	—	—	42.2	n.p.
	95%CI	*5.8–21.7*	—	—	*24.1–62.6*	*n.p.*
Non-Indigenous	%	3.9	—	*1.3	7.5	18.5
	95%CI	*3.2–4.7*	—	*0.6–2.6*	*5.4–10.2*	*14.4–23.3*
Residential location						
Capital city	%	3.5	—	*1.2	8.2	16.6
	95%CI	*2.6–4.6*	—	*0.4–3.2*	*5.2–12.7*	*12.0–22.5*
Other places	%	5.2	—	*1.3	8.3	21.2
	95%CI	*4.1–6.4*	—	*0.5–3.3*	*6.2–11.0*	*14.7–29.6*
Year level of schooling						
Year 10 or less	%	9.9	—	*3.7	12.0	23.6
	95%CI	*8.1–12.2*	—	*1.6–8.7*	*8.5–16.7*	*18.2–29.9*
Year 11 or more	%	1.4	—	*0.4	4.6	*9.3
	95%CI	*1.0–1.9*	—	*0.1–1.4*	*2.9–7.2*	*5.5–15.4*
Highest qualification attained						
Degree or higher	%	*0.8	—	*1.0	*1.3	*6.7
	95%CI	*0.3–2.1*	—	*0.2–5.7*	*0.7–2.6*	*2.8–15.0*
Other/None	%	5.2	—	*1.0	10.0	20.2
	95%CI	*4.3–6.3*	—	*0.4–2.3*	*7.5–13.3*	*15.7–25.6*
Eligibility for public dental care						
Eligible	%	10.7	—	*3.3	14.5	20.9
	95%CI	*8.7–13.0*	—	*1.3–7.9*	*10.5–19.7*	*16.2–26.5*
Ineligible	%	1.1	—	*0.8	*3.2	*8.8
	95%CI	*0.7–1.8*	—	*0.2–2.5*	*1.7–5.9*	*3.9–18.6*
Dental insurance						
Insured	%	1.3	—	*0.4	*3.0	*6.5
	95%CI	*0.8–2.0*	—	*0.1–1.9*	*1.7–5.2*	*3.7–10.9*
Uninsured	%	6.8	—	*2.3	12.5	26.0
	95%CI	*5.6–8.3*	—	*1.0–5.0*	*9.4–16.6*	*19.8–33.4*
Usually visit dentist						
For a check-up	%	1.1	—	*0.1	*3.8	*4.0
	95%CI	*0.7–1.7*	—	*0.0–0.4*	*2.3–6.2*	*2.2–7.0*
For a dental problem	%	8.4	—	*2.8	12.5	33.0
	95%CI	*6.9–10.2*	—	*1.2–6.2*	*8.9–17.2*	*25.7–41.3*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.2: Percentage of people with fewer than 21 teeth, in the adult dentate population, New South Wales

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**10.7**	***0.2**	**5.8**	**23.0**	**45.0**
	95%CI	*9.5–12.2*	*0.0–0.6*	*4.4–7.7*	*19.9–26.4*	*38.4–51.7*
Sex						
Male	%	10.5	*0.1	6.1	22.8	44.4
	95%CI	*8.8–12.3*	*0.0–1.0*	*3.9–9.4*	*18.5–27.7*	*35.6–53.5*
Female	%	11.0	*0.2	5.6	23.2	45.4
	95%CI	*9.4–12.9*	*0.0–1.3*	*3.7–8.5*	*19.1–27.8*	*37.1–54.0*
Indigenous identity						
Indigenous	%	*10.0	—	*12.1	*19.0	n.p.
	95%CI	*4.4–21.1*	—	*2.8–39.6*	*7.2–41.4*	*n.p.*
Non-Indigenous	%	10.8	*0.2	5.7	23.1	44.6
	95%CI	*9.5–12.2*	*0.0–0.7*	*4.2–7.6*	*20.0–26.6*	*38.1–51.3*
Residential location						
Capital city	%	9.1	*0.2	4.8	21.0	46.4
	95%CI	*7.6–10.9*	*0.1–0.9*	*3.2–7.2*	*17.1–25.5*	*37.4–55.6*
Other places	%	13.8	—	7.9	25.7	43.0
	95%CI	*11.6–16.3*	—	*5.3–11.5*	*21.0–31.1*	*33.8–52.7*
Year level of schooling						
Year 10 or less	%	21.6	—	12.3	25.9	53.8
	95%CI	*18.8–24.6*	—	*8.2–18.0*	*21.7–30.5*	*44.7–62.7*
Year 11 or more	%	6.0	*0.2	3.9	19.1	31.0
	95%CI	*5.0–7.2*	*0.0–0.8*	*2.4–6.2*	*15.4–23.5*	*24.1–38.9*
Highest qualification attained						
Degree or higher	%	3.2	*0.5	*2.1	9.5	20.6
	95%CI	*2.3–4.4*	*0.1–2.1*	*0.9–5.0*	*6.3–14.2*	*12.7–31.7*
Other/None	%	13.5	0.0	7.4	26.4	48.8
	95%CI	*11.8–15.4*	—	*5.3–10.2*	*22.7–30.4*	*41.5–56.2*
Eligibility for public dental care						
Eligible	%	25.2	—	17.4	32.6	50.8
	95%CI	*22.0–28.6*	—	*11.7–25.2*	*27.9–37.8*	*43.2–58.3*
Ineligible	%	5.0	*0.2	3.5	16.2	22.0
	95%CI	*4.2–6.1*	*0.1–0.8*	*2.3–5.3*	*13.0–20.0*	*13.6–33.4*
Dental insurance						
Insured	%	6.4	*0.1	*1.9	15.7	31.1
	95%CI	*5.2–7.7*	*0.0–1.0*	*1.0–3.7*	*12.1–20.1*	*23.9–39.4*
Uninsured	%	15.8	*0.2	10.9	29.7	56.7
	95%CI	*13.7–18.1*	*0.0–1.4*	*7.9–14.8*	*25.1–34.9*	*47.3–65.6*
Usually visit dentist						
For a check-up	%	5.9	*0.2	*1.7	14.4	33.0
	95%CI	*4.9–7.1*	*0.1–0.9*	*0.8–3.6*	*11.3–18.1*	*25.9–41.0*
For a dental problem	%	19.7	—	13.2	33.2	64.2
	95%CI	*17.2–22.5*	—	*9.7–17.6*	*28.2–38.6*	*53.2–73.9*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.3: Mean number of missing teeth for pathology per person in the adult dentate population, New South Wales

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**4.8**	**0.9**	**3.9**	**8.9**	**13.7**
	95%CI	*4.1–5.4*	*0.5–1.3*	*3.3–4.6*	*7.4–10.4*	*11.3–16.0*
Sex						
Male	mean	4.2	*0.9	3.5	7.9	12.7
	95%CI	*3.4–5.1*	*0.3–1.5*	*2.5–4.4*	*6.6–9.2*	*10.9–14.5*
Female	mean	5.3	*0.9	4.4	9.9	14.4
	95%CI	*4.3–6.3*	*0.3–1.5*	*3.5–5.3*	*7.2–12.5*	*10.6–18.2*
Indigenous identity						
Indigenous	mean	*1.2	n.p.	n.p.	n.p.	n.p.
	95%CI	*0.0–3.1*	*n.p.*	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	mean	4.8	0.9	3.9	9.0	13.7
	95%CI	*4.1–5.5*	*0.5–1.3*	*3.3–4.6*	*7.4–10.5*	*11.3–16.0*
Residential location						
Capital city	mean	4.4	*0.9	3.9	8.5	14.4
	95%CI	*3.6–5.2*	*0.5–1.4*	*3.0–4.7*	*6.3–10.7*	*11.0–17.9*
Other places	mean	5.4	*0.8	4.1	9.4	12.6
	95%CI	*4.3–6.4*	*0.1–1.5*	*3.1–5.1*	*7.6–11.3*	*10.1–15.1*
Year level of schooling						
Year 10 or less	mean	8.6	*1.6	5.4	9.2	14.1
	95%CI	*7.5–9.7*	*0.0–3.4*	*3.8–7.1*	*7.6–10.8*	*10.8–17.4*
Year 11 or more	mean	3.4	*0.8	3.7	8.5	12.5
	95%CI	*2.8–4.1*	*0.4–1.3*	*2.9–4.5*	*5.9–11.2*	*9.7–15.4*
Highest qualification attained						
Degree or higher	mean	2.3	*0.8	2.8	5.2	14.6
	95%CI	*1.7–3.0*	*0.3–1.3*	*1.8–3.8*	*4.3–6.1*	*11.4–17.7*
Other/None	mean	5.7	*1.0	4.6	9.6	13.2
	95%CI	*4.9–6.4*	*0.4–1.5*	*3.7–5.5*	*7.8–11.3*	*10.4–16.0*
Eligibility for public dental care						
Eligible	mean	8.1	*1.4	6.8	9.7	14.0
	95%CI	*6.8–9.5*	*0.4–2.5*	*5.0–8.5*	*7.8–11.5*	*11.4–16.6*
Ineligible	mean	3.3	*0.8	3.4	8.1	11.4
	95%CI	*2.6–4.0*	*0.4–1.2*	*2.7–4.2*	*5.7–10.5*	*7.7–15.2*
Dental insurance						
Insured	mean	4.1	*0.5	3.2	8.7	10.2
	95%CI	*3.2–5.0*	*0.1–1.0*	*2.1–4.4*	*6.5–10.9*	*7.8–12.7*
Uninsured	mean	5.3	*1.1	4.7	9.1	15.5
	95%CI	*4.5–6.2*	*0.6–1.7*	*3.7–5.7*	*7.3–10.9*	*12.1–19.0*
Usually visit dentist						
For a check-up	mean	3.6	*0.9	3.5	6.9	11.6
	95%CI	*2.9–4.3*	*0.4–1.4*	*2.6–4.4*	*5.4–8.5*	*9.2–14.0*
For a dental problem	mean	6.6	*1.0	4.7	10.5	16.2
	95%CI	*5.3–7.9*	*0.3–1.6*	*3.6–5.9*	*8.1–13.0*	*12.2–20.1*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.4: Percentage of people with untreated coronal decay in the adult dentate population, New South Wales

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**37.0**	**32.8**	**39.7**	**43.1**	***24.5**
	95%CI	*30.9–43.5*	*22.7–44.8*	*28.6–52.0*	*32.7–54.2*	*13.0–41.3*
Sex						
Male	%	40.4	*33.6	42.4	52.6	*22.8
	95%CI	*32.4–49.0*	*18.8–52.6*	*26.5–60.1*	*39.1–65.8*	*8.1–49.6*
Female	%	33.6	31.9	37.0	33.7	*25.8
	95%CI	*25.6–42.6*	*19.8–47.1*	*23.6–52.8*	*19.8–51.1*	*11.2–48.9*
Indigenous identity						
Indigenous	%	*2.8	n.p.	n.p.	n.p.	n.p.
	95%CI	*0.3–23.4*	*n.p.*	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	%	37.2	34.1	39.7	42.2	*24.5
	95%CI	*31.1–43.8*	*23.8–46.2*	*28.6–52.1*	*31.9–53.2*	*13.0–41.3*
Residential location						
Capital city	%	36.9	28.1	40.8	50.1	*24.9
	95%CI	*29.0–45.7*	*17.5–42.0*	*26.0–57.5*	*35.4–64.7*	*9.9–50.0*
Other places	%	37.0	*43.8	37.3	33.5	*23.9
	95%CI	*28.5–46.4*	*24.3–65.4*	*24.0–52.9*	*20.9–49.0*	*10.0–46.9*
Year level of schooling						
Year 10 or less	%	44.4	*42.8	54.9	49.6	*23.3
	95%CI	*32.3–57.2*	*12.3–79.9*	*29.4–78.1*	*34.0–65.4*	*10.3–44.7*
Year 11 or more	%	34.2	31.9	36.7	35.7	*27.3
	95%CI	*27.2–41.9*	*22.0–43.9*	*24.8–50.4*	*22.9–51.1*	*8.2–61.3*
Highest qualification attained						
Degree or higher	%	39.1	39.7	38.5	46.1	*8.7
	95%CI	*29.1–50.2*	*26.3–55.0*	*23.5–56.0*	*28.7–64.6*	*1.6–35.3*
Other/None	%	35.7	*27.8	41.4	41.3	*23.5
	95%CI	*28.4–43.8*	*15.2–45.2*	*27.5–56.9*	*29.7–54.0*	*11.5–42.3*
Eligibility for public dental care						
Eligible	%	37.2	*25.5	59.6	42.6	*23.1
	95%CI	*27.3–48.4*	*6.7–61.8*	*37.3–78.5*	*27.6–59.0*	*11.3–41.5*
Ineligible	%	37.2	35.6	36.2	43.7	*33.3
	95%CI	*29.8–45.3*	*24.3–48.8*	*24.9–49.1*	*30.4–58.0*	*7.6–75.2*
Dental insurance						
Insured	%	29.5	*28.8	*26.0	39.2	*21.3
	95%CI	*21.0–39.8*	*16.0–46.1*	*12.9–45.5*	*25.4–55.0*	*6.3–52.2*
Uninsured	%	42.2	34.6	52.5	46.1	26.2
	95%CI	*35.0–49.7*	*22.5–49.1*	*38.5–66.1*	*32.7–60.1*	*11.4–49.4*
Usually visit dentist						
For a check-up	%	31.7	29.3	34.2	39.0	*13.7
	95%CI	*24.2–40.2*	*18.7–42.7*	*21.1–50.4*	*25.4–54.5*	*3.6–40.2*
For a dental problem	%	43.4	*41.2	48.1	43.0	*32.9
	95%CI	*33.6–53.7*	*23.2–62.0*	*32.1–64.6*	*27.8–59.7*	*12.6–62.6*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.5: Mean number of decayed, missing or filled teeth per person, in the adult dentate population, New South Wales

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**11.3**	**4.7**	**10.3**	**18.3**	**25.0**
	95%CI	*10.3–12.3*	*3.8–5.6*	*9.0–11.5*	*16.7–20.0*	*23.5–26.6*
Sex						
Male	mean	10.2	4.6	8.9	16.4	23.7
	95%CI	*8.7–11.6*	*3.3–6.0*	*7.1–10.8*	*14.2–18.6*	*21.3–26.2*
Female	mean	12.4	4.9	11.5	20.3	26.1
	95%CI	*11.1–13.8*	*3.4–6.4*	*10.1–12.9*	*18.0–22.5*	*24.4–27.8*
Indigenous identity						
Indigenous	mean	*1.9	n.p.	n.p.	n.p.	n.p.
	95%CI	*0.0–4.9*	*n.p.*	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	mean	11.4	4.9	10.3	18.4	25.0
	95%CI	*10.4–12.4*	*4.0–5.8*	*9.0–11.5*	*16.7–20.1*	*23.5–26.6*
Residential location						
Capital city	mean	11.0	5.0	10.6	18.0	26.1
	95%CI	*9.8–12.2*	*3.9–6.1*	*8.9–12.2*	*15.4–20.6*	*24.0–28.2*
Other places	mean	11.9	4.2	9.6	18.8	23.6
	95%CI	*10.2–13.6*	*2.6–5.8*	*7.7–11.5*	*17.0–20.7*	*22.0–25.2*
Year level of schooling						
Year 10 or less	mean	16.8	*4.7	12.1	17.7	25.5
	95%CI	*14.8–18.7*	*0.6–8.9*	*8.8–15.4*	*15.3–20.2*	*23.8–27.2*
Year 11 or more	mean	9.5	4.7	10.0	19.2	23.9
	95%CI	*8.5–10.5*	*3.8–5.7*	*8.5–11.4*	*17.0–21.4*	*21.1–26.8*
Highest qualification attained						
Degree or higher	mean	8.3	4.9	8.8	18.6	26.6
	95%CI	*6.9–9.6*	*3.7–6.1*	*6.9–10.6*	*16.9–20.3*	*23.4–29.8*
Other/None	mean	12.7	4.6	11.3	18.9	25.2
	95%CI	*11.5–13.8*	*3.4–5.8*	*9.6–12.9*	*17.2–20.6*	*23.4–26.9*
Eligibility for public dental care						
Eligible	mean	15.5	4.9	13.8	17.7	24.9
	95%CI	*13.6–17.4*	*3.0–6.8*	*11.1–16.5*	*15.0–20.4*	*23.2–26.6*
Ineligible	mean	9.6	4.8	9.6	19.0	25.7
	95%CI	*8.5–10.7*	*3.8–5.9*	*8.3–11.0*	*17.2–20.7*	*22.5–29.0*
Dental insurance						
Insured	mean	11.4	5.1	9.1	20.0	24.5
	95%CI	*9.9–12.9*	*3.5–6.6*	*6.9–11.4*	*18.7–21.3*	*22.3–26.7*
Uninsured	mean	11.5	4.4	11.6	17.5	25.3
	95%CI	*10.1–12.8*	*3.3–5.4*	*10.0–13.3*	*15.1–19.9*	*23.3–27.4*
Usually visit dentist						
For a check-up	mean	9.9	4.1	9.3	18.7	25.3
	95%CI	*8.6–11.1*	*3.1–5.1*	*7.4–11.1*	*17.4–20.0*	*22.9–27.6*
For a dental problem	mean	13.5	6.2	12.0	18.1	24.7
	95%CI	*11.9–15.2*	*4.4–7.9*	*9.9–14.1*	*15.2–20.9*	*22.7–26.7*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.6: Percentage of people with moderate or severe periodontitis in the adult dentate population, New South Wales

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**30.0**	***12.4**	**33.3**	**49.1**	**71.3**
	95%CI	*25.2–35.3*	*6.9–21.3*	*23.5–44.7*	*37.6–60.7*	*45.9–87.9*
Sex						
Male	%	38.6	*18.8	44.0	64.6	*58.6
	95%CI	*29.7–48.3*	*9.0–35.3*	*27.1–62.5*	*50.4–76.6*	*22.2–87.5*
Female	%	22.0	*5.8	*22.9	35.8	79.1
	95%CI	*16.3–28.8*	*2.2–14.8*	*13.3–36.7*	*21.8–52.6*	*45.9–94.4*
Indigenous identity						
Indigenous	%	n.p.	n.p.	n.p.	n.p.	n.p.
	95%CI	*n.p.*	*n.p.*	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	%	30.2	*12.9	33.4	48.2	71.3
	95%CI	*25.3–35.6*	*7.2–22.1*	*23.6–44.8*	*36.8–59.8*	*45.9–87.9*
Residential location						
Capital city	%	29.4	*12.4	31.1	51.1	88.6
	95%CI	*23.1–36.4*	*5.6–25.1*	*19.6–45.6*	*35.6–66.4*	*48.0–98.5*
Other places	%	31.4	*12.4	38.4	46.2	*36.9
	95%CI	*24.6–39.1*	*6.2–23.3*	*22.5–57.3*	*29.9–63.4*	*10.7–74.1*
Year level of schooling						
Year 10 or less	%	45.1	—	*41.7	51.1	82.1
	95%CI	*32.8–58.0*	—	*18.4–69.4*	*34.3–67.7*	*54.6–94.6*
Year 11 or more	%	26.0	*13.4	32.1	48.3	*50.4
	95%CI	*20.6–32.3*	*7.5–23.0*	*21.6–44.8*	*33.8–63.0*	*14.4–86.0*
Highest qualification attained						
Degree or higher	%	26.7	*20.3	*25.3	61.6	*53.4
	95%CI	*18.1–37.5*	*9.8–37.4*	*13.5–42.4*	*42.2–77.8*	*14.1–88.8*
Other/None	%	30.6	*6.7	37.8	45.3	72.6
	95%CI	*24.4–37.6*	*2.8–15.1*	*24.9–52.6*	*32.6–58.6*	*43.4–90.1*
Eligibility for public dental care						
Eligible	%	43.3	*16.5	*39.2	56.0	77.4
	95%CI	*33.7–53.5*	*4.6–44.9*	*21.6–60.1*	*38.9–71.9*	*50.8–91.9*
Ineligible	%	25.5	*11.7	32.3	43.1	*33.1
	95%CI	*19.5–32.6*	*6.5–20.2*	*21.5–45.4*	*30.7–56.4*	*5.5–80.8*
Dental insurance						
Insured	%	20.5	*7.3	*18.3	38.2	*60.2
	95%CI	*14.5–28.1*	*1.9–24.2*	*9.2–33.0*	*22.9–56.2*	*20.7–89.8*
Uninsured	%	37.6	*15.9	47.8	56.4	78.3
	95%CI	*30.8–45.1*	*8.2–28.7*	*33.8–62.1*	*41.1–70.6*	*49.9–92.9*
Usually visit dentist						
For a check-up	%	26.6	*11.4	33.6	41.7	67.7
	95%CI	*20.4–33.8*	*5.6–21.7*	*20.4–50.1*	*27.4–57.6*	*32.9–90.0*
For a dental problem	%	35.9	*14.4	*32.2	54.5	77.3
	95%CI	*26.8–46.2*	*6.1–30.5*	*18.3–50.1*	*39.3–68.9*	*43.7–93.7*

Notes: 1. Data in this table was taken from the Examination for people who had a periodontal examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Victoria

Table C.7: Percentage of adults with complete tooth loss, Victoria

		Population: all people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**4.6**	**—**	***0.9**	**11.2**	**19.8**
	95%CI	*3.8–5.5*	—	*0.4–1.9*	*8.8–14.0*	*15.5–24.8*
Sex						
Male	%	3.6	—	*0.5	9.3	16.6
	95%CI	*2.6–4.9*	—	*0.1–1.5*	*6.4–13.3*	*10.5–25.2*
Female	%	5.5	—	*1.2	12.9	22.2
	95%CI	*4.4–7.0*	—	*0.5–3.4*	*9.3–17.7*	*16.2–29.5*
Indigenous identity						
Indigenous	%	*16.7	n.p.	—	*45.3	n.p.
	95%CI	*4.6–45.8*	*n.p.*	—	*10.1–86.0*	*n.p.*
Non-Indigenous	%	4.5	—	*0.9	10.8	19.8
	95%CI	*3.7–5.4*	—	*0.4–1.9*	*8.5–13.7*	*15.5–24.8*
Residential location						
Capital city	%	3.4	—	*0.8	8.9	15.6
	95%CI	*2.6–4.5*	—	*0.3–2.2*	*6.2–12.7*	*10.8–21.9*
Other places	%	8.4	—	*0.9	16.5	29.4
	95%CI	*6.5–10.6*	—	*0.2–3.5*	*12.4–21.6*	*22.0–38.1*
Year level of schooling						
Year 10 or less	%	10.3	—	*2.9	16.9	25.3
	95%CI	*8.4–12.7*	—	*0.9–9.4*	*13.0–21.6*	*18.6–33.5*
Year 11 or more	%	2.6	—	*0.5	8.3	12.7
	95%CI	*1.9–3.5*	—	*0.2–1.4*	*5.5–12.3*	*7.8–19.9*
Highest qualification attained						
Degree or higher	%	*0.6	—	*0.4	*2.3	*2.3
	95%CI	*0.3–1.2*	—	*0.1–1.7*	*1.1–4.9*	*0.3–15.0*
Other/None	%	6.1	—	*1.2	13.5	21.3
	95%CI	*5.1–7.4*	—	*0.5–2.9*	*10.5–17.1*	*16.7–26.9*
Eligibility for public dental care						
Eligible	%	11.5	—	—	18.1	22.0
	95%CI	*9.4–13.9*	—	—	*14.1–23.0*	*17.2–27.7*
Ineligible	%	1.6	—	*1.0	5.3	*10.8
	95%CI	*1.1–2.4*	—	*0.5–2.2*	*3.3–8.5*	*5.0–21.8*
Dental insurance						
Insured	%	1.9	—	*0.5	5.1	*7.6
	95%CI	*1.3–2.6*	—	*0.1–1.9*	*3.2–7.9*	*3.6–15.2*
Uninsured	%	6.8	—	*1.2	16.4	25.8
	95%CI	*5.6–8.2*	—	*0.5–3.2*	*12.7–21.0*	*19.7–33.1*
Usually visit dentist						
For a check-up	%	*1.4	—	*0.6	*4.0	*7.0
	95%CI	*0.9–2.4*	—	*0.2–1.6*	*1.8–8.6*	*3.5–13.4*
For a dental problem	%	8.7	—	*1.3	17.0	27.7
	95%CI	*7.1–10.5*	—	*0.4–4.0*	*13.5–21.2*	*20.8–35.8*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.8: Percentage of people with fewer than 21 teeth, in the adult dentate population, Victoria

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**10.3**	***0.5**	**5.4**	**22.1**	**48.9**
	95%CI	*8.9–11.8*	*0.2–1.8*	*3.8–7.7*	*18.4–26.3*	*41.2–56.7*
Sex						
Male	%	9.8	*0.5	*4.0	24.3	48.5
	95%CI	*8.0–12.0*	*0.1–3.7*	*2.3–6.8*	*19.4–29.9*	*36.6–60.5*
Female	%	10.7	*0.5	6.9	19.9	49.2
	95%CI	*8.8–12.8*	*0.1–2.3*	*4.2–11.1*	*15.3–25.5*	*39.9–58.6*
Indigenous identity						
Indigenous	%	*3.9	n.p.	n.p.	n.p.	n.p.
	95%CI	*0.5–25.7*	*n.p.*	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	%	10.3	*0.5	5.5	22.1	48.9
	95%CI	*8.9–11.8*	*0.2–1.8*	*3.9–7.8*	*18.4–26.3*	*41.2–56.7*
Residential location						
Capital city	%	8.9	*0.6	4.7	20.6	44.9
	95%CI	*7.5–10.7*	*0.1–2.3*	*3.0–7.3*	*16.4–25.6*	*35.5–54.7*
Other places	%	14.7	*0.4	*8.1	25.8	60.0
	95%CI	*11.6–18.4*	*0.1–1.5*	*4.6–13.9*	*18.8–34.2*	*47.5–71.3*
Year level of schooling						
Year 10 or less	%	20.6	*1.0	*14.9	32.0	53.8
	95%CI	*17.1–24.7*	*0.2–5.2*	*7.9–26.4*	*25.2–39.6*	*41.9–65.3*
Year 11 or more	%	6.9	*0.4	3.7	17.3	44.1
	95%CI	*5.7–8.3*	*0.1–2.3*	*2.3–5.8*	*13.6–21.7*	*34.5–54.3*
Highest qualification attained						
Degree or higher	%	3.1	*0.1	*0.9	11.4	*28.2
	95%CI	*2.3–4.2*	*0.0–0.8*	*0.4–2.3*	*8.0–16.1*	*15.5–45.8*
Other/None	%	13.2	*0.4	8.4	25.1	50.9
	95%CI	*11.3–15.3*	*0.1–2.5*	*5.8–12.0*	*20.4–30.4*	*42.4–59.3*
Eligibility for public dental care						
Eligible	%	23.9	*0.2	*12.5	32.6	53.8
	95%CI	*20.7–27.5*	*0.0–1.4*	*7.0–21.3*	*26.5–39.3*	*44.9–62.4*
Ineligible	%	5.0	*0.6	*4.0	14.3	31.2
	95%CI	*4.0–6.2*	*0.2–2.3*	*2.4–6.6*	*10.7–18.7*	*19.1–46.7*
Dental insurance						
Insured	%	6.9	*0.7	*2.2	15.9	36.9
	95%CI	*5.5–8.7*	*0.1–3.8*	*0.9–5.1*	*11.9–20.9*	*26.0–49.3*
Uninsured	%	13.2	*0.4	8.6	28.0	56.5
	95%CI	*11.4–15.3*	*0.1–2.3*	*5.8–12.5*	*22.7–34.0*	*46.6–65.9*
Usually visit dentist						
For a check-up	%	6.6	*0.7	*3.6	14.3	38.8
	95%CI	*5.2–8.3*	*0.2–2.4*	*1.7–7.4*	*10.7–18.8*	*31.0–47.2*
For a dental problem	%	17.7	—	8.5	32.7	62.9
	95%CI	*15.1–20.6*	—	*5.6–12.8*	*26.6–39.4*	*50.5–73.8*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.9: Mean number of missing teeth for pathology per person, in the adult dentate population, Victoria

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**4.1**	**0.4**	**3.4**	**8.5**	**13.7**
	95%CI	*3.7–4.6*	*0.2–0.5*	*2.8–4.1*	*7.6–9.4*	*12.0–15.4*
Sex						
Male	mean	4.1	*0.3	3.4	8.7	14.1
	95%CI	*3.3–4.8*	*0.1–0.4*	*2.3–4.5*	*7.6–9.9*	*11.9–16.3*
Female	mean	4.2	*0.5	3.5	8.3	13.3
	95%CI	*3.6–4.7*	*0.2–0.8*	*2.9–4.1*	*7.1–9.6*	*10.9–15.8*
Indigenous identity						
Indigenous	mean	*3.0	n.p.	n.p.	n.p.	n.p.
	95%CI	*0.0–7.7*	*n.p.*	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	mean	4.1	0.4	3.4	8.5	13.7
	95%CI	*3.7–4.6*	*0.2–0.5*	*2.8–4.1*	*7.6–9.4*	*12.0–15.4*
Residential location						
Capital city	mean	3.8	0.3	3.2	8.4	12.9
	95%CI	*3.2–4.3*	*0.2–0.4*	*2.4–3.9*	*7.2–9.6*	*10.7–15.0*
Other places	mean	5.4	*0.7	4.4	8.8	15.9
	95%CI	*4.4–6.4*	*0.0–1.4*	*3.3–5.6*	*7.7–10.0*	*14.0–17.8*
Year level of schooling						
Year 10 or less	mean	7.0	*0.2	4.9	11.4	15.5
	95%CI	*5.7–8.3*	*0.0–0.3*	*3.4–6.4*	*9.5–13.3*	*12.6–18.5*
Year 11 or more	mean	3.3	*0.4	3.2	7.4	11.8
	95%CI	*2.9–3.8*	*0.2–0.6*	*2.5–3.9*	*6.5–8.3*	*10.1–13.6*
Highest qualification attained						
Degree or higher	mean	2.0	*0.3	1.9	6.1	8.1
	95%CI	*1.6–2.3*	*0.1–0.5*	*1.5–2.2*	*4.9–7.4*	*5.8–10.4*
Other/None	mean	5.2	*0.4	4.5	9.1	14.2
	95%CI	*4.6–5.8*	*0.2–0.7*	*3.6–5.5*	*8.1–10.1*	*12.2–16.2*
Eligibility for public dental care						
Eligible	mean	7.4	*0.8	4.0	10.1	14.4
	95%CI	*6.5–8.3*	*0.1–1.6*	*2.9–5.2*	*8.7–11.6*	*12.5–16.3*
Ineligible	mean	2.8	0.3	3.3	7.2	10.8
	95%CI	*2.4–3.2*	*0.1–0.4*	*2.6–4.0*	*6.2–8.2*	*8.1–13.4*
Dental insurance						
Insured	mean	3.6	*0.4	2.9	7.2	11.0
	95%CI	*3.2–4.1*	*0.1–0.7*	*2.4–3.5*	*6.5–8.0*	*9.1–12.8*
Uninsured	mean	4.6	*0.3	3.9	9.6	15.4
	95%CI	*3.9–5.3*	*0.2–0.5*	*2.8–5.0*	*8.1–11.1*	*13.2–17.6*
Usually visit dentist						
For a check-up	mean	3.4	*0.4	2.9	7.2	11.6
	95%CI	*2.9–3.8*	*0.2–0.6*	*2.1–3.8*	*6.2–8.2*	*10.0–13.1*
For a dental problem	mean	5.7	*0.3	4.3	10.3	17.4
	95%CI	*4.9–6.5*	*0.1–0.5*	*3.5–5.2*	*8.8–11.7*	*14.9–19.8*

Notes: 1. Data in this table was taken from the Examination.
2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.
3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.10: Percentage of people with untreated coronal decay, in the adult dentate population, Victoria

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**32.4**	**29.0**	**39.8**	**28.0**	**28.2**
	95%CI	*28.8–36.1*	*22.8–36.0*	*34.3–45.6*	*22.7–33.9*	*18.6–40.3*
Sex						
Male	%	35.7	34.2	39.5	36.3	*21.3
	95%CI	*30.0–41.7*	*24.4–45.6*	*30.9–48.8*	*28.7–44.6*	*11.8–35.5*
Female	%	29.1	23.7	40.2	19.8	*33.8
	95%CI	*25.0–33.6*	*17.1–31.8*	*33.3–47.5*	*13.3–28.3*	*19.4–52.0*
Indigenous identity						
Indigenous	%	*17.2	n.p.	n.p.	n.p.	n.p.
	95%CI	*2.6–61.3*	*n.p.*	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	%	32.4	29.2	39.9	27.9	28.2
	95%CI	*28.9–36.2*	*23.0–36.2*	*34.4–45.7*	*22.6–33.8*	*18.6–40.3*
Residential location						
Capital city	%	31.5	25.5	39.1	30.8	29.9
	95%CI	*27.7–35.5*	*19.7–32.2*	*33.1–45.5*	*24.0–38.5*	*18.0–45.4*
Other places	%	35.4	43.9	42.4	20.7	*23.5
	95%CI	*27.0–44.8*	*25.4–64.2*	*29.9–56.1*	*14.8–28.2*	*13.0–38.8*
Year level of schooling						
Year 10 or less	%	34.5	*22.4	61.3	22.7	36.7
	95%CI	*25.7–44.5*	*10.2–42.2*	*42.5–77.2*	*13.9–34.8*	*21.5–55.1*
Year 11 or more	%	31.8	30.4	35.7	30.1	*20.7
	95%CI	*28.0–35.8*	*23.2–38.6*	*30.3–41.4*	*24.0–37.0*	*10.2–37.5*
Highest qualification attained						
Degree or higher	%	30.3	30.8	33.4	23.6	*8.7
	95%CI	*25.7–35.3*	*22.0–41.3*	*26.7–40.7*	*15.5–34.1*	*2.5–26.0*
Other/None	%	33.7	28.4	44.7	29.0	30.5
	95%CI	*28.9–38.8*	*20.2–38.4*	*36.5–53.1*	*22.8–36.0*	*19.6–44.1*
Eligibility for public dental care						
Eligible	%	33.2	*25.4	51.6	29.4	30.8
	95%CI	*26.9–40.0*	*14.8–40.2*	*38.0–65.0*	*20.9–39.5*	*20.0–44.2*
Ineligible	%	31.9	29.8	37.2	26.8	*18.2
	95%CI	*27.8–36.4*	*22.9–37.8*	*31.0–43.8*	*20.3–34.4*	*6.7–40.8*
Dental insurance						
Insured	%	23.1	*15.7	31.0	19.8	*29.2
	95%CI	*19.0–27.9*	*9.4–25.2*	*24.0–39.0*	*14.1–27.1*	*15.0–49.1*
Uninsured	%	39.3	36.8	48.2	34.9	*27.9
	95%CI	*34.4–44.6*	*27.9–46.7*	*41.6–54.8*	*26.3–44.6*	*16.2–43.6*
Usually visit dentist						
For a check-up	%	24.2	21.8	28.8	21.9	*23.8
	95%CI	*20.4–28.6*	*15.9–29.1*	*22.9–35.6*	*15.1–30.7*	*12.5–40.7*
For a dental problem	%	45.3	43.9	55.8	34.4	35.9
	95%CI	*38.9–51.8*	*31.8–56.8*	*44.7–66.4*	*25.9–44.1*	*21.1–54.0*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.11: Mean number of decayed, missing or filled teeth per person, in the adult dentate population, Victoria

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**10.8**	**3.5**	**10.3**	**19.3**	**24.7**
	95%CI	*10.1–11.5*	*3.0–4.1*	*9.3–11.2*	*18.5–20.1*	*23.4–25.9*
Sex						
Male	mean	9.9	3.0	9.5	18.8	22.7
	95%CI	*9.0–10.9*	*2.3–3.7*	*8.1–10.8*	*17.8–19.7*	*20.7–24.8*
Female	mean	11.6	4.1	11.1	19.9	26.2
	95%CI	*10.7–12.6*	*3.3–4.9*	*10.0–12.2*	*18.8–20.9*	*25.1–27.4*
Indigenous identity						
Indigenous	mean	*4.8	n.p.	n.p.	n.p.	n.p.
	95%CI	*0.0–12.1*	*n.p.*	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	mean	10.8	3.6	10.3	19.3	24.7
	95%CI	*10.1–11.5*	*3.0–4.1*	*9.3–11.2*	*18.5–20.1*	*23.4–25.9*
Residential location						
Capital city	mean	10.2	3.4	9.9	19.0	24.4
	95%CI	*9.4–11.0*	*2.8–4.0*	*8.9–11.0*	*17.9–20.1*	*22.9–25.9*
Other places	mean	12.7	4.2	11.5	20.1	25.4
	95%CI	*11.0–14.4*	*2.7–5.7*	*9.5–13.4*	*19.1–21.1*	*23.3–27.4*
Year level of schooling						
Year 10 or less	mean	13.4	2.0	12.0	20.7	24.2
	95%CI	*11.7–15.2*	*1.1–2.9*	*9.1–14.9*	*19.5–21.8*	*22.0–26.4*
Year 11 or more	mean	10.0	3.9	9.9	18.8	25.1
	95%CI	*9.3–10.8*	*3.2–4.5*	*9.0–10.9*	*17.8–19.8*	*23.9–26.3*
Highest qualification attained						
Degree or higher	mean	8.3	4.4	7.9	18.2	22.1
	95%CI	*7.6–9.0*	*3.6–5.1*	*7.0–8.7*	*16.8–19.6*	*20.5–23.8*
Other/None	mean	12.0	3.1	11.9	19.6	24.9
	95%CI	*11.1–13.0*	*2.3–3.9*	*10.6–13.3*	*18.6–20.5*	*23.6–26.3*
Eligibility for public dental care						
Eligible	mean	15.4	3.9	11.2	20.5	25.1
	95%CI	*14.1–16.7*	*2.3–5.4*	*9.1–13.2*	*19.2–21.8*	*23.7–26.5*
Ineligible	mean	8.9	3.5	10.1	18.4	23.0
	95%CI	*8.3–9.6*	*2.9–4.0*	*9.1–11.1*	*17.4–19.3*	*20.8–25.3*
Dental insurance						
Insured	mean	10.9	3.1	10.0	19.3	25.4
	95%CI	*9.9–11.8*	*2.3–3.9*	*9.0–11.0*	*18.3–20.2*	*23.7–27.1*
Uninsured	mean	10.8	3.9	10.6	19.4	24.2
	95%CI	*9.9–11.8*	*3.2–4.6*	*9.1–12.1*	*18.0–20.7*	*22.4–25.9*
Usually visit dentist						
For a check-up	mean	9.9	3.4	9.6	18.4	24.4
	95%CI	*9.1–10.7*	*2.7–4.0*	*8.5–10.6*	*17.1–19.7*	*23.0–25.9*
For a dental problem	mean	12.9	4.2	11.6	20.5	25.1
	95%CI	*11.8–13.9*	*3.2–5.1*	*10.1–13.1*	*19.7–21.3*	*22.9–27.2*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.12: Percentage of people with moderate or severe periodontitis, in the adult dentate population, Victoria

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**27.7**	**10.2**	**30.3**	**51.4**	**71.0**
	95%CI	*24.0–31.7*	*6.3–16.0*	*24.5–36.7*	*43.8–58.9*	*57.7–81.5*
Sex						
Male	%	30.5	*15.0	34.0	53.4	63.5
	95%CI	*24.9–36.8*	*8.6–25.1*	*25.1–44.0*	*42.4–64.2*	*38.9–82.6*
Female	%	25.1	*5.4	26.9	49.7	76.5
	95%CI	*21.0–29.7*	*2.3–12.3*	*19.8–35.4*	*40.5–58.8*	*58.3–88.3*
Indigenous identity						
Indigenous	%	n.p.	n.p.	n.p.	n.p.	n.p.
	95%CI	*n.p.*	*n.p.*	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	%	27.8	10.2	30.4	51.4	71.0
	95%CI	*24.2–31.9*	*6.4–16.0*	*24.7–36.9*	*43.8–58.9*	*57.7–81.5*
Residential location						
Capital city	%	28.3	11.8	30.7	53.1	76.3
	95%CI	*24.1–33.0*	*7.3–18.6*	*24.0–38.3*	*43.9–62.1*	*59.4–87.6*
Other places	%	25.4	*2.6	28.9	46.1	58.7
	95%CI	*19.0–33.0*	*0.4–15.7*	*19.1–41.2*	*34.0–58.7*	*37.9–76.9*
Year level of schooling						
Year 10 or less	%	36.1	*4.9	44.5	59.4	61.4
	95%CI	*27.9–45.2*	*0.7–28.2*	*28.4–61.8*	*44.0–73.1*	*41.8–77.9*
Year 11 or more	%	25.8	*11.2	27.9	48.8	80.8
	95%CI	*22.0–30.2*	*6.7–18.1*	*22.1–34.6*	*40.8–56.8*	*67.0–89.7*
Highest qualification attained						
Degree or higher	%	16.9	*5.0	17.2	49.0	*47.8
	95%CI	*13.6–21.0*	*2.2–10.9*	*12.2–23.7*	*38.9–59.1*	*21.6–75.3*
Other/None	%	33.9	*13.6	39.4	52.8	76.1
	95%CI	*28.5–39.8*	*8.0–22.0*	*30.1–49.6*	*43.8–61.5*	*61.1–86.6*
Eligibility for public dental care						
Eligible	%	40.7	*10.4	46.0	51.3	73.0
	95%CI	*33.1–48.7*	*3.1–29.4*	*29.8–63.1*	*39.8–62.6*	*58.8–83.6*
Ineligible	%	23.4	*10.1	26.8	51.5	*61.3
	95%CI	*19.7–27.4*	*6.0–16.6*	*21.3–33.2*	*42.1–60.7*	*29.3–85.8*
Dental insurance						
Insured	%	23.8	*5.7	25.0	45.4	78.0
	95%CI	*19.9–28.2*	*2.1–14.7*	*17.6–34.2*	*35.3–55.8*	*54.0–91.4*
Uninsured	%	31.3	*13.8	35.0	57.0	66.4
	95%CI	*26.2–36.8*	*7.8–23.1*	*27.5–43.3*	*45.8–67.5*	*50.2–79.5*
Usually visit dentist						
For a check-up	%	23.9	*9.2	21.5	51.7	81.9
	95%CI	*19.8–28.5*	*4.8–16.7*	*15.2–29.3*	*41.8–61.6*	*64.7–91.8*
For a dental problem	%	34.5	*9.7	43.5	49.9	49.1
	95%CI	*27.9–41.8*	*3.7–23.0*	*32.4–55.2*	*39.3–60.5*	*27.1–71.4*

Notes: 1. Data in this table was taken from the Examination for people who had a periodontal examination.
2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.
3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Queensland

Table C.13: Percentage of adults with complete tooth loss, Queensland

		Population: all people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**3.5**	**—**	***1.0**	**6.7**	**19.4**
	95%CI	*2.7–4.4*	—	*0.4–2.7*	*5.2–8.7*	*13.8–26.5*
Sex						
Male	%	2.9	—	—	5.2	23.4
	95%CI	*2.1–4.0*	—	—	*3.4–7.9*	*14.8–34.9*
Female	%	4.0	—	*2.0	8.2	16.2
	95%CI	*3.0–5.5*	—	*0.7–5.2*	*5.7–11.7*	*9.8–25.6*
Indigenous identity						
Indigenous	%	*2.9	—	—	*13.3	*8.0
	95%CI	*0.9–8.8*	—	—	*3.4–39.8*	*1.0–44.1*
Non-Indigenous	%	3.5	—	*1.0	6.6	19.8
	95%CI	*2.7–4.5*	—	*0.4–2.8*	*5.1–8.5*	*14.0–27.2*
Residential location						
Capital city	%	3.2	—	*0.5	8.2	*17.0
	95%CI	*2.3–4.3*	—	*0.2–1.4*	*5.6–12.0*	*9.8–28.1*
Other places	%	3.8	—	*1.5	5.6	21.2
	95%CI	*2.7–5.3*	—	*0.4–5.2*	*3.9–7.8*	*13.7–31.2*
Year level of schooling						
Year 10 or less	%	7.8	—	*1.4	9.0	22.4
	95%CI	*6.0–10.0*	—	*0.4–4.7*	*6.4–12.5*	*15.3–31.5*
Year 11 or more	%	1.6	—	*0.9	*4.5	*14.6
	95%CI	*1.1–2.4*	—	*0.2–3.4*	*2.7–7.3*	*8.0–25.0*
Highest qualification attained						
Degree or higher	%	*0.3	—	—	*1.1	*3.0
	95%CI	*0.1–0.7*	—	—	*0.4–2.9*	*0.4–17.3*
Other/None	%	4.3	—	*1.3	7.7	21.3
	95%CI	*3.4–5.6*	—	*0.4–4.0*	*5.9–10.0*	*15.2–29.1*
Eligibility for public dental care						
Eligible	%	8.9	—	*4.3	10.5	19.6
	95%CI	*6.8–11.4*	—	*1.2–14.4*	*8.1–13.7*	*13.8–27.1*
Ineligible	%	1.1	—	*0.3	*3.8	*17.8
	95%CI	*0.7–1.8*	—	*0.1–1.4*	*2.2–6.3*	*7.4–36.7*
Dental insurance						
Insured	%	1.5	—	*0.5	*2.8	*8.9
	95%CI	*1.0–2.3*	—	*0.1–2.2*	*1.6–5.0*	*4.5–16.7*
Uninsured	%	5.5	—	*1.6	10.7	27.9
	95%CI	*4.2–7.2*	—	*0.4–5.7*	*7.9–14.5*	*19.8–37.8*
Usually visit dentist						
For a check-up	%	*0.8	—	*0.1	*1.7	*6.4
	95%CI	*0.5–1.4*	—	*0.0–1.0*	*0.8–3.4*	*2.5–15.3*
For a dental problem	%	6.7	—	*2.3	11.6	27.8
	95%CI	*5.3–8.5*	—	*0.8–6.6*	*8.9–15.0*	*19.1–38.7*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.14: Percentage of people with fewer than 21 teeth, in the adult dentate population, Queensland

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**10.1**	***1.5**	**4.0**	**22.4**	**44.9**
	95%CI	*8.8–11.6*	*0.6–3.6*	*2.8–5.7*	*19.4–25.8*	*36.8–53.3*
Sex						
Male	%	10.9	*2.6	5.1	23.5	45.6
	95%CI	*8.9–13.2*	*1.0–6.8*	*3.3–7.9*	*18.7–29.0*	*32.4–59.5*
Female	%	9.4	*0.4	*2.9	21.4	44.4
	95%CI	*7.8–11.3*	*0.1–1.9*	*1.5–5.5*	*17.4–26.0*	*33.0–56.5*
Indigenous identity						
Indigenous	%	*21.9	*12.8	*14.3	*56.8	*38.2
	95%CI	*12.9–34.8*	*2.4–46.8*	*4.0–40.2*	*27.9–81.8*	*8.7–80.1*
Non-Indigenous	%	9.7	*1.0	3.6	21.6	45.2
	95%CI	*8.4–11.2*	*0.4–2.3*	*2.4–5.4*	*18.7–24.8*	*36.6–54.0*
Residential location						
Capital city	%	8.2	*1.7	*3.0	18.9	43.4
	95%CI	*6.7–10.1*	*0.7–4.0*	*1.8–5.1*	*14.6–24.1*	*31.3–56.5*
Other places	%	12.0	*1.3	4.9	25.1	46.1
	95%CI	*10.0–14.3*	*0.2–7.1*	*3.0–8.0*	*21.0–29.6*	*35.6–57.0*
Year level of schooling						
Year 10 or less	%	21.5	*1.0	*12.2	27.9	49.8
	95%CI	*17.8–25.7*	*0.2–4.3*	*7.3–19.6*	*22.4–34.2*	*39.3–60.3*
Year 11 or more	%	5.2	*1.6	*2.0	16.4	33.7
	95%CI	*4.3–6.4*	*0.6–4.3*	*1.1–3.6*	*12.8–20.8*	*22.3–47.4*
Highest qualification attained						
Degree or higher	%	3.2	*0.6	*0.5	*10.3	*29.1
	95%CI	*2.2–4.8*	*0.1–4.4*	*0.1–2.1*	*6.0–17.2*	*14.8–49.2*
Other/None	%	12.2	*1.5	5.4	24.9	47.3
	95%CI	*10.6–13.9*	*0.5–4.4*	*3.6–8.0*	*21.3–28.9*	*38.7–56.0*
Eligibility for public dental care						
Eligible	%	23.1	*2.9	*10.0	32.6	46.6
	95%CI	*19.7–26.8*	*0.5–14.3*	*5.5–17.6*	*27.7–38.0*	*38.2–55.1*
Ineligible	%	4.8	*1.2	2.8	14.7	*33.7
	95%CI	*3.8–6.1*	*0.5–2.8*	*1.7–4.5*	*11.3–18.9*	*16.4–56.8*
Dental insurance						
Insured	%	6.4	*0.9	*1.0	15.3	30.0
	95%CI	*5.0–8.1*	*0.2–3.8*	*0.3–2.7*	*12.3–18.8*	*20.7–41.4*
Uninsured	%	14.3	*2.2	7.5	30.7	60.2
	95%CI	*12.3–16.6*	*0.7–6.3*	*5.1–10.9*	*25.8–36.1*	*46.3–72.6*
Usually visit dentist						
For a check-up	%	5.8	*0.4	*1.6	15.1	28.8
	95%CI	*4.7–7.1*	*0.1–1.5*	*0.8–3.3*	*11.7–19.4*	*20.5–38.7*
For a dental problem	%	17.7	*4.6	7.6	32.2	68.8
	95%CI	*14.8–21.1*	*1.6–12.3*	*5.0–11.4*	*26.8–38.2*	*52.2–81.7*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.15: Mean number of missing teeth for pathology per person, in the adult dentate population, Queensland

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**4.4**	***0.5**	**3.6**	**9.2**	**12.7**
	95%CI	*3.8–5.0*	*0.2–0.7*	*3.0–4.2*	*8.2–10.2*	*11.2–14.2*
Sex						
Male	mean	4.5	*0.4	3.4	9.9	14.3
	95%CI	*3.7–5.3*	*0.0–0.8*	*2.6–4.3*	*8.3–11.5*	*11.5–17.2*
Female	mean	4.3	*0.5	3.8	8.5	11.5
	95%CI	*3.6–5.0*	*0.2–0.8*	*2.8–4.7*	*6.9–10.1*	*9.6–13.3*
Indigenous identity						
Indigenous	mean	*3.9	—	n.p.	*10.0	n.p.
	95%CI	*1.0–6.9*	—	*n.p.*	*4.2–15.8*	*n.p.*
Non-Indigenous	mean	4.4	*0.5	3.6	9.2	12.6
	95%CI	*3.8–5.0*	*0.2–0.7*	*2.9–4.2*	*8.1–10.3*	*11.1–14.2*
Residential location						
Capital city	mean	3.8	*0.5	3.2	8.4	12.3
	95%CI	*3.0–4.6*	*0.1–1.0*	*2.2–4.1*	*6.5–10.2*	*10.4–14.1*
Other places	mean	5.0	*0.4	4.0	9.8	13.0
	95%CI	*4.2–5.8*	*0.1–0.6*	*3.2–4.9*	*8.6–11.1*	*10.8–15.2*
Year level of schooling						
Year 10 or less	mean	7.4	*0.8	4.5	10.3	13.2
	95%CI	*6.2–8.6*	*0.0–1.8*	*3.2–5.9*	*8.9–11.8*	*11.2–15.2*
Year 11 or more	mean	2.9	*0.4	3.3	7.7	11.4
	95%CI	*2.5–3.4*	*0.1–0.6*	*2.6–4.0*	*6.4–9.0*	*9.7–13.2*
Highest qualification attained						
Degree or higher	mean	2.4	*0.5	2.0	6.0	10.3
	95%CI	*2.0–2.8*	*0.2–0.9*	*1.4–2.7*	*5.0–7.0*	*7.0–13.6*
Other/None	mean	5.1	*0.4	4.3	9.9	13.1
	95%CI	*4.3–5.9*	*0.1–0.7*	*3.5–5.1*	*8.8–11.1*	*11.5–14.7*
Eligibility for public dental care						
Eligible	mean	7.1	*0.6	5.5	10.3	12.8
	95%CI	*5.8–8.4*	*0.0–1.1*	*3.7–7.3*	*8.7–12.0*	*11.3–14.3*
Ineligible	mean	2.9	*0.4	3.1	8.1	10.5
	95%CI	*2.5–3.4*	*0.1–0.7*	*2.4–3.7*	*6.9–9.2*	*6.8–14.3*
Dental insurance						
Insured	mean	3.6	*0.3	2.8	7.4	11.1
	95%CI	*3.0–4.2*	*0.0–0.6*	*2.1–3.5*	*6.3–8.5*	*9.3–12.9*
Uninsured	mean	5.2	*0.6	4.3	10.7	14.1
	95%CI	*4.2–6.1*	*0.2–1.0*	*3.3–5.3*	*9.0–12.3*	*11.8–16.4*
Usually visit dentist						
For a check-up	mean	3.3	*0.2	2.8	7.6	10.6
	95%CI	*2.8–3.8*	*0.1–0.4*	*2.0–3.6*	*6.7–8.4*	*8.4–12.9*
For a dental problem	mean	6.1	*0.9	4.7	11.3	15.2
	95%CI	*5.0–7.2*	*0.3–1.6*	*3.8–5.7*	*9.1–13.4*	*12.2–18.2*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.16: Percentage of people with untreated coronal decay, in the adult dentate population, Queensland

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**22.6**	**23.8**	**25.0**	**19.8**	***13.6**
	95%CI	*17.9–28.1*	*14.5–36.4*	*18.3–33.1*	*15.0–25.8*	*6.2–27.2*
Sex						
Male	%	24.1	*25.6	26.6	22.1	*7.5
	95%CI	*16.8–33.2*	*11.0–48.9*	*17.2–38.7*	*16.0–29.8*	*2.3–22.1*
Female	%	21.1	22.0	23.4	17.5	*18.0
	95%CI	*16.1–27.2*	*13.6–33.7*	*15.1–34.4*	*11.6–25.6*	*6.3–41.8*
Indigenous identity						
Indigenous	%	*24.0	*11.9	n.p.	84.7	n.p.
	95%CI	*6.9–57.6*	*1.5–54.2*	*n.p.*	*45.7–97.3*	*n.p.*
Non-Indigenous	%	22.6	24.3	25.3	18.5	*13.9
	95%CI	*17.7–28.2*	*14.7–37.3*	*18.5–33.7*	*14.1–23.9*	*6.4–27.7*
Residential location						
Capital city	%	21.9	27.1	21.6	15.4	*13.0
	95%CI	*16.1–29.0*	*17.3–39.7*	*13.2–33.3*	*10.5–22.1*	*2.7–44.5*
Other places	%	23.3	*20.1	28.3	23.2	*14.1
	95%CI	*16.3–32.0*	*6.8–46.7*	*18.7–40.5*	*15.9–32.6*	*6.5–27.8*
Year level of schooling						
Year 10 or less	%	26.5	*30.9	*35.3	22.7	*14.6
	95%CI	*19.7–34.8*	*12.4–58.6*	*19.5–55.2*	*15.7–31.7*	*6.5–29.4*
Year 11 or more	%	20.7	22.4	21.3	16.2	*11.4
	95%CI	*15.4–27.4*	*13.8–34.2*	*14.6–30.1*	*10.9–23.5*	*3.6–31.2*
Highest qualification attained						
Degree or higher	%	19.2	*24.4	*15.1	*18.7	*9.0
	95%CI	*12.9–27.7*	*12.6–41.9*	*7.6–27.8*	*10.7–30.7*	*2.0–32.8*
Other/None	%	23.8	*23.3	29.5	20.0	*14.5
	95%CI	*18.3–30.3*	*12.5–39.2*	*20.8–40.1*	*14.8–26.6*	*6.2–30.1*
Eligibility for public dental care						
Eligible	%	27.7	*32.4	49.0	17.7	*13.9
	95%CI	*19.5–37.8*	*12.9–60.9*	*33.3–64.9*	*11.3–26.6*	*6.2–28.1*
Ineligible	%	19.9	20.8	18.1	22.2	*8.8
	95%CI	*14.9–26.1*	*13.6–30.6*	*11.1–28.1*	*15.8–30.2*	*1.0–48.0*
Dental insurance						
Insured	%	15.3	*11.8	*18.9	14.8	*15.5
	95%CI	*10.8–21.3*	*4.8–25.9*	*9.9–33.1*	*9.7–21.9*	*6.9–31.4*
Uninsured	%	29.4	34.8	30.7	24.0	*11.9
	95%CI	*22.4–37.4*	*21.1–51.5*	*21.6–41.6*	*16.4–33.6*	*2.6–40.6*
Usually visit dentist						
For a check-up	%	14.9	*18.0	*14.1	11.4	*11.9
	95%CI	*10.2–21.4*	*8.4–34.5*	*8.2–23.2*	*7.0–18.1*	*4.6–27.6*
For a dental problem	%	34.8	*36.2	39.9	30.1	*17.5
	95%CI	*26.3–44.4*	*20.6–55.4*	*27.6–53.7*	*21.3–40.7*	*4.4–49.4*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.17: Mean number of decayed, missing or filled teeth per person, in the adult dentate population, Queensland

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**11.6**	**4.3**	**10.6**	**20.7**	**23.9**
	95%CI	*10.6–12.6*	*3.4–5.1*	*9.2–11.9*	*19.8–21.6*	*22.8–25.0*
Sex						
Male	mean	10.9	4.5	9.1	19.8	24.4
	95%CI	*9.6–12.1*	*3.1–5.8*	*7.5–10.8*	*18.5–21.0*	*22.9–25.9*
Female	mean	12.3	4.1	12.0	21.6	23.5
	95%CI	*11.1–13.6*	*2.9–5.2*	*10.1–13.9*	*20.4–22.8*	*22.3–24.8*
Indigenous identity						
Indigenous	mean	*10.4	*1.8	n.p.	21.3	n.p.
	95%CI	*4.6–16.2*	*0.0–4.2*	*n.p.*	*19.3–23.4*	*n.p.*
Non-Indigenous	mean	11.6	4.4	10.4	20.7	23.9
	95%CI	*10.7–12.6*	*3.5–5.2*	*9.1–11.8*	*19.8–21.6*	*22.8–25.0*
Residential location						
Capital city	mean	11.2	4.6	10.5	20.9	23.7
	95%CI	*9.8–12.7*	*3.2–6.0*	*8.4–12.5*	*19.2–22.6*	*22.1–25.2*
Other places	mean	12.0	3.9	10.7	20.5	24.1
	95%CI	*10.7–13.3*	*2.9–4.8*	*8.9–12.4*	*19.7–21.3*	*22.6–25.6*
Year level of schooling						
Year 10 or less	mean	16.4	*5.2	12.9	21.3	23.3
	95%CI	*14.5–18.3*	*2.0–8.4*	*10.2–15.6*	*20.2–22.4*	*21.9–24.7*
Year 11 or more	mean	9.3	4.1	9.8	19.9	25.2
	95%CI	*8.3–10.2*	*3.2–4.9*	*8.2–11.3*	*18.4–21.4*	*23.8–26.6*
Highest qualification attained						
Degree or higher	mean	9.0	5.1	7.5	18.5	23.5
	95%CI	*8.0–9.9*	*3.8–6.5*	*6.1–8.8*	*16.5–20.6*	*21.7–25.2*
Other/None	mean	12.5	3.9	11.9	21.2	24.1
	95%CI	*11.2–13.8*	*2.8–5.0*	*10.2–13.7*	*20.3–22.1*	*22.9–25.3*
Eligibility for public dental care						
Eligible	mean	15.7	4.3	13.8	21.8	23.9
	95%CI	*13.6–17.9*	*2.4–6.3*	*10.7–16.9*	*20.8–22.7*	*22.8–25.0*
Ineligible	mean	9.4	4.3	9.6	19.6	24.3
	95%CI	*8.4–10.3*	*3.2–5.3*	*8.2–11.1*	*18.1–21.1*	*21.1–27.6*
Dental insurance						
Insured	mean	11.5	4.3	9.9	20.5	23.6
	95%CI	*10.1–12.9*	*2.9–5.6*	*8.0–11.8*	*18.9–22.1*	*22.1–25.2*
Uninsured	mean	11.9	4.2	11.3	20.9	24.2
	95%CI	*10.6–13.2*	*3.0–5.4*	*9.4–13.1*	*20.0–21.8*	*22.9–25.5*
Usually visit dentist						
For a check-up	mean	10.3	3.6	9.1	20.1	23.6
	95%CI	*9.2–11.4*	*2.8–4.3*	*7.4–10.9*	*18.8–21.5*	*22.1–25.1*
For a dental problem	mean	13.9	6.0	12.8	21.5	24.5
	95%CI	*12.6–15.2*	*4.0–8.0*	*10.8–14.7*	*20.4–22.6*	*23.1–25.8*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.18: Percentage of people with moderate or severe periodontitis, in the adult dentate population, Queensland

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**37.1**	**19.1**	**40.2**	**57.0**	**69.0**
	95%CI	*32.1–42.4*	*12.8–27.6*	*31.2–49.9*	*47.9–65.6*	*51.4–82.3*
Sex						
Male	%	41.6	*24.4	44.8	64.1	70.0
	95%CI	*34.4–49.2*	*13.8–39.5*	*32.4–57.8*	*52.0–74.6*	*44.6–87.1*
Female	%	32.6	*13.6	35.6	50.3	68.3
	95%CI	*26.0–39.9*	*7.3–24.1*	*24.3–48.7*	*38.4–62.2*	*48.3–83.3*
Indigenous identity						
Indigenous	%	*9.5	—	n.p.	n.p.	n.p.
	95%CI	*2.7–28.3*	—	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	%	37.8	19.9	40.9	56.8	69.0
	95%CI	*32.8–43.1*	*13.4–28.6*	*31.8–50.7*	*47.7–65.5*	*51.4–82.3*
Residential location						
Capital city	%	32.1	*20.6	32.7	49.3	62.1
	95%CI	*26.8–37.9*	*12.1–32.9*	*21.3–46.6*	*37.4–61.2*	*38.9–80.8*
Other places	%	42.1	*17.4	47.7	63.3	74.3
	95%CI	*33.8–50.8*	*9.2–30.7*	*33.9–62.0*	*50.0–74.8*	*48.2–90.0*
Year level of schooling						
Year 10 or less	%	56.6	*16.1	68.5	64.7	72.5
	95%CI	*45.8–66.8*	*4.1–46.2*	*49.4–82.9*	*51.8–75.7*	*49.4–87.7*
Year 11 or more	%	28.3	19.8	30.4	46.6	*60.1
	95%CI	*23.6–33.5*	*12.6–29.5*	*22.6–39.6*	*35.6–58.0*	*27.3–85.8*
Highest qualification attained						
Degree or higher	%	20.6	*8.9	21.4	42.9	74.9
	95%CI	*15.0–27.6*	*3.8–19.4*	*13.0–33.1*	*28.7–58.4*	*33.8–94.6*
Other/None	%	42.9	22.8	48.9	60.7	67.6
	95%CI	*36.9–49.2*	*14.3–34.3*	*38.1–59.8*	*50.4–70.1*	*48.9–81.9*
Eligibility for public dental care						
Eligible	%	47.0	*24.0	*43.3	63.1	67.7
	95%CI	*37.0–57.3*	*12.1–42.1*	*23.5–65.5*	*52.3–72.7*	*49.9–81.6*
Ineligible	%	32.2	17.5	39.3	50.8	n.p.
	95%CI	*27.3–37.6*	*10.5–27.6*	*29.8–49.8*	*36.9–64.5*	*n.p.*
Dental insurance						
Insured	%	32.6	*14.5	35.0	50.6	62.4
	95%CI	*26.7–39.2*	*6.5–29.3*	*24.3–47.5*	*37.5–63.7*	*41.2–79.7*
Uninsured	%	41.2	22.9	44.1	63.2	75.0
	95%CI	*34.7–48.1*	*14.3–34.7*	*30.8–58.3*	*53.4–72.0*	*50.9–89.7*
Usually visit dentist						
For a check-up	%	32.6	*9.4	40.8	59.0	73.1
	95%CI	*27.1–38.5*	*4.2–19.8*	*32.0–50.1*	*47.4–69.7*	*51.6–87.4*
For a dental problem	%	43.8	39.5	38.8	53.6	63.6
	95%CI	*34.7–53.4*	*24.2–57.1*	*24.0–56.0*	*40.8–66.0*	*36.5–84.1*

Notes: 1. Data in this table was taken from the Examination for people who had a periodontal examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

South Australia

Table C.19: Percentage of adults with complete tooth loss, South Australia

		Population: all people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**4.6**	**—**	***1.2**	**7.0**	**24.1**
	95%CI	*3.5–6.0*	—	*0.4–3.3*	*4.6–10.4*	*16.3–34.0*
Sex						
Male	%	3.5	—	*1.1	*5.4	*20.4
	95%CI	*2.2–5.4*	—	*0.2–4.6*	*2.8–10.3*	*11.5–33.6*
Female	%	5.6	—	*1.3	*8.4	26.8
	95%CI	*4.0–7.8*	—	*0.3–5.6*	*4.7–14.5*	*18.2–37.6*
Indigenous identity						
Indigenous	%	*4.8	—	n.p.	n.p.	n.p.
	95%CI	*0.8–23.9*	—	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	%	4.6	—	*1.2	6.7	24.3
	95%CI	*3.5–6.0*	—	*0.4–3.3*	*4.4–10.1*	*16.5–34.2*
Residential location						
Capital city	%	3.6	—	*1.3	*5.4	19.9
	95%CI	*2.5–5.3*	—	*0.4–4.1*	*3.0–9.5*	*11.9–31.4*
Other places	%	7.8	—	*0.7	*11.2	36.3
	95%CI	*5.1–11.7*	—	*0.1–4.4*	*6.6–18.5*	*21.2–54.7*
Year level of schooling						
Year 10 or less	%	13.1	—	*3.2	12.6	29.7
	95%CI	*9.5–17.8*	—	*0.8–12.1*	*7.8–19.9*	*18.8–43.5*
Year 11 or more	%	*2.0	—	*1.0	*3.6	*16.5
	95%CI	*1.2–3.3*	—	*0.3–3.7*	*1.8–7.2*	*7.7–32.0*
Highest qualification attained						
Degree or higher	%	*0.9	—	—	*3.5	*11.1
	95%CI	*0.3–3.4*	—	—	*0.5–20.0*	*2.4–38.8*
Other/None	%	5.7	—	*1.9	7.4	25.7
	95%CI	*4.3–7.5*	—	*0.7–5.0*	*4.9–11.0*	*16.8–37.2*
Eligibility for public dental care						
Eligible	%	10.9	—	*5.6	10.3	25.1
	95%CI	*7.9–14.8*	—	*2.2–13.5*	*6.8–15.3*	*16.6–36.0*
Ineligible	%	*0.7	—	—	*2.2	*16.8
	95%CI	*0.4–1.4*	—	—	*0.8–5.5*	*5.9–39.7*
Dental insurance						
Insured	%	*1.3	—	—	*2.7	*7.0
	95%CI	*0.8–2.3*	—	—	*1.4–5.2*	*2.8–16.6*
Uninsured	%	8.9	—	*3.3	12.8	40.0
	95%CI	*6.7–11.8*	—	*1.3–8.2*	*8.0–19.9*	*27.0–54.7*
Usually visit dentist						
For a check-up	%	*1.8	—	*1.4	*2.5	*8.2
	95%CI	*1.0–2.9*	—	*0.4–5.4*	*1.1–5.5*	*3.6–17.6*
For a dental problem	%	8.9	—	*0.9	12.6	41.5
	95%CI	*6.6–11.9*	—	*0.2–3.6*	*8.0–19.4*	*29.5–54.6*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.20: Percentage of people with fewer than 21 teeth, in the adult dentate population, South Australia

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**9.5**	***0.3**	***3.4**	**19.6**	**40.4**
	95%CI	*7.7–11.5*	*0.1–1.2*	*1.8–6.3*	*15.0–25.1*	*30.8–50.7*
Sex						
Male	%	8.7	—	*3.4	17.4	43.4
	95%CI	*6.2–12.1*	—	*1.3–8.9*	*11.1–26.3*	*29.7–58.2*
Female	%	10.2	*0.7	*3.3	21.7	37.9
	95%CI	*8.1–12.8*	*0.2–2.3*	*1.5–7.1*	*15.5–29.4*	*27.5–49.6*
Indigenous identity						
Indigenous	%	*15.5	—	n.p.	n.p.	n.p.
	95%CI	*2.1–61.3*	—	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	%	9.3	*0.4	*3.4	19.0	39.8
	95%CI	*7.7–11.3*	*0.1–1.2*	*1.8–6.4*	*14.4–24.5*	*30.4–50.0*
Residential location						
Capital city	%	7.8	*0.2	*1.9	16.3	38.9
	95%CI	*6.0–10.1*	*0.0–1.6*	*0.8–4.6*	*10.9–23.6*	*27.7–51.4*
Other places	%	15.5	*0.8	*8.4	29.2	45.9
	95%CI	*11.3–20.8*	*0.2–3.2*	*3.2–20.6*	*21.9–37.8*	*31.2–61.4*
Year level of schooling						
Year 10 or less	%	28.8	—	*16.0	36.7	54.1
	95%CI	*22.3–36.1*	—	*6.1–35.9*	*26.1–48.6*	*40.8–66.9*
Year 11 or more	%	4.2	*0.4	*1.9	11.0	*21.4
	95%CI	*3.3–5.4*	*0.1–1.4*	*0.8–4.5*	*7.6–15.8*	*11.9–35.5*
Highest qualification attained						
Degree or higher	%	*3.0	—	*1.3	*10.0	*24.8
	95%CI	*1.6–5.3*	—	*0.3–5.9*	*5.1–18.8*	*9.1–52.1*
Other/None	%	11.0	*0.5	*3.4	21.3	41.0
	95%CI	*8.6–14.0*	*0.1–1.6*	*1.5–7.7*	*15.7–28.2*	*30.2–52.6*
Eligibility for public dental care						
Eligible	%	20.8	*1.2	*5.2	28.0	43.5
	95%CI	*16.8–25.5*	*0.3–4.4*	*1.8–14.2*	*21.1–36.1*	*32.2–55.6*
Ineligible	%	3.6	*0.1	*2.9	*10.8	*19.4
	95%CI	*2.3–5.5*	*0.0–0.7*	*1.3–6.4*	*6.1–18.4*	*5.1–52.0*
Dental insurance						
Insured	%	6.1	—	*1.9	9.0	36.6
	95%CI	*4.5–8.1*	—	*0.6–5.7*	*6.1–13.3*	*26.6–48.0*
Uninsured	%	14.6	*0.7	*6.2	35.5	45.8
	95%CI	*11.0–19.0*	*0.2–2.4*	*2.8–13.3*	*26.8–45.2*	*29.9–62.6*
Usually visit dentist						
For a check-up	%	6.0	*0.1	*0.5	13.5	31.3
	95%CI	*4.6–7.9*	*0.0–0.8*	*0.1–3.6*	*9.4–19.0*	*22.0–42.5*
For a dental problem	%	16.7	*1.0	*8.7	29.3	61.8
	95%CI	*12.8–21.4*	*0.2–4.7*	*4.4–16.4*	*20.1–40.5*	*40.4–79.3*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.21: Mean number of missing teeth for pathology per person, in the adult dentate population, South Australia

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**4.5**	**1.1**	**3.8**	**7.8**	**11.4**
	95%CI	*3.9–5.1*	*0.7–1.4*	*2.9–4.8*	*6.7–8.8*	*9.7–13.2*
Sex						
Male	mean	4.5	0.9	4.3	7.3	13.1
	95%CI	*3.6–5.5*	*0.5–1.3*	*2.5–6.1*	*5.4–9.1*	*10.6–15.5*
Female	mean	4.5	1.2	3.4	8.3	10.1
	95%CI	*3.8–5.2*	*0.7–1.7*	*2.8–4.0*	*7.4–9.1*	*8.4–11.7*
Indigenous identity						
Indigenous	mean	*8.0	n.p.	n.p.	n.p.	n.p.
	95%CI	*2.3–13.8*	*n.p.*	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	mean	4.5	1.0	3.8	7.7	11.4
	95%CI	*3.9–5.1*	*0.7–1.3*	*2.8–4.8*	*6.6–8.7*	*9.6–13.2*
Residential location						
Capital city	mean	4.2	1.1	3.4	7.5	11.1
	95%CI	*3.6–4.9*	*0.7–1.5*	*2.8–3.9*	*6.1–8.8*	*9.0–13.3*
Other places	mean	5.6	*0.7	*5.6	8.6	12.4
	95%CI	*4.3–7.0*	*0.3–1.1*	*1.9–9.3*	*7.3–10.0*	*11.0–13.7*
Year level of schooling						
Year 10 or less	mean	7.6	*0.6	3.6	10.3	12.9
	95%CI	*6.2–9.0*	*0.0–1.4*	*2.4–4.8*	*8.4–12.2*	*10.3–15.4*
Year 11 or more	mean	3.6	1.1	3.9	6.4	9.3
	95%CI	*3.2–4.1*	*0.7–1.4*	*2.8–4.9*	*5.6–7.3*	*7.4–11.2*
Highest qualification attained						
Degree or higher	mean	3.2	*0.7	3.4	6.6	11.0
	95%CI	*2.6–3.8*	*0.3–1.1*	*2.6–4.2*	*5.6–7.7*	*8.5–13.5*
Other/None	mean	5.0	1.2	4.1	8.0	11.4
	95%CI	*4.2–5.7*	*0.7–1.6*	*2.7–5.5*	*6.8–9.3*	*9.4–13.3*
Eligibility for public dental care						
Eligible	mean	6.9	*1.3	4.3	9.1	11.3
	95%CI	*5.9–7.8*	*0.6–2.0*	*3.3–5.4*	*7.7–10.6*	*9.4–13.2*
Ineligible	mean	3.2	1.0	3.7	6.0	12.1
	95%CI	*2.5–3.8*	*0.6–1.3*	*2.5–4.9*	*5.0–7.1*	*6.5–17.6*
Dental insurance						
Insured	mean	4.2	*1.2	3.4	6.0	11.3
	95%CI	*3.7–4.8*	*0.6–1.8*	*2.8–4.0*	*5.2–6.9*	*9.0–13.5*
Uninsured	mean	4.9	*1.0	*4.4	9.9	11.5
	95%CI	*3.9–5.9*	*0.5–1.5*	*2.2–6.7*	*8.3–11.4*	*8.8–14.3*
Usually visit dentist						
For a check-up	mean	3.9	0.7	3.3	7.1	10.3
	95%CI	*3.4–4.4*	*0.4–1.1*	*2.7–3.8*	*6.0–8.2*	*8.4–12.3*
For a dental problem	mean	5.8	1.8	5.0	8.7	13.5
	95%CI	*4.6–7.0*	*1.3–2.3*	*2.7–7.3*	*6.9–10.4*	*10.2–16.8*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.22: Percentage of people with untreated coronal decay, in the adult dentate population, South Australia

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**25.4**	**26.1**	**20.5**	**32.3**	**19.8**
	95%CI	*20.7–30.8*	*18.4–35.7*	*13.8–29.3*	*25.3–40.2*	*11.8–31.2*
Sex						
Male	%	26.4	23.7	25.3	33.1	*20.2
	95%CI	*19.7–34.5*	*14.1–37.0*	*15.1–39.1*	*23.0–45.0*	*8.8–39.9*
Female	%	24.4	28.6	*15.7	31.6	*19.5
	95%CI	*17.7–32.7*	*16.9–44.0*	*7.7–29.2*	*21.6–43.6*	*9.7–35.4*
Indigenous identity						
Indigenous	%	*15.8	n.p.	n.p.	n.p.	n.p.
	95%CI	*3.7–47.5*	*n.p.*	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	%	25.5	26.5	20.4	32.4	*18.8
	95%CI	*20.7–31.0*	*18.6–36.3*	*13.7–29.3*	*25.4–40.4*	*10.8–30.6*
Residential location						
Capital city	%	24.4	25.2	19.7	31.9	*16.9
	95%CI	*18.9–30.9*	*16.3–36.7*	*12.3–30.2*	*23.4–41.8*	*9.1–29.4*
Other places	%	28.9	30.3	*23.1	33.5	*30.3
	95%CI	*21.3–37.9*	*18.8–45.0*	*11.1–41.9*	*22.8–46.1*	*11.3–59.8*
Year level of schooling						
Year 10 or less	%	32.2	*30.5	*34.0	40.6	*15.7
	95%CI	*23.5–42.4*	*11.8–59.0*	*11.1–68.0*	*29.0–53.4*	*9.1–25.8*
Year 11 or more	%	22.9	24.5	18.7	27.5	*22.5
	95%CI	*17.7–29.2*	*16.3–35.0*	*12.7–26.8*	*18.6–38.6*	*8.4–47.9*
Highest qualification attained						
Degree or higher	%	22.4	*33.5	*14.3	*17.7	*40.2
	95%CI	*14.6–32.7*	*17.4–54.5*	*7.8–24.8*	*9.7–30.1*	*9.4–81.4*
Other/None	%	26.4	23.5	22.9	35.8	*17.3
	95%CI	*21.3–32.2*	*15.3–34.1*	*13.9–35.2*	*27.6–44.9*	*9.9–28.5*
Eligibility for public dental care						
Eligible	%	29.7	*23.0	*32.2	37.3	*18.7
	95%CI	*23.9–36.3*	*10.0–44.5*	*17.2–52.1*	*26.2–49.8*	*10.9–30.2*
Ineligible	%	23.0	27.2	17.4	25.5	*27.1
	95%CI	*17.1–30.1*	*17.3–40.1*	*11.1–26.2*	*17.6–35.4*	*4.8–73.2*
Dental insurance						
Insured	%	21.5	27.4	*13.7	26.0	*23.0
	95%CI	*15.2–29.6*	*17.3–40.5*	*7.2–24.4*	*16.9–37.8*	*9.4–46.2*
Uninsured	%	29.9	26.6	29.6	39.8	*16.0
	95%CI	*23.9–36.5*	*17.2–38.6*	*18.9–43.0*	*28.6–52.2*	*7.6–30.7*
Usually visit dentist						
For a check-up	%	18.3	*17.5	15.8	23.1	*16.4
	95%CI	*13.7–24.0*	*10.0–28.8*	*9.5–25.2*	*14.4–34.8*	*6.7–34.8*
For a dental problem	%	36.0	44.3	*21.7	44.7	*28.6
	95%CI	*28.4–44.3*	*25.9–64.4*	*12.3–35.4*	*32.3–57.8*	*13.0–51.6*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.23: Mean number of decayed, missing or filled teeth per person, in the adult dentate population, South Australia

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**11.8**	**4.0**	**10.6**	**19.9**	**22.9**
	95%CI	*10.7–12.9*	*2.9–5.0*	*9.2–11.9*	*18.9–20.9*	*21.9–24.0*
Sex						
Male	mean	11.4	3.8	10.8	18.9	23.2
	95%CI	*9.9–12.9*	*2.4–5.3*	*8.4–13.1*	*17.3–20.6*	*21.4–25.0*
Female	mean	12.2	4.1	10.4	20.9	22.8
	95%CI	*10.7–13.6*	*2.8–5.5*	*9.0–11.7*	*19.8–22.0*	*21.7–23.8*
Indigenous identity						
Indigenous	mean	*10.9	n.p.	n.p.	n.p.	n.p.
	95%CI	*5.0–16.8*	*n.p.*	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	mean	11.8	3.9	10.6	19.9	23.0
	95%CI	*10.7–12.9*	*2.9–5.0*	*9.2–12.0*	*18.9–20.9*	*22.0–24.0*
Residential location						
Capital city	mean	11.4	4.1	10.0	19.9	23.3
	95%CI	*10.1–12.8*	*2.9–5.4*	*8.7–11.3*	*18.6–21.2*	*22.1–24.4*
Other places	mean	13.0	3.3	12.7	20.0	21.8
	95%CI	*11.7–14.2*	*2.0–4.6*	*8.7–16.7*	*18.8–21.2*	*19.9–23.7*
Year level of schooling						
Year 10 or less	mean	16.4	*4.1	12.0	21.3	23.0
	95%CI	*14.2–18.5*	*0.6–7.5*	*10.1–13.9*	*19.7–22.8*	*21.5–24.6*
Year 11 or more	mean	10.5	3.8	10.4	19.2	22.9
	95%CI	*9.5–11.4*	*2.9–4.7*	*8.9–11.9*	*17.9–20.6*	*21.5–24.3*
Highest qualification attained						
Degree or higher	mean	9.5	4.0	9.4	18.9	24.7
	95%CI	*8.1–10.9*	*2.9–5.2*	*7.7–11.0*	*17.2–20.5*	*21.6–27.8*
Other/None	mean	12.5	4.0	11.0	20.1	22.8
	95%CI	*11.2–13.7*	*2.8–5.2*	*9.2–12.9*	*19.0–21.3*	*21.7–23.9*
Eligibility for public dental care						
Eligible	mean	15.9	4.7	11.0	21.1	23.2
	95%CI	*14.5–17.2*	*3.0–6.4*	*8.7–13.4*	*19.7–22.5*	*22.1–24.3*
Ineligible	mean	9.3	3.8	10.3	18.4	21.2
	95%CI	*8.2–10.4*	*2.6–4.9*	*8.7–11.9*	*17.1–19.7*	*14.8–27.7*
Dental insurance						
Insured	mean	12.6	4.2	10.6	19.5	23.7
	95%CI	*11.4–13.7*	*3.1–5.2*	*8.9–12.3*	*18.2–20.9*	*22.3–25.2*
Uninsured	mean	11.2	4.0	10.6	20.4	22.0
	95%CI	*9.6–12.7*	*2.5–5.6*	*8.2–12.9*	*19.0–21.8*	*20.7–23.3*
Usually visit dentist						
For a check-up	mean	11.0	3.1	9.9	20.0	22.7
	95%CI	*9.7–12.4*	*2.1–4.0*	*8.6–11.2*	*18.8–21.2*	*21.6–23.8*
For a dental problem	mean	13.5	6.1	11.9	19.9	23.5
	95%CI	*12.1–15.0*	*4.5–7.7*	*9.5–14.4*	*18.2–21.7*	*20.9–26.1*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.24: Percentage of people with moderate or severe periodontitis, in the adult dentate population, South Australia

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**20.7**	***5.3**	**18.6**	**40.0**	**60.9**
	95%CI	*17.1–24.7*	*2.6–10.6*	*12.0–27.6*	*31.3–49.4*	*41.6–77.3*
Sex						
Male	%	21.4	*7.4	*19.6	43.5	*52.9
	95%CI	*14.9–29.7*	*2.9–17.3*	*10.0–34.7*	*28.8–59.4*	*22.6–81.2*
Female	%	20.0	*3.3	17.5	36.7	64.6
	95%CI	*15.5–25.4*	*0.8–12.9*	*10.8–27.1*	*26.9–47.8*	*41.7–82.3*
Indigenous identity						
Indigenous	%	n.p.	n.p.	n.p.	n.p.	n.p.
	95%CI	*n.p.*	*n.p.*	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	%	20.4	*5.4	17.9	40.0	60.0
	95%CI	*16.9–24.6*	*2.6–10.8*	*11.4–27.1*	*31.3–49.4*	*40.5–76.7*
Residential location						
Capital city	%	21.4	*6.1	20.2	41.4	60.2
	95%CI	*17.1–26.4*	*2.9–12.5*	*12.3–31.5*	*30.4–53.3*	*37.5–79.2*
Other places	%	18.0	*2.0	*12.3	36.0	63.5
	95%CI	*14.2–22.6*	*0.6–6.7*	*6.5–22.0*	*25.5–48.0*	*32.6–86.3*
Year level of schooling						
Year 10 or less	%	33.5	*7.6	*13.6	49.3	65.7
	95%CI	*23.3–45.4*	*1.0–40.4*	*2.6–48.1*	*33.7–64.9*	*42.7–83.2*
Year 11 or more	%	17.2	*3.8	19.2	36.0	*53.6
	95%CI	*13.6–21.6*	*1.5–8.9*	*12.3–28.7*	*25.6–48.0*	*23.6–81.2*
Highest qualification attained						
Degree or higher	%	13.1	*0.5	*18.6	*24.0	*68.8
	95%CI	*8.1–20.4*	*0.1–3.3*	*10.4–31.0*	*14.1–37.8*	*17.8–95.7*
Other/None	%	23.1	*7.2	*18.7	42.1	59.7
	95%CI	*18.7–28.2*	*3.5–14.1*	*10.4–31.2*	*32.1–52.8*	*39.7–76.8*
Eligibility for public dental care						
Eligible	%	31.2	*5.0	*25.4	43.4	60.4
	95%CI	*23.5–40.1*	*0.9–22.5*	*12.0–45.9*	*31.0–56.8*	*41.0–76.9*
Ineligible	%	15.3	*5.5	*17.0	35.4	*68.2
	95%CI	*11.3–20.5*	*2.3–12.4*	*9.4–28.7*	*23.6–49.4*	*17.6–95.6*
Dental insurance						
Insured	%	18.5	—	*15.5	35.6	63.1
	95%CI	*13.7–24.5*	—	*7.5–29.4*	*23.4–49.9*	*33.4–85.3*
Uninsured	%	23.3	*9.3	*22.5	46.5	58.9
	95%CI	*17.6–30.2*	*4.5–18.1*	*13.3–35.4*	*33.4–60.1*	*32.6–80.9*
Usually visit dentist						
For a check-up	%	15.7	*0.6	*12.9	37.0	60.0
	95%CI	*11.5–21.2*	*0.1–4.0*	*7.6–20.9*	*25.8–49.9*	*35.6–80.2*
For a dental problem	%	27.6	*8.6	*27.6	43.9	*66.1
	95%CI	*19.0–38.2*	*2.5–25.6*	*13.8–47.6*	*30.1–58.7*	*30.2–89.8*

Notes: 1. Data in this table was taken from the Examination for people who had a periodontal examination.
2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.
3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Western Australia

Table C.25: Percentage of adults with complete tooth loss, Western Australia

		Population: all people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**3.3**	**—**	***1.2**	**4.2**	**26.9**
	95%CI	*2.6–4.2*	—	*0.4–3.8*	*2.8–6.2*	*19.6–35.8*
Sex						
Male	%	2.8	—	*1.6	*2.5	*27.2
	95%CI	*1.8–4.5*	—	*0.4–6.9*	*1.3–4.7*	*15.7–42.8*
Female	%	3.8	—	*0.8	5.9	26.7
	95%CI	*2.9–5.0*	—	*0.1–5.5*	*3.6–9.4*	*17.9–37.8*
Indigenous identity						
Indigenous	%	*1.0	—	—	*5.0	n.p.
	95%CI	*0.1–7.6*	—	—	*0.5–33.5*	*n.p.*
Non-Indigenous	%	3.4	—	*1.2	4.2	26.9
	95%CI	*2.6–4.3*	—	*0.4–3.9*	*2.8–6.2*	*19.6–35.8*
Residential location						
Capital city	%	3.3	—	*1.2	*4.0	27.4
	95%CI	*2.5–4.3*	—	*0.3–4.7*	*2.4–6.6*	*18.9–37.9*
Other places	%	3.4	—	*1.2	4.8	*24.9
	95%CI	*2.1–5.4*	—	*0.2–8.5*	*3.0–7.5*	*13.4–41.6*
Year level of schooling						
Year 10 or less	%	7.3	—	*3.4	*5.7	28.3
	95%CI	*5.4–9.9*	—	*0.8–13.3*	*3.1–10.5*	*19.4–39.3*
Year 11 or more	%	*1.4	—	*0.5	*3.0	*21.0
	95%CI	*0.8–2.5*	—	*0.1–3.6*	*1.7–5.2*	*9.7–39.7*
Highest qualification attained						
Degree or higher	%	*0.8	—	—	*4.5	*6.9
	95%CI	*0.4–1.9*	—	—	*1.8–10.8*	*1.7–24.4*
Other/None	%	4.0	—	*2.0	4.1	27.1
	95%CI	*3.0–5.3*	—	*0.6–6.2*	*2.6–6.7*	*18.9–37.2*
Eligibility for public dental care						
Eligible	%	10.5	—	*4.8	*5.9	29.2
	95%CI	*8.1–13.5*	—	*0.7–25.2*	*3.4–10.1*	*21.1–38.8*
Ineligible	%	*1.0	—	*0.7	*3.1	*7.2
	95%CI	*0.6–1.6*	—	*0.2–3.0*	*1.8–5.4*	*1.0–38.6*
Dental insurance						
Insured	%	2.5	—	*1.4	*3.3	*18.4
	95%CI	*1.7–3.6*	—	*0.3–5.7*	*1.8–5.9*	*10.5–30.2*
Uninsured	%	5.2	—	*0.9	*6.3	38.1
	95%CI	*3.6–7.4*	—	*0.1–6.0*	*3.3–11.8*	*25.7–52.4*
Usually visit dentist						
For a check-up	%	*0.9	—	—	*1.7	*8.6
	95%CI	*0.5–1.6*	—	—	*0.9–3.5*	*3.5–19.5*
For a dental problem	%	6.7	—	*2.8	*8.0	43.4
	95%CI	*4.9–9.1*	—	*0.9–8.5*	*4.5–13.8*	*32.3–55.1*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.26: Percentage of people with fewer than 21 teeth, in the adult dentate population, Western Australia

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**8.6**	***1.1**	***3.0**	**20.9**	**41.7**
	95%CI	*7.1–10.3*	*0.3–4.6*	*1.7–5.2*	*16.6–26.0*	*31.8–52.4*
Sex						
Male	%	8.6	—	*2.9	23.2	46.5
	95%CI	*6.3–11.6*	—	*1.2–6.7*	*16.0–32.3*	*30.3–63.6*
Female	%	8.5	*2.2	*3.1	18.7	38.0
	95%CI	*6.4–11.2*	*0.5–9.0*	*1.4–6.8*	*13.2–25.8*	*25.4–52.4*
Indigenous identity						
Indigenous	%	*7.5	—	*8.4	*23.8	n.p.
	95%CI	*2.6–19.8*	—	*1.0–44.7*	*8.6–50.8*	*n.p.*
Non-Indigenous	%	8.6	*1.1	*2.8	20.9	41.7
	95%CI	*7.1–10.3*	*0.3–4.7*	*1.6–5.1*	*16.6–26.0*	*31.8–52.4*
Residential location						
Capital city	%	8.0	*1.3	*2.4	19.0	45.3
	95%CI	*6.4–10.1*	*0.3–5.5*	*1.1–5.0*	*14.0–25.3*	*33.8–57.3*
Other places	%	10.5	—	*5.3	27.3	*27.5
	95%CI	*7.7–14.2*	—	*2.2–12.2*	*19.9–36.2*	*12.1–51.3*
Year level of schooling						
Year 10 or less	%	17.8	*1.9	*3.5	28.9	49.9
	95%CI	*13.8–22.7*	*0.3–11.6*	*1.2–9.6*	*21.4–37.6*	*38.3–61.5*
Year 11 or more	%	4.8	*0.9	*2.9	14.6	*28.6
	95%CI	*3.7–6.3*	*0.1–6.3*	*1.4–5.8*	*10.2–20.5*	*15.7–46.3*
Highest qualification attained						
Degree or higher	%	*3.2	—	*2.5	*11.4	*15.7
	95%CI	*1.7–5.7*	—	*0.8–7.1*	*6.0–20.7*	*3.1–52.0*
Other/None	%	10.4	*1.5	*3.4	22.2	44.9
	95%CI	*8.4–12.8*	*0.3–6.1*	*1.7–6.7*	*17.4–27.9*	*33.7–56.6*
Eligibility for public dental care						
Eligible	%	25.8	*7.8	*3.6	35.7	44.9
	95%CI	*19.9–32.7*	*2.0–26.6*	*0.9–13.2*	*26.8–45.6*	*33.3–57.0*
Ineligible	%	3.5	—	*2.9	11.8	*20.7
	95%CI	*2.6–4.6*	—	*1.6–5.2*	*8.6–15.9*	*6.1–51.0*
Dental insurance						
Insured	%	6.9	—	*3.0	17.1	30.5
	95%CI	*5.3–9.0*	—	*1.5–5.9*	*12.6–22.7*	*20.7–42.6*
Uninsured	%	12.9	*3.3	*3.2	30.6	62.8
	95%CI	*9.4–17.6*	*0.8–13.2*	*1.2–8.5*	*20.8–42.5*	*42.6–79.3*
Usually visit dentist						
For a check-up	%	5.2	—	*1.0	14.8	27.0
	95%CI	*3.9–7.0*	—	*0.3–3.9*	*10.6–20.3*	*16.8–40.4*
For a dental problem	%	14.6	*3.8	*5.7	31.2	69.3
	95%CI	*11.3–18.6*	*0.9–14.2*	*3.0–10.5*	*22.2–41.9*	*49.6–83.8*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.27: Mean number of missing teeth for pathology per person, in the adult dentate population, Western Australia

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**4.0**	***0.3**	**3.1**	**9.3**	**12.9**
	95%CI	*3.4–4.6*	*0.1–0.4*	*2.6–3.5*	*8.1–10.4*	*10.4–15.5*
Sex						
Male	mean	3.9	*0.2	2.9	9.1	14.3
	95%CI	*3.1–4.7*	*0.0–0.4*	*2.2–3.6*	*7.7–10.5*	*11.4–17.3*
Female	mean	4.2	*0.4	3.3	9.4	11.9
	95%CI	*3.4–5.0*	*0.2–0.6*	*2.6–4.0*	*7.5–11.3*	*8.4–15.4*
Indigenous identity						
Indigenous	mean	*3.8	n.p.	5.8	n.p.	n.p.
	95%CI	*1.4–6.1*	*n.p.*	*4.3–7.3*	*n.p.*	*n.p.*
Non-Indigenous	mean	4.0	*0.3	3.0	9.2	12.9
	95%CI	*3.4–4.6*	*0.1–0.4*	*2.5–3.5*	*8.1–10.4*	*10.4–15.5*
Residential location						
Capital city	mean	4.0	*0.3	3.1	9.2	13.8
	95%CI	*3.3–4.6*	*0.1–0.5*	*2.5–3.6*	*7.8–10.6*	*10.7–16.8*
Other places	mean	4.2	*0.3	3.1	9.5	9.7
	95%CI	*3.2–5.2*	*0.1–0.6*	*2.2–4.0*	*7.8–11.3*	*8.5–10.9*
Year level of schooling						
Year 10 or less	mean	7.3	*0.5	3.4	11.2	13.4
	95%CI	*5.6–9.0*	*0.0–1.0*	*2.6–4.3*	*8.8–13.6*	*10.1–16.6*
Year 11 or more	mean	2.8	*0.2	3.0	7.8	12.4
	95%CI	*2.4–3.3*	*0.1–0.3*	*2.5–3.6*	*6.6–9.0*	*9.3–15.5*
Highest qualification attained						
Degree or higher	mean	2.3	*0.4	2.7	7.4	8.3
	95%CI	*1.6–2.9*	*0.0–0.8*	*2.0–3.4*	*4.1–10.6*	*7.2–9.4*
Other/None	mean	4.7	*0.2	3.3	9.5	13.4
	95%CI	*3.9–5.5*	*0.1–0.4*	*2.6–3.9*	*8.3–10.8*	*10.6–16.3*
Eligibility for public dental care						
Eligible	mean	8.0	*0.4	3.8	11.2	13.4
	95%CI	*6.6–9.5*	*0.0–0.8*	*2.9–4.7*	*9.2–13.1*	*10.6–16.3*
Ineligible	mean	2.6	*0.3	2.9	7.7	8.0
	95%CI	*2.2–3.0*	*0.1–0.4*	*2.4–3.5*	*6.6–8.7*	*6.8–9.2*
Dental insurance						
Insured	mean	3.9	*0.3	3.0	8.1	11.0
	95%CI	*3.3–4.5*	*0.1–0.4*	*2.3–3.6*	*7.0–9.3*	*8.3–13.7*
Uninsured	mean	4.8	*0.4	3.4	11.6	15.7
	95%CI	*3.6–5.9*	*0.0–0.8*	*2.6–4.1*	*8.9–14.2*	*11.6–19.7*
Usually visit dentist						
For a check-up	mean	3.5	*0.1	2.7	8.1	11.6
	95%CI	*2.9–4.2*	*0.0–0.2*	*2.1–3.2*	*6.5–9.7*	*8.8–14.3*
For a dental problem	mean	4.9	*0.6	3.5	11.1	15.3
	95%CI	*4.0–5.8*	*0.2–1.0*	*2.7–4.2*	*9.1–13.0*	*10.4–20.1*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.28: Percentage of people with untreated coronal decay, in the adult dentate population, Western Australia

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**39.5**	**39.7**	**42.0**	**35.8**	**38.6**
	95%CI	*33.5–45.9*	*29.8–50.5*	*32.9–51.7*	*29.0–43.2*	*25.4–53.8*
Sex						
Male	%	41.0	38.4	43.1	39.8	52.3
	95%CI	*32.9–49.6*	*25.1–53.7*	*31.4–55.6*	*30.8–49.4*	*30.9–72.9*
Female	%	38.1	41.0	41.0	31.8	*28.2
	95%CI	*30.4–46.4*	*28.0–55.3*	*29.1–54.0*	*21.4–44.3*	*16.4–43.9*
Indigenous identity						
Indigenous	%	81.5	n.p.	73.8	n.p.	n.p.
	95%CI	*53.3–94.4*	*n.p.*	*34.7–93.7*	*n.p.*	*n.p.*
Non-Indigenous	%	38.5	37.9	41.1	35.5	38.6
	95%CI	*32.4–44.9*	*27.9–49.0*	*31.8–51.0*	*28.8–42.9*	*25.4–53.8*
Residential location						
Capital city	%	37.5	36.0	40.4	36.1	36.0
	95%CI	*30.3–45.4*	*24.9–48.9*	*29.7–52.1*	*28.3–44.8*	*22.7–51.9*
Other places	%	47.2	55.9	48.1	34.7	*48.8
	95%CI	*39.6–54.8*	*39.6–71.0*	*32.5–64.0*	*22.6–49.1*	*17.3–81.2*
Year level of schooling						
Year 10 or less	%	47.2	*54.6	71.3	30.7	*37.0
	95%CI	*35.9–58.8*	*22.2–83.6*	*48.0–87.0*	*21.3–42.0*	*21.0–56.5*
Year 11 or more	%	35.7	35.7	33.7	40.3	*34.7
	95%CI	*29.7–42.2*	*26.1–46.5*	*24.5–44.3*	*31.1–50.1*	*17.3–57.5*
Highest qualification attained						
Degree or higher	%	29.1	30.3	27.5	*30.7	*29.4
	95%CI	*21.4–38.2*	*17.7–46.6*	*18.8–38.3*	*16.0–50.7*	*6.1–72.7*
Other/None	%	42.7	42.9	49.0	36.2	40.7
	95%CI	*35.5–50.2*	*29.3–57.6*	*37.8–60.2*	*28.2–45.1*	*26.4–56.7*
Eligibility for public dental care						
Eligible	%	50.0	*52.2	81.8	38.3	36.2
	95%CI	*39.3–60.7*	*25.9–77.4*	*63.5–92.0*	*26.2–52.2*	*23.0–51.9*
Ineligible	%	35.6	37.9	34.5	31.4	*61.8
	95%CI	*29.0–42.8*	*27.7–49.4*	*26.2–43.9*	*23.3–40.8*	*19.9–91.4*
Dental insurance						
Insured	%	31.2	34.3	26.8	31.3	42.2
	95%CI	*25.2–37.9*	*23.0–47.8*	*18.8–36.6*	*22.9–41.1*	*26.6–59.6*
Uninsured	%	52.2	49.9	63.8	44.2	*33.6
	95%CI	*43.3–61.0*	*32.3–67.5*	*48.9–76.4*	*28.6–61.0*	*14.4–60.4*
Usually visit dentist						
For a check-up	%	26.1	31.4	*17.1	26.0	39.1
	95%CI	*20.0–33.4*	*20.6–44.5*	*9.9–27.8*	*18.2–35.7*	*24.7–55.6*
For a dental problem	%	59.6	60.8	66.4	50.4	*37.8
	95%CI	*51.7–67.0*	*46.8–73.2*	*53.5–77.3*	*35.8–64.9*	*15.7–66.4*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.29: Mean number of decayed, missing or filled teeth per person, in the adult dentate population, Western Australia

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**11.0**	**3.8**	**10.3**	**20.2**	**24.4**
	95%CI	*10.1–11.9*	*3.0–4.6*	*9.2–11.3*	*19.0–21.3*	*23.4–25.3*
Sex						
Male	mean	10.4	2.9	9.7	20.8	24.4
	95%CI	*8.9–12.0*	*1.6–4.1*	*7.9–11.5*	*19.5–22.1*	*23.0–25.8*
Female	mean	11.5	4.9	10.9	19.5	24.4
	95%CI	*10.5–12.6*	*3.7–6.0*	*9.5–12.3*	*17.3–21.8*	*23.0–25.7*
Indigenous identity						
Indigenous	mean	*10.0	n.p.	10.9	n.p.	n.p.
	95%CI	*4.5–15.6*	*n.p.*	*7.8–14.1*	*n.p.*	*n.p.*
Non-Indigenous	mean	11.0	3.7	10.3	20.2	24.4
	95%CI	*10.1–11.9*	*2.9–4.5*	*9.1–11.4*	*19.0–21.3*	*23.4–25.3*
Residential location						
Capital city	mean	10.7	3.6	10.2	20.1	24.9
	95%CI	*9.7–11.7*	*2.7–4.5*	*8.9–11.4*	*18.7–21.6*	*23.8–26.0*
Other places	mean	11.9	4.8	10.7	20.4	22.3
	95%CI	*10.0–13.9*	*2.9–6.8*	*8.9–12.6*	*19.1–21.7*	*20.8–23.8*
Year level of schooling						
Year 10 or less	mean	15.4	*4.4	11.6	20.0	24.7
	95%CI	*13.1–17.7*	*1.0–7.8*	*9.3–13.8*	*17.5–22.5*	*23.4–26.1*
Year 11 or more	mean	9.3	3.5	9.9	20.4	23.5
	95%CI	*8.4–10.2*	*2.8–4.3*	*8.6–11.2*	*19.3–21.4*	*22.2–24.7*
Highest qualification attained						
Degree or higher	mean	8.5	4.3	9.5	19.6	21.9
	95%CI	*7.1–9.8*	*2.8–5.9*	*7.8–11.2*	*17.9–21.3*	*20.4–23.4*
Other/None	mean	11.9	3.6	10.7	20.2	24.6
	95%CI	*10.7–13.2*	*2.6–4.6*	*9.3–12.0*	*18.9–21.6*	*23.5–25.8*
Eligibility for public dental care						
Eligible	mean	16.7	*4.9	11.9	21.1	24.5
	95%CI	*14.9–18.6*	*2.4–7.5*	*10.4–13.4*	*18.4–23.7*	*23.4–25.5*
Ineligible	mean	9.0	3.7	10.0	19.4	23.6
	95%CI	*8.1–9.9*	*2.8–4.5*	*8.7–11.2*	*18.5–20.3*	*20.9–26.3*
Dental insurance						
Insured	mean	11.4	3.6	10.2	20.3	23.8
	95%CI	*10.3–12.5*	*2.6–4.6*	*8.6–11.8*	*19.5–21.1*	*22.4–25.3*
Uninsured	mean	11.1	4.7	10.2	20.0	25.2
	95%CI	*9.6–12.7*	*3.0–6.3*	*8.8–11.5*	*16.7–23.3*	*24.1–26.3*
Usually visit dentist						
For a check-up	mean	10.7	3.5	9.4	20.3	24.9
	95%CI	*9.8–11.6*	*2.6–4.5*	*8.0–10.8*	*19.3–21.4*	*23.8–26.0*
For a dental problem	mean	11.9	4.7	11.3	20.1	23.5
	95%CI	*10.4–13.3*	*2.9–6.6*	*9.5–13.0*	*17.3–22.8*	*21.4–25.5*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.30: Percentage of people with moderate or severe periodontitis, in the adult dentate population, Western Australia

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**29.4**	***7.8**	**34.5**	**53.2**	**70.5**
	95%CI	*23.6–36.0*	*3.9–14.9*	*25.1–45.3*	*42.6–63.5*	*50.2–85.0*
Sex						
Male	%	31.9	*6.2	40.8	60.0	66.2
	95%CI	*24.1–40.8*	*2.3–16.2*	*25.7–57.8*	*45.4–72.9*	*32.0–89.1*
Female	%	27.0	*9.4	28.1	46.2	72.4
	95%CI	*19.7–35.8*	*3.5–23.0*	*16.5–43.6*	*32.1–61.0*	*45.6–89.1*
Indigenous identity						
Indigenous	%	*27.6	n.p.	*25.0	n.p.	n.p.
	95%CI	*7.2–65.2*	*n.p.*	*4.4–70.5*	*n.p.*	*n.p.*
Non-Indigenous	%	29.5	*7.3	34.8	53.2	70.5
	95%CI	*23.6–36.1*	*3.5–14.4*	*25.4–45.7*	*42.6–63.5*	*50.2–85.0*
Residential location						
Capital city	%	29.6	*8.5	34.8	54.4	66.6
	95%CI	*22.9–37.4*	*4.1–16.9*	*23.8–47.9*	*42.7–65.7*	*45.2–82.8*
Other places	%	28.7	*4.5	*33.4	*49.0	100.0
	95%CI	*19.3–40.4*	*0.7–23.5*	*19.2–51.5*	*26.2–72.2*	—
Year level of schooling						
Year 10 or less	%	44.6	*11.1	52.0	51.7	68.1
	95%CI	*30.6–59.4*	*2.6–36.5*	*29.6–73.7*	*34.2–68.8*	*39.2–87.6*
Year 11 or more	%	24.6	*7.4	30.2	53.8	76.4
	95%CI	*19.1–31.1*	*3.4–15.3*	*21.9–40.0*	*42.5–64.7*	*51.2–90.9*
Highest qualification attained						
Degree or higher	%	24.8	*7.4	36.7	52.7	n.p.
	95%CI	*17.7–33.7*	*2.9–17.7*	*26.3–48.5*	*38.9–66.1*	*n.p.*
Other/None	%	31.4	*8.2	33.5	53.5	68.1
	95%CI	*24.4–39.4*	*3.3–19.1*	*21.0–48.9*	*42.3–64.4*	*44.3–85.1*
Eligibility for public dental care						
Eligible	%	42.0	*6.9	*48.1	47.0	66.3
	95%CI	*29.8–55.3*	*1.1–31.9*	*25.9–71.0*	*30.2–64.4*	*43.5–83.4*
Ineligible	%	25.3	*7.9	31.7	55.4	n.p.
	95%CI	*19.3–32.5*	*3.8–15.8*	*22.0–43.4*	*41.6–68.4*	*n.p.*
Dental insurance						
Insured	%	31.0	*9.5	29.8	55.1	81.2
	95%CI	*23.8–39.3*	*3.9–21.2*	*19.3–43.0*	*42.8–66.8*	*58.6–93.0*
Uninsured	%	29.3	*7.5	41.5	48.5	*53.5
	95%CI	*20.6–39.7*	*2.6–19.9*	*24.2–61.1*	*30.4–67.0*	*25.3–79.6*
Usually visit dentist						
For a check-up	%	26.8	*5.1	32.1	50.4	78.3
	95%CI	*20.7–33.9*	*1.5–15.9*	*20.4–46.6*	*38.2–62.6*	*57.5–90.6*
For a dental problem	%	35.1	*14.1	38.3	57.1	*57.1
	95%CI	*26.1–45.3*	*6.3–28.7*	*25.4–53.1*	*38.8–73.6*	*23.1–85.5*

Notes: 1. Data in this table was taken from the Examination for people who had a periodontal examination.
2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.
3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Tasmania

Table C.31: Percentage of adults with complete tooth loss, Tasmania

		Population: all people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**6.5**	**—**	***2.0**	**9.9**	**30.3**
	95%CI	*5.1–8.2*	—	*0.9–4.0*	*6.7–14.2*	*23.1–38.6*
Sex						
Male	%	4.6	—	*1.6	*6.1	26.6
	95%CI	*3.2–6.7*	—	*0.5–4.8*	*3.7–10.0*	*17.1–39.0*
Female	%	8.3	—	*2.3	13.5	33.2
	95%CI	*6.2–11.0*	—	*0.9–5.7*	*8.2–21.3*	*23.9–43.9*
Indigenous identity						
Indigenous	%	*12.3	—	*18.5	*17.6	n.p.
	95%CI	*6.0–23.6*	—	*5.6–46.5*	*3.7–54.5*	*n.p.*
Non-Indigenous	%	6.3	—	*1.2	9.7	29.4
	95%CI	*4.9–7.9*	—	*0.4–3.2*	*6.5–14.1*	*22.3–37.7*
Residential location						
Capital city	%	*5.2	—	*1.5	*7.7	28.2
	95%CI	*3.0–8.8*	—	*0.4–5.5*	*3.2–17.1*	*18.8–39.9*
Other places	%	7.5	—	*2.3	11.3	31.9
	95%CI	*6.0–9.3*	—	*1.0–5.5*	*7.6–16.6*	*22.0–43.7*
Year level of schooling						
Year 10 or less	%	11.6	—	*3.8	16.4	33.7
	95%CI	*8.6–15.4*	—	*1.7–8.1*	*10.2–25.2*	*24.1–45.0*
Year 11 or more	%	2.8	—	*0.9	*3.8	*24.4
	95%CI	*2.0–3.9*	—	*0.3–2.6*	*2.3–6.4*	*14.4–38.2*
Highest qualification attained						
Degree or higher	%	*2.1	—	*1.7	*3.6	*10.4
	95%CI	*1.0–4.5*	—	*0.4–6.4*	*1.4–8.7*	*3.9–25.2*
Other/None	%	7.4	—	*2.1	10.6	32.1
	95%CI	*5.7–9.6*	—	*1.0–4.4*	*6.9–16.0*	*24.6–40.7*
Eligibility for public dental care						
Eligible	%	13.6	—	*4.4	14.4	31.7
	95%CI	*10.6–17.3*	—	*1.6–11.5*	*9.7–21.0*	*24.1–40.4*
Ineligible	%	2.0	—	*1.2	*5.3	*16.1
	95%CI	*1.2–3.2*	—	*0.5–2.9*	*2.8–9.8*	*3.7–48.7*
Dental insurance						
Insured	%	5.1	—	*0.4	*7.7	23.9
	95%CI	*3.4–7.5*	—	*0.1–3.1*	*4.5–12.8*	*15.3–35.5*
Uninsured	%	7.8	—	*3.5	12.6	34.9
	95%CI	*5.9–10.3*	—	*1.6–7.7*	*7.9–19.3*	*23.7–48.1*
Usually visit dentist						
For a check-up	%	1.7	—	*0.5	*3.4	*7.0
	95%CI	*1.0–2.7*	—	*0.1–3.2*	*1.8–6.1*	*2.7–17.2*
For a dental problem	%	11.7	—	*3.6	16.1	45.7
	95%CI	*9.3–14.6*	—	*1.8–7.1*	*11.1–22.7*	*34.5–57.4*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.32: Percentage of people with fewer than 21 teeth, in the adult dentate population, Tasmania

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**15.0**	***0.9**	***6.8**	**28.7**	**59.5**
	95%CI	*12.4–18.0*	*0.3–2.1*	*4.0–11.4*	*22.9–35.2*	*49.4–68.9*
Sex						
Male	%	15.7	*0.6	*6.5	32.5	57.7
	95%CI	*11.9–20.5*	*0.1–4.4*	*3.3–12.1*	*25.2–40.8*	*38.9–74.6*
Female	%	14.3	*1.1	*7.1	24.6	61.1
	95%CI	*11.4–17.8*	*0.4–3.0*	*3.5–14.1*	*17.8–33.1*	*45.2–74.9*
Indigenous identity						
Indigenous	%	*20.6	*5.0	*34.3	*47.1	n.p.
	95%CI	*10.3–37.0*	*0.7–29.3*	*15.0–60.7*	*11.1–86.4*	*n.p.*
Non-Indigenous	%	14.8	*0.6	*5.7	28.3	59.5
	95%CI	*12.3–17.7*	*0.2–1.5*	*3.5–9.3*	*22.6–34.8*	*49.4–68.9*
Residential location						
Capital city	%	11.6	*1.1	*3.3	25.5	46.4
	95%CI	*8.2–16.2*	*0.3–4.0*	*1.3–8.0*	*16.2–37.7*	*33.6–59.7*
Other places	%	17.7	*0.6	*9.6	30.9	70.2
	95%CI	*14.2–21.9*	*0.2–1.8*	*5.1–17.5*	*24.2–38.5*	*56.5–81.1*
Year level of schooling						
Year 10 or less	%	24.7	*1.3	*12.3	39.1	70.7
	95%CI	*20.4–29.5*	*0.3–6.4*	*7.1–20.4*	*31.2–47.6*	*58.9–80.2*
Year 11 or more	%	8.9	*0.7	*3.8	19.9	46.3
	95%CI	*6.6–11.8*	*0.2–2.0*	*1.5–9.1*	*14.4–26.9*	*32.6–60.7*
Highest qualification attained						
Degree or higher	%	*3.9	*1.0	—	*9.4	*31.3
	95%CI	*2.1–7.4*	*0.1–7.2*	—	*4.8–17.4*	*12.8–58.6*
Other/None	%	18.0	*0.8	*8.3	33.3	64.2
	95%CI	*15.0–21.4*	*0.3–2.4*	*4.6–14.4*	*27.1–40.3*	*52.0–74.9*
Eligibility for public dental care						
Eligible	%	31.6	*0.3	*16.0	43.3	63.0
	95%CI	*25.9–38.0*	*0.0–2.3*	*8.7–27.5*	*35.1–51.8*	*52.0–72.9*
Ineligible	%	5.9	*1.0	*3.9	15.5	*27.4
	95%CI	*4.0–8.5*	*0.4–2.8*	*1.5–9.5*	*11.2–21.1*	*9.5–57.5*
Dental insurance						
Insured	%	11.8	*0.8	*1.5	20.9	54.3
	95%CI	*9.5–14.6*	*0.1–5.5*	*0.4–6.2*	*15.5–27.7*	*38.7–69.2*
Uninsured	%	18.8	*1.0	*12.4	40.3	65.0
	95%CI	*14.7–23.7*	*0.4–2.6*	*7.3–20.3*	*31.3–50.1*	*50.9–76.8*
Usually visit dentist						
For a check-up	%	9.0	*0.8	*1.6	15.9	52.5
	95%CI	*7.0–11.4*	*0.2–3.1*	*0.4–6.6*	*10.9–22.5*	*40.5–64.2*
For a dental problem	%	24.2	*1.1	*12.6	47.6	70.0
	95%CI	*19.9–29.1*	*0.4–3.0*	*7.3–20.9*	*38.7–56.6*	*51.9–83.5*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.33: Mean number of missing teeth for pathology per person, in the adult dentate population, Tasmania

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**5.7**	***0.4**	**4.5**	**10.6**	**14.4**
	95%CI	*4.8–6.6*	*0.1–0.7*	*3.3–5.7*	*9.2–12.0*	*11.9–16.9*
Sex						
Male	mean	5.8	*0.3	4.9	10.8	14.2
	95%CI	*4.5–7.1*	*0.0–0.7*	*2.7–7.2*	*9.0–12.6*	*11.2–17.2*
Female	mean	5.6	*0.4	4.1	10.5	14.5
	95%CI	*4.6–6.5*	*0.2–0.7*	*3.3–4.8*	*8.3–12.7*	*10.2–18.9*
Indigenous identity						
Indigenous	mean	*2.6	—	*2.9	n.p.	n.p.
	95%CI	*0.0–5.6*	*0.0–0.1*	*0.0–6.1*	*n.p.*	*n.p.*
Non-Indigenous	mean	5.9	*0.4	4.6	10.5	14.4
	95%CI	*5.0–6.7*	*0.1–0.7*	*3.3–5.8*	*9.1–12.0*	*11.9–16.9*
Residential location						
Capital city	mean	4.8	*0.2	3.2	10.0	13.6
	95%CI	*3.5–6.1*	*0.0–0.3*	*2.6–3.9*	*7.5–12.6*	*8.8–18.5*
Other places	mean	6.4	*0.6	5.5	11.0	15.0
	95%CI	*5.3–7.6*	*0.0–1.1*	*3.3–7.6*	*9.4–12.6*	*12.6–17.4*
Year level of schooling						
Year 10 or less	mean	7.5	*0.1	5.5	13.0	14.3
	95%CI	*5.3–9.7*	*0.0–0.3*	*3.4–7.6*	*10.9–15.1*	*10.9–17.8*
Year 11 or more	mean	4.7	*0.5	4.0	8.8	14.4
	95%CI	*3.7–5.6*	*0.1–0.9*	*2.4–5.6*	*6.9–10.7*	*10.4–18.4*
Highest qualification attained						
Degree or higher	mean	2.7	*0.6	1.6	6.0	*8.7
	95%CI	*2.2–3.2*	*0.0–1.3*	*0.8–2.3*	*5.0–7.1*	*2.6–14.8*
Other/None	mean	6.7	*0.3	5.5	11.8	15.5
	95%CI	*5.7–7.7*	*0.1–0.5*	*4.0–7.0*	*10.1–13.4*	*13.0–18.0*
Eligibility for public dental care						
Eligible	mean	9.7	*0.7	6.6	14.0	15.2
	95%CI	*8.1–11.3*	*0.0–1.5*	*4.7–8.4*	*12.0–16.0*	*12.6–17.9*
Ineligible	mean	3.3	*0.3	3.6	7.3	10.2
	95%CI	*2.7–4.0*	*0.1–0.5*	*2.1–5.1*	*6.3–8.4*	*6.1–14.3*
Dental insurance						
Insured	mean	4.9	*0.3	2.9	8.2	13.4
	95%CI	*4.1–5.8*	*0.0–0.8*	*2.1–3.6*	*7.1–9.3*	*9.4–17.4*
Uninsured	mean	6.6	*0.4	6.0	13.5	15.4
	95%CI	*5.2–8.0*	*0.2–0.7*	*4.0–8.0*	*11.0–16.1*	*12.4–18.4*
Usually visit dentist						
For a check-up	mean	4.1	*0.1	3.3	8.1	11.9
	95%CI	*3.2–4.9*	*0.0–0.2*	*1.9–4.7*	*6.5–9.8*	*7.8–16.0*
For a dental problem	mean	8.2	*1.0	5.8	14.3	17.1
	95%CI	*7.0–9.4*	*0.1–2.0*	*3.9–7.8*	*12.2–16.4*	*13.8–20.3*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.34: Percentage of people with untreated coronal decay, in the adult dentate population, Tasmania

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**31.9**	**27.6**	**40.5**	**27.5**	***30.3**
	95%CI	*27.0–37.3*	*19.2–38.0*	*31.6–50.0*	*19.4–37.4*	*16.4–49.1*
Sex						
Male	%	36.2	*31.2	42.2	36.5	*30.4
	95%CI	*28.0–45.3*	*17.4–49.5*	*26.6–59.6*	*23.5–51.9*	*17.4–47.4*
Female	%	27.6	23.9	38.8	*18.0	*30.3
	95%CI	*21.1–35.3*	*15.8–34.4*	*26.6–52.7*	*10.0–30.2*	*10.2–62.5*
Indigenous identity						
Indigenous	%	*30.7	*3.7	72.2	n.p.	n.p.
	95%CI	*16.3–50.1*	*0.5–23.3*	*43.6–89.7*	*n.p.*	*n.p.*
Non-Indigenous	%	32.0	30.0	38.6	27.4	*30.3
	95%CI	*26.9–37.6*	*21.0–40.9*	*29.9–48.1*	*19.1–37.6*	*16.4–49.1*
Residential location						
Capital city	%	29.2	*27.5	35.9	*21.0	*38.0
	95%CI	*21.4–38.5*	*13.4–48.3*	*25.3–48.1*	*9.8–39.4*	*20.0–60.0*
Other places	%	34.1	27.7	44.1	32.0	*24.4
	95%CI	*28.1–40.6*	*20.5–36.3*	*30.8–58.2*	*21.7–44.4*	*7.8–55.1*
Year level of schooling						
Year 10 or less	%	40.9	*27.6	55.0	39.6	*32.5
	95%CI	*30.9–51.7*	*11.3–53.3*	*36.6–72.1*	*25.6–55.5*	*11.4–64.3*
Year 11 or more	%	27.8	27.6	33.9	*19.0	*32.1
	95%CI	*22.8–33.3*	*19.4–37.8*	*26.4–42.3*	*11.2–30.3*	*15.5–55.0*
Highest qualification attained						
Degree or higher	%	20.2	*15.6	*22.1	*15.7	66.6
	95%CI	*13.8–28.7*	*6.2–34.0*	*11.3–38.6*	*7.9–28.6*	*40.1–85.6*
Other/None	%	34.7	31.9	44.7	30.4	*23.4
	95%CI	*29.3–40.6*	*21.1–45.1*	*33.9–56.0*	*20.9–41.9*	*10.7–43.6*
Eligibility for public dental care						
Eligible	%	35.2	42.7	40.7	32.4	*23.9
	95%CI	*28.1–42.9*	*24.4–63.2*	*24.0–59.8*	*20.0–47.9*	*10.6–45.3*
Ineligible	%	29.9	23.1	40.4	*22.7	*57.5
	95%CI	*24.3–36.2*	*15.7–32.6*	*30.2–51.5*	*13.4–35.7*	*26.2–83.8*
Dental insurance						
Insured	%	23.7	*17.4	33.8	*17.3	*29.4
	95%CI	*19.1–29.1*	*9.5–29.7*	*20.9–49.7*	*10.3–27.6*	*16.6–46.7*
Uninsured	%	38.9	36.0	44.2	38.4	*31.6
	95%CI	*31.7–46.7*	*24.1–50.0*	*30.1–59.3*	*25.3–53.5*	*12.3–60.3*
Usually visit dentist						
For a check-up	%	17.6	*17.8	17.3	17.1	*19.9
	95%CI	*12.7–23.8*	*8.1–34.8*	*10.6–26.9*	*10.8–26.1*	*10.3–35.1*
For a dental problem	%	53.2	52.5	63.6	43.0	*42.9
	95%CI	*47.7–58.7*	*39.0–65.6*	*47.7–77.0*	*29.0–58.4*	*17.9–72.1*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.35: Mean number of decayed, missing or filled teeth per person, in the adult dentate population, Tasmania

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**12.0**	**3.2**	**10.6**	**20.4**	**23.0**
	95%CI	*11.0–13.0*	*2.5–3.9*	*9.1–12.1*	*19.4–21.3*	*21.8–24.2*
Sex						
Male	mean	11.5	2.9	9.9	20.1	22.1
	95%CI	*10.1–13.0*	*1.9–4.0*	*7.4–12.5*	*18.9–21.3*	*20.8–23.4*
Female	mean	12.5	3.5	11.3	20.6	23.7
	95%CI	*11.3–13.7*	*2.7–4.3*	*10.0–12.6*	*18.9–22.4*	*21.9–25.5*
Indigenous identity						
Indigenous	mean	*8.3	*3.2	*12.5	n.p.	n.p.
	95%CI	*4.1–12.4*	*0.7–5.8*	*6.0–19.0*	*n.p.*	*n.p.*
Non-Indigenous	mean	12.2	3.2	10.5	20.3	23.0
	95%CI	*11.3–13.2*	*2.5–3.9*	*9.1–11.9*	*19.4–21.2*	*21.8–24.2*
Residential location						
Capital city	mean	11.0	2.9	9.7	19.4	23.2
	95%CI	*9.4–12.6*	*2.0–3.9*	*7.8–11.6*	*17.7–21.2*	*21.5–24.8*
Other places	mean	12.8	3.5	11.4	21.0	22.8
	95%CI	*11.6–14.1*	*2.5–4.4*	*9.2–13.6*	*20.1–21.9*	*21.1–24.5*
Year level of schooling						
Year 10 or less	mean	13.9	2.4	12.9	20.9	23.2
	95%CI	*11.8–16.1*	*1.4–3.5*	*10.6–15.2*	*19.5–22.3*	*21.5–24.9*
Year 11 or more	mean	10.9	3.5	9.4	20.0	23.0
	95%CI	*9.9–11.9*	*2.6–4.5*	*7.7–11.1*	*18.7–21.2*	*21.3–24.6*
Highest qualification attained						
Degree or higher	mean	9.5	3.6	6.4	19.4	22.8
	95%CI	*8.3–10.8*	*2.1–5.0*	*4.7–8.1*	*17.8–21.0*	*20.3–25.3*
Other/None	mean	12.9	3.2	11.9	20.6	23.2
	95%CI	*11.7–14.1*	*2.3–4.0*	*10.2–13.5*	*19.4–21.8*	*21.9–24.5*
Eligibility for public dental care						
Eligible	mean	16.1	4.7	11.2	22.0	23.3
	95%CI	*14.5–17.7*	*2.5–6.9*	*9.1–13.4*	*20.9–23.2*	*21.9–24.6*
Ineligible	mean	9.6	2.8	10.4	18.7	21.8
	95%CI	*8.7–10.5*	*2.1–3.4*	*8.5–12.2*	*17.5–19.9*	*19.9–23.7*
Dental insurance						
Insured	mean	12.7	3.2	10.0	19.5	22.7
	95%CI	*11.3–14.0*	*2.4–4.1*	*8.0–12.0*	*18.3–20.8*	*21.6–23.9*
Uninsured	mean	11.8	3.2	11.2	21.2	23.3
	95%CI	*10.2–13.4*	*2.3–4.1*	*9.0–13.4*	*20.0–22.5*	*21.4–25.2*
Usually visit dentist						
For a check-up	mean	10.6	2.4	9.0	19.8	22.7
	95%CI	*9.6–11.6*	*1.8–3.0*	*6.9–11.1*	*18.6–21.0*	*21.1–24.4*
For a dental problem	mean	14.4	5.3	12.5	21.2	23.2
	95%CI	*13.1–15.6*	*3.8–6.9*	*10.6–14.4*	*19.7–22.8*	*21.4–24.9*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.36: Percentage of people with moderate or severe periodontitis, in the adult dentate population, Tasmania

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**26.5**	**11.2**	**17.1**	**47.6**	**65.9**
	95%CI	*21.9–31.7*	*6.9–17.5*	*11.0–25.7*	*37.6–57.8*	*46.3–81.2*
Sex						
Male	%	30.5	*9.3	*22.0	58.8	71.3
	95%CI	*23.2–38.8*	*4.5–18.0*	*11.6–37.8*	*43.6–72.5*	*47.0–87.4*
Female	%	22.6	*13.2	*12.5	35.1	62.9
	95%CI	*16.7–29.8*	*7.2–22.9*	*7.2–20.7*	*23.9–48.1*	*36.0–83.6*
Indigenous identity						
Indigenous	%	*14.3	—	*35.1	n.p.	n.p.
	95%CI	*3.9–40.3*	—	*7.1–79.1*	*n.p.*	*n.p.*
Non-Indigenous	%	27.2	12.3	16.2	47.8	65.9
	95%CI	*22.5–32.4*	*7.4–19.6*	*10.1–25.0*	*38.0–57.8*	*46.3–81.2*
Residential location						
Capital city	%	20.6	*4.1	*17.8	40.3	*54.8
	95%CI	*15.0–27.6*	*1.2–13.0*	*9.8–30.3*	*25.0–57.7*	*27.9–79.2*
Other places	%	31.1	17.4	*16.5	52.1	74.3
	95%CI	*24.3–38.8*	*10.6–27.2*	*8.5–29.5*	*39.3–64.6*	*45.8–90.8*
Year level of schooling						
Year 10 or less	%	33.7	*8.5	*26.4	54.2	76.6
	95%CI	*25.3–43.3*	*3.0–21.6*	*14.3–43.6*	*39.2–68.4*	*41.6–93.8*
Year 11 or more	%	22.8	*12.2	*12.5	42.6	62.5
	95%CI	*18.0–28.4*	*6.9–20.7*	*6.6–22.7*	*30.7–55.4*	*38.7–81.5*
Highest qualification attained						
Degree or higher	%	17.8	*8.8	*3.6	42.8	66.9
	95%CI	*12.1–25.5*	*2.3–28.8*	*1.2–10.5*	*26.5–60.9*	*36.0–87.9*
Other/None	%	28.5	*11.0	19.8	48.9	65.0
	95%CI	*23.3–34.4*	*6.0–19.4*	*12.1–30.8*	*37.5–60.4*	*41.4–83.0*
Eligibility for public dental care						
Eligible	%	41.8	*16.4	*29.1	56.5	64.0
	95%CI	*33.0–51.0*	*5.9–38.0*	*16.4–46.3*	*43.5–68.7*	*40.8–82.1*
Ineligible	%	18.1	*9.6	*12.6	39.4	*73.4
	95%CI	*14.2–22.7*	*5.0–17.5*	*6.7–22.4*	*29.2–50.6*	*22.5–96.3*
Dental insurance						
Insured	%	20.0	*4.7	*9.0	37.4	*49.1
	95%CI	*14.8–26.3*	*1.5–14.2*	*4.6–16.8*	*28.1–47.7*	*26.4–72.2*
Uninsured	%	33.2	*15.8	25.1	60.8	77.8
	95%CI	*27.3–39.7*	*9.2–25.6*	*15.0–38.8*	*46.9–73.1*	*49.7–92.6*
Usually visit dentist						
For a check-up	%	18.1	*5.2	*4.4	41.0	65.8
	95%CI	*13.9–23.3*	*2.1–12.3*	*1.8–10.5*	*29.7–53.2*	*40.8–84.3*
For a dental problem	%	39.2	25.9	31.2	55.2	67.4
	95%CI	*32.2–46.6*	*15.6–39.6*	*20.1–45.0*	*41.4–68.3*	*35.2–88.7*

Notes: 1. Data in this table was taken from the Examination for people who had a periodontal examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Australian Capital Territory

Table C.37: Percentage of adults with complete tooth loss, Australian Capital Territory

		Population: all people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**1.0**	**—**	**—**	***1.4**	**11.0**
	95%CI	*0.7–1.4*	—	—	*0.6–3.5*	*7.4–16.0*
Sex						
Male	%	*0.7	—	—	—	*12.0
	95%CI	*0.3–1.5*	—	—	—	*4.8–26.8*
Female	%	*1.3	—	—	*2.8	*10.2
	95%CI	*0.8–2.2*	—	—	*1.1–6.7*	*5.7–17.5*
Indigenous identity						
Indigenous	%	n.p.	—	n.p.	n.p.	n.p.
	95%CI	*n.p.*	—	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	%	1.0	—	—	*1.5	11.0
	95%CI	*0.7–1.5*	—	—	*0.6–3.6*	*7.4–16.0*
Residential location						
Capital city	%	1.0	—	—	*1.4	11.0
	95%CI	*0.7–1.4*	—	—	*0.6–3.5*	*7.4–16.0*
Other places	%	. .	. .	. .	. .	. .
	95%CI	. .	. .	. .	. .	. .
Year level of schooling						
Year 10 or less	%	*4.6	—	—	*4.7	17.7
	95%CI	*2.4–8.7*	—	—	*1.3–15.6	*11.2–26.8*
Year 11 or more	%	*0.4	—	—	*0.8	*6.0
	95%CI	*0.2–0.8*	—	—	*0.2–3.3	*2.8–12.7*
Highest qualification attained						
Degree or higher	%	*0.2	—	—	—	*5.3
	95%CI	*0.0–0.7*	—	—	—	*1.5–17.5*
Other/None	%	1.5	—	—	*1.8	12.1
	95%CI	*0.9–2.3*	—	—	*0.6–4.9	*7.5–18.8*
Eligibility for public dental care						
Eligible	%	*4.2	—	—	*5.0	*11.5
	95%CI	*2.5–7.0*	—	—	*1.8–13.1	*6.8–18.8*
Ineligible	%	*0.4	—	—	*0.4	*10.2
	95%CI	*0.2–0.8*	—	—	*0.1–3.2	*4.1–23.3
Dental insurance						
Insured	%	*0.3	—	—	*0.6	*3.6
	95%CI	*0.1–1.4*	—	—	*0.1–4.5	*1.1–11.2
Uninsured	%	1.9	—	—	*2.6	17.7
	95%CI	*1.2–3.0*	—	—	*0.9–7.3	*11.2–26.9
Usually visit dentist						
For a check-up	%	*0.6	—	—	*1.2	*6.0
	95%CI	*0.3–1.2*	—	—	*0.3–4.5	*2.4–13.9
For a dental problem	%	*1.2	—	—	*0.8	*15.4
	95%CI	*0.5–2.7*	—	—	*0.1–6.3	*5.4–36.7

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.38: Percentage of people with fewer than 21 teeth, in the adult dentate population, Australian Capital Territory

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**6.4**	***1.6**	***3.6**	**11.7**	**35.7**
	95%CI	*4.6–8.8*	*0.7–3.8*	*1.5–8.3*	*7.8–17.2*	*25.2–47.8*
Sex						
Male	%	6.8	*3.3	*3.7	*12.9	31.2
	95%CI	*4.2–10.9*	*1.4–7.3*	*1.3–10.4*	*7.0–22.7*	*20.3–44.8*
Female	%	5.9	—	*3.5	*10.5	39.1
	95%CI	*4.4–8.1*	—	*0.9–12.5*	*6.3–16.9*	*26.1–53.8*
Indigenous identity						
Indigenous	%	n.p.	n.p.	n.p.	n.p.	n.p.
	95%CI	*n.p.*	*n.p.*	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	%	6.5	*1.7	*3.6	11.7	35.7
	95%CI	*4.6–8.9*	*0.7–3.9*	*1.5–8.4*	*7.8–17.4*	*25.2–47.8*
Residential location						
Capital city	%	6.4	*1.6	*3.6	11.7	35.7
	95%CI	*4.6–8.8*	*0.7–3.8*	*1.5–8.3*	*7.8–17.2*	*25.2–47.8*
Other places	%	. .	. .	. .	. .	. .
	95%CI	. .	. .	. .	. .	. .
Year level of schooling						
Year 10 or less	%	21.0	*5.1	*14.9	34.0	46.5
	95%CI	*13.3–31.4*	*1.2–19.2*	*3.6–45.2*	*22.1–48.3*	*27.0–67.0*
Year 11 or more	%	4.1	*1.0	*3.0	*7.6	26.3
	95%CI	*2.7–6.1*	*0.3–3.5*	*1.2–7.5*	*4.3–13.1*	*18.8–35.4*
Highest qualification attained						
Degree or higher	%	*2.0	*0.7	*1.2	*4.5	*10.6
	95%CI	*1.0–3.7*	*0.1–5.4*	*0.2–6.0*	*2.3–8.8*	*3.7–26.9*
Other/None	%	10.1	*2.3	*7.2	16.3	44.2
	95%CI	*7.2–14.0*	*0.9–5.8*	*2.9–16.6*	*10.9–23.7*	*30.3–59.1*
Eligibility for public dental care						
Eligible	%	14.4	—	*3.6	17.9	39.9
	95%CI	*10.4–19.5*	—	*0.4–24.8*	*11.8–26.1*	*29.6–51.1*
Ineligible	%	5.0	*2.0	*3.6	10.1	*29.2
	95%CI	*3.2–7.6*	*0.8–4.7*	*1.5–8.5*	*6.3–15.9*	*14.2–50.6*
Dental insurance						
Insured	%	5.3	*2.6	*2.7	8.5	26.9
	95%CI	*3.5–8.0*	*0.9–7.2*	*0.8–8.5*	*5.2–13.6*	*16.6–40.4*
Uninsured	%	8.2	*0.9	*5.4	*16.2	45.4
	95%CI	*5.0–13.2*	*0.1–5.8*	*1.5–17.2*	*9.6–25.9*	*26.8–65.3*
Usually visit dentist						
For a check-up	%	3.8	*1.6	*1.4	*6.2	25.9
	95%CI	*2.5–5.9*	*0.6–4.2*	*0.3–6.0*	*3.6–10.3*	*18.8–34.6*
For a dental problem	%	13.8	*1.9	*10.4	*23.9	63.9
	95%CI	*9.2–20.3*	*0.2–13.8*	*4.2–23.5*	*13.7–38.4*	*35.6–85.0*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.39: Mean number of missing teeth for pathology per person, in the adult dentate population, Australian Capital Territory

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**2.9**	***0.2**	**2.7**	**5.8**	**11.3**
	95%CI	*2.5–3.2*	*0.0–0.3*	*2.2–3.3*	*5.2–6.4*	*9.0–13.7*
Sex						
Male	mean	2.5	*0.2	2.1	5.1	11.9
	95%CI	*2.0–2.9*	*0.0–0.3*	*1.5–2.7*	*4.4–5.8*	*9.0–14.8*
Female	mean	3.3	*0.1	3.4	6.5	10.9
	95%CI	*2.7–3.8*	*0.0–0.3*	*2.6–4.1*	*5.6–7.3*	*7.4–14.4*
Indigenous identity						
Indigenous	mean	n.p.	n.p.	n.p.	n.p.	n.p.
	95%CI	*n.p.*	*n.p.*	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	mean	2.9	*0.2	2.7	5.8	11.3
	95%CI	*2.5–3.3*	*0.0–0.3*	*2.2–3.3*	*5.2–6.4*	*9.0–13.7*
Residential location						
Capital city	mean	2.9	*0.2	2.7	5.8	11.3
	95%CI	*2.5–3.2*	*0.0–0.3*	*2.2–3.3*	*5.2–6.4*	*9.0–13.7*
Other places	mean	. .	. .	. .	. .	. .
	95%CI	. .	. .	. .	. .	. .
Year level of schooling						
Year 10 or less	mean	5.2	—	3.3	7.8	14.5
	95%CI	*3.4–7.1*	—	*1.8–4.7*	*6.2–9.5*	*10.1–19.0*
Year 11 or more	mean	2.5	*0.2	2.7	5.4	8.8
	95%CI	*2.2–2.8*	*0.0–0.3*	*2.2–3.3*	*4.8–6.0*	*6.9–10.8*
Highest qualification attained						
Degree or higher	mean	2.1	*0.1	1.9	5.6	6.8
	95%CI	*1.8–2.4*	*0.0–0.3*	*1.4–2.4*	*4.9–6.3*	*4.9–8.8*
Other/None	mean	3.5	*0.2	3.9	5.9	12.6
	95%CI	*2.9–4.2*	*0.0–0.3*	*2.9–4.8*	*5.1–6.8*	*9.7–15.5*
Eligibility for public dental care						
Eligible	mean	6.0	*0.1	*3.1	7.6	13.7
	95%CI	*4.2–7.7*	*0.0–0.4*	*0.7–5.6*	*6.1–9.1*	*10.5–16.9*
Ineligible	mean	2.3	*0.2	2.7	5.3	6.7
	95%CI	*2.0–2.6*	*0.0–0.3*	*2.2–3.2*	*4.7–5.8*	*5.3–8.2*
Dental insurance						
Insured	mean	3.0	*0.1	2.9	5.2	9.1
	95%CI	*2.5–3.4*	*0.0–0.2*	*2.2–3.6*	*4.5–5.8*	*7.1–11.0*
Uninsured	mean	3.1	*0.3	2.6	6.8	13.6
	95%CI	*2.4–3.7*	*0.0–0.5*	*1.8–3.3*	*5.7–7.9*	*9.5–17.7*
Usually visit dentist						
For a check-up	mean	2.6	*0.1	2.6	5.5	10.3
	95%CI	*2.2–3.0*	*0.0–0.2*	*2.0–3.2*	*4.7–6.2*	*7.9–12.7*
For a dental problem	mean	3.7	*0.3	3.3	6.7	13.8
	95%CI	*2.9–4.6*	*0.0–0.7*	*2.2–4.4*	*5.7–7.7*	*8.6–19.0*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.40: Percentage of people with untreated coronal decay, in the adult dentate population, Australian Capital Territory

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**33.3**	**35.9**	**34.1**	**26.9**	**36.3**
	95%CI	*28.6–38.5*	*27.0–45.8*	*26.6–42.4*	*19.8–35.6*	*22.8–52.5*
Sex						
Male	%	35.9	37.3	37.8	29.9	*37.6
	95%CI	*28.7–43.8*	*24.4–52.3*	*26.4–50.7*	*19.1–43.6*	*20.4–58.5*
Female	%	30.9	34.4	30.4	24.1	*35.4
	95%CI	*24.8–37.7*	*23.0–47.9*	*21.4–41.1*	*15.6–35.3*	*17.3–59.0*
Indigenous identity						
Indigenous	%	n.p.	n.p.	n.p.	n.p.	n.p.
	95%CI	*n.p.*	*n.p.*	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	%	33.2	35.4	34.1	26.9	36.3
	95%CI	*28.4–38.3*	*26.4–45.5*	*26.7–42.5*	*19.8–35.6*	*22.8–52.5*
Residential location						
Capital city	%	33.3	35.9	34.1	26.9	36.3
	95%CI	*28.6–38.5*	*27.0–45.8*	*26.6–42.4*	*19.8–35.6*	*22.8–52.5*
Other places	%	. .	. .	. .	. .	. .
	95%CI	. .	. .	. .	. .	. .
Year level of schooling						
Year 10 or less	%	37.9	*34.4	*31.0	*40.1	*47.7
	95%CI	*24.4–53.5*	*12.5–65.7*	*8.9–67.6*	*21.6–61.9*	*23.6–72.8*
Year 11 or more	%	32.5	36.1	34.2	23.6	*27.6
	95%CI	*27.5–38.0*	*26.8–46.6*	*26.6–42.8*	*16.2–33.0*	*14.5–46.2*
Highest qualification attained						
Degree or higher	%	32.7	39.9	31.5	23.9	*16.0
	95%CI	*27.0–39.0*	*29.4–51.4*	*23.0–41.6*	*15.7–34.7*	*5.5–38.3*
Other/None	%	34.1	32.9	37.9	29.2	42.1
	95%CI	*26.9–42.1*	*20.3–48.4*	*25.3–52.3*	*19.0–41.9*	*25.2–61.0*
Eligibility for public dental care						
Eligible	%	39.6	*33.3	*62.4	*32.4	46.8
	95%CI	*27.2–53.5*	*10.9–66.9*	*26.4–88.5*	*18.5–50.3*	*28.0–66.6*
Ineligible	%	32.2	36.3	32.4	25.3	*15.8
	95%CI	*27.1–37.7*	*27.1–46.6*	*24.9–40.9*	*17.3–35.3*	*5.8–36.1*
Dental insurance						
Insured	%	30.5	36.2	32.4	22.9	*22.5
	95%CI	*24.3–37.6*	*22.8–52.0*	*23.1–43.4*	*14.6–34.1*	*10.2–42.5*
Uninsured	%	38.4	40.2	36.8	33.2	50.1
	95%CI	*31.1–46.3*	*27.7–54.2*	*25.3–50.0*	*21.6–47.4*	*27.4–72.8*
Usually visit dentist						
For a check-up	%	27.3	31.4	26.5	16.6	45.4
	95%CI	*22.1–33.2*	*21.7–43.1*	*18.9–35.9*	*10.7–24.9*	*28.0–63.9*
For a dental problem	%	48.6	45.9	53.4	55.3	*14.5
	95%CI	*38.4–59.0*	*27.8–65.1*	*35.6–70.3*	*38.0–71.4*	*3.9–41.4*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.41: Mean number of decayed, missing or filled teeth per person, in the adult dentate population, Australian Capital Territory

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**9.7**	**3.3**	**8.7**	**18.8**	**24.9**
	95%CI	*8.9–10.5*	*2.7–4.0*	*7.7–9.6*	*17.8–19.9*	*23.6–26.1*
Sex						
Male	mean	9.1	3.8	7.1	18.3	25.2
	95%CI	*7.9–10.2*	*2.7–4.8*	*6.0–8.3*	*16.8–19.9*	*23.4–27.0*
Female	mean	10.3	2.9	10.2	19.3	24.6
	95%CI	*9.1–11.4*	*2.1–3.7*	*8.9–11.5*	*17.9–20.7*	*22.9–26.3*
Indigenous identity						
Indigenous	mean	*6.3	*5.2	16.0	—	—
	95%CI	*0.9–11.6*	*0.0–10.7*	*16.0–16.0*	—	—
Non-Indigenous	mean	9.7	3.3	8.7	18.8	24.9
	95%CI	*8.9–10.5*	*2.6–3.9*	*7.7–9.6*	*17.8–19.9*	*23.6–26.1*
Residential location						
Capital city	mean	9.7	3.3	8.7	18.8	24.9
	95%CI	*8.9–10.5*	*2.7–4.0*	*7.7–9.6*	*17.8–19.9*	*23.6–26.1*
Other places	mean	. .	. .	. .	. .	. .
	95%CI	. .	. .	. .	. .	. .
Year level of schooling						
Year 10 or less	mean	11.9	1.3	12.6	19.4	23.9
	95%CI	*8.8–15.0*	*0.8–1.8*	*9.6–15.5*	*16.7–22.1*	*22.0–25.9*
Year 11 or more	mean	9.3	3.6	8.5	18.7	25.6
	95%CI	*8.5–10.1*	*2.9–4.4*	*7.5–9.4*	*17.5–19.9*	*24.0–27.1*
Highest qualification attained						
Degree or higher	mean	8.6	4.0	6.8	19.3	24.2
	95%CI	*7.7–9.4*	*3.2–4.7*	*5.8–7.8*	*18.0–20.6*	*22.2–26.1*
Other/None	mean	10.6	2.8	11.1	18.6	25.1
	95%CI	*9.2–11.9*	*1.9–3.8*	*9.6–12.6*	*17.0–20.1*	*23.5–26.6*
Eligibility for public dental care						
Eligible	mean	14.9	*3.8	11.7	20.5	24.9
	95%CI	*12.0–17.8*	*1.4–6.2*	*9.4–14.1*	*18.7–22.3*	*23.3–26.6*
Ineligible	mean	8.7	3.2	8.5	18.3	24.7
	95%CI	*7.9–9.5*	*2.6–3.9*	*7.5–9.5*	*17.1–19.6*	*22.8–26.6*
Dental insurance						
Insured	mean	10.8	3.4	9.4	18.6	26.0
	95%CI	*9.7–12.0*	*2.4–4.3*	*8.1–10.6*	*17.2–20.0*	*24.6–27.5*
Uninsured	mean	9.2	3.6	8.1	19.2	23.7
	95%CI	*8.1–10.4*	*2.6–4.6*	*6.7–9.5*	*17.5–20.9*	*21.8–25.5*
Usually visit dentist						
For a check-up	mean	9.2	2.9	8.1	18.7	24.8
	95%CI	*8.3–10.1*	*2.3–3.5*	*7.0–9.2*	*17.4–19.9*	*23.2–26.3*
For a dental problem	mean	11.5	4.5	10.6	19.4	25.1
	95%CI	*9.8–13.1*	*2.7–6.4*	*8.8–12.4*	*17.5–21.3*	*23.0–27.2*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.42: Percentage of people with moderate or severe periodontitis, in the adult dentate population, Australian Capital Territory

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**26.8**	***11.6**	**24.5**	**57.5**	**53.4**
	95%CI	*22.5–31.7*	*6.2–20.7*	*17.8–32.7*	*47.8–66.6*	*34.4–71.5*
Sex						
Male	%	29.1	*13.8	31.5	57.0	*47.7
	95%CI	*22.5–36.6*	*6.5–26.9*	*20.8–44.6*	*41.6–71.1*	*25.4–70.9*
Female	%	24.7	*9.4	17.5	57.9	*58.6
	95%CI	*19.2–31.2*	*3.1–25.3*	*10.7–27.4*	*45.5–69.4*	*29.8–82.5*
Indigenous identity						
Indigenous	%	n.p.	n.p.	n.p.	n.p.	n.p.
	95%CI	*n.p.*	*n.p.*	*n.p.*	*n.p.*	*n.p.*
Non-Indigenous	%	27.0	*11.9	24.3	57.5	53.4
	95%CI	*22.6–31.9*	*6.4–21.1*	*17.6–32.6*	*47.8–66.6*	*34.4–71.5*
Residential location						
Capital city	%	26.8	*11.6	24.5	57.5	53.4
	95%CI	*22.5–31.7*	*6.2–20.7*	*17.8–32.7*	*47.8–66.6*	*34.4–71.5*
Other places	%	. .	. .	. .	. .	. .
	95%CI	. .	. .	. .	. .	. .
Year level of schooling						
Year 10 or less	%	30.9	*5.1	*16.0	70.6	*68.8
	95%CI	*19.1–45.8*	*0.7–29.8*	*2.3–61.1*	*46.2–87.0*	*29.8–92.0*
Year 11 or more	%	26.2	*12.7	25.0	54.5	45.2
	95%CI	*21.5–31.4*	*6.7–23.0*	*18.1–33.5*	*44.0–64.7*	*25.5–66.6*
Highest qualification attained						
Degree or higher	%	27.0	*8.8	26.6	62.6	72.7
	95%CI	*21.8–33.0*	*4.1–17.8*	*18.3–37.0*	*50.6–73.2*	*39.1–91.7*
Other/None	%	26.6	*13.9	*21.9	53.3	*46.6
	95%CI	*20.0–34.5*	*5.8–29.7*	*12.1–36.4*	*39.3–66.8*	*24.9–69.7*
Eligibility for public dental care						
Eligible	%	43.8	*28.7	*21.7	66.9	57.0
	95%CI	*29.3–59.4*	*7.5–66.7*	*6.0–54.5*	*44.7–83.5*	*30.9–79.7*
Ineligible	%	24.2	*9.2	24.7	55.1	*48.6
	95%CI	*19.8–29.3*	*4.7–17.4*	*17.7–33.2*	*44.2–65.5*	*23.5–74.3*
Dental insurance						
Insured	%	26.4	*13.2	*14.7	56.8	58.3
	95%CI	*20.8–32.8*	*5.9–27.0*	*8.3–24.7*	*44.4–68.3*	*33.8–79.3*
Uninsured	%	28.7	*12.3	34.3	58.7	*47.6
	95%CI	*22.0–36.5*	*4.8–28.0*	*23.3–47.3*	*43.2–72.7*	*20.5–76.1*
Usually visit dentist						
For a check-up	%	26.0	*10.1	21.8	60.7	*44.1
	95%CI	*21.2–31.3*	*4.9–19.6*	*14.7–31.0*	*49.5–70.8*	*24.2–66.1*
For a dental problem	%	27.1	*9.1	*31.1	45.0	82.2
	95%CI	*18.4–37.9*	*2.0–33.0*	*16.8–50.2*	*26.7–64.8*	*35.3–97.5*

Notes: 1. Data in this table was taken from the Examination for people who had a periodontal examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Northern Territory

Table C.43: Percentage of adults with complete tooth loss, Northern Territory

		Population: all people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**2.4**	**—**	***1.8**	**6.0**	**22.6**
	95%CI	*1.7–3.4*	—	*0.8–4.0*	*4.0–9.0*	*17.7–28.4*
Sex						
Male	%	*2.2	—	*2.6	*5.0	*13.0
	95%CI	*1.3–3.8*	—	*1.0–6.6*	*2.1–11.3*	*5.2–28.8*
Female	%	2.5	—	*0.9	7.2	*31.8
	95%CI	*1.6–4.0*	—	*0.2–3.7*	*4.5–11.4*	*17.5–50.7*
Indigenous identity						
Indigenous	%	*1.7	—	0.0	*18.1	n.p.
	95%CI	*0.6–4.8*	—	—	*7.8–36.5*	*n.p.*
Non-Indigenous	%	2.5	—	*2.0	*5.2	23.1
	95%CI	*1.6–3.9*	—	*0.9–4.5*	*3.0–8.6*	*18.2–28.9*
Residential location						
Capital city	%	2.2	—	*1.7	5.1	21.8
	95%CI	*1.4–3.5*	—	*0.7–4.1*	*3.3–7.8*	*15.2–30.3*
Other places	%	*2.6	—	*1.9	*7.6	24.2
	95%CI	*1.4–4.6*	—	*0.4–8.8*	*3.7–15.0*	*19.8–29.3*
Year level of schooling						
Year 10 or less	%	*6.1	—	*6.3	*9.5	25.5
	95%CI	*3.6–9.9*	—	*2.3–16.2*	*5.8–15.4*	*20.1–31.8*
Year 11 or more	%	*1.1	—	*0.8	*3.8	*17.1
	95%CI	*0.6–1.8*	—	*0.2–3.2*	*1.9–7.4*	*7.6–34.3*
Highest qualification attained						
Degree or higher	%	*1.4	—	*1.3	*4.7	—
	95%CI	*0.8–2.5*	—	*0.4–4.6*	*2.8–7.7*	—
Other/None	%	2.6	—	*1.8	6.1	25.3
	95%CI	*1.6–4.1*	—	*0.6–5.2*	*3.9–9.5*	*20.1–31.2*
Eligibility for public dental care						
Eligible	%	10.4	—	*12.3	15.6	24.4
	95%CI	*6.8–15.5*	—	*5.4–25.6*	*10.1–23.3*	*17.2–33.4*
Ineligible	%	*0.9	—	*0.7	*2.8	18.3
	95%CI	*0.5–1.5*	—	*0.2–2.8*	*1.3–5.8*	*12.9–25.3*
Dental insurance						
Insured	%	*1.2	—	*0.7	*3.1	*5.7
	95%CI	*0.7–2.0*	—	*0.2–3.1*	*1.4–6.6*	*1.5–19.1*
Uninsured	%	3.6	—	*3.2	11.2	39.8
	95%CI	*2.5–5.2*	—	*1.3–7.6*	*7.8–15.7*	*30.2–50.2*
Usually visit dentist						
For a check-up	%	*1.1	—	*1.7	*2.8	*2.5
	95%CI	*0.5–2.4*	—	*0.6–4.9*	*0.9–8.2*	*1.4–4.6*
For a dental problem	%	4.2	—	*2.0	9.3	38.0
	95%CI	*3.1–5.7*	—	*0.6–6.9*	*6.4–13.4*	*28.5–48.5*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.44: Percentage of people with fewer than 21 teeth, in the adult dentate population, Northern Territory

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**9.1**	***2.3**	**5.1**	**26.5**	**69.4**
	95%CI	*6.8–12.0*	*0.6–7.9*	*3.2–8.1*	*19.7–34.6*	*56.3–79.9*
Sex						
Male	%	9.1	*0.2	*6.6	28.3	63.4
	95%CI	*6.2–13.2*	*0.0–1.1*	*3.6–11.8*	*20.5–37.7*	*46.1–77.8*
Female	%	9.1	*4.6	3.5	24.3	76.6
	95%CI	*6.3–12.8*	*1.2–16.3*	*2.3–5.3*	*17.0–33.5*	*57.2–88.9*
Indigenous identity						
Indigenous	%	*4.6	*1.8	—	*37.9	n.p.
	95%CI	*2.7–7.7*	*0.5–6.5*	—	*13.5–70.4*	*n.p.*
Non-Indigenous	%	9.8	*2.4	5.7	25.8	68.5
	95%CI	*7.2–13.2*	*0.6–9.8*	*3.5–9.2*	*18.9–34.1*	*54.7–79.7*
Residential location						
Capital city	%	8.9	*0.7	*4.6	28.9	64.0
	95%CI	*5.8–13.2*	*0.2–3.2*	*2.6–7.8*	*20.2–39.5*	*49.1–76.6*
Other places	%	9.4	*4.6	*6.0	22.3	80.6
	95%CI	*6.4–13.7*	*0.9–20.4*	*2.6–13.1*	*16.3–29.6*	*61.2–91.6*
Year level of schooling						
Year 10 or less	%	15.0	*0.8	*8.7	31.7	71.2
	95%CI	*9.2–23.7*	*0.1–5.7*	*2.8–24.0*	*22.8–42.1*	*50.7–85.6*
Year 11 or more	%	7.2	*2.8	*4.4	23.8	69.4
	95%CI	*5.0–10.2*	*0.7–10.6*	*2.5–7.6*	*14.8–35.8*	*61.7–76.2*
Highest qualification attained						
Degree or higher	%	*3.9	*0.5	*2.5	*11.6	66.8
	95%CI	*2.3–6.3*	*0.1–3.1*	*0.6–10.2*	*5.9–21.6*	*41.5–85.0*
Other/None	%	11.1	*2.9	*6.6	30.8	71.1
	95%CI	*7.8–15.4*	*0.8–10.2*	*3.5–12.0*	*22.7–40.2*	*56.8–82.2*
Eligibility for public dental care						
Eligible	%	22.5	*4.6	*14.4	36.6	71.5
	95%CI	*16.7–29.7*	*1.1–16.6*	*4.5–37.4*	*27.2–47.1*	*53.0–84.8*
Ineligible	%	6.8	*2.0	*3.9	23.7	66.1
	95%CI	*4.2–10.7*	*0.4–9.5*	*2.3–6.4*	*15.2–35.0*	*57.4–73.8*
Dental insurance						
Insured	%	*9.0	*4.2	*2.5	21.3	67.3
	95%CI	*5.3–14.9*	*0.8–20.2*	*1.1–5.4*	*12.6–33.5*	*43.2–84.8*
Uninsured	%	8.9	*1.2	*8.5	34.4	68.4
	95%CI	*6.9–11.6*	*0.3–4.3*	*4.4–15.7*	*26.8–42.9*	*54.1–80.0*
Usually visit dentist						
For a check-up	%	6.7	*2.2	*2.4	22.2	65.3
	95%CI	*4.6–9.8*	*0.3–13.4*	*1.1–5.6*	*16.8–28.7*	*42.7–82.6*
For a dental problem	%	13.0	*2.8	*8.6	31.0	77.6
	95%CI	*7.8–20.7*	*1.0–7.7*	*4.9–14.9*	*19.4–45.6*	*55.6–90.5*

Notes: 1. Data in this table was taken from the Interview.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.45: Mean number of missing teeth for pathology per person, in the adult dentate population, Northern Territory

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**3.7**	***1.5**	**3.4**	**8.7**	**14.7**
	95%CI	*3.1–4.4*	*0.6–2.4*	*2.4–4.3*	*7.3–10.0*	*11.9–17.5*
Sex						
Male	mean	3.8	*1.0	3.7	8.9	15.2
	95%CI	*2.8–4.7*	*0.2–1.8*	*2.4–5.0*	*7.0–10.7*	*10.6–19.7*
Female	mean	3.7	*2.0	3.0	8.4	14.1
	95%CI	*2.7–4.8*	*0.3–3.7*	*1.7–4.3*	*6.5–10.4*	*11.5–16.7*
Indigenous identity						
Indigenous	mean	*4.3	*4.7	*0.9	n.p.	n.p.
	95%CI	*0.9–7.8*	*0.3–9.2*	*0.0–2.4*	*n.p.*	*n.p.*
Non-Indigenous	mean	3.7	*0.9	3.5	8.5	14.7
	95%CI	*3.0–4.4*	*0.4–1.5*	*2.5–4.5*	*7.1–9.9*	*11.9–17.5*
Residential location						
Capital city	mean	3.9	*1.2	3.8	8.6	15.4
	95%CI	*3.0–4.7*	*0.4–2.1*	*2.6–4.9*	*7.1–10.2*	*11.5–19.2*
Other places	mean	3.5	*1.9	*2.7	8.7	13.2
	95%CI	*2.3–4.7*	*0.0–3.8*	*1.2–4.2*	*6.2–11.2*	*10.4–16.0*
Year level of schooling						
Year 10 or less	mean	4.3	*0.7	2.9	10.6	13.8
	95%CI	*2.7–5.8*	*0.0–1.6*	*1.5–4.3*	*7.8–13.4*	*9.3–18.2*
Year 11 or more	mean	3.6	*1.7	3.4	7.8	15.4
	95%CI	*2.8–4.4*	*0.5–2.9*	*2.4–4.5*	*6.4–9.3*	*12.0–18.8*
Highest qualification attained						
Degree or higher	mean	2.4	*1.1	1.8	7.1	*12.8
	95%CI	*1.7–3.1*	*0.0–2.3*	*1.2–2.3*	*5.3–8.9*	*4.5–21.1*
Other/None	mean	4.2	*1.6	4.3	8.9	15.0
	95%CI	*3.3–5.2*	*0.4–2.8*	*2.9–5.6*	*7.3–10.6*	*12.1–18.0*
Eligibility for public dental care						
Eligible	mean	7.4	*3.4	*8.6	11.5	14.2
	95%CI	*4.2–10.6*	*0.0–7.7*	*0.8–16.4*	*8.6–14.3*	*11.5–16.9*
Ineligible	mean	3.1	*1.1	3.1	7.8	*17.4
	95%CI	*2.5–3.7*	*0.5–1.7*	*2.3–3.9*	*6.4–9.2*	*6.7–28.1*
Dental insurance						
Insured	mean	3.6	*1.4	3.0	7.1	12.2
	95%CI	*2.9–4.3*	*0.3–2.5*	*2.3–3.8*	*5.9–8.4*	*7.3–17.2*
Uninsured	mean	4.1	*1.7	*4.0	11.1	15.8
	95%CI	*2.9–5.3*	*0.3–3.1*	*2.0–6.0*	*8.4–13.7*	*12.6–19.0*
Usually visit dentist						
For a check-up	mean	3.5	*0.9	2.9	8.0	14.6
	95%CI	*2.8–4.2*	*0.4–1.4*	*2.2–3.6*	*6.4–9.6*	*11.3–17.8*
For a dental problem	mean	4.0	*2.1	3.8	9.7	14.8
	95%CI	*2.9–5.2*	*0.4–3.7*	*2.1–5.5*	*7.3–12.1*	*10.1–19.5*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.46: Percentage of people with untreated coronal decay, in the adult dentate population, Northern Territory

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**24.8**	**30.2**	**23.7**	***14.9**	***17.4**
	95%CI	*18.5–32.4*	*18.6–45.0*	*15.3–34.8*	*8.6–24.5*	*5.5–43.3*
Sex						
Male	%	27.5	*32.1	*25.9	*19.3	*31.7
	95%CI	*18.3–39.1*	*15.9–54.3*	*13.6–43.8*	*9.8–34.4*	*10.0–65.8*
Female	%	21.8	*28.1	*21.3	*9.7	—
	95%CI	*14.0–32.3*	*13.9–48.7*	*11.9–35.0*	*3.8–22.9*	—
Indigenous identity						
Indigenous	%	*36.4	*40.4	*31.1	n.p.	n.p.
	95%CI	*12.6–69.3*	*10.7–79.4*	*6.5–74.6*	*n.p.*	*n.p.*
Non-Indigenous	%	23.6	28.5	23.2	*15.2	*17.4
	95%CI	*17.4–31.3*	*16.7–44.0*	*14.6–34.8*	*8.8–25.0*	*5.5–43.3*
Residential location						
Capital city	%	*16.4	*16.5	*18.1	*13.5	*12.0
	95%CI	*9.5–26.8*	*5.7–39.0*	*8.4–34.8*	*6.3–26.5*	*1.7–51.8*
Other places	%	38.0	50.5	32.7	*17.3	*28.6
	95%CI	*27.6–49.6*	*31.8–69.1*	*19.9–48.6*	*7.8–34.1*	*5.4–73.8*
Year level of schooling						
Year 10 or less	%	*24.9	*35.0	*24.9	*7.7	*18.1
	95%CI	*11.6–45.5*	*11.4–69.4*	*8.0–55.8*	*2.2–23.4*	*2.2–68.0*
Year 11 or more	%	24.8	*28.7	23.2	*18.9	*16.8
	95%CI	*18.0–33.1*	*16.8–44.5*	*14.2–35.6*	*10.3–32.0*	*4.8–45.0*
Highest qualification attained						
Degree or higher	%	15.4	*9.2	*23.5	*7.3	n.p.
	95%CI	*9.6–23.7*	*3.4–22.9*	*13.6–37.5*	*2.2–21.5*	*n.p.*
Other/None	%	28.7	37.5	*24.0	*17.5	18.8
	95%CI	*20.3–38.8*	*22.3–55.5*	*12.8–40.3*	*9.6–29.9*	*5.3–48.8*
Eligibility for public dental care						
Eligible	%	*28.8	*33.1	76.4	*7.1	*20.8
	95%CI	*12.4–53.7*	*8.0–73.8*	*32.7–95.6*	*2.0–22.2*	*6.4–50.0*
Ineligible	%	24.1	29.6	21.3	*17.2	n.p.
	95%CI	*17.5–32.1*	*17.6–45.3*	*13.3–32.4*	*9.5–29.2*	*n.p.*
Dental insurance						
Insured	%	15.2	*19.8	*14.2	*10.0	*31.3
	95%CI	*9.7–23.1*	*8.1–40.9*	*7.5–25.4*	*4.1–22.6*	*6.3–75.5*
Uninsured	%	34.7	38.5	*37.2	*21.1	*11.2
	95%CI	*24.0–47.3*	*22.2–57.9*	*20.5–57.5*	*10.0–39.1*	*2.4–39.2*
Usually visit dentist						
For a check-up	%	16.1	*22.3	*11.0	*12.8	*20.2
	95%CI	*10.1–24.7*	*10.5–41.2*	*5.1–22.0*	*5.8–25.8*	*3.9–61.1*
For a dental problem	%	33.2	*38.1	33.8	*18.3	*14.1
	95%CI	*22.6–45.8*	*19.8–60.4*	*19.9–51.3*	*8.5–35.3*	*2.8–48.1*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.47: Mean number of decayed, missing or filled teeth per person, in the adult dentate population, Northern Territory

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**mean**	**9.7**	**5.2**	**9.7**	**19.0**	**21.7**
	95%CI	*8.4–11.0*	*3.0–7.3*	*8.1–11.4*	*17.4–20.5*	*18.9–24.6*
Sex						
Male	mean	9.8	*5.5	9.8	18.0	22.2
	95%CI	*7.9–11.6*	*2.6–8.3*	*7.3–12.4*	*15.8–20.3*	*18.0–26.4*
Female	mean	9.6	*4.8	9.7	20.1	21.2
	95%CI	*7.8–11.5*	*1.6–8.1*	*7.7–11.7*	*17.9–22.2*	*17.8–24.5*
Indigenous identity						
Indigenous	mean	*11.1	*12.0	*6.8	n.p.	n.p.
	95%CI	*5.0–17.2*	*3.9–20.1*	*2.4–11.3*	*n.p.*	*n.p.*
Non-Indigenous	mean	9.6	4.0	9.9	19.0	21.7
	95%CI	*8.3–10.8*	*2.2–5.8*	*8.2–11.6*	*17.4–20.6*	*18.9–24.6*
Residential location						
Capital city	mean	10.1	*5.2	10.4	18.9	23.0
	95%CI	*8.4–11.7*	*2.5–7.8*	*8.2–12.5*	*16.9–20.9*	*19.4–26.7*
Other places	mean	9.1	*5.2	8.7	19.2	19.1
	95%CI	*7.1–11.2*	*1.6–8.8*	*6.4–11.1*	*16.6–21.7*	*17.5–20.6*
Year level of schooling						
Year 10 or less	mean	10.0	*3.5	9.6	20.4	21.3
	95%CI	*7.3–12.7*	*0.6–6.4*	*6.5–12.7*	*17.3–23.5*	*15.6–27.1*
Year 11 or more	mean	9.5	5.7	9.7	18.4	22.1
	95%CI	*8.1–11.0*	*3.1–8.3*	*7.9–11.6*	*16.6–20.2*	*20.0–24.1*
Highest qualification attained						
Degree or higher	mean	8.2	*5.2	7.4	17.7	23.1
	95%CI	*6.2–10.3*	*0.3–10.0*	*5.8–9.1*	*15.8–19.6*	*21.1–25.0*
Other/None	mean	10.2	5.1	11.0	19.3	21.5
	95%CI	*8.6–11.8*	*2.8–7.5*	*8.7–13.3*	*17.3–21.3*	*18.2–24.8*
Eligibility for public dental care						
Eligible	mean	14.6	*8.8	17.5	21.4	20.8
	95%CI	*9.5–19.6*	*1.0–16.7*	*9.4–25.6*	*17.3–25.6*	*18.4–23.2*
Ineligible	mean	8.8	4.4	9.4	18.2	29.8
	95%CI	*7.6–10.0*	*2.5–6.3*	*7.8–11.0*	*16.7–19.7*	*25.7–34.0*
Dental insurance						
Insured	mean	10.9	*6.9	9.5	18.2	24.6
	95%CI	*9.3–12.4*	*3.3–10.6*	*7.8–11.2*	*16.6–19.7*	*22.4–26.8*
Uninsured	mean	9.0	*4.6	10.3	20.4	20.5
	95%CI	*6.9–11.1*	*1.9–7.3*	*7.0–13.6*	*17.4–23.5*	*16.8–24.1*
Usually visit dentist						
For a check-up	mean	9.0	3.0	8.5	19.0	22.1
	95%CI	*7.5–10.5*	*1.8–4.3*	*6.8–10.2*	*17.0–21.0*	*19.0–25.2*
For a dental problem	mean	10.6	*7.2	10.9	19.0	21.3
	95%CI	*8.4–12.7*	*3.5–10.8*	*8.3–13.6*	*16.4–21.5*	*16.2–26.5*

Notes: 1. Data in this table was taken from the Examination.

2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.

3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Table C.48: Percentage of people with moderate or severe periodontitis, in the adult dentate population, Northern Territory

		Population: dentate people aged 15 years and over				
		Total	**15–34**	**35–54**	**55–74**	**≥75**
All people	**%**	**36.0**	***19.8**	**42.0**	**57.9**	**75.4**
	95%CI	*28.8–43.8*	*9.7–36.2*	*31.3–53.4*	*46.0–68.9*	*47.2–91.3*
Sex						
Male	%	35.8	*19.8	42.2	52.4	73.4
	95%CI	*25.4–47.6*	*6.2–48.0*	*27.2–58.7*	*35.8–68.4*	*38.7–92.4*
Female	%	36.2	*19.8	41.8	64.0	80.5
	95%CI	*26.8–46.8*	*8.0–41.3*	*27.6–57.4*	*47.7–77.6*	*31.4–97.4*
Indigenous identity						
Indigenous	%	*30.0	*27.2	*42.5	n.p.	n.p.
	95%CI	*8.8–65.7*	*3.9–77.3*	*10.9–81.7*	*n.p.*	*n.p.*
Non-Indigenous	%	36.4	*18.8	41.9	59.4	75.4
	95%CI	*29.1–44.5*	*8.6–36.3*	*31.0–53.8*	*47.3–70.4*	*47.2–91.3*
Residential location						
Capital city	%	40.5	*16.7	49.1	67.5	83.5
	95%CI	*30.7–51.2*	*5.3–41.8*	*34.7–63.7*	*51.5–80.3*	*50.3–96.2*
Other places	%	29.0	*23.8	*29.6	41.7	n.p.
	95%CI	*19.3–41.1*	*9.6–47.8*	*16.8–46.8*	*24.9–60.6*	*n.p.*
Year level of schooling						
Year 10 or less	%	30.5	—	*46.9	58.0	n.p.
	95%CI	*17.9–46.9*	—	*21.2–74.4*	*36.0–77.1*	*n.p.*
Year 11 or more	%	37.6	*25.4	40.8	60.3	66.1
	95%CI	*29.3–46.7*	*12.8–44.3*	*29.3–53.3*	*45.9–73.1*	*31.9–89.0*
Highest qualification attained						
Degree or higher	%	27.4	*8.9	33.1	57.2	n.p.
	95%CI	*18.5–38.6*	*1.6–37.5*	*20.7–48.4*	*39.7–73.1*	*n.p.*
Other/None	%	39.9	*24.4	46.6	59.1	79.2
	95%CI	*30.5–50.0*	*11.3–45.0*	*31.9–62.0*	*44.2–72.5*	*48.3–94.0*
Eligibility for public dental care						
Eligible	%	55.8	*30.5	*49.9	82.8	68.0
	95%CI	*32.2–77.1*	*4.2–81.3*	*9.1–90.8*	*63.3–93.0*	*36.3–88.8*
Ineligible	%	33.4	*18.6	41.6	50.7	n.p.
	95%CI	*26.0–41.7*	*8.5–35.9*	*30.9–53.2*	*37.5–63.8*	*n.p.*
Dental insurance						
Insured	%	34.0	*16.0	33.2	56.7	*66.8
	95%CI	*24.4–45.0*	*2.7–56.5*	*20.9–48.2*	*42.2–70.2*	*24.0–92.8*
Uninsured	%	40.2	*23.5	58.1	59.9	80.4
	95%CI	*29.3–52.1*	*11.0–43.4*	*40.0–74.2*	*39.2–77.6*	*44.1–95.5*
Usually visit dentist						
For a check-up	%	21.7	*0.7	*24.9	52.8	*73.0
	95%CI	*15.2–30.0*	*0.1–4.8*	*13.8–40.7*	*37.3–67.7*	*30.4–94.4*
For a dental problem	%	51.2	*39.9	56.6	67.4	77.3
	95%CI	*38.9–63.4*	*20.1–63.7*	*40.5–71.5*	*49.1–81.6*	*39.2–94.8*

Notes: 1. Data in this table was taken from the Examination for people who had a periodontal examination.
2. Estimates preceded by * indicate a Relative Standard Error of at least 25% and should be used with caution.
3. — zero or rounded to zero; n.p. not publishable due to small cell counts.

Appendix D

State and territory study personnel

NSW	
Study manager	Tanya Schinkewitsch
Appointment coordinator	Tanya Schinkewitsch
Dentist examiners	Dr Mahmoud Bacher, Dr Ellen Clarke, Dr Negar Dehestani, Dr David Friis, Dr Louise Hanrahan, Dr Geetanjali Indramohan, Dr Nanna Kreutzfeldt, Dr Ming Leong, Dr Ryan O'Halloran, Dr Eva Rajbhandari, Dr Sofia Sandhu, Dr Lilla Store, Ms Lavaniya Thevarajah, Dr Thomas Hasson
Dental recorders	Vicki Baxter, Josie Carey, Le Huynh, Hamish Lonergan, Lisa McCulloch, Samantha McDonald, Judy Meilke, Sivagiami Premkumar, Rose Ryan, Renea Sharp, Heidi Skwarek, Leona Stevenson, Azar Vickers, Sheree Vickery, Janet Watling
Vic	
Study manager	Dr Shalika Hegde
Appointment co-ordinator	Wilissa D'Souza, Helen Graesser, Ewa Mazuruk
Dentist examiners	Dr Russell Emery, Miss Ashley Hew, Dr Esperance Kahwagi, Dr Antonietta Panzera
Dental recorders	Jane Abagia, Shannon Haynes, Yvette Hayward, Ewa Mazuruk
Qld	
Study manager	Amanda Philp
Appointment co-ordinator	Sarah Dixon, Stephanie Wass
Dentist examiners	Dr Iwona Anderson, Dr Bradley Campbell, Dr Amulya Gowda, Dr Lyle Norris, Dr Herholdt Robertson
Dental recorders	Angela Hellmuth, Molly Mayne, Jacqui McQueen, Sally O'Scanaill, Olivia Wheeler
SA	
Study manager	Sue Chorlton, Lisa Grillo
Appointment co-ordinator	Lisa Grillo
Dentist examiners	Sahba Kazerani, Matthew Preece
Dental recorders	Skye Dowden, Ashlee Hall, Lorraine Symons
WA	
Study manager	Dr Martin Glick
Appointment coordinator	Vicki Gatsos, Rose Turner
Dentist examiners	Dr Lani Aulsebrook, Dr Sevon Fong, Dr Erin Hardie
Dental recorders	Seana Cattalini, Laureen Girsang, Kerry Law
Tas	
Study manager	Lydia Weitnauer, Annette Westlake-Sherriff
Appointment coordinator	Amy Bowden, Kayla Bugeja, Kristin Clark, Adele Eadie, Lyn Glover, Kyra Jackson, Brooke Murfet, Teresa Nicholls, Jodie Nichols, Kylie Tims, Carolyn Truman, Maddison Wall, Lydia Weitnauer, Annette Westlake-Sherriff, Ms Bev Wharmby
Dentist examiners	Dr Georgina Barton, Dr Cara Epstein, Dr Brian Farrow, Dr Chris Handbury, Dr Ioan Jones, Dr Nicole Stott
Dental recorders	Clare Athorn, Alexandra Ferrall, Lauren Johnson, Emily Newbold, Laura Rainbird, Jo Robinson, Andrea Van Veen, Jenny Tubb, Shauna Tuthill
ACT	
Study manager	Loretta Bettiens, Angela O'Neill
Appointment co-ordinator	Angela O'Neill
Dentist examiners	Beth Doyle, Dr Kerrie O'Rourke
Dental recorders	Darshana Bhandari, Ouday Deeb, Angela O'Neill
NT	
Study manager	Nicolette Dargan, Conor Harnischfeger, Mohan Kandasamy, Santha Paliswamy
Appointment coordinator	Ashlee King, Aimee Smith
Dentist examiners	Mr Adam Bacon, Dr Michelle Davidson, Ms Alicia Jubb, Dr Fatima Kurnaz
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Symbols

$	Australian dollars
. .	not applicable
%	per cent
–	nil
*	Relative Standard Error > 25%
n.p.	Not publishable – suppressed due to less than five observations in the cell
>	greater than
<	less than
≥	greater than or equal to
≤	less than or equal to

Abbreviations

AAP	American Academy of Periodontology
ABS	Australian Bureau of Statistics
AHMAC	Australian Health Ministers' Advisory Council
AIHW	Australian Institute of Health and Welfare
ARCPOH	Australian Research Centre for Population Oral Health
CAL	Clinical attachment loss
CATI	Computer-assisted telephone interview
CDC	US Centers for Disease Control and Prevention
CEJ	Cemento-enamel junction
DH	Australian Government Department of Health
DHS	Australian Government Department of Human Services
DMFT	Number of decayed, missing and filled permanent teeth
DSRU	Dental Statistics and Research Unit
DT	Decayed teeth
DVD	Digital Versatile Disc
ERP	Estimated resident population
FT	Filled teeth
ICC	Intra-class correlation coefficient
IQR	Interquartile range
IRSAD	Index of Relative Socioeconomic Advantage/Disadvantage
MR	Mean Ratio
MT	Missing teeth
NCHS	US National Center for Health Statistics
NDTIS	National Dental Telephone Interview Survey
NHANES	US National Health and Nutrition Examination Survey
NHMRC	National Health and Medical Research Council
NOHSA	National Oral Health Survey of Australia
NSAOH	National Study of Adult Oral Health
PPD	Periodontal pocket depth
PR	Prevalence Ratio
REC	Gingival recession
RSE	Relative Standard Error
SEIFA	Socioeconomic Indices for Areas
WHO	World Health Organization

Place names

ACT	Australian Capital Territory
NSW	New South Wales
NT	Northern Territory
Qld	Queensland
SA	South Australia
Tas	Tasmania
UK	United Kingdom
US	United States
Vic	Victoria
WA	Western Australia

Glossary

95% confidence interval Defines the uncertainty around an estimated value. There is a 95% probability that the true value falls within the range of the upper and lower limits.

Absolute difference The difference between two values calculated by subtracting one value from the other.

Calculus Hard deposit of mineralised material adhering to the tooth surface.

Calibration A procedure to promote standardisation between examiners performing the oral examinations.

Canine One of four 'eye teeth' positioned next to the incisors and used for tearing food.

Capital city The administrative seat of government of each of Australia's six states and two territories. Each capital city also represents the most populous location of its respective state or territory

Cemento-enamel junction Border on a tooth surface where the coronal enamel joins the tooth cementum.

Census The Census of Population and Housing conducted every 5 years by the Australian Bureau of Statistics.

Clinical Attachment loss The loss of periodontal supporting tissues apically from the cemento-enamel junction of a tooth.

Complete tooth loss Loss of all natural teeth (also referred to as edentulism).

Coronal Pertaining to the crown of a tooth.

Crown The portion of tooth covered by white enamel that usually is visible in the mouth.

Dental attendance Behaviour related to the use of dental services.

Dental caries The process in which tooth structure is destroyed by acid produced by bacteria in the mouth. See dental decay.

Dental caries experience The cumulative effect of the caries process through a person's lifetime, manifesting as teeth or tooth surfaces that are decayed, missing or filled.

Dental decay Cavity resulting from dental caries.

Dental insurance Dental care is not covered under Australia's universal public health insurance vehicle, Medicare, and consequently people seeking cover can elect to carry private dental insurance.

Dentate Having one or more natural teeth.

Dentition The set of teeth. A complete permanent dentition comprises 32 adult teeth.

Denture A removable dental prosthesis that substitutes for missing natural teeth and adjacent tissues.

DMFS An index of dental caries experience measured by counting the number of decayed (D), missing (M), and filled (F) tooth surfaces (S).

DMFT An index of dental caries experience measured by counting the number of decayed (D), missing (M), and filled (F) teeth (T).

Edentulous A state of complete loss of all natural teeth.

Enamel Hard white mineralised tissue covering the crown of a tooth.

Epidemiology The study of the distribution and causes of health and disease in populations.

Erupted tooth A tooth that has emerged through the gums into the mouth.

Examination protocol Methods and guidelines for conducting standardised oral examinations conducted in a survey.

Extraction Removal of a natural tooth.

Fluoride A naturally occurring trace mineral that helps to prevent tooth decay.

Fluorosis Discolouration or pitting of the dental enamel caused by exposure to excessive amounts of fluoride during enamel formation.

Generation A group of people born during a defined period of time (also referred to as a birth cohort.).

Gingiva Gum tissue.

Gingival recession The shrinkage of gum tissue away from the tooth resulting in exposure of dental roots and creating the appearance of being 'long in the tooth'.

Gingivitis Redness, swelling or bleeding of the gums caused by inflammation.

Health care card A concession card issued by the Australian Government that entitles the holder to services including public dental care.

Incisor One of eight front teeth used during eating for cutting food.

Index of Relative Socioeconomic Advantage/Disadvantage (IRSAD) One of four indices measuring area-level disadvantage derived by the Australian Bureau of Statistics. The IRSAD is derived from attributes such as low income, low educational attainment, high unemployment and jobs in relatively unskilled occupations.

Indigenous identity A person who states that they are of Aboriginal and/or Torres Strait Islander descent is an Indigenous Australian.

Interproximal Between the teeth.

Intra-class correlation coefficient A statistical term referring to a measure of agreement between two or more examiners.

Mandible Lower jaw.

Maxilla Upper jaw.

Mean The arithmetic average of a set of values.

Molar One of 12 back teeth used in grinding food.

Natural teeth Refers to a person's own teeth as opposed to artificial teeth.

Orofacial pain Pain located in the face, jaw, temple, in front of the ear or in the ear.

Participation rate The proportion of people from whom survey information is collected from among the total number of people selected as intended study participants.

Periodontal disease Disease of the gums and other tissues that attach to and anchor teeth to the jaws.

Periodontal pocket A space below the gum line that exists between the root of a tooth and the gum surrounding that tooth.

Periodontitis Disease of the gums caused by bacteria, characterised by swelling and bleeding of the gums and loss of tissue that attaches the tooth to the jaw.

Permanent teeth Adult teeth (secondary teeth).

Plaque A film composed of bacteria and food debris that adheres to the tooth surface.

Prevalence The proportion of people with a defined disease within a defined population at a defined time.

Probing pocket depth The measured depth of the periodontal pocket.

Public dental care state- or territory-funded dental care available to adults with low income or other forms of social disadvantage.

Recorder A person, usually a dental assistant, who recorded the results of an oral examination onto a laptop computer.

Relative difference The difference between two values calculated as a ratio of one value divided by another.

Restoration A filling to repair a tooth damaged by decay or injury.

Retained root A residual fragment of tooth retained in the jaw after extensive decay or following incomplete extraction in which a tooth broke.

Root That part of the tooth below the cemento-enamel junction which is anchored to the jaw

Root surface The surface of the root of a tooth.

Sampling bias A flaw in either the study design or selection of participants that leads to an erroneous interpretation.

Socioeconomic Indices for Areas (SEIFA) A set of four indices derived by the Australian Bureau of Statistics from population census data to measure aspects of socioeconomic position for geographic areas.

Socioeconomic position Descriptive term for a position in society and usually measured by attributes such as income, education, occupation or characteristics of residential area.

State/territory Geographic regions of Australia. The nation has six states and two territories.

Statistical significance An indication from a statistical test that an observed association is unlikely (usually less than 5% probability) to be due to chance created when a random sample of people is selected from a population.

Trend The general direction in which change over time is observed.

Unerupted tooth A tooth that has failed to emerge through the gums into the mouth.

Weights Numbers applied to groups of study participants to correct for differences in probability of selection and in participation.

Wisdom tooth One of four molars, each one positioned at the back of the mouth.

Xerostomia A subjective feeling of dry mouth

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