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Trends in access to dental care among Australian adults 1994–2008

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Contents

Acknowledgments.....	iv
Abbreviations.....	iv
Symbols.....	iv
Summary	v
1 Introduction.....	1
2 Methodology	2
2.1 Survey design	2
2.2 Collection methodology.....	3
2.3 Weighting.....	4
2.4 Criteria for determining statistical significance.....	4
2.5 Participation rates	5
2.6 Sample size.....	6
3 Characteristics of adults.....	7
3.1 Government concession cardholder status	7
Cardholder status by year and age.....	7
Cardholder status by year and selected characteristics.....	8
3.2 Dental insurance.....	9
Insurance status by year and age.....	10
Insurance status by year and selected characteristics.....	11
4 Dental visiting patterns of adults	12
4.1 Most recent dental visit.....	12
Visited in the previous 12 months	12
Attended a private dental practice at most recent visit.....	16
Reasons for most recent dental visit.....	20
4.2 Usual pattern of dental visits	24
Usual frequency of visiting.....	24
Usual reason for dental visit.....	28
4.3 Dental treatment received.....	32
Received an extraction.....	32
Received a filling.....	36
Received a scale and clean	40
5 Financial barriers to dental care	44
5.1 Avoided or delayed visiting due to cost.....	44
5.2 Cost prevented recommended treatment.....	48
5.3 Dental visits were a large financial burden.....	52
References	56
List of tables	57
List of figures	58

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Abbreviations

AEC	Australian Electoral Commission
ARCPOH	Australian Research Centre for Population Oral Health
CI	confidence interval
EWP	Electronic White Pages
NDTIS	National Dental Telephone Interview Survey
PHIIS	Private Health Insurance Incentives Scheme

Symbols

%	per cent
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Summary

The National Dental Telephone Interview Survey (NDTIS) is a computer-assisted telephone survey of a random sample of the Australian population aged 5 years and over. The survey collects basic features of oral health and dental care within the Australian population, including access to services. Surveys were conducted in 1994, 1996, 1999, 2002, 2005 and 2008. This report examines trends in dental visiting among Australian adults between 1994 and 2008, using data from the surveys that investigated people's dental experiences in the 12-month period before each of the years specified.

From 1994 to 2008 the proportion of adults who were classified as concession cardholders increased from 20.3% to 23.2%. In all years, the lowest proportion of cardholders was in the 25–44 years age group and the highest in the 65 years and older age group.

Dental insurance cover was held by about 40% of adults from 1994 to 1996, with a steady decline from 42.0% in 1994 to 36.2% in 1999. However, following the introduction of the 30% rebate scheme in July 1999 and Lifetime Health Cover in July 2000, private health insurance dental coverage increased to 46.5% in 2002 and 50.0% in 2008. In all years, insurance coverage was highest in the 45–64 years age group.

From the surveys conducted between 1994 and 2008, just over one in two adults made a dental visit in the 12 months before each survey. Prevalence was higher in older compared with younger adults, in females, non-cardholders, insured persons, those living in urban areas and those who usually visited for a check-up.

Over the same period, more than 85% of these adults attended a private dental practice. Rates of visiting a private practice were higher for adults aged between 25 and 64 years compared with younger and older adults and for non-cardholders, insured persons, urban dwellers and those who usually visited for a check-up.

After a decline between 1994 and 1996, the proportion of adults visiting for a check-up rather than for a problem increased between 1996 and 2008.

During the period 1994–2008, around 50% of adults reported that they usually made a dental visit at least once a year or that they usually visited for a check-up. Usually making a dental visit at least once a year and usually visiting for a check-up were both more prevalent for females, non-cardholders, insured persons and urban dwellers. The higher rate of check-up visiting by non-cardholders and insured persons increased over this period of time.

From 1994 to 2008, between 13.1% and 17.5% of adults who made a dental visit in the previous 12 months, received an extraction. The rate was higher in adults who usually visited the dentist for a problem, cardholders and uninsured persons. Visiting for a problem was associated with a higher rate of fillings across all years.

The proportion of adults who received a scale and clean during the period 1994–2008 remained between 71% and 74%. Non-cardholders, insured persons, urban dwellers and those who usually visited for a check-up were more likely to receive a scale and clean.

The proportion of adults who reported that they had avoided or delayed dental care due to cost increased from 27.1% in 1994 to 34.3% in 2008. It was higher for females, cardholders, uninsured persons and those who usually visited for a problem, and increased between 1994 and 2008 for cardholders, the uninsured and those who usually visited for a problem.

There was no clear trend in reporting that cost had prevented recommended dental treatment over the period 1994–2008. Cardholders, the uninsured and those who usually

visit for a problem were more likely to report that cost had prevented recommended treatment.

1 Introduction

This publication presents trends in access to dental care among Australian adults. Data are presented from the regular series of the National Dental Telephone Interview Survey (NDTIS) that the Australian Research Centre for Population Oral Health (ARCPOH) conducts every 2–3 years. These surveys collect information on oral health and access to dental care from Australian residents aged 5 years or older.

A description of the survey design, collection methodology, level of participation and weighting procedure adopted for each NDTIS is presented in Chapter 2.

Data presented in this report describe use of dental services for adults aged 18 years and older who are ‘dentate’ that is, ‘having at least one natural tooth’. This report examines trends in dental visiting among Australian adults between 1994 and 2008. Comparisons are made on the basis of:

- age groups
- holding a Commonwealth concession card (cardholders vs. non-cardholders)
- private dental insurance status (insured vs. uninsured)
- residential location (urban vs. rural and remote)
- usual reason for making a dental visit (check-up vs. problem).

Trends in visiting which were examined include:

- having made a visit in the 12 months before the survey
- having visited a private practice
- having visited for a check-up
- usually visiting at least once a year
- usually visiting for a check-up and dental treatment received (extraction, filling or scale and clean).

Trends in experience of financial barriers are reported for:

- avoiding or delaying dental care due to cost
- cost preventing recommended dental care
- dental visits being a large financial burden.

As cardholder status and insurance status are important factors in influencing access to dental care, data on the composition of these population subgroups are provided in Chapter 3. Data are also presented by residential location to investigate whether adults living further away from the major cities and inner regional areas of Australia experience barriers to accessing dental care.

Residential location has been classified using the Australian Standard Geographic Classification Remoteness categories that the Australian Bureau of Statistics has developed. This classification has five categories: *Major cities*, *Inner regional*, *Outer regional*, *Remote* and *Very remote*. For the purposes of this report, *Major cities* and *Inner regional* classifications have been combined to represent ‘urban’ regions, and *Outer regional*, *Remote* and *Very remote* classifications have been combined to represent ‘rural and remote’ regions.

While the Indigenous status of the respondents was collected during the survey, the quality of these data was not sufficient to enable their analysis and reporting in a way which would contribute to our understanding of the dental visiting patterns of Indigenous Australians.

2 Methodology

This chapter provides:

- details of the survey design and collection methodology adopted for each NDTIS
- participation rates and sample sizes achieved
- a description of the weighting procedures used to derive population estimates
- the criteria used to determine whether changes in survey estimates over time were statistically significant.

2.1 Survey design

For each NDTIS¹ conducted in 1994, 1996, 1999 and 2002, a two-stage stratified sampling design was implemented to select a random sample of residents aged 5 years or older from the Australian population. The sampling frame used to select the sample was the Electronic White Pages (EWP), which was a list of names and addresses of Australian residents who had elected to be included in the White Pages telephone directory. Households listed on this frame were stratified by state and region (metropolitan/non-metropolitan) before selection, and a systematic sample of households was selected within each stratum. To allow for non-response and non-contacts, the number of households was over-sampled to ensure an adequate sample size in each stratum. Once telephone contact had been made with a selected household, one person aged 5 years or older was randomly selected from the household, based on birth date. This person was then asked to participate in the NDTIS. Where the selected participant was aged less than 18 years an interview was conducted with a parent or guardian on behalf of the child.

The 2005 NDTIS used a three-stage, stratified clustered sampling design. The EWP was again used as a sampling frame, with postcode used to allocate names and addresses to a state by region (by metropolitan and non-metropolitan strata). A sample of postcodes was then selected according to probability proportionate to size where size was defined as the number of households listed in the EWP in each postcode. A systematic sample of households listed in the EWP was then selected for each sampled postcode. Thirty households per metropolitan stratum and 40 households per non-metropolitan stratum were selected. For each selected household one person aged 15 years or older was randomly selected based on the birth dates of usual residents.

The 2005 NDTIS was conducted as part of the 2004–06 National Survey of Adult Oral Health. This survey had two distinct phases – the initial telephone interview phase, which was similar to previous NDTISs, and the dental examination phase, which involved telephone participants undertaking dental examinations at designated clinics. To maximise field efficiency for the dental examination phase, the design of the 2005 survey included an additional stage of selection that enabled selected households to be clustered within smaller geographical regions. Initial selection of participants within households was restricted to people aged 15 years or older. Results reported here are for people aged 18 years or older.

¹ For full details of survey methodology and findings of these surveys see Carter 1996, Carter & Stewart 2002, Carter & Stewart 2003, Carter et al. 1994, Slade et al. 2007 and Stewart & Ellershaw 2011.

For the 2008 NDTIS, a two-stage stratified sampling design was adopted to select a random sample of residents aged 5 years and older from the Australian population. The sampling frame used to select the sample was the EWP. To be able to access the latest version of the EWP, the Australian Electoral Commission (AEC) selected an initial sample of people aged 18 years and older from the Commonwealth electoral roll. Electoral roll records do not contain telephone numbers, so the records were matched against the Sensis *MacroMatch*[®] database (which uses the same source data as other Sensis products, such as the Electronic White Pages and White Pages Online) to append a residential telephone number. Only publicly listed telephone numbers (that is, those that would be listed in the White Pages and related products) can be appended under this process. Records from the AEC sample that were matched to the EWP by surname and address and returned a telephone (either landline or mobile) number, formed the basis of the 2008 NDTIS sampling frame. Households listed on this frame were stratified by state and region (metropolitan/non-metropolitan) and a systematic sample of households was selected within each stratum. To allow for non-response and non-contacts, the number of households was over-sampled to ensure an adequate sample size within each stratum. Once telephone contact had been made with a selected household, one person aged 5 years or older was randomly selected from the household based on the residents' birthdates.

2.2 Collection methodology

In order to obtain information about oral health and access to dental care, survey participants were interviewed by telephone in each NDTIS. Interviews were conducted from a dedicated computer-assisted telephone interview suite at The University of Adelaide research offices using Windows-based WinCati software. About 10 days before dialling a selected number, a primary approach letter explaining the purpose of the survey and encouraging participation was sent to each household. A toll-free telephone number was provided to allow those who received a primary approach letter to contact staff to discuss the survey. Each sampled telephone number was initially telephoned up to six times to establish contact, with calls scheduled at different times of the day and evening and different days of the week. The WinCati software made a record of each attempt. When no answer was obtained after six calls, the number was recorded as a non-contact for the purposes of calculating participation rates, and not contacted again.

If telephone contact was made with a household, interviewers went through a standard procedure to identify if the household was in the scope of the survey. Telephone numbers that did not service residential dwellings, including business numbers, hospitals or nursing homes (where the telephone number was not connected to a private room), caravan parks, hotels and hostels were excluded from the survey.

The interviewer randomly selected a target person from each household, asking the householder to identify which resident in the household was due to have the next birthday and which resident had had the last birthday. The WinCati program then selected one of these residents with 50% probability. Where only one person was resident in a household, that person was selected as the target person.

Every effort was made to ensure that the interview was conducted directly with the target person if they were aged 15 years or older. However, in some circumstances another adult answered the questions in the form of a proxy interview.

Interviews were conducted by a panel of experienced telephone interviewers, each of whom was trained in survey methods and issues relating to the questionnaire. Interviewers read

questions from a computer screen and recorded answers directly onto the computer. During interviewing hours, a senior interviewer worked as a supervisor to assist interviewers and monitor their performance. Queries and concerns from survey participants that could not be answered satisfactorily by interviewers were referred to the supervisor.

The questionnaire used in each NDTIS has remained relatively unchanged to enable comparisons of estimates over time. Most questions in the survey required participants to choose from a limited number of predetermined responses. Interviewers were asked to read each response category to enable participants to select the most appropriate answer. Open-ended questions were used to collect demographic information such as age, country of birth and language spoken at home. Skip sequences were built into the computer-assisted interviews so that questions flowed seamlessly without intervention from the interviewer. The questions and interview procedures were pilot tested on a randomly selected sample of Adelaide households, and modifications were made where necessary before data were collected for each survey.

2.3 Weighting

The purpose of using sampling weights is to enable estimates to be generated that are representative of the underlying Australian population from which survey participants were selected. In each NDTIS, people were selected with different probabilities of selection, so it was necessary to create sampling weights to account for this during statistical analysis. These weights were then adjusted to account for different response rates across age and sex categories to ensure that survey estimates were consistent with the age by sex distribution of the Australian population at the time of survey.

For the 1994, 1996, 1999, 2002 and 2008 NDTISs a person's chance of selection was determined by the stratum from which their telephone number was selected and the number of persons aged 5 years or older usually resident in the sampled household.

For the 2005 NDTIS, a person's chance of selection was determined by the stratum and postcode from which their telephone number was selected and the number of persons in the target age group usually resident in the sampled household.

2.4 Criteria for determining statistical significance

As with any survey where data are collected from only some of the people in the population, percentages presented in this report are estimates of the true population values. These estimates have some degree of uncertainty, which is expressed in this report using 95% confidence intervals (95% CIs). The 95% CI signifies the likely lower and upper limits of the range of values within which the true population percentage would fall. In this context 'likely' means that there is a 95% probability that the true population value lies between the lower and upper limits.

In this report, 95% CIs were used as a guideline to identify differences between population subgroups that are statistically significant. Comparisons between subgroups were made both within a particular survey year and across survey years to establish whether changes in estimates over time were statistically significant. When there was no overlap between the 95% CIs for two groups, the difference between the groups was deemed to be statistically significant. This criterion for judging statistical significance is more conservative than the alternative method of calculating p-values. In fact, when 95% CIs do not overlap, it means that a test of statistical significance for the difference between the groups would have a p-value of less than 0.05 (the conventional threshold used in many reports).

Percentages (population estimates) and their associated 95% CIs were generated using the SPSS Complex Samples procedure, incorporating the sample design used in each NDTIS and applied sampling weights.

For each NDTIS, stratification was specified as state by region (metropolitan/ non-metropolitan), and 'with replacement' sampling was specified as the estimation method. The same specifications were implemented for the 2005 NDTIS; however, to incorporate the extra stage of selection, postcode was specified as the primary sampling unit (cluster variable).

Differences reported in this report are those differences that are statistically significant, unless otherwise indicated in the text.

2.5 Participation rates

Participation rates for each NDTIS conducted from 1994 to 2008 are provided in Table 2.1. Participation rates for a particular survey year were calculated by dividing the number of participants by the number of in-scope telephone numbers. Telephone numbers were classified as out of scope if they were disconnected or business numbers. In-scope telephone numbers were classified as 'non-contacts' if telephone contact could not be made after six attempts. In 1994 and 1996, the participation rate was just over 71%. However, the participation rates were lower in subsequent years and ranged from 50.5% to 59.4%.

Table 2.1: Participation rates for National Dental Telephone Interview Surveys, by survey year

	Survey year					
	1994	1996	1999	2002	2005	2008
Number of telephone numbers sampled	12,522	13,075	16,289	24,938	36,931	13,733
Number of telephone numbers excluded as out of scope	1,373	1,470	2,457	10,519	8,884	940
Number of in-scope telephone numbers	11,149	11,605	13,832	14,419	28,047	12,793
Outcome						
Number of non-contacts	557	772	773	3,141	3,724	852
Number of refusals	2,605	2,541	5,230	3,966	10,159	4,343
Number of participating households	7,987	8,292	7,829	7,312	14,164	7,598
Participation rate (per cent)	71.6%	71.5%	56.6%	50.7%	50.5%	59.4%

2.6 Sample size

The number of adults sampled in each NDTIS is presented in Table 2.2. Sample sizes are provided by sex, age, state and region.

Table 2.2: Dentate adults sampled, by survey year and selected characteristics

	Survey year					
	1994	1996	1999	2002	2005	2008
Sex						
Male	2,555	2,787	2,574	2,464	4,944	2,727
Female	3,025	3,152	3,153	2,954	7,448	3,290
Age (years)						
18–24	748	700	558	623	894	552
25–44	2,486	2,585	2,281	1,933	4,586	1,464
45–64	1,593	1,846	1,956	1,965	4,758	2,683
65 and older	753	808	932	897	2,154	1,318
State or territory						
NSW	860	912	924	895	3,269	1,284
Vic	825	892	856	876	2,278	1,093
Qld	864	946	899	905	1,812	965
WA	871	917	891	917	1,137	671
SA	837	898	846	872	1,124	588
Tas	380	396	411	301	866	445
ACT	489	498	475	331	901	500
NT	454	480	425	321	1,005	471
Region						
Urban	3,756	3,861	3,670	4,201	9,941	4,905
Rural and remote	1,821	2,020	1,966	1,183	2,451	1,112
Total	5,580	5,939	5,727	5,418	12,392	6,017

Note: Some region subtotals do not sum to total sample size due to missing data. Adult dentate sample size is less than households interviewed as interviewed persons include children and adults with no natural teeth.

3 Characteristics of adults

As this report investigates variation in access to dental care by cardholder status and insurance status, this section describes the prevalence of these characteristics among adults aged 18 years and older, both across time and within selected population subgroups.

3.1 Government concession cardholder status

Throughout this report adults were classified as government concession cardholders if they or their primary carer had a Pensioner Concession Card or an Australian Government Health Care Card at the time of the survey (referred to as a 'cardholder' in this report). Generally, these cards are issued to people on low incomes and entitle the recipient and dependent children to a range of publicly funded health services. Adults who are not covered by one of these cards at the time of the survey are referred to as 'non-cardholders' in this report.

Cardholder status by year and age

From 1994 to 2008 the proportion of adults who were classified as cardholders increased from 20.3% in 1994 to 23.2% in 2008 (Table 3.1). In all years, the lowest proportion of cardholders was in the 25–44 years age group and the highest in the 65 years and older age group.

Table 3.1: Adults who are cardholders, by survey year and age (per cent)

Age group (years)		Survey year					
		1994	1996	1999	2002	2005	2008
18–24	%	25.1	16.9	20.8	22.7	20.6	20.6
	95% CI	(21.3, 29.3)	(13.6, 20.8)	(16.6, 25.9)	(18.8, 27.2)	(17.4, 24.2)	(16.5, 25.6)
25–44	%	11.7	12.5	12.5	17.5	14.4	13.0
	95% CI	(10.2, 13.5)	(10.7, 14.4)	(10.7, 14.6)	(15.2, 20.0)	(12.9, 16.0)	(10.9, 15.4)
45–64	%	19.8	15.6	16.2	18.6	18.5	16.1
	95% CI	(17.4, 22.3)	(13.4, 18.0)	(14.2, 18.5)	(16.5, 20.9)	(17.1, 20.1)	(14.4, 18.0)
65 and older	%	53.0	51.3	49.6	67.6	64.2	72.9
	95% CI	(48.4, 57.5)	(46.7, 56.0)	(45.3, 53.9)	(63.4, 71.6)	(61.4, 66.9)	(70.0, 75.7)
Total	%	20.3	18.2	19.3	24.5	23.2	23.2
	95% CI	(19.0, 21.7)	(16.9, 19.6)	(18.0, 20.8)	(23.0, 26.1)	(22.1, 24.4)	(21.8, 24.7)

Cardholder status by year and selected characteristics

Cardholder status is summarised by selected sociodemographic characteristics in Table 3.2. In all years, females were more likely to be cardholders than males. There was a small, but non-significant, increase in the proportion of males who were cardholders, from 19.9% to 21.9% between 1994 and 2008. Among females there was a sharp increase between 1999 and 2002 in the proportion who were cardholders.

There is a consistent pattern of a higher proportion of rural and remote dwellers being cardholders than urban dwellers, although the difference is not statistically significant in every year. The proportion of people who were cardholders in both groups was steady from 1994 until 1999, but increased sharply in 2002 before declining slightly. This is consistent with the overall trend for both groups.

Table 3.2: Adults who are cardholders, by survey year and selected characteristics (per cent)

		Survey year					
		1994	1996	1999	2002	2005	2008
Sex							
Male	%	19.9	18.0	18.9	22.8	22.0	21.9
	95% CI	(18.1, 21.9)	(16.2, 20.0)	(16.9, 21.0)	(20.9, 24.8)	(20.5, 23.5)	(20.2, 23.7)
Female	%	26.1	23.2	23.1	31.1	27.4	27.8
	95% CI	(24.2, 28.1)	(21.3, 25.1)	(21.2, 25.0)	(29.0, 33.2)	(26.1, 28.7)	(26.0, 29.7)
Region							
Urban	%	21.4	19.6	19.4	26.5	24.2	24.7
	95% CI	(19.8, 23.1)	(18.0, 21.3)	(17.9, 21.1)	(25.0, 28.1)	(23.0, 25.4)	(23.3, 26.0)
Rural and remote	%	27.8	23.4	25.9	29.6	28.4	26.5
	95% CI	(25.4, 30.3)	(21.0, 25.9)	(23.1, 28.8)	(26.2, 33.3)	(25.7, 31.3)	(23.0, 30.4)
Total	%	22.8	20.5	21.0	26.9	24.7	24.9
	95% CI	(21.5, 24.2)	(19.2, 21.9)	(19.7, 22.4)	(25.5, 28.4)	(23.6, 25.8)	(23.6, 26.2)

Note: Directly aged-standardised to the 2001 Australian population.

3.2 Dental insurance

Australians can obtain dental insurance by purchasing either private patient hospital cover combined with an 'extras' option that includes dental services, or the 'extras' option only. There are two levels of dental services provided by purchasing this insurance – general dental coverage and major dental coverage. General dental coverage typically includes services such as cleaning, removal of plaque, X-rays and small fillings. Major dental coverage includes these services plus additional services such as orthodontics and braces, wisdom teeth removal, crowns, bridges and dentures.

Over the past decade there have been many changes to the private health insurance system that have affected dental insurance coverage in Australia. In July 1997 the Australian Government introduced the Private Health Insurance Incentives Scheme (PHIIS) to increase private health insurance coverage across Australia. This scheme provided a subsidy to low-income earners who took out health insurance and a tax penalty, in the form of a 1.0% Medicare Levy Surcharge, on high-income earners who were not insured. The Medicare Levy Surcharge was in addition to the Medicare Levy, which was introduced at a rate of 1.0% of taxable income in 1984 and has been set at 1.5% of taxable income since 1995. In January 1999 the government amended the PHIIS to introduce a 30% rebate on private health insurance premiums. Unlike the PHIIS, this rebate was not income-tested.

In July 2000 Lifetime Health Cover was introduced to encourage Australians to take out private insurance earlier in life and to maintain their cover. People aged 30 years or older who joined after July 2000 were required to pay a 2% loading on the base rate premium for each year that they were older than 30, up to a maximum 70% loading. In April 2007 a new ruling was introduced allowing health funds to remove any Lifetime Health Cover loading that applied to a person if that person had held hospital cover for a continuous period of 10 years. If a person subsequently ceased their hospital cover and re-joined at a later date, their Lifetime Health Cover loading would be reinstated.

The following section provides estimates of the proportion of Australian adults covered by dental insurance from 1994 to 2008, classified by age and selected sociodemographic characteristics.

Insurance status by year and age

From 1994 to 1996 about 40% of adults were covered by dental insurance (Table 3.3). Despite the introduction of the PHIIS in July 1997, dental insurance coverage among adults declined steadily from 42.0% in 1994 to 36.2% in 1999. However, following the introduction of the 30% rebate scheme in July 1999 and Lifetime Health Cover in July 2000, private health insurance coverage increased to 46.5% in 2002, 47.0% in 2005 and 50.0% in 2008. In all years, insurance coverage was highest in the 45–64 years age group.

Table 3.3: Adults who have dental insurance, by survey year and age (per cent)

Age group (years)		Survey year					
		1994	1996	1999	2002	2005	2008
18–24	%	32.6	31.4	31.3	38.9	43.0	45.9
	95% CI	(28.3, 37.3)	(26.5, 36.7)	(25.7, 37.4)	(33.7, 44.4)	(39.1, 47.0)	(40.5, 51.4)
25–44	%	42.0	38.5	31.5	44.9	42.3	46.7
	95% CI	(39.4, 44.6)	(35.9, 41.2)	(28.8, 34.2)	(41.8, 48.0)	(40.0, 44.6)	(43.3, 50.1)
45–64	%	51.0	49.2	45.8	55.7	56.6	58.4
	95% CI	(47.7, 54.2)	(45.9, 52.6)	(42.5, 49.2)	(52.4, 59.0)	(54.4, 58.7)	(55.9, 60.9)
65 and older	%	35.4	34.1	37.1	36.4	42.1	43.0
	95% CI	(31.1, 39.9)	(29.9, 38.5)	(33.1, 41.4)	(32.3, 40.7)	(39.4, 44.8)	(39.7, 46.4)
Total	%	42.0	39.8	36.2	46.5	47.0	50.0
	95% CI	(40.3, 43.7)	(38.0, 41.6)	(34.4, 38.1)	(44.6, 48.4)	(45.4, 48.6)	(48.2, 51.8)

Insurance status by year and selected characteristics

Dental insurance coverage is summarised by selected sociodemographic characteristics in Table 3.4.

Dental insurance coverage was higher among females than males in all years; however, the differences were not statistically significant in all years.

Non-cardholders were significantly more likely than cardholders to have dental insurance. This was apparent in all survey years, with coverage for non-cardholders being 20–32 percentage points higher than coverage for cardholders.

Persons living in urban areas reported a higher level of dental insurance coverage than rural and remote dwellers for all years.

Table 3.4: Adults who have dental insurance, by survey year and selected characteristics (per cent)

		Survey year					
		1994	1996	1999	2002	2005	2008
Sex							
Male	%	40.2	37.7	34.6	45.2	44.3	46.6
	95% CI	(37.7, 42.7)	(35.2, 40.2)	(32.0, 37.3)	(42.5, 48.0)	(42.3, 46.4)	(43.9, 49.3)
Female	%	44.8	42.7	38.9	46.4	48.9	52.3
	95% CI	(42.5, 47.2)	(40.3, 45.1)	(36.6, 41.3)	(44.0, 48.9)	(47.0, 50.7)	(49.9, 54.6)
Cardholder status							
Cardholder	%	20.0	19.0	17.7	22.0	22.9	26.8
	95% CI	(17.0, 23.4)	(15.9, 22.4)	(14.8, 21.1)	(19.1, 25.2)	(20.7, 25.3)	(23.4, 30.5)
Non-cardholder	%	48.9	44.9	41.3	53.6	53.0	55.8
	95% CI	(46.7, 51.0)	(42.8, 47.0)	(39.2, 43.5)	(51.3, 55.8)	(51.3, 54.7)	(53.7, 57.9)
Region							
Urban	%	43.4	41.8	38.5	46.8	47.5	50.4
	95% CI	(41.4, 45.5)	(39.6, 44.0)	(36.4, 40.7)	(44.8, 48.8)	(45.8, 49.2)	(48.5, 52.3)
Rural and remote	%	38.8	34.6	30.7	38.4	39.8	40.5
	95% CI	(36.0, 41.7)	(31.9, 37.4)	(27.9, 33.6)	(34.5, 42.4)	(35.1, 44.7)	(36.2, 45.1)
Total	%	42.4	40.1	36.8	45.9	46.7	49.5
	95% CI	(40.7, 44.2)	(38.4, 41.9)	(35.0, 38.6)	(44.0, 47.7)	(45.1, 48.2)	(47.7, 51.2)

Note: Directly aged-standardised to the 2001 Australian population.

4 Dental visiting patterns of adults

Adults who visit the dentist every year for a check-up are more likely to receive dental care focused on prevention, and benefit from early diagnosis and prompt treatment of dental disease (Thomson et al. 2010). They are also more likely to receive regular professional advice on oral hygiene. Dental visiting patterns can be characterised by the person’s most recent visiting behaviour or, to reflect longer term behaviour, the person’s usual visiting patterns. Both approaches are presented in this chapter.

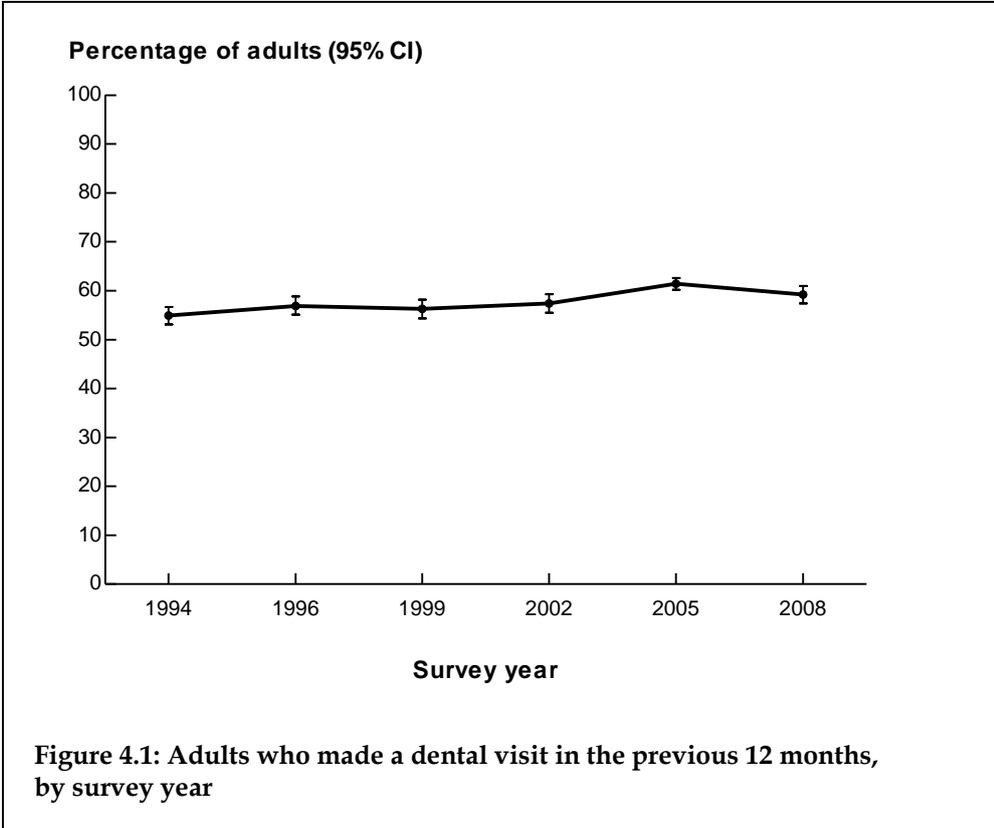
4.1 Most recent dental visit

The characteristics of a person’s most recent dental visit include how long ago the visit occurred, the type of dental practice visited and the reason for that dental visit.

Visited in the previous 12 months

In each NDTIS the time since a person’s most recent dental visit was assessed in the interview by asking the question ‘How long ago did you see a dental professional about your teeth or gums?’ Categories of response were ‘Less than 12 months ago’, ‘1 to 2 years ago’, ‘2 to 5 years ago’, ‘More than 5 years ago’, ‘Never visited’ or ‘Don’t know’. The proportions of adults whose most recent dental visit was in the previous 12 months are presented by survey year and age.

Between 1994 and 2008 the proportion of adults who made a dental visit in the previous 12 months increased from 54.9% to 59.2% (Figure 4.1).



Visited in the previous 12 months by year and age

The proportions of people who made a dental visit in the previous 12 months are shown by age for each year in Table 4.1. In all years, the proportions who visited were highest in the two older age groups. Between 1994 and 2008 the proportion who visited increased from 54.9% to 59.2%. However, only the 45–64 years age group experienced a statistically significant increase in the proportion who visited (from 57.8% to 63.6%).

Table 4.1: Adults who made a dental visit in the previous 12 months, by survey year and age (per cent)

Age group (years)		Survey year					
		1994	1996	1999	2002	2005	2008
18–24	%	54.4	49.9	51.3	52.8	58.3	60.0
	95% CI	(49.7, 59.0)	(44.4, 55.4)	(45.3, 57.3)	(47.4, 58.1)	(54.4, 62.1)	(54.7, 65.1)
25–44	%	52.4	53.9	53.4	53.2	55.3	54.2
	95% CI	(49.7, 55.1)	(51.1, 56.7)	(50.4, 56.3)	(50.0, 56.3)	(53.4, 57.2)	(50.8, 57.5)
45–64	%	57.8	63.6	62.0	63.6	68.0	63.6
	95% CI	(54.5, 61.0)	(60.4, 66.8)	(58.6, 65.3)	(60.3, 66.8)	(66.2, 69.8)	(61.1, 66.0)
65 and older	%	60.2	63.7	59.5	61.8	66.9	62.5
	95% CI	(55.7, 64.5)	(59.3, 68.0)	(55.2, 63.6)	(57.5, 66.0)	(64.3, 69.4)	(59.1, 65.8)
Total	%	54.9	56.9	56.3	57.4	61.4	59.2
	95% CI	(53.1, 56.7)	(55.1, 58.8)	(54.3, 58.2)	(55.5, 59.3)	(60.2, 62.6)	(57.4, 61.0)

Visited in the previous 12 months by year and selected characteristics

Table 4.2 presents the proportion of adults who made a dental visit in the previous 12 months, classified by survey year and selected characteristics. For the surveys conducted between 1994 and 2008, the main findings are:

- Females were more likely than males to have made a dental visit in the previous 12 months.
- Non-cardholders consistently reported a higher prevalence than cardholders of visiting in the previous 12 months. Differences by cardholder status increased from a non-statistically significant 5.7 percentage points in 1994 to a statistically significant 11.5 percentage points in 2002 before declining to 6.9 percentage points in 2008.
- In all years, insured persons reported a higher prevalence of recent visiting than uninsured persons. For both insured and uninsured persons there were small fluctuations in visiting. Visiting among the insured increased by 2.7 percentage points, compared with 1.5 percentage points among the uninsured; however, neither increase was statistically significant.
- There were small, but persistent differences in visiting rates between persons living in urban areas and those living in rural and remote areas. The small increase in visiting rates in both groups was not statistically significant.
- Persons who usually made a dental visit for a check-up consistently reported a higher prevalence of visiting in the previous 12 months than those who usually visited for a problem. The rates of visiting in both groups remained fairly constant.

Table 4.2 Adults who made a dental visit in the previous 12 months, by survey year and selected characteristics (per cent)

		Survey year					
		1994	1996	1999	2002	2005	2008
Sex							
Male	%	51.9	54.1	52.9	54.1	58.4	54.8
	95% CI	(49.3, 54.4)	(51.5, 56.7)	(50.1, 55.7)	(51.4, 56.9)	(56.7, 60.1)	(52.2, 57.5)
Female	%	59.6	62.3	61.1	61.7	64.5	63.6
	95% CI	(57.2, 61.9)	(59.8, 64.7)	(58.7, 63.5)	(59.2, 64.1)	(63.1, 65.9)	(61.2, 65.9)
Cardholder status							
Cardholder	%	52.2	56.0	50.1	49.9	54.7	54.9
	95% CI	(48.1, 56.3)	(51.5, 60.3)	(45.6, 54.5)	(45.9, 53.9)	(52.0, 57.4)	(50.3, 59.4)
Non-cardholder	%	57.9	59.8	59.3	61.4	64.6	61.8
	95% CI	(55.8, 60.0)	(57.7, 61.8)	(57.2, 61.4)	(59.1, 63.5)	(63.3, 65.8)	(59.8, 63.8)
Insurance status							
Insured	%	66.3	69.1	69.3	69.6	71.9	69.0
	95% CI	(63.7, 68.8)	(66.4, 71.6)	(66.4, 72.2)	(67.0, 72.0)	(70.4, 73.4)	(66.6, 71.3)
Uninsured	%	48.5	50.9	50.1	48.4	52.8	50.0
	95% CI	(46.1, 50.9)	(48.4, 53.3)	(47.7, 52.5)	(45.8, 50.9)	(51.3, 54.4)	(47.4, 52.6)
Region							
Urban	%	57.0	59.3	58.3	58.5	62.4	59.7
	95% CI	(54.9, 59.1)	(57.1, 61.5)	(56.0, 60.5)	(56.5, 60.5)	(61.1, 63.6)	(57.8, 61.6)
Rural and remote	%	50.8	54.3	53.0	52.5	54.3	54.2
	95% CI	(47.8, 53.9)	(51.3, 57.3)	(49.8, 56.3)	(48.2, 56.7)	(51.1, 57.6)	(49.2, 59.0)
Usual reason for visit							
Check-up	%	73.4	74.0	70.6	74.4	76.7	74.8
	95% CI	(71.1, 75.5)	(71.7, 76.1)	(68.1, 73.0)	(72.0, 76.6)	(75.4, 77.9)	(72.6, 76.8)
Problem	%	39.3	42.6	42.6	40.0	43.2	41.7
	95% CI	(36.9, 41.8)	(40.1, 45.2)	(39.9, 45.4)	(37.3, 42.7)	(41.5, 44.9)	(39.1, 44.3)
Total	%	55.6	58.2	56.9	57.9	61.5	59.2
	95% CI	(53.9, 57.4)	(56.4, 60.0)	(55.1, 58.8)	(56.0, 59.7)	(60.3, 62.6)	(57.4, 60.9)

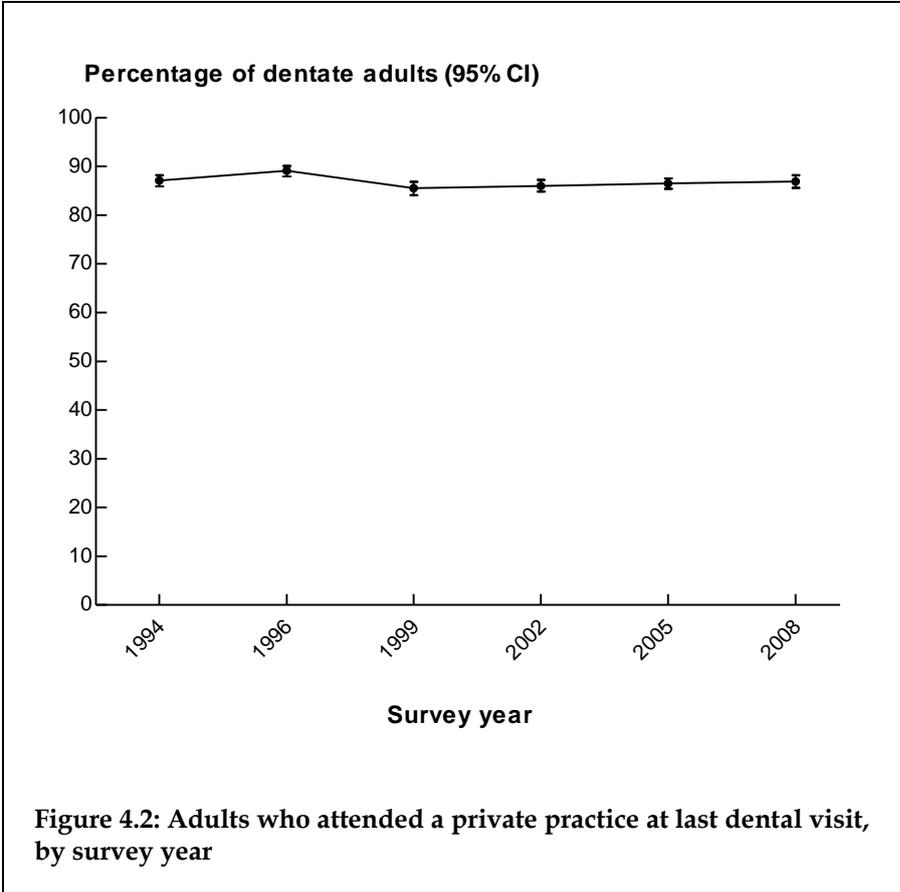
Note: Directly aged-standardised to the 2001 Australian population.

Attended a private dental practice at most recent visit

Most Australian adults obtain dental care at a private dental practice (almost 90%). Public dental care is also available to people on low incomes if they are holders of Commonwealth Government concession cards.

In each NDTIS, participants were asked, 'Where did you make your last dental visit?' Categories of response were 'Private dental practice (including specialist)', 'Government dental clinic (including dental hospital) but not Defence Services', 'School dental service', 'Dental technician', 'Clinic operated by health insurance fund', 'Armed Services/Defence Force clinic' and 'Other site'. Participants who reported that they had not made a dental visit were excluded from this question. The proportions of adults who attended a private practice at their most recent dental visit are presented by survey year and age.

The proportion of adults who attended a private practice at their most recent dental visit remained fairly constant between 1994 and 2008 (Figure 4.2).



Attended a private practice by year and age

In all years, the two middle age groups (25–44 years and 45–64 years) were more likely than the youngest and oldest age groups to have visited a private practice (Table 4.3). With the one exception of the 18–24 years age group between 1994 and 1996, there was no significant variation over time in any of the age groups.

Table 4.3: Adults who attended a private practice at last dental visit, by survey year and age (per cent)

Age group (years)		Survey year					
		1994	1996	1999	2002	2005	2008
18–24	%	75.0	83.1	74.4	76.3	76.0	77.3
	95% CI	(70.9, 78.7)	(79.1, 86.5)	(69.0, 79.2)	(72.0, 80.2)	(72.5, 79.2)	(72.3, 81.7)
25–44	%	89.9	90.0	88.1	88.4	87.2	87.9
	95% CI	(88.2, 91.4)	(88.1, 91.5)	(86.0, 90.0)	(86.5, 90.1)	(85.6, 88.7)	(85.3, 90.0)
45–64	%	91.5	93.0	90.2	89.8	90.9	92.7
	95% CI	(89.8, 93.0)	(91.3, 94.4)	(88.1, 91.9)	(87.7, 91.6)	(89.7, 92.0)	(91.2, 94.0)
65 and older	%	83.2	84.3	78.6	78.3	84.0	80.1
	95% CI	(79.8, 86.1)	(80.9, 87.2)	(75.1, 81.7)	(74.5, 81.8)	(82.0, 85.8)	(77.1, 82.8)
Total	%	87.1	89.1	85.5	86.0	86.5	86.9
	95% CI	(85.9, 88.2)	(87.9, 90.1)	(84.1, 86.8)	(84.8, 87.2)	(85.4, 87.5)	(85.6, 88.2)

Attended a private practice by year and selected characteristics

Table 4.4 presents the proportion of people who attended a private practice at their last dental visit, classified by survey year and selected characteristics. The main findings are:

- Differences in private attendance between males and females were small and inconsistent across survey years, with no obvious trend emerging.
- Throughout 1994–2008 non-cardholders were significantly more likely than cardholders to have attended a private practice. Among non-cardholders, attendance at a private practice increased from 91.9% in 1994 to 93.2% by 2008, while cardholder attendance at a private dentist decreased from 71.9% to 64.4%; however, neither of these differences was statistically significant.
- Insurance status was strongly associated with private dental attendance, with insured persons significantly more likely to have visited a private practice than uninsured persons. Among persons with dental insurance, attendance at a private practice increased slightly from 95.7% in 1994 to 96.1% in 2008. Private attendance among uninsured persons fluctuated during this period but declined between 1994 (81.4%) and 2008 (77.7%). Neither change was statistically significant.
- In all years other than 1996, the higher prevalence of attendance at a private clinic among urban people compared with rural and remote people was statistically significant.
- Persons who usually visited for a check-up were more likely in all years to report that they had visited a private dental practice. The proportion of those who usually visited for a check-up and who last visited a private practice remained stable. However, for people who usually visited for a problem, the proportion who visited a private dentist decreased from 82.6% to 78.4%, resulting in a widening of the gap between the two groups, from 9.4 percentage points to 15.3 percentage points.

Table 4.4: Adults who attended a private practice at last dental visit, by survey year and selected characteristics (per cent)

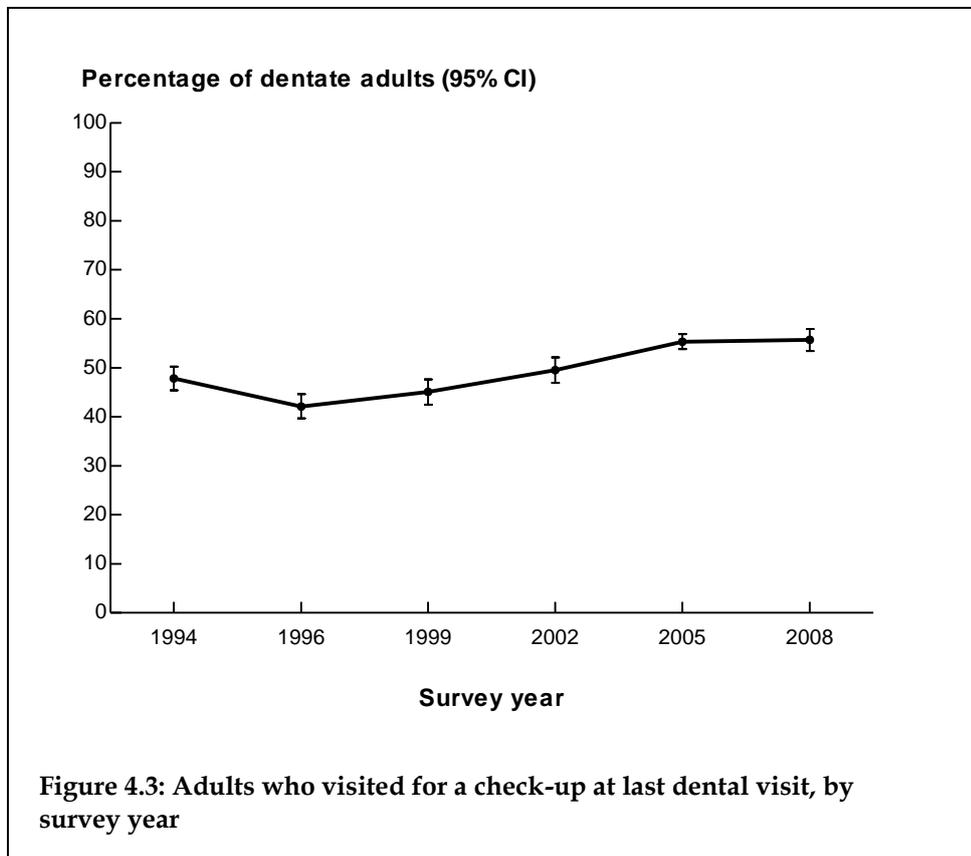
		Survey year					
		1994	1996	1999	2002	2005	2008
Sex							
Male	%	87.0	87.6	85.2	84.7	85.7	85.4
	95% CI	(85.2, 88.6)	(85.8, 89.2)	(83.1, 87.0)	(82.8, 86.5)	(84.2, 87.2)	(83.3, 87.2)
Female	%	87.7	90.5	85.6	86.4	87.1	87.9
	95% CI	(86.2, 89.1)	(89.2, 91.8)	(83.9, 87.2)	(84.7, 87.9)	(85.9, 88.2)	(86.2, 89.5)
Cardholder status							
Cardholder	%	71.9	69.6	57.8	64.7	62.9	64.4
	95% CI	(68.3, 75.2)	(65.4, 73.6)	(53.3, 62.1)	(60.9, 68.3)	(59.9, 65.9)	(59.7, 68.9)
Non-cardholder	%	91.9	94.2	92.2	92.7	93.0	93.2
	95% CI	(90.8, 93.0)	(93.3, 95.0)	(90.9, 93.3)	(91.4, 93.7)	(92.1, 93.8)	(91.9, 94.3)
Insurance status							
Insured	%	95.7	96.0	95.2	95.5	96.5	96.1
	95% CI	(94.6, 96.7)	(94.8, 97.0)	(93.5, 96.4)	(94.2, 96.5)	(95.8, 97.2)	(94.6, 97.2)
Uninsured	%	81.4	84.8	79.8	77.3	77.7	77.7
	95% CI	(79.7, 83.1)	(83.2, 86.4)	(77.9, 81.6)	(75.2, 79.2)	(76.1, 79.2)	(75.5, 79.8)
Region							
Urban	%	88.6	89.5	86.5	86.3	87.2	87.2
	95% CI	(87.3, 89.8)	(88.2, 90.8)	(84.9, 88.0)	(85.0, 87.6)	(86.2, 88.2)	(85.8, 88.5)
Rural and remote	%	83.2	87.6	81.5	80.2	79.8	81.1
	95% CI	(80.8, 85.3)	(85.6, 89.3)	(78.9, 83.9)	(76.7, 83.4)	(75.0, 83.9)	(76.7, 84.8)
Usual reason for visit							
Check-up	%	92.0	91.8	90.5	91.3	93.0	93.7
	95% CI	(90.6, 93.2)	(90.4, 93.0)	(88.8, 91.9)	(89.8, 92.6)	(92.0, 93.9)	(92.4, 94.9)
Problem	%	82.6	86.3	79.9	79.2	78.5	78.4
	95% CI	(80.8, 84.4)	(84.5, 88.0)	(77.7, 82.0)	(77.1, 81.2)	(76.8, 80.1)	(76.0, 80.6)
Total	%	87.3	89.1	85.4	85.6	86.4	86.7
	95% CI	(86.2, 88.4)	(88.0, 90.1)	(84.1, 86.6)	(84.3, 86.7)	(85.3, 87.4)	(85.3, 87.9)

Note: Directly aged-standardised to the 2001 Australian population.

Reasons for most recent dental visit

The reason for seeking dental care influences the type of care received at the visit and the level of untreated problems experienced at any time. Regular dental visits for the purposes of a check-up provide benefits from the early detection of oral disease and the ongoing preventive care. In contrast, a person who only visits when they are experiencing a dental problem may be less likely to receive preventive services and may experience greater levels of oral disease.

In each NDTIS, people who had visited in the previous 12 months were asked, 'Was that dental visit for a check-up or for a dental problem?' Only people who had made a dental visit in the previous 12 months were asked this question to ensure accurate recall. The proportions who visited for the purpose of a check-up at their most recent dental visit are presented by age and survey year. Despite a significant decline from 1994 (47.8%) to 1996 (42.1%) in the proportion of persons who made a dental visit for a check-up at their most recent dental visit, prevalence since 1996 has gradually increased to 55.7% in 2008 (Figure 4.3).



Visited for a check-up by year and age

Table 4.5 shows the proportion of people who visited for a check-up at their most recent dental visit, presented by age groups.

There was a significant increase in the proportion who visited for a check-up in the 25–44 and 45–64 years age groups. This was largest in the 25–44 years age group at 11.4 percentage points.

Table 4.5: Adults who visited for a check-up at most recent dental visit, by survey year and age (per cent)

Age group (years)		Survey year					
		1994	1996	1999	2002	2005	2008
18–24	%	65.5	43.6	54.4	63.3	69.0	73.1
	95% CI	(59.2, 71.2)	(36.0, 51.5)	(45.9, 62.6)	(55.9, 70.1)	(64.0, 73.6)	(67.0, 78.5)
25–44	%	45.9	43.7	49.0	50.8	55.2	57.3
	95% CI	(42.2, 49.5)	(40.0, 47.4)	(45.0, 53.1)	(46.4, 55.2)	(52.5, 57.8)	(52.6, 61.8)
45–64	%	41.5	39.0	38.3	43.4	51.5	49.5
	95% CI	(37.3, 45.9)	(34.9, 43.3)	(34.4, 42.4)	(39.1, 47.8)	(49.1, 53.9)	(46.4, 52.5)
65 and older	%	43.6	42.4	38.5	48.3	53.2	49.3
	95% CI	(37.8, 49.5)	(36.7, 48.3)	(33.2, 44.1)	(42.8, 53.9)	(50.0, 56.3)	(45.1, 53.5)
Total	%	47.8	42.1	45.1	49.5	55.3	55.7
	95% CI	(45.4, 50.2)	(39.7, 44.6)	(42.5, 47.6)	(46.9, 52.1)	(53.8, 56.9)	(53.4, 57.9)

Visited for a check-up by year and selected characteristics

Table 4.6 presents the proportion of persons who visited for a check-up at their most recent dental visit, classified by survey year and selected characteristics. The main findings are:

- The only significant differences in prevalence between males and females throughout the period 1994–2008 occurred in 2005, when there was a 5.9 percentage point difference.
- In all years, non-cardholders reported a higher prevalence of visiting for the purposes of a check-up than did cardholders. The difference between the two groups grew from 9.2 percentage points in 1994 to 17.3 percentage points in 2008.
- In all survey years, the proportion of persons visiting for a check-up was considerably higher among insured than uninsured persons. The proportion of uninsured persons who visited for a check-up did not change significantly over the time periods. However, in the insured group the proportion who visited for a check-up increased from 51.7% to 63.9%. As a result, the gap between the two groups increased from 10 percentage points in 1994 to 19.7 percentage points in 2008.
- In all survey years, persons living in urban areas reported a higher prevalence of visiting for a check-up than rural and remote residents, but this difference was not statistically significant in 1994 or 1996. Between 1999 and 2008 the gap between urban dwellers and rural and remote dwellers increased from 9.6 percentage points to 12.5 percentage points. The increased visiting for a check-up by urban dwellers was the sole driver for this widening gap.

Table 4.6: Adults who visited for a check-up at most recent dental visit, by survey year and selected characteristics (per cent)

		Survey year					
		1994	1996	1999	2002	2005	2008
Sex							
Male	%	45.8	39.9	42.8	49.4	52.4	52.9
	95% CI	(42.3, 49.5)	(36.4, 43.6)	(39.1, 46.6)	(45.4, 53.3)	(50.0, 54.8)	(49.3, 56.5)
Female	%	47.2	44.0	46.4	49.7	58.3	57.8
	95% CI	(44.2, 50.3)	(40.9, 47.2)	(43.2, 49.7)	(46.5, 53.0)	(56.4, 60.1)	(54.8, 60.8)
Cardholder status							
Cardholder	%	39.3	30.7	32.0	37.0	41.6	41.1
	95% CI	(33.7, 45.2)	(25.2, 36.9)	(26.7, 37.8)	(31.6, 42.6)	(38.2, 45.0)	(35.3, 47.2)
Non-cardholder	%	48.5	43.9	46.9	53.5	58.7	58.4
	95% CI	(45.8, 51.2)	(41.1, 46.7)	(44.1, 49.8)	(50.5, 56.5)	(57.0, 60.4)	(55.8, 61.0)
Insurance status							
Insured	%	51.7	49.7	53.3	55.2	63.7	63.9
	95% CI	(48.3, 55.0)	(46.2, 53.2)	(49.6, 56.9)	(51.6, 58.8)	(61.6, 65.7)	(61.1, 66.7)
Uninsured	%	41.7	35.4	38.0	42.4	45.9	44.2
	95% CI	(38.4, 45.0)	(32.2, 38.8)	(34.8, 41.2)	(38.8, 46.0)	(43.7, 48.1)	(40.6, 47.9)
Region							
Urban	%	47.1	43.1	46.6	50.5	56.3	56.7
	95% CI	(44.4, 49.9)	(40.2, 46.0)	(43.7, 49.5)	(47.7, 53.3)	(54.6, 57.9)	(54.2, 59.1)
Rural and remote	%	44.3	39.5	37.0	41.4	48.2	44.2
	95% CI	(40.2, 48.6)	(35.6, 43.6)	(32.8, 41.4)	(35.8, 47.2)	(43.9, 52.6)	(37.8, 50.8)
Total	%	46.5	42.1	44.7	49.6	55.5	55.5
	95% CI	(44.1, 48.8)	(39.7, 44.5)	(42.2, 47.2)	(47.0, 52.1)	(54.0, 57.1)	(53.2, 57.8)

Note: Directly aged-standardised to the 2001 Australian population.

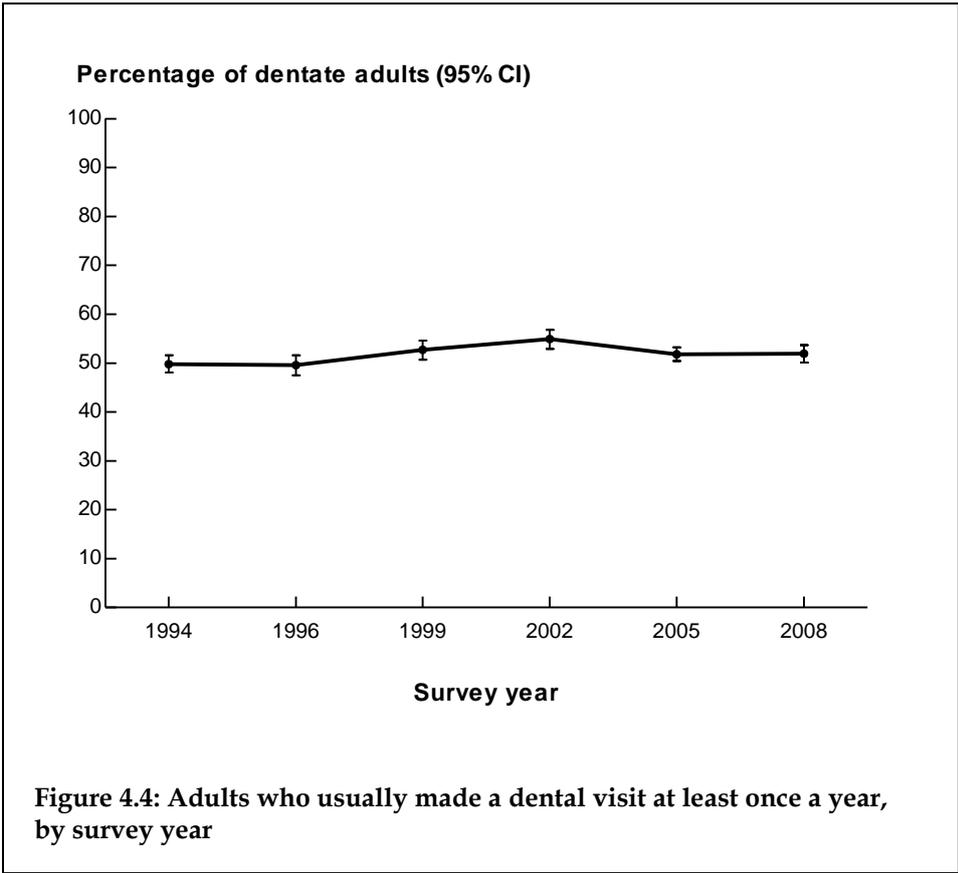
4.2 Usual pattern of dental visits

While the characteristics of a person’s last dental visit provide a snapshot of recent visiting behaviour, their usual dental attendance pattern reflects longer term behaviours and intentions. Individuals who regularly visit a dentist for the purpose of a check-up are more likely to receive timely preventive dental care and experience better oral health outcomes. The characteristics of a person’s usual visiting behaviour presented in this section include how often they usually visit a dentist and the usual reason for making a dental visit.

Usual frequency of visiting

In each NDTIS respondents were asked, ‘How often, on average, do you seek care from a dental professional?’ Categories of response included ‘Two or more times a year’, ‘Once a year’, ‘Once every 2 years’, ‘Less often than that’ and ‘Don’t know’. The first two response categories have been combined to estimate the proportion of people who usually visit the dentist at least once a year. Data are presented by survey year and age.

From 1994 to 2008 about half of all adults usually visited the dentist at least once a year, with prevalence ranging from 49.6% to 54.9% (Figure 4.4).



Usually made a dental visit at least once a year by year and age

Table 4.7 shows the proportion of people who usually made a dental visit at least once a year by survey year and age group. There is a consistent pattern in the proportion who usually visited once a year, being lowest in the 25–44 years age group, although this was not statistically significant in all years.

Table 4.7: Adults who usually made a dental visit at least once a year, by survey year and age (per cent)

Age group (years)		Survey year					
		1994	1996	1999	2002	2005	2008
18–24	%	53.9	51.4	56.3	58.1	52.0	57.2
	95% CI	(49.2, 58.5)	(45.2, 57.5)	(50.1, 62.2)	(52.6, 63.3)	(48.1, 55.8)	(51.8, 62.4)
25–44	%	47.8	45.2	48.3	50.9	45.8	47.7
	95% CI	(45.1, 50.4)	(42.2, 48.2)	(45.4, 51.3)	(47.7, 54.1)	(43.9, 47.7)	(44.3, 51.1)
45–64	%	50.3	54.0	56.1	57.9	56.6	54.2
	95% CI	(47.1, 53.6)	(50.3, 57.7)	(52.8, 59.5)	(54.4, 61.3)	(54.5, 58.7)	(51.6, 56.7)
65 and older	%	51.4	55.4	56.1	57.7	58.3	52.9
	95% CI	(46.9, 56.0)	(50.4, 60.2)	(51.7, 60.4)	(53.2, 62.1)	(55.4, 61.0)	(49.5, 56.3)
Total	%	49.8	49.6	52.7	54.9	51.8	51.9
	95% CI	(48.1, 51.6)	(47.5, 51.6)	(50.7, 54.6)	(52.9, 56.8)	(50.4, 53.2)	(50.1, 53.7)

Usually made a dental visit at least once a year by year and selected characteristics

Table 4.8 shows the proportion who usually made a dental visit at least once a year, classified by survey year and selected characteristics. The main findings are:

- In all years (1994, 1996, 1999, 2002, 2005 and 2008), females were more likely than males to usually visit at least once a year. The difference between the two groups ranged from 10.4 percentage points to 14.4 percentage points.
- In all years, non-cardholders were more likely than cardholders to report that they usually made a dental visit at least once a year. The difference increased from 5.4 percentage points in 1994 to 15.3 percentage points in 2008. This was the result of both an increase in usually visiting once a year by cardholders and a similar decrease in usually visiting once a year by non-cardholders.
- The proportion of insured persons who usually visited once a year increased from 62.4% in 1994 to 69.2% in 2002, before showing a non-significant decrease to 65.6% by 2008. For uninsured people the proportion usually visiting once a year showed a non-significant increase from 41.2% in 1994 to 45.4% in 1999, then a decrease to 38.5% by 2008. The gap between the two groups increased from 21.2 percentage points in 1994 to 27.1 percentage points in 2008.
- Neither urban dwellers nor rural and remote dwellers experienced a significant change in the proportion reporting that they usually visited at least once a year. However, the difference between the two groups increased from 8.7 percentage points in 1994 to 12.1 percentage points in 2005, before decreasing to 11.7 percentage points in 2008.
- There was a large, persistent gap in all years between people who usually visited for a check-up and those who usually visited for a problem in the group who usually made a dental visit at least once a year. This gap varied from 46.5 percentage points in 1999 to 55.0 percentage points in 1994.

Table 4.8: Adults who usually made a dental visit at least once a year, by survey year and selected characteristics (per cent)

		Survey year					
		1994	1996	1999	2002	2005	2008
Sex							
Male	%	44.8	43.5	47.6	48.7	46.3	45.7
	95% CI	(42.3, 47.5)	(40.7, 46.4)	(44.8, 50.4)	(45.9, 51.6)	(44.0, 48.3)	(43.0, 48.4)
Female	%	55.2	57.9	58.8	61.7	57.5	57.8
	95% CI	(52.7, 57.6)	(55.2, 60.5)	(56.4, 61.2)	(59.2, 64.2)	(55.9, 59.1)	(55.4, 60.2)
Cardholder status							
Cardholder	%	46.4	41.3	41.6	45.8	40.0	41.0
	95% CI	(42.2, 50.5)	(36.6, 46.1)	(37.2, 46.1)	(41.7, 50.0)	(37.6, 42.5)	(36.7, 45.4)
Non-cardholder	%	51.8	53.8	56.3	59.5	56.6	56.3
	95% CI	(49.6, 53.9)	(51.5, 56.1)	(54.2, 58.5)	(57.2, 61.7)	(55.1, 58.1)	(54.3, 58.4)
Insurance status							
Insured	%	62.4	63.3	66.5	69.2	66.5	65.6
	95% CI	(59.7, 65.0)	(60.3, 66.1)	(63.5, 69.4)	(66.5, 71.8)	(64.8, 68.2)	(63.1, 68.0)
Uninsured	%	41.2	41.8	45.4	43.4	39.4	38.5
	95% CI	(38.9, 43.6)	(39.2, 44.5)	(43.0, 47.9)	(40.8, 46.1)	(37.8, 41.0)	(36.0, 41.1)
Region							
Urban	%	51.9	52.7	55.1	56.4	53.3	52.9
	95% CI	(49.7, 54.0)	(50.3, 55.1)	(52.8, 57.4)	(54.3, 58.4)	(51.8, 54.8)	(51.0, 54.8)
Rural and remote	%	43.2	43.5	46.9	45.4	41.2	41.2
	95% CI	(40.2, 46.2)	(40.4, 46.8)	(43.7, 50.2)	(41.0, 49.8)	(38.2, 44.2)	(36.6, 46.0)
Usual reason for visit							
Check-up	%	77.9	77.3	75.5	79.0	76.7	77.0
	95% CI	(75.8, 79.9)	(74.9, 79.5)	(73.1, 77.7)	(76.8, 81.1)	(75.3, 78.0)	(74.8, 79.0)
Problem	%	22.9	23.6	29.0	26.8	21.8	23.4
	95% CI	(20.8, 25.0)	(21.3, 26.2)	(26.5, 31.6)	(24.3, 29.4)	(20.5, 23.3)	(21.2, 25.8)
Total	%	50.0	50.5	53.1	55.2	52.0	51.7
	95% CI	(48.2, 51.7)	(48.5, 52.5)	(51.2, 55.0)	(53.3, 57.1)	(50.6, 53.3)	(49.9, 53.5)

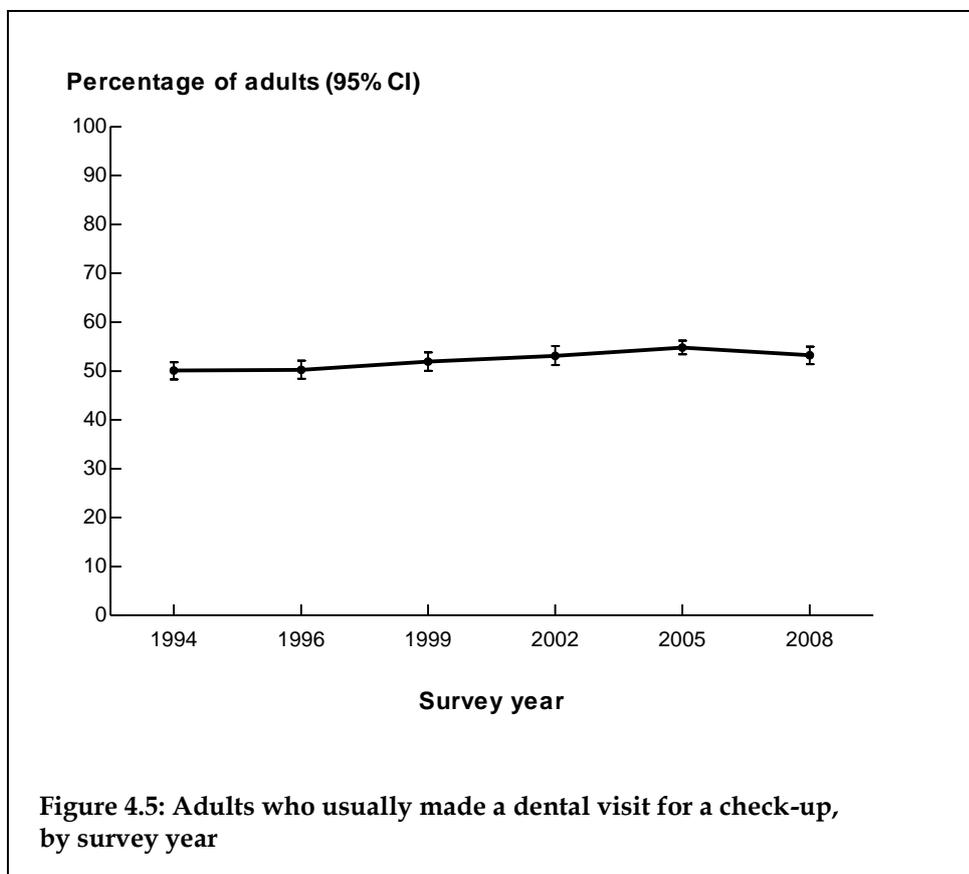
Note: Directly aged-standardised to the 2001 Australian population.

Usual reason for dental visit

The reason for visiting a dentist, whether for a check-up or a dental problem, can influence the type of dental care a person will receive. Delaying a dental visit until a dental problem emerges is likely to lead to less desirable oral health outcomes (AIHW DSRU 2007).

In each NDTIS individuals were asked, 'Which is your usual reason for visiting a dental professional, for check-ups or when you have a dental problem?' The proportion of persons who usually visited the dentist for a check-up is presented by survey year and age.

From 1994 to 2008 the proportion of persons who reported that they usually visited the dentist for a check-up remained fairly constant, ranging from 50.1% in 1994 to 54.8% in 2005 (Figure 4.5). The proportion of those usually visiting for a check-up was 8.1 and 6.8 percentage points higher in 1996 and 1999, respectively (Figure 4.5), than the proportion reporting that they had visited for a check-up at their most recent dental visit (Table 4.6). There were no significant differences in other years.



Usually visited for check-up by year and age

Table 4.9 shows the proportion in each age group in each year who reported that they usually made a dental visit for a check-up. The small variations in each age group across time were, for the most part, not significant. The differences between age groups were small and not significant in 1994, 1996 and 1999. In 2002, 2005 and 2008 the differences between the youngest (18–24 years) and the other age groups were larger and apart from the 65 years and older age groups in 2005 were significant.

Table 4.9: Adults who usually made a dental visit for a check-up, by survey year and age (per cent)

Age group (years)		Survey year					
		1994	1996	1999	2002	2005	2008
18–24	%	55.6	52.2	59.0	63.3	62.3	62.1
	95% CI	(50.9, 60.1)	(46.6, 57.7)	(52.9, 64.9)	(58.1, 68.3)	(58.3, 66.1)	(56.8, 67.2)
25–44	%	49.1	48.7	50.4	49.6	50.6	52.6
	95% CI	(46.5, 51.8)	(45.9, 51.5)	(47.5, 53.4)	(46.5, 52.7)	(48.5, 52.8)	(49.2, 56.0)
45–64	%	49.0	51.5	49.8	54.1	56.0	51.8
	95% CI	(45.7, 52.3)	(48.1, 54.8)	(46.4, 53.2)	(50.7, 57.5)	(53.9, 58.1)	(49.3, 54.3)
65 and older	%	47.7	50.9	53.3	51.9	56.7	48.9
	95% CI	(43.2, 52.3)	(46.2, 55.5)	(48.9, 57.6)	(47.4, 56.3)	(53.9, 59.5)	(45.5, 52.3)
Total	%	50.1	50.2	51.9	53.1	54.8	53.2
	95% CI	(48.3, 51.8)	(48.4, 52.1)	(50.0, 53.8)	(51.2, 55.1)	(53.4, 56.2)	(51.4, 55.0)

Usually visited for a check-up by year and selected characteristics

Table 4.10 shows the proportion in each age group in each year who reported that they usually made a dental visit for a check-up, classified by survey year and selected characteristics. For all years, the main findings are:

- Females had a higher prevalence of usually visiting for a check-up than did males. Both groups experienced a small, but not significant, increase over the period 1994–2008.
- Non-cardholders had a higher prevalence of usually visiting for a check-up than did cardholders. Among cardholders the prevalence decreased from 40.0% to 35.4%; however, this change was not significant. Among non-cardholders the prevalence increased from 52.5% to 58.4%. This resulted in an increase in the gap between the two groups from 12.5 percentage points in 1994 to 23.0 percentage points in 2008.
- Insured persons had a higher prevalence of usually visiting for a check-up than did uninsured persons. This prevalence increased in insured persons from 61.4% in 1994 to 67.1% in 2008, and showed a small decrease in uninsured persons that was not significant. The prevalence gap between the two groups increased from 20.3 percentage points in 1994 to 27.9 percentage points in 2008.
- Urban dwellers had a higher prevalence of usually visiting for a check-up than rural and remote dwellers. The difference ranged from 10 percentage points to 12.9 percentage points. Among urban dwellers the prevalence of usually visiting for a check-up increased from 51.9% in 1994 to 56.2% in 2005, but declined in 2008 to be not significantly higher than that in 1994. Among rural and remote dwellers there was no significant change in prevalence of usually visiting for a check-up.

Table 4.10: Adults who usually made a dental visit for a check-up, by survey year and selected characteristics (per cent)

		Survey year					
		1994	1996	1999	2002	2005	2008
Sex							
Male	%	45.6	44.4	46.7	48.8	50.1	49.0
	95% CI	(43.0, 48.2)	(41.7, 47.1)	(43.8, 49.5)	(46.0, 51.6)	(48.2, 51.9)	(46.3, 51.6)
Female	%	53.9	56.4	57.2	57.4	59.4	56.8
	95% CI	(51.4, 56.3)	(53.9, 58.9)	(54.7, 59.6)	(54.9, 59.9)	(57.7, 61.1)	(54.4, 59.2)
Cardholder status							
Cardholder	%	40.0	38.9	37.8	37.2	38.4	35.4
	95% CI	(35.9, 44.2)	(34.5, 43.4)	(33.7, 42.1)	(33.5, 41.0)	(35.9, 40.9)	(31.4, 39.5)
Non-cardholder	%	52.5	53.5	55.0	58.5	60.0	58.4
	95% CI	(50.3, 54.6)	(51.4, 55.6)	(52.8, 57.2)	(56.2, 60.8)	(58.5, 61.4)	(56.3, 60.5)
Insurance status							
Insured	%	61.4	62.8	64.1	67.1	69.3	67.1
	95% CI	(58.7, 64.0)	(60.0, 65.6)	(61.0, 67.1)	(64.3, 69.7)	(67.6, 70.9)	(64.6, 69.4)
Uninsured	%	41.1	41.8	44.7	41.2	42.0	39.2
	95% CI	(38.8, 43.5)	(39.4, 44.3)	(42.3, 47.1)	(38.6, 43.8)	(40.4, 43.6)	(36.7, 41.8)
Region							
Urban	%	51.9	52.8	54.3	54.6	56.2	54.0
	95% CI	(49.8, 54.1)	(50.5, 55.1)	(52.0, 56.6)	(52.5, 56.6)	(54.6, 57.7)	(52.1, 55.9)
Rural and remote	%	41.9	42.3	42.8	41.7	43.5	42.3
	95% CI	(38.9, 44.9)	(39.4, 45.3)	(39.6, 46.0)	(37.6, 46.0)	(41.2, 45.8)	(37.5, 47.2)
Total	%	49.7	50.3	51.8	53.1	54.8	52.9
	95% CI	(47.9, 51.5)	(48.5, 52.2)	(49.9, 53.7)	(51.2, 55.0)	(53.4, 56.2)	(51.1, 54.7)

Note: Directly aged-standardised to the 2001 Australian population.

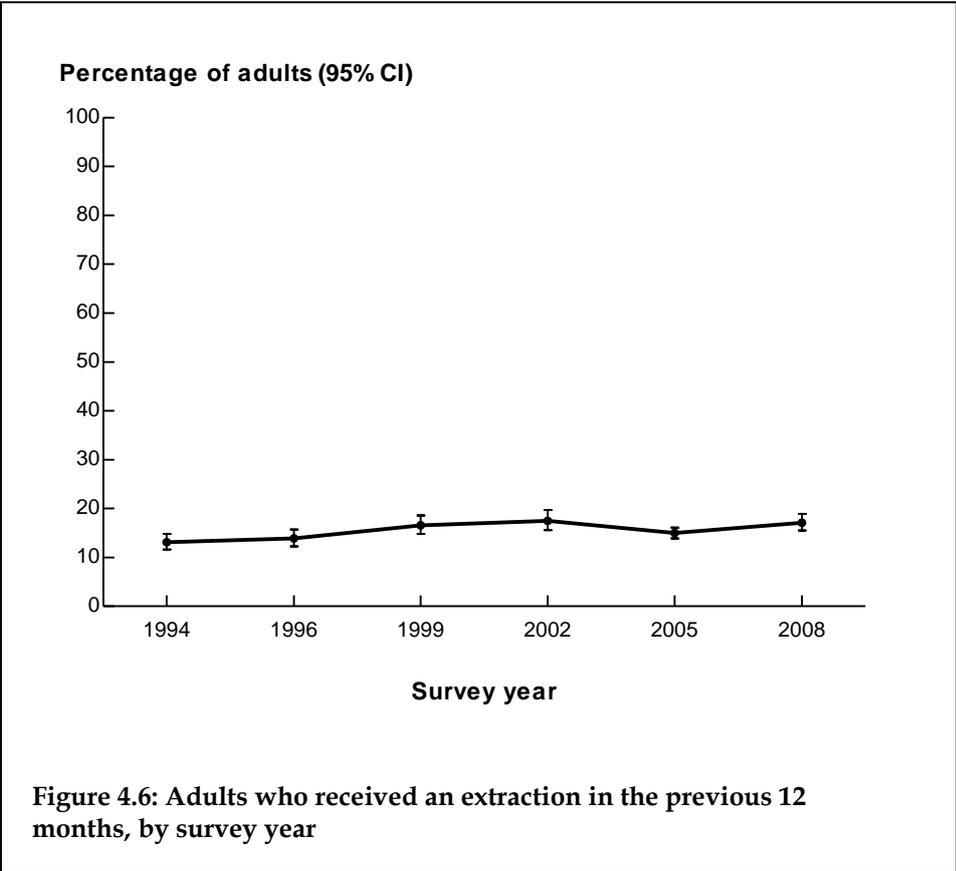
4.3 Dental treatment received

The type of treatment received at a dental visit provides an indication of the extent of oral disease among Australian adults. Adults who make a dental visit regularly and receive appropriate dental care focused on prevention should report low levels of extractions and possibly lower levels of fillings. This section presents the data on the proportion of adults who received an extraction, filling or scale and clean in the previous 12 months.

Received an extraction

In each NDTIS, respondents who had made a dental visit in the previous 12 months were asked, 'How many extractions did you receive in the previous 12 months?' Respondents who answered any number of extractions greater than zero were classed as having received an extraction. Of those persons who made a dental visit in the previous 12 months, the proportion reporting that they had received an extraction is presented by survey year and age.

During the period 1994–2008 about 15% of persons who made a dental visit in the previous 12 months received an extraction (Figure 4.6). Prevalence was highest (17.5%) in 2002, and there was a 4.0 percentage point difference between 1994 and 2008 (13.1% in 1994 compared with 17.1% in 2008).



Received an extraction in the previous 12 months by year and age

Table 4.11 presents the proportion of persons who made a dental visit in the previous 12 months and received an extraction, classified by survey year and age.

Only the 25–44 years age group experienced a significant increase in prevalence of extraction in the previous 12 months (12.5% in 1994 to 18.6% in 2008).

Table 4.11: Adults who received an extraction in the previous 12 months, by survey year and age (per cent)

Age group (years)		Survey year					
		1994	1996	1999	2002	2005	2008
18–24	%	16.3	16.8	14.9	17.9	14.8	13.9
	95% CI	(12.2, 21.6)	(11.7, 23.4)	(10.2, 21.1)	(13.0, 24.0)	(11.3, 19.1)	(10.0, 18.9)
25–44	%	12.5	14.2	18.6	17.6	16.4	18.6
	95% CI	(10.3, 15.1)	(11.7, 17.2)	(15.5, 22.0)	(14.5, 21.3)	(14.7, 18.3)	(15.3, 22.5)
45–64	%	12.6	12.6	15.6	17.4	13.2	16.6
	95% CI	(10.1, 15.8)	(10.2, 15.6)	(12.7, 19.1)	(14.2, 21.2)	(11.8, 14.7)	(14.8, 19.0)
65 and older	%	12.1	12.8	14.5	17.3	16.1	17.9
	95% CI	(8.8, 16.3)	(9.5, 17.0)	(11.1, 18.7)	(13.3, 22.0)	(13.9, 18.5)	(14.9, 21.4)
Total	%	13.1	13.9	16.6	17.5	15.0	17.1
	95% CI	(11.6, 14.8)	(12.3, 15.7)	(14.8, 18.6)	(15.6, 19.7)	(13.9, 16.1)	(15.5, 18.9)

Received an extraction in the previous 12 months by year and selected characteristics

Table 4.12 shows the proportion who received an extraction in the previous 12 months, classified by survey year and selected characteristics. The main findings are:

- Males were consistently more likely than females to have received an extraction in the previous 12 months; however, the difference was only significant in 2005. The prevalence of extractions increased in females from 11.4% to 16.2%, but the prevalence of extractions in males did not change significantly.
- There were large differences in the prevalence of extractions, with cardholders generally reporting a prevalence of extractions of 10–15 percentage points higher than non-cardholders.
- Throughout the period from 1994 to 2008 the prevalence of extractions among uninsured persons was about twice that among insured persons. The prevalence increased from 16.5% to 23.2% among the uninsured.
- Persons living in rural and remote areas were just as likely to have received an extraction as those in urban areas. However, prevalence of extractions increased from 12.5% in 1994 to 16.9% in 2008 among those living in urban areas.
- In all survey years, persons who usually visited for a problem were approximately three times as likely to have received an extraction as those who usually visited for a check-up. These differences were significant in absolute terms for all years. The prevalence of extractions among those who usually visited for a problem increased from 21.8% in 1994 to 31.5% in 2008.

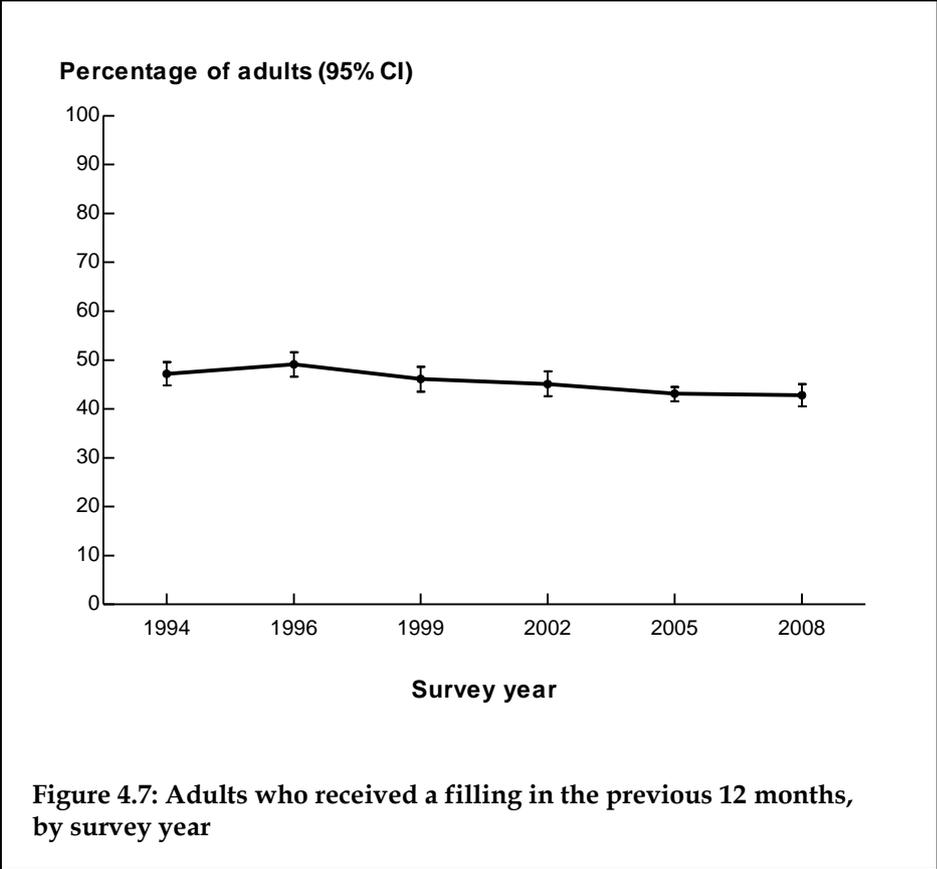
Table 4.12: Adults who received an extraction in the previous 12 months, by survey year and selected characteristics (per cent)

		Survey year					
		1994	1996	1999	2002	2005	2008
Sex							
Male	%	14.5	16.1	18.6	20.1	17.1	18.6
	95% CI	(12.2, 17.2)	(13.5, 19.1)	(15.8, 21.7)	(17.0, 23.5)	(15.3, 19.2)	(15.9, 21.6)
Female	%	11.4	12.0	14.8	15.5	13.4	16.2
	95% CI	(9.6, 13.5)	(10.1, 14.2)	(12.6, 17.3)	(13.2, 18.0)	(12.2, 14.6)	(14.1, 18.7)
Cardholder status							
Cardholder	%	21.3	27.2	28.9	26.1	24.9	25.6
	95% CI	(17.0, 26.5)	(21.3, 34.0)	(23.6, 34.9)	(21.4, 31.5)	(22.0, 27.9)	(20.4, 31.7)
Non-cardholder	%	11.3	11.6	14.3	15.0	13.3	15.3
	95% CI	(9.7, 13.2)	(10.0, 13.4)	(12.4, 16.4)	(13.0, 17.3)	(12.1, 14.5)	(13.4, 17.4)
Insurance status							
Insured	%	9.7	10.8	10.7	12.6	10.5	13.0
	95% CI	(7.9, 11.9)	(8.7, 13.2)	(8.4, 13.4)	(10.3, 15.3)	(9.2, 12.0)	(11.1, 15.3)
Uninsured	%	16.5	16.9	21.2	23.5	20.9	23.2
	95% CI	(14.2, 19.2)	(14.5, 19.7)	(18.7, 24.1)	(20.5, 26.9)	(19.1, 22.8)	(20.2, 26.4)
Region							
Urban	%	12.5	13.2	16.0	17.3	14.6	16.9
	95% CI	(10.8, 14.4)	(11.3, 15.3)	(13.9, 18.3)	(15.2, 19.6)	(13.4, 15.8)	(15.1, 18.9)
Rural and remote	%	14.4	15.2	19.0	21.1	20.4	22.0
	95% CI	(11.8, 17.4)	(12.5, 18.2)	(15.7, 22.7)	(16.7, 26.3)	(17.6, 23.4)	(16.9, 28.2)
Usual reason for visit							
Check-up	%	8.1	7.3	9.8	9.7	9.1	10.3
	95% CI	(6.7, 9.8)	(5.9, 8.9)	(8.1, 11.9)	(8.0, 11.6)	(8.1, 10.2)	(8.8, 12.1)
Problem	%	21.8	25.3	28.4	34.1	27.3	31.5
	95% CI	(18.8, 25.3)	(21.8, 29.0)	(24.8, 32.3)	(29.9, 38.7)	(25.0, 29.7)	(27.7, 35.5)
Total	%	12.9	13.8	16.6	17.7	15.1	17.4
	95% CI	(11.4, 14.5)	(12.2, 15.6)	(14.8, 18.6)	(15.8, 19.8)	(14.0, 16.3)	(15.6, 19.2)

Note: Directly aged-standardised to the 2001 Australian population.

Received a filling

In each NDTIS, respondents who had made a dental visit in the previous 12 months were asked, 'How many fillings did you receive in the previous 12 months?' Respondents who answered any number of fillings greater than zero were classed as having received a filling. Of those persons who made a dental visit in the previous 12 months, the proportion reporting that they had received a filling is presented by survey year and age. The prevalence of receiving a filling decreased from 47.2% in 1994 to 42.8% in 2005 (Figure 4.7).



Received a filling in the previous 12 months by year and age

Table 4.13 presents the proportion of adults aged 18 years and older who made a dental visit in the previous 12 months and received a filling, classified by survey year and age.

In all years, the 18–24 years age group had the lowest prevalence of receiving a filling. In the 25–44 years age group the prevalence of receiving a filling decreased between 1994 and 2008. The largest decrease was in the 65 years and older age group, where the proportion who received a filling fell from 56.9% in 1996 to 46.1% in 2008.

Table 4.13: Adults who received a filling in the previous 12 months, by survey year and age (per cent)

Age group (years)		Survey year					
		1994	1996	1999	2002	2005	2008
18–24	%	27.6	32.0	32.3	27.5	30.2	32.8
	95% CI	(22.4, 33.6)	(24.5, 40.5)	(25.2, 40.5)	(21.2, 34.8)	(25.5, 35.4)	(26.8, 39.5)
25–44	%	51.1	48.4	45.9	43.8	41.1	41.4
	95% CI	(47.5, 54.8)	(44.6, 52.2)	(41.9, 50.0)	(39.5, 48.2)	(38.8, 43.4)	(36.8, 46.0)
45–64	%	51.3	54.8	51.3	50.4	48.5	46.9
	95% CI	(47.0, 55.7)	(50.6, 59.0)	(47.1, 55.5)	(46.1, 54.8)	(46.2, 50.8)	(43.8, 50.0)
65 and older	%	51.4	56.9	48.2	52.3	45.9	46.1
	95% CI	(45.5, 57.3)	(51.0, 62.6)	(42.6, 53.8)	(46.7, 57.8)	(42.8, 49.0)	(42.0, 50.4)
Total	%	47.2	49.1	46.1	45.1	43.1	42.8
	95% CI	(44.8, 49.6)	(46.6, 51.6)	(43.5, 48.6)	(42.6, 47.7)	(41.6, 44.5)	(40.5, 45.1)

Received a filling in the previous 12 months by year and selected characteristics

Table 4.14 presents the proportion of adults aged 18 years and older who made a dental visit in the previous 12 months and received a filling, classified by survey year and selected characteristics. The main findings are:

- There was little difference between males and females in the prevalence of those who received a filling. In both groups there was a decrease in the prevalence of receiving a filling of about 5 percentage points; however, the decrease was not significant.
- Cardholders reported a statistically significant higher prevalence of receiving a filling than non-cardholders in 1996 only (60.4% compared with 48.8%). The proportion of non-cardholders who received a filling decreased from 49.1% in 1994 to 42.9% in 2008. Among cardholders there was an increase in prevalence of fillings from 45.7% to 60.4% between 1994 and 1996, but this decreased to 45.7% in 2008.
- The difference in prevalence of having a filling between insured and uninsured people was statistically significant in 1996 only (45.9% compared with 53.0%). There was a 7.3 percentage point decrease in prevalence of having a filling among insured people between 1994 and 2008.
- There were no differences between urban dwellers and rural and remote dwellers in the prevalence of receiving a filling. The prevalence decreased among urban dwellers from 48.4% in 1994 to 42.4% in 2008.
- In all years, persons who usually visited for a problem had higher prevalence of receiving a filling than those who usually visited for a check-up. There was a 15.2 percentage point gap in 1994, increasing to 22.5 in 1996 before returning to 15.2 in 2008.

Table 4.14: Adults who received a filling in the previous 12 months, by survey year and selected characteristics (per cent)

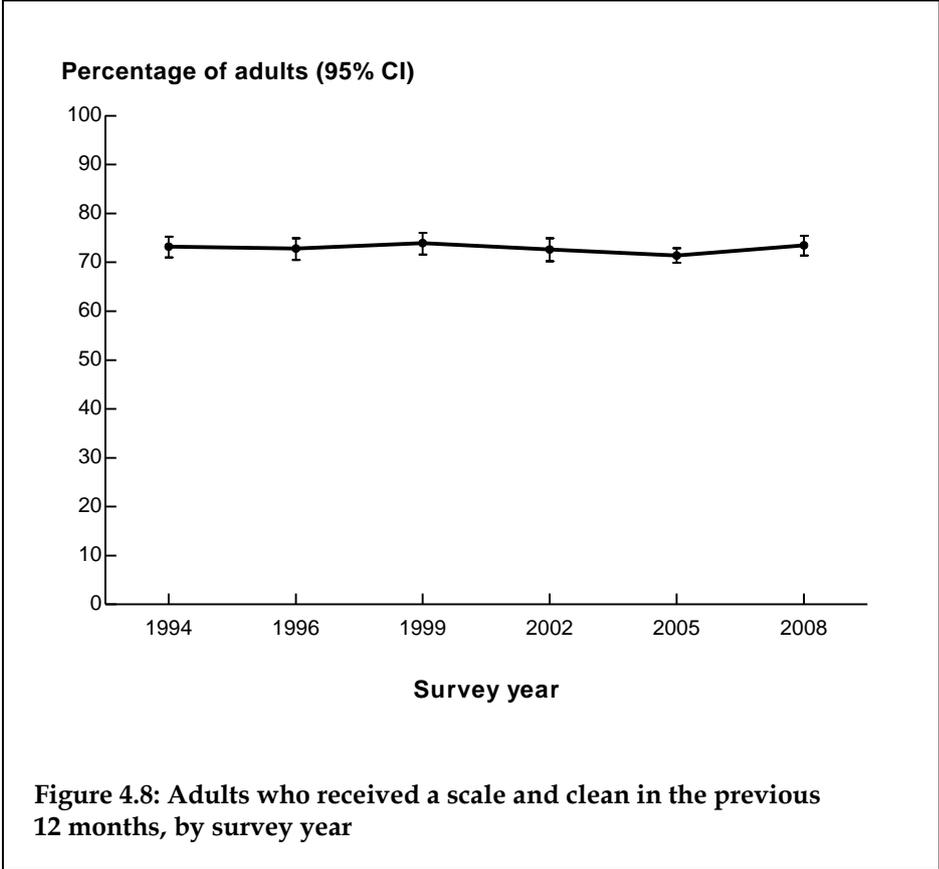
		Survey year					
		1994	1996	1999	2002	2005	2008
Sex							
Male	%	50.1	51.6	46.3	45.3	43.9	45.1
	95% CI	(46.5, 53.7)	(47.9, 55.3)	(42.6, 50.0)	(41.5, 49.3)	(41.5, 46.3)	(41.4, 48.7)
Female	%	46.4	47.7	46.1	45.2	41.8	41.1
	95% CI	(43.3, 49.5)	(44.5, 50.9)	(42.8, 49.3)	(42.0, 48.5)	(40.0, 43.6)	(38.1, 44.1)
Cardholder status							
Cardholder	%	45.7	60.4	47.1	46.9	47.0	45.7
	95% CI	(40.2, 51.3)	(55.3, 65.3)	(41.2, 53.0)	(41.3, 52.5)	(43.5, 50.7)	(39.4, 52.1)
Non-cardholder	%	49.1	48.8	45.8	45.1	42.3	42.9
	95% CI	(46.4, 51.9)	(46.0, 51.6)	(43.0, 48.6)	(42.1, 48.1)	(40.6, 44.1)	(40.3, 45.6)
Insurance status							
Insured	%	48.6	45.9	45.8	43.7	41.8	41.3
	95% CI	(45.3, 51.9)	(42.5, 49.3)	(41.9, 49.6)	(40.1, 47.3)	(39.8, 43.9)	(38.2, 44.4)
Uninsured	%	47.7	53.0	46.4	48.0	43.6	45.5
	95% CI	(44.3, 51.1)	(49.5, 56.5)	(43.1, 49.8)	(44.3, 51.6)	(41.7, 45.6)	(41.9, 49.3)
Region							
Urban	%	48.4	49.9	46.0	45.5	42.7	42.4
	95% CI	(45.7, 51.2)	(47.0, 52.9)	(43.1, 48.9)	(42.8, 48.2)	(41.1, 44.2)	(39.9, 44.9)
Rural and remote	%	47.3	48.9	46.6	44.3	44.2	47.7
	95% CI	(43.0, 51.6)	(44.9, 52.9)	(42.0, 51.3)	(38.8, 50.0)	(40.6, 47.8)	(41.2, 54.3)
Usual reason for visit							
Check-up	%	42.9	41.3	38.4	38.3	37.5	38.0
	95% CI	(40.0, 45.9)	(38.3, 44.3)	(35.5, 41.4)	(35.4, 41.3)	(35.7, 39.2)	(35.2, 40.9)
Problem	%	58.1	63.8	60.0	59.5	54.0	53.2
	95% CI	(54.2, 61.9)	(60.0, 67.5)	(55.8, 64.0)	(55.0, 63.8)	(51.6, 56.4)	(49.1, 57.3)
Total	%	48.2	49.6	46.1	45.2	42.8	42.8
	95% CI	(45.9, 50.6)	(47.2, 52.1)	(43.6, 48.6)	(42.7, 47.8)	(41.4, 44.2)	(40.5, 45.2)

Note: Directly aged-standardised to the 2001 Australian population.

Received a scale and clean

In each NDTIS, respondents who had made a dental visit in the previous 12 months were asked, 'Did you receive a professional scale and clean within the previous 12 months?' Categories of response were 'Yes', 'No' or 'Don't know'. Of those who made a dental visit in the previous 12 months, the proportion reporting that they had received a scale and clean is presented by survey year and age.

Between 1994 and 2008 the proportion of persons who received a professional scale and clean in the previous 12 months was approximately 73% (Figure 4.8).



Received a scale and clean in the previous 12 months by year and age

Table 4.15 presents the proportion of adults aged 18 years and older who made a dental visit in the previous 12 months and received a professional scale and clean, classified by survey year and age.

There were no differences either within or between age groups in the proportion of persons who received a scale and clean during the survey period 1994–2008.

Table 4.15: Adults who received a scale and clean in the previous 12 months, by survey year and age (per cent)

Age group (years)		Survey year					
		1994	1996	1999	2002	2005	2008
18–24	%	71.9	68.9	74.1	69.3	67.0	67.0
	95% CI	(66.1, 77.0)	(61.1, 75.7)	(66.7, 80.4)	(62.3, 75.6)	(62.2, 71.6)	(60.4, 73.1)
25–44	%	73.9	73.4	72.8	72.5	71.4	74.6
	95% CI	(70.7, 77.0)	(69.8, 76.6)	(69.1, 76.2)	(68.4, 76.3)	(68.9, 73.7)	(70.4, 78.5)
45–64	%	73.1	73.9	74.9	74.2	72.9	74.5
	95% CI	(69.1, 76.7)	(69.9, 77.5)	(71.2, 78.3)	(70.2, 77.8)	(70.8, 74.9)	(71.8, 77.1)
65 and older	%	72.1	72.4	74.5	71.8	71.8	74.3
	95% CI	(66.5, 77.1)	(66.8, 77.3)	(69.2, 79.2)	(66.4, 76.6)	(68.9, 74.5)	(70.5, 77.8)
Total	%	73.2	72.8	73.9	72.6	71.4	73.5
	95% CI	(71.0, 75.2)	(70.5, 74.9)	(71.6, 76.0)	(70.2, 74.9)	(69.9, 72.9)	(71.4, 75.4)

Received a scale and clean in the previous 12 months by year and selected characteristics

Table 4.16 presents the proportion of adults aged 18 years and older who made a dental visit in the previous 12 months and received a professional scale and clean, classified by survey year and selected characteristics. For all years, the main findings are:

- Males and females were equally likely to have received a professional scale and clean except in 2005, when the prevalence of scale and clean was 68.4% in males and 73.7% in females. There was no significant trend between 1994 and 2008 for either males or females.
- Non-cardholders were more likely to have received a scale and clean than cardholders. The difference fluctuated from 7.3 percentage points in 1994 to 22.0 percentage points in 1999.
- Insured persons had a higher prevalence of scale and clean treatments than uninsured. The gap between the two groups increased from 11 percentage points in 1994 to 21.2 percentage points in 2008.
- Persons living in urban regions reported a higher prevalence of scale and clean treatments than those in rural and remote areas. The proportion who had a scale and clean did not change significantly over time in either group.
- Persons who usually visited for a check-up had a higher prevalence of receiving a scale and clean than those who usually visited for a problem. The gap was smallest in 1996 at 23 percentage points and largest in 2005 at 33 percentage points. There was no significant change in 2008 compared with 1994 for either group.

Table 4.16: Adults who received a scale and clean in the previous 12 months, by survey year and selected characteristics (per cent)

		Survey year					
		1994	1996	1999	2002	2005	2008
Sex							
Male	%	73.0	70.0	75.3	71.9	68.4	71.4
	95% CI	(69.8, 76.1)	(66.5, 73.4)	(72.0, 78.3)	(68.1, 75.3)	(66.0, 70.7)	(68.1, 74.6)
Female	%	73.3	75.6	72.9	72.8	73.7	75.3
	95% CI	(70.5, 75.9)	(72.9, 78.2)	(69.9, 75.7)	(69.9, 75.6)	(71.9, 75.4)	(72.5, 78.0)
Cardholder status							
Cardholder	%	67.5	61.4	55.4	65.6	58.8	64.0
	95% CI	(62.4, 72.1)	(54.9, 67.5)	(49.3, 61.3)	(60.3, 70.6)	(55.4, 62.1)	(57.8, 69.8)
Non-cardholder	%	74.8	75.0	77.4	74.4	74.6	76.5
	95% CI	(72.3, 77.1)	(72.5, 77.3)	(75.0, 79.6)	(71.6, 77.0)	(72.9, 76.2)	(74.1, 78.7)
Insurance status							
Insured	%	78.3	80.0	79.2	78.9	79.8	82.8
	95% CI	(75.5, 80.9)	(77.1, 82.6)	(75.8, 82.2)	(75.7, 81.9)	(78.2, 81.4)	(80.5, 84.9)
Uninsured	%	67.3	66.3	69.7	63.6	61.0	61.6
	95% CI	(64.0, 70.4)	(62.9, 69.5)	(66.7, 72.6)	(60.0, 67.1)	(58.7, 63.3)	(58.0, 65.2)
Region							
Urban	%	75.0	75.4	77.1	72.8	72.4	74.5
	95% CI	(72.6, 77.3)	(72.7, 77.8)	(74.6, 79.5)	(70.2, 75.2)	(70.7, 73.9)	(72.2, 76.6)
Rural and remote	%	64.8	65.3	62.2	69.5	60.9	64.7
	95% CI	(60.6, 68.8)	(61.3, 69.2)	(57.5, 66.6)	(63.8, 74.7)	(55.9, 65.7)	(58.0, 71.0)
Usual reason for visit							
Check-up	%	82.1	81.2	85.5	82.3	81.8	84.6
	95% CI	(79.8, 84.3)	(78.7, 83.6)	(83.3, 87.4)	(79.9, 84.5)	(80.3, 83.2)	(82.4, 86.6)
Problem	%	56.2	58.2	53.3	51.8	48.8	52.1
	95% CI	(52.3, 60.1)	(54.2, 62.1)	(49.0, 57.6)	(47.3, 56.2)	(46.1, 51.6)	(48.0, 56.3)
Total	%	73.1	73.0	73.9	72.5	71.2	73.6
	95% CI	(70.9, 75.1)	(70.8, 75.1)	(71.7, 76.0)	(70.1, 74.7)	(69.7, 72.7)	(71.4, 75.6)

Note: Directly aged-standardised to the 2001 Australian population.

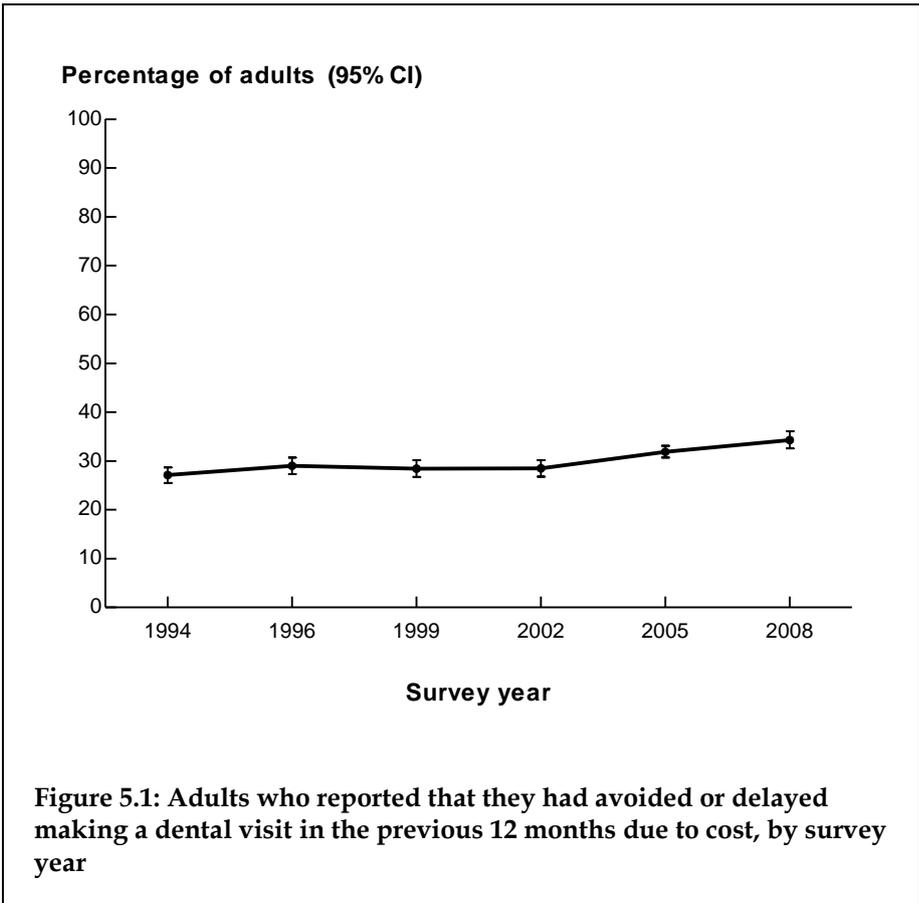
5 Financial barriers to dental care

The cost of dental care may be a barrier to Australians making regular dental visits and complying with recommended dental treatment. This chapter investigates the extent to which Australian adults are prevented from receiving appropriate dental care due to financial barriers. Affordability of dental care is characterised by whether dental care has been avoided or delayed due to cost; the cost has prevented any recommended dental treatment; and dental visits in the previous 12 months have been a financial burden.

5.1 Avoided or delayed visiting due to cost

In each NDTIS, respondents were asked, 'During the previous 12 months, have you avoided or delayed visiting a dental professional because of the cost?' Response categories were 'Yes', 'No' or 'Don't know'. The proportion who reported 'Yes' is presented by survey year and age.

The proportion of persons who reported that they had avoided or delayed visiting a dentist in the previous 12 months due to cost increased from 27.1% in 1994 to 34.3% in 2008, representing a statistically significant increase (Figure 5.1).



Avoided or delayed visiting due to cost in the previous 12 months by year and age

Table 5.1 presents the proportion of adults aged 18 years and older who reported that they had avoided or delayed visiting a dentist due to cost, classified by survey year and age.

There was no change in the prevalence of avoiding or delaying making a dental visit in the 18–24 years age group. However, in all other age groups there was a pattern of steady increase between 1994 and 2008. The increase was largest in the 45–64 years age group (from 21.9% in 1994 to 33.2% in 2008), followed by the 25–44 years age group (from 32.0% in 1994 to 42.0% in 2008).

Generally, avoiding or delaying dental care due to cost was more prevalent in the two younger age groups. However, the differences between older and younger age groups were not always statistically significant.

Table 5.1: Adults who reported that they avoided or delayed making a dental visit in the previous 12 months due to cost, by survey year and age (per cent)

Age group (years)		Survey year					
		1994	1996	1999	2002	2005	2008
18–24	%	28.2	28.9	27.0	30.6	29.2	27.8
	95% CI	(24.2, 32.6)	(24.3, 34.0)	(21.9, 32.8)	(26.0, 35.5)	(25.8, 32.9)	(23.3, 32.9)
25–44	%	32.0	34.6	33.1	32.7	39.6	42.0
	95% CI	(29.6, 34.5)	(32.0, 37.4)	(30.4, 36.0)	(29.9, 35.7)	(37.6, 41.5)	(38.6, 45.4)
45–64	%	21.9	24.4	26.2	25.3	28.8	33.2
	95% CI	(19.4, 24.7)	(21.6, 27.3)	(23.4, 29.2)	(22.4, 28.4)	(27.1, 30.5)	(30.8, 35.7)
65 and older	%	15.3	16.4	18.2	18.8	18.9	21.8
	95% CI	(12.3, 18.8)	(13.1, 20.4)	(15.0, 21.7)	(15.7, 22.4)	(17.0, 20.9)	(19.0, 24.8)
Total	%	27.1	29.0	28.4	28.5	31.9	34.3
	95% CI	(25.5, 28.7)	(27.3, 30.7)	(26.7, 30.2)	(26.8, 30.2)	(30.7, 33.1)	(32.6, 36.1)

Avoided or delayed visiting due to cost in the previous 12 months by year and selected characteristics

Table 5.2 presents the proportion of adults aged 18 years and older who reported that they had avoided or delayed visiting a dentist due to cost, classified by survey year and selected characteristics. For all years, the main findings are:

- Females were more likely than males to have avoided or delayed dental care due to cost. In both groups the prevalence of avoiding or delaying care increased – in males from 20.7% in 1994 to 30.8% in 2008; in females from 30.3% in 1994 to 37.7% in 2008. As a result, the gap decreased from 9.6 percentage points in 1994 to 6.9 percentage points in 2008.
- Cardholders reported a higher prevalence of avoiding or delaying dental care than did non-cardholders. In cardholders the prevalence increased from 37.4% to 46.7%, and in non-cardholders from 22.7% to 30.2%.
- Uninsured persons had about twice the prevalence of having avoided or delayed dental care due to cost. In insured persons the prevalence increased from 17.4% in 1994 to 22.9% in 2008; in uninsured persons from 31.2% to 45.9% respectively. This resulted in an increase in the gap between the two groups, from 13.8 percentage points to 23.0 percentage points.
- There were no differences in prevalence of avoiding or delaying dental care due to cost between people living in urban areas and those living in rural and remote areas. In both groups the prevalence increased by about 9 percentage points between 1994 and 2008.
- Those who usually visited for a problem had a higher prevalence of avoiding or delaying dental care due to cost. In those who usually visited for a problem, this prevalence increased from 32.5% in 1994 to 50.2% in 2008, but it remained largely unchanged in the group who usually visited for a check-up. This resulted in an increase in the gap between the two groups from 13.7 percentage points in 1994 to 29.9 percentage points in 2008.

Table 5.2: Adults who reported that they had avoided or delayed dental care in the previous 12 months due to cost, by survey year and selected characteristics (per cent)

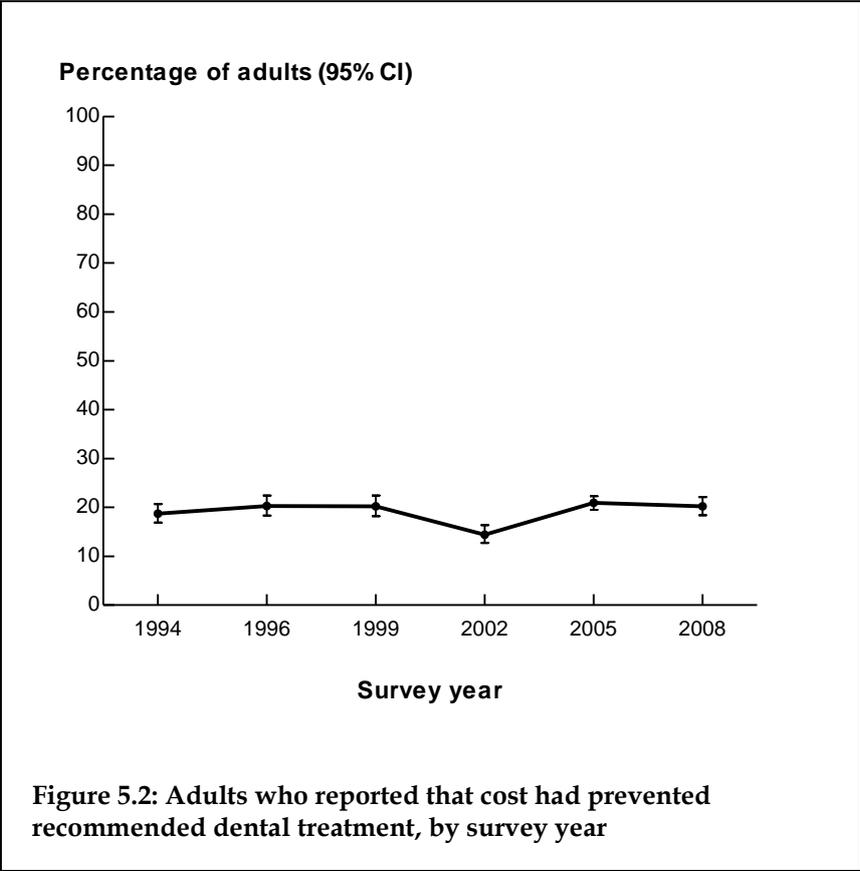
		Survey year					
		1994	1996	1999	2002	2005	2008
Sex							
Male	%	20.7	23.4	22.3	24.7	27.8	30.8
	95% CI	(18.8, 22.8)	(21.2, 25.7)	(20.1, 24.6)	(22.4, 27.2)	(26.3, 29.4)	(28.3, 33.3)
Female	%	30.3	31.8	32.9	30.7	35.2	37.7
	95% CI	(28.2, 32.5)	(29.5, 34.2)	(30.6, 35.3)	(28.5, 33.1)	(33.7, 36.7)	(35.4, 40.1)
Cardholder status							
Cardholder	%	37.4	37.5	42.5	39.6	45.0	46.7
	95% CI	(33.7, 41.3)	(33.3, 41.9)	(38.3, 46.8)	(35.8, 43.5)	(42.5, 47.5)	(42.3, 51.2)
Non-cardholder	%	22.7	25.0	24.5	23.5	27.4	30.2
	95% CI	(21.1, 24.4)	(23.3, 26.8)	(22.7, 26.3)	(21.7, 25.4)	(26.2, 28.6)	(28.3, 32.1)
Insurance status							
Insured	%	17.4	16.0	16.7	16.7	20.0	22.9
	95% CI	(15.5, 19.4)	(14.2, 18.0)	(14.3, 19.3)	(14.7, 18.9)	(18.7, 21.4)	(20.8, 25.2)
Uninsured	%	31.2	35.1	34.3	38.0	42.2	45.9
	95% CI	(29.1, 33.4)	(32.8, 37.4)	(32.1, 36.6)	(35.5, 40.5)	(40.6, 43.8)	(43.3, 48.4)
Region							
Urban	%	25.5	28.4	28.2	27.4	31.7	34.2
	95% CI	(23.8, 27.3)	(26.4, 30.4)	(26.2, 30.2)	(25.7, 29.3)	(30.4, 32.9)	(32.4, 36.1)
Rural and remote	%	25.3	24.7	25.6	29.0	29.8	34.4
	95% CI	(22.8, 28.1)	(22.2, 27.3)	(22.9, 28.5)	(25.4, 33.0)	(26.4, 33.4)	(29.8, 39.4)
Usual reason for visit							
Check-up	%	18.8	18.3	19.5	15.7	20.5	20.3
	95% CI	(16.9, 20.8)	(16.4, 20.3)	(17.6, 21.7)	(14.0, 17.7)	(19.2, 21.9)	(18.3, 22.4)
Problem	%	32.5	37.1	36.2	41.0	44.9	50.2
	95% CI	(30.3, 34.8)	(34.6, 39.6)	(33.6, 38.8)	(38.4, 43.7)	(43.2, 46.6)	(47.6, 52.8)
Total	%	25.4	27.5	27.6	27.7	31.5	34.2
	95% CI	(24.0, 26.9)	(25.9, 29.2)	(26.0, 29.3)	(26.1, 29.4)	(30.3, 32.7)	(32.5, 36.0)

Note: Directly aged-standardised to the 2001 Australian population.

5.2 Cost prevented recommended treatment

In each NDTIS between 1994 and 2005 respondents were asked, 'Has cost prevented you from having any dental treatment that was recommended during the previous 12 months?' Categories of response were 'Yes', 'No' or 'Don't know'. In 2008, the wording was changed and respondents were asked, 'Has the cost prevented you from having any dental treatment that was recommended by a dental professional at a visit during the previous 12 months?' Only people who made a dental visit in the previous 12 months were asked this question.

With the exception of a decrease in 2002, the proportion of adults aged 18 years or older who reported that cost had prevented them from receiving recommended dental treatment remained constant at approximately 20% throughout the period (Figure 5.2).



Cost prevented recommended treatment in the previous 12 months by year and age

In all years, the prevalence of cost having prevented recommended dental treatment was lowest in the 18–24 years and 65 years and older age groups, although the difference between the youngest and two middle groups was not significant in the first 3 years reported (Table 5.3). There were no significant differences between prevalence in 1994 and 2008 in any of the age groups.

Table 5.3: Adults who reported that cost had prevented recommended dental treatment, by survey year and age (per cent)

Age group (years)		Survey year					
		1994	1996	1999	2002	2005	2008
18–24	%	16.4	16.9	19.8	9.8	12.2	14.2
	95% CI	(12.1, 21.8)	(9.6, 22.6)	(13.5, 28.1)	(6.6, 14.3)	(9.4, 15.8)	(9.9, 19.8)
25–44	%	22.2	25.3	23.0	18.0	27.4	23.0
	95% CI	(19.3, 25.3)	(22.1, 28.7)	(19.7, 26.6)	(14.9, 21.5)	(25.0, 29.9)	(19.4, 27.1)
45–64	%	18.8	19.7	20.3	15.4	21.6	23.5
	95% CI	(15.5, 22.5)	(16.6, 23.3)	(17.2, 23.8)	(12.3, 19.1)	(19.6, 23.6)	(20.9, 26.3)
65 and older	%	8.1	9.8	11.1	5.2	10.4	11.2
	95% CI	(5.4, 12.1)	(6.6, 14.3)	(8.0, 15.2)	(3.5, 7.6)	(8.6, 12.6)	(8.8, 14.1)
Total	%	18.7	20.3	20.2	14.4	20.9	20.2
	95% CI	(16.9, 20.7)	(18.3, 22.4)	(18.2, 22.4)	(12.7, 16.4)	(19.5, 22.3)	(18.4, 22.1)

Cost prevented recommended treatment in the previous 12 months by year and selected characteristics

Table 5.4 presents the proportion of adults aged 18 years and older who reported that cost had prevented them from receiving recommended dental treatment, classified by survey year and selected characteristics. For all years, the main findings are:

- Apart from 1994 and 1999 where females were more likely than males to report that cost had prevented recommended dental treatment, there were no clear trends for either group.
- Cardholders were more likely to report that cost had prevented them from receiving recommended dental treatment than non-cardholders. In most years, there was a twofold difference between the groups. The gap between the two groups grew from 14.3 percentage points in 1994 to 19.4 percentage points in 2008.
- Uninsured persons were more likely than insured persons to report that cost had prevented recommended treatment. The gap between the two groups increased from 6.0 percentage points in 1994 to 11.0 percentage points in 2008.
- There was no difference between people living in urban areas and those living in rural and remote areas in the prevalence of cost preventing recommended treatment. There were no clear trends over time for either group.
- Persons who usually visited for a check-up were more likely than those who usually visited for a problem to report that cost had prevented recommended dental treatment. The prevalence remained unchanged between 1994 and 2008 for those who usually visited for a check-up apart from in 2002. Among those who usually visited for a problem, the prevalence increased from 27.0% to 36.1%. This was the main reason for an increase in the gap between the two groups from 14.0 percentage points in 1994 to 23.9 percentage points in 2008.

Table 5.4: Adults who reported that cost had prevented recommended dental treatment, by survey year and selected characteristics (per cent)

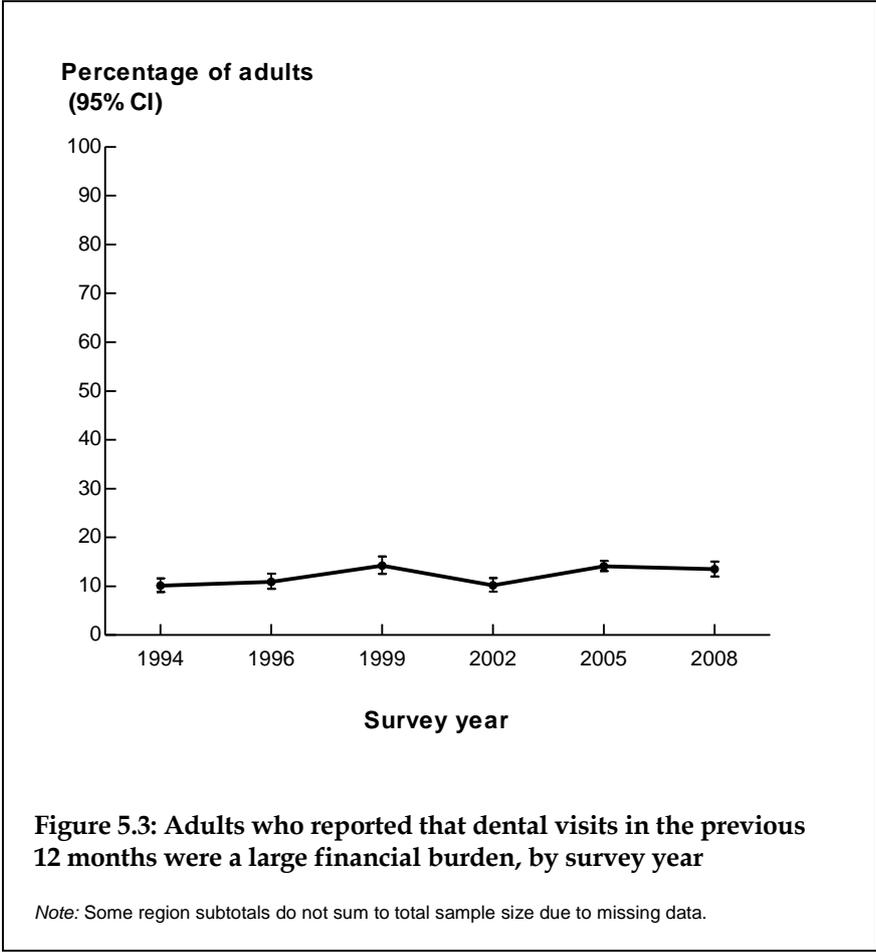
		Survey year					
		1994	1996	1999	2002	2005	2008
Sex							
Male	%	14.7	17.3	16.4	13.6	19.9	18.3
	95% CI	(12.4, 17.4)	(14.7, 20.3)	(13.8, 19.3)	(11.0, 16.8)	(17.9, 22.1)	(15.7, 21.3)
Female	%	20.8	21.6	22.8	14.4	21.8	21.4
	95% CI	(18.3, 23.4)	(19.0, 24.4)	(20.0, 25.8)	(12.3, 16.7)	(20.4, 23.3)	(18.9, 24.2)
Cardholder status							
Cardholder	%	29.9	31.1	33.7	23.6	29.9	36.3
	95% CI	(24.8, 35.7)	(25.9, 36.8)	(28.2, 39.7)	(19.0, 29.0)	(26.9, 33.2)	(30.2, 42.8)
Non-cardholder	%	15.6	17.6	17.5	11.8	19.1	16.9
	95% CI	(13.8, 17.7)	(15.6, 19.8)	(15.4, 19.8)	(10.1, 13.8)	(17.7, 20.6)	(15.0, 18.9)
Insurance status							
Insured	%	15.0	12.2	13.8	9.5	16.1	15.6
	95% CI	(12.7, 17.5)	(10.3, 14.3)	(11.1, 17.2)	(7.7, 11.8)	(14.6, 17.7)	(13.5, 18.0)
Uninsured	%	21.0	26.3	24.6	20.3	26.9	26.6
	95% CI	(18.4, 23.9)	(23.3, 29.6)	(21.8, 27.6)	(17.4, 23.5)	(24.8, 29.1)	(23.4, 30.1)
Region							
Urban	%	18.4	20.0	19.9	13.7	20.9	20.5
	95% CI	(16.4, 20.7)	(17.7, 22.5)	(17.6, 22.4)	(11.9, 15.7)	(19.5, 22.3)	(18.5, 22.6)
Rural and remote	%	16.7	17.3	19.4	17.8	20.7	16.3
	95% CI	(13.7, 20.2)	(14.6, 20.5)	(16.1, 23.3)	(13.5, 22.9)	(16.8, 25.3)	(12.1, 21.6)
Usual reason for visit							
Check-up	%	13.0	12.8	13.0	7.6	13.3	12.2
	95% CI	(11.0, 15.1)	(10.9, 15.0)	(11.0, 15.2)	(6.3, 9.2)	(12.1, 14.6)	(10.4, 14.2)
Problem	%	27.0	30.8	32.0	26.7	36.0	36.1
	95% CI	(23.7, 30.5)	(27.2, 34.6)	(28.1, 36.2)	(22.9, 30.9)	(33.5, 38.6)	(32.1, 40.2)
Total	%	18.0	19.5	19.8	14.1	20.9	20.1
	95% CI	(16.2, 19.8)	(17.6, 21.5)	(17.8, 21.9)	(12.4, 15.9)	(19.6, 22.2)	(18.2, 22.0)

Note: Directly aged-standardised to the 2001 Australian population.

5.3 Dental visits were a large financial burden

In each NDTIS, respondents were asked, 'In the previous 12 months how much of a financial burden have dental visits been for you?' Response categories were 'None', 'Hardly any', 'A little burden', 'A large burden' or 'Don't know'. Only persons who had made a dental visit in the previous 12 months were asked this question. The proportion of persons who reported that dental visits in the previous 12 months were a large financial burden is presented by survey year and age.

The proportion of persons who reported that dental visits in the previous 12 months were a large financial burden hovered between 10.1% and 14.2% (Figure 5.3). There was an increase from 10.1% in 1994 to 13.5% in 2008.



Dental visits in the previous 12 months were a large financial burden by year and age

Table 5.5 presents the proportion of adults aged 18 years and older who reported that dental visits in the previous 12 months were a large financial burden, classified by survey year and age.

In all age groups there was a small, but not significant, increase in the prevalence of dental visits being a large financial burden. There was no clear pattern of difference between age groups.

Table 5.5: Adults who reported that dental visits were a large financial burden, by survey year and age (per cent)

Age group (years)		Survey year					
		1994	1996	1999	2002	2005	2008
18–24	%	8.2	11.4	10.9	8.5	8.9	9.1
	95% CI	(5.3, 12.5)	(6.4, 19.6)	(6.2, 18.6)	(5.3, 13.4)	(6.4, 12.1)	(6.0, 13.6)
25–44	%	10.4	10.9	15.8	10.6	16.2	13.7
	95% CI	(8.5, 12.8)	(8.9, 13.3)	(13.1, 19.1)	(8.4, 13.3)	(14.5, 18.1)	(10.8, 17.2)
45–64	%	12.5	11.9	14.7	10.5	15.6	15.6
	95% CI	(9.9, 15.7)	(9.6, 14.6)	(12.0, 17.9)	(8.4, 12.9)	(14.1, 17.2)	(13.4, 18.1)
65 and older	%	6.2	8.1	11.0	9.9	9.8	12.1
	95% CI	(3.8, 10.0)	(5.4, 12.0)	(7.8, 15.3)	(7.0, 13.9)	(8.3, 11.7)	(9.6, 15.0)
Total	%	10.1	10.9	14.2	10.2	14.1	13.5
	95% CI	(8.8, 11.6)	(9.5, 12.6)	(12.5, 16.1)	(8.9, 11.7)	(13.1, 15.2)	(12.0, 15.1)

Dental visits in the previous 12 months were a large financial burden by year and selected characteristics

Table 5.6 presents the proportion of adults aged 18 years and older who reported that dental visits in the previous 12 months were a large financial burden, classified by survey year and selected characteristics. For all years, the main findings are:

- Females had a higher prevalence of reporting that dental visits were a large financial burden than males, although this difference did not reach statistical significance in 1999 and 2002.
- Cardholders had a higher prevalence of reporting that dental visits were a large financial burden than non-cardholders, although this difference was not significant until 2005 and 2008.
- Uninsured persons had a higher prevalence than insured persons of reporting that dental visits were a large financial burden, although the difference was significant only in 2002, 2005 and 2008. The prevalence increased from 10.9% in 1994 to 18.3% in 2008 in uninsured persons but remained relatively unchanged in the insured group.
- There was little difference in the prevalence of reporting that dental visits were a large financial burden between persons who lived in urban areas and persons who lived in rural and remote areas. The prevalence increased from 7.7% in 1994 to 14.6% in 2008 in the rural and remote group, but did not change significantly in the urban group.
- There was an approximately twofold difference between those who usually visited for a check-up and those who usually visited for a problem in the prevalence of reporting that dental visits were a large financial burden. This prevalence did not change significantly for the group who usually visited for a check-up, but increased from 14.1% in 1994 to 21.0% in 2008 in the group who usually visited for a problem. As a result, the advantage of those who usually visit for a check-up increased from 6.5 percentage points to 11.4 percentage points.

Table 5.6: Adults who reported that dental visits were a large financial burden, by survey year and selected characteristics (per cent)

		Survey year					
		1994	1996	1999	2002	2005	2008
Sex							
Male	%	7.2	7.7	12.7	8.1	11.9	10.2
	95% CI	(5.6, 9.2)	(6.1, 9.6)	(10.4, 15.5)	(6.3, 10.3)	(10.4, 13.6)	(8.2, 12.5)
Female	%	12.4	13.7	15.2	12.1	16.1	16.0
	95% CI	(10.5, 14.6)	(11.5, 16.3)	(12.8, 17.9)	(10.2, 14.2)	(14.7, 17.5)	(13.8, 18.5)
Cardholder status							
Cardholder	%	13.8	10.8	19.4	13.4	20.2	21.3
	95% CI	(10.1, 18.6)	(7.8, 14.7)	(15.0, 24.7)	(10.2, 17.3)	(17.5, 23.1)	(16.4, 27.2)
Non-cardholder	%	9.2	10.6	13.4	9.4	12.5	11.7
	95% CI	(7.8, 10.8)	(9.0, 12.5)	(11.6, 15.6)	(7.8, 11.2)	(11.4, 13.7)	(10.1, 13.4)
Insurance status							
Insured	%	8.6	8.7	11.2	7.7	11.9	9.9
	95% CI	(7.0, 10.6)	(7.0, 10.9)	(9.0, 13.9)	(6.2, 9.6)	(10.6, 13.3)	(8.3, 11.6)
Uninsured	%	10.9	13.0	16.1	13.5	16.8	18.3
	95% CI	(9.0, 13.1)	(10.8, 15.5)	(13.7, 18.8)	(11.2, 16.1)	(15.3, 18.4)	(15.6, 21.4)
Region							
Urban	%	10.5	11.0	15.0	9.9	14.1	13.3
	95% CI	(8.9, 12.3)	(9.3, 13.0)	(13.0, 17.3)	(8.5, 11.5)	(13.0, 15.3)	(11.7, 15.1)
Rural and remote	%	7.7	9.8	10.9	11.9	13.3	14.6
	95% CI	(5.8, 10.1)	(7.6, 12.5)	(8.4, 14.0)	(8.4, 16.5)	(10.6, 16.6)	(10.9, 19.3)
Usual reason for visit							
Check-up	%	7.6	7.1	9.7	7.6	10.0	9.6
	95% CI	(6.2, 9.3)	(5.8, 8.8)	(8.1, 11.5)	(6.2, 9.3)	(9.0, 11.1)	(8.0, 11.4)
Problem	%	14.1	17.1	21.8	15.5	22.2	21.0
	95% CI	(11.6, 17.0)	(14.2, 20.5)	(18.3, 25.9)	(12.8, 18.7)	(20.1, 24.4)	(17.9, 24.5)
Total	%	9.9	10.8	14.0	10.2	14.0	13.4
	95% CI	(8.6, 11.4)	(9.4, 12.4)	(12.3, 15.9)	(8.9, 11.7)	(13.0, 15.2)	(11.9, 15.0)

Note: Directly aged-standardised to the 2001 Australian population.

References

- AIHW DSRU 2007. Dental service patterns by patient and visit characteristics: research report No. 32. Adelaide: AIHW cat. no. DEN 169.
- Carter KD 1996. National Dental Telephone Interview Survey 1996. Draft tables unpublished.
- Carter KD & Stewart JF 2002. National Dental Telephone Interview Survey 1999. AIHW cat. no. DEN 109. Adelaide: Australian Institute of Health and Welfare Dental Statistics and Research Unit.
- Carter KD & Stewart JF 2003. National Dental Telephone Interview Survey 2002. Technical report. AIHW cat. no. DEN 128. Adelaide: Australian Institute of Health and Welfare Dental Statistics and Research Unit.
- Carter KD, Stewart JF, Davies MJ, Szuster FSP, Allister JH, Slade GD et al. 1994. National Dental Telephone Interview Survey 1994. Adelaide: Australian Institute of Health and Welfare Dental Statistics and Research Unit.
- Slade GD, Roberts-Thomson KF & Ellershaw AC 2007. Survey aims and methods. In: Slade GD, Spencer AJ & Roberts-Thomson KF (eds) 2007. Australia's dental generations: the National Survey of Adult Oral Health 2004-06. Dental statistics and research series no. 34. AIHW cat. no. DEN 165. Canberra: Australian Institute of Health and Welfare, 11-15.
- Stewart JF & Ellershaw AC (forthcoming). Oral health and use of dental services 2008: Findings from the National Dental Telephone Interview Survey 2008. Dental Statistics and Research Series no. 58. Canberra: Australian Institute of Health and Welfare.
- Thomson WM, Williams SM, Broadbent JM, Poulton R & Locker D 2010. Long-term dental visiting patterns and adult oral health. *Journal of Dental Research* 89(3):307-11.

List of tables

Table 2.1: Participation rates for National Dental Telephone Interview Surveys, by survey year5

Table 2.2: Dentate adults sampled, by survey year and selected characteristics6

Table 3.1: Adults who are cardholders, by survey year and age (per cent)7

Table 3.2: Adults who are cardholders, by survey year and selected characteristics (per cent)8

Table 3.3: Adults who have dental insurance, by survey year and age (per cent)10

Table 3.4: Adults who have dental insurance, by survey year and selected characteristics (per cent)11

Table 4.1: Adults who made a dental visit in the previous 12 months, by survey year and age (per cent)13

Table 4.2: Adults who made a dental visit in the previous 12 months, by survey year and selected characteristics (per cent)15

Table 4.3: Adults who attended a private practice at last dental visit, by survey year and age (per cent)17

Table 4.4: Adults who attended a private practice at last dental visit, by survey year and selected characteristics (per cent)19

Table 4.5: Adults who visited for a check-up at most recent dental visit, by survey year and age (per cent)21

Table 4.6: Adults who visited for a check-up at most recent dental visit, by survey year and selected characteristics (per cent)23

Table 4.7: Adults who usually made a dental visit at least once a year, by survey year and age (per cent)25

Table 4.8: Adults who usually made a dental visit at least once a year, by survey year and selected characteristics (per cent)27

Table 4.9: Adults who usually made a dental visit for a check-up, by survey year and age (per cent)29

Table 4.10: Adults who usually made a dental visit for a check-up, by survey year and selected characteristics (per cent)31

Table 4.11: Adults who received an extraction in the previous 12 months, by survey year and age (per cent)33

Table 4.12: Adults who received an extraction in the previous 12 months, by survey year and selected characteristics (per cent)35

Table 4.13: Adults who received a filling in the previous 12 months, by survey year and age (per cent)37

Table 4.14: Adults who received a filling in the previous 12 months, by survey year and selected characteristics (per cent)39

Table 4.15: Adults who received a scale and clean in the previous 12 months, by survey year and age (per cent)41

Table 4.16: Adults who received a scale and clean in the previous 12 months, by survey year and selected characteristics (per cent).....43

Table 5.1:	Adults who reported that they avoided or delayed making a dental visit in the previous 12 months due to cost, by survey year and age (per cent).....	45
Table 5.2:	Adults who reported that they had avoided or delayed dental care in the previous 12 months due to cost, by survey year and selected characteristics (per cent)	47
Table 5.3:	Adults who reported that cost had prevented recommended dental treatment, by survey year and age (per cent)	49
Table 5.4:	Adults who reported that cost had prevented recommended dental treatment, by survey year and selected characteristics (per cent)	51
Table 5.5:	Adults who reported that dental visits were a large financial burden, by survey year and age (per cent).....	53
Table 5.6:	Adults who reported that dental visits were a large financial burden, by survey year and selected characteristics (per cent)	55

List of figures

Figure 4.1:	Adults who made a dental visit in the previous 12 months, by survey year	12
Figure 4.2:	Adults who attended a private practice at last dental visit, by survey year	16
Figure 4.3:	Adults who visited for a check-up at last dental visit, by survey year	20
Figure 4.4:	Adults who usually made a dental visit at least once a year, by survey year	24
Figure 4.5:	Adults who usually made a dental visit for a check-up, by survey year	28
Figure 4.6:	Adults who received an extraction in the previous 12 months, by survey year	32
Figure 4.7:	Adults who received a filling in the previous 12 months, by survey year	36
Figure 4.8:	Adults who received a scale and clean in the previous 12 months, by survey year	40
Figure 5.1:	Adults who reported that they had avoided or delayed making a dental visit in the previous 12 months due to cost, by survey year	44
Figure 5.2:	Adults who reported that cost had prevented recommended dental treatment, by survey year	48
Figure 5.3:	Adults who reported that dental visits in the previous 12 months were a large financial burden, by survey year	52