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# **Trends in access to dental care among Australian children**

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# Abbreviations

ARCPOH	Australian Research Centre for Population Oral Health
ASGC	Australian Standard Geographical Classification
CATI	computer assisted telephone interview
CI	confidence interval
EWP	electronic white pages
NDTIS	National Dental Telephone Interview Survey
NSAOH	National Survey of Adult Oral Health
PHIS	Private Health Insurance Incentives Scheme

# Symbols

%	per cent
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# Summary

From 1994 to 2005 around 4 in 5 children visited a dentist within the previous 12 months. Children aged 5–11 were slightly more likely to visit than children aged 12–17. Non-cardholders and insured children were more likely to have visited within the previous 12 months as were children who usually visit for a check-up rather than problem-oriented visitors, although few of these differences were statistically significant.

Prior to 2005 children aged 12–17 years were significantly more likely than younger children to have attended a private practice at their most recent dental visit. The percentage of adolescents who visited privately remained fairly constant from 1994 to 2005 at approximately 55%. In contrast, there was a sharp increase in the percentage of 5–11 year olds who attended a private practice between 2002 (40%) and 2005 (53%) reflecting a decline in the use of the School Dental Service.

Visiting for a check-up, rather than problem-oriented visiting, increased between 1996 and 2005 across both age groups and population sub-groups, peaking in 2005 at 78% for 5–11 year old children and 81% for 12–17 year olds.

During the period 1994 to 2005 approximately 8% of children aged 5–11 years who made a dental visit within the previous 12 months received an extraction. Children who usually visited the dentist for a problem were more than twice as likely to have received an extraction as those who usually visited for a check-up. In recent years adolescents who usually visited for a problem were also more than twice as likely to have received an extraction. Visiting for a problem was also associated with a higher rate of fillings across both age groups.

From 1994 to 2002 the percentage of children aged 5–11 years who received a professional scale and clean within the previous 12 months fluctuated between 40% and 50%. However from 2002 to 2005 prevalence of this preventive treatment declined significantly from 47% to 34%. This decline was particularly evident among uninsured children, children living in rural and remote areas and non-cardholders. A similar significant decline was seen amongst older children.

The percentage of children who reported that they had avoided or delayed visiting a dentist within the previous 12 months due to cost declined between 1994 and 2005. For children aged 5–11 years the proportion almost halved from 13% to 7%, and for adolescents the decline was from 16% to 10%. Differences among sociodemographic groups were small although children who usually visited the dentist for a problem were significantly more likely to report avoiding or delaying dental care due to the cost.

Adolescents were more likely to report that cost had prevented recommended dental treatment than younger children. Since 2002 uninsured adolescents were more than three times as likely as insured adolescents to report that cost had prevented recommended treatment. For younger children differences by insurance status were smaller and not statistically significant. In 2005 both adolescents and younger children who visited for a problem were significantly more likely to report that cost had prevented recommended dental treatment than those who usually visited for a check-up.

# 1 Introduction

The purpose of this report is to investigate trends in access to dental care among Australian children. Data are presented from the regular series of the National Dental Telephone Interview Survey (NDTIS) conducted by the Australian Research Centre for Population Oral Health (ARCPOH) 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 access to dental care for children aged 5–11 years and 12–17 years. Topics covered include dental visiting patterns of children, dental treatment received and financial barriers to dental care. Within each topic a range of data items are presented and comparisons are made between population subgroups defined by sex, cardholder status, insurance status, residential location and usual reason for visiting a dentist.

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 children 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 ASGC Remoteness classification developed by the Australian Bureau of Statistics. This classification has five categories – major capital city, inner regional, outer regional, remote and very remote. For the purposes of this report, major capital city 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.

## 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 NDTIS 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) prior to selection, and a systematic sample of households was selected within each stratum. To allow for non-response and non-contacts, households were over-sampled to ensure an adequate sample size within each stratum. Once telephone contact was 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.

The 2005 NDTIS was 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 state by region (metropolitan/non-metropolitan) strata. A sample of postcodes was then selected with probability proportional 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. To obtain a sample of children aged 5–14 years, one child was randomly selected from every third household that had children aged 5–14 years usually resident. Selection of children was also based on birth date.

The 2005 NDTIS was conducted as part of the 2004–06 National Survey of Adult Oral Health (NSAOH). This survey had two distinct phases – the initial telephone interview phase, which was similar to previous NDTIS surveys; 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 geographic regions. As dental examinations were not conducted for children aged 5–14 years, initial selection of participants within households was restricted to people aged 15 years or older. After completion of an adult telephone interview, a child aged 5–14 years was then randomly selected if children in this age group were usually resident in the household.



## 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. Interviewers read questions from a computer screen and recorded answers directly onto the computer. Interviews were conducted from a dedicated computer-assisted telephone interview (CATI) suite at University of Adelaide research offices using Windows based WinCati software.

Approximately 10 days prior to 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 that 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. A record of each attempt was recorded by the WinCati software. 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 were excluded from the survey, including business numbers, hospitals or nursing homes (where the telephone number was not connected to a private room), caravan parks, hotels and hostels.

A target person was randomly selected from each household by the interviewer, who asked 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, this person was selected as the target person.

Every effort was made to ensure that the interview was conducted with the target person if they were aged 15 years or older. However, in some circumstances the questions were answered by another adult in the form of a proxy interview. For children aged 5–14 years, the interviewer established the most appropriate person to answer questions on behalf of the child, and an interview was then conducted with that person.

Interviews were conducted by a panel of experienced telephone interviewers, each of whom was trained in survey methods and issues relating to the questionnaire. 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 prior to the commencement of data collection for each survey.

## 2.3 Weighting

The purpose of 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 and 2002 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. For children aged 15–17 years their probability of selection was dependent on the number of people aged 15 years or older usually resident in the household. For children aged 5–14 years their probability of selection was dependent on the number of children aged 5–14 years usually resident in the sampled household.

With the exception of data regarding participation rates, results in this report have been weighted and reflect population estimates.

## 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 are 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 and their associated 95% CIs were generated using the SPSS Complex Samples procedure. This procedure allowed for the sample design used in each NDTIS and applied sampling weights to generate population estimates and 95% CIs.

For all NDTISs, 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).

## 2.5 Participation rates

Participation rates for each NDTIS conducted from 1994 to 2005 are provided in Table 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. From 1994 to 2005 survey participation rates declined from 71.6% to 50.5%.

**Table 1: Participation rates for the National Dental Telephone Interview Surveys by survey year**

	Survey year				
	1994	1996	1999	2002	2005
Number of telephone numbers sampled	12,522	13,075	16,289	24,938	36,931
Number of telephone numbers excluded as out of scope	1,373	1,470	2,439	6,596	8,884
<b>Number of in-scope telephone numbers</b>	<b>11,149</b>	<b>11,605</b>	<b>13,832</b>	<b>14,419</b>	<b>28,047</b>
<b>Outcome</b>					
Number of non-contacts	557	772	773	3,141	3,724
Number of refusals	2,605	2,541	5,230	3,966	10,159
Number of participants	7,987	8,292	7,829	7,312	14,164
Participation rate	71.6%	71.5%	56.6%	50.7%	50.5%

## 2.6 Sample size

The number of children sampled in each NDTIS is presented in Table 2. Sample sizes are provided by sex, age, state and region.

**Table 2: Children sampled by survey year and selected characteristics**

	Survey year				
	1994	1996	1999	2002	2005
<b>Sex</b>					
Male	680	703	549	598	864
Female	676	628	651	509	896
<b>Age</b>					
5–11 years	775	726	622	597	841
12–17 years	581	605	578	510	919
<b>State</b>					
NSW	193	207	148	192	438
Vic	203	205	173	173	350
Qld	204	199	198	191	281
SA	199	184	195	168	118
WA	196	219	185	180	168
Tas	123	98	85	78	144
NT	126	125	127	71	142
ACT	112	94	89	54	119
<b>Region</b>					
Urban	850	754	700	792	1,400
Rural & remote	506	566	492	305	360
<b>Total</b>	<b>1,356</b>	<b>1,331</b>	<b>1,200</b>	<b>1,107</b>	<b>1,760</b>

*Note:* Some region subtotals do not sum to total sample size due to missing data.

### 3 Characteristics of children

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 children aged 5–17 years, both across time and within selected population subgroups.

#### 3.1 Cardholder status

Throughout this report children were classified as government concession cardholders if their primary carer had a Pensioner Concession Card or an Australian Government Health Care Card which covered the child at the time of 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. Children who are not covered by one of these cards at the time of survey are referred to as ‘non-cardholders’ in this report.

##### Children aged 5–11 years

From 1994 to 2005 the percentage of children aged 5–11 years who were classified as cardholders remained fairly constant, ranging from 26.5% in 1994 to 22.3% in 2005 (Table 3). Male and female children were equally likely to be cardholders throughout this period. In contrast, from 1994 to 1996 children living in rural and remote areas were significantly more likely to be cardholders than those living in urban areas. However, this trend did not continue from 1999 to 2005.

**Table 3: Per cent who are cardholders by survey year and selected characteristics, children aged 5–11 years**

		Population: Children aged 5–11 years				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	24.5	21.4	24.7	25.1	25.1
	95% CI	19.5,30.3	16.8,26.8	18.6,32.0	19.5,31.5	20.3,30.6
Female	%	28.7	26.0	23.3	25.6	19.5
	95% CI	23.1,35.0	20.6,32.2	16.9,31.1	20.0,32.1	15.1,24.9
<b>Region</b>						
Urban	%	22.7	19.6	22.9	24.2	22.0
	95% CI	18.2,27.9	15.6,24.3	17.6,29.3	19.8,29.3	18.3,26.2
Rural & Remote	%	36.2	32.7	24.7	33.2	24.3
	95% CI	29.6,43.4	25.9,40.2	17.7,33.3	24.6,43.2	16.0,35.1
<b>Total</b>	%	<b>26.5</b>	<b>23.7</b>	<b>24.0</b>	<b>25.3</b>	<b>22.3</b>
	95% CI	<b>22.7,30.7</b>	<b>20.1,27.7</b>	<b>19.5,29.2</b>	<b>21.3,29.8</b>	<b>18.9,26.2</b>

### Children aged 12–17 years

From 1994 to 2005 approximately 1 in 5 children aged 12–17 years was classified as a cardholder (Table 4). Male and female adolescents were equally likely to be cardholders throughout this period. Prevalence was generally 8–10 percentage points higher in rural and remote areas than urban areas, but differences by region were not statistically significant.

**Table 4: Per cent who are cardholders by survey year and selected characteristics, children aged 12–17 years**

		Population: children aged 12–17 years				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	22.3	22.9	19.5	21.4	23.0
	95% CI	16.8,28.8	16.9,30.4	13.3,27.8	15.8,28.3	18.3,28.4
Female	%	17.2	27.9	25.4	17.8	21.1
	95% CI	12.6,23.1	21.0,35.9	19.1,33.0	12.6,24.5	16.7,26.5
<b>Region</b>						
Urban	%	17.4	23.0	19.6	18.5	22.0
	95% CI	13.3,22.4	17.3,30.0	14.0,26.6	14.2,23.7	18.4,26.1
Rural & remote	%	26.5	31.1	29.9	26.3	23.0
	95% CI	19.5,35.0	23.7,39.7	22.6,38.5	17.0,38.4	14.0,35.5
<b>Total</b>	%	<b>19.7</b>	<b>25.3</b>	<b>22.5</b>	<b>19.7</b>	<b>22.1</b>
	95% CI	<b>16.0,23.9</b>	<b>20.6,30.7</b>	<b>17.8,27.9</b>	<b>15.7,24.5</b>	<b>18.7,25.9</b>

## 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 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/braces, wisdom teeth removal, crowns, bridges and dentures.

Over the past decade there have been many changes to the private insurance system which have impacted on 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% Medicare Levy Surcharge, to high income earners who were not insured. The Medicare Levy Surcharge was in addition to the 1.5% Medicare Levy Surcharge introduced in 1976. 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 rejoined at a later date, their Lifetime Health Cover loading would be reinstated.

The following section provides estimates of the percentage of Australian children covered by dental insurance from 1994 to 2005 classified by age and selected sociodemographic characteristics.

## Children aged 5–11 years

From 1994 to 1996, 40% of children aged 5–11 years were covered by dental insurance (Table 5). Despite the introduction of the PHIIS in July 1997, dental insurance coverage among children 5–11 years declined to 35.6% 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 42.1% in 2002 and 43.8% in 2005. Other findings from Table 5 include the following:

- Dental insurance coverage was similar among male and female children aged 5–11 years throughout 1994 to 2005.
- Non-cardholders were significantly more likely than cardholders to have dental insurance. This was apparent in all survey years, with coverage for non-cardholders 26–41 percentage points higher than coverage for cardholders. The increase in insurance coverage from 1999 (35.6%) to 2002 (42.1%) was mainly attributable to an increase in coverage among non-cardholders.
- Children living in urban areas reported a higher level of dental insurance coverage than rural and remote dwellers, but differences were small and not statistically significant.

**Table 5: Per cent with dental insurance by selected characteristics, children aged 5–11 years**

		Population: children aged 5–11 years				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	40.5	40.9	33.9	42.9	41.0
	95% CI	34.2,47.1	34.7,47.4	27.2,41.4	36.1,49.9	35.2,47.0
Female	%	38.8	40.2	37.4	41.2	46.7
	95% CI	32.6,45.3	33.7,47.0	30.2,45.1	34.2,48.7	40.6,52.9
<b>Cardholder status</b>						
Cardholder	%	10.5	19.2	15.6	16.5	12.0
	95% CI	6.7,16.1	13.2,27.0	8.5,26.7	10.8,24.4	7.6,18.6
Non-cardholder	%	50.3	47.4	41.6	50.8	53.0
	95% CI	44.7,55.8	41.9,52.9	35.6,47.8	44.8,56.8	47.8,58.1
<b>Region</b>						
Urban	%	40.3	42.2	36.3	42.2	44.8
	95% CI	34.7,46.1	36.3,48.3	30.1,42.9	36.7,48.0	39.6,50.0
Rural & remote	%	38.1	35.8	34.8	40.5	38.3
	95% CI	31.4,45.2	29.3,43.0	27.0,43.6	30.7,51.1	28.8,48.7
<b>Total</b>	%	<b>39.7</b>	<b>40.5</b>	<b>35.6</b>	<b>42.1</b>	<b>43.8</b>
	95% CI	<b>35.2,44.3</b>	<b>36.0,45.2</b>	<b>30.6,41.0</b>	<b>37.1,47.2</b>	<b>39.2,48.5</b>



## Children aged 12–17 years

In 1994 approximately 1 in 2 children aged 12–17 years were covered by private dental insurance. From 1994 to 1996 insurance coverage declined significantly to approximately 39%, which was similar to the level of coverage among younger children. Following the introduction of the PHIIS in July 1997, dental insurance coverage increased to 45.7% in 1999, a pattern not observed among younger children. This scheme may have impacted more on families with adolescents due to the higher cost of dental care associated with orthodontic treatment. Insurance coverage continued to increase from 1999 (45.7%) to 2002 (51.7%) following the introduction of the 30% rebate scheme of Lifetime Health Cover. However, from 2002 to 2005, coverage declined slightly to 50%. Other findings from Table 6 include the following:

- The significant decline in coverage from 1994 to 1996 was predominantly due to a decline among male adolescents from 54.0% to 36.7%. Within the survey years differences in insurance coverage by sex were inconsistent and not statistically significant.
- Non-cardholders were significantly more likely to have dental insurance than cardholders. This was evident in all survey years except 1999, with insurance coverage for non-cardholders being 25–42 percentage points higher than coverage for cardholders.
- Differences in dental insurance coverage by residential location were largest from 1996 to 1999, with coverage approximately 10 percentage points higher for urban residents than residents of rural and remote areas. These differences were not statistically significant and are not apparent in more recent years.

**Table 6: Per cent with dental insurance by selected characteristics, children aged 12–17 years**

		Population: children aged 12–17 years				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	54.0	36.7	48.0	49.1	51.1
	95% CI	46.3,61.4	29.8,44.2	39.1,57.0	41.5,56.8	44.8,57.4
Female	%	48.8	40.9	43.4	54.8	48.0
	95% CI	40.9,56.7	33.1,49.1	35.3,51.8	45.6,63.8	42.3,53.7
<b>Cardholder status</b>						
Cardholder	%	27.1	19.7	32.1	17.9	28.4
	95% CI	18.6,37.7	12.9,28.9	20.3,46.7	10.8,28.2	20.8,37.5
Non-cardholder	%	56.9	44.9	49.6	60.0	55.8
	95% CI	50.5,63.1	38.7,51.4	42.7,56.6	53.3,66.4	50.9,60.5
<b>Region</b>						
Urban	%	52.1	41.5	49.2	51.4	49.9
	95% CI	45.3,58.8	34.7,48.6	41.4,57.0	44.7,58.0	45.3,54.5
Rural & remote	%	49.2	31.1	37.8	54.0	47.2
	95% CI	40.3,58.2	24.1,39.1	29.9,46.4	41.4,66.1	35.2,59.5
<b>Total</b>	%	<b>51.3</b>	<b>38.7</b>	<b>45.7</b>	<b>51.7</b>	<b>49.6</b>
	95% CI	<b>45.8,56.9</b>	<b>33.5,44.2</b>	<b>39.7,51.8</b>	<b>45.8,57.7</b>	<b>45.3,53.9</b>

## **4 Dental visiting patterns of children**

Children 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. They are also more likely to receive regular professional advice on oral hygiene. Dental visiting patterns of children can be characterised by the child's most recent visiting behaviour or, to reflect longer term behaviour, the child's usual visiting patterns. Both approaches are presented in this chapter.

### **4.1 Child's most recent dental visit**

The characteristics of a child'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 within the previous 12 months**

In each NDTIS, the time since a child's most recent dental visit was assessed in the interview by asking the parents 'How long ago did your child see a dental professional about his/her 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 percentage of children whose most recent dental visit was within the previous 12 months is presented by age and survey year.

**Children aged 5–11 years**

From 1994 to 2005 approximately 80% of children aged 5–11 years visited a dentist within the previous 12 months (Figure 1). There was no significant variation across time, with the prevalence lowest in 1999 (77.3%) and highest in 2002 (83.0%).

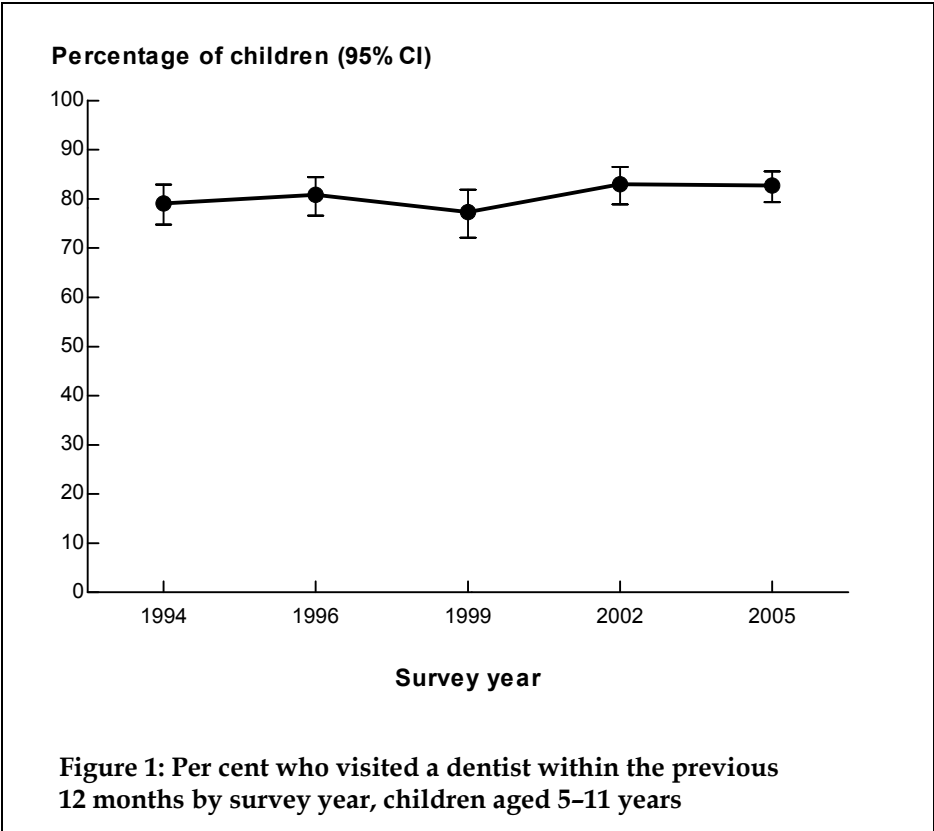


Table 7 presents the percentage of children aged 5–11 years who visited a dentist within the previous 12 months classified by survey year and selected characteristics. Key findings from this table include the following:

- Throughout 1994 to 2005 male and female children aged 5–11 years were equally likely to have visited a dentist within the previous 12 months.
- Non-cardholders reported a higher prevalence than cardholders of visiting within the previous 12 months in all time periods except 1994. Differences by cardholder status were largest in 1999 (80.4% versus 67.3%) but were not statistically significant.
- Since 2002 insured children have reported a higher prevalence of recently visiting than uninsured children although differences were not statistically significant. While dental attendance among uninsured children remained constant over time (77% to 79%), prevalence among insured children fluctuated from 78% to 88%.
- Children living in rural and remote areas were just as likely to have visited a dentist within the previous 12 months as those living in urban areas.
- Children who usually visited a dentist for a check-up reported a consistently higher prevalence of visiting within the previous 12 months than those who usually visited for a problem. This was most evident in 1999 (87.3% versus 62.0%) and 2005 (91.2% versus 71.4%), with those visiting for a check-up significantly more likely to have recently visited than problem-oriented visitors.

**Table 7: Per cent who visited a dentist within the previous 12 months by survey year and selected characteristics, children aged 5–11 years**

		Population: children aged 5–11 years				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	79.8	79.3	76.1	85.2	83.3
	95% CI	73.4,84.9	73.2,84.4	68.5,82.3	79.8,89.4	78.6,87.1
Female	%	78.4	82.3	78.7	80.8	82.0
	95% CI	72.1,83.6	76.1,87.2	70.9,84.9	74.3,86.0	77.0,86.1
<b>Cardholder status</b>						
Cardholder	%	79.5	73.2	67.3	78.0	75.9
	95% CI	71.0,86.0	63.5,81.1	54.3,78.1	69.4,84.8	66.5,83.3
Non-cardholder	%	78.9	83.5	80.4	84.7	84.5
	95% CI	73.7,83.4	78.8,87.4	74.8,85.0	79.8,88.6	81.1,87.4
<b>Insurance status</b>						
Insured	%	79.8	83.9	78.4	88.1	87.1
	95% CI	72.9,85.3	77.6,88.6	69.7,85.1	81.8,92.4	82.4,90.7
Uninsured	%	78.4	78.7	76.5	79.1	79.1
	95% CI	72.4,83.3	72.7,83.7	69.5,82.3	73.2,84.0	74.1,83.4
<b>Region</b>						
Urban	%	79.1	80.3	75.0	83.2	82.8
	95% CI	73.5,83.7	74.8,84.8	68.4,80.7	78.6,87.0	79.4,85.8
Rural & remote	%	79.3	81.9	85.7	83.2	81.7
	95% CI	72.6,84.8	74.6,87.5	78.1,90.9	73.7,89.7	68.6,90.2
<b>Usual reason for visit</b>						
Check-up	%	87.0	90.3	87.3	88.6	91.2
	95% CI	82.9,90.3	86.7,93.1	82.4,90.9	84.4,91.7	88.4,93.4
Problem	%	76.2	81.7	62.0	84.2	71.4
	95% CI	59.4,87.5	68.6,90.2	44.8,76.7	71.6,91.8	54.9,83.6
<b>Total</b>	%	<b>79.1</b>	<b>80.8</b>	<b>77.3</b>	<b>83.0</b>	<b>82.7</b>
	95% CI	<b>74.8,82.9</b>	<b>76.6,84.4</b>	<b>72.1,81.9</b>	<b>78.9,86.5</b>	<b>79.3,85.6</b>

### Children aged 12–17 years

During the period 1994 to 2005 the percentage of children aged 12–17 years who visited a dentist within the previous 12 months remained fairly constant, ranging from a low of 74.2% in 1994 to a high of 78.9% in 2005 (Figure 2).

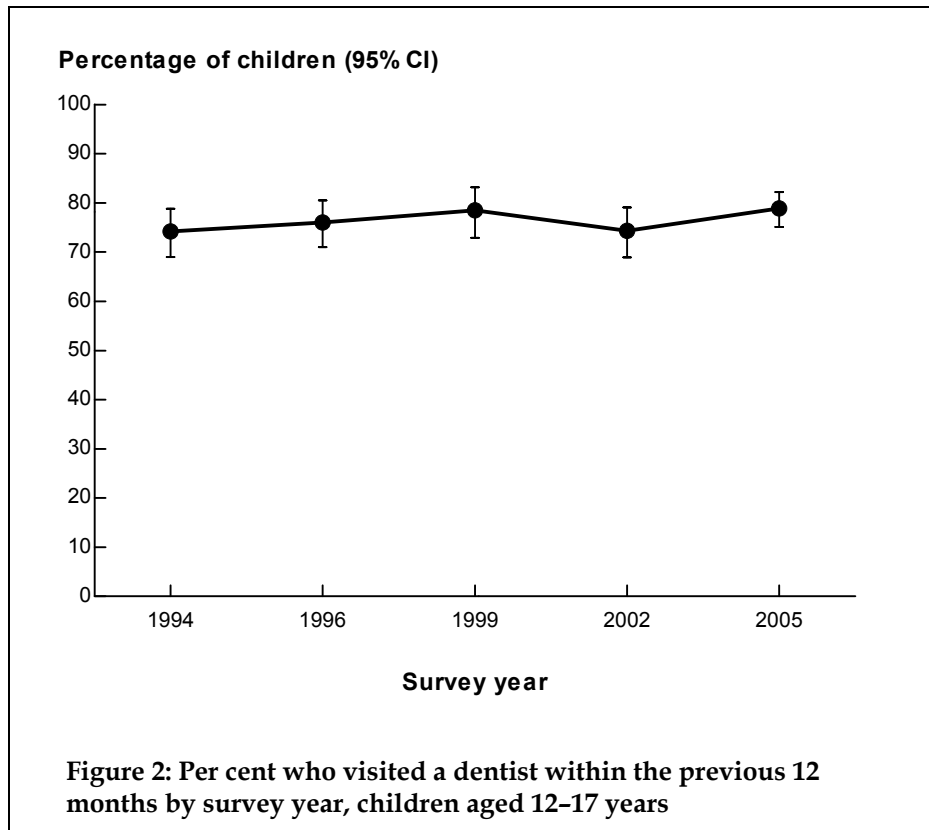


Table 8 presents the percentage of children aged 12–17 years who visited a dentist within the previous 12 months classified by survey year and selected characteristics. Key findings from this table include the following:

- The percentage of male adolescents visiting a dentist within the previous 12 months increased from 67.5% in 1994 to 78.1% in 2005. In contrast, prevalence among female adolescents remained constant at approximately 80% during this period. Differences in attendance levels among male and female adolescents were evident during 1994 to 1996, with prevalence among females 13 percentage points higher than males however, this difference was not statistically significant.
- Non-cardholders were more likely than cardholders to have visited a dentist within the previous 12 months. Differences were largest and statistically significant in 2002 (79.3% versus 53.3%) and 2005 (83.2% versus 64.0%).
- Insured children reported a higher prevalence of visiting within the last 12 months than uninsured children across all survey years. Differences in attendance by insurance status were significant in 1994 (82.8% versus 66.2%), 2002 (83.6% versus 63.2%) and 2005 (90.7% versus 70.1%).
- Adolescents living in rural or remote areas were just as likely to have visited a dentist within the previous 12 months as those living in urban areas.

- From 1994 to 2005 adolescents who usually visited the dentist for a check-up were more than one and a half times as likely to have made a dental visit within the previous 12 months as those who usually visited for a problem. Differences in prevalence by usual reason for dental visit were significant in all survey years.

**Table 8: Per cent who visited a dentist within the previous 12 months by survey year and selected characteristics, children aged 12–17 years**

		Population: children aged 12–17 years				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	67.5	69.8	78.0	70.2	78.1
	95% CI	59.8,74.4	62.1,76.6	69.2,84.9	62.6,76.9	72.7,82.7
Female	%	80.4	82.5	79.0	79.1	79.7
	95% CI	73.1,86.1	75.9,87.5	71.6,84.8	71.0,85.4	75.0,83.8
<b>Cardholder status</b>						
Cardholder	%	69.1	75.0	77.5	53.3	64.0
	95% CI	57.7,78.6	63.6,83.7	67.4,85.2	41.0,65.1	55.7,71.6
Non-cardholder	%	76.2	76.4	78.7	79.3	83.2
	95% CI	70.3,81.2	70.5,81.5	71.8,84.3	73.5,84.1	79.1,86.5
<b>Insurance status</b>						
Insured	%	82.8	84.8	78.8	83.6	90.7
	95% CI	75.8,88.1	76.9,89.7	69.3,86.0	76.7,88.7	86.6,93.7
Uninsured	%	66.2	71.0	77.8	63.2	70.1
	95% CI	58.3,73.4	63.8,77.3	70.4,83.8	54.5,71.1	64.1,75.5
<b>Region</b>						
Urban	%	74.7	75.8	80.5	73.7	79.4
	95% CI	68.3,80.3	69.2,81.3	73.0,86.3	67.6,79.0	75.4,82.9
Rural & remote	%	72.5	77.4	73.5	77.6	74.4
	95% CI	63.7,79.9	69.3,83.8	65.4,80.3	64.5,86.8	61.9,83.8
<b>Usual reason for visit</b>						
Check-up	%	83.4	83.3	83.4	81.1	85.5
	95% CI	77.9,87.8	78.1,87.4	77.5,88.0	75.2,85.9	81.9,88.5
Problem	%	46.6	49.0	61.7	47.0	51.4
	95% CI	35.5,58.0	36.9,61.3	48.0,73.8	34.6,59.8	41.7,60.9
<b>Total</b>	<b>%</b>	<b>74.2</b>	<b>76.0</b>	<b>78.5</b>	<b>74.3</b>	<b>78.9</b>
	<b>95% CI</b>	<b>69.0,78.8</b>	<b>71.0,80.5</b>	<b>72.9,83.2</b>	<b>68.9,79.1</b>	<b>75.1,82.2</b>

## **Attended a private dental practice at most recent visit**

While most Australian adults obtain dental care at a private dental practice, children are able to seek publicly funded dental care through the School Dental Service run by the state and territory governments. Historically, this service has been available to all Australian school children; however, changes over time to eligibility criteria in some states and territories have gradually eroded the coverage of this service.

In each NDTIS parents were asked 'Where did your child make their last dental visit?' Categories of response were 'Private dental practice', Government dental clinic including dental hospital', School dental service', 'Other site' and 'Don't know'. Parents who reported that their child had not made a dental visit were excluded from this question. The percentage of children who attended a private practice at their most recent dental visit is presented by age and survey year.

### Children aged 5–11 years

The percentage of children aged 5–11 years who attended a private practice at their most recent dental visit increased from a low of 33.1% in 1994 to a high of 52.8% in 2005 (Figure 3). This increase in private attendance reflects a decline in utilisation of the School Dental Service over this period. While the percentage of children attending a private practice was similar from 1996 to 2002, there was a significant increase in private attendance from 2002 (39.9%) to 2005 (52.8%).

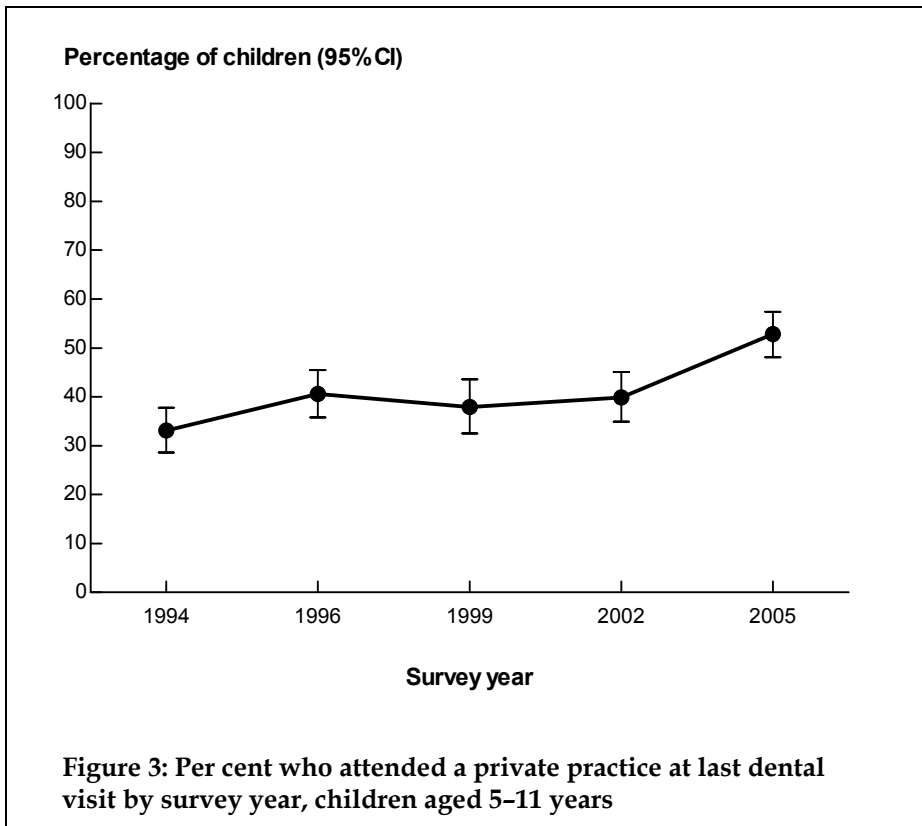


Table 9 presents the percentage of children aged 5–11 years who attended a private practice at their last dental visit classified by survey year and selected characteristics. Key findings from this table include the following:

- Differences in private attendance among male and female children were inconsistent across survey years with no obvious trend emerging.
- Throughout 1994 to 2005, non-cardholders were significantly more likely than cardholders to have attended a private practice. Among non-cardholders, attendance at a private practice increased significantly from 38.9% in 1994 to 59.9% by 2005. Although the majority of cardholders visited the School Dental Service during this period, by 2005 over one-quarter of cardholders (26.2%) attended a private practice at their most recent dental visit.
- Insurance status was strongly associated with private dental attendance with insured children significantly more likely to have visited a private practice than uninsured children. Among children with dental insurance, attendance at a private practice increased steadily from 43.7% in 1994 to 71.2% in 2005. In contrast, private attendance among uninsured children fluctuated during this period but rose significantly from 2002 (23.7%) to 2005 (37.7%).



- Since 2002 attendance at a private clinic was more prevalent among urban children than rural and remote children, with regional differences significant in 2005 (55.6% versus 36.8%).
- Over the last 10 years attendance at a private practice was more prevalent among children who usually visited for a check-up than those who usually visited for a problem. However, differences by usual reason for visiting a dentist were not statistically significant.

**Table 9: Per cent who attended a private practice at last dental visit by survey year and selected characteristics, children aged 5–11 years**

		Population: children aged 5–11 years				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	39.5	41.6	33.3	37.5	50.3
	95% CI	32.9,46.5	35.0,48.5	26.3,41.2	30.8,44.7	44.0,56.7
Female	%	25.8	39.5	43.0	42.2	55.3
	95% CI	20.3,32.2	32.7,46.7	34.9,51.4	34.8,49.9	49.1,61.4
<b>Cardholder status</b>						
Cardholder	%	17.0	10.8	14.0	12.1	26.2
	95% CI	11.2,24.9	6.1,18.5	7.1,25.6	7.6,18.9	18.8,35.2
Non-cardholder	%	38.9	49.4	45.4	48.9	59.9
	95% CI	33.4,44.6	43.7,55.1	39.1,51.8	42.9,54.9	55.0,64.6
<b>Insurance status</b>						
Insured	%	43.7	53.7	57.0	60.2	71.2
	95% CI	36.4,51.3	46.3,60.9	48.3,65.3	52.4,67.5	65.4,76.3
Uninsured	%	25.9	31.2	26.9	23.7	37.7
	95% CI	20.6,32.0	25.3,37.7	20.6,34.2	18.3,30.2	31.1,44.7
<b>Region</b>						
Urban	%	33.6	40.8	39.4	41.9	55.6
	95% CI	28.0,39.6	34.6,47.2	32.7,46.5	36.3,47.7	50.5,60.5
Rural & remote	%	31.8	38.4	35.2	27.5	36.8
	95% CI	25.2,39.2	31.4,45.9	27.1,44.3	18.3,39.1	25.6,49.6
<b>Usual reason for visit</b>						
Check-up	%	33.2	41.2	40.0	42.7	53.7
	95% CI	28.5,38.3	36.1,46.5	34.2,46.1	37.2,48.3	48.7,58.7
Problem	%	31.6	37.1	29.6	24.6	43.8
	95% CI	19.4,47.0	24.2,52.0	16.7,46.7	14.3,39.0	28.4,60.6
<b>Total</b>	%	<b>33.1</b>	<b>40.6</b>	<b>37.9</b>	<b>39.9</b>	<b>52.8</b>
	95% CI	<b>28.6,37.8</b>	<b>35.8,45.5</b>	<b>32.5,43.6</b>	<b>34.9,45.1</b>	<b>48.1,57.4</b>

### Children aged 12–17 years

From 1994 to 2005 the percentage of children aged 12–17 years who attended a private practice at their most recent dental visit fluctuated between 53% and 59% (Figure 4). Until 2005 adolescents were significantly more likely than younger children to have visited privately. However, in 2005 private dental attendance by children aged 5–11 years (53%) was similar to that for adolescents (57%).

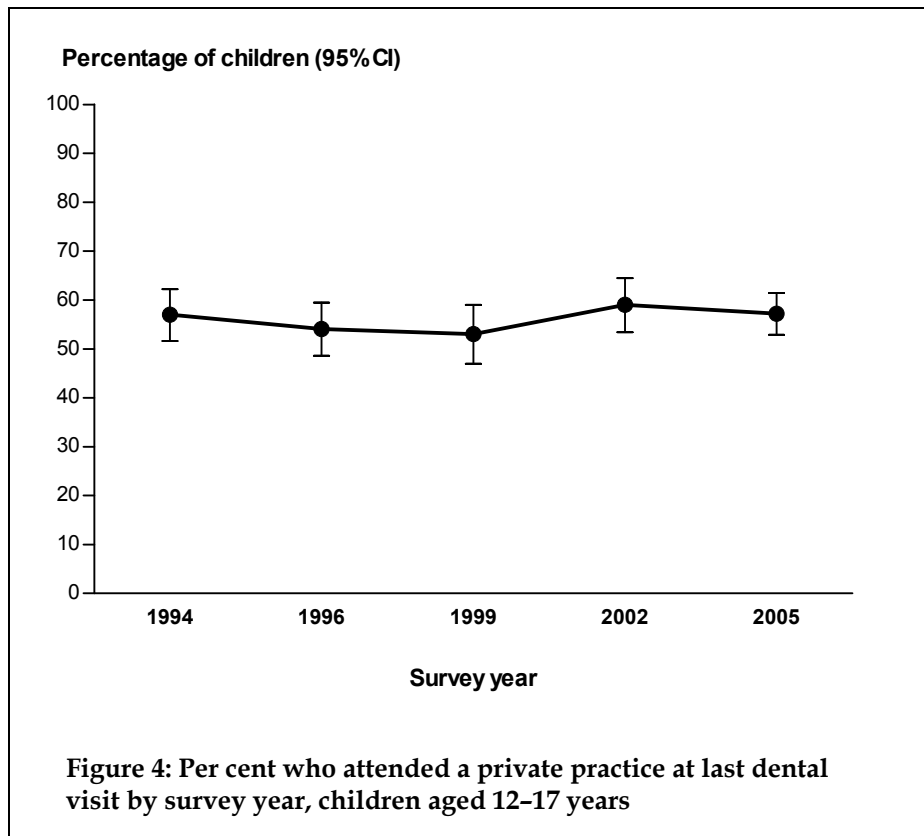


Table 10 presents the percentage of children aged 12–17 years who attended a private practice at their most recent dental visit classified by survey year and selected characteristics. Key findings from this table include the following:

- From 1994 to 2005 female adolescents reported a higher prevalence than males of private dental attendance although differences by gender were not significant.
- Non-cardholders were significantly more likely to have attended a private practice than cardholders. Since 2002 non-cardholders were more than twice as likely to have attended a private practice as cardholders.
- Insured adolescents were significantly more likely to have visited a private practice than those without dental insurance. In all survey years except 1999 over 70% of insured adolescents attended a private practice compared with 38% to 44% of uninsured adolescents.
- During the last 10 years the percentage of urban adolescents who attended a private practice remained fairly constant. However, for adolescents living in rural and remote regions there has been a shift away from the private sector.
- Usually visiting for a check-up was moderately associated with private dental attendance. In 1994, 1996 and 2005 adolescents who usually visited the dentist for a check-up were significantly more likely to have attended a private practice than those who usually visited for a problem.

**Table 10: Per cent who attended a private practice at last dental visit by survey year and selected characteristics, children aged 12–17 years**

		Population: children aged 12–17 years				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	53.4	51.7	50.1	54.1	54.2
	95% CI	45.9,60.8	44.1,59.2	41.3,58.8	46.5,61.5	48.2,60.1
Female	%	60.4	56.5	56.1	64.9	60.4
	95% CI	52.5,67.7	48.5,64.3	48.0,63.9	56.6,72.4	54.6,66.0
<b>Cardholder status</b>						
Cardholder	%	41.9	29.0	36.5	24.6	30.8
	95% CI	31.5,53.0	20.0,39.9	25.3,49.4	15.6,36.5	22.9,40.1
Non-cardholder	%	61.5	62.5	57.6	67.7	64.9
	95% CI	55.4,67.4	56.4,68.3	50.6,64.3	61.6,73.2	60.3,69.3
<b>Insurance status</b>						
Insured	%	70.5	75.5	66.9	77.3	77.6
	95% CI	63.1,76.9	68.5,81.3	57.2,75.4	70.6,82.8	72.1,82.3
Uninsured	%	44.3	39.6	41.7	39.0	38.3
	95% CI	36.6,52.4	32.7,46.8	34.3,49.5	31.0,47.7	32.6,44.2
<b>Region</b>						
Urban	%	57.6	55.7	55.2	61.5	60.6
	95% CI	51.0,64.0	48.6,62.6	47.4,62.8	55.2,67.4	55.9,65.1
Rural & remote	%	55.0	51.2	47.4	46.0	26.1
	95% CI	46.3,63.4	43.0,59.4	39.1,55.8	34.5,57.9	17.7,36.6
<b>Usual reason for visit</b>						
Check-up	%	62.0	59.7	53.9	61.8	60.5
	95% CI	55.9,67.7	53.6,65.5	47.2,60.5	55.5,67.8	55.9,65.0
Problem	%	41.3	33.1	50.8	48.3	41.7
	95% CI	30.7,52.8	22.8,45.3	37.7,63.7	35.7,61.0	32.7,51.3
<b>Total</b>	%	<b>57.0</b>	<b>54.1</b>	<b>53.0</b>	<b>59.0</b>	<b>57.2</b>
	95% CI	<b>51.6,62.2</b>	<b>48.6,59.5</b>	<b>47.0,59.0</b>	<b>53.4,64.5</b>	<b>52.9,61.4</b>

## **Reason for most recent dental visit**

A person's reason for seeking dental care influences the type of care they are likely to receive and the level of untreated problems they may have at any time. Children who make regular dental visits for the purposes of a check-up will benefit from early detection of oral disease and receive ongoing preventive care. In contrast, children who only visit 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 parents were asked 'What was the reason for your child visiting the dentist?' Categories of response were 'Check-up' or 'Problem'. Only children who had visited a dentist within the previous 12 months were asked this question to ensure accurate recall. The percentage of children who visited for the purpose of a check-up at their most recent dental visit is presented by age and survey year.

### Children aged 5–11 years

Despite a significant decline from 1994 (81.1%) to 1996 (70.9%) in the percentage of children aged 5–11 years who visited the dentist for a check-up at their most recent dental visit, prevalence since 1996 has gradually increased to 77.6% in 2005 (Figure 5).

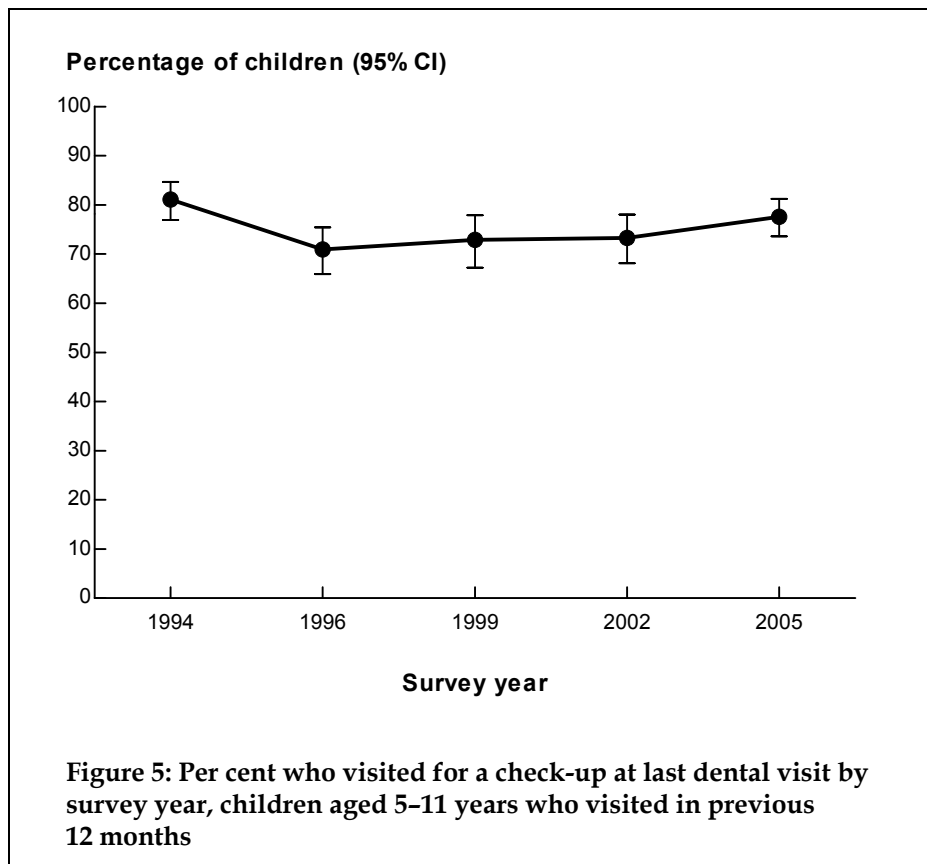


Table 11 presents the percentage of children aged 5–11 years who visited for a check-up at their most recent dental visit classified by survey year and selected characteristics. Key findings from this table include the following:

- There were no significant differences in prevalence between males and females throughout the period 1994 to 2005.
- From 1996 onwards non-cardholders reported a higher prevalence of visiting for the purposes of a check-up than cardholders, but differences were small and not statistically significant.
- In most survey years the percentage of children visiting for a check-up was similar among insured and uninsured children. Differences by insurance status were largest in 2005, with 82.3% of insured children visiting for a check-up at their most recent visit compared with 73.6% of uninsured children.
- In all survey years except 2005 children living in urban areas reported a higher prevalence of visiting for a check-up than rural and remote residents. Despite this, differences by region were relatively small and not statistically significant.

**Table 11: Per cent who visited for a check-up at most recent dental visit by survey year and selected characteristics, children aged 5–11 years**

		Population: children aged 5–11 years who visited in last 12 months				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	80.3	74.8	69.9	71.4	76.9
	95% CI	74.2,85.2	68.3,80.3	61.4,77.2	63.9,77.9	71.0,81.8
Female	%	82.1	67.0	76.0	75.4	78.4
	95% CI	75.9,87.0	59.3,73.9	68.4,82.3	67.6,81.8	72.9,83.1
<b>Cardholder status</b>						
Cardholder	%	81.3	68.5	68.1	69.0	71.4
	95% CI	73.2,87.4	58.2,77.3	54.9,78.9	58.5,77.8	61.0,79.9
Non-cardholder	%	81.0	71.6	74.4	74.7	79.2
	95% CI	75.9,85.2	65.8,76.7	68.0,79.9	68.4,80.0	74.7,83.0
<b>Insurance status</b>						
Insured	%	84.1	72.7	70.3	73.9	82.3
	95% CI	78.1,88.8	65.1,79.1	60.7,78.4	66.0,80.5	76.6,86.9
Uninsured	%	78.8	69.6	74.0	72.4	73.6
	95% CI	72.8,83.7	62.8,75.7	66.6,80.2	65.0,78.8	67.7,78.7
<b>Region</b>						
Urban	%	83.1	73.3	75.1	73.9	77.5
	95% CI	77.8,87.3	66.8,78.8	68.0,81.1	68.0,79.0	73.0,81.4
Rural & remote	%	76.2	66.1	67.8	69.0	78.6
	95% CI	69.0,82.2	58.1,73.2	58.1,76.2	56.1,79.5	68.0,86.4
<b>Total</b>						
	%	81.1	70.9	72.9	73.3	77.6
	95% CI	76.9,84.7	65.9,75.4	67.2,77.9	68.1,78.0	73.6,81.2

### Children aged 12–17 years

Since 1996 the percentage of children aged 12–17 years who visited the dentist for the purpose of a check-up increased steadily from 69.1% to a high of 81.0% in 2005, a statistically significant increase (Figure 6).

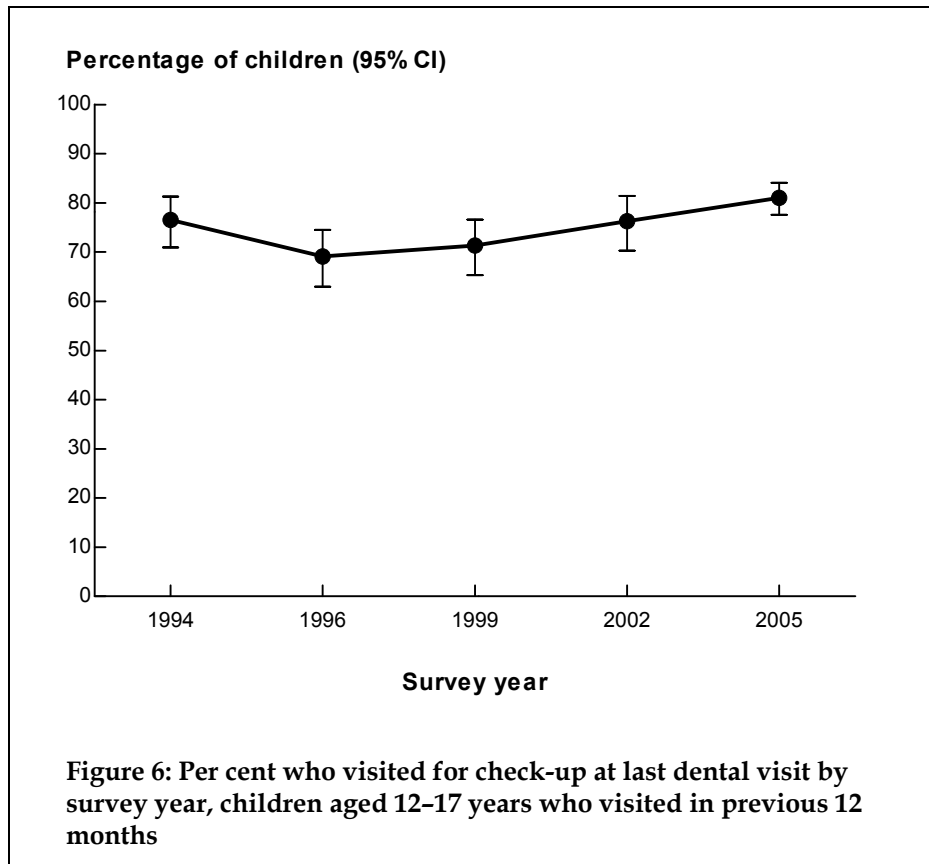


Table 12 presents the percentage of children aged 12–17 years who visited for a check-up at their most recent dental visit classified by survey year and selected characteristics. Key findings from this table include the following:

- From 1994 to 2005 a similar percentage of male and female adolescents reported they visited for a check-up at their most recent dental visit.
- Non-cardholders generally reported a higher prevalence of visiting for a check-up than cardholders, but differences were small and not statistically significant. Differences were largest in 2005 with 82.9% of non-cardholders visiting for a check-up compared with 74.3% of cardholders.
- Visiting for a check-up was more prevalent among insured adolescents than those without insurance but there were no statistically significant differences.
- Regional differences in prevalence of visiting for the purpose of a check-up were relatively small and inconsistent across time.

**Table 12: Per cent who visited for a check-up at last dental visit by survey year and selected characteristics, children aged 12–17 years**

		Population: children aged 12–17 years who visited in last 12 months				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	76.8	71.6	72.1	70.5	81.6
	95% CI	68.4,83.6	63.2,78.7	62.9,79.8	61.6,78.1	76.6,85.8
Female	%	76.3	66.9	70.4	82.2	80.4
	95% CI	68.5,82.6	58.0,74.7	62.2,77.5	74.3,88.1	75.5,84.5
<b>Cardholder status</b>						
Cardholder	%	72.0	66.5	72.3	71.9	74.3
	95% CI	58.9,82.2	53.5,77.4	57.9,83.3	57.0,83.1	65.0,81.8
Non-cardholder	%	77.6	69.2	71.2	77.6	82.9
	95% CI	71.2,82.9	62.1,75.5	64.3,77.3	71.0,83.1	79.3,86.0
<b>Insurance status</b>						
Insured	%	79.1	73.0	75.5	82.1	80.6
	95% CI	71.9,84.8	64.2,80.4	67.1,82.3	75.3,87.4	75.5,84.9
Uninsured	%	72.3	64.8	67.2	69.8	81.0
	95% CI	62.6,80.3	56.0,72.6	58.4,74.9	59.1,78.7	75.7,85.3
<b>Region</b>						
Urban	%	79.9	68.8	72.4	77.8	80.8
	95% CI	73.2,85.2	60.9,75.8	65.0,78.8	71.2,83.3	77.2,84.0
Rural & remote	%	66.3	69.8	69.3	69.3	82.9
	95% CI	55.5,75.5	60.8,77.6	58.8,78.2	55.0,80.7	68.9,91.4
<b>Total</b>						
	%	<b>76.5</b>	<b>69.1</b>	<b>71.3</b>	<b>76.3</b>	<b>81.0</b>
	95% CI	<b>70.9,81.3</b>	<b>63.0,74.5</b>	<b>65.3,76.6</b>	<b>70.3,81.4</b>	<b>77.6,84.1</b>



## 4.2 Child’s usual pattern of dental visits

While the characteristics of a child’s last dental visit provide a snapshot of recent visiting behaviour, their usual dental attendance pattern reflects longer term behaviours and intentions. Children 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 child’s usual visiting behaviour presented in this section include how often the child usually visits a dentist and the usual reason for making a dental visit.

### Usually visit a dentist at least once a year

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

#### Children aged 5–11 years

From 1994 to 2005 most children aged 5–11 years usually visited the dentist at least once a year, with prevalence ranging from 86.8% to 90.4% (Figure 7). The percentage of children who usually make an annual dental visit was 5–10 percentage points higher than the percentage of children who reported visiting within the previous 12 months.

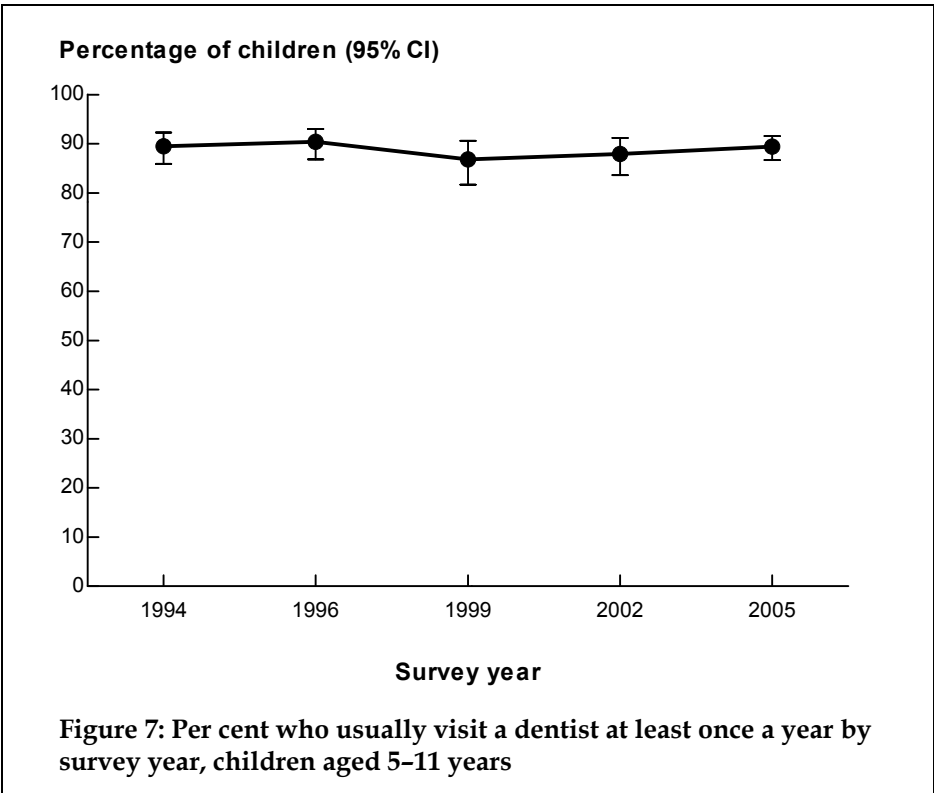


Table 13 presents the percentage of children aged 5–11 years who usually visit the dentist at least once a year classified by survey year and selected characteristics. Key findings from this table include the following:

- Male and female children were equally likely to usually visit a dentist at least once a year.
- From 1999 onwards non-cardholders reported a higher prevalence than cardholders of usually visiting a dentist at least once a year but differences were small and not significant.
- Children with insurance were more likely than uninsured children to report that they usually visited a dentist at least once a year. Differences by insurance status were statistically significant in 1999 (95.8% versus 81.4%).
- Children living in rural and remote areas were just as likely to visit the dentist at least once a year as urban children.
- A child's usual reason for visiting a dentist was significantly associated with visiting frequency. From 1994 to 2005 approximately 90% of children who usually visited for a check-up reported that they visit a dentist at least once a year compared with only 70–77% of problem-oriented visitors.

**Table 13: Per cent who usually visit a dentist at least once a year by survey year and selected characteristics, children aged 5–11 years**

		Population: children aged 5–11 years				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	88.5	91.3	83.4	92.6	88.8
	95% CI	82.7,92.5	86.0,94.7	75.6,89.1	87.9,95.6	84.5,92.0
Female	%	90.6	89.3	90.5	83.4	90.1
	95% CI	85.9,93.9	83.9,93.1	83.4,94.8	76.0,88.8	86.4,92.8
<b>Cardholder status</b>						
Cardholder	%	88.2	89.1	82.1	83.7	84.5
	95% CI	80.3,93.2	80.5,94.1	69.7,90.1	74.2,90.1	77.6,89.6
Non-cardholder	%	89.9	91.0	88.2	89.2	90.7
	95% CI	85.5,93.0	86.8,93.9	82.4,92.3	84.1,92.9	87.6,93.1
<b>Insurance status</b>						
Insured	%	92.1	90.8	95.8	93.3	92.2
	95% CI	87.0,95.4	84.5,94.7	90.0,98.3	86.8,96.7	88.1,94.9
Uninsured	%	87.5	90.0	81.4	83.6	87.1
	95% CI	82.2,91.4	85.3,93.4	74.1,87.1	77.1,88.5	83.2,90.3
<b>Region</b>						
Urban	%	89.5	89.6	86.1	87.6	89.6
	95% CI	84.8,92.9	84.7,93.1	79.7,90.7	82.6,91.3	86.8,92.0
Rural & remote	%	89.4	92.1	91.3	89.1	88.3
	95% CI	83.7,93.2	86.5,95.5	84.0,95.5	79.2,94.6	80.4,93.3
<b>Usual reason for visit</b>						
Check-up	%	91.5	93.9	89.4	90.9	91.5
	95% CI	87.9,94.1	90.6,96.1	84.0,93.0	86.3,94.0	88.8,93.6
Problem	%	71.1	69.8	77.3	74.2	69.8
	95% CI	54.9,83.3	55.1,81.3	61.9,87.7	59.8,84.8	57.1,80.0
<b>Total</b>	%	<b>89.5</b>	<b>90.4</b>	<b>86.8</b>	<b>87.9</b>	<b>89.4</b>
	95% CI	<b>85.9,92.3</b>	<b>86.8,93.0</b>	<b>81.7,90.6</b>	<b>83.6,91.2</b>	<b>86.7,91.6</b>

### Children aged 12–17 years

From 1994 to 2005 approximately 80% of children aged 12–17 years usually visited the dentist at least once a year (Figure 8). The percentage of adolescents who usually make an annual dental visit was up to 7 percentage points higher than the percentage who reported visiting within the previous 12 months. In three of the five survey years children aged 12–17 years were significantly less likely than younger children to visit annually.

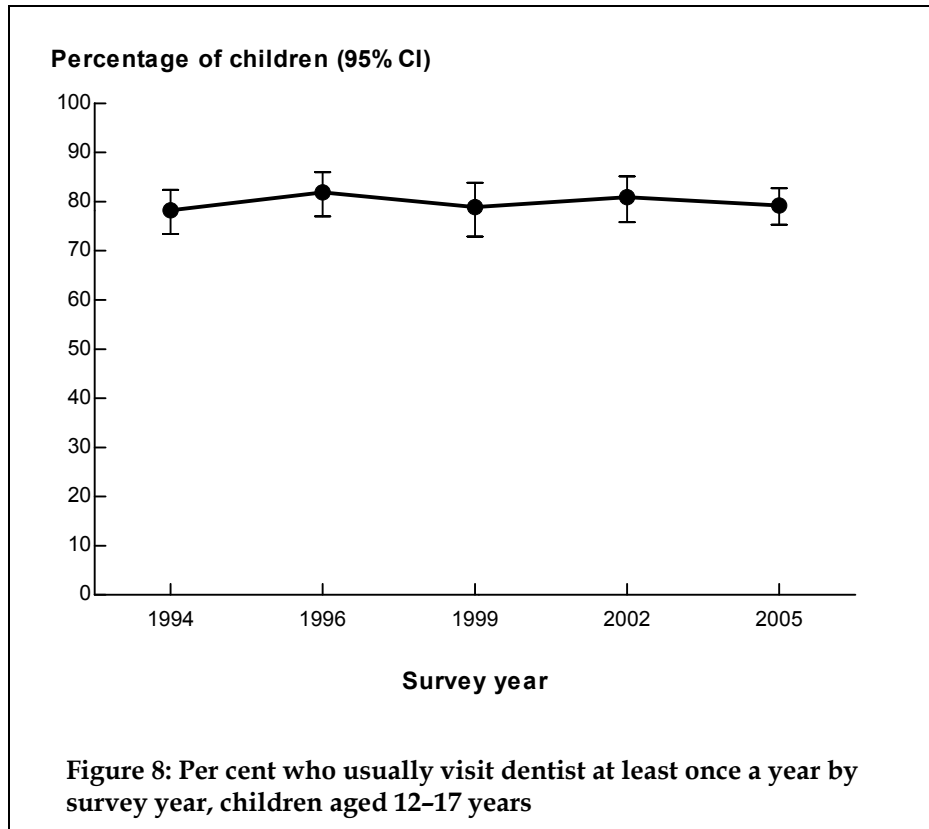


Table 14 presents the percentage of children aged 12–17 years who usually visit the dentist at least once a year classified by survey year and selected characteristics. Key findings from this table include the following:

- Female adolescents reported a higher prevalence than males of usually visiting a dentist at least once a year in most survey years, but differences were generally small and not statistically significant.
- Generally, non-cardholders were more likely to report they usually visited a dentist at least once a year than cardholders. Differences by cardholder status were most evident from 2002 to 2005, with statistically significant differences in 2002 (84.4% versus 65.6%).
- Insurance status was moderately associated with usual visiting frequency. In all survey years insured adolescents reported a higher prevalence of annual dental visits than those without insurance. Significant differences were observed in 1996 (90.6% versus 76.1%), 2002 (89.5% versus 70.9%) and 2005 (90.1% versus 69.7%).
- Adolescents living in rural and remote areas were just as likely as urban residents to usually visit a dentist at least once a year.
- An adolescent's usual reason for visiting a dentist was strongly associated with visiting frequency. During 1994 to 2005 those who usually visited for a check-up were twice as likely to make annual dental visits than problem-oriented visitors.

**Table 14: Per cent who usually visit a dentist at least once a year by survey year and selected characteristics, children aged 12–17 years**

		Population: children aged 12–17 years				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	73.7	81.1	77.2	75.1	77.2
	95% CI	66.3,79.9	74.0,86.6	68.0,84.4	67.6,81.3	71.0,82.4
Female	%	82.6	82.8	80.6	87.6	81.5
	95% CI	75.8,87.8	75.4,88.4	72.3,86.8	80.7,92.3	76.5,85.6
<b>Cardholder status</b>						
Cardholder	%	72.3	76.3	81.2	65.6	69.8
	95% CI	61.1,81.3	64.5,85.0	69.6,89.1	52.5,76.6	60.9,77.5
Non-cardholder	%	79.4	84.0	77.7	84.4	81.9
	95% CI	73.8,84.0	78.4,88.4	70.4,83.6	79.0,88.6	77.5,85.5
<b>Insurance status</b>						
Insured	%	82.0	90.6	79.1	89.5	90.1
	95% CI	75.1,87.4	83.0,95.0	68.8,86.7	83.7,93.4	85.6,93.3
Uninsured	%	73.1	76.1	77.6	70.9	69.7
	95% CI	65.5,79.6	69.1,82.0	69.6,84.0	62.2,78.3	63.6,75.2
<b>Region</b>						
Urban	%	78.9	83.9	78.1	80.2	79.9
	95% CI	73.0,83.9	77.8,88.5	70.1,84.5	74.4,85.0	75.7,83.6
Rural & remote	%	76.2	78.0	80.8	84.3	73.1
	95% CI	67.4,83.3	68.8,85.1	73.1,86.7	73.2,91.4	60.7,82.6
<b>Usual reason for visit</b>						
Check-up	%	88.9	90.8	85.7	86.7	86.3
	95% CI	84.2,92.3	86.8,93.7	79.3,90.3	81.3,90.7	82.8,89.1
Problem	%	44.1	48.8	54.6	54.6	46.8
	95% CI	33.2,55.6	35.9,61.8	41.1,67.4	41.4,67.1	36.7,57.3
<b>Total</b>	%	<b>78.2</b>	<b>81.9</b>	<b>78.9</b>	<b>80.9</b>	<b>79.2</b>
	95% CI	<b>73.4,82.4</b>	<b>77.0,86.0</b>	<b>72.9,83.8</b>	<b>75.8,85.1</b>	<b>75.3,82.7</b>

## Usual reason for dental visit

Intention behind visiting a dentist, whether for a check-up or a dental problem can influence the type of dental care a child will receive. Delaying a dental visit until a dental problem emerges is likely to lead to less desirable oral health outcomes.

In each NDTIS parents were asked 'What is the usual reason for your child visiting a dental professional?' Response categories were 'Check-up', 'Problem' or 'Don't know'. The percentage of children who usually visit the dentist for a check-up is presented by age and survey year.

### Children aged 5–11 years

From 1994 to 2005 the percentage of children aged 5–11 years who reported that they usually visited the dentist for a check-up remained fairly constant, ranging from a low of 84.3% in 1999 to a high of 91.3% in 2005 (Figure 9). The prevalence of children usually visiting for a check-up was 8–16 percentage points higher than the percentage reporting that they had visited for a check-up at their most recent dental visit.

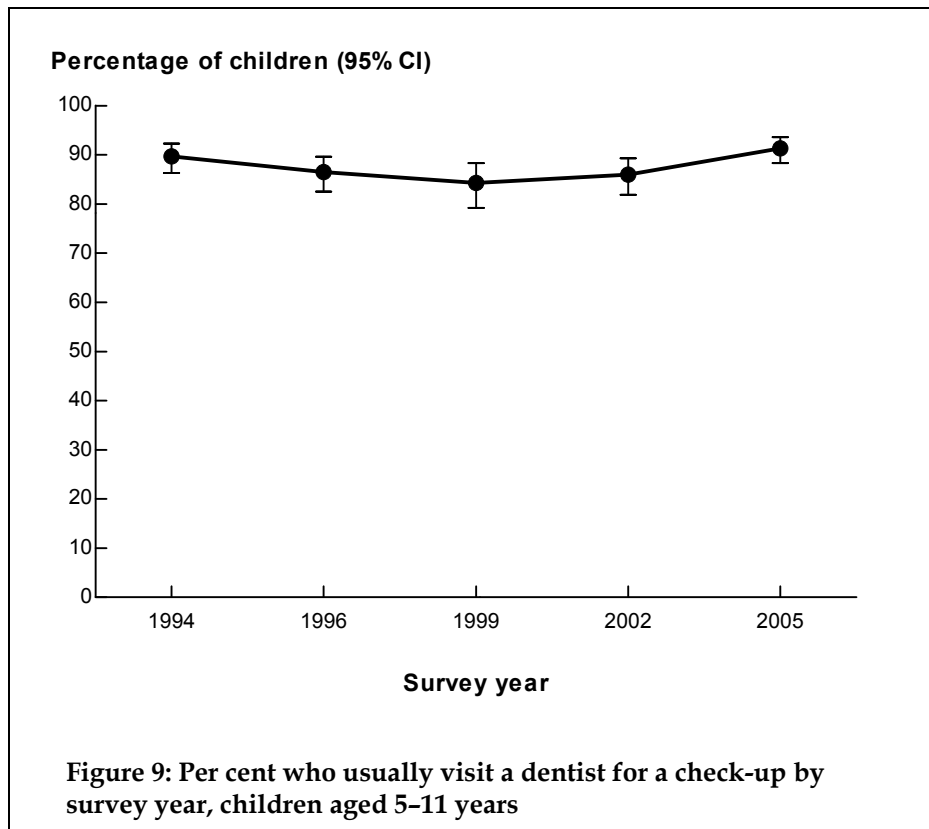


Table 15 presents the percentage of children aged 5–11 years who usually visited the dentist for a check-up classified by survey year and selected characteristics. Key findings from this table include the following:

- Male and female children were equally likely to usually visit for a check-up.
- Non-cardholders reported a higher prevalence than cardholders of usually visiting for a check-up in all survey years but differences were generally small and not statistically significant.

- Since 1999 a higher percentage of insured children reported that they usually visited the dentist for a check-up than those without insurance, with statistically significant differences in 2005 (95.8% versus 87.7%).
- Children living in rural and remote areas were just as likely to usually make a dental visit for a check-up as urban children.

**Table 15: Per cent who usually visit a dentist for a check-up by survey year and selected characteristics, children aged 5–11 years**

		Population: children aged 5–11 years				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	91.1	88.1	84.3	83.9	89.8
	95% CI	86.4,94.3	82.9,91.9	77.3,89.4	77.6,88.7	84.8,93.3
Female	%	88.1	84.8	84.3	88.0	92.9
	95% CI	82.5,92.0	78.4,89.6	76.2,90.0	82.1,92.1	89.5,95.3
<b>Cardholder status</b>						
Cardholder	%	86.0	84.9	72.5	81.6	85.4
	95% CI	78.1,91.3	76.8,90.5	59.0,82.8	72.5,88.1	76.7,91.2
Non-cardholder	%	91.0	87.1	87.7	87.4	92.9
	95% CI	87.0,93.8	82.3,90.7	82.5,91.5	82.6,91.0	90.0,95.0
<b>Insurance status</b>						
Insured	%	90.4	89.1	91.5	90.2	95.8
	95% CI	84.8,94.1	83.3,93.0	85.2,95.2	84.2,94.1	91.9,97.9
Uninsured	%	89.0	84.6	79.9	82.6	87.7
	95% CI	84.3,92.5	78.8,89.0	72.7,85.5	76.7,87.3	82.8,91.3
<b>Region</b>						
Urban	%	90.9	85.9	84.3	86.7	91.5
	95% CI	86.6,94.0	80.5,90.0	77.9,89.1	82.3,90.2	88.3,93.9
Rural & remote	%	86.5	87.2	84.2	80.7	90.2
	95% CI	80.3,91.0	81.1,91.6	75.5,90.1	68.3,89.1	78.4,95.9
<b>Total</b>	%	<b>89.7</b>	<b>86.5</b>	<b>84.3</b>	<b>86.0</b>	<b>91.3</b>
	95% CI	<b>86.3,92.3</b>	<b>82.5,89.6</b>	<b>79.2,88.3</b>	<b>81.9,89.3</b>	<b>88.3,93.6</b>

### Children aged 12–17 years

The percentage of children aged 12–17 years who usually make a dental visit for the purpose of a check-up gradually increased from 76.0% in 1994 to 82.9% in 2005, although this increase was not statistically significant (Figure 10). The percentage reporting they usually visit for a check-up was slightly higher than the percentage that reported visiting for a check-up at their most recent dental visit.

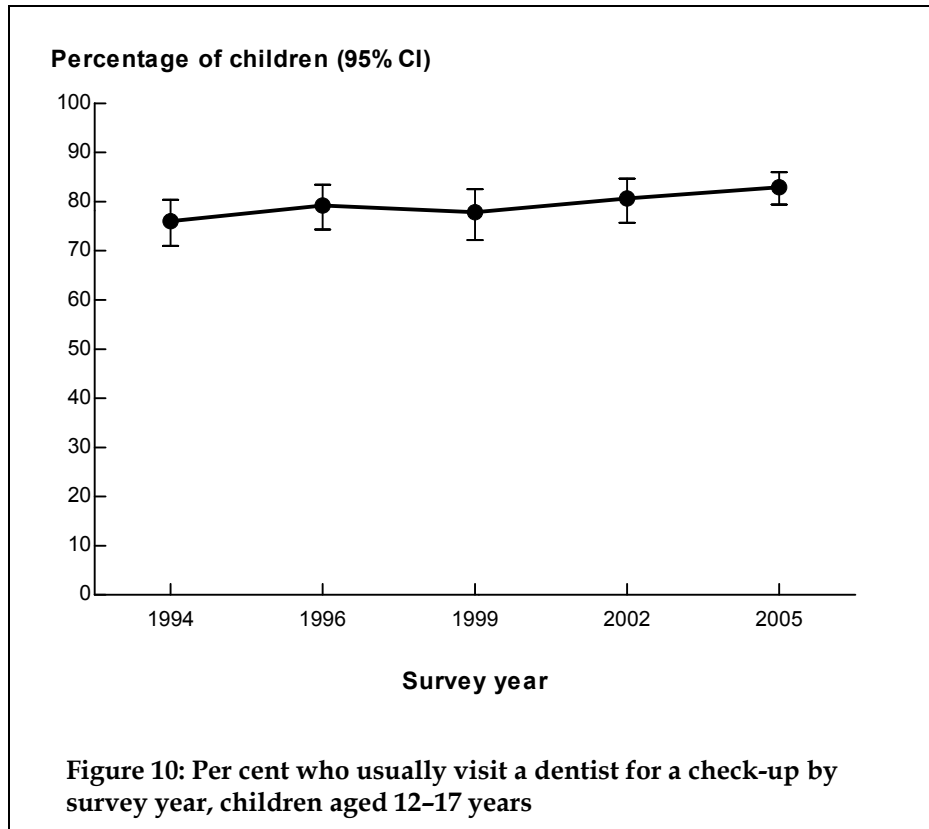


Table 16 presents the percentage of children aged 12–17 years who usually visited the dentist for a check-up classified by survey year and selected characteristics. Key findings from this table include the following:

- Female adolescents reported a higher prevalence of usually visiting for a check-up than males in all survey years, but differences were generally small and not statistically significant.
- Usually making a dental visit for the purpose of a check-up was more prevalent among non-cardholders than cardholders throughout 1994 to 2005, but differences were not statistically significant.
- Being insured was moderately associated with usually visiting the dentist for a check-up. In 1994, 1996 and 2005 insured adolescents were significantly more likely to usually visit for a check-up than those without dental insurance.
- Adolescents living in rural and remote areas were just as likely to usually make a dental visit for a check-up as those living in urban areas.



**Table 16: Per cent who usually visit a dentist for a check-up by survey year and selected characteristics, children aged 12–17 years**

		Population: children aged 12–17 years				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	73.5	78.8	74.5	75.7	82.3
	95% CI	66.0,79.8	71.8,84.5	65.6,81.8	68.4,81.8	77.0,86.6
Female	%	78.4	79.6	81.1	86.4	83.6
	95% CI	71.3,84.2	72.3,85.4	74.3,86.4	79.9,91.1	78.8,87.4
<b>Cardholder status</b>						
Cardholder	%	70.4	69.5	72.5	73.1	78.6
	95% CI	58.5,80.0	57.9,79.1	60.3,82.1	60.3,82.9	68.9,85.8
Non-cardholder	%	77.1	82.5	78.9	82.6	84.1
	95% CI	71.5,82.0	76.8,87.0	72.3,84.3	77.2,86.9	80.3,87.2
<b>Insurance status</b>						
Insured	%	84.0	87.9	84.0	84.1	90.0
	95% CI	77.4,89.0	80.3,92.8	75.2,90.1	77.3,89.1	85.7,93.1
Uninsured	%	67.4	73.1	72.2	75.8	75.4
	95% CI	59.4,74.4	66.1,79.2	64.3,78.8	67.7,82.4	69.4,80.6
<b>Region</b>						
Urban	%	76.5	80.9	77.1	82.5	83.0
	95% CI	70.3,81.8	74.7,85.8	69.8,83.1	77.2,86.8	79.1,86.3
Rural & remote	%	74.5	76.7	79.8	70.5	82.1
	95% CI	65.7,81.8	68.0,83.5	72.1,85.8	57.1,81.1	72.1,89.0
<b>Total</b>	%	<b>76.0</b>	<b>79.2</b>	<b>77.8</b>	<b>80.6</b>	<b>82.9</b>
	95% CI	<b>71.0,80.4</b>	<b>74.3,83.4</b>	<b>72.2,82.5</b>	<b>75.7,84.7</b>	<b>79.4,86.0</b>

## **5 Dental treatment received**

The type of treatment children receive when they visit a dentist provides an indication of the extent of oral disease among Australian children. Children who visit the dentist regularly and receive appropriate dental care focused on prevention should report low levels of extractions and possibly lower levels of fillings. This chapter presents the data on percentage of children who received either an extraction, filling or scale and clean within the previous 12 months.

### **5.1 Received an extraction**

In each NDTIS parents were asked 'Did your child have a tooth extracted within the previous 12 months?' Categories of response were 'Yes', 'No' or 'Don't know'. Of those children who made a dental visit in the previous 12 months, the percentage that reporting that they had received an extraction is presented by age and survey year.

**Children aged 5–11 years**

During the period 1994 to 2005 approximately 8% of children aged 5–11 years who made a dental visit within the previous 12 months received an extraction (Figure 11). Prevalence was highest (13.3%) in 1999 but not significantly different from other survey years.

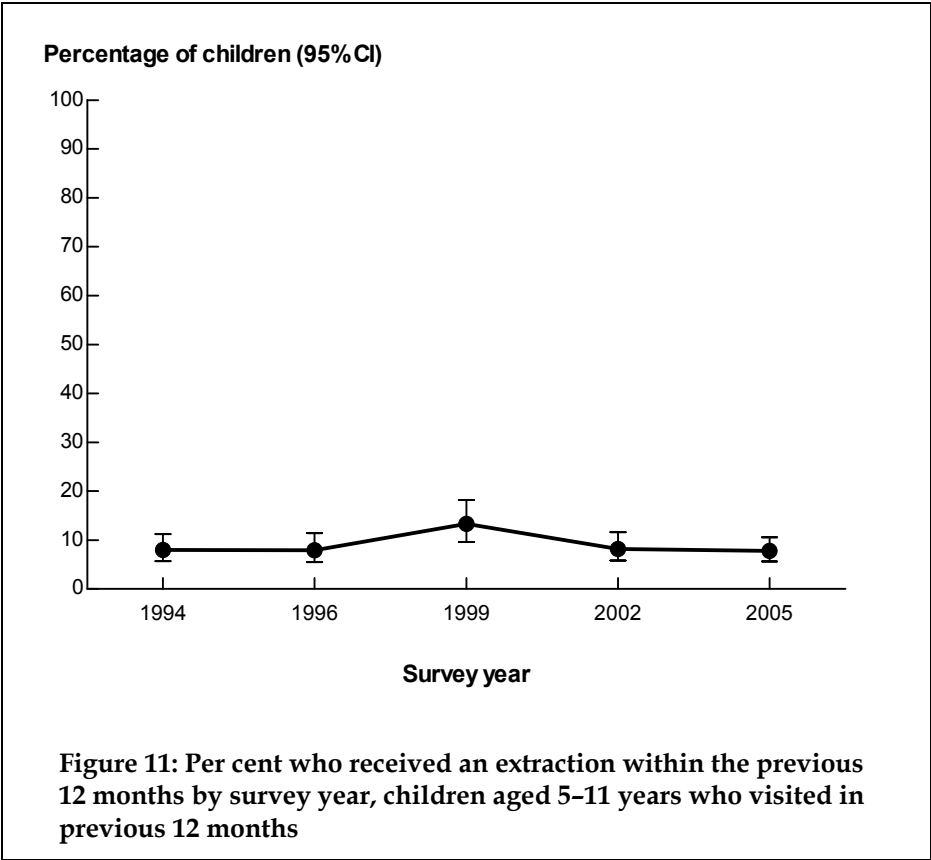


Table 17 presents the percentage of children aged 5–11 years who made a dental visit within the previous 12 months and received an extraction classified by survey year and selected characteristics. Key findings from this table include the following:

- Male and female children were equally likely to have received an extraction within the previous 12 months.
- Cardholders generally reported a higher prevalence of extractions than non-cardholders, but differences were small and not statistically significant.
- From 1994, prevalence of extractions among uninsured children was only slightly higher than among insured children.
- Children living in rural and remote areas were just as likely to have received an extraction as those in urban areas.
- In all survey year’s children who usually visited for a problem were more than twice as likely to have received an extraction as those who usually visit for a check-up. Despite this, due to the large confidence intervals around percentage estimates, differences were only significant in 1994.

**Table 17: Per cent who received an extraction within the previous 12 months by survey year and selected characteristics, children aged 5–11 years**

		Population: children aged 5–11 years who visited in last 12 months				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	6.0	6.3	15.4	8.6	7.4
	95% CI	3.5,10.1	3.7,10.7	10.0,23.0	5.2,13.8	4.7,11.4
Female	%	10.3	9.6	11.2	7.8	8.2
	95% CI	6.6,15.8	5.8,15.5	6.9,17.8	4.7,12.9	5.3,12.3
<b>Cardholder status</b>						
Cardholder	%	9.1	10.4	13.4	7.4	9.7
	95% CI	4.7,16.8	5.3,19.3	6.7,25.1	3.9,13.4	4.9,18.3
Non-cardholder	%	7.7	7.3	13.0	8.5	7.3
	95% CI	5.1,11.3	4.6,11.2	8.9,18.6	5.6,12.8	5.1,10.3
<b>Insurance status</b>						
Insured	%	7.4	7.2	10.8	6.2	7.4
	95% CI	4.1,13.0	3.7,13.5	6.0,18.5	3.4,10.8	4.7,11.4
Uninsured	%	8.6	8.5	15.0	10.0	8.1
	95% CI	5.6,12.9	5.4,13.1	10.1,21.8	6.4,15.4	5.1,12.6
<b>Region</b>						
Urban	%	6.5	8.3	12.7	8.7	8.0
	95% CI	4.0,10.5	5.0,13.3	8.3,18.9	5.9,12.6	5.7,11.2
Rural & remote	%	11.7	7.5	14.8	5.6	6.2
	95% CI	7.3,18.3	4.6,12.0	9.0,23.4	2.1,14.2	2.5,14.9
<b>Usual reason for visit</b>						
Check-up	%	6.2	6.3	11.6	7.0	6.8
	95% CI	4.3,8.9	4.0,10.0	8.1,16.4	4.8,10.2	4.7,9.6
Problem	%	26.0	18.6	26.8	16.1	21.0
	95% CI	12.8,45.7	9.7,32.8	12.8,47.6	7.1,32.5	9.5,40.2
<b>Total</b>	%	<b>8.0</b>	<b>7.9</b>	<b>13.3</b>	<b>8.2</b>	<b>7.8</b>
	95% CI	<b>5.7,11.2</b>	<b>5.5,11.4</b>	<b>9.6,18.2</b>	<b>5.8,11.6</b>	<b>5.6,10.6</b>

### Children aged 12–17 years

During the period 1994 to 2005 the percentage of children aged 12–17 years who made a dental visit in the previous 12 months and received an extraction fluctuated between a high of 15.0% in 1994 to a low of 9.0% in 2005 (Figure 12). Despite these fluctuations, there were no significant differences in prevalence across survey years. Prevalence of extractions was slightly higher among adolescents than younger children, which was partly due to the extraction of wisdom teeth and extractions related to orthodontic treatment.

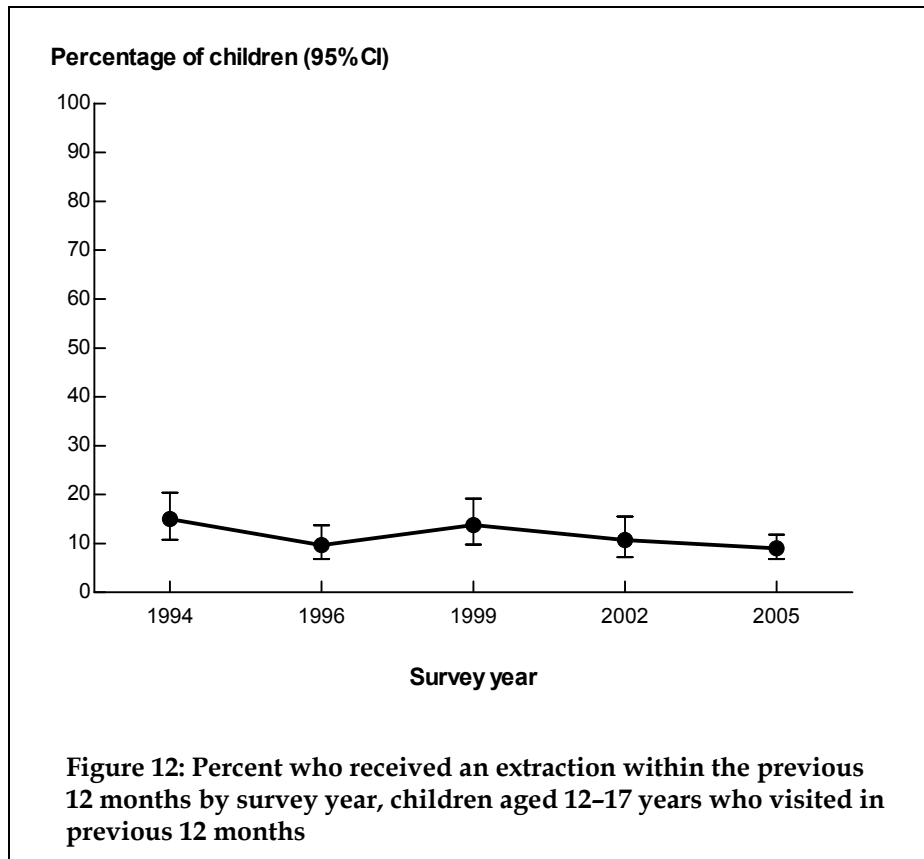


Table 18 presents the percentage of children aged 12–17 years who made a dental visit within the previous 12 months and received an extraction classified by survey year and selected characteristics. Key findings from this table include the following:

- The prevalence of extractions among male and female adolescents fluctuated during 1994 to 2005, with no trend emerging. Differences by gender were generally small and not statistically significant.
- Adolescent non-cardholders were just as likely as cardholders to have received an extraction.
- Uninsured adolescents reported a higher prevalence of extractions than those with insurance in all survey years. Differences by insurance status were more evident in recent years but were not statistically significant.
- In all survey years except 2005 the percentage of adolescents receiving an extraction was higher in rural and remote regions, but differences were not statistically significant.
- From 1994 to 2005 approximately 1 in 5 children who usually visited the dentist for a problem received an extraction within the previous 12 months. In recent years problem-oriented visitors were more than twice as likely to have received an extraction as those that usually visited for a check-up.

**Table 18: Per cent who received an extraction within the last 12 months by survey year and selected characteristics, children aged 12–17 years**

		Population: children aged 12–17 years who visited in last 12 months				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	12.9	8.6	15.6	15.3	8.2
	95% CI	7.6,20.9	4.9,14.8	9.5,24.5	9.7,23.4	5.4,12.3
Female	%	16.6	10.7	12.0	5.8	9.8
	95% CI	10.9,24.6	6.8,16.4	7.5,18.8	2.9,11.4	6.9,13.9
<b>Cardholder status</b>						
Cardholder	%	14.5	10.4	15.0	12.5	10.6
	95% CI	6.9,28.1	5.4,19.2	7.6,27.3	5.8,25.1	5.4,19.8
Non-cardholder	%	15.2	9.8	13.4	10.5	8.8
	95% CI	10.5,21.5	6.4,14.7	8.8,19.8	6.7,15.9	6.5,11.7
<b>Insurance status</b>						
Insured	%	14.4	9.5	12.5	8.2	6.4
	95% CI	8.9,22.3	5.6,15.6	7.2,20.8	4.6,14.1	4.2,9.5
Uninsured	%	17.0	10.6	15.6	15.4	13.6
	95% CI	10.8,25.8	6.6,16.7	9.9,23.6	9.1,25.1	9.4,19.4
<b>Region</b>						
Urban	%	14.0	8.7	13.3	9.0	9.6
	95% CI	9.2,20.7	5.3,13.9	8.5,20.3	5.6,14.1	7.3,12.6
Rural & remote	%	18.1	11.6	14.3	19.4	2.7
	95% CI	11.1,28.1	7.0,18.4	8.7,22.5	9.9,34.7	1.0,7.2
<b>Usual reason for visit</b>						
Check-up	%	13.7	7.9	12.7	8.9	7.6
	95% CI	9.5,19.5	5.3,11.7	8.5,18.6	5.6,13.9	5.5,10.3
Problem	%	22.1	22.0	19.3	21.4	21.0
	95% CI	10.7,40.2	11.0,39.1	9.5,35.3	9.6,41.1	11.4,35.4
<b>Total</b>	%	<b>15.0</b>	<b>9.7</b>	<b>13.8</b>	<b>10.7</b>	<b>9.0</b>
	95% CI	<b>10.8,20.4</b>	<b>6.8,13.7</b>	<b>9.8,19.2</b>	<b>7.2,15.5</b>	<b>6.8,11.8</b>

# 5.2 Received a filling

In each NDTIS parents were asked 'Did your child receive a filling within the previous 12 months?' Categories of response were 'Yes', 'No' or 'Don't know'. Of those children who made a dental visit in the previous 12 months, the percentage reporting that they had received a filling is presented by age and survey year.

## Children aged 5–11 years

During 1994 to 2005 approximately 30% of children aged 5–11 years who made a dental visit within the previous 12 months received a filling (Figure 13). Prevalence fluctuated between 26% and 34% during this period, but differences across time were not significant.

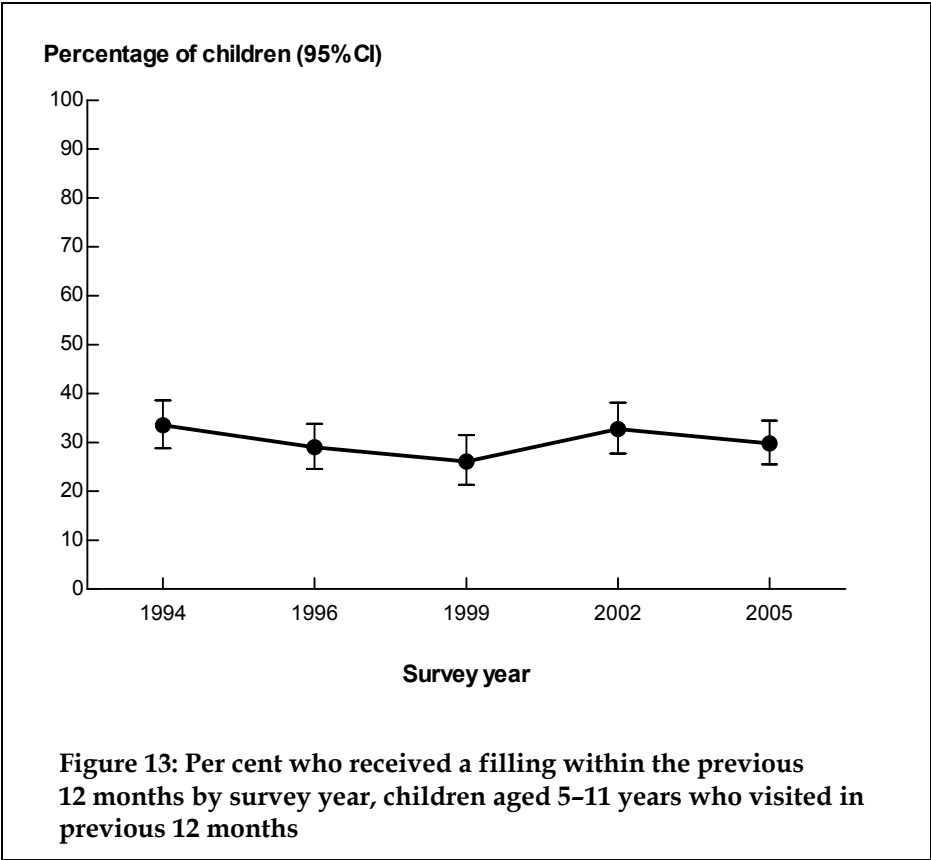


Table 19 presents the percentage of children aged 5–11 years who made a dental visit within the previous 12 months and received a filling classified by survey year and selected characteristics. Key findings from this table include the following:

- In three surveys a higher percentage of males reported receiving a filling within the previous 12 months than females, but differences were not statistically significant.
- Cardholders reported a higher prevalence than non-cardholders in all survey years, with significant differences in 2005 (43.2% versus 26.4%).
- From 1994 to 2002 insured children were just as likely to have received a filling as those without dental insurance. In 2005 differences emerged, with 23.8% of insured children receiving a filling compared with 35.0% of uninsured children, although this difference was not statistically significant.

- Children living in rural and remote regions were more likely to have received a filling than urban residents. Differences by region were mostly evident from 1999 onwards, with significant differences in 1999 (37.1% versus 21.4%) and 2002 (48.2% versus 30.3%).
- From 1994 to 2005 children who usually visited the dentist for a problem were more than one and a half times as likely to have received a filling as those who usually visited for a check-up. Significant differences were evident in 1996 (47.4% versus 26.3%) and 2005 (60.9% versus 27.5%).

**Table 19: Per cent who received a filling within the previous 12 months by survey year and selected characteristics, children aged 5–11 years**

		Population: children aged 5–11 years who visited in last 12 months				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	33.4	30.8	29.0	32.2	34.2
	95% CI	26.8,40.6	24.8,37.7	22.1,37.2	25.5,39.8	28.0,41.0
Female	%	33.7	27.1	23.0	33.1	25.3
	95% CI	27.2,40.9	21.1,34.1	17.0,30.5	26.0,41.0	19.9,31.5
<b>Cardholder status</b>						
Cardholder	%	36.8	31.1	30.9	34.4	43.2
	95% CI	28.2,46.2	22.5,41.2	20.5,43.6	25.0,45.2	33.6,53.3
Non-cardholder	%	32.2	28.4	24.8	32.1	26.4
	95% CI	26.7,38.3	23.5,33.9	19.6,30.9	26.4,38.4	22.0,31.4
<b>Insurance status</b>						
Insured	%	31.6	28.4	26.6	31.8	23.8
	95% CI	24.4,39.7	22.1,35.6	19.0,35.9	24.6,40.0	18.6,29.9
Uninsured	%	35.0	29.5	25.4	33.9	35.0
	95% CI	28.9,41.7	23.7,36.0	19.6,32.1	27.2,41.3	28.9,41.6
<b>Region</b>						
Urban	%	32.1	28.1	21.4	30.3	28.1
	95% CI	26.3,38.5	22.6,34.4	16.0,28.0	25.0,36.2	23.4,33.3
Rural & remote	%	37.2	30.8	37.1	48.2	39.8
	95% CI	29.8,45.2	24.2,38.4	28.4,46.6	36.8,59.8	29.7,50.7
<b>Usual reason for visit</b>						
Check-up	%	32.6	26.3	24.6	30.1	27.5
	95% CI	27.7,37.9	21.9,31.2	19.8,30.2	25.0,35.7	23.3,32.0
Problem	%	43.2	47.4	39.1	50.1	60.9
	95% CI	27.5,60.4	32.2,63.0	22.5,58.7	34.8,65.3	42.7,76.4
<b>Total</b>	%	<b>33.5</b>	<b>29.0</b>	<b>26.1</b>	<b>32.7</b>	<b>29.8</b>
	95% CI	<b>28.8,38.6</b>	<b>24.6,33.8</b>	<b>21.3,31.5</b>	<b>27.7,38.1</b>	<b>25.5,34.5</b>



### Children aged 12–17 years

The percentage of children aged 12–17 years who made a dental visit within the previous 12 months and received a filling gradually increased from 1994 (22.9%) to 2002 (27.7%) before declining to 23.8% in 2005 (Figure 14). Changes over time were not statistically significant. In most survey years the prevalence of fillings among adolescents was lower than that for younger children.

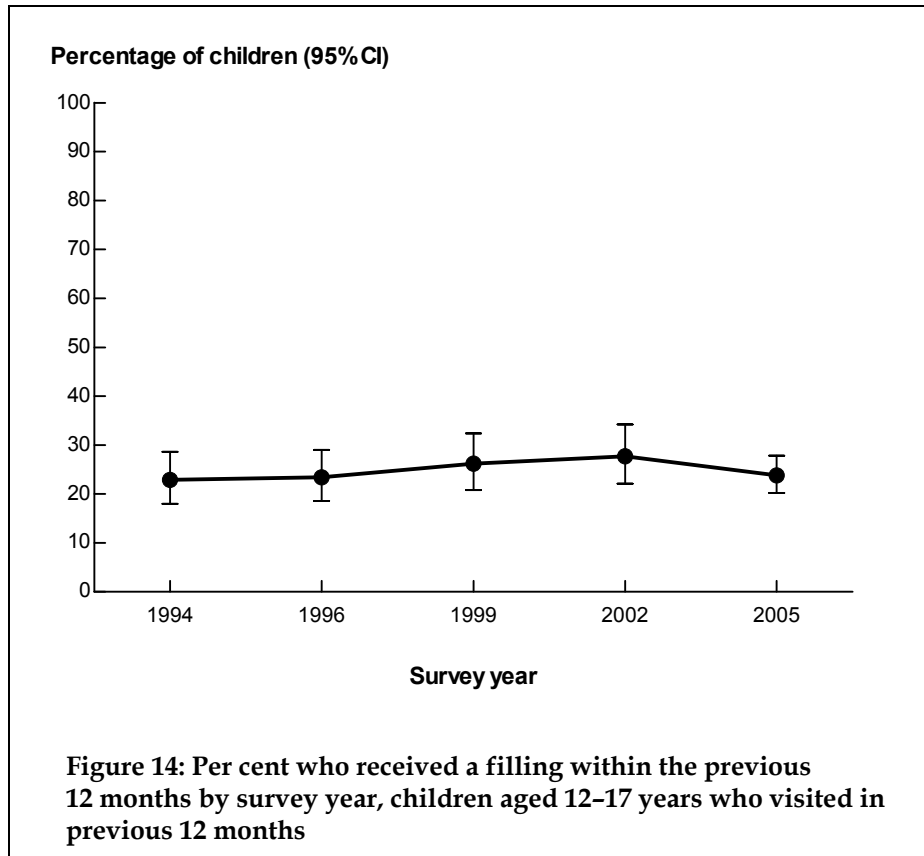


Table 20 presents the percentage of children aged 12–17 years who made a dental visit within the previous 12 months and received a filling classified by survey year and selected characteristics. Key findings from this table include the following:

- Differences in the prevalence of fillings among male and female adolescents were largest during 1994–1996 but were not statistically significant.
- The percentage of cardholders who received a filling within the previous 12 months steadily increased from 21.6% in 1996 to 39.2% in 2005. In contrast, prevalence among non-cardholders remained fairly constant at approximately 25%. In 2005 cardholders were significantly more likely than non-cardholders to have had a filling within the previous 12 months (39.2% versus 20.3%).
- From 1999 onwards uninsured adolescents reported a higher prevalence of having received a filling than those with dental insurance. Differences by insurance status ranged between 5 and 11 percentage points but were not statistically significant.
- In most survey years adolescents living in rural and remote regions reported a higher prevalence of having received a filling than urban residents. Differences were largest in 2005 (38.3% versus 22.3%) but were not statistically significant.

- Problem-oriented visitors were almost twice as likely to have received a filling as those who usually visited for check-up.

**Table 20: Per cent who received a filling within the previous 12 months by survey year and selected characteristics, children aged 12–17 years**

		Population: children aged 12–17 years who visited in last 12 months				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	26.9	28.7	27.6	25.7	22.3
	95% CI	19.6,35.8	21.4,37.4	19.7,37.1	18.9,34.0	17.4,28.1
Female	%	19.7	18.7	24.7	29.8	25.4
	95% CI	13.7,27.5	13.0,26.2	18.0,32.9	21.3,39.9	20.6,31.0
<b>Cardholder status</b>						
Cardholder	%	23.5	21.6	28.9	31.7	39.2
	95% CI	14.9,34.9	13.2,33.4	17.6,43.5	19.9,46.3	29.2,50.3
Non-cardholder	%	22.7	22.9	23.9	27.3	20.3
	95% CI	17.1,29.4	17.5,29.4	18.1,30.8	21.1,34.5	16.7,24.3
<b>Insurance status</b>						
Insured	%	24.4	22.3	20.2	24.4	19.4
	95% CI	17.7,32.7	15.7,30.6	13.8,28.4	17.6,32.8	15.2,24.4
Uninsured	%	20.8	22.8	31.0	29.7	28.4
	95% CI	14.3,29.2	16.4,30.6	23.2,40.2	20.8,40.4	22.5,35.1
<b>Region</b>						
Urban	%	20.9	23.8	26.9	26.9	22.3
	95% CI	15.3,27.8	17.7,31.3	20.3,34.8	20.6,34.2	18.7,26.4
Rural & remote	%	29.0	22.8	23.3	31.9	38.3
	95% CI	20.3,39.5	16.3,30.9	15.7,33.1	21.0,45.3	26.1,52.2
<b>Usual reason for visit</b>						
Check-up	%	20.6	21.5	21.3	25.1	21.6
	95% CI	15.7,26.5	16.6,27.2	16.2,27.4	19.3,32.0	18.0,25.7
Problem	%	36.0	37.3	47.9	44.5	42.4
	95% CI	21.5,53.6	21.9,55.7	32.3,64.0	27.0,63.5	30.5,55.3
<b>Total</b>	%	<b>22.9</b>	<b>23.4</b>	<b>26.2</b>	<b>27.7</b>	<b>23.8</b>
	95% CI	<b>18.0,28.6</b>	<b>18.6,29.0</b>	<b>20.8,32.4</b>	<b>22.1,34.2</b>	<b>20.2,27.8</b>

### 5.3 Received a scale and clean

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

#### Children aged 5–11 years

From 1994 to 2002 the percentage of children aged 5–11 years who received a professional scale and clean within the previous 12 months fluctuated between 40% and 50% (Figure 15). However, from 2002 to 2005 the prevalence dropped significantly to 34%.

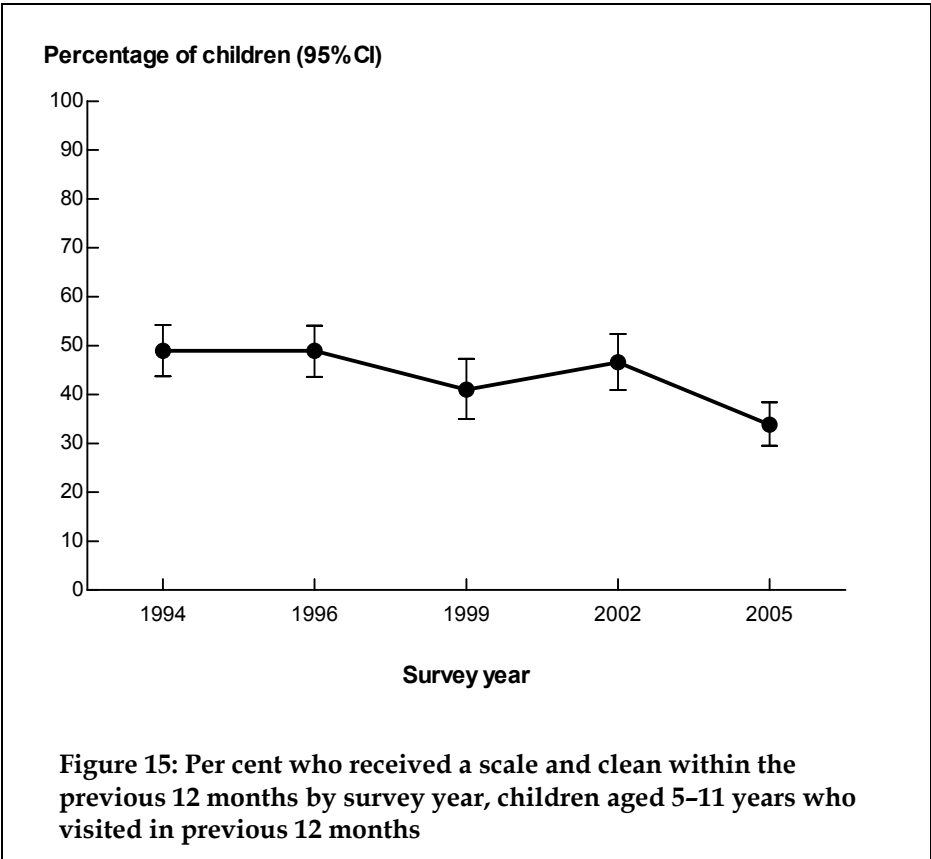


Table 21 presents the percentage of children aged 5–11 years who made a dental visit within the previous 12 months and received a professional scale and clean classified by survey year and selected characteristics. Key findings from this table include the following:

- Male and female children were equally likely to have received a professional scale and clean. Despite this, the decline in prevalence from 1994 to 2005 was more evident among males than females.
- From 1996 to 2002 the prevalence of this preventive treatment declined among cardholders but remained fairly constant among non-cardholders. However, from 2002 to 2005 the percentage of non-cardholders receiving this treatment dropped significantly from 49.2% to 33.7%.
- From 1994 to 1996 uninsured children were equally likely to have received a scale and clean as children with dental insurance. However, while prevalence among insured children remained fairly stable from 1996 to 2005, there was a significant drop in

prevalence among uninsured children (49.2% to 27.7%). In 2005 insured children were significantly more likely to have received a scale and clean than uninsured children (41.0% versus 27.7%).

- Generally, children living in urban regions reported a higher prevalence of scale and clean treatments than those in rural and remote areas. Differences by region were largest in 2005 (35.8% versus 22.1%) but not statistically significant. Among rural and remote children the percentage that received a scale and clean halved from 44.8% in 1994 to 22.1% in 2005.
- Differences in prevalence by usual reason for dental visit were inconsistent across time and not statistically significant. The significant decline in prevalence from 2002 to 2005 was mainly due to a decline in scale and clean treatments among children who usually visited for a check-up (47.4% to 33.4%). Among children who usually visited for a problem, the largest decline in prevalence occurred between 1996 and 1999.

**Table 21: Per cent who received a scale and clean within the previous 12 months by survey year and selected characteristics, children aged 5–11 years**

		Population: children aged 5–11 years who visited in last 12 months				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	50.9	48.5	41.5	45.7	32.0
	95% CI	43.6,58.2	41.3,55.7	32.9,50.7	38.1,53.6	26.0,38.6
Female	%	46.5	49.2	40.6	47.5	35.7
	95% CI	39.2,54.0	41.7,56.8	32.4,49.3	39.1,56.0	29.6,42.5
<b>Cardholder status</b>						
Cardholder	%	47.8	51.9	38.7	38.2	34.8
	95% CI	37.8,57.9	41.5,62.2	26.8,52.2	28.2,49.4	25.4,45.5
Non-cardholder	%	49.2	48.1	41.8	49.2	33.7
	95% CI	43.1,55.4	42.1,54.2	35.0,49.0	42.6,55.8	28.9,38.8
<b>Insurance status</b>						
Insured	%	49.4	48.5	45.2	49.9	41.0
	95% CI	41.4,57.6	40.6,56.5	35.7,55.1	41.6,58.3	34.8,47.5
Uninsured	%	48.9	49.2	39.2	43.7	27.7
	95% CI	42.1,55.8	42.2,56.2	31.5,47.4	36.1,51.5	22.2,34.0
<b>Region</b>						
Urban	%	50.5	46.8	42.2	47.1	35.8
	95% CI	43.9,57.1	40.0,53.6	34.7,50.1	40.7,53.5	31.0,40.9
Rural & remote	%	44.8	52.9	38.2	41.9	22.1
	95% CI	36.9,52.9	45.1,60.6	29.2,48.1	30.5,54.3	13.9,33.3
<b>Usual reason for visit</b>						
Check-up	%	47.9	49.1	40.6	47.4	33.4
	95% CI	42.5,53.4	43.6,54.7	34.3,47.2	41.3,53.6	28.9,38.2
Problem	%	58.9	46.5	45.7	42.5	40.2
	95% CI	40.9,74.8	31.0,62.7	26.6,66.1	27.8,58.6	24.5,58.3
<b>Total</b>	%	<b>48.9</b>	<b>48.9</b>	<b>41.0</b>	<b>46.6</b>	<b>33.8</b>
	95% CI	<b>43.7,54.2</b>	<b>43.6,54.1</b>	<b>35.0,47.3</b>	<b>40.9,52.4</b>	<b>29.5,38.4</b>

### Children aged 12–17 years

From 1996 to 2005 the percentage of children aged 12–17 years who received a professional scale and clean within the previous 12 months steadily declined from 65.2% to 52.1% (Figure 16). This represented a statistically significant decline.

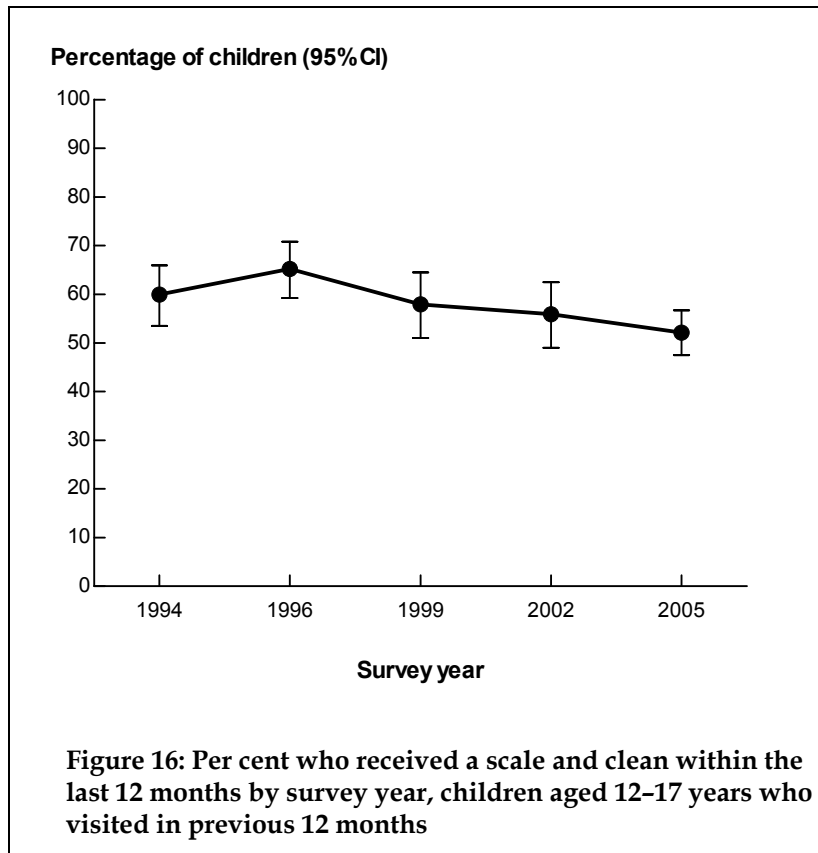


Table 22 presents the percentage of children aged 12–17 years who made a dental visit within the previous 12 months and received a professional scale and clean classified by survey year and selected characteristics. Key findings from this table include the following:

- During 1994 to 2005 male and female adolescents were equally likely to have received a scale and clean within the previous 12 months.
- Cardholders were just as likely to report that they had received a scale and clean within the previous 12 months as non-cardholders.
- From 1999 onwards, insured adolescents reported a higher prevalence of scale and clean treatments than those without dental insurance. Differences in prevalence by insurance status were statistically significant in 2005 (59.8% versus 43.0%).
- Throughout 1994 to 2005 a higher percentage of urban adolescents reported receiving a scale and clean within the previous 12 months than adolescents living in rural and remote regions. Differences by region were largest in 1996 (70.3% versus 54.1%) and 1999 (63.3% versus 44.3%) but were not statistically significant.
- Differences in prevalence by usual reason for visiting a dentist did not become apparent until 2002. While prevalence remained relatively stable over time among adolescents who usually visited for a check-up, there was a sharp drop in the percentage of problem-oriented visitors that received a scale and clean from 1999 to 2002 (63.3% to 34.0%).

**Table 22: Per cent who received a scale and clean within the last 12 months by survey year and selected characteristics, children aged 12–17 years**

		Population: children aged 12–17 years who visited in last 12 months				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	58.3	69.1	61.3	56.3	52.8
	95% CI	48.9,67.1	60.5,76.5	51.3,70.5	47.2,65.0	46.3,59.2
Female	%	61.1	61.9	54.4	55.4	51.4
	95% CI	52.4,69.2	53.1,69.9	45.0,63.5	45.0,65.4	45.3,57.5
<b>Cardholder status</b>						
Cardholder	%	58.0	67.3	58.8	49.5	50.2
	95% CI	44.3,70.6	54.4,78.0	44.0,72.2	35.3,63.8	39.3,61.0
Non-cardholder	%	60.0	65.2	57.0	57.1	52.6
	95% CI	52.8,66.8	58.3,71.5	49.2,64.5	49.4,64.4	47.4,57.6
<b>Insurance status</b>						
Insured	%	59.7	61.2	64.7	59.1	59.8
	95% CI	51.1,67.7	51.7,69.8	53.7,74.3	49.6,68.0	53.9,65.4
Uninsured	%	57.8	69.6	52.3	50.5	43.0
	95% CI	47.6,67.3	61.5,76.6	43.2,61.3	40.1,60.9	35.8,50.4
<b>Region</b>						
Urban	%	61.7	70.3	63.3	56.9	52.6
	95% CI	54.0,68.9	62.5,77.1	54.5,71.2	49.1,64.4	47.7,57.4
Rural & remote	%	54.1	54.1	44.3	50.1	47.3
	95% CI	43.5,64.4	44.8,63.1	34.4,54.7	37.2,63.1	33.5,61.6
<b>Usual reason for visit</b>						
Check-up	%	60.9	65.2	56.8	59.1	53.7
	95% CI	54.1,67.3	58.7,71.2	49.1,64.1	51.8,66.0	48.6,58.6
Problem	%	54.2	66.3	63.3	34.0	37.9
	95% CI	37.3,70.1	48.7,80.2	46.7,77.2	17.8,54.9	26.8,50.5
<b>Total</b>	%	<b>59.9</b>	<b>65.2</b>	<b>57.9</b>	<b>55.9</b>	<b>52.1</b>
	95% CI	<b>53.5,65.9</b>	<b>59.2,70.8</b>	<b>51.0,64.5</b>	<b>49.0,62.5</b>	<b>47.5,56.7</b>

## 6 Financial barriers to dental care

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

### 6.1 Avoided or delayed visiting due to cost

In each NDTIS parents were asked 'During the last 12 months has your child avoided or delayed visiting a dental professional because of cost?' Response categories were 'Yes', 'No' or 'Don't know'. The percentage who reported 'Yes' is presented by age and survey year.

#### Children aged 5–11 years

The percentage of children aged 5–11 years who reported that they had avoided or delayed visiting a dentist within the previous 12 months due to cost declined from 12.6% in 1994 to 7.1% in 2005, representing a statistically significant decline (Figure 17).

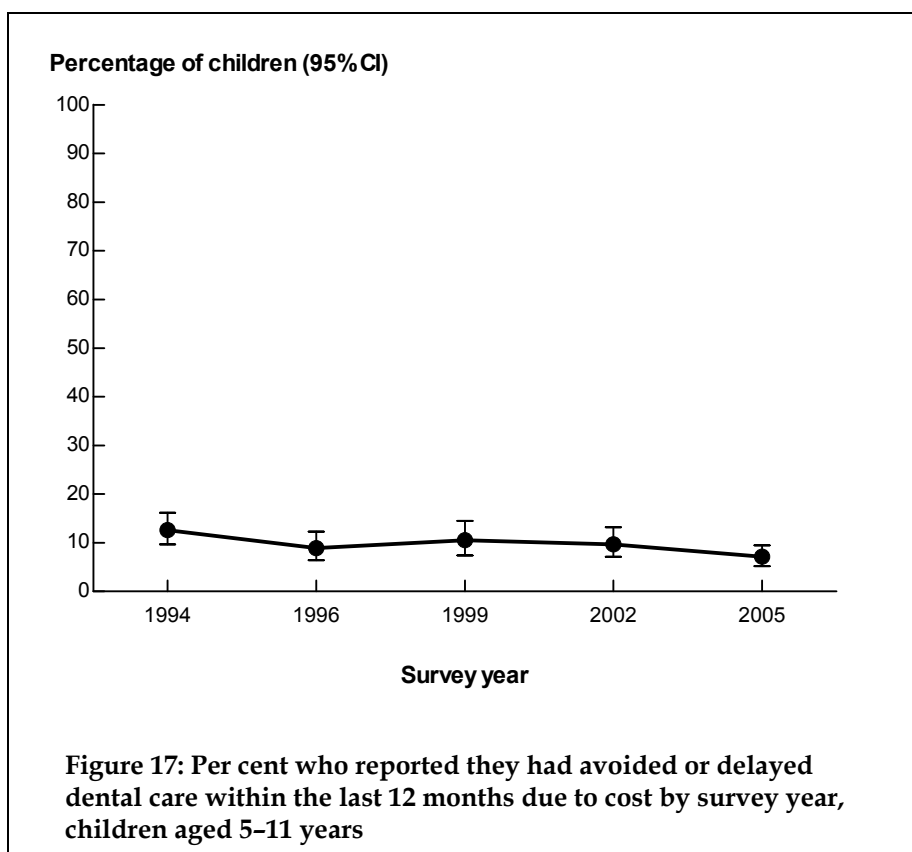


Table 23 presents the percentage of children aged 5–11 years who reported that they had avoided or delayed visiting a dentist due to cost classified by survey year and selected characteristics. Key findings from this table include the following:

- Male and female children were equally likely to report that they had avoided or delayed dental care within the previous 12 months due to cost.
- Generally, cardholders reported a higher prevalence of avoiding or delaying dental care than non-cardholders, but differences were small and not statistically significant.
- Across all time periods, avoiding or delaying dental care was more prevalent among uninsured children than those with dental insurance. Statistically significant differences were observed in 1996 (12.9% versus 3.1%).
- Avoiding or delaying dental care was not associated with residential location.
- Children who usually visited the dentist for a problem were more likely to report avoiding or delaying dental care due to cost than those who usually visited for a check-up. Statistically significant differences were observed in 1996 (19.7% versus 5.6%) and 2005 (21.8% versus 5.7%).

**Table 23: Per cent who reported they have avoided or delayed dental care within the last 12 months due to cost by survey year and selected characteristics, children aged 5–11 years**

		Population: children aged 5–11 years				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	12.6	9.3	7.9	11.4	7.6
	95% CI	8.6,17.9	5.7,14.7	4.5,13.4	7.6,16.9	5.2,11.1
Female	%	12.7	8.5	13.3	8.0	6.5
	95% CI	8.8,18.0	5.4,13.2	8.6,19.9	4.9,12.9	4.2,10.1
<b>Cardholder status</b>						
Cardholder	%	12.7	11.9	13.9	12.8	9.1
	95% CI	8.0,19.6	7.3,18.6	6.8,26.3	7.6,20.8	5.7,14.1
Non-cardholder	%	12.6	8.0	9.4	8.7	6.5
	95% CI	9.2,17.1	5.2,12.2	6.5,13.6	5.8,12.7	4.6,9.3
<b>Insurance status</b>						
Insured	%	10.4	3.1	6.6	7.5	4.6
	95% CI	6.5,16.2	1.4,6.4	3.5,12.2	4.3,12.8	2.5,8.4
Uninsured	%	14.3	12.9	12.7	11.4	9.0
	95% CI	10.4,19.3	9.0,18.2	8.5,18.6	7.8,16.5	6.3,12.6
<b>Region</b>						
Urban	%	11.9	8.9	12.6	9.8	7.5
	95% CI	8.5,16.6	5.7,13.7	8.6,18.0	6.9,13.8	5.4,10.3
Rural & remote	%	14.3	9.1	5.1	9.6	4.8
	95% CI	9.8,20.5	5.8,14.0	2.4,10.5	5.3,16.9	2.4,9.3
<b>Usual reason for visit</b>						
Check-up	%	11.4	5.6	7.7	7.5	5.7
	95% CI	8.4,15.1	3.7,8.4	5.1,11.6	5.0,11.1	3.9,8.2
Problem	%	17.5	19.7	23.0	13.3	21.8
	95% CI	8.3,33.0	11.1,32.7	11.3,41.2	6.5,25.1	11.7,37.1
<b>Total</b>						
	%	12.6	8.9	10.5	9.7	7.1
	95% CI	9.7,16.2	6.4,12.3	7.5,14.7	7.1,13.2	5.2,9.5



### Children aged 12–17 years

The percentage of children aged 12–17 years who avoided or delayed dental care due to cost almost halved from 1994 (16.3%) to 1996 (8.9%), representing a statistically significant decline (Figure 18). Since 1996 prevalence has remained stable at approximately 10%.

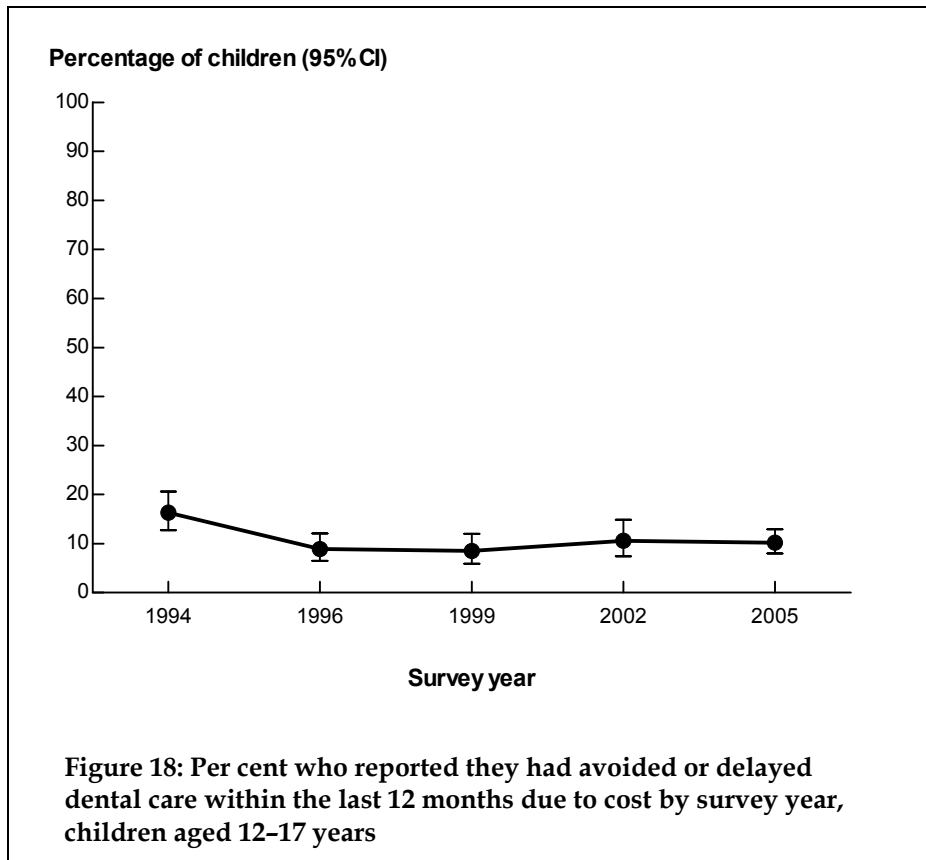


Table 24 presents the percentage of children aged 12–17 years who reported that they had avoided or delayed visiting a dentist due to cost classified by survey year and selected characteristics. Key findings from this table include the following:

- Male and female adolescents were equally likely to report that they had avoided or delayed dental care due to cost.
- In most survey years cardholders reported a higher prevalence of avoiding or delaying dental care than non-cardholders, but differences were not statistically significant.
- Among insured adolescents the prevalence of avoiding and delaying dental care remained stable over time at approximately 6%. In contrast, there was a significant drop in prevalence among uninsured adolescents from 1994 (27.9%) to 1996 (10.9%). In all survey years those without insurance reported a higher prevalence than insured adolescents. Differences were statistically significant in 1994 (27.9% versus 5.6%), 2002 (18.3% versus 4.2%) and 2005 (15.7% versus 5.9%).
- Generally, avoiding or delaying dental care was more prevalent in rural and remote regions than urban regions, but differences were small and not statistically significant.

- From 1994 to 2002 adolescents who usually visited the dentist for a problem were more than twice as likely to report that they had avoided or delayed dental care due to cost. Differences by usual reason for visiting were even more evident in 2005, with problem-oriented visitors four times more likely to have avoided or delayed dental care than those who usually visited for a check-up.

**Table 24: Per cent who reported they had avoided or delayed dental care within the last 12 months due to cost by survey year and selected characteristics, children aged 12–17 years**

		Population: children aged 12–17 years				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	17.9	8.3	8.0	12.8	8.2
	95% CI	12.6,24.8	5.4,12.6	4.7,13.3	8.3,19.2	5.6,11.9
Female	%	14.8	9.6	9.1	8.0	12.3
	95% CI	10.4,20.5	6.1,14.9	5.6,14.4	4.2,14.5	9.1,16.5
<b>Cardholder status</b>						
Cardholder	%	23.8	12.6	12.2	10.2	14.7
	95% CI	15.5,34.8	7.0,21.7	6.3,22.2	4.6,21.2	9.5,21.9
Non-cardholder	%	14.8	7.8	7.7	10.8	9.0
	95% CI	11.0,19.6	5.3,11.2	5.0,11.7	7.2,15.8	6.8,11.9
<b>Insurance status</b>						
Insured	%	5.6	6.6	5.5	4.2	5.9
	95% CI	3.2,9.6	3.7,11.3	3.0,9.7	2.2,7.9	3.6,9.7
Uninsured	%	27.9	10.9	11.5	18.3	15.7
	95% CI	21.3,35.5	7.4,15.8	7.4,17.5	12.3,26.5	11.9,20.4
<b>Region</b>						
Urban	%	14.9	8.3	8.2	9.7	10.1
	95% CI	10.9,20.1	5.4,12.4	5.1,12.8	6.4,14.4	7.8,12.9
Rural & remote	%	20.3	10.8	8.5	15.2	11.2
	95% CI	13.7,28.9	6.8,16.7	4.8,14.4	7.4,28.7	5.1,22.9
<b>Usual reason for visit</b>						
Check-up	%	12.2	7.3	6.2	8.5	6.4
	95% CI	8.9,16.6	5.1,10.4	3.8,9.9	5.2,13.5	4.6,8.9
Problem	%	30.1	15.5	16.0	18.5	26.6
	95% CI	20.6,41.6	8.5,26.5	9.2,26.3	11.0,29.5	19.2,35.4
<b>Total</b>	%	<b>16.3</b>	<b>8.9</b>	<b>8.5</b>	<b>10.6</b>	<b>10.2</b>
	95% CI	<b>12.7,20.6</b>	<b>6.5,12.1</b>	<b>5.9,12.0</b>	<b>7.4,14.9</b>	<b>8.0,12.9</b>

# 6.2 Cost prevented recommended treatment

In each NDTIS parents were asked 'Has cost prevented your child from having any dental treatment that was recommended during the last 12 months?' Categories of response were 'Yes', 'No' or 'Don't know'. Only children who made a dental visit in the previous 2 years were asked this question.

## Children aged 5–11 years

The percentage of children aged 5–11 years who reported that cost had prevented them from receiving recommended dental treatment remained low throughout 1994 to 2005, peaking at 6.3% in 1996 (Figure 19).

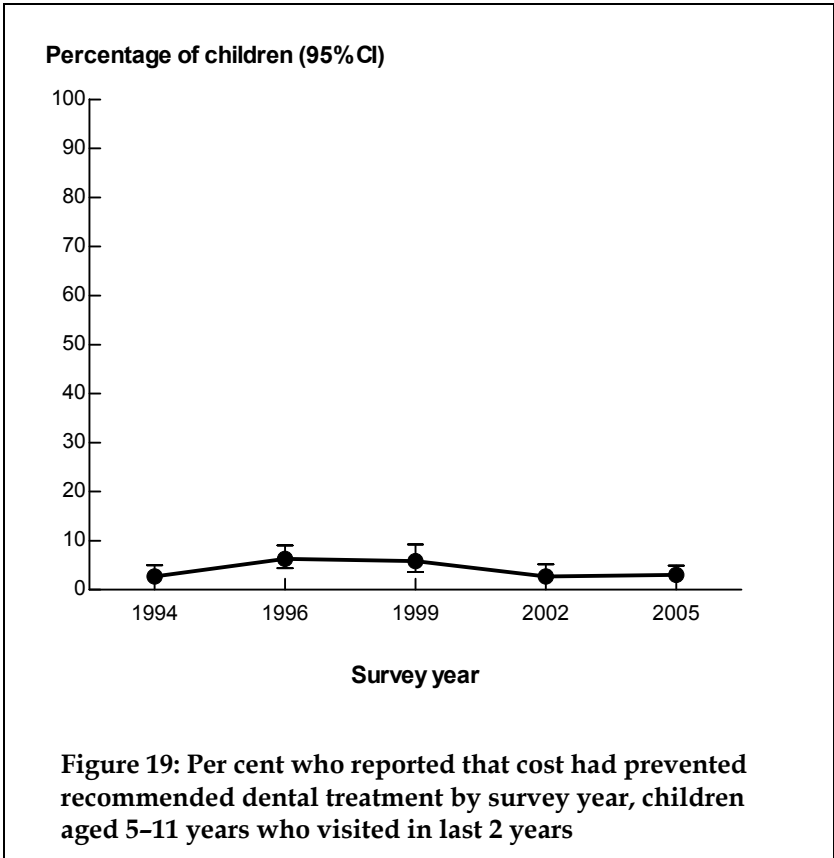


Table 25 presents the percentage of children aged 5–11 years who reported that cost had prevented them from receiving recommended dental treatment classified by survey year and selected characteristics. Key findings from this table include the following:

- Prevalence among male and female children was similar with no consistent pattern across time.
- Throughout 1994 to 2005 non-cardholders were just as likely as cardholders to report that cost had prevented recommended dental treatment.
- Generally, uninsured children reported a higher prevalence of cost preventing recommended treatment than insured children but, differences were small and not statistically significant.

- Children living in rural and remote areas were just as likely to report that cost had prevented recommended treatment as urban residents.
- From 1994 to 2005 children who usually visited for a problem reported a higher prevalence of cost preventing recommended dental treatment than those who usually visited for a check-up. Differences were largest and statistically significant in 1996 (18.6% versus 4.7%) and 2005 (15.2% versus 1.9%).

**Table 25: Per cent who reported that cost had prevented recommended dental treatment by survey year and selected characteristics, children aged 5–11 years**

		Population: children aged 5–11 years who visited in last 2 years				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	2.9	4.3	5.7	1.9	4.1
	95% CI	1.2,6.7	2.3,7.8	2.8,11.4	0.8,4.8	2.2,7.5
Female	%	2.6	8.4	5.9	3.4	1.8
	95% CI	1.1,6.1	5.3,13.0	3.2,10.7	1.3,8.3	0.7,4.5
<b>Cardholder status</b>						
Cardholder	%	1.9	6.7	6.8	2.6	5.2
	95% CI	0.6,6.1	3.2,13.6	2.9,15.5	0.9,7.3	2.3,11.2
Non-cardholder	%	3.0	6.2	5.6	2.7	2.4
	95% CI	1.5,6.1	4.0,9.4	3.2,9.6	1.2,6.1	1.2,4.7
<b>Insurance status</b>						
Insured	%	2.2	4.3	3.3	3.4	0.9
	95% CI	0.9,5.4	2.1,8.3	1.3,7.8	1.2,9.1	0.2,3.2
Uninsured	%	3.1	7.8	7.4	2.1	4.8
	95% CI	1.4,6.9	5.0,11.9	4.3,12.6	0.9,5.0	2.8,8.2
<b>Region</b>						
Urban	%	2.2	6.5	6.9	2.5	2.8
	95% CI	0.9,5.3	4.1,10.3	4.1,11.5	1.1,5.5	1.6,5.1
Rural & remote	%	4.2	6.1	3.2	4.1	3.9
	95% CI	1.9,8.8	3.4,10.7	1.1,8.8	1.6,10.1	1.6,8.8
<b>Usual reason for visit</b>						
Check-up	%	2.6	4.7	5.4	2.1	1.9
	95% CI	1.3,5.2	3.0,7.3	3.1,9.1	0.9,5.1	1.0,3.7
Problem	%	3.8	18.6	9.3	6.1	15.2
	95% CI	1.2,11.2	9.8,32.2	3.3,23.6	2.1,15.9	7.1,29.7
<b>Total</b>	%	<b>2.7</b>	<b>6.3</b>	<b>5.8</b>	<b>2.7</b>	<b>3.0</b>
	95% CI	<b>1.5,5.0</b>	<b>4.4,9.0</b>	<b>3.6,9.2</b>	<b>1.3,5.2</b>	<b>1.8,4.9</b>

### Children aged 12–17 years

From 1994 to 2005 the percentage of children aged 12–17 years who reported that cost had prevented recommended dental treatment remained relatively stable, varying from 7.0% to 9.3% (Figure 20).

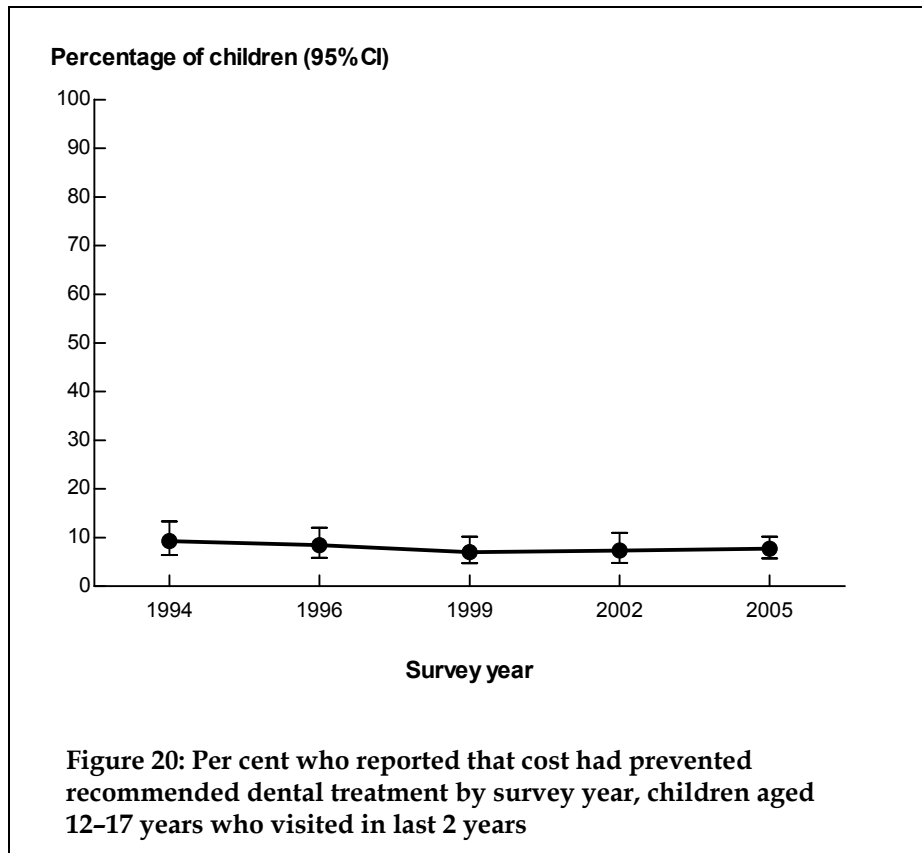


Table 26 presents the percentage of children aged 12–17 years who reported that cost had prevented them from receiving recommended dental treatment classified by survey year and selected characteristics. Key findings from this table include the following:

- Prevalence was similar among male and female adolescents in most survey years.
- Although more cardholders reported that cost had prevented recommended dental treatment than non-cardholders, differences were small and not statistically significant.
- From 2002 to 2005 uninsured adolescents were significantly more likely to report that cost had prevented recommended dental treatment than insured adolescents.
- Differences in prevalence by residential location were inconsistent over time and not statistically significant.
- From 1999 onwards, adolescents who usually visited the dentist for a problem were more likely to report that cost had prevented recommended treatment than those who usually visited for a check-up. Differences in prevalence were statistically significant in 2005 (23.2% versus 5.3%).

**Table 26: Per cent who reported that cost had prevented recommended dental treatment by survey year and selected characteristics, children aged 12–17 years**

		Population: children aged 12–17 years who visited in last 2 years				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	9.9	11.2	5.9	8.0	7.8
	95% CI	6.0,16.0	6.8,17.8	3.2,10.9	4.8,13.1	4.9,12.0
Female	%	8.7	5.5	8.0	6.5	7.5
	95% CI	4.9,14.9	3.4,8.8	4.8,12.9	3.1,13.0	5.2,10.9
<b>Cardholder status</b>						
Cardholder	%	13.3	9.4	15.5	6.8	13.4
	95% CI	7.4,22.8	4.8,17.3	8.3,27.0	3.0,14.7	7.8,22.0
Non-cardholder	%	8.4	8.2	4.6	7.4	6.1
	95% CI	5.2,13.2	5.1,12.7	2.8,7.3	4.6,11.9	4.2,8.7
<b>Insurance status</b>						
Insured	%	4.0	4.4	4.6	2.9	3.7
	95% CI	1.9,8.4	2.1,9.1	2.5,8.2	1.4,5.9	1.8,7.7
Uninsured	%	14.9	10.7	9.2	12.9	11.9
	95% CI	9.5,22.7	6.9,16.3	5.6,14.8	7.7,20.7	8.6,16.3
<b>Region</b>						
Urban	%	8.1	8.9	5.5	7.1	8.2
	95% CI	4.9,13.1	5.5,14.1	3.3,9.2	4.5,11.2	6.1,11.0
Rural & remote	%	12.7	7.2	10.7	8.1	2.2
	95% CI	7.4,20.9	4.5,11.4	5.9,18.6	2.7,22.1	0.7,6.1
<b>Usual reason for visit</b>						
Check-up	%	9.1	8.2	5.9	6.6	5.3
	95% CI	6.0,13.6	5.3,12.4	3.6,9.5	3.9,10.9	3.7,7.5
Problem	%	9.9	9.0	11.7	10.2	23.2
	95% CI	4.1,22.4	4.4,17.5	6.1,21.4	4.8,20.4	14.4,35.2
<b>Total</b>	%	<b>9.3</b>	<b>8.4</b>	<b>7.0</b>	<b>7.3</b>	<b>7.7</b>
	95% CI	<b>6.4,13.3</b>	<b>5.8,12.0</b>	<b>4.7,10.2</b>	<b>4.8,11.0</b>	<b>5.7,10.2</b>

### 6.3 Dental visits were a large financial burden

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

#### Children aged 5–11 years

The percentage of children aged 5–11 years who reported that dental visits in the previous 12 months were a large financial burden remained low, despite an increase from 2.8% in 1994 to 7.0% in 2005 (Figure 21). This increase over time was not statistically significant.

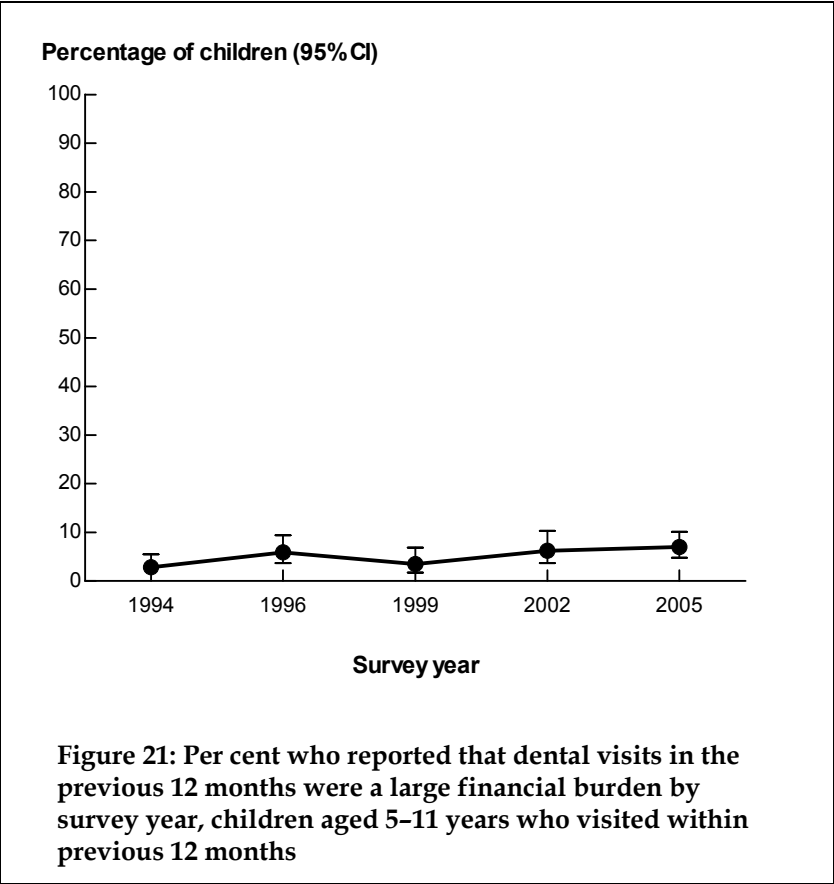


Table 27 presents the percentage of children aged 5–11 years who reported that dental visits in the previous 12 months were a large financial burden classified by survey year and selected characteristics. Key findings from this table include the following:

- From 1996 to 2005 prevalence was higher among females than males but differences were small and not statistically significant.
- Fewer cardholders reported that dental visits within the previous 12 months were a large financial burden than non-cardholders, but differences were small and not statistically significant.
- Differences in prevalence by insurance status were small and inconsistent across time.

- From 1996 onwards children living in urban regions reported a higher prevalence than those living in rural and remote regions, but differences were small and not statistically significant.
- Usually visiting for a problem was positively associated with reporting that dental visits had been a large financial burden. Significant differences between problem-oriented visitors and those who usually visited for a check-up were evident in 1994 (14.3% versus 1.6%) and 1996 (17.9% versus 4.3%). Differences were also large in 2005 (17.5% versus 6.2%) but not statistically significant.

**Table 27: Per cent who reported that dental visits were a large financial burden by survey year and selected characteristics, children aged 5–11 years**

		Population: children aged 5–11 years who visited in the last 12 months				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	3.9	3.1	2.9	4.0	5.5
	95% CI	1.7,9.0	1.4,6.8	0.9,8.9	2.0,8.0	3.3,9.0
Female	%	1.4	8.8	4.0	8.6	8.6
	95% CI	0.5,4.5	5.0,15.2	1.6,9.6	4.3,16.3	5.1,14.2
<b>Cardholder status</b>						
Cardholder	%	2.1	4.1	0.0	3.2	6.7
	95% CI	0.6,7.5	1.3,12.1	—	1.1,8.6	3.0,14.3
Non-cardholder	%	3.0	6.5	4.4	7.2	7.1
	95% CI	1.3,6.7	3.8,10.6	2.2,8.8	4.1,12.4	4.7,10.8
<b>Insurance status</b>						
Insured	%	2.3	5.1	4.6	8.9	7.0
	95% CI	0.6,8.3	2.5,10.0	1.7,11.7	5.1,15.0	4.2,11.4
Uninsured	%	3.2	6.5	2.9	4.1	7.1
	95% CI	1.4,7.0	3.5,11.9	1.0,7.7	1.4,11.2	4.2,11.5
<b>Region</b>						
Urban	%	2.7	6.6	4.6	7.0	7.7
	95% CI	1.0,6.6	3.7,11.6	2.1,9.6	4.1,11.7	5.2,11.3
Rural & remote	%	3.1	4.7	1.0	1.7	2.9
	95% CI	1.2,7.7	2.3,9.5	0.4,2.6	0.6,4.7	1.0,8.4
<b>Usual reason for visit</b>						
Check-up	%	1.6	4.3	3.7	5.6	6.2
	95% CI	0.6,4.2	2.6,7.2	1.7,7.6	3.0,10.3	4.1,9.4
Problem	%	14.3	17.9	2.0	10.5	17.5
	95% CI	5.3,33.4	7.4,37.4	0.6,6.2	4.6,22.3	7.8,34.7
<b>Total</b>	%	<b>2.8</b>	<b>5.9</b>	<b>3.5</b>	<b>6.2</b>	<b>7.0</b>
	95% CI	<b>1.4,5.5</b>	<b>3.7,9.4</b>	<b>1.7,6.9</b>	<b>3.7,10.3</b>	<b>4.8,10.1</b>



**Children aged 12–17 years**

From 1994 to 2005 approximately 1 in 10 children aged 12–17 years reported that dental visits within the previous 12 months had been a large financial burden (Figure 22).

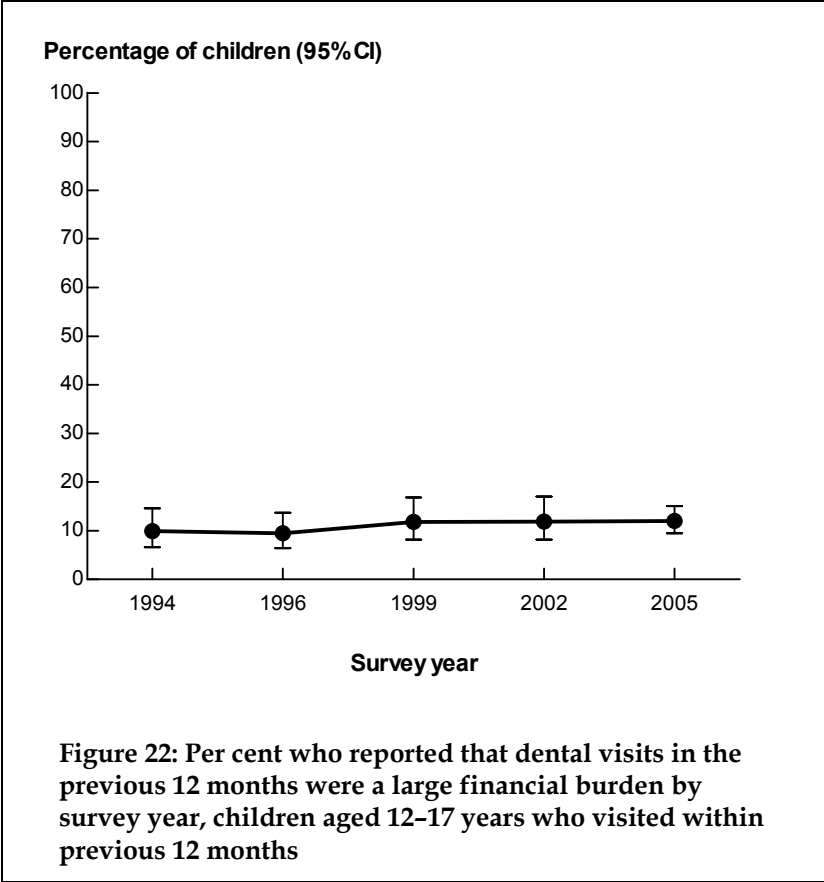


Table 28 presents the percentage of children aged 12–17 years who reported that dental visits within the previous 12 months were a large financial burden classified by survey year and selected characteristics. Key findings from this table include the following:

- Differences in prevalence among male and female adolescents were inconsistent across time and not statistically significant.
- Cardholders were equally likely to report that dental visits had been a large financial burden as non-cardholders.
- From 1994 to 1999, more uninsured adolescents reported that dental visits were a large financial burden than insured adolescents, but differences were relatively small and not statistically significant.
- Differences in prevalence by residential location were inconsistent across time and not statistically significant.
- From 1994 to 2005 adolescents who usually visited the dentist for a problem were more likely to report that dental visits had been a large financial burden than those who usually visited for a check-up. Differences in prevalence were largest in 1994 (21.8% versus 7.9%), 1996 (17.9% versus 4.3%) and 2005 (21.3% versus 10.9%), although only statistically significant in 1996.

**Table 28: Per cent who reported that dental visits within the previous 12 months were a large financial burden by survey year and selected characteristics, children aged 12–17 years**

		Population: children aged 12–17 years who visited in last 12 months				
		Survey year				
		1994	1996	1999	2002	2005
<b>Sex</b>						
Male	%	5.4	8.2	7.3	16.1	10.7
	95% CI	2.4,11.6	4.5,14.8	3.6,14.1	10.1,24.6	7.3,15.3
Female	%	13.5	10.5	16.5	7.6	13.5
	95% CI	8.4,20.9	6.4,16.8	10.7,24.5	4.1,13.5	10.0,17.9
<b>Cardholder status</b>						
Cardholder	%	7.4	10.4	11.9	7.1	14.3
	95% CI	2.7,18.8	4.5,22.0	5.0,25.9	2.3,19.7	8.5,23.1
Non-cardholder	%	10.6	9.3	12.2	12.8	11.6
	95% CI	6.8,16.1	6.0,14.2	8.1,18.0	8.6,18.6	8.9,15.1
<b>Insurance status</b>						
Insured	%	8.5	5.7	9.8	12.0	12.3
	95% CI	4.7,15.0	2.9,10.6	5.7,16.2	7.5,18.8	8.9,16.9
Uninsured	%	12.1	13.1	14.3	13.2	12.6
	95% CI	6.8,20.7	8.2,20.1	8.8,22.4	7.2,22.9	8.8,17.7
<b>Region</b>						
Urban	%	11.2	7.3	9.7	10.5	12.6
	95% CI	7.1,17.2	4.2,12.5	5.9,15.4	6.8,15.9	10.0,15.9
Rural & remote	%	6.1	14.3	16.5	18.3	6.0
	95% CI	2.8,13.1	8.5,23.0	9.2,27.8	8.8,34.4	2.1,16.0
<b>Usual reason for visit</b>						
Check-up	%	7.9	4.3	11.4	11.5	10.9
	95% CI	4.8,12.6	2.6,7.2	7.6,16.8	7.6,17.0	8.3,14.0
Problem	%	21.8	17.9	14.2	15.3	21.3
	95% CI	10.6,39.7	7.4,37.4	5.8,30.7	5.9,34.5	13.1,32.8
<b>Total</b>	%	<b>9.9</b>	<b>9.5</b>	<b>11.8</b>	<b>11.9</b>	<b>12.0</b>
	95% CI	<b>6.6,14.6</b>	<b>6.4,13.7</b>	<b>8.2,16.8</b>	<b>8.2,17.0</b>	<b>9.5,15.1</b>

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