

PUBLISHED VERSION

Harford JE, Luzzi L. **Child and teenager oral health and dental visiting: results from the National Dental Telephone Interview Survey 2010**: 2013. Australian Institute of Health and Welfare, Canberra. 1321-0254 (Report for an external body)

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Child and teenager oral health and dental visiting

Results from the National Dental Telephone Interview Survey 2010

JE Harford and L Luzzi

DENTAL STATISTICS AND RESEARCH SERIES NO. 64



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**Australian Institute of
Health and Welfare**

*Authoritative information and statistics
to promote better health and wellbeing*

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Number 64

Child and teenager oral health and dental visiting

Results from the National Dental Telephone Interview Survey 2010

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Cat. no. DEN 226

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ISSN 1321-0254

ISBN 978-1-74249-453-1

Suggested citation

Harford JE & Luzzi L 2013. Child and teenager oral health and dental visiting: Results from the National Dental Telephone Interview Survey 2010. Dental Statistics and Research Series no. 64. Cat. no DEN 226. Canberra: AIHW.

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Published by the Australian Institute of Health and Welfare

Please note that there is the potential for minor revisions of data in this report. Please check the online version at <www.aihw.gov.au> for any amendments.

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Acknowledgments

This report was funded by the Australian Government Department of Health and Ageing.

Abbreviations

ABS	Australian Bureau of Statistics
AEC	Australian Electoral Commission
AHMAC	Australian Health Ministers' Advisory Council
AIHW	Australian Institute of Health and Welfare
CI	confidence intervals
DSRU	Dental Statistics and Research Unit
ERP	estimated resident population
EWP	electronic white pages
FaHCSIA	Department of Families, Housing, Community Services and Indigenous Affairs
NDTIS	National Dental Telephone Interview Survey

Symbols

–	nil or rounded to zero
..	not applicable

Summary

This publication reports on oral health, dental visiting and dental treatment needs of Australian children as reported in the National Dental Telephone Interview Survey (NDTIS) 2010. Time series data across all NDTISs conducted since 1994 are presented to provide a picture of how key measures have changed over time. Finally, comparisons with international data are presented to provide a picture of how Australian children fare among their international counterparts.

Oral health

The majority of Australian children report good oral health. However, 7% reported that they had experienced toothache and 10% reported that they had avoided certain foods during the previous 12 months. Children from low income households were more likely to report having fair or poor oral health and to have experienced toothache than children from high income households. There was no significant change over time in these measures.

Dental visiting

Almost 70% of children made a dental visit in the previous 12 months and the majority (84%) visited for a check-up. Less than a third of pre-school-aged children had ever made a dental visit. Children from the lowest income households were less likely than those from higher income households to have both made a dental visit and to have visited for a check-up. Both of these measures of dental visiting have remained fairly stable over time.

Barriers to dental care use

Around 13% of children avoided or delayed making a dental visit due to cost. Around 6% did not have a recommended treatment due to cost. Overall, almost 30% of children avoided or delayed seeking care, did not have recommended treatment or their household experienced a large financial burden due to the cost of dental care. Children from low income households were 7 times as likely than those from high income households to avoid or delay due to cost and 6 times as likely to have not had recommended treatment due to cost.

International comparisons

Comparable data are available for children in Canada and New Zealand. Overall, Australian children were less likely to report that they had fair or poor oral health, and less likely to have made a dental visit in the previous 12 months than their counterparts in New Zealand. Australian teenagers were less likely than their Canadian counterparts to report fair or poor oral health and were more likely to have avoided or delayed making a dental visit due to cost.

1 Introduction

Australian children enjoyed dramatic improvements in their oral health over the last half of the 20th century. However, the Australian Health Ministers Advisory Council (AHMAC) observed in 2001 that there was an uneven distribution of children having had some experience of tooth decay, associated with socioeconomic and geographic characteristics (Australian Health Ministers' Advisory Council Steering Committee for National Planning for Oral Health 2001). At the time, tooth decay experience in 6 year olds was lowest for urban-dwelling children, higher for children living in rural locations and higher again for children living in remote locations. AHMAC also reported that children living in areas within the lowest socioeconomic status had almost twice as much caries experience as children in the highest socioeconomic areas.

Data from children attending school dental services indicate that tooth decay experience among schoolchildren declined from 1977, when records were first kept. However, since 1996, tooth decay experience has increased slightly in the deciduous (baby) teeth of children and from 1988 has remained stable in their permanent teeth (Mejia et al. 2012).

This publication reports on the self-reported oral health and dental visiting and dental treatment needs of Australian children as collected in the National Dental Telephone Interview Survey (NDTIS) 2010. Time series data across all NDTISs conducted since 1994 are presented to provide a picture of how key measures have changed over time. Finally, comparisons with international data are presented to provide a picture of how Australian children fare among their international counterparts.

Measures reported in this publication

Information reported in this publication is taken primarily from the NDTIS 2010. (Details of NDTIS 2010 can be found in Appendix A). For some measures, time series information has been reported from previous NDTISs undertaken in 1994, 1996, 1999, 2002, 2005 and 2008. Teenagers aged 15 or over were interviewed directly. For children aged between 5 and 14, questions were answered by a parent or guardian on behalf of the selected child.

Measures reported are in five broad categories.

Oral health

Measures include self-rated oral health, which is reported as 'excellent', 'very good', 'good', 'fair' or 'poor'; and oral health impact, including whether the child experienced toothache or avoided eating some foods due to oral problems, which is reported as 'often', 'very often' or 'sometimes in the previous 12 months'.

Dental visiting

Measures relate to the time since the child's last dental visit and the reason for that dental visit. Time since last dental visit is reported as 'less than 12 months ago', '1 to less than 2 years ago', '2 to less than 5 five years ago', '5 or more years ago'. Reason for last dental visit is reported as 'check-up' or 'problem'. Site of last visit is reported as 'public' (which includes public dental services and school dental services) and 'private'.

Financial barriers and hardship

Measures include whether the child avoided or delayed visiting a dentist due to cost, whether cost prevented them having the recommended treatment and whether dental visits in the previous 12 months were a large financial burden.

Services received

Services received include the preventive services of 'fluoride treatment', 'fissure sealing' and 'oral hygiene instruction'. The diagnostic and treatment services 'check-up', 'X-ray', 'filling' and 'extraction' are also reported.

Perceived need for care

Perceived need for care is reported for the service types: 'check-up', 'scale and clean', 'filling', 'extraction', 'orthodontics' and 'other'.

Age groups

The measures described above are generally reported for children aged 2–17 for 2010. Interviews for children aged 2–4 were not conducted in previous NDTISs, so time series graphs are for children aged 5–17 only. In addition, interviews for children aged 2–4 did not include some questions that were asked for older children. A note to this effect has been attached to the relevant tables and figures.

Identifying significant differences

In this report, 95% confidence intervals (CIs) were used as a guideline to identify differences between population subgroups that are statistically significant. The 95% confidence interval indicates the range of values we can be 95% confident that the true value of the estimate lies. When there was no overlap between the 95% CIs for two groups, the difference between the groups was deemed to be statistically significant.

2 Oral health

What is oral health?

Oral health is a standard of health of the oral and related tissues that enables an individual to eat, speak and socialise without active disease, discomfort or embarrassment and which contributes to general wellbeing (UK Department of Health 1994). This means that oral health is more than the absence of disease, but the ability to function without limitation caused by problems with the teeth, mouth or gums. Oral health can be assessed using global ratings of oral health or by examining the impacts of oral health and disease on daily life. In children and adults, dental decay is the most commonly occurring oral disease.

Why are we interested in knowing about oral health?

Oral health is a key aspect of health and has an impact on a range of daily activities. Experience of oral symptoms among children, such as toothache, has been linked to reduction in normal activity such as playing, interference in eating and sleeping, as well as missing school (Shepherd et al. 1999) and parents missing time for work or study (Seirawan et al. 2012). Children with poor oral health have poor academic performance. This results both from missing school and from the dental problems, even if there are no school absences (Jackson et al. 2011). Dental care is also a common reason for potentially preventable hospital admissions among Australian children. In 2010–11, there were 23, 248 potentially preventable hospital admissions for oral health issues for children aged under 15 (Chrisopoulos et al. 2012).

What are the known risk factors for oral disease?

Dental caries (commonly referred to as dental decay) is the most commonly occurring oral disease in children and teenagers. It is characterised by chronic loss of mineral from the tooth—a process where several factors play important roles. The five factors found to exert the strongest influence on dental decay are:

- frequency of carbohydrate intake, which allows bacteria in the plaque to produce concentrations of organic acids that can dissolve the tooth
- the accumulation and retention of plaque, which is a potential breeding ground for acid-producing bacteria
- frequency of exposure to dietary acids in addition to the bacterial acids
- exposure to fluoride and some other trace elements, which help in controlling the development of decay
- natural protective factors, such as saliva, which may help prevent or limit the progress of decay (Mount & Hume 2005).

Plaque, a semitransparent layer that adheres to the tooth surface, forms on all teeth and contains many disease-causing bacteria. Tooth brushing and/or the use of chemical solutions capable of killing the acid-causing bacteria can reduce plaque. However, the frequency of exposure to fermentable carbohydrates, such as sugar, is the most significant risk factor for dental decay. This exposure relates directly to patterns of consumption of foods and beverages containing sugar.

Behavioural risk factors for dental decay relate to the five risk and protective factors listed above. These include substandard tooth cleaning, poor diet involving high exposure to fermentable carbohydrates, such as sugars, and limited exposure to fluoride available in toothpastes, fluoridated public water or other sources (Mount & Hume 2005).

Measures of oral health

The chapter reports on three self-reported measures of oral health and symptom experience.

Self-reported oral health

Respondents to NDTIS were asked, 'How would you rate your oral health?' Five response categories were used: 'excellent', 'very good', 'good', 'fair' and 'poor'. Responses are reported in two categories: 'fair/poor' and 'excellent/very good/good'.

Experience of toothache

Respondents were asked 'During the last 12 months how often has [child] had toothache caused by decayed teeth – NOT teething problems?' Five response categories were offered for this question: 'very often', 'often', 'sometimes', 'hardly ever' and 'never'. Results are reported in two categories: 'very often/often' and 'sometimes/hardly ever/never'.

Experience of avoiding food due to oral problems

Respondents were asked 'How often have you had to avoid eating some foods because of problems with your teeth, mouth or dentures during the last 12 months?' Five response categories were offered for this question: 'very often', 'often', 'sometimes', 'hardly ever' and 'never'. Results are reported in two categories: 'very often/often' and 'sometimes/hardly ever/never'.

Time trends

The trend over all NDTISs is reported for experience of either a toothache or avoiding foods. The trend from 1999 (when children were first asked this question) until 2010 is reported for self-rated oral health.

What proportion of children and teenagers experienced poor oral health in 2010?

In 2010, 5.3% of children aged 2–17 were reported to have fair or poor oral health and 12.3% reported at least one of the oral health impacts (Table 2.1). More children avoided food because of oral problems (9.5%) than reported fair or poor oral health (5.3%). There was no difference between males and females for any measure.

Table 2.1: Prevalence of fair or poor oral health and oral health impacts, 2010 (per cent)

Sex	Fair or poor oral health^(a)	Toothache^(b)	Avoid food^(c)	Any oral health impact^(d)
Male	4.6	6.1	8.6	11.4
Female	6.1	8.0	10.4	13.3
All children	5.3	7.0	9.5	12.3

(a) Percentage of children reporting that they had 'fair' or 'poor' oral health.

(b) Percentage of children reporting that they had experienced toothache 'very often', 'often' or 'sometimes' during the previous 12 months.

(c) Percentage of children reporting that they had avoided certain foods 'very often', 'often' or 'sometimes' during the previous 12 months.

(d) Percentage of children reporting that they had experienced toothache 'very often', 'often' or 'sometimes' during the previous 12 months, or that they had avoided certain foods 'very often', 'often' or 'sometimes' during the previous 12 months.

Note: 95% confidence intervals for these estimates are in Table B2.1.

Does oral health vary with age?

The proportions of children experiencing fair or poor oral health or an oral health impact in 2010 are shown, by age, in Table 2.2. Although these data suggest that each impact was more prevalent at older ages, there were no statistically significant differences in self-reported oral health or toothache across age groups. However, teenagers (aged 12–17) were more than twice as likely as pre-school children to avoid food because of oral problems (12.5% compared with 5.1%) and three times as likely to report any oral health impact (16.1% compared with 5.3%).

Table 2.2: Prevalence of fair or poor oral health by age, 2010 (per cent)

Age group (years)	Fair or poor oral health ^(a)	Toothache ^(b)	Avoid food ^(c)	Any oral health impact ^(d)
2–4	1.7	2.6	5.1	5.3
5–11	6.2	7.5	8.5	11.8
12–17	6.1	8.5	12.5	16.1
All children	5.3	7.0	9.5	12.3

(a) Percentage of children reporting that they had 'fair' or 'poor' oral health.

(b) Percentage of children reporting that they had experienced toothache 'very often', 'often' or 'sometimes' during the previous 12 months.

(c) Percentage of children reporting that they had avoided certain foods 'very often', 'often' or 'sometimes' during the previous 12 months.

(d) Percentage of children reporting that they had experienced toothache 'very often', 'often' or 'sometimes' during the previous 12 months or that they had avoided certain foods 'very often', 'often' or 'sometimes' during the previous 12 months.

Note: 95% confidence intervals for these estimates are in Table B2.2.

Does oral health vary by geographic location?

There were no differences in experience of oral health or oral health impacts by remoteness location in 2010, with the exception of children in *Remote/Very remote* areas reporting less experience of toothache than did other children (Table 2.3).

Table 2.3: Children experiencing fair or poor oral health or oral health impacts by geographic location, 2010 (per cent)

Geographic location	Fair or poor oral health ^(a)	Toothache ^(b)	Avoid food ^(c)	Any oral health impact ^(d)
Major cities	4.8	6.6	10.1	12.4
Inner regional	5.6	7.6	8.0	11.4
Outer regional	8.2	9.5	9.5	15.4
Remote/Very remote	6.7	2.0	4.5	5.5
All children	5.3	7.0	9.5	12.3

(a) Percentage of children reporting that they had 'fair' or 'poor' oral health.

(b) Percentage of children reporting that they had experienced toothache 'very often', 'often' or 'sometimes' during the previous 12 months.

(c) Percentage of children reporting that they had avoided certain foods 'very often', 'often' or 'sometimes' during the previous 12 months.

(d) Percentage of children reporting that they had experienced toothache 'very often', 'often' or 'sometimes' during the previous 12 months or that they had avoided certain foods 'very often', 'often' or 'sometimes' during the previous 12 months.

Note: 95% confidence intervals for these estimates are in Table B2.3.

Does oral health vary by socioeconomic status?

Children from households in the lowest income bracket were most likely to report fair or poor oral health (11.4%) and toothache (11.7%) in 2010 (Table 2.4). Children from households in the highest income bracket were least likely to report fair or poor oral health (3.6%) followed by children in the second highest income bracket (4.2%). Children in the highest income bracket were also least likely to report toothache (4.3%).

Box 2.1: Cardholders

'Cardholders' are people who hold an Australian Government concession card, generally by virtue of their household income. Cardholder status is used to determine eligibility for free or subsidised dental care provided by state and territory governments.

Although children who are cardholders consistently reported higher rates of all impacts, the differences between cardholders and non-cardholders were not statistically significant.

Table 2.4: Children experiencing fair or poor oral health or oral health impacts by socioeconomic status, 2010 (per cent)

	Fair or poor oral health ^(a)	Toothache ^(b)	Avoid food ^(c)	Any oral health impact ^(d)
Annual household income				
Less than \$30,000	11.4	11.7	12.9	16.8
\$30,000–<\$50,000	7.0	9.4	8.5	12.1
\$50,000–<\$80,000	4.9	6.5	9.0	12.3
\$80,000–<\$110,000	4.2	7.0	10.6	12.8
\$110,000 or more	3.6	4.3	8.3	10.5
Cardholder status				
Cardholder	7.6	10.3	12.0	15.1
Non-cardholder	4.7	6.1	8.8	11.6
All children	5.3	7.0	9.5	12.3

(a) Percentage of children reporting that they had 'fair' or 'poor' oral health.

(b) Percentage of children reporting that they had experienced toothache 'very often', 'often' or 'sometimes' during the previous 12 months.

(c) Percentage of children reporting that they had avoided certain foods 'very often', 'often' or 'sometimes' during the previous 12 months.

(d) Percentage of children reporting that they had experienced toothache 'very often', 'often' or 'sometimes' during the previous 12 months or that they had avoided certain foods 'very often', 'often' or 'sometimes' during the previous 12 months.

Note: 95% confidence intervals for these estimates are in Table B2.4.

Does oral health vary by insurance status?

Children covered by private dental insurance (i.e. private health insurance that included extras cover for dental care) were less likely than those with no such insurance to report fair or poor oral health in 2010 (3.9% compared with 6.9%) (Table 2.5). There were no differences in experience of toothache, avoiding foods due to oral problems or experiencing any oral health impact between children with and those without dental insurance.

Table 2.5: Children experiencing poor oral health or oral health impacts by dental insurance status, 2010 (per cent)

Insurance status	Fair or poor oral health^(a)	Toothache^(b)	Avoid food^(c)	Any oral health impact^(d)
Insured	3.9	5.7	10.3	12.5
Uninsured	6.9	8.5	8.5	12.1
All children	5.3	7.0	9.5	12.3

(a) Percentage of children reporting that they had 'fair' or 'poor' oral health.

(b) Percentage of children reporting that they had experienced toothache 'very often', 'often' or 'sometimes' during the previous 12 months.

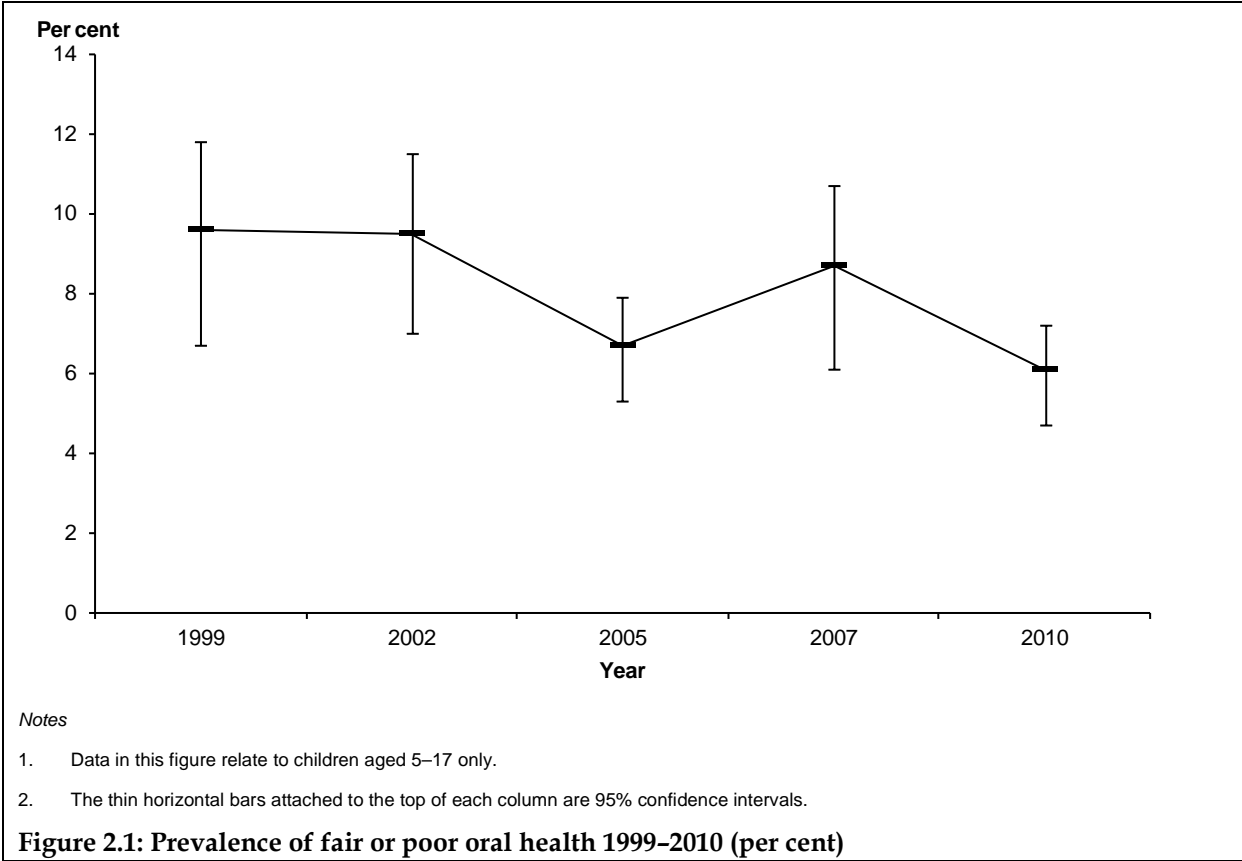
(c) Percentage of children reporting that they had avoided certain foods 'very often', 'often' or 'sometimes' during the previous 12 months.

(d) Percentage of children reporting that they had experienced toothache 'very often', 'often' or 'sometimes' during the previous 12 months or that they had avoided certain foods 'very often', 'often' or 'sometimes' during the previous 12 months.

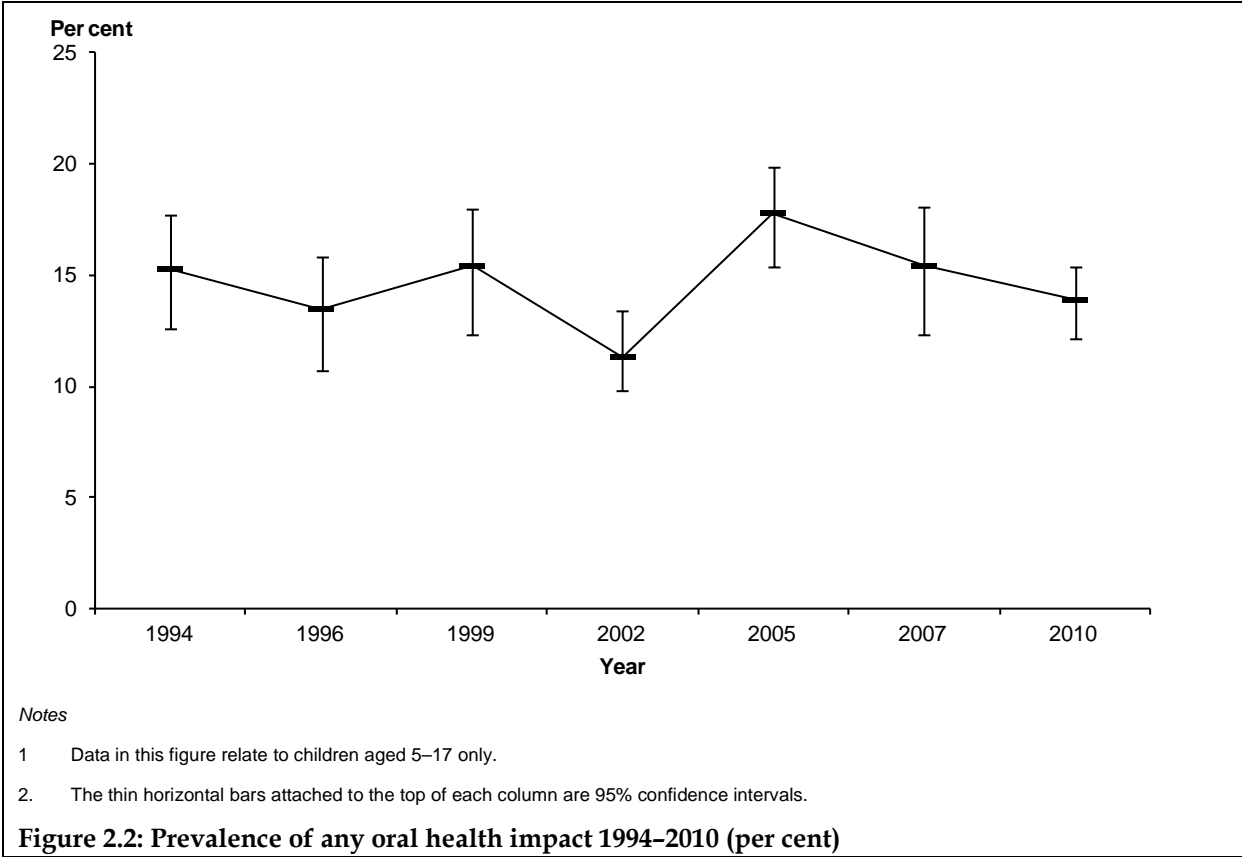
Note: 95% confidence intervals for these estimates are in Table B2.5.

How has the oral health of children and teenagers changed over time?

The proportion of children reporting fair or poor oral health ranged from a high of 10.6% in 1999 and 2002 to a low of 6.1% in 2010 (Figure 2.1). However, differences between years are not statistically significant.



The proportion of children experiencing any oral health impacts (e.g. toothache or avoiding certain foods) did not vary significantly between 1994 and 2010, remaining at around 14% (Figure 2.2).



3 Dental visiting

Why is dental visiting important?

Patterns of dental visiting can have an important influence on an individual's oral health (Crocombe et al. 2012). A dental visit can provide an opportunity for the provision of preventive dental care to maintain existing healthy teeth, as well as delivering treatment services that may reverse disease or rehabilitate teeth and gums after damage occurs because of that disease. Preventive care is most likely to occur when regular dental visiting for a check-up occurs. Regular visiting also increases the likelihood that disease will be detected in its early stages and can be managed before significant damage occurs to teeth and gums. Individuals who undertake 'problem-oriented' visiting are more likely to lose teeth to decay (Thomson et al. 2000), have poorer oral-health-related quality of life (McGrath & Bedi 2000) and experience greater limitations in everyday activities such as eating, talking and sleeping (Gilbert et al. 1997). Individuals who visit regularly are more likely (than those who do not) to report that their oral health has a positive effect on their quality of life (McGrath & Bedi 2000). It has also been shown that regular visiting in childhood is associated with better oral health in adulthood (Crocombe et al. 2012).

Measures of dental visiting

This chapter reports on three measures of dental visiting: frequency of visiting, reason for visiting and type of practice visited.

Frequency of visiting

Respondents to NDTIS were asked 'How long ago did you LAST see a dental professional about your teeth, dentures or gums?' Responses were categorised as 'within the previous 12 months', '1 to less than 2 years', '2 to less than 5 years' and '5 or more years'.

Reason for visiting

Respondents to NDTIS who had made a dental visit were asked 'Was that dental visit for a check-up or for a dental problem?' Reason for last dental visit is reported as 'check-up' or 'problem'.

Type of practice visited

Respondents to NDTIS were asked 'Where did you make your last dental visit? Was it at a private dental practice (including specialist), government dental clinic (including dental hospital), school dental service, dental technician, a clinic operated by health insurance fund, armed services/defence force clinic or other site?'

Type of dental practice last visited is reported in two categories: 'public dental clinic' or 'private practice'. Public dental clinic includes the responses 'government dental clinic' and 'school dental service'. All other responses are reported as 'private practice'.

Time trends

Time trends for the proportion of children visiting and reason for visiting are shown across all NDTISs (1994–2010).

How many children and teenagers made a dental visit?

In 2010, 69.4% of children and teenagers made a dental visit in the previous 12 months and 16.9% had not made a dental visit in the previous 5 years (Table 3.1).

The vast majority (84.4%) of children and teenagers who made a dental visit did so for a check-up. Private dental practices were the most common type of practice visited (72.8%).

There were no differences between males and females for time since last visit, reason for last dental visit or place of last dental visit.

Table 3.1: Prevalence of dental visiting indicators, 2010 (per cent)

Sex	Time since last dental visit ^(a)				Reason for last dental visit ^(b)		Type of practice ^(b)	
	<12 months	1–<2 years	2–<5 years	5+ years	Check-up	Problem	Private	Public
Male	67.8	12.4	2.5	17.3	85.2	14.8	72.2	27.8
Female	71.1	9.7	2.8	16.4	83.6	16.4	73.5	26.5
All children	69.4	11.1	2.6	16.9	84.4	15.6	72.8	27.2

(a) The category '5+ years' includes children who have never made a dental visit.

(b) Children who made a dental visit in the previous 12 months.

Note: 95% confidence intervals for these estimates are in Table B3.1.

Does dental visiting vary with age?

In 2010, over three-quarters of school-aged children (75.7% of children aged 5–11 and 81.8% of children aged 12–17) had made a dental visit in the previous 12 months, with just over a quarter of pre-school-aged children having made a visit (Table 3.2).

Pre-schoolers were the most likely of all children to report never having made a dental visit. Almost 70% of pre-schoolers had not visited in the previous 5 years, which, at a maximum age of 4, means they had never had a dental visit.

The majority of visits were for a check-up, with over 80% of children in all age groups visiting for a check-up. Around 80% of both pre-schoolers and teenagers made their last dental visit to a private dental practice. Among 5–11 year olds, 62.6% did so. Consequently, this group was most likely to have visited a public dental clinic (37.4%).

Table 3.2: Prevalence of dental visiting indicators by age, 2010 (per cent)

Age group (years)	Time since last dental visit ^(a)				Reason for last dental visit ^(b)		Type of practice ^(b)	
	<12 months	1–<2 years	2–<5 years	5+ years	Check-up	Problem	Private	Public
2–4	28.4	3.7	0.1	67.7	84.2	15.8	80.6	19.4
5–11	75.7	13.3	2.1	8.9	82.8	17.2	62.6	37.4
12–17	81.8	12.2	4.4	1.6	85.9	14.1	81.5	18.5
All children	69.4	11.1	2.6	16.9	84.4	15.6	72.8	27.2

(a) The category '5+ years' includes children who have never made a dental visit.

(b) Children who made a dental visit in the previous 12 months.

Note: 95% confidence intervals for these estimates are in Table B3.2.

Does dental visiting vary by geographic location?

Time since last dental visit did not vary greatly between *Major Cities*, *Inner regional* and *Outer regional* groups in 2010. However, children from *Remote/Very Remote* areas who had not visited in the previous 12 months were more likely than those in other areas to have not visited in the previous 5 years (Table 3.3). Children from *Major cities* were most likely to have made their last dental visit to a private practice; children from *Remote/Very remote* areas were most likely to have last visited a public dental clinic.

Table 3.3: Prevalence of dental visiting indicators by geographic location, 2010 (per cent)

Geographic location	Time since last dental visit ^(a)				Reason for last dental visit ^(b)		Type of practice ^(b)	
	<12 months	1–<2 years	2–<5 years	5+ years	Check-up	Problem	Private	Public
Major cities	70.3	10.3	2.9	16.5	84.7	15.3	79.4	20.6
Inner regional	66.4	14.5	1.9	17.1	82.3	17.7	64.1	35.9
Outer regional	69.5	10.5	2.6	17.3	86.7	13.3	54.8	45.2
Remote/Very remote	72.1	2.8	1.5	23.7	83.4	16.6	26.0	74.0
All children	69.4	11.1	2.6	16.9	84.4	15.6	72.8	27.2

(a) The category '5+ years' includes children who have never made a dental visit.

(b) Children who made a dental visit in the previous 12 months.

Note: 95% confidence intervals for these estimates are in Table B3.3.

Does dental visiting vary by socioeconomic status?

There is a tendency for a higher proportion of children from households with higher household income to have visited in the previous 12 months in 2010 (Table 3.4). Although 77.5% of children from the highest income households made a visit, only 55.2% of children from the lowest income households did so. Children from the lowest household income bracket were also more likely than children from the highest income bracket to have not made a dental visit in the previous 5 years (24.7% compared with 13.3%).

Children who are cardholders were less likely than non-cardholders to have made a dental visit in the previous 12 months (54.6% compared with 73.3%) or 1 to 2 years ago (18.0% compared with 9.3%). Children who are cardholders were more likely to have not made a dental visit in the previous 5 years (23.6% compared with 15.1%).

Children from the highest income category were more likely than those from the two lowest income categories to have visited for a check-up (90.9% compared with 72.7% and 74.9%). Around a quarter of children who are cardholders had visited for a problem, which was more than for non-cardholders (25.4% compared with 13.7%) and, as a consequence, they were less likely to have visited for a check-up (74.6% compared with 86.3%).

Children living in households in the two highest income categories were more likely to have visited a private dental practice than children from the three lowest income categories (84.4% and 76.8% compared with 64.6%, 66.3% and 44.7%). Children who were cardholders were also more likely than non-cardholders to receive their dental care at a public dental clinic.

Table 3.4: Prevalence of dental visiting indicators by socioeconomic status, 2010 (per cent)

	Time since last dental visit ^(a)				Reason for last dental visit ^(b)		Type of practice ^(b)	
	<12 months	1–<2 years	2–<5 years	5+ years	Check-up	Problem	Private	Public
Annual household income								
Less than \$30,000	55.2	14.6	5.5	24.7	72.7	27.3	44.7	55.3
\$30,000–<\$50,000	58.5	17.0	3.7	20.7	74.9	25.1	66.3	33.7
\$50,000–<\$80,000	67.5	13.3	1.6	17.7	85.6	14.4	64.6	35.4
\$80,000–<\$110,000	74.1	9.0	2.4	14.6	84.5	15.5	76.8	23.5
\$110,000 or more	77.5	7.6	1.7	13.3	90.9	9.1	84.4	15.6
Cardholder status								
Cardholder	54.6	18.0	3.8	23.6	74.6	25.4	54.4	45.6
Non-cardholder	73.3	9.3	2.4	15.1	86.3	13.7	76.4	23.6
All children	69.4	11.1	2.7	16.9	84.4	15.6	72.8	27.2

(a) The category '5+ years' includes children who have never made a dental visit.

(b) Children who made a dental visit in the previous 12 months.

Note: 95% confidence intervals for these estimates are in Table B3.4.

Does dental visiting vary by insurance status?

Insured children were more likely than uninsured children to have made a dental visit in the previous 12 months in 2010 (76.4% compared with 61.1%) and less likely to have visited between 1 and 2 years ago (8.3% compared with 14.4%) or more than 5 years ago (13.5% compared with 20.8%) (Table 3.5). Children who were covered by dental insurance were more likely than uninsured children to have made their last dental visit to a private dental practice.

Table 3.5: Prevalence of dental visiting indicators by insurance status, 2010 (per cent)

Insurance status	Time since last dental visit ^(a)				Reason for last dental visit ^(b)		Type of practice ^(b)	
	<12 months	1–<2 years	2–<5 years	5+ years	Check-up	Problem	Private	Public
Insured	76.4	8.3	1.8	13.5	86.6	13.4	84.4	15.6
Uninsured	61.1	14.4	3.7	20.8	81.1	18.9	55.5	44.6
All children	69.4	11.1	2.7	16.9	84.4	15.6	72.8	27.2

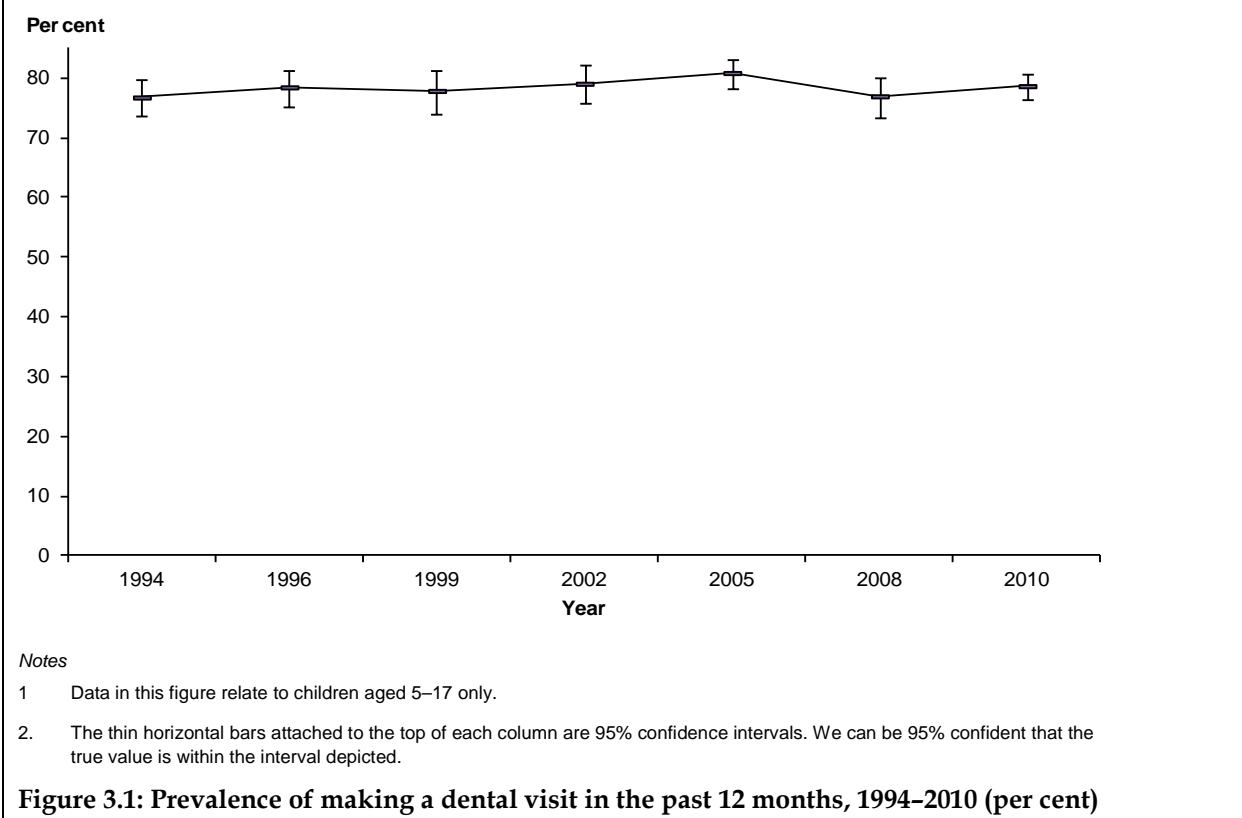
(a) The category '5+ years' includes children who have never made a dental visit.

(b) Children who made a dental visit in the previous 12 months.

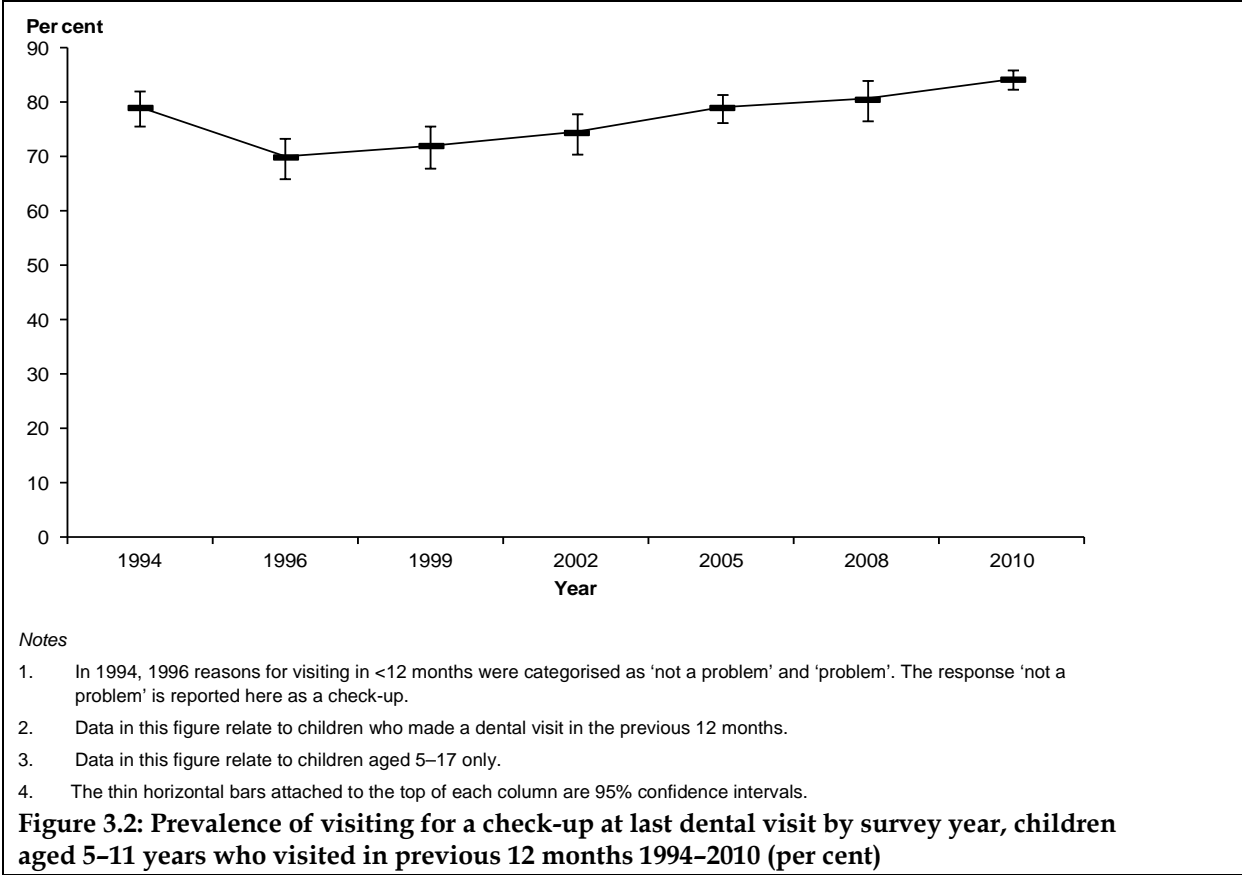
Note: 95% confidence intervals for these estimates are in Appendix Table B3.5.

Has dental visiting changed over time?

The proportion of children aged 5–17 making a dental visit in the previous 12 months remained largely unchanged between 1994 and 2010 and ranged from around 77% to around 81% (Figure 3.1).



After declining from 79.2% in 1994 to 70.1% in 1996, the proportion of children who visited for a check-up steadily increased until it reached a high of 84.8% in 2010 (Figure 3.2).



4 Financial barriers and hardship

Measures of financial barriers and hardship

This chapter reports on three measures of financial barriers and hardship relating to dental visiting and treatment.

Avoided or delayed due to cost

Respondents to NDTIS were asked 'During the last 12 months, have you avoided or delayed visiting a dental professional because of the cost?' The response categories were 'yes' and 'no'.

Cost prevented recommended treatment

Respondents to NDTIS were asked 'Has the cost prevented you from having any dental treatment that was recommended by a dental professional at a visit during the last 12 months?' The response categories were 'yes' and 'no'.

Dental visits in the previous 12 months were a large financial burden

Respondents to NDTIS were asked 'In the last 12 months, how much of a financial burden have dental visits been for you?' The response categories were 'none', 'hardly any', 'a little' and 'a large burden'. The responses are reported as 'experienced a large burden' and 'did not experience a large burden'.

Time trends

Time trends for the proportion of children experiencing any financial barrier or burden are reported for 1994 to 2010.

How many children and teenagers experienced barriers to dental visiting in 2010?

Overall, almost 30% of children experienced at least one financial barrier or hardship associated with dental care in 2010 (Table 4.1).

The most frequently reported barrier was avoiding or delaying making a dental visit due to cost (13.3%), while dental visits were reported to be a large financial burden for 11.3% of children and cost prevented recommended treatment for 6.3% of children. Further analysis of the underlying data shows that, overall, 16% of children who visited either did not have the recommended treatment or experienced a large financial burden in receiving care.

Table 4.1: Financial barriers and hardship associated with dental visits, 2010 (per cent)

Sex	Avoided or delayed due to cost	Cost prevented recommended treatment ^{(a)(b)}	Dental visits in previous 12 months were a large financial burden ^{(a)(b)}	Experienced any financial barrier or hardship
Male	13.6	6.0	9.3	27.7
Female	13.0	6.5	13.3	30.8
All children	13.3	6.3	11.3	29.2

(a) Children and teenagers whose last dental visit was in the previous 12 months.

(b) Question only asked for children aged 5 and over.

Note: 95% confidence intervals for these estimates are in Table B4.1.

Do dental visiting barriers vary with age?

The prevalence of all measures of financial barriers was highest among teenagers in 2010 (Table 4.2). Overall, 33.3% of teenagers experienced some financial barrier or hardship. Teenagers were more likely than pre-schoolers to have avoided or delayed making a dental visit due to cost and were more likely than children aged 5–11 to have had cost prevent recommended treatment (8.7% compared with 3.8%). Teenagers were also most likely to report that dental visits in the previous 12 months had been a large financial burden (15.9% compared with 6.5%).

Table 4.2: Financial barriers and hardship associated with dental visits by age, 2010 (per cent)

Age group (years)	Avoided or delayed due to cost	Cost prevented recommended treatment ^{(a)(b)}	Dental visits in previous 12 months were a large financial burden ^{(a)(b)}	Experienced any financial barrier or hardship
2–4	8.7	..	..	..
5–11	12.3	3.8	6.5	21.7
12–17	16.5	8.7	15.9	33.3
All children	13.3	6.3	11.3	29.2

(a) Children and teenagers whose last dental visit was in the previous 12 months.

(b) Question only asked for children aged 5 and over.

Note: 95% confidence intervals for these estimates are in Table B4.2.

Do barriers to dental visiting vary by geographic location?

There were no differences in experiencing barriers to visiting or financial hardship from receiving dental care across remoteness location in 2010 (Table 4.3).

Table 4.3: Financial barriers and hardship associated with dental visits by geographic location, 2010 (per cent)

Geographic location	Avoided or delayed due to cost	Cost prevented recommended treatment^{(a)(b)}	Dental visits in previous 12 months were a large financial burden^{(a)(b)}	Experienced any financial barrier or hardship
Major cities	13.4	6.7	11.2	29.5
Inner regional	13.9	6.5	12.2	30.5
Outer regional	12.5	3.2	9.9	25.4
Remote/Very remote	8.7	4.9	10.5	22.1
All children	13.3	6.3	11.3	29.2

(a) Children and teenagers whose last dental visit was in the previous 12 months.

(b) Question only asked for children aged 5 and over.

Note: 95% confidence intervals for these estimates are in Table B4.3.

Do financial barriers and hardships vary by socioeconomic status?

Among children, the proportion who avoided or delayed making a dental visit due to cost decreased sharply across income groups in 2010 (Table 4.4). Almost 30% of children from households in the lowest income bracket avoided or delayed dental visits due to cost. This is more than twice the proportion in households with an income of \$50,000 to less than \$80,000 (14.4%), almost three times that for children from households with an income of \$80,000 to less than \$110,000 (10.7%) and seven times that for children from households with an income of \$110,000 or more (4.2%).

For those children who did make a dental visit, there was also a sharp decrease across income groups in the proportion reporting that cost had prevented them having the recommended treatment. Children in the two lowest income groups were the most likely not to have had recommended treatment due to cost.

Children from households with an income of \$30,000 to less than \$50,000 were most likely to report that dental visits had been a large financial burden (17.4%). This is almost double the proportion of children in the highest income category that did so (9.1%).

When all financial barriers and hardship are considered together, almost half (49.9%) of children in the lowest income bracket had experienced at least one financial barrier or hardship. The proportion decreased as household income increased. In the highest income bracket, 15.1% of children experienced one or more financial barriers or hardship.

Children who were covered by a concession card were more likely than those who were not to experience any financial barrier or hardship in accessing dental care (46.6% compared with 25.2%). Children who were cardholders were twice as likely as non-cardholders to have avoided or delayed making a dental visit due to cost (22.3% compared with 11.0%) and more likely to report that dental visits in the previous 12 months had been a large financial burden (16.3% compared with 10.3%).

Table 4.4: Financial barriers and hardship associated with dental visits by socioeconomic status, 2010 (per cent)

	Avoided or delayed due to cost	Cost prevented recommended treatment^{(a)(b)}	Dental visits in previous 12 months were a large financial burden^{(a)(b)}	Experienced any financial barrier or hardship
Annual household income				
Less than \$30,000	29.5	13.6	9.4	49.9
\$30,000–<\$50,000	21.0	9.2	17.4	46.4
\$50,000–<\$80,000	14.4	8.6	11.2	31.4
\$80,000–<\$110,000	10.7	5.7	11.9	25.9
\$110,000 or more	4.2	2.2	9.1	15.1
Cardholder status				
Cardholder	22.3	9.7	16.3	46.6
Non-cardholder	11.0	5.6	10.3	25.2
All children	13.3	6.3	11.3	29.2

(a) Children and teenagers whose last dental visit was in the previous 12 months.

(b) Question only asked for children aged 5 and over.

Note: 95% confidence intervals for these estimates are in Table B4.4.

Do financial barriers and hardships vary by insurance status?

In 2010, uninsured children were almost three times as likely as insured children to have avoided or delayed making a dental visit due to cost (20.6% compared with 7.1%) and over twice as likely to report that cost had prevented recommended dental treatment (9.6% compared with 4.0%) (Table 4.5). As a consequence, they were around twice as likely as insured children to report any financial barrier or hardship (40.4% compared with 20.5%).

Table 4.5: Financial barriers and hardship associated with dental visits by insurance status, 2010 (per cent)

Insurance status	Avoided or delayed due to cost	Cost prevented recommended treatment^{(a)(b)}	Dental visits in previous 12 months were a large financial burden^{(a)(b)}	Experienced any financial barrier or hardship
Insured	7.1	4.0	10.9	20.5
Uninsured	20.6	9.6	11.9	40.4
All children	13.3	6.3	11.3	29.2

(a) Children and teenagers whose last dental visit was in the previous 12 months.

(b) Question only asked for children aged 5 and over.

Note: 95% confidence intervals for these estimates are Table B4.5.

Have barriers to dental visiting changed over time?

Figure 4.1 shows the proportion of children reporting any barrier to dental care from 1994 to 2010. In 1994, almost 24% of children reported that they experienced at least one barrier to dental visiting. This declined slightly in 1996 and remained steady until 2005. By 2010, the proportion reporting any barrier had increased to 27.5%. In 2010, the proportion experiencing any barrier or hardship was higher than in 1999, 2002 and 2005.

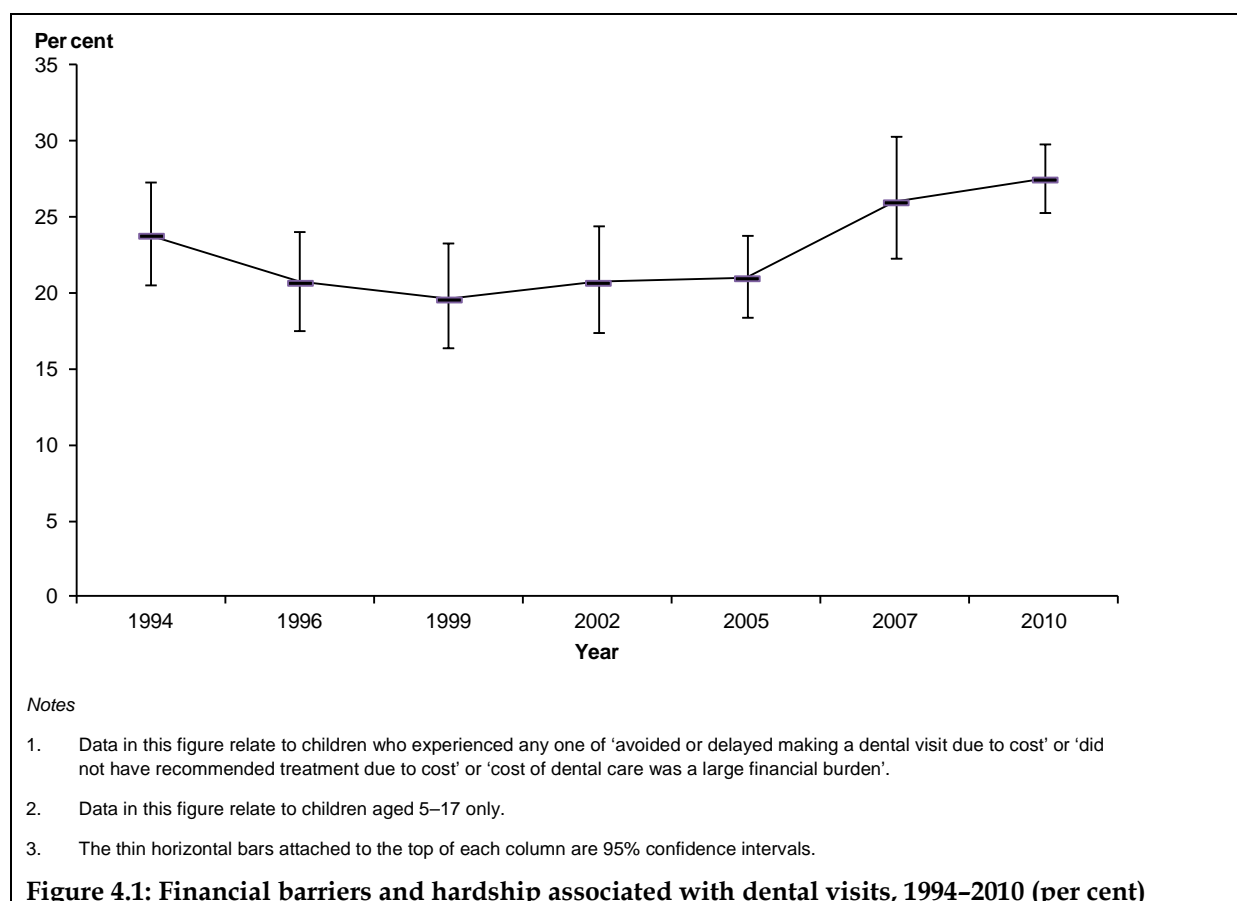


Figure 4.1: Financial barriers and hardship associated with dental visits, 1994–2010 (per cent)

The proportion of children reporting that they avoided or delayed visiting a dentist due to cost declined between 1994 and 1996, then generally increased until it returned to 1994 levels in 2010 (Table 4.6). Although the proportion who reported that cost prevented recommended treatment was stable over time, the proportion who reported that dental visits were a large financial burden increase from 6.0% in 1994 to 11.3% in 2010.

Table 4.6: Financial barriers and hardship associated with dental visits, 1994–2000 (per cent)

Financial barrier or hardship	1994	1996	1999	2002	2005	2007	2010
Avoided or delayed due to cost	14.3	8.9	9.6	10.1	8.5	15.5	14.4
Cost prevented recommended treatment	6.7	8.4	6.6	4.7	5.2	7.0	6.3
Dental visit in previous 12 months were a large financial burden	6.0	7.6	7.4	8.6	9.3	7.7	11.3

Notes

1. 95% confidence intervals for these estimates are in Table B4.6.
2. Data in this table relate to children aged 5–17 only.

5 Services received

Services received reflect the oral health needs of the patient and their access to dental care. Timely dental care is dominated by preventive and diagnostic care, with smaller amounts of low-level treatment services, such as restorations. This reflects the predominantly preventive focus that dental practitioners ideally maintain. However, if there is inadequate preventive care or problems are not identified at an early stage, then more complex restorations and, in extreme cases, extractions may be required.

The total number of fillings and extractions indicate the amount of active disease in children and the timing of the dental visit. Extraction of a tooth due to caries indicates that a failure of both prevention and treatment can lead to oral disability. Fillings in permanent teeth may indicate a need for future restorative services.

Measures of services received

Respondents to NDTIS who had made a dental visit in the previous 12 months were asked to report the number of each kind of preventive service and diagnostic or treatment service they had received in the previous 12 months.

Preventive services

Preventive services reported in this chapter are 'fluoride treatment', 'sealant', 'scale and clean' and 'oral hygiene instruction' (OHI). Receipt of these services is shown as the proportion of children that visited who reported receiving each service and the average number of services received per child.

Diagnostic and treatment services

Diagnostic and treatment services reported in this chapter are 'check-up', 'X-ray', 'filling', 'extraction', 'orthodontics' and 'other'. Extractions for orthodontic care are not included in the estimates of extractions in this report. Receipt of these services is shown as the proportion of children that visited who reported receiving each service and the average number of services received per child.

What preventive services did children receive in 2010?

The most commonly received preventive service in 2010 was scale and clean, at around 65% of children who had visited in the previous 12 months (Table 5.1). Almost half (45.5%) the children received oral hygiene instruction and a third received fluoride treatment (31.9%). Just over one in 10 received one or more fissure sealants. There were no differences between males and females in receiving any of these preventive services.

Table 5.1: Preventive services received, 2010 (per cent and mean)

Sex	Fluoride treatment ^(a)		Sealant ^(a)		Scale and clean ^(a)		Oral hygiene instruction ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Males	32.1	0.43	10.5	0.22	65.6	0.84	46.9	0.68
Females	31.8	0.41	12.7	0.29	64.0	0.83	44.4	0.58
All children	31.9	0.42	11.6	0.25	64.9	0.84	45.5	0.63

(a) Question asked for children aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Table B5.1.

What diagnostic and treatment services did children receive in 2010?

The majority of children in 2010 who had made a dental visit in the previous 12 months reported that they had received at least one check-up service (96.8%) and just over a third received an X-ray (34.5%) (Table 5.2). Similar proportions received a filling as received orthodontic care (22.1% and 23.5%). The only difference between males and females was in the proportion receiving orthodontic care, which was more likely for females than males (26.6% compared with 20.7%).

Table 5.2: Diagnostic and treatment services received, 2010 (per cent and mean)

Sex	Check-up		X-ray ^(a)		Filling		Extraction		Orthodontics ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Males	97.2	1.47	32.6	0.46	20.9	0.36	5.5	0.08	20.7	0.94
Females	96.5	1.44	36.4	0.53	23.4	0.44	6.9	0.13	26.6	1.15
All children	96.8	1.46	34.5	0.50	22.1	0.40	6.2	0.11	23.5	1.04

(a) Question asked for children aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Table B5.2.

Did preventive services vary by age?

Children aged 5–11 were less likely than teenagers to receive a fluoride treatment in 2010 (28.2% compared with 35.6%) (Table 5.3). They were also less likely to receive a scale and clean service (55.2% compared with 74.8%) and, as a consequence, received fewer scale and clean services on average (0.70 compared with 0.97).

Table 5.3: Preventive services received by age, 2010 (per cent)

Age group (years)	Fluoride treatment ^(a)		Sealant ^(a)		Scale and clean ^(a)		Oral hygiene instruction ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
2–4	..	..	..	..	..	..	..	..
5–11	28.2	0.37	13.0	0.31	55.2	0.70	47.1	0.60
12–17	35.6	0.47	10.2	0.20	74.8	0.97	43.9	0.65
All children	31.9	0.42	11.6	0.25	64.9	0.84	45.5	0.63

(a) Question asked for children aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Table B5.3.

Did diagnostic and treatment services vary by age?

Although there was no difference by age in the proportions of children who received a check-up service in 2010, those aged 2–4 had fewer check-up services on average than children aged 5–11 and 12–17 (1.10 compared with 1.42 and 1.54, respectively) (Table 5.4).

There were no differences by age in the proportion of children receiving an extraction. However, pre-schoolers received more extractions, on average, than teenagers (0.15 compared with 0.08).

Teenagers were more likely than children aged 5–11 to receive an X-ray (39.3% compared with 29.6%) and received more X-rays on average (0.57 compared with 0.42).

Children aged 5–11 years were more likely to receive a filling than teenagers (25.9% compared with 19.7%) and received more fillings on average than teenagers and pre-schoolers (0.50 compared with 0.23 and 0.33, respectively).

Teenagers were more likely than children aged 5–11 to receive any orthodontic care (34% compared with 12.7%) and, as a consequence, received more orthodontic services on average (1.68 compared with 0.39).

Table 5.4: Diagnostic and treatment services received by age, 2010 (per cent)

Age group (years)	Check-up		X-ray ^(a)		Filling		Extraction		Orthodontics ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
2–4	98.1	1.10	..	..	14.9	0.23	7.4	0.15	..	..
5–11	97.6	1.42	29.6	0.42	25.9	0.50	7.8	0.12	12.7	0.39
12–17	95.9	1.54	39.3	0.57	19.7	0.33	4.5	0.08	34.0	1.68
All children	96.8	1.46	34.5	0.50	22.1	0.40	6.2	0.11	23.5	1.04

(a) Question asked for children aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Table B5.4.

Did preventive services vary by geographic location?

Children living in *Major cities* were more likely to receive a fluoride treatment than children from the *Inner regional* areas and the *Outer regional* areas in 2010 (35.9% compared with 25.2% and 21.9%) (Table 5.5).

Major city dwellers were also more likely to receive a scale and clean than the other three groups (70.6% compared with 52.9%, 54.1% and 45.4%). The higher proportions receiving these services is reflected in the higher mean number of services received children living in *Major cities*.

Table 5.5: Preventive services received by geographic location, 2010 (per cent)

Geographic location	Fluoride treatment ^(a)		Sealant ^(a)		Scale and clean ^(a)		Oral hygiene instruction ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Major cities	35.9	0.49	11.2	0.25	70.6	0.93	45.4	0.65
Inner regional	25.2	0.30	13.5	0.28	52.9	0.65	45.2	0.57
Outer regional	21.9	0.26	9.9	0.18	54.1	0.70	46.7	0.60
Remote/Very remote	17.4	0.21	13.3	0.37	45.4	0.55	47.8	0.64
All children	31.9	0.42	11.6	0.25	64.9	0.84	45.5	0.63

(a) Question asked for children aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Table B5.5.

Did diagnostic and treatment services vary by geographic location?

Children who lived in *Outer regional* areas received more X-rays on average, than those who lived in *Major cities* and *Inner regional* areas in 2010 (0.57 compared with 0.50 and 0.47, respectively) (Table 5.6). Children in *Inner regional* areas were more likely than those in *Major cities* to receive a filling (31.2% compared with 19.7%) and, as a consequence, received more fillings on average (0.60 compared with 0.35).

Table 5.6: Diagnostic and treatment services received by geographic location, 2010 (per cent)

Geographic location	Check-up		X-ray ^(a)		Filling		Extraction		Orthodontics ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Major cities	97.4	1.43	34.5	0.50	19.7	0.35	6.1	0.10	25.1	1.09
Inner regional	95.2	1.42	32.6	0.47	31.2	0.60	5.6	0.09	20.7	0.96
Outer regional	97.1	1.70	39.6	0.57	20.5	0.36	9.4	0.24	19.4	0.83
Remote/Very remote	93.6	1.42	28.7	0.38	18.3	0.36	2.6	0.04	22.9	1.26
All children	96.8	1.46	34.5	0.50	22.1	0.40	6.2	0.11	23.5	1.04

(a) Question asked for children aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Table B5.6.

Did preventive services vary by socioeconomic status?

The proportion of children receiving oral hygiene instruction (e.g. advice on tooth brushing) was generally consistent across annual household income groups in 2010 (Table 5.7).

Of the five income categories, children from the highest income households were more likely than those from the middle (\$50,000–\$80,000) and second lowest (\$30,000–\$50,000) income households to receive scale and clean services and fluoride treatments (40.7% compared with 25.8% and 27.4%). They also received more fluoride services on average than these two groups.

Children from the highest income households were also more likely than those from the middle income group to receive a scale and clean (69.8% compared with 59.6%) and received more scale and clean services on average (0.93 compared with 0.73).

There were no differences in receiving a fluoride treatment, sealant, scale and clean or oral hygiene instruction by cardholder status.

Table 5.7: Preventive services received by socioeconomic status, 2010 (per cent)

	Fluoride treatment ^(a)		Sealant ^(a)		Scale and clean ^(a)		Oral hygiene instruction ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Annual household income								
Less than \$30,000	26.6	0.44	13.4	0.25	63.9	0.85	41.9	0.53
\$30,000–<\$50,000	27.4	0.32	10.5	0.24	58.5	0.70	49.6	0.82
\$50,000–<\$80,000	25.8	0.32	12.7	0.28	59.6	0.73	42.9	0.55
\$80,000–<\$110,000	31.9	0.43	12.2	0.26	66.6	0.88	45.6	0.60
\$110,000 or more	40.7	0.53	10.3	0.23	69.8	0.93	46.9	0.67
Cardholder status								
Cardholder	27.8	0.38	13.5	0.29	62.3	0.82	46.2	0.71
Non-cardholder	32.9	0.43	11.2	0.25	65.4	0.85	45.5	0.61
All children	32.0	0.42	11.6	0.25	64.9	0.84	45.5	0.63

(a) Question asked for children aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Table B5.7.

Did diagnostic and treatment services vary by socioeconomic status?

There was no variation by socioeconomic status in check-up, X-ray or extraction services in 2010 (Table 5.8).

Children from households in the highest income category were around half as likely as children in the two lowest income categories to receive any fillings in 2010 (16.0% compared with 32.1% and 31.6%). Children in the highest income category were more likely than children in the middle and lowest income categories to receive any orthodontic service (29.4% compared with 19.1% and 13.9%, respectively).

Children who were covered by a concession card had similar rates of diagnostic and treatment services as non-cardholders, with the exception of fillings. Children who were cardholders were more likely to receive this service (31.4% compared with 20.4%).

Table 5.8: Diagnostic and treatment services received by socioeconomic status, 2010 (per cent)

	Check-up		X-ray ^(a)		Filling		Extraction		Orthodontics ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Annual household income										
Less than \$30,000	97.9	1.49	35.9	0.50	32.1	0.57	7.5	0.10	13.9	0.60
\$30,000–<\$50,000	96.4	1.50	31.3	0.47	31.6	0.73	10.3	0.14	20.8	1.00
\$50,000–<\$80,000	96.1	1.40	35.5	0.51	21.4	0.41	5.1	0.09	19.1	0.79
\$80,000–<\$110,000	96.6	1.42	36.3	0.52	22.6	0.36	6.1	0.10	24.4	1.10
\$110,000 or more	97.0	1.47	32.4	0.46	16.0	0.25	4.4	0.10	29.4	1.25
Cardholder status										
Cardholder	97.4	1.57	37.4	0.53	31.4	0.51	7.2	0.09	18.8	0.87
Non-cardholder	96.7	1.43	33.9	0.49	20.4	0.38	6.0	0.11	24.6	1.08
All children	96.8	1.46	34.5	0.50	22.1	0.40	6.2	0.11	23.5	1.04

(a) Question asked for children aged 5 and over only.

Note: 95% confidence intervals for these estimates are Table B5.8.

Did preventive services vary by insurance status?

There were no variations in fissure sealant or oral hygiene instruction by insurance status in 2010 (Table 5.9). Children who were covered by insurance were more likely than those who were not insured to receive a fluoride treatment (38.7% compared with 22.3%) and received more of these services on average (0.52 compared with 0.27). Insured children were more likely to receive a scale and clean than uninsured children. On average, insured children received 0.97 scale and clean services, compared with 0.64 services for uninsured children.

Table 5.9: Preventive services received by dental insurance status, 2010 (per cent)

Insurance status	Fluoride treatment ^(a)		Sealant ^(a)		Scale and clean ^(a)		Oral hygiene instruction ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Insured	38.7	0.52	10.1	0.22	72.7	0.97	47.5	0.65
Uninsured	22.3	0.27	13.7	0.31	53.4	0.64	42.8	0.60
All children	32.0	0.42	11.6	0.25	64.9	0.84	45.6	0.63

(a) Question asked for children aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Table B5.9.

Did diagnostic and treatment services vary by insurance status?

There were no differences by insurance status in the proportion of children and teenagers receiving a check-up, X-ray, extraction or other diagnostic or treatment services in 2010 (Table 5.10) and there were no differences in the mean number of each of these services received.

Children who were covered by insurance were less likely than uninsured children to receive a filling (19.4% compared with 26.1%) and received fewer fillings on average (0.31 compared with 0.54). Children with insurance were more likely than uninsured children to receive orthodontic care (27.4% compared with 18.1%) and received more orthodontic services on average (1.2 compared with 0.8).

Table 5.10: Diagnostic and treatment services received by dental insurance status, 2010 (per cent)

Insurance status	Check-up		X-ray ^(a)		Filling		Extraction		Orthodontics ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Insured	96.7	1.51	34.8	0.50	19.4	0.31	5.6	0.09	27.4	1.2
Uninsured	97.0	1.38	34.1	0.49	26.1	0.54	7.2	0.12	18.1	0.8
All children	96.8	1.46	34.5	0.50	22.1	0.40	6.2	0.11	23.5	1.04

(a) Question asked for children aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Table B5.10.

Did preventive services vary by reason for visit?

There were no differences in receiving a fluoride treatment or oral hygiene instruction by reason for last dental visit in 2010 (Table 5.11). Children who last visited for a problem were more likely to receive a sealant than those who last visited for a check-up (17.2% compared with 10.6%). Children who visited for a check-up were more likely than those who visited for a problem to receive a scale and clean (66.4% compared with 56.1%). They also received more scale and clean services on average (0.87 compared with 0.71).

Table 5.11: Preventive services received by reason for last dental visit, 2010 (per cent)

Visit reason	Fluoride treatment ^(a)		Sealant ^(a)		Scale and clean ^(a)		Oral hygiene instruction ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Check-up	32.5	0.43	10.6	0.23	66.4	0.87	44.9	0.63
Problem	29.0	0.37	17.2	0.38	56.1	0.71	48.6	0.63
All children	32.0	0.42	11.6	0.25	64.9	0.84	45.5	0.63

(a) Question asked for children aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Appendix Table 5.11.

Did diagnostic and treatment services vary by reason for visit?

Check-ups were the most common reason for a child's last dental visit in 2010 Table 5.12. Although 97.5% of children who last visited for a check-up received that service, 93.4% of those who visited for a problem also received a check-up.

Children whose last dental visit was for a problem were twice as likely to receive an X-ray (62.6% compared with 29.3%) and three times as likely to receive a filling (52.4% compared with 16.5%) as those who last visited for a check-up. They were four times as likely to receive an extraction (17.8% compared with 4.0%) and more likely to have received orthodontic care than those who visited for a check-up (30.9% compared with 22.2%).

For each of these services, other than orthodontics, children who visited for a problem also received more services on average.

Table 5.12: Diagnostic and treatment services received by reason for last dental visit (per cent)

Visit reason	Check-up		X-ray ^(a)		Filling		Extraction		Orthodontics ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Check-up	97.5	1.45	29.3	0.41	16.5	0.27	4.0	0.07	22.2	0.99
Problem	93.4	1.48	62.6	0.96	52.4	1.09	17.8	0.27	30.9	1.32
All children	96.8	1.46	34.5	0.50	22.1	0.40	6.2	0.11	23.5	1.04

(a) Question asked for children aged 5 and over only.

Note: 95% confidence intervals for these estimates are Table B5.12.

Did preventive services vary by type of practice visited?

There were no differences by type of practice visited in receiving sealants or oral hygiene instruction in 2010 (Table 5.13). Children who visited a private clinic were more likely to receive a fluoride treatment (38.0% compared with 16.3%) or a scale and clean (72.8% compared with 44.5%). In both cases, children visiting private clinics received more of each of these services on average (0.51 compared with 0.20 fluoride services and 0.96 compared with 0.53 scale and clean services).

Table 5.13: Preventive services received by type of practice visited (per cent)

Practice type	Fluoride treatment ^(a)		Sealant ^(a)		Scale and clean ^(a)		Oral hygiene instruction ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Private	38.0	0.51	11.0	0.24	72.8	0.96	45.4	0.65
Public	16.3	0.20	12.8	0.27	44.5	0.53	45.8	0.57
All children	32.0	0.42	11.6	0.25	64.9	0.84	45.5	0.63

(a) Question asked for children aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Table B5.13.

Did diagnostic and treatment services vary by type of practice visited?

Although there was no difference in the proportion of children who received a check-up service by type of practice visited in 2010, those who visited a private practice received more check-up services on average (1.54 compared with 1.23) (Table 5.14). There were no differences according to type of practice visited for X-rays or extractions. Children who visited a public dental service were more likely to receive a filling (31.6% compared with 18.7%) and received more than twice as many fillings on average (0.67 compared with 0.30) than those who visited a private dental clinic. These same children were less likely to receive an orthodontic service (10.0% compared with 28.7%) and received fewer of these services (0.33 compared with 1.31).

Table 5.14: Diagnostic and treatment services received by type of practice visited, 2010 (per cent)

Practice type	Check-up		X-ray ^(a)		Filling		Extraction		Orthodontics ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Private	96.7	1.54	32.7	0.51	18.7	0.30	5.2	0.10	28.7	1.31
Public	97.0	1.23	61.7	0.45	31.6	0.67	9.1	0.13	10.0	0.33
All children	96.8	1.46	34.5	0.50	22.1	0.40	6.2	0.11	23.5	1.04

(a) Question asked for children aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Table B5.14.

Did preventive services vary by experience of financial barriers or hardship?

There were no differences in fluoride treatments, sealants, scale and clean or oral hygiene instruction received, by any financial barriers or hardship in 2010 (Table 5.15).

Table 5.15: Preventive services received by financial barriers, 2010 (per cent)

Financial barrier or hardship	Fluoride treatment ^(a)		Sealant ^(a)		Scale and clean ^(a)		Oral hygiene instruction ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Avoided or delayed								
Yes	31.1	0.42	12.9	0.29	60.1	0.78	45.1	0.58
No	32.1	0.42	11.4	0.25	65.5	0.85	45.6	0.63
Cost prevented recommended treatment^(a)								
Yes	40.7	0.66	16.3	0.36	71.2	0.92	47.1	0.72
No	31.3	0.40	11.3	0.25	64.3	0.83	45.4	0.62
Dental visits were a burden^(a)								
Yes	39.8	0.58	14.4	0.31	62.8	0.88	51.3	1.00
No	31.0	0.40	11.2	0.25	65.1	0.83	44.8	0.58
Any financial barrier or burden								
Yes	34.8	0.48	15.3	0.35	63.6	0.85	47.7	0.79
No	31.2	0.40	10.6	0.23	65.2	0.84	41.9	0.59
All children	32.0	0.42	11.6	0.25	64.9	0.84	45.5	0.63

(a) Question asked for children aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Table B5.15.

Did diagnostic and treatment services vary by experience of financial barriers or hardship?

Children who avoided or delayed making a dental visit due to cost were more likely to have an X-ray (49.6% compared with 33.0%) or a filling (32.7% compared with 21.0%) in 2010 than those who did not avoid or delay due to cost (Table 5.16). They also received more X-rays (0.67 compared with 0.47) and more fillings (0.67 compared with 0.37) on average.

A similar difference exists for children for whom cost prevented the recommended treatment. These children were more likely than those who did not face this barrier to receive an X-ray (50.9% compared with 33.2%) or a filling (33.5% compared with 21.8%).

Children for whom dental visits were a large financial burden were less likely to have received a check-up service than those for whom visits were not a burden (91.8% compared with 97.4%). However, these same children received more check-up services on average and were also more likely to receive every one of the diagnostic and treatment services reported. They received more of these services on average.

Children who reported that dental visits were a burden were less likely to receive a check-up service (91.8% compared with 97.4%), reported over twice as many X-rays, five times as many other services and seven times as many orthodontic services as those who did not report this burden.

Table 5.16: Diagnostic and treatment services received by financial barriers, 2010 (per cent)

Financial barrier or hardship	Check-up		X-ray ^(a)		Filling		Extraction		Orthodontics ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Avoided or delayed										
Yes	94.5	1.38	46.9	0.67	32.7	0.67	6.3	0.10	22.1	0.82
No	97.1	1.46	33.0	0.47	21.0	0.37	6.2	0.11	23.8	1.07
Cost prevented recommended treatment^(a)										
Yes	96.1	1.56	50.9	0.72	33.5	0.76	8.0	0.11	27.1	0.79
No	96.8	1.48	33.2	0.48	21.8	0.39	5.9	0.10	23.4	1.06
Dental visits were a burden^(a)										
Yes	91.8	2.11	61.4	1.04	29.5	0.65	6.8	0.12	68.9	4.40
No	97.4	1.38	31.0	0.42	20.2	0.38	6.2	0.10	17.8	0.61
Any financial barrier or burden										
Yes	93.1	1.72	50.7	0.79	29.5	0.63	6.3	0.10	42.9	2.41
No	97.8	1.40	30.0	0.41	20.2	0.35	6.2	0.11	18.2	0.05
All children	96.8	1.46	34.5	0.50	22.1	0.40	6.2	0.11	23.5	1.04

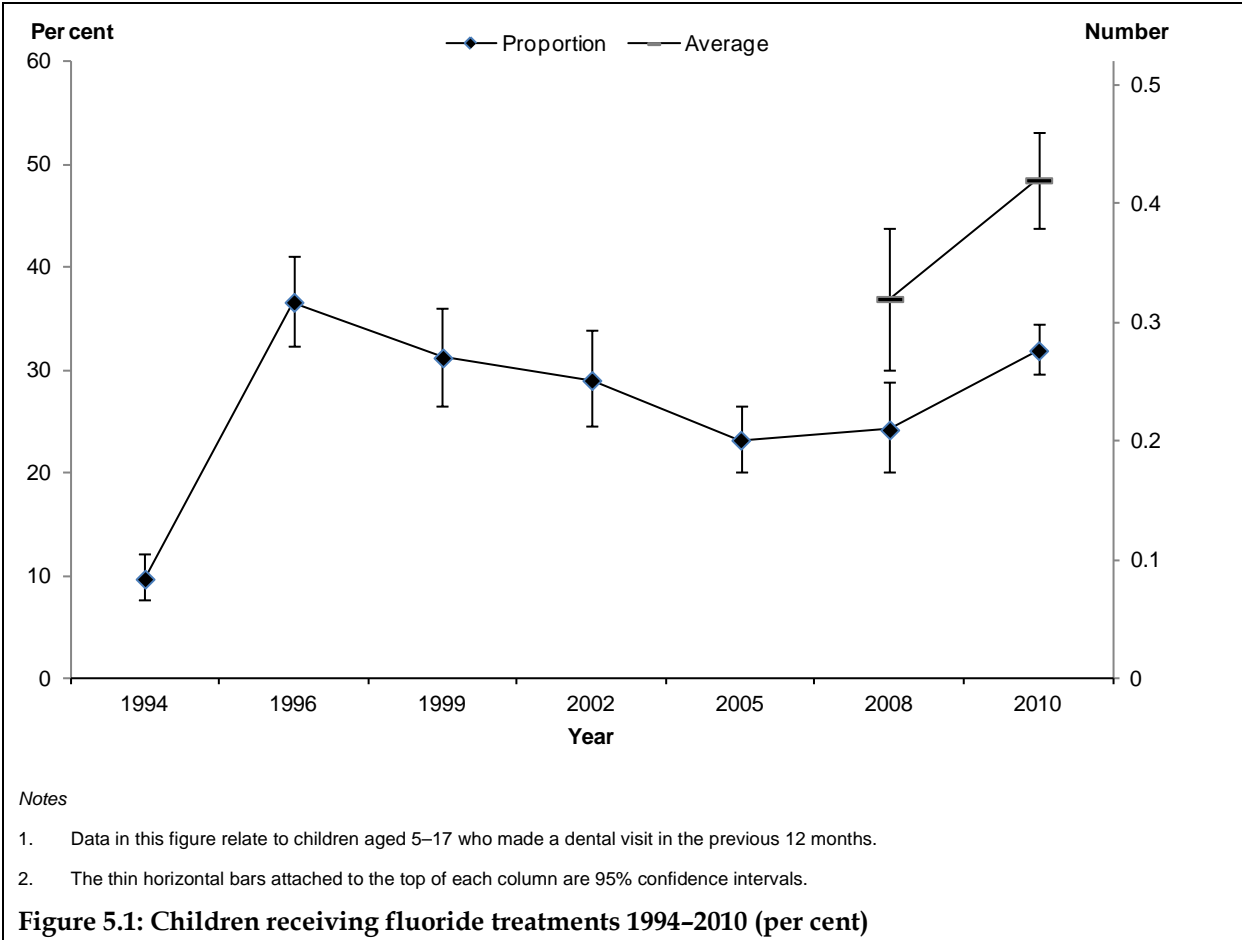
(a) Question asked for children aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Table B5.16.

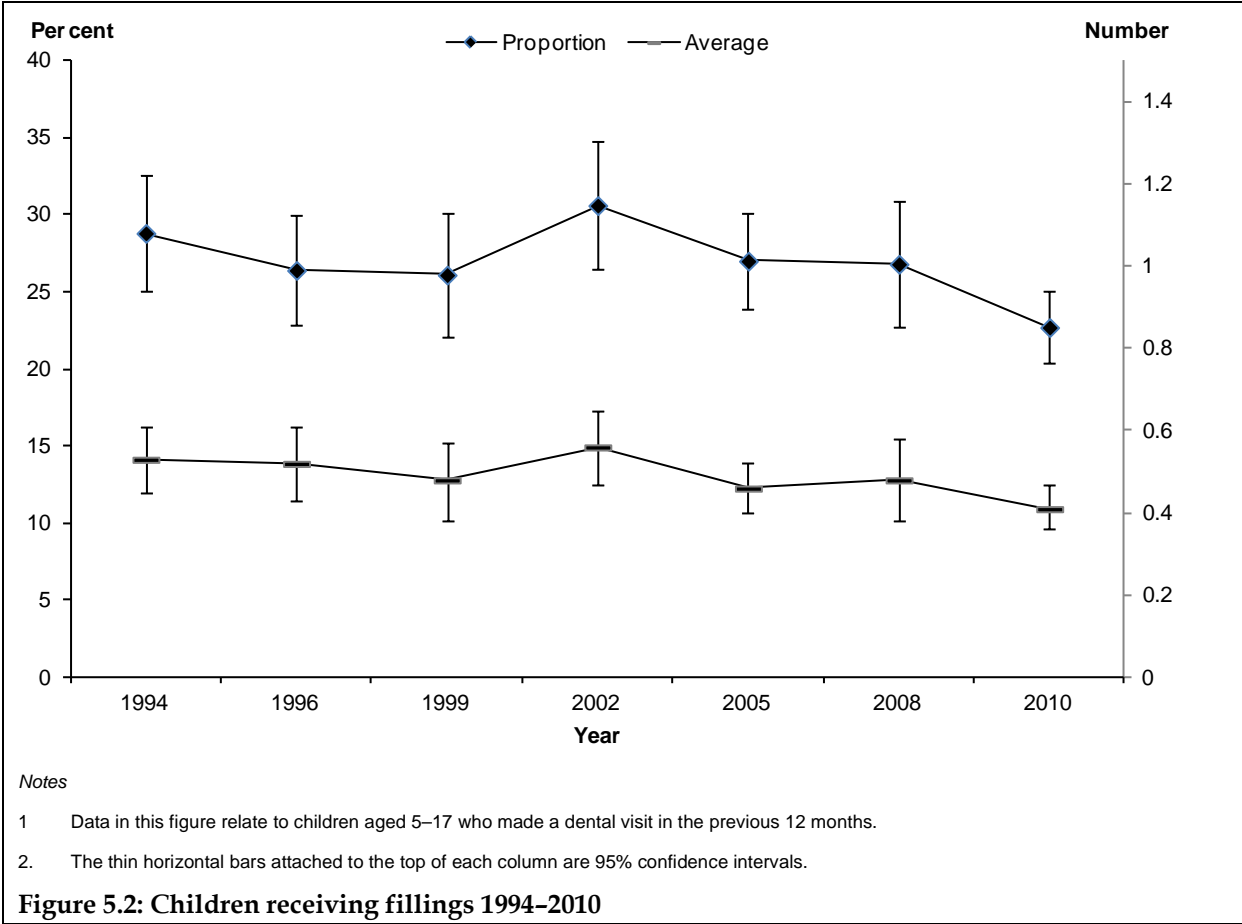
Have services received changed over time?

Complete time series data are available for the three key services of 'fluoride treatment', 'fillings' and 'extractions'. The proportions of children receiving each service, and the average number of services received, are shown in Figures 5.1, 5.2 and 5.3.

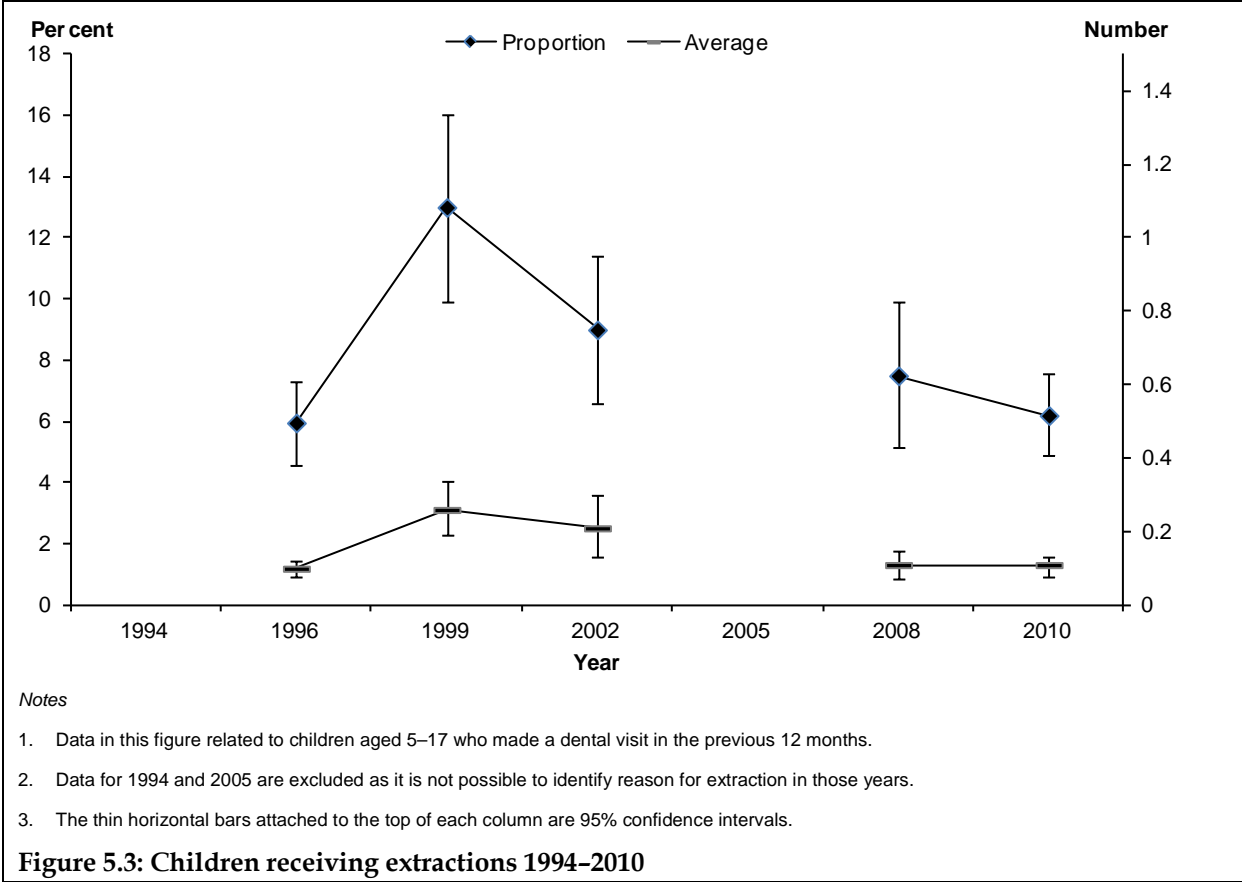
In 1994, 9.7% of children were reported to have received a fluoride treatment. The proportion increased to 36.6% in 1996, after which it declined to a low of under 25% in 2005 and 2008. In 2010, it had increased to 31.9%. The increase between 2008 and 2010 in the proportion receiving a fluoride treatment is reflected in the increase in the average number of treatments received, from 0.32 to 0.42.



The proportion of children who received a filling remained relatively steady over most of the period 1994 to 2010. However, in 2010 it was lower than in 1994 and 2002 (22.7% compared with 28.8% and 30.6%, respectively).



Neither the proportion of children who received an extraction, nor the average number of extractions received, showed any significant variation between 1994 and 2010.



6 Perceived need for care

Perceived need for the most common dental treatments is presented to provide an additional subjective indicator of oral health in Australian children.

A person's perception of their need for dental care has been shown to be a factor in whether or not they visit a dentist. Experience of oral disease or oral disorders may result in symptoms that create a perceived need for care. Dental visiting and resolution of symptoms should reduce a person's perceived needs.

Perceived need for different types of dental care gives an indication of the dental services that could be required. However, the actual services provided in a dental visit are the result of a professional diagnosis and negotiated treatment plan, where both the professional judgement of a dentist and the patient's perceptions are important considerations.

Measure of perceived need for dental care

Respondents to NDTIS were asked 'Currently which of the following treatments do you think that you need to have: any filling(s), any extraction(s), scale and clean, a dental check-up, gum treatment, dental crown or bridge, denture(s) made, orthodontic treatment or any other treatment?'

How many children reported a need for dental care?

Over half (55.4%) of children reported needing a check-up and over 40% reported needing a scale and clean in 2010 (Table 6.1). Almost a quarter (23.3%) reported needing orthodontic care, 10.0% needed a filling and 5.0% needed an extraction.

The only difference between males and females was in need for extraction, where females were more likely to report the need for this service than males (6.4% compared with 3.7%).

Table 6.1: Perceived need for care, 2010 (per cent)

Sex	Check-up	Scale and clean^(a)	Filling	Extraction	Orthodontics^(a)	Other^(a)
Male	55.1	43.3	9.4	3.7	20.8	3.9
Female	55.8	39.6	10.8	6.4	25.9	4.9
All children	55.4	41.5	10.0	5.0	23.3	4.4

(a) Question asked for respondents aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Table B6.1.

Did perceived need for dental care vary by age?

There was no difference by age in reporting a need for a check-up or other services in 2010 (Table 6.2).

Children aged 12–17 were more likely to report needing a scale and clean than those aged 5–11 (45.5% compared with 37.7%). Children aged 2–4 were less likely to report needing either a filling or an extraction than older children. Teenagers were more likely to report needing orthodontic care than children aged 5–11.

Table 6.2: Perceived need for care by age group, 2010 (per cent)

Age group (years)	Check-up	Scale and clean ^(a)	Filling	Extraction	Orthodontics ^(a)	Other ^(a)
2–4	50.1	Not asked	2.1	0.8	Not asked	Not asked
5–11	56.5	37.7	11.1	5.5	17.6	4.0
12–17	56.7	45.5	12.7	6.4	29.3	4.7
All children	55.4	41.5	10.0	5.0	23.3	4.4

(a) Question asked for respondents aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Table B6.2.

Does need for dental care vary by geographic location?

There were no differences in 2010 by geographic location in reported need for check-up, scale and clean, filling or other services (Table 6.3).

Children who lived in *Remote/Very remote* areas were less likely than children from the other three areas to report a need for an extraction (0.8% compared with 4.8%, 5.6% and 5.9%).

Children who lived in *Major cities* were more likely than those from *Remote/Very remote* areas to report a need for orthodontic care (24.5% compared with 13.5%).

Table 6.3: Perceived need for care by geographic location, 2010 (per cent)

Geographic location	Check-up	Scale and clean ^(a)	Filling	Extraction	Orthodontics ^(a)	Other ^(a)
Major cities	56.7	43.6	9.4	4.8	24.5	4.4
Inner regional	53.9	38.2	12.5	5.6	20.0	3.7
Outer regional	51.7	37.1	9.2	5.9	24.5	5.8
Remote/Very remote	44.1	27.3	8.5	0.8	13.5	3.5
All children	55.4	41.5	10.0	5.0	23.3	4.4

(a) Question asked for respondents aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Table B 6.3.

Does need for dental care vary by socioeconomic status?

Children from the lowest income households (Less than \$30,000) were more likely than those from the highest income households (\$110,000 or more) in 2010 to perceive a need for a check-up (63.9% compared with 51.3%) and scale and clean (54.3% compared with 38.1 (Table 6.4).

Children from the highest income households were the least likely to perceive a need for a filling.

Children who were cardholders were more likely than non-cardholders to report needing a check-up (62.4% compared with 53.6%) and almost twice as likely to report needing a filling (16.8% compared with 8.5%).

Table 6.4: Perceived need for care by socioeconomic status, 2010 (per cent)

	Check-up	Scale and clean ^(a)	Filling	Extraction	Orthodontics ^(a)	Other ^(a)
Annual household income						
Less than \$30,000	63.9	54.3	16.9	7.3	23.8	6.0
\$30,000–<\$50,000	60.5	44.6	15.0	6.5	21.2	3.8
\$50,000–<\$80,000	54.5	38.8	9.6	4.4	20.5	3.8
\$80,000–<\$110,000	54.9	41.0	10.0	4.6	23.0	4.7
\$110,000 or more	51.3	38.1	4.7	4.0	26.9	4.0
Cardholder status						
Cardholder	62.4	46.6	16.8	5.8	23.7	7.2
Non-cardholder	53.6	40.3	8.5	4.8	25.3	3.6
All children	55.4	41.5	10.0	5.0	23.3	4.4

(a) Question asked for respondents aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Table B6.4.

Does need for dental care vary by insurance status?

There were no differences in reported need for scale and clean, orthodontic care or other services by insurance status in 2010 (Table 6.5). Uninsured children were more likely to report needing a check-up (59.6% compared with 51.9%), a filling (13.5 % compared with 7.2%) and an extraction (5.9% compared with 4.2%).

Table 6.5: Perceived need for care by insurance status, 2010 (per cent)

Insurance status	Check-up	Scale and clean ^(a)	Filling	Extraction	Orthodontics ^(a)	Other ^(a)
Insured	51.9	40.3	7.2	4.2	25.2	3.9
Uninsured	59.6	43.1	13.5	5.9	21.0	4.9
All children	55.4	41.5	10.0	5.0	23.3	4.4

(a) Question asked for respondents aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Table B6.5.

Is perceived need for care related to recent visiting experience or oral health?

Children who reported a need for any kind of care, other than extraction and other care, were less likely in 2010 to have made a dental visit in the previous 12 months than those who did not need care (Table 6.6).

For all kinds of care except other care, children who reported a need for care more likely than those who did not to have last visited for a problem, rather than a check-up. The difference was largest for children who reported a need for extraction (85.1% compared to 64.4%) followed by children who reported a need for a filling (85.5% compared to 70.5%).

Children who reported the need for a filling were more likely than those who did not need a filling to have last visited a public dental clinic (43.3% compared with 28.7%). Children who needed orthodontic care were more likely than those who did not need orthodontic care to have last visited a private dental practice (79.3% compared to 65.5%).

For every type of care, those who reported a need for care were more likely than those who did not need care to report fair or poor oral health. The largest differences were for those who need a filling (25.8% compared with 3.5%) or an extraction (22.1% compared with 4.3%).

Table 6.6: Recent visiting experience and oral health by perceived need for care, 2010 (per cent)

Type of care	Visited in the last 12 months		Reason for last visit		Type of practice visited		Fair or poor oral health	
	Yes	No	Check-up	Problem	Private	Public	Yes	No
Check-up								
Yes	60.0	40.0	80.9	19.1	69.0	31.0	7.4	92.5
No	81.2	18.8	87.0	13.0	70.2	29.8	2.7	97.3
Scale and clean^(a)								
Yes	69.4	30.6	79.4	20.6	69.5	30.5	10.0	90.0
No	85.5	14.5	86.9	13.1	68.2	31.8	3.4	96.6
Filling								
Yes	64.5	35.5	70.5	29.6	56.7	43.3	25.8	74.2
No	70.3	29.7	85.5	14.6	71.3	28.7	3.5	97.0
Extraction								
Yes	82.8	17.2	64.4	35.6	66.8	33.2	22.1	77.9
No	68.8	31.2	85.1	14.9	69.8	30.2	4.3	95.7
Orthodontics^(a)								
Yes	85.8	14.2	77.5	22.5	79.3	20.7	11.0	89.0
No	76.9	23.1	85.9	14.1	65.5	35.5	4.7	95.3
Other^(a)								
Yes	85.9	14.1	73.0	27.0	67.8	32.2	16.6	83.4
No	78.3	21.7	84.4	15.6	68.8	31.2	5.7	94.3

(a) Question asked for respondents aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Table B6.6.

Is perceived need for care related to recent experience of financial barriers or hardship?

For all types of dental care, children who perceive a need for care were more likely in 2010 than those who did not to have avoided or delayed seeking dental care due to cost (Table 6.7). The perceived need was at least two-fold for check-up (17.9% compared with 9.7%) and scale and clean (22.7% compared with 8.2%), and three-fold for children who perceived a need for a filling (36.6% compared with 11.0%).

For all kinds of care except check-up, those who perceived a need for care were more likely to report that cost had prevented recommended dental care. The difference was largest for orthodontic care (16.3% compared with 3.0%) and extraction (18.6% compared with 5.4%).

Children who reported needing orthodontic care and other care were more likely to report that dental visits in the previous 12 months had been a large financial burden (24.8% compared with 6.8% for orthodontics and 16.8% compared with 5.8% for other services). Children who needed a service other than check-up were more likely than those who did not need the services to report any of these financial burdens.

Table 6.7: Barriers and hardship by perceived need for care, 2010 (per cent)

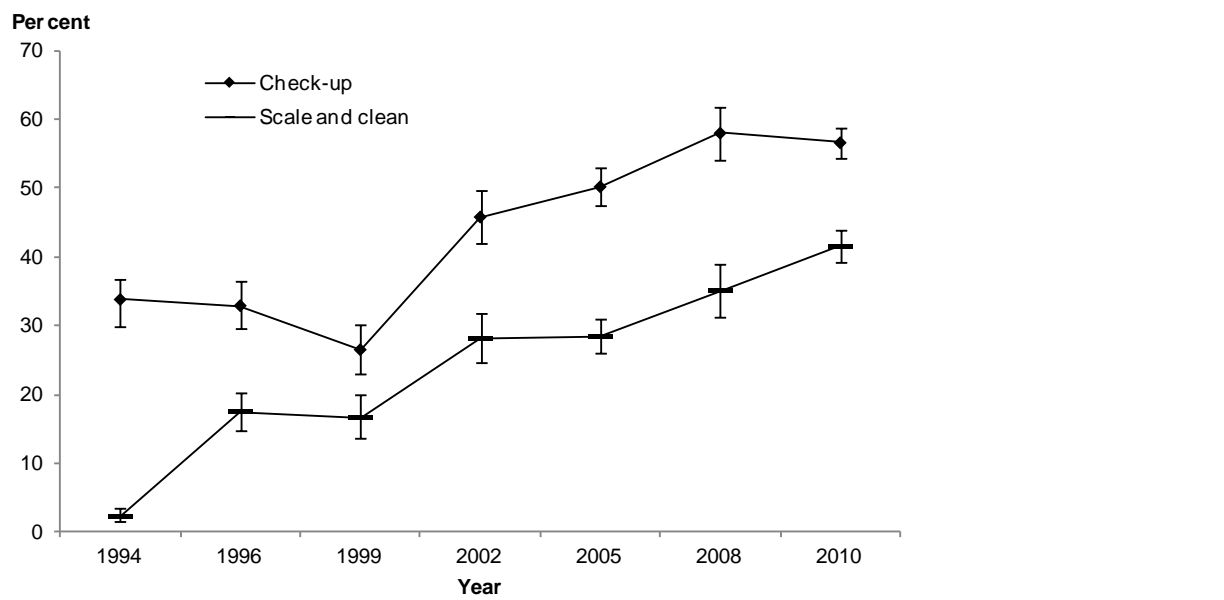
Type of care	Avoided or delayed due to cost		Cost prevented recommended treatment		Dental visits were a large financial burden		Any burden	
	Yes	No	Yes	No	Yes	No	Yes	No
Check-up								
Yes	19.7	80.3	8.0	92.0	10.7	89.3	24.4	75.6
No	7.4	92.6	4.6	95.4	11.7	88.3	19.2	80.8
Scale and clean^(a)								
Yes	22.7	77.3	9.8	90.2	12.4	87.6	27.4	72.6
No	8.2	91.8	4.2	95.8	10.6	89.4	18.3	81.7
Filling								
Yes	36.6	63.4	14.6	85.4	16.1	83.9	37.8	62.2
No	11.0	89.0	5.3	94.7	10.6	89.4	19.7	80.3
Extraction								
Yes	25.5	74.5	18.6	81.4	13.4	86.6	37.3	62.7
No	13.2	86.4	5.4	94.6	11.2	88.8	20.8	79.2
Ortho^(a)								
Yes	18.8	81.2	16.3	83.7	24.8	75.2	40.9	59.0
No	12.8	87.2	3.0	97.0	6.8	93.2	15.3	84.7
Other^(a)								
Yes	26.4	74.6	16.8	83.2	25.0	75.0	45.3	54.7
No	13.7	86.2	5.8	94.2	10.6	89.4	20.5	79.5

(a) Question asked for respondents aged 5 and over only.

Note: 95% confidence intervals for these estimates are in Table B6.7.

Has perceived need for care changed over time?

The proportion of children reporting a need for both check-up and scale and clean increased between 1994 and 2010 (Figure 6.1). The proportion with a perceived need for a check-up increased from 33.3% in 1994 to 56.6% in 2010 and from 2.3% to 41.5% for a scale and clean.

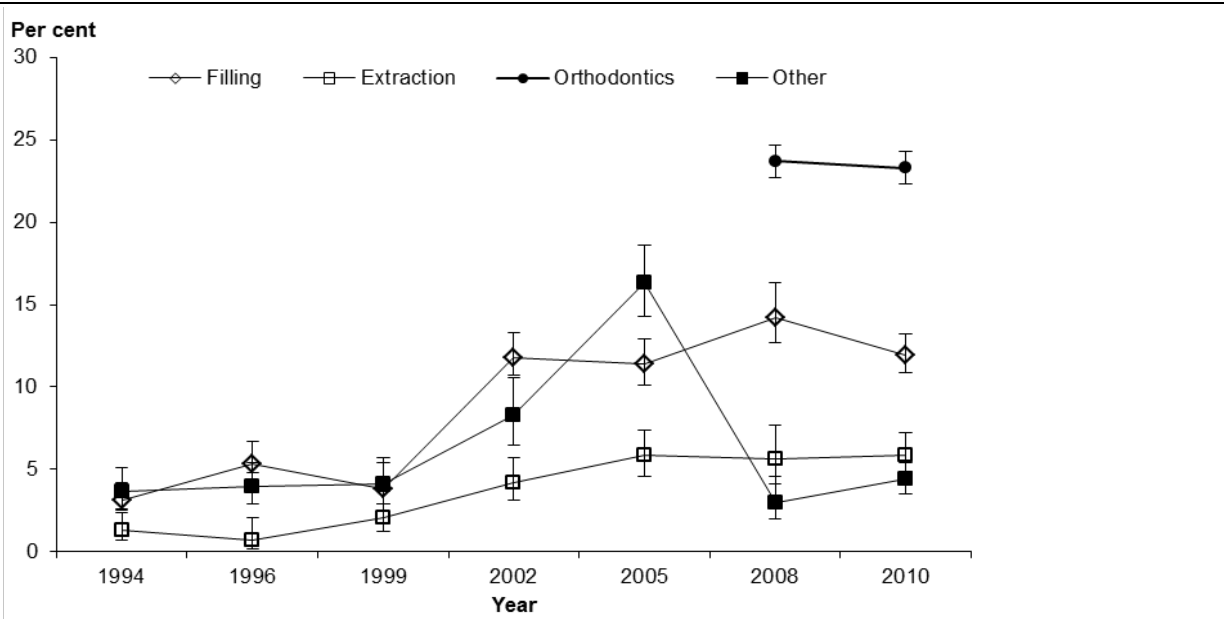


Notes

1. Data in this figure related to children aged 5–17.
2. The thin horizontal bars attached to the top of each column are 95% confidence intervals.

Figure 6.1: Children reporting a need for preventive dental care 1994–2010 (per cent)

The proportion of children reporting a need for a filling and the proportion reporting a need for an extraction both increased over the period from 1994 to 2010 (Figure 6.2). The proportion with a perceived need for a filling increased from 3.1% to 11.9% and for an extraction from 1.3% to 5.9%.



Notes

1. Data in this figure relate to children aged 5–17.
2. Perceived need for orthodontic care was collected from 2008 onwards.
3. The thin horizontal bars attached to the top of each column are 95% confidence intervals.

Figure 6.2: Children reporting a need for dental treatments 1994–2010 (per cent)

7 Dental visiting, oral health and financial barriers

So far in this report, visiting, oral health and financial barriers have been examined separately. This chapter examines variations in dental visiting by financial barriers and burden, as well as self-reported oral health and impacts by dental visiting and financial barriers and burden.

Did dental visiting pattern vary by experience of financial barriers and hardship?

Just over half (51.3%) of children who reported avoiding or delaying a dental visit due to cost made a dental visit within the previous 12 months in 2010 (Table 7.1). This compares with 72.2% of those who did not avoid or delay due to cost. Among those who had visited in the previous 12 months, children who had avoided or delayed due to cost were more likely to have visited for a problem than a check-up. They were also more likely to have visited a public dental clinic (73.5% compared with 63.2%).

Among children who visited in the previous 12 months, those who reported that cost had prevented recommended treatment were more likely to have visited for a problem (30.7% compared with 14.6%).

Children who reported that dental costs were a large financial burden were less likely than those who did not to have last visited for a check-up (71.2% compared with 85.9%). They were also more likely to have visited a private dental clinic (91.7% compared with 70.3%).

Table 7.1: Variations in dental visiting by financial barriers and hardship, 2010 (per cent)

Financial hardship or barrier	Time since last dental visit				Reason for last visit		Type of clinic	
	<12 months	1–<2 years	2–<5 years	5+ years/ never	Check-up	Problem	Private	Public
Avoided or delayed due to cost								
Yes	51.3	21.1	6.5	21.2	..	26.2	63.2	36.8
No	72.2	9.5	2.1	16.2	85.5	14.5	73.5	26.5
Cost prevented recommended treatment^(a)								
Yes	..	..	..	..	69.3	30.7	61.7	38.3
No	..	..	..	..	85.4	14.6	72.5	27.5
Dental costs were a large financial burden^(b)								
Yes	..	..	..	..	71.2	28.8	91.7	8.3
No	..	..	..	..	85.9	14.1	70.3	29.7
All children	69.4	11.1	2.6	16.9	84.4	15.6	72.8	27.2

(a) Only children who visited in the previous 12 months were asked if cost prevented recommended treatment.

(b) Only children who visited in the previous 12 months were asked if dental costs were a large financial burden.

Note: 95% confidence intervals for these estimates are in Table B7.1.

Did experience of oral health impacts vary by dental visiting pattern?

Children and teenagers who last visited for a problem had the highest prevalence of all impacts (30.4% compared with 10.7%) (Table 7.2). Children who visited for a problem were two and a half times more likely than children who visited for a check-up to report fair or poor oral health (12.4% compared with 4.9%). Children who visited for a problem were more than four times as likely to report toothache (23.3% compared with 5.0%) and more than two and a half times as likely to have avoided food (22.7% compared with 8.1%) than those who visited for a check-up.

Table 7.2: Prevalence of oral health impacts by dental visiting, 2010 (per cent)

	Fair or poor oral health	Toothache	Avoid food	Any impact
Time since last dental visit				
<12 months	5.8	8.0	11.2	14.5
1–<2 years	5.1	5.3	5.2	8.3
2–<5 years	12.6	19.2	17.2	23.6
5+ years	2.3	2.3	4.3	4.7
Reason for last dental visit^(a)				
Check-up	4.9	5.0	8.1	10.7
Problem	12.4	23.3	22.7	30.4
Type of practice visited^(a)				
Private	5.0	7.0	11.5	13.7
Public	8.2	10.6	11.9	17.1
All children	5.3	7.0	9.5	12.3

(a) Children who visited in the previous 12 months.

Note: 95% confidence intervals for these estimates are in Table B7.2.

Did experience of oral health impacts vary by experience of barriers to dental care?

Children who reported any one of the financial barriers to, or hardships from, accessing dental care were more likely in 2010 than children overall to experience any impact (Table 7.3). Although 12.3% of children overall experienced any impact, 19.7% of children who avoided or delayed due to cost, 37.0% who did not have the recommended treatment and 35.6% for whom dental visits were a large financial burden reported any oral health impact.

Children who had avoided or delayed due to cost, those for whom cost had prevented recommended treatment and those for whom dental visits were a large financial burden were more likely to report fair or poor oral health, to have experienced toothache and to have avoided some foods.

Children who had avoided or delayed making a dental visit due to cost were more likely than those who did not to report fair or poor oral health (13.1% compared with 4.1%), to

experience toothache (13.3% compared with 6.1%), to have avoided food due to oral problems (16.1% compared with 8.9%) and to report any impact (19.7% compared to 11.5%).

Children who reported that cost had prevented recommended dental treatment were more likely than children who did not report that cost had prevented recommended dental care to report that they had fair or poor oral health (24.2% compared with 4.8%) and to report that they had experienced toothache (21.7% compared with 7.2%) and that they had avoided food due to oral problems (27.6% compared to 10.6%) and to experience any impact (35.6% compared to 13.7%)

Children who reported that dental visits were a large financial burden were more likely than those who did not report that dental visits were a large financial burden to report fair or poor oral health (13.2% compared with 4.7%), to experience toothache (20.3% compared to 6.1%), to avoid some foods due to oral problems (33.1% compared with 8.1%) and to experience any impact (37.0% compared with 10.8%).

Table 7.3: Prevalence of oral health impacts by experience of barriers and hardship, 2010 (per cent)

Financial barrier or hardship	Fair or poor oral health	Toothache	Avoid food	Any impact
Avoided or delayed due to cost				
Yes	13.1	13.3	16.1	19.7
No	4.1	6.1	8.9	11.5
Cost prevented recommended treatment^(a)				
Yes	24.2	21.7	27.6	35.6
No	4.8	7.2	10.6	13.7
Dental visits in previous 12 months were a large financial burden^(a)				
Yes	13.2	20.3	33.1	37.0
No	4.7	6.1	8.1	10.8
Any burden				
Yes	11.6	14.0	18.8	23.0
No	3.7	5.3	7.6	10.0
All children	5.3	7.0	9.5	12.3

(a) Children who visited in the previous 12 months.

Note: 95% confidence intervals for these estimates are in Table B7.3.

8 Synthesis of findings over time and between population groups

This chapter examines the picture of the oral health of Australian children and teenagers and summarises the experience of the population groups examined in this report. Comparisons with other countries are made, to examine the oral health and dental visiting of Australian children and teenagers among their international counterparts.

General picture

Overall, the majority of Australian children reported having good, very good or excellent oral health. However, there is evidence that oral problems start having an impact early in life, with 12% of children aged 5–11 and 16% of teenagers reporting experience of either toothache or avoiding foods due to oral problems.

In 2010, more than half of children aged 2–18 made a dental visit for a check-up. Almost 30% of children reported at least one financial barrier or hardship associated with dental care. The most commonly reported was avoiding or delaying a visit due to cost (13.3%). Among children who made a dental visit, 11.3% of children experienced a large financial burden, and cost prevented recommended dental treatment for around 6%.

Of those children who made a dental visit in 2010, around 97% received at least one check-up, 65% received a scale and clean and almost half received oral hygiene instructions. Around one-fifth received a filling or orthodontic care. Around 10% had at least one tooth extracted. The most frequently reported need for dental care was for a check-up (55%), followed by scale and clean (42%) and orthodontic care (23%). Around 30% of children experienced a financial barrier or hardship associated with dental visiting.

Changes over time

There have been only minor changes over time in most of these measures. The proportion of children (aged 5–17) reporting fair or poor oral health declined from 10.6% in 2002 to 6.1% in 2010.

People who visit for a routine check-up are most likely to benefit from early detection and treatment, and receive preventive services. Although the proportion who made a dental visit stayed fairly constant over time, of those who visited, the proportion visiting for a check-up increased from 79% in 1994 to 84% in 2010. Generally, people who seek regular and routine care report low levels of extractions and relatively low levels of fillings. Although there was evidence of a decline in the average number of fillings received over time, from 0.53 per child to 0.41, the difference was not statistically significant. There was no change over time in the average number of extractions, which remained around 0.2 teeth extracted per child.

Differences between males and females

Apart from two exceptions, there were no differences between males and females in measures of self-reported oral health, dental visiting patterns, experience of financial barrier or hardship, or treatment services received. Females had a higher average number of

extractions than males (0.26 compared with 0.15). Females were also more likely to receive orthodontic care.

Differences between age groups

NDTIS 2010 is the first survey in which data were collected on children aged 2–4. Among these children, a very small minority reported fair or poor oral health (1.7%). However, around 5% had avoided food due to oral problems and 2.6% had experienced toothache in the previous 12 months.

There was evidence that oral health declined from an early age. The proportion of children avoiding food due to oral problems was 12.5% among teenagers, more than twice as many as among pre-schoolers.

The majority of pre-schoolers had never made a dental visit (67.7%), but those who had visited had similar visiting patterns to older children. Parents of pre-schoolers were less likely than those of teenagers to report that they had avoided or delayed taking their child for a dental visit due to the cost. However, this may reflect a lower level of intention to visit, rather than greater affordability for this age group. Teenagers were more likely than children aged 5–11 to have had cost prevent the recommended treatment and to report that dental visits were a large financial burden.

Pre-schoolers received fewer check-up services than older children and teenagers were more likely than children aged 5–11 to receive scale and clean services, X-rays and orthodontic care. However, children aged 5–11 received more fillings than did teenagers. Teenagers were more likely than children aged 5–11 to report a need for a scale and clean and for orthodontic care.

Differences across geographic location

There were few differences in measures of self-reported oral health, dental visiting patterns and experience of financial barriers and hardship by geographic location. The first of these differences was a lower proportion of children from *Remote/Very remote* areas experiencing toothache. These children were also less likely to have visited between 1 and 2 years ago, more likely to have visited a public dental clinic and least likely to report a need for an extraction.

Children living in *Major cities* were more likely to receive a fluoride treatment or a scale and clean, and more likely to report a need for orthodontic care, than children from the other areas. Children from *Outer regional* areas were most likely to receive an X-ray and those from *Inner regional* areas were most likely to receive an extraction.

Differences between socioeconomic groups

Children from the lowest income category were more likely to report fair or poor oral health or toothache. There was a gradient by income in visiting patterns, with those in the lowest income category most likely to report avoiding or delaying due to cost and that cost had prevented recommended dental treatment. Children from the highest income category households were least likely to report experiencing each of these.

There was a gradient by income in visiting patterns, with those in the lowest income category least likely to visit in the previous 12 months, to visit for a check-up or to visit a

private dental clinic, while those in the highest income category were the most likely to do so. Higher income children were also the most likely to receive a fluoride treatment or a scale and clean. Children from the highest income category were least likely to report needing a filling, and less likely than those from the lowest income category to need a check-up or scale and clean.

Although children who were cardholders consistently reported higher rates of all impacts, the differences between cardholders and non-cardholders were not statistically significant. However, children who were cardholders were less likely to have recently made a dental visit and more likely to have visited for a problem. They were also more likely to have avoided or delayed making a dental visit due to cost and to report that dental visits in the previous 12 months had been a large financial burden. Children who were cardholders were more likely to have received a filling and more likely to report the need for a check-up or a filling.

Differences by dental insurance status

Children who were covered by private health insurance that included insurance for some or all of the cost of dental care were less likely than uninsured children to report fair or poor oral health. They were also more likely to have made a dental visit in the previous 12 months and to have visited a private dental clinic. Insured children were less likely to have avoided or delayed making a dental visit due to cost and have had cost prevent recommended treatment, but not to report that dental visits were a large financial burden. Insured children were more likely to receive a fluoride treatment, a scale and clean or orthodontic care, but less likely to receive a filling. They were also less likely to report that they needed a check-up, a filling or an extraction than uninsured children.

Differences by financial barriers and hardships

Experience of financial barriers was higher among older children, those living in lower income households, cardholders and uninsured children. Avoiding or delaying due to cost was associated with a lower rate of visiting in the previous 12 months and lower rate of visiting for a check-up. Children who did not have the recommended treatment due to cost were less likely to have visited for a check-up. Dental costs were more likely to be a large financial burden for children who last visited a private dental clinic. Children who visited for a problem were more likely to report fair or poor oral health, or to report having experienced toothache or avoiding foods due to oral problems.

Children who experienced a financial barrier or burden were also more likely to report fair or poor oral health, experience of toothache or that they avoided food due to oral problems than children who did not experience the barrier or hardship.

Reporting a perceived need for care was usually associated with not having visited in the previous 12 months, and with visiting for a problem among those who did visit. It was also associated with higher rates of fair or poor oral health. Those who reported a need for a filling were more likely to have last visited a public dental clinic, while those who reported a need for orthodontic care were more likely to have last visited a private dental clinic.

International comparisons

A limited amount of information is available on which to make comparisons between children who live in Australia and those from other countries. Two countries that have recently published data comparable with those reported in this publication are New Zealand and Canada.

Selected measures of self-reported oral health and dental visiting for New Zealand are shown in Table 8.1. Overall, a smaller proportion of Australian children aged 2–17 reported that they had fair or poor oral health than their counterparts in New Zealand (5.3% compared with 12.6%). The difference was most evident in the 5–11 and 12–17 age groups, where children from New Zealand were twice as likely to report fair or poor oral health. However, there were no differences in experience of toothache between children in the two countries.

Overall, Australian children were less likely to have made a dental visit than children from New Zealand (69.4% compared with 81.2%). The differences were most evident in the 2–4 age group (28.4% compared with 59.7%) and the 5–11 age group (75.5% compared with 90.3%).

Table 8.1: Comparison between Australia and New Zealand for selected oral health and dental visiting measures for children (per cent)

	Age group (years)	Australia	New Zealand
Fair or poor oral health	2–4	1.7	4.9
	5–11	6.2	13.9
	12–17	6.1	14.4
	2–17	5.3	12.6
Prevalence of having experienced toothache (sometimes, often or always) in the last 12 months	2–4	2.6	1.4
	5–11	7.5	7.8
	12–17	9.1	9.6
	2–17	6.8	7.0
Visited a dental professional in previous 12 months	2–4	28.4	59.7
	5–11	75.5	90.3
	12–17	81.8	79.9
	2–17	69.4	81.2

Note: 95% confidence intervals for these estimates are in Table B8.1.

Source: New Zealand data sourced from Ministry of Health (2010).

Comparisons of selected oral health and dental visiting measures for Canada and Australia are shown in Table 8.2. The Canadian results have been reported in different age groups than those used in earlier parts of this report. For Table 8.2, estimates for Australian children are included in the age groups used in the Canadian report, to allow ease of comparison.

Although there was no difference between the two countries in the proportion of children aged 5–11 who reported fair or poor oral health, children aged 12–19 from Canada were more likely than their Australian counterparts to do so (11.4% compared with 6.2%).

There were no differences in proportions avoiding any foods due to oral problems.

Although Australian children aged 6–11 were less likely than their Canadian counterparts to have made a dental visit in the previous 12 months (77.6% compared with 84.0%), there was no such difference for those aged 12–19.

Similar proportions of children aged 6–11 avoided or delayed making a dental visit due to cost. Almost twice as many Australians aged 12–19 delayed visiting, compared with their counterparts in Canada (18.8% compared with 9.5%).

There were no differences for either age group in the proportion reporting that they did not have a recommended treatment because of cost.

Table 8.2: Comparison between Australia and Canada for selected oral health and dental visiting measures for children (per cent)

	Age group (years)	Australia	Canada ^(a)
Fair or poor oral health ^(b)	6–11	6.8	8.2
	12–19	6.2	11.4
Prevalence of having avoided food (sometimes, often or always) in the last 12 months ^(c)	6–11	9.5	7.6
	12–19	12.3	12.5
Visited a dental professional in previous 12 months ^(d)	6–11	78.8	91.0
	12–19	77.6	84.0
Avoided or delayed due to cost ^(e)	6–11	12.5	11.4
	12–19	18.8	9.5
Did not received recommended treatment ^(f)	6–11	4.1	7.7
	12–19	10.6	8.9

(a) 2007–09

(b) In Canada, participants were asked: 'In general, would you say the health of your mouth is excellent, very good, good, fair, poor?'

(c) In Canada, participants were asked: 'In the past 12 months, how often have you avoided eating particular foods because of problems with your mouth?'

(d) In Canada, participants were asked: 'When was the last time you saw a dental professional?'

(e) In Canada, participants were asked: 'In the past 12 months, have you avoided going to a dental professional because of the cost of dental care?'

(f) In Canada, participants were asked: 'In the past 12 months, have you avoided having all the treatment that was recommended because of cost?'

Note: 95% confidence intervals for these estimates are in appendix table B8.2

Source: Canadian data sourced from (Statistics Canada 2010)

Appendix A: Data used in this report

National Dental Telephone Interview Survey

Purpose

The purposes of the National Dental Telephone Interview Survey (NDTIS) are to:

- collect basic features of oral health and dental care within the Australian population
- provide information on the broader parameters of oral health and access to services
- monitor the extent of social inequalities within the dental sector
- investigate the underlying reasons behind dental behaviours and the consequences of these behaviours.

Data collection

Data were collected from a random sample of people across Australia via telephone interview. The AIHW Dental Statistics and Research Unit (DSRU) was responsible for the selection and management of the data collection phase. Experienced interviewers conducted telephone interviews using computer-assisted telephone interview software. Data collected included measures of self-reported oral health status, use of and access to dental services, social impact of oral health, financial burden of dental care and dental insurance.

Sampling procedure and weighting

The 2010 NDTIS involved a random sample of Australian residents aged 2 and over in all states and territories. The sample was selected using a two-stage stratified design. The first stage of selection involved selecting an initial sample of people aged 18 and over from the Commonwealth electoral roll by the Australian Electoral Commission (AEC). Electoral roll records do not contain telephone numbers, so the records were matched against the Sensis® MacroMatch database (which uses the same source data as other Sensis® products such as EWP and White Pages Online) to append a residential telephone number. Records from the AEC sample that matched to EWP by surname and address and returned a telephone number (either landline or mobile number) formed the basis of the 2010 NDTIS sampling frame. Households listed on this frame were stratified by state and region (metropolitan/non-metropolitan) and a systematic sample of households was selected from within each stratum. Once telephone contact was made with a selected household; the second stage of selection involved randomly selecting one person aged 2 or over from the household.

Data were weighted to account for a person's probability of selection, which was based on the stratum they were assigned to and the number of children resident in their household who were eligible for selection. Data were further adjusted to reflect the age by sex ERP estimates produced by the ABS.

The data quality statement for the 2010 NDTIS is available from the AIHW website at: <http://meteor.aihw.gov.au/content/index.phtml/itemId/519645>.

Appendix B: Confidence intervals for tables

Table B2.1: 95% CIs for Table 2.1

Sex	Fair or poor oral health ^(a)	Toothache ^(b)	Avoid food ^(c)	Any oral health impact ^(d)
Male	3.5, 6.0	4.7, 7.8	7.1, 10.4	9.6, 13.5
Female	4.6, 8.1	6.3, 10.1	8.5, 12.7	11.2, 15.7
All children	4.4, 6.5	5.9, 8.3	8.2, 10.9	10.9, 13.9

- (a) Percentage of children reporting that they had 'fair' or 'poor' oral health.
- (b) Percentage of children reporting that they had experienced toothache 'very often', 'often' or 'sometimes' during the previous 12 months.
- (c) Percentage of children reporting that they had avoided certain foods 'very often', 'often' or 'sometimes' during the previous 12 months.
- (d) Percentage of children reporting that they had experienced toothache 'very often', 'often' or 'sometimes' during the previous 12 months or that they had avoided certain foods 'very often', 'often' or 'sometimes' during the previous 12 months.

Table B2.2: 95% CIs for Table 2.2

Age group (years)	Fair or poor oral health ^(a)	Toothache ^(b)	Avoid food ^(c)	Any oral health impact ^(d)
2–4	0.5, 5.2	0.7, 8.7	2.5, 10.1	2.6, 10.2
5–11	4.6, 8.2	5.9, 9.6	6.9, 10.6	9.8, 14.2
12–17	4.6, 8.0	6.9, 10.5	10.5, 14.8	13.9, 18.6
All children	4.4, 6.5	5.9, 8.3	8.2, 10.9	10.9, 13.9

- (a) Percentage of children reporting that they had 'fair' or 'poor' oral health.
- (b) Percentage of children reporting that they had experienced toothache 'very often', 'often' or 'sometimes' during the previous 12 months.
- (c) Percentage of children reporting that they had avoided certain foods 'very often', 'often' or 'sometimes' during the previous 12 months.
- (d) Percentage of children reporting that they had experienced toothache 'very often', 'often' or 'sometimes' during the previous 12 months or that they had avoided certain foods 'very often', 'often' or 'sometimes' during the previous 12 months.

Table B2.3: 95% CIs for Table 2.3

Geographic location	Fair or poor oral health ^(a)	Toothache ^(b)	Avoid food ^(c)	Any oral health impact ^(d)
Major cities	3.7, 6.2	5.3, 8.3	8.5, 12.0	10.7, 14.4
Inner regional	3.9, 8.0	5.5, 10.3	6.0, 10.8	8.9, 14.6
Outer regional	4.8, 13.4	5.5, 15.8	6.4, 14.0	10.6, 21.8
Remote/Very remote	1.4, 27.5	1.0, 4.2	1.8, 10.9	2.5, 11.7
All children	4.4, 6.5	5.9, 8.3	8.2, 10.9	10.9, 13.9

- (a) Percentage of children reporting that they had 'fair' or 'poor' oral health.
- (b) Percentage of children reporting that they had experienced toothache 'very often', 'often' or 'sometimes' during the previous 12 months.
- (c) Percentage of children reporting that they had avoided certain foods 'very often', 'often' or 'sometimes' during the previous 12 months.
- (d) Percentage of children reporting that they had experienced toothache 'very often', 'often' or 'sometimes' during the previous 12 months or that they had avoided certain foods 'very often', 'often' or 'sometimes' during the previous 12 months.

Table B2.4: 95% CIs for Table 2.4

	Fair or poor oral health ^(a)	Toothache ^(b)	Avoid food ^(c)	Any oral health impact ^(d)
Annual household income				
Less than \$30,000	7.4, 17.1	7.8, 17.4	8.5, 19.1	11.7, 23.4
\$30,000–<\$50,000	4.2, 11.4	5.5, 15.5	4.9, 14.4	7.9, 18.0
\$50,000–<\$80,000	3.1, 7.9	4.5, 9.4	6.8, 11.9	9.6, 15.8
\$80,000–<\$110,000	2.7, 6.5	5.0, 9.8	8.2, 13.5	10.2, 15.9
\$110,000 or more	2.3, 5.5	3.0, 6.2	6.3, 10.7	8.3, 13.2
Cardholder status				
Cardholder	5.3, 10.8	7.2, 14.7	8.6, 16.4	11.4, 19.8
Non-cardholder	3.7, 6.0	5.1, 7.4	7.6, 10.3	10.2, 13.2
All children	4.4, 6.5	5.9, 8.3	8.2, 10.9	10.9, 13.9

(a) Percentage of children reporting that they had 'fair' or 'poor' oral health.

(b) Percentage of children reporting that they had experienced toothache 'very often', 'often' or 'sometimes' during the previous 12 months.

(c) Percentage of children reporting that they had avoided certain foods 'very often', 'often' or 'sometimes' during the previous 12 months.

(d) Percentage of children reporting that they had experienced toothache 'very often', 'often' or 'sometimes' during the previous 12 months or that they had avoided certain foods 'very often', 'often' or 'sometimes' during the previous 12 months.

Table B2.5: 95% CIs for Table 2.5

Insurance status	Fair or poor oral health ^(a)	Toothache ^(b)	Avoid food ^(c)	Any oral health impact ^(d)
Insured	3.0, 5.2	4.4, 7.5	8.5, 12.3	10.6, 14.6
Uninsured	5.3, 9.1	6.8, 10.6	6.8, 10.6	10.1, 14.6
All children	4.3, 6.5	5.9, 8.3	8.2, 10.9	10.9, 13.9

(a) Percentage of children reporting that they had 'fair' or 'poor' oral health.

(b) Percentage of children reporting that they had experienced toothache 'very often', 'often' or 'sometimes' during the previous 12 months.

(c) Percentage of children reporting that they had avoided certain foods 'very often', 'often' or 'sometimes' during the previous 12 months.

(d) Percentage of children reporting that they had experienced toothache 'very often', 'often' or 'sometimes' during the previous 12 months or that they had avoided certain foods 'very often', 'often' or 'sometimes' during the previous 12 months.

Table B3.1: 95% CIs for Table 3.1

Sex	Time since last dental visit ^(a)				Reason for last dental visit ^(b)		Type of practice ^(b)	
	<12 months	1–<2 years	2–<5 years	5+ years	Check-up	Problem	Private	Public
Male	64.6, 70.9	10.4, 14.7	1.7, 3.7	14.7, 20.2	82.3, 87.6	12.4, 17.7	68.9, 75.5	24.5, 31.1
Female	67.8, 74.2	7.8, 11.9	1.9, 4.0	13.8, 19.5	80.5, 86.3	13.7, 19.5	70.2, 76.7	23.3, 29.8
All	67.1, 71.6	9.7, 12.7	2.0, 3.5	15.0, 18.9	82.3, 86.2	13.8, 17.7	70.5, 75.1	24.6, 29.5

(a) The category '5+ years' includes children who have never made a dental visit.

(b) Children who made a dental visit in the previous 12 months.

Table B3.2: 95% CIs for Table 3.2

Age group (years)	Time since last dental visit ^(a)				Reason for last dental visit ^(b)		Type of practice ^(b)	
	<12 months	1–<2 years	2–<5 years	5+ years	Check-up	Problem	Private	Public
2–4	23.1, 34.5	2.2, 6.2	0.0, 0.5	61.6, 73.3	70.2, 92.4	7.6, 29.8	71.8, 89.3	10.7, 28.2
5–11	72.3, 78.8	10.7, 16.3	1.3, 3.3	7.0, 11.3	79.6, 85.6	14.4, 20.4	58.8, 66.4	33.7, 41.2
12–17	79.1, 84.2	10.3, 14.4	3.2, 6.1	0.8, 3.1	83.3, 88.2	11.8, 16.7	78.8, 84.2	15.8, 21.2
All children	67.1, 71.6	9.7, 12.7	2.0, 3.5	15.0, 18.9	82.3, 86.2	13.8, 17.7	70.5, 75.1	24.6, 29.5

(a) The category '5+ years' includes children who have never made a dental visit.

(b) Children who made a dental visit in the previous 12 months.

Table B3.3: 95% CIs for Table 3.3

Geographic location	Time since last dental visit ^(a)				Reason for last dental visit ^(b)		Type of practice ^(b)	
	<12 months	1–<2 years	2–<5 years	5+ years	Check-up	Problem	Private	Public
Major cities	67.4, 73.0	8.6, 12.2	2.1, 4.0	14.2, 19.1	82.1, 87.1	12.9, 17.9	76.7, 82.0	18.0, 23.3
Inner regional	61.5, 71.0	11.4, 18.4	1.0, 3.7	13.4, 21.7	78.0, 86.0	14.0, 22.0	58.9, 69.3	30.7, 41.1
Outer regional	62.1, 76.1	6.9, 15.7	1.2, 5.6	11.9, 24.6	80.8, 90.9	9.1, 19.2	46.5, 63.2	36.8, 53.5
Remote/Very remote	58.3, 82.7	1.2, 6.2	0.4, 5.2	13.6, 37.8	70.1, 91.5	8.5, 29.9	12.4, 39.7	60.4, 87.6
All children	67.1, 71.6	9.7, 12.7	2.0, 3.5	15.0, 18.9	82.3, 86.2	13.8, 17.7	70.5, 75.1	24.6, 29.5

(a) The category '5+ years' includes children who have never made a dental visit.

(b) Children who made a dental visit in the previous 12 months.

Table B3.4: 95% CIs for Table 3.4

	Time since last dental visit ^(a)				Reason for last dental visit ^(b)		Type of practice ^(b)	
	<12 months	1–<2 years	2–<5 years	5+ years	Check-up	Problem	Private	Public
Annual household income								
Less than \$30,000	46.7, 63.4	9.7, 21.3	2.8, 10.4	17.6, 33.6	62.4, 81.1	18.9, 37.6	34.1, 55.2	44.8, 65.9
\$30,000–<\$50,000	51.2, 65.4	12.4, 22.9	1.9, 7.3	15.0, 27.9	65.1, 82.6	17.4, 34.9	28.2, 74.5	25.5, 41.8
\$50,000–<\$80,000	62.4, 72.2	10.0, 17.4	0.8, 3.3	13.8, 22.3	81.6, 88.9	11.1, 18.4	59.3, 70.0	30.0, 40.7
\$80,000–<\$110,000	69.8, 77.9	6.8, 11.8	1.5, 3.8	11.4, 18.5	80.7, 87.7	12.3, 19.3	72.8, 80.9	19.1, 27.2
\$110,000 or more	73.8, 80.8	5.8, 9.8	1.0, 2.9	10.5, 16.6	88.3, 93.0	7.0, 11.7	81.3, 87.5	12.5, 18.7
Cardholder status								
Cardholder	48.6, 60.5	13.7, 23.2	2.2, 6.4	18.5, 29.7	66.9, 81.0	19.0, 33.1	47.1, 61.6	38.4, 52.9
Non-cardholder	70.9, 75.5	8.0, 10.8	1.7, 3.2	13.2, 17.2	84.3, 88.0	12.0, 15.7	74.1, 78.7	21.3, 25.8
All children	67.1, 71.6	9.7, 12.7	2.0, 3.5	15.0, 18.9	82.3, 86.2	13.8, 17.7	70.5, 75.1	24.6, 29.5

(a) The category '5+ years' includes children who have never made a dental visit.

(b) Children who made a dental visit in the previous 12 months.

Table B3.5: 95% CIs for Table 3.5

Insurance status	Time since last dental visit ^(a)				Reason for last dental visit ^(b)		Type of practice ^(b)	
	<12 months	1–<2 years	2–<5 years	5+ years	Check-up	Problem	Private	Public
Insured	73.7, 79.0	6.8, 10.0	1.2, 2.6	13.5, 11.3	84.0, 88.8	11.2, 16.0	82.2, 86.5	13.5, 17.8
Uninsured	57.4, 64.7	12.0, 17.2	2.6, 5.2	17.7, 24.3	77.5, 84.2	15.8, 22.5	51.2, 60.0	40.3, 48.8
All children	67.1, 71.6	9.7, 12.7	2.0, 3.5	15.0, 18.9	82.3, 86.2	13.8, 17.7	70.5, 75.1	24.6, 29.5

(a) The category '5+ years' includes children who have never made a dental visit.

(b) Children who made a dental visit in the previous 12 months.

Table B4.1: 95% CIs for Table 4.1

Sex	Avoided or delayed due to cost	Cost prevented recommended treatment ^{(a)(b)}	Dental visits in previous 12 months were a large financial burden ^{(a)(b)}	Experienced any financial barrier or hardship	
Male		11.5, 16.0	4.5, 8.1	7.5, 11.5	24.5, 31.1
Female		10.8, 15.6	5.0, 8.5	11.1, 15.9	27.4, 34.4
All children		11.8, 15.0	5.1, 7.7	9.8, 12.9	26.8, 31.6

(a) Children and teenagers whose last dental visit was in the previous 12 months.

(b) Question only asked for children aged 5 and over.

B4.2: 95% CIs for Table 4.2

Age group (years)	Avoided or delayed due to cost	Cost prevented recommended treatment ^{(a)(b)}	Dental visits in previous 12 months were a large financial burden ^{(a)(b)}	Experienced any financial barrier or hardship	
2–4		5.4, 13.7	..	..	..
5–11		10.0, 14.9	2.5, 5.5	4.8, 8.7	18.5, 25.1
12–17		14.1, 19.3	6.9, 10.9	13.6, 18.4	30.1, 36.6
All children		11.8, 15.0	5.1, 7.7	9.8, 12.9	26.8, 31.6

(a) Children and teenagers whose last dental visit was in the previous 12 months.

(b) Question only asked for children aged 5 and over.

Table B4.3: 95% CIs for Table 4.3

Geographic location	Avoided or delayed due to cost	Cost prevented recommended treatment ^{(a)(b)}	Dental visits in previous 12 months were a large financial burden ^{(a)(b)}	Experienced any financial barrier or hardship	
Major cities		11.5, 15.5	5.2, 8.5	9.5, 13.2	26.6, 36.6
Inner regional		10.9, 17.6	4.2, 9.9	9.3, 15.9	25.7, 35.7
Outer regional		7.8, 19.4	1.8, 5.7	5.4, 17.4	17.9, 34.7
Remote/Very remote		4.1, 17.7	1.3, 16.9	3.8, 25.6	12.1, 37.0
All children		11.8, 15.0	5.1, 7.7	9.8, 12.9	26.8, 31.6

(a) Children and teenagers whose last dental visit was in the previous 12 months.

(b) Question only asked for children aged 5 and over.

Table B4.4: 95% CIs for Table 4.4

	Avoided or delayed due to cost	Cost prevented recommended treatment ^{(a)(b)}	Dental visits in previous 12 months were a large financial burden ^{(a)(b)}	Experienced any financial barrier or hardship
Annual household income				
Less than \$30,000	22.5, 37.7	8.0, 22.2	5.6, 15.6	40.4, 59.3
\$30,000–<\$50,000	16.0, 27.0	5.6, 14.7	12.1, 24.3	38.5, 54.5
\$50,000–<\$80,000	11.2, 18.4	6.0, 12.2	8.3, 15.0	26.4, 36.9
\$80,000–<\$110,000	8.1, 14.0	3.8, 8.5	9.0, 15.6	21.7, 30.5
\$110,000 or more	3.0, 5.9	1.2, 4.0	7.0, 11.8	12.4, 18.4
Cardholder status				
Cardholder	17.8, 27.6	6.6, 14.0	12.1, 21.6	39.9, 53.4
Non-cardholder	9.5, 12.7	4.4, 7.1	8.8, 12.0	22.8, 27.7
All children	11.8, 15.0	5.1, 7.7	9.8, 12.9	26.8, 31.6

(a) Children and teenagers whose last dental visit was in the previous 12 months.

(b) Question only asked for children aged 5 and over.

Table B4.5: 95% CIs for Table 4.5

Insurance status	Avoided or delayed due to cost	Cost prevented recommended treatment ^{(a)(b)}	Dental visits in previous 12 months were a large financial burden ^{(a)(b)}	Experienced any financial barrier or hardship
Insured	5.5, 8.8	2.8, 5.3	9.1, 12.9	18.0, 23.3
Uninsured	17.7, 23.6	7.1, 12.2	9.6, 14.8	36.4, 44.6
All children	11.8, 15.0	5.1, 7.7	9.8, 13.0	26.8, 31.7

(a) Children and teenagers whose last dental visit was in the previous 12 months.

(b) Question only asked for children aged 5 and over.

Table B4.6: 95% CIs for Table 4.6

Financial hardship or barrier	1994	1996	1999	2002	2005	2007	2010
Avoided or delayed due to cost	12.0, 17.0	7.1, 11.2	7.4, 12.2	8.0, 12.7	7.0, 10.3	12.8, 18.7	12.7, 16.2
Cost prevented recommended treatment	5.0, 8.9	6.5, 10.7	4.9, 8.7	3.3, 6.6	4.0, 6.8	5.1, 9.6	5.1, 7.7
Dental visit in previous 12 months were a large financial burden	4.2, 8.4	5.6, 10.1	5.3, 10.2	6.3, 11.6	7.6, 11.4	5.7, 10.4	9.8, 12.9

Table B5.1: 95% CIs for Table 5.1

Sex	Fluoride treatment ^(a)		Sealant ^(a)		Scale and clean ^(a)		Oral hygiene instruction ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Males	28.8, 35.5	0.38, 0.49	8.6, 12.7	0.17, 0.27	62.1, 69.1	0.79, 0.90	43.3, 50.6	0.57, 0.78
Females	28.4, 35.4	0.36, 0.45	10.5, 15.2	0.23, 0.35	60.5, 67.6	0.78, 0.89	40.4, 47.7	0.52, 0.63
All children	29.6, 34.4	0.38, 0.46	10.1, 13.2	0.21, 0.29	62.4, 67.3	0.02, 0.80	42.9, 48.1	0.57, 0.69

(a) Question asked for respondents aged 5 and over only.

Table B5.2: 95% CIs for Table 5.2

Sex	Check-up		X-ray ^(a)		Filling		Extraction		Orthodontics ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Males	96.2, 98.1	1.39, 1.54	29.3, 36.0	0.41, 0.52	18.1, 24.0	0.30, 0.43	3.7, 7.3	0.05, 0.11	18.0, 23.4	0.77, 1.10
Females	95.2, 97.8	1.37, 1.52	33.0, 40.0	0.47, 0.59	20.3, 26.8	0.36, 0.51	4.9, 9.0	0.09, 0.18	23.6, 30.0	0.98, 1.32
All children	96.0, 97.6	1.4, 1.51	32.1, 36.9	0.45, 0.54	20.0, 24.4	0.35, 0.45	4.9, 7.6	0.08, 0.13	21.5, 25.6	0.92, 1.62

(a) Question asked for respondents aged 5 and over only.

Table B5.3: 95% CIs for Table 5.3

Age group (years)	Fluoride treatment ^(a)		Sealant ^(a)		Scale and clean ^(a)		Oral hygiene instruction ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
2–4	..	..	..	..	..	..	..	..
5–11	24.9, 31.7	0.32, 0.42	10.7, 15.6	0.24, 0.37	51.4, 59.1	0.65, 0.76	43.3, 51.0	0.55, 0.66
12–17	32.3, 39.1	0.41, 0.52	8.4, 12.3	0.15, 0.25	71.2, 77.0	0.92, 1.02	40.5, 47.3	0.55, 0.75
All children	29.6, 34.4	0.38, 0.46	10.1, 13.2	0.21, 0.29	62.4, 67.3	0.02, 0.80	42.9, 48.1	0.57, 0.69

(a) Question asked for respondents aged 5 and over only.

Table B5.4: 95% CIs for Table 5.4

Age group (years)	Check-up		X-ray ^(a)		Filling		Extraction		Orthodontics ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
2–4	95.7, 100.0	1.03, 1.18	..	..	6.8, 29.9	0.08, 0.39	0.9, 14.1	0.01, 0.28	..	..
5–11	96.4, 98.8	1.35, 1.50	26.2, 33.1	0.36, 0.48	22.5, 29.5	0.41, 0.59	5.4, 10.2	0.08, 0.16	10.4, 15.1	0.29, 0.48
12–17	94.7, 97.0	1.45, 1.63	35.9, 42.6	0.51, 0.63	17.1, 22.5	0.28, 0.39	3.2, 5.9	0.05, 0.12	30.9, 37.1	1.47, 1.88
All children	96.0, 97.6	1.4, 1.51	32.1, 36.9	0.45, 0.54	20.0, 24.4	0.35, 0.45	4.9, 7.6	0.08, 0.13	21.5, 25.6	0.92, 1.62

(a) Question asked for respondents aged 5 and over only.

Table B5.5: 95% CIs for Table 5.5

Geographic location	Fluoride treatment ^(a)		Sealant ^(a)		Scale and clean ^(a)		Oral hygiene instruction ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Major cities	33.0, 39.0	0.44, 0.53	9.4, 13.2	0.20, 0.30	67.6, 73.6	0.88, 0.98	42.2, 48.5	0.57, 0.73
Inner regional	20.4, 30.5	0.24, 0.36	10.4, 17.3	0.20, 0.36	47.5, 58.3	0.57, 0.72	39.8, 50.6	0.49, 0.65
Outer regional	15.6, 29.8	0.17, 0.34	6.0, 16.0	0.08, 0.29	45.5, 62.7	0.56, 0.83	38.2, 55.4	0.46, 0.73
Remote/ Very remote	8.1, 33.5	0.06, 0.36	5.4, 29.1	0.00, 0.74	28.6, 62.3	0.36, 0.73	31.0, 65.2	0.34, 0.93
All children	29.6, 34.4	0.38, 0.46	10.1, 13.2	0.21, 0.29	62.4, 67.3	0.02, 0.80	42.9, 48.1	0.57, 0.69

(a) Question asked for respondents aged 5 and over only.

Table B5.6: 95% CIs for Table 5.6

Geographic location	Check-up		X-ray ^(a)		Filling		Extraction		Orthodontics ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Major cities	96.4, 98.4	1.38, 1.49	31.6, 37.5	0.44, 0.55	17.1, 22.5	0.29, 0.40	4.4, 7.8	0.07, 0.12	22.5, 27.6	0.93, 1.24
Inner regional	93.3, 97.1	1.30, 1.54	27.7, 37.9	0.38, 0.55	26.3, 36.5	0.46, 0.74	3.0, 8.2	0.04, 0.14	16.8, 24.7	0.74, 1.19
Outer regional	95.1, 99.1	1.40, 2.00	31.5, 48.4	0.43, 0.72	15.0, 27.3	0.23, 0.49	4.6, 14.2	0.06, 0.42	12.8, 26.0	0.48, 1.19
Remote/ Very remote	87.6, 99.7	1.07, 1.76	16.3, 45.3	0.18, 0.58	9.8, 31.6	0.13, 0.59	0.1, 5.1	0.0, 0.07	9.7, 36.1	0.18, 2.33
All children	96.0, 97.6	1.4, 1.51	32.1, 36.9	0.45, 0.54	20.0, 24.4	0.35, 0.45	4.9, 7.6	0.08, 0.13	21.5, 25.6	0.92, 1.62

(a) Question asked for respondents aged 5 and over only.

Table B5.7: 95% CIs for Table 5.7

	Fluoride treatment ^(a)		Sealant ^(a)		Scale and clean ^(a)		Oral hygiene instruction ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Annual household income								
Less than \$30,000	18.5, 36.8	0.22, 0.65	8.3, 21.0	0.13, 0.37	53.8, 74.0	0.68, 1.02	32.0, 52.5	0.39, 0.68
\$30,000–<\$50,000	20.4, 35.8	0.23, 0.41	6.5, 16.5	0.11, 0.36	50.0, 66.9	0.59, 0.81	41.1, 58.1	0.40, 1.23
\$50,000–<\$80,000	21.2, 30.9	0.26, 0.38	9.4, 16.8	0.05, 0.37	54.1, 65.1	0.66, 0.81	37.5, 48.5	0.47, 0.62
\$80,000–<\$110,000	27.4, 36.8	0.36, 0.49	9.5, 15.5	0.19, 0.34	61.9, 71.2	0.80, 0.97	40.7, 50.5	0.52, 0.68
\$110,000 or more	36.3, 45.2	0.47, 0.60	8.0, 13.1	0.16, 0.30	65.7, 73.9	0.86, 1.00	42.4, 51.4	0.59, 0.76
Cardholder status								
Cardholder	21.9, 34.6	0.26, 0.50	9.5, 18.9	0.18, 0.40	55.2, 69.3	0.70, 0.93	39.2, 53.4	0.43, 0.99
Non-cardholder	30.3, 35.5	0.39, 0.47	9.7, 12.9	0.21, 0.29	62.8, 68.0	0.80, 0.89	42.7, 48.2	0.57, 0.66
All children	29.6, 34.3	0.38, 0.46	10.0, 13.1	0.21, 0.29	62.4, 67.3	0.02, 0.80	42.9, 48.1	0.57, 0.69

(a) Question asked for respondents aged 5 and over only.

Table B5.8: 95% CIs for Table 5.8

	Check-up		X-ray ^(a)		Filling		Extraction		Orthodontics ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Annual household income										
Less than \$30,000	96.2, 99.6	1.27, 1.71	26.7, 46.4	0.35, 0.65	23.0, 42.8	0.36, 0.77	1.9, 13.0	0.03, 0.18	8.1, 19.6	0.31, 0.89
\$30,000–<\$50,000	94.2, 98.5	1.25, 1.76	24.3, 39.2	0.35, 0.60	23.4, 41.2	0.48, 0.99	4.2, 16.4	0.05, 0.23	14.6, 27.1	0.54, 1.46
\$50,000–<\$80,000	94.0, 98.2	1.28, 1.52	30.5, 40.8	0.42, 0.61	17.5, 25.9	0.30, 0.52	2.9, 7.3	0.04, 0.12	15.1, 23.0	0.57, 1.01
\$80,000–<\$110,000	94.8, 98.4	1.33, 1.51	31.7, 41.2	0.43, 0.60	18.7, 27.1	0.28, 0.43	3.7, 8.4	0.05, 0.16	20.4, 28.3	0.86, 1.34
\$110,000 or more	95.7, 98.3	1.39, 4.55	28.4, 36.7	0.39, 0.54	13.0, 19.4	0.19, 0.30	2.4, 6.4	0.04, 0.15	25.4, 33.4	0.12, 1.48
Cardholder status										
Cardholder	95.7, 99.1	1.37, 1.77	30.9, 44.4	0.43, 0.64	24.5, 39.3	0.39, 0.64	2.8, 11.6	0.04, 0.14	14.0, 23.6	0.54, 1.20
Non-cardholder	95.8, 97.6	1.38, 1.48	31.4, 36.5	0.44, 0.53	18.3, 22.6	0.32, 0.43	4.7, 7.4	0.08, 0.14	22.4, 26.8	0.94, 1.20
All children	96.0, 97.6	1.40, 1.51	32.0, 36.9	0.45, 0.54	19.9, 24.3	0.35, 0.45	4.9, 7.6	0.08, 0.13	21.5, 25.6	0.92, 1.62

(a) Question asked for respondents aged 5 and over only.

Table B5.9: 95% CIs for Table 5.9

Insurance status	Fluoride treatment ^(a)		Sealant ^(a)		Scale and clean ^(a)		Oral hygiene instruction ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Insured	35.7, 41.9	0.47, 0.58	8.5, 12.1	0.17, 0.26	69.9, 75.5	0.93, 1.02	44.3, 50.7	0.60, 0.70
Uninsured	18.8, 26.2	0.22, 0.32	11.2, 16.7	0.24, 0.39	49.0, 57.8	0.03, 0.71	38.5, 47.1	0.47, 0.72
All children	29.7, 34.5	0.38, 0.46	10.1, 13.2	0.22, 0.29	62.4, 67.3	0.02, 0.80	43.0, 48.2	0.57, 0.69

(a) Question asked for respondents aged 5 and over only.

Table B5.10: 95% CIs for Table 5.10

	Check-up		X-ray ^(a)		Filling		Extraction		Orthodontics ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Insured	95.6, 97.8	1.44, 1.57	31.9, 37.9	0.45, 0.55	16.8, 22.2	0.26, 0.35	4.0, 7.2	0.06, 0.12	24.6, 30.1	1.04, 1.36
Uninsured	95.9, 98.2	1.28, 1.47	30.2, 38.3	0.42, 0.56	22.5, 30.1	0.44, 0.64	4.8, 9.6	0.07, 0.17	15.2, 21.1	0.63, 1.00
All children	96.0, 97.6	1.4, 1.51	32.0, 36.9	0.45, 0.54	19.9, 24.3	0.35, 0.45	4.9, 7.6	0.08, 0.13	21.5, 25.6	0.92, 1.62

(a) Question asked for respondents aged 5 and over only.

Table B5.11: 95% CIs for Table 5.11

	Fluoride treatment ^(a)		Sealant ^(a)		Scale and clean ^(a)		Oral hygiene instruction ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Check-up	29.9, 35.2	0.39, 0.47	9.0, 12.3	0.19, 0.27	63.8, 69.1	0.82, 0.91	42.1, 47.7	0.56, 0.70
Problem	23.4, 35.4	0.28, 0.46	13.0, 22.4	0.26, 0.50	49.3, 62.9	0.60, 0.81	41.9, 55.4	0.53, 0.74
All children	29.6, 34.4	0.38, 0.46	10.1, 13.2	0.21, 0.29	62.4, 67.3	0.02, 0.80	42.9, 48.1	0.57, 0.69

(a) Question asked for respondents aged 5 and over only.

Table B5.12: 95% CIs for Table 5.12

	Check-up		X-ray ^(a)		Filling		Extraction		Orthodontics ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Check-up	96.7, 98.3	1.40, 1.50	26.9, 31.8	0.37, 0.45	14.6, 18.7	0.23, 0.31	2.9, 5.2	0.05, 0.10	20.1, 24.4	0.86, 1.12
Problem	90.6, 96.2	1.30, 1.66	55.6, 69.0	0.83, 1.09	45.6, 59.2	0.88, 1.30	12.1, 23.5	0.18, 0.36	25.1, 36.7	0.99, 1.65
All children	96.0, 97.6	1.4, 1.51	32.1, 36.9	0.45, 0.54	20.0, 24.4	0.35, 0.45	4.9, 7.6	0.08, 0.13	21.5, 25.6	0.92, 1.62

(a) Question asked for respondents aged 5 and over only.

Table B5.13: 95% CIs for Table 5.13

	Fluoride treatment ^(a)		Sealant ^(a)		Scale and clean ^(a)		Oral hygiene instruction ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Private	35.1, 41.0	0.46, 0.55	9.2, 12.8	0.20, 0.29	70.2, 75.4	0.92, 1.00	42.5, 48.4	0.57, 0.73
Public	12.8, 20.0	0.15, 0.24	9.8, 15.8	0.20, 0.35	39.3, 49.6	0.46, 0.60	40.5, 51.0	0.50, 0.64
All children	29.6, 34.3	0.38, 0.46	10.0, 13.1	0.21, 0.29	62.4, 67.3	0.02, 0.80	42.9, 48.1	0.57, 0.69

(a) Question asked for respondents aged 5 and over only.

Table B5.14: 95% CIs for Table 5.14

	Check-up		X-ray ^(a)		Filling		Extraction		Orthodontics ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Private	95.8, 97.7	1.47, 1.61	32.7, 38.3	0.46, 0.56	16.3, 21.1	0.26, 0.35	3.8, 6.6	0.6, 0.13	26.2, 31.3	32.7, 38.3
Public	95.6, 98.5	1.18, 1.29	27.0, 36.5	0.37, 0.53	23.7, 36.6	0.53, 0.81	5.8, 12.4	0.08, 0.18	7.4, 12.6	27.0, 36.5
All children	96.0, 97.6	1.4, 1.51	32.0, 36.9	0.45, 0.54	19.9, 24.3	0.35, 0.45	4.9, 7.6	0.08, 0.13	21.5, 25.6	32.0, 36.9

(a) Question asked for respondents aged 5 and over only.

Table B5.15: 95% CIs for Table 5.15

Financial hardship or barrier	Fluoride treatment ^(a)		Sealant ^(a)		Scale and clean ^(a)		Oral hygiene instruction ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Avoided or delayed due to cost								
Yes	23.1, 39.1	0.25, 0.60	7.7, 18.1	0.14, 0.45	51.9, 68.3	0.64, 0.92	36.7, 53.8	0.45, 0.70
No	25.5, 34.6	0.38, 0.46	9.8, 13.0	0.21, 0.29	62.9, 58.1	0.81, 0.89	42.9, 48.3	0.57, 0.70
Cost prevented recommended treatment^(b)								
Yes	30.5, 50.9	0.39, 0.94	9.4, 23.2	0.18, 0.54	61.7, 80.7	0.77, 1.08	36.9, 57.3	0.51, 0.93
No	28.9, 33.8	0.37, 0.44	9.7, 12.9	0.21, 0.29	61.8, 66.9	0.79, 0.87	42.8, 48.1	0.56, 0.69
Dental visits were a large financial burden^(b)								
Yes	32.5, 47.1	0.42, 0.75	9.5, 19.2	0.19, 0.44	55.7, 70.0	0.74, 1.03	44.0, 58.6	0.59, 1.42
No	28.4, 33.5	0.37, 0.44	9.6, 12.9	0.21, 0.29	62.5, 67.8	0.79, 0.88	42.0, 47.5	0.54, 0.62
Any financial barrier or burden								
Yes	29.4, 40.2	0.38, 0.58	11.5, 19.0	0.25, 0.46	58.2, 69.0	0.75, 0.95	42.2, 53.3	0.56, 1.01
No	28.5, 33.8	0.37, 0.44	8.9, 12.2	0.19, 0.27	62.4, 68.0	0.80, 0.88	41.9, 47.8	0.54, 0.63
All children	29.6, 34.3	0.38, 0.46	10.0, 13.1	0.21, 0.29	62.4, 67.3	0.02, 0.80	42.9, 48.1	0.57, 0.69

(a) Question asked for respondents aged 5 and over only.

(b) Children who made a dental visit in the previous 12 months only.

Table B5.16: 95% CIs for Table 5.16

Financial hardship or barrier	Check-up		X-ray ^(a)		Filling		Extraction		Orthodontics ^(a)	
	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean	Per cent	Mean
Avoided or delayed due to cost										
Yes	91.2, 97.8	1.23, 1.54	38.4, 55.5	0.53, 0.81	24.6, 40.8	0.46, 0.68	2.5, 10.7	0.04, 0.16	15.8, 28.4	0.54, 1.09
No	96.3, 97.9	1.40, 1.52	30.5, 35.5	0.43, 0.52	18.6, 23.2	0.32, 0.42	4.8, 7.7	0.08, 0.14	21.6, 25.9	0.94, 1.20
Cost prevented recommended treatment^{(a)(b)}										
Yes	90.6, 99.5	1.30, 1.81	40.4, 61.3	0.56, 0.88	23.6, 43.3	0.47, 1.04	3.2, 12.9	0.04, 0.19	18.5, 35.6	0.50, 1.08
No	96.0, 97.7	1.42, 1.54	30.7, 35.7	0.43, 0.52	19.5, 24.0	0.34, 0.44	4.5, 7.3	0.07, 0.12	21.3, 25.5	0.94, 1.19
Dental visits were a burden^{(a)(b)}										
Yes	88.0, 95.6	1.75, 2.48	54.3, 68.5	0.87, 1.20	24.4, 34.6	0.45, 0.86	3.4, 10.2	0.06, 0.18	61.7, 76.1	3.76, 5.10
No	96.7, 98.2	1.34, 1.42	28.5, 33.6	0.38, 0.48	17.8, 22.7	0.33, 0.44	4.7, 7.6	0.07, 0.13	15.9, 19.8	0.52, 0.71
Any financial barrier or burden										
Yes	90.5, 95.7	1.52, 1.92	45.1, 52.3	0.68, 0.90	24.4, 34.6	0.49, 0.77	3.9, 8.7	0.06, 0.14	37.5, 48.3	2.01, 2.82
No	97.0, 98.5	1.34, 1.45	27.3, 32.6	0.37, 0.45	17.8, 22.7	0.29, 0.40	4.6, 7.8	0.08, 0.14	16.2, 20.3	0.56, 0.76
All children	96.0, 97.6	1.4, 1.51	32.0, 36.9	0.45, 0.54	19.9, 24.3	0.35, 0.45	4.9, 7.6	0.08, 0.13	21.5, 25.6	0.92, 1.62

(a) Question asked for respondents aged 5 and over only.

(b) Children who made a dental visit in the previous 12 months only.

Table B6.1: 95% CIs for Table 6.1

Sex	Check-up	Scale and clean ^(a)	Filling	Extraction	Orthodontics ^(a)	Other ^(a)
Male	51.9, 58.1	40.1, 46.6	7.7, 11.4	2.8, 4.9	18.4, 23.5	2.9, 5.2
Female	52.5, 59.0	36.3, 43.0	8.8, 13.0	5.0, 8.1	23.1, 29.0	3.6, 6.6
All children	53.1, 57.6	39.2, 43.9	8.7, 11.5	4.1, 6.0	21.4, 25.3	3.5, 5.4

(a) Question asked for respondents aged 5 and over only.

Table B6.2: 95% CIs for Table 6.2

Age group (years)	Check-up	Scale and clean ^(a)	Filling	Extraction	Orthodontics ^(a)	Other ^(a)
2–4	43.6, 56.5	..	0.3, 3.8	0.0, 1.8	..	..
5–11	53.1, 60.0	34.2, 41.2	8.8, 13.4	3.9, 7.0	15.1, 20.2	2.7, 5.3
12–17	53.6, 59.8	42.3, 48.7	10.4, 15.0	4.8, 8.0	26.4, 32.1	3.4, 6.1
All children	53.2, 57.7	39.2, 43.9	8.7, 11.4	4.1, 5.9	21.4, 25.3	3.4, 5.3

(a) Question asked for respondents aged 5 and over only.

Table B6.3: 95% CIs for Table 6.3

Geographic location	Check-up	Scale and clean^(a)	Filling	Extraction	Orthodontics^(a)	Other^(a)
Major cities	54.0, 59.5	40.7, 46.5	7.7, 11.0	3.7, 5.9	22.0, 27.0	3.3, 5.6
Inner regional	49.2, 58.5	33.4, 43.0	9.4, 15.7	3.6, 7.6	16.3, 23.8	1.8, 5.5
Outer regional	44.5, 59.0	29.4, 44.9	5.0, 13.3	2.3, 9.5	18.2, 30.9	2.2, 9.5
Remote/Very remote	29.8, 58.4	13.4, 41.3	0.0, 18.9	0.0, 1.7	5.4, 21.6	0.0, 8.1
All children	53.2, 57.7	39.2, 43.9	8.7, 11.4	4.1, 5.9	21.4, 25.3	3.4, 5.3

(a) Question asked for respondents aged 5 and over only.

Table B6.4: 95% CIs for Table 6.4

	Check-up	Scale and clean^(a)	Filling	Extraction	Orthodontics^(a)	Other^(a)
Annual household income						
Less than \$30,000	55.9, 71.9	45.6, 63.0	10.8, 23.0	3.2, 11.4	16.6, 30.9	1.9, 10.2
\$30,000–<\$50,000	53.6, 67.5	37.4, 51.8	9.9, 20.1	3.5, 9.6	15.4, 27.0	1.5, 6.2
\$50,000–<\$80,000	49.7, 59.3	33.8, 43.8	6.9, 12.3	2.7, 6.2	16.7, 24.7	2.2, 5.5
\$80,000–<\$110,000	50.6, 59.1	36.5, 45.5	7.3, 12.8	2.8, 6.3	19.3, 26.7	2.6, 9.8
\$110,000 or more	47.4, 55.3	34.0, 42.1	3.2, 6.2	2.5, 5.5	23.2, 30.7	2.4, 5.6
Cardholder status						
Cardholder	56.7, 68.2	40.4, 52.7	11.9, 20.4	3.5, 8.1	18.5, 28.8	4.2, 10.2
Non-cardholder	51.2, 56.0	37.8, 42.8	7.1, 9.8	3.8, 5.8	21.2, 25.3	2.7, 4.5
All children	55.4	41.5	10.0	5.0	23.3	4.4

(a) Question asked for respondents aged 5 and over only.

Table B6.5: 95% CIs for Table 6.5

Insurance status	Check-up	Scale and clean^(a)	Filling	Extraction	Orthodontics^(a)	Other^(a)
Insured	49.0, 54.8	37.3, 43.3	5.7, 8.7	3.1, 2.5	22.6, 27.7	2.8, 5.1
Uninsured	56.1, 63.1	39.4, 46.9	11.0, 15.9	4.3, 7.5	18.1, 24.0	3.4, 6.4
All children	53.2, 57.7	39.2, 43.9	8.7, 11.4	4.1, 5.9	21.4, 25.3	3.4, 5.3

(a) Question asked for respondents aged 5 and over only.

Table B6.6: 95% CIs for Table 6.6

Type of care	Visited in the last 12 months		Reason for last visit ^(a)		Type of practice visited ^(a)		Fair or poor oral health	
	Yes	No	Check-up	Problem	Private	Public	Yes	No
Check-up								
Yes	56.8, 63.1	36.9, 43.2	78.2, 83.6	16.4, 21.8	66.0, 72.1	27.9, 34.0	5.8, 9.1	90.9, 94.2
No	78.2, 84.2	15.8, 21.8	84.5, 89.5	10.5, 15.2	66.9, 73.4	26.6, 33.1	1.5, 3.9	96.1, 98.5
Scale and clean^(b)								
Yes	65.8, 73.1	26.9, 34.3	76.1, 82.6	17.4, 23.9	65.9, 73.0	27.0, 34.1	7.8, 12.2	87.8, 92.2
No	83.1, 87.8	12.2, 16.9	84.7, 89.1	10.9, 15.3	65.2, 71.3	28.7, 34.8	2.1, 4.8	95.2, 97.9
Filling								
Yes	57.3, 71.8	28.2, 42.7	63.8, 77.1	22.9, 36.2	49.3, 64.0	36.0, 50.7	19.4, 32.2	67.8, 80.6
No	68.0, 72.7	27.3, 32.1	83.5, 87.4	12.6, 16.5	69.0, 73.6	26.4, 31.1	2.1, 3.9	96.1, 97.9
Extraction								
Yes	75.7, 90.0	10.1, 24.3	54.9, 73.9	26.1, 45.1	57.1, 76.5	23.5, 42.9	13.8, 30.5	69.6, 86.2
No	66.4, 71.1	28.9, 33.6	83.2, 87.0	13.0, 16.8	67.5, 72.1	27.9, 32.5	3.3, 5.3	94.7, 96.7
Ortho^(b)								
Yes	82.0, 89.5	10.5, 18.0	73.6, 81.4	18.6, 26.4	75.5, 83.0	16.9, 24.5	8.1, 13.9	86.1, 92.0
No	74.4, 79.4	20.6, 25.6	83.8, 88.0	12.0, 16.2	62.7, 68.3	31.8, 37.3	3.4, 6.1	93.9, 96.6
Other^(a)								
Yes	78.1, 93.7	6.3, 21.9	63.3, 82.7	17.3, 36.7	57.9, 77.8	22.2, 42.1	8.3, 24.9	75.1, 91.7
No	76.1, 80.5	19.5, 23.9	82.5, 86.2	13.8, 17.5	66.4, 71.1	28.9, 33.6	4.5, 6.9	93.1, 95.5

(a) Asked for children who made a dental visit in the previous 12 months only.

(b) Question asked for respondents aged 5 and over only.

Table B6.7: 95% CIs for Table 6.7

Type of care	Avoided or delayed due to cost		Cost prevented recommended treatment ^(a)		Dental visits were a large financial burden ^(a)		Any burden	
	Yes	No	Yes	No	Yes	No	Yes	No
Check-up								
Yes	17.0, 22.4	77.6, 83.0	6.0, 10.0	90.0, 94.0	8.6, 12.9	87.1, 91.4	21.2, 27.6	72.4, 78.9
No	5.5, 9.3	90.7, 94.5	3.1, 6.1	93.9, 96.9	9.5, 13.9	86.1, 90.5	16.4, 22.0	78.0, 83.6
Scale and clean^(b)								
Yes	19.4, 26.1	73.9, 80.6	7.3, 12.4	87.6, 92.7	9.7, 15.1	84.9, 90.3	23.5, 31.3	68.7, 76.5
No	6.5, 9.9	90.1, 93.5	2.9, 5.6	94.4, 97.1	8.7, 12.5	87.5, 91.3	15.8, 20.8	79.2, 84.2
Filling								
Yes	29.4, 43.8	56.2, 70.6	8.7, 20.5	79.5, 91.3	10.2, 22.0	78.0, 89.8	29.5, 46.1	53.9, 70.5
No	9.3, 12.7	87.3, 90.7	4.1, 6.6	93.5, 95.9	9.1, 12.2	87.8, 91.0	17.5, 21.9	78.1, 82.5
Extraction								
Yes	17.1, 33.9	66.1, 82.9	10.0, 27.1	72.9, 90.9	7.2, 19.7	80.3, 92.9	27.1, 47.6	52.4, 72.9
No	11.8, 15.5	84.5, 88.2	4.2, 6.6	93.4, 95.8	9.6, 12.8	87.2, 90.4	18.6, 23.0	77.0, 81.4
Ortho^(b)								
Yes	15.0, 22.7	77.3, 85.0	12.6, 19.9	80.1, 87.4	20.7, 29.0	71.0, 79.3	36.1, 45.7	54.3, 63.9
No	10.8, 14.8	85.2, 89.2	1.9, 4.1	95.9, 98.1	5.3, 8.3	91.7, 94.7	13.0, 17.6	82.4, 87.0
Other^(b)								
Yes	15.9, 36.9	63.1, 84.1	8.6, 25.1	74.9, 91.4	14.8, 35.1	64.9, 85.2	33.4, 57.2	42.8, 66.6
No	12.0, 15.5	84.5, 88.0	4.5, 7.0	93.0, 95.5	9.0, 12.1	87.9, 91.0	18.4, 22.6	77.4, 81.6

(a) Children who made a dental visit in the previous 12 months only.

(b) Question asked of respondents aged 5 and over only.

Table B7.1: 95% CIs for Table 7.1

Financial barrier or hardship	Time since last dental visit				Reason for last visit		Type of clinic	
	<12 months	1–<2 years	2–<5 years	5+ years/ never	Check-up	Problem	Private	Public
Avoided or delayed due to cost								
Yes	44.6, 58.0	15.1, 26.6	3.3, 9.6	14.9, 27.4	66.4, 81.1	18.9, 33.6	55.0, 71.5	28.6, 45.0
No	69.9, 74.6	8.0, 11.0	1.6, 2.7	14.1, 18.2	83.5, 87.5	12.5, 16.5	71.1, 75.9	24.1, 28.9
Cost prevented recommended treatment^(a)								
Yes	..	..	..	..	59.5, 79.2	20.8, 40.5	51.3, 72.1	27.9, 48.7
No	..	..	..	..	83.5, 87.4	12.6, 16.5	70.1, 75.0	25.0, 29.9
Dental costs were a large financial burden^(a)								
Yes	..	..	..	..	64.8, 77.7	22.4, 35.2	87.8, 95.6	4.4, 12.3
No	..	..	..	..	83.8, 88.0	12.1, 16.2	67.8, 72.8	27.2, 32.2
Insured								
Yes	73.8, 79.1	6.7, 9.9	1.1, 2.5		84.2, 89.0	11.0, 15.8	81.8, 86.3	13.7, 18.2
No	57.5, 64.7	11.8, 17.0	2.4, 5.0		77.8, 84.5	15.6, 22.3	51.2, 59.7	40.3, 49.0
All children	67.1, 71.6	9.7, 12.7	2.0, 3.5	15.0, 18.9	82.3, 86.2	13.8, 17.7	70.5, 75.1	26.4, 29.5

(a) Children who made a dental visit in the previous 12 months only.

Table B7.2: 95% CIs for Table 7.2

	Fair or poor oral health	Toothache	Avoid food	Any impact
Time since last dental visit				
<12 months	4.7, 7.3	6.6, 9.7	9.6, 13.0	12.7, 16.5
1–<2 years	3.0, 8.4	3.4, 8.3	3.0, 8.9	5.5, 12.2
2–<5 years	5.9, 24.9	9.5, 35.2	8.4, 31.8	12.8, 39.5
5+ years	0.9, 5.9	1.0, 5.1	2.5, 7.4	2.8, 7.8
Reason for last dental visit				
Check-up	3.8, 6.2	3.9, 6.3	6.9, 9.6	9.2, 12.4
Problem	9.0, 16.9	18.2, 29.4	17.5, 28.9	24.8, 36.7
Type of practice visited				
Private	3.7, 6.4	5.3, 8.8	9.4, 13.5	11.7, 16.0
Public	5.0, 11.5	7.4, 13.9	8.7, 15.2	13.1, 21.1
All children	4.4, 6.5	5.9, 8.3	8.3, 10.9	11.0, 13.9

Table B7.3: 95% CIs for Table 7.3

Financial barrier or hardship	Fair or poor oral health	Toothache	Avoid food	Any impact
Avoided or delayed due to cost				
Yes	8.7, 17.3	9.2, 17.4	11.6, 20.7	14.8, 24.6
No	3.1, 5.1	4.8, 7.3	7.5, 10.2	10.0, 13.1
Cost prevented recommended treatment^(a)				
Yes	14.9, 33.6	13.2, 30.2	17.8, 37.4	25.3, 46.0
No	3.6, 6.1	5.8, 8.7	9.0, 12.2	11.9, 15.6
Dental visits in previous 12 months were a large financial burden^(a)				
Yes	8.4, 18.0	14.2, 26.5	26.5, 39.9	30.1, 44.0
No	3.7, 5.8	4.9, 7.3	6.7, 9.4	9.3, 12.3
Any burden				
Yes	8.5, 14.8	10.7, 17.2	15.1, 22.4	19.0, 27.0
No	2.7, 4.7	4.1, 6.6	6.2, 9.0	8.4, 11.6
All children	4.4, 6.5	5.9, 8.3	8.3, 10.9	11.0, 13.9

(a) Children who made a dental visit in the previous 12 months only.

Table B8.1: 95% CIs for Table 8.1

	Age group (years)	Australia	New Zealand
Fair or poor oral health	2–4	0.5, 5.2	2.2, 8.1
	5–11	4.6, 8.2	9.0, 18.8
	12–17	4.6, 8.0	9.2, 19.6
	2–17	4.4, 6.5	9.4, 15.9
Experienced toothache sometimes, often or always in the last 12 months	2–4	0.7, 8.7	0.4, 3.6
	5–11	5.9, 9.6	5.1, 10.6
	12–17	6.5, 11.7	6.4, 13.6
	2–17	5.5, 8.2	4.7, 9.3
Visited a dental professional in previous 12 months	2–4	23.1, 34.5	51.1, 68.3
	5–11	72.3, 78.8	86.6, 94.1
	12–17	79.1, 84.2	74.3, 85.5
	2–17	67.1, 71.6	77.9, 84.4

Table B8.2: 95% CIs for Table 8.2

	Age group (years)	Australia	Canada
Fair or poor oral health	6–11	4.9, 8.8	6.1, 10.9
	12–19	4.6, 7.8	8.4, 15.2
Avoided certain food sometimes, often or always in the last 12 months	6–11	7.4, 11.6	6.2, 9.3
	12–19	10.3, 14.3	9.6, 16.3
Visited a dental professional in previous 12 months	6–11	75.4, 82.3	88.1, 93.3
	12–19	74.7, 80.6	78.3, 88.4
Avoided or delayed due to cost	6–11	9.8, 15.2	8.2, 15.6
	12–19	16.1, 21.5	7.4, 12.1
Did not received recommended treatment	6–11	2.5, 5.8	5.6, 10.6
	12–19	8.3, 13.0	6.2, 12.7

References

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

Chrisopoulos S, Beckwith K & Harford J 2012. Oral health and dental care in Australia: Key facts and figures 2012. Cat. no. DEN 224 Canberra: AIHW.

Crocombe LA, Broadbent JM, Thomson WM, Brennan DS & Poulton R 2012. Impact of dental visiting trajectory patterns on clinical oral health and oral health-related quality of life. *Journal of Public Health Dentistry* 72:36–44.

Gilbert G, Duncan R, Heft M, Dolan TA & Vogel W 1997. Oral disadvantage among dentate adults. *Community Dentistry and Oral Epidemiology* 25:301–313.

Jackson SL, Vann WF, Kotch JB, Pahel BT & Lee JY 2011. Impact of poor oral health on children's school attendance and performance. *American Journal of Public Health* 101: 1900–1906.

McGrath C & Bedi R 2000. Can dental attendance improve quality of life? *British Dental Journal* 190:262–265.

Mejia G, Amarasena N, Ha D, Roberts-Thomson K & Ellershaw A 2012. Child Dental Health Survey Australia 2007: 30-year trends in child oral health. Dental statistics and research series no. 60. Cat. no. DEN 217. Canberra: AIHW.

Ministry of Health 2010. Our oral health: key findings of the 2009 New Zealand Oral Health Survey. Wellington: Ministry of Health.

Mount G & Hume W 2005. Preservation and restoration of tooth structure, 2nd edn. Sandgate, Queensland: Knowledge Books.

Seirawan H, Faust S & Mulligan R 2012. The impact of oral health on the academic performance of disadvantaged children. *American Journal of Public Health* 102(2):1729–1734.

Shepherd M, Nadanovsky P & Sheiham A 1999. The prevalence and impact of dental pain in 8-year-old school children in Harrow, England. *British Dental Journal* 187(1):38–41.

Statistics Canada 2010. Report on the findings of the oral health component of the Canadian Health Measures Survey 2007-09. Ontario: Minister of Health.

Thomson M, Poulton R, Kruger E & Boyd D 2000. Socio-economic and behavioural risk factors for tooth loss from age 18 to 26 among participants in the Dunedin Multidisciplinary Health and Development Study. *Caries Research* 34:361–366.

UK Department of Health 1994. An oral health strategy for England. London: Department of Health.

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This publication describes the self-reported oral health and dental visiting patterns of Australian children and teenagers in 2010 as well as trends between 1994 and 2010. While the majority of children and teenagers reported good oral health and had made a dental visit in the previous 12 months, almost 30% experienced at least one financial barrier or burden associated with dental care.

Lower rates of dental visiting and greater experience of poor oral health, financial barriers or hardship, and barriers to dental care were all more evident among those from lower income households than those from higher income households.