

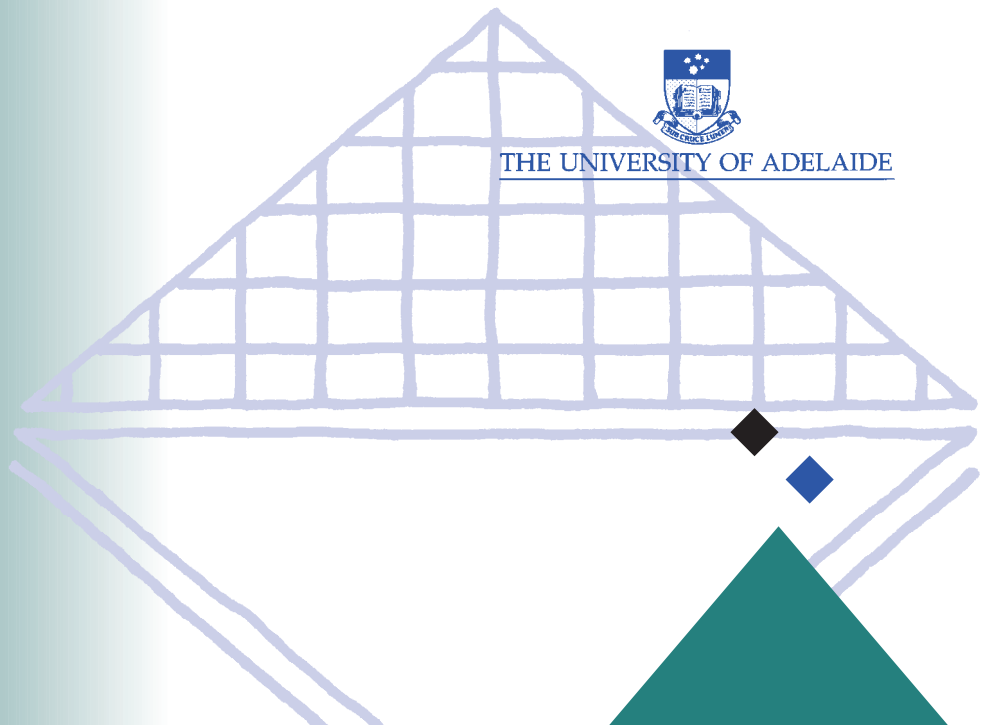
Adult access to dental care

◆ Migrants

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THE UNIVERSITY OF ADELAIDE



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Symbols used

The following symbols are used in the tables of this report:

– nil or rounded to zero

Abbreviations

ADA – Australian Dental Association

AIHW – Australian Institute of Health and Welfare

ANOVA – analysis of variance

CDHP – Commonwealth Dental Health Program

CPITN – Community Periodontal Index of Treatment Need

DF – decayed and filled roots

DMFT – decayed, missing, and filled permanent teeth

MIS – Management Information System

OMR – Optical Mark Read

OR – odds ratio

Explanatory notes

Definition of migrants

Persons surveyed in the National Dental Telephone Interview Survey were asked “In which country were you born?” with the responses being classified into ‘Australian-born’ and ‘overseas-born’. Persons were also asked “Do you speak a language other than English at home?”.

Public-funded dental patients surveyed as part of the Prospective Adult Dental Programs Survey were asked “In what country were you born?” with the responses being classified into ‘Australian-born’ and ‘overseas-born’. They were also asked “Do you speak a language other than English at home?”.

In the tables of this report, persons who reported that they spoke a language other than English at home have been identified under the heading ‘non-English’, and those who reported that they did not speak a language other than English at home have been identified under the heading ‘English only’. Those who reported that they spoke a language other than English at home may or may not have spoken English as well, and no differentiation has been made as to which language they mainly used.

Eligibility

Persons who were eligible for public-funded dental care were those who were covered by a Pensioner Concession Card, a Health Benefits Card, a Health Care Card, or a Commonwealth Seniors Health Card.

Cell numbers

Totals include cases for which data for the explanatory variables may have been missing and therefore row (column) cell counts may not sum to the total row (column) count.

Standard errors and relative standard errors

Estimates from the National Dental Telephone Interview Surveys which have a relative standard error greater than 25% have been identified in the tables. The relative standard error is the standard error of the estimate divided by the estimate itself, expressed as a percentage. In addition to highlighting high relative standard errors, if a percentage estimate had a standard error of greater than 10%, that has also been indicated. This has been done because estimates involving large percentages may have an acceptable relative standard error but may still be highly variable as indicated by a high standard error.

Scope of the report

The findings of this report cover both population estimates (such as the percentage of persons with dental insurance), and estimates based on users of dental services. Estimates for users of dental services have been restricted to either dentate adults whose last visit was less than 12 months ago (including indicators such as reason for last dental visit) or patients who attended for public-funded dental care during the survey period (including indicators such as oral health status at the beginning of a course of care and services received during this public-funded course of care). Estimates based on users of dental services are by definition restricted to those persons who were able to access dental care and therefore may not necessarily be representative of those who did not access dental care during the survey period.

Executive Summary

This report examines oral health and access issues associated with migrants in Australia. To achieve this, measures of oral health and access are broken down by country of birth and language. Findings at the population level are presented from the series of National Dental Telephone Interview Surveys, and the associated Dental Satisfaction Surveys conducted in 1994, 1995 and 1996. These data include adults who have a government concession card (who may be eligible for public-funded dental care), and those who do not. The findings are not restricted by time since last dental visit, and include adults who have not made a recent dental visit. Population estimates are presented on oral health status, access to services, social impact and economic factors, and dental satisfaction.

Findings are also presented for Australian adults who reported that they possessed or were covered by a government concession card which would allow them to access public-funded dental care. The same indicators which were used for the general population were also reported in the chapter which is specifically related to card-holders.

Also presented are findings related to patients receiving public-funded dental care. These data were obtained from the Prospective Adult Dental Programs Survey in 1995–96. Public-funded dental care may include care provided at public dental clinics as well as care provided by private practitioners to eligible patients that is paid for by public funds. Estimates are presented on the type of care received, oral health status, and services provided.

Population

Australian-born adults who spoke English only experienced the highest rates of edentulism, or complete tooth loss (e.g. 16.8% among 45–64-year-olds cf. 8.6% of overseas-born persons). Among dentate persons (those with some natural teeth) aged 45 years or more, Australian-born persons were the group most likely to report wearing a denture.

Among persons aged 18–24 years, the percentage who made a dental visit within the previous 2 years was 70.3% among Australian-born persons, compared with 80.9% of overseas-born persons. Among other age groups the pattern of dental attendance was similar. Overseas-born persons who spoke a language other than English were generally the most likely to report that their last dental visit was for a problem. Overall 61.4% of this group last visited for a problem, compared with 56.2% of Australian-born persons. This group was also most likely to report that their usual reason for a dental visit was for a dental problem. Overseas-born persons who spoke a language other than English had the greatest number of visits, extractions, fillings, and scale and clean services, in the previous 12 months. Comparisons with Australian-born persons who spoke English only were, 2.77 cf. 2.38 visits, 0.33 cf. 0.22 extractions, 1.18 cf. 0.95 fillings, and 1.10 cf. 0.93 scale and clean services.

Persons born overseas who spoke a language other than English had the highest percentage reporting experience of toothache in the previous 12 months, 17.3% compared with 11.6% among Australian-born adults. This group also were the least likely to have dental insurance (30.8% cf. 40.7% among Australian-born adults). Overseas-born persons who spoke a language other than English were also the group most likely to report that dental visits in the last 12 months were a large financial burden (15.8% cf. 9.8% among Australian-born adults), and more likely to have a lot of difficulty in paying a \$100 dental bill (20.3% cf. 13.4% among Australian-born adults).

Dental satisfaction scores for persons who spoke a language other than English at home, and for those born overseas were significantly lower (analysis of variance) on all four measurement scales than for those who spoke English only or who were born in Australia. On a scale of 1 to 5, overall satisfaction scores ranged from 3.99 and 4.10 for overseas-born and Australian-born persons who spoke a non-English language, to 4.21 and 4.27 for overseas-born and Australian-born persons who spoke English only. These are large differences given the nature of satisfaction scores. Significantly lower (ANOVA) mean satisfaction scores were recorded by younger age groups, males, those who usually visited for a dental problem rather than for a check-up, those experiencing financial hardship, and uninsured persons. Within these groups differences by language and country of birth persisted, with the lowest satisfaction scores being measured among persons who spoke a language other than English. Differences by language were 3.70 cf. 4.14 for the 18–24 age group, males 4.00 cf. 4.23, those who usually visited for a dental problem 3.77 cf. 4.14, difficulty with a \$100 dental bill 3.79 cf. 3.94 and uninsured persons 3.85 cf. 4.16. Language barriers appeared to be a greater disadvantage than being overseas-born in accessing dental care that the patient found satisfactory.

Across the population measures presented, persons born overseas who spoke a language other than English were found to generally have the least favourable results. This was the group most likely to: have last visited for a dental problem, report that they usually visit for a dental problem, have more extractions, more fillings, more scale and clean services, experience more toothache, not be insured, report that the cost of dental visits in the previous 12 months was a large financial burden, and report a lot of difficulty in paying a \$100 dental bill.

Card-holders

Australian-born card-holders who spoke English only experienced the highest rate of edentulism (e.g. among persons aged 45–64 years, 31.5% were edentulous compared with 16.4% among overseas-born card-holders).

Among dentate card-holders who visited in the previous 12 months, those born overseas were more likely to have last visited for a dental problem (73.8%) than Australian-born card-holders (61.0%). There were no clear patterns in the usual reason for a dental visit by age group, country of birth, and language spoken. Overseas-born card-holders who spoke a language other than English at home made more dental visits in the previous 12 months than Australian-born card-holders (2.66 cf. 2.46 visits), and had more extractions (0.63 cf. 0.34), and fillings (1.35 cf. 1.02).

Overseas-born card-holders who spoke a language other than English were more likely to have experienced toothache in the previous 12 months (25.9% among those born in Australia, and 19.6% among those born overseas) compared with card-holders who spoke English only (approximately 13%). These overseas-born card-holders who spoke a language other than English were also the least likely to have dental insurance (11.0% cf. 21.4% among Australian-born card-holders), and the most likely to have a lot of difficulty in paying a \$100 dental bill (37.8% cf. 31.9% among Australian-born card-holders).

Greater differences in dental satisfaction scores by language (3.70 for persons who spoke a non-English language cf. 4.17 for English only) and country of birth (3.97 for overseas-born cf. 4.15 for Australian-born) occurred among card-holders than among their non-card-holder counterparts, with the lowest scores recorded by those card-holders who spoke a language other than English at home. (Population mean, 4.24; significantly lower (ANOVA) dental satisfaction scores recorded by card-holders than non-card-holders).

Among card-holders, overseas-born persons who spoke a language other than English were the group which generally had the least favourable results. This group was the most likely to: have last visited for a dental problem, made more visits in the previous 12 months, had more extractions and fillings, experienced more toothache, be uninsured, and have a lot of difficulty in paying a \$100 dental bill.

Public-funded dental patients

Among public-funded dental patients there were consistent differences in type of care received, with higher percentages of emergency treatment received by patients born overseas (65.0%) compared to those born in Australia (49.8%). However, patterns of oral health were not consistently better or worse in the case of overseas-born patients.

Overseas-born patients had lower percentages of edentulism compared to Australian-born patients (5.2% cf. 10.3%). Among overseas patients who were dentate there were lower percentages with periodontal health and higher percentages with periodontal pockets of 6+ mm compared to Australian-born patients (3.5% cf. 11.1% and 16.8% cf. 6.8%). Some of these differences in periodontal status may be due to a survivor effect associated with different levels of tooth loss.

Overall coronal caries experience (decayed, missing and filled permanent teeth, or DMFT) was similar for Australian-born and overseas-born patients (13.98 cf. 13.84), but this varied by age and there were some differences in the components of DMFT. Root caries experience (DF) was higher among overseas-born patients than Australian-born patients (0.86 cf. 0.56), but the absolute contribution of root caries to total caries experience was small.

Differences in service provision by country of birth/language spoken persisted after controlling for age, geographic location, type of care, indigenous status, numbers of decayed teeth, numbers of missing teeth, numbers of decayed tooth roots, and the presence of periodontal pockets. For example, significant differences were found between the reference category of Australian-born patients who spoke English only, and overseas-born patients who spoke a non-English language for diagnostic (Odds ratio (OR) = 5.02), preventive (OR = 0.70), periodontic (OR = 0.54), endodontic (OR = 0.50), restorative (OR = 0.31), prosthodontic (OR = 0.42), temporary (OR = 0.49) and miscellaneous services (OR = 0.38). Overseas-born patients who spoke English only also had higher odds for diagnostic services (OR = 1.54) and lower odds for restorative (OR = 0.60) and prosthodontic services (OR = 0.56), compared to the reference category of Australian-born patients who spoke English only. These findings indicate cultural differences in service delivery, with variation relating to aspects including the receipt of emergency care and the pattern of services received.

Differences in dental satisfaction scores by language were greater among recipients of public-funded care (3.26 for persons who spoke a non-English language cf. 3.96 for those who spoke English only) than among those persons who received private own-expense care. Lower satisfaction scores were also recorded by overseas-born recipients of public-funded care (3.77 cf. 3.89 for Australian-born), although the differences by country of birth were smaller than those by language spoken. (Population mean, 4.24; satisfaction scores recorded by recipients of public-funded care were significantly lower (ANOVA) than private own-expense care.)

1 Introduction

1.1 Trends in oral health and access issues

Oral health in Australia has shown considerable improvement over recent decades. For example, among children the number of deciduous decayed, missing and filled teeth (dmft) among 6-year-olds declined from 3.13 in 1977, to 2.16 in 1989, and to 1.90 in 1993; and the number of permanent decayed, missing and filled teeth (DMFT) among 12-year-olds declined from 4.79 in 1977, to 1.50 in 1989, and to 1.10 in 1993 (Spencer et al., 1994; Davies and Spencer, 1995).

Oral health has also improved among adults in Australia, with dramatic declines in edentulism. For example, the percentage of persons aged 65 years or more who had no natural teeth declined from 66% in 1979 (Australian Bureau of Statistics, 1980), to 50% in 1987–88 (Barnard, 1993), to 40% in 1994 (Carter et al., 1994).

In private general practice, rates of service per visit have changed between 1983–84 and 1993–94, reflecting changes in oral health and population demographics. Over this period there were increases in rates of diagnostic, preventive, endodontic (root canal), crown and bridge, general/miscellaneous, and orthodontic services, and decreases in rates per visit of prosthodontic (denture) services (Brennan, 1997).

Use of dental services has increased among adults in Australia. For example, among persons aged 65 years or more the percentage who visited in the previous 12 months increased from 21.5% in 1979 (Australian Bureau of Statistics, 1980), to 40.9% in 1993 (AIHW Dental Statistics and Research Unit, 1993).

However, considerable variation underlies the improvements in oral health. For example, in 1993 the percentage of 6-year-old children with no experience of dental caries in the deciduous dentition was 53.2%, while 55.8% of 12-year-olds had no experience of dental caries in the permanent dentition (Davies and Spencer, 1995). There is growing interest in identifying special groups within the population who may be at greater risk of oral disease.

1.2 Social inequality in relation to oral health and access issues

Social inequalities in health have been highlighted through reports of associations between mortality and factors such as occupation, income, ethnic group and social class (Marmot et al., 1987; Feinstein, 1993). Even in countries with universal-access policies for health care, large differentials in mortality and morbidity by social class have been reported (Davey Smith et al., 1990). In 1992 the National Health Strategy identified inequalities in oral health and access to dental services as a major public health issue in Australia (National Health Strategy, 1992).

Use of dental services in Australia has been associated with factors such as age, income, age of leaving school and occupation, while having extractions was also associated with occupation (Roberts-Thomson et al., 1995). Among people on low incomes, card-holders are thought to be particularly at risk of poorer oral health outcomes (AIHW Dental Statistics and Research Unit, 1993). Public patients have about twice the rate of extraction as patients in private general practice (Brennan et al., 1997b). Such findings indicate sources of variation and social inequality in relation to oral health and access issues. Within the Australian population migrants comprise a special interest group who may be disadvantaged in terms of their health and access to services.

1.3 Health patterns of migrants in Australia

In general, the health of migrants in Australia compares favourably with that of individuals born in Australia. Some differences may be attributed to selection effects, with healthier people being more likely to migrate, as a consequence of government selection policies, and as a consequence of greater capacity to migrate (in terms of resources and ability) being associated with higher health status. Self-reported measures of health may also be influenced by language or other cultural barriers. In relation to some specific diseases, including some cancers, diabetes and infectious diseases, migrants have been reported as having worse health than Australian-born persons (AIHW, 1996). Differences in measures of both mortality and morbidity between migrants and those born in Australia have been reported to diminish with increasing length of residence in Australia (AIHW, 1994; 1996).

Dental studies which include ethnicity in Australia, while limited in number, have indicated that migrant groups may be disadvantaged. For example, a study of the oral health of children in Victoria identified high-risk groups which included those with an ethnic background and individuals whose mothers had attained limited education (Calache and Wright, 1987). A study of dental status among South Australian adolescents confirmed that lower socioeconomic groups were disadvantaged, and indicated that some minority ethnic groups had higher caries experience and lower dental service utilisation (Srikandi, 1987). Another study found that gingival health problems of Indo-Chinese refugee children occurred with greater prevalence and severity than those recorded for Australian children (McAllan, 1988). However, other data suggest that the patterns may not be so consistent. For example, the rate of extraction per visit among adult public-funded dental patients in 1994 was higher for those who spoke English only at home than for those who also spoke a language other than English. However, this pattern was reversed in 1995 and 1996 as a result of a decline in extraction rates for those who spoke English only and a slight increase in rates for those who also spoke a language other than English (Brennan et al., 1997a). Lower levels of satisfaction with dental care have been reported by migrants and those who spoke a language other than English at home (Stewart and Spencer, 1995).

1.4 Structure and themes

The next chapter deals with the data sources which form the basis of the findings presented here. The report then addresses the theme of oral health and access issues for migrants in Australia. To achieve this, measures of oral health and access are broken down by country of birth and language. These measures are structured into chapters dealing with successive subsets of people, starting with the population as a whole, then the subset of the population who are card-holders, and then the subset of these card-holders who have attended for public-funded dental care.

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2 Data sources

2.1 National Dental Telephone Interview Surveys

Purpose

The purpose of the National Dental Telephone Interview Surveys was to: collect information on basic features of oral health and dental care within the Australian population; provide information on the broader parameters of dental health and access to services; monitor the extent of social inequities associated with oral health and dental care within the community; and investigate the underlying reasons behind dental behaviours, and their consequences.

Data collection

The National Dental Telephone Interview Surveys selected random samples of Australians aged five years and over from all States and Territories. The surveys were conducted in the first quarter of each year. Interviews were conducted using computer assisted telephone interviewing techniques. Questions were read directly from the computer screen, and responses were entered directly onto the database. Question sequencing was fully automated, and the computer program would only allow valid responses to be entered.

A primary approach letter explaining the nature and purpose of the study was sent to each sampled household approximately ten days prior to the initial phone call. Up to six calls on differing days and times were attempted to make initial contact with the household (excluding engaged calls). After six consecutive calls with no answer the number was designated as 'non-response'. Once contact was made with a household, a person aged five years or more was chosen at random from the household. If this person was at home, they were interviewed (if possible), otherwise a call back time was arranged and up to a further six attempts were made to contact the sampled person. Proxy interviews were conducted for children and for people who were unable to answer questions over the phone – because of a hearing impairment, for example. Additional interviews were conducted in languages other than English (Greek, Italian, Vietnamese, Chinese, Polish and Spanish).

Response levels

Table 2.1 outlines the number of telephone numbers sampled for each survey; the number of telephone numbers which were 'in scope', that is where the number served as a residential number and was not, for example, disconnected or a business number; the number of participants; and the participation rate.

Table 2.1: Participation in the National Dental Telephone Interview Surveys

	1994	1995	1996
Number of sampled phone numbers	12,522	8,509	13,075
Number of phone numbers 'in scope'	11,149	7,305	11,605
Number of participants	7,987	5,101	8,292
% participation	71.6	69.8	71.5

Weighting of data

Data were weighted by household size (the number of persons aged 5 years or more) and by geographic sampling region to account for different sampling probabilities due to the sampling design. The data were also post-stratified and weighted by age and gender within geographic sampling regions to ensure that the weighted data reflect the age and gender distribution of the Australian population for each region as estimated by the Australian Bureau of Statistics.

2.2 Dental Satisfaction Surveys

The content and style of the Dental Satisfaction Surveys reflects a conceptual approach that defines satisfaction as the reaction to salient aspects of the context, content (process) and outcome (result) of the dental care experience.

Purpose

The primary aims of the Dental Satisfaction Surveys were to:

1. examine the differences in satisfaction between card-holders and non-card-holders who were participants in the 1994, 1995, and 1996 National Dental Telephone Interview Surveys; and
2. examine changes over time in the satisfaction among card-holders from the National Dental Telephone Interview Surveys.

Data collection

The statements used in the satisfaction survey were based on the content of existing satisfaction scales, with the items presented as statements pertaining to the personal experience of the respondents at their last dental visit or series of visits.

To investigate if there were other aspects of dental satisfaction not incorporated in the questionnaire, respondents were invited to make comments on aspects of their last dental visit with which they were satisfied or dissatisfied, and to make comments on any other issues. All discrete comments were coded into 23 major categories, based on the most frequently occurring types. The comment types were grouped into the conceptual categories of context, content, outcome, and other.

The participants in the 1994, 1995 and 1996 Dental Satisfaction Surveys were drawn from the group that had participated in the corresponding National Dental Telephone Interview Survey. The participants were informed at the time of their telephone interview that they had been chosen for a further questionnaire, and their address was checked against the details already held in the database. A questionnaire was mailed to the address within a week of the telephone interview. Participants with whom the telephone interview was conducted in a language other than English were excluded from the satisfaction survey.

Sampling rates

Sampled persons from the National Dental Telephone Interview Surveys were dentate, aged 18 years and older, and had made a dental visit within the previous 12 months. All card-holders and one in four non-card-holders were selected. The table below outlines the number of persons sampled and the response rate for each of the three surveys.

Table 2.2: Response rates to the Dental Satisfaction Surveys

	1994	1995	1996
Number selected	1,332	700	1,362
Response rate (%)	84.3	86.2	86.4

Weighting of data

All data were weighted by age, gender and location using the estimated resident population of each State and Territory. This weighting procedure meant that reported percentages were corrected for differences in the probability of selection to represent that portion of the population who were dentate, aged 18 and over, and had made a dental visit within the previous 12 months.

2.3 Prospective Adult Dental Programs Survey

Purpose

This survey obtained details of the oral health status and services received throughout a course of care within public-funded dental programs. The survey was conducted as an on-going monitoring survey throughout the year.

Data collection

Data were collected by State and Territory dental services using manual forms or optical mark read (OMR) scan forms to record oral health data; and computer management information system (MIS) databases to record patient, visit, and service provision details. All data items can be collected on double-sided OMR forms where there is no access to computer MISs. The survey commenced in mid-1995.

Sampling rates

Sampling rates were determined to obtain 595 persons in each of six age groups, to provide 3,570 persons for the larger Australian States. Sample yields of this size enable prevalence estimates for five sub-groups within each age group with a relative standard error of less than 40%. These sampling rates were determined to provide appropriate sample yields based on patient flows and workloads specific to each State and Territory.

Sample yields and mode of collection

The table below outlines the yields obtained up to September 1996 and the mode of collection for each State and Territory.

Table 2.3: Response to the Adult Dental Programs Survey

		NSW	Vic	Qld	SA	WA	Tas	ACT	NT	All
1995–96	Mode	MIS	OMR +MIS	OMR	OMR +MIS	OMR +MIS	OMR	OMR +MIS	OMR	
	Yield	874	1,040	2,628	753	160	359	26	269	6,109

Sample yields obtained in each State/Territory were less than that required to provide specific breakdowns disaggregated within individual States/Territories. However, when aggregated at the national level the sample yield is in excess of that required (i.e. greater than 3,570) to provide acceptable precision at that level of disaggregation.

Weighting

The data were weighted using the estimated number of persons who made their last visit to either a public dental clinic, or public-funded, to a private practice, within the last 12 months, for persons aged 18 years or more from the 1996 National Dental Telephone Interview Survey. This was performed to weight the sample yields from each State and Territory in proportion to the number of public-funded visits for each State and Territory.

3 Population

This chapter presents findings related to the adult Australian population as a whole. It includes persons who have a government concession card (who may be eligible for public-funded dental care), and those who do not. It includes persons who have made private dental visits at their own expense, persons who have received public-funded dental care, and persons who have received care from a private practitioner that was paid for by public funds. Findings in this chapter are not restricted by time since last dental visit, and includes adults who have not made a recent dental visit.

Results are presented on oral health status, access to services, social impact and economic factors, and satisfaction with dental care received. The oral health outcomes presented are dentate status, and use of dentures. Access to services indicators presented are time since last dental visit, reason for last visit, mean number of dental visits and routine services (extractions, fillings, scale and clean), percentage receiving routine services, and usual reason for a dental visit. Social impact and economic factors presented are experience of toothache, dental insurance coverage, financial burden of dental visits, and difficulty in paying a \$100 dental bill.

3.1 Sample yield

Information on 13,577 Australian-born adults and 4,088 overseas-born adults was obtained from the 1994, 1995 and 1996 National Dental Telephone Interview Surveys. Overall, among the adult sample, 74.2% (13,103) were Australian-born and spoke English only, 2.7% (473) were Australian-born and spoke a language other than English at home, 16.4% (2,899) were overseas-born and spoke English only, and 6.7% (1,186) were overseas-born and spoke a language other than English at home.

There was a younger age distribution among Australian-born adults compared with overseas-born adults. Australian-born adults who spoke a language other than English at home had the youngest age distribution, with 78.2% aged under 45 years.

Table 3.1: Age distribution of adults from the National Dental Telephone Interview Surveys by country of birth and language spoken (unweighted)

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
Number	13103	473	13577	2899	1186	4088
Age (%)						
18–24 years	12.3	23.0	12.6	4.3	8.2	5.4
25–44 years	39.1	55.2	39.6	34.8	34.6	34.7
45–64 years	28.3	15.6	27.9	38.0	36.8	37.7
65+ years	20.4	6.1	19.9	22.9	20.4	22.2

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

3.2 Oral health status

Table 3.2 shows the dentate status of the population by country of birth, language spoken, and age group. Edentulism (having no natural teeth) increased across age groups, reflecting both the accumulation of disease experience and changing treatment philosophies over time. Nearly all 18–24-year-olds were dentate (had at least one natural tooth), and less than 2% of 25–44-year-olds were edentulous.

Australian-born persons who spoke English only were the group reporting the highest levels of edentulism. The percentage of 45–64-year-old persons who were edentulous among this group was 16.8% compared with levels of approximately 8% among other groups. Among persons aged 65 years or more, 41.7% of Australian-born persons who spoke English only were edentulous.

Among persons born overseas there was little difference between those who spoke English only at home and those who spoke a language other than English.

Table 3.2: Dentate status of population by country of birth, language spoken and age group

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
18–24 years	<i>n=1606</i>	<i>n=109</i>	<i>n=1715</i>	<i>n=124</i>	<i>n=97</i>	<i>n=221</i>
Dentate	99.8	100.0	99.8	100.0	100.0	100.0
Edentulous	*0.2	–	*0.2	–	–	–
25–44 years	<i>n=5117</i>	<i>n=261</i>	<i>n=5378</i>	<i>n=1010</i>	<i>n=410</i>	<i>n=1420</i>
Dentate	98.4	98.4	98.4	98.1	98.5	98.2
Edentulous	1.6	*1.6	1.6	*1.9	*1.5	*1.8
45–64 years	<i>n=3707</i>	<i>n=74</i>	<i>n=3782</i>	<i>n=1101</i>	<i>n=437</i>	<i>n=1540</i>
Dentate	83.2	92.8	83.4	91.8	90.5	91.4
Edentulous	16.8	*7.2	16.6	8.2	9.5	8.6
65+ years	<i>n=2673</i>	<i>n=29</i>	<i>n=2702</i>	<i>n=664</i>	<i>n=242</i>	<i>n=907</i>
Dentate	58.3	†70.4	58.4	64.3	62.5	63.7
Edentulous	41.7	*29.6	41.6	35.7	37.5	36.3
Total	<i>n=13103</i>	<i>n=473</i>	<i>n=13577</i>	<i>n=2899</i>	<i>n=1186</i>	<i>n=4088</i>
Dentate	88.2	97.5	88.6	90.1	91.0	90.5
Edentulous	11.8	*2.5	11.4	9.9	9.0	9.5

* estimate has a relative standard error greater than 25%

† estimate has a standard error greater than 10%

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

The percentage of dentate adults wearing a denture by country of birth, language spoken, and age group is presented in Table 3.3. As was the case for edentulism, the use of dentures increased with increasing age. Denture use among dentate 25–44-year-olds was highest for overseas-born persons who spoke a language other than English (15.3%), and lowest among Australian-born persons who spoke a language other than English (5.5%).

Australian-born persons who spoke English only had the highest use of dentures among dentate persons aged 45–64 years (37.0%), and also among dentate persons aged 65 years or more (63.8%). For the two oldest age groupings, Australian-born persons were more likely to have reported wearing a denture than overseas-born persons.

Table 3.3: Percentage of persons wearing a denture by country of birth, language spoken and age group – dentate adults

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
Age	<i>n</i>=11093	<i>n</i>=448	<i>n</i>=11542	<i>n</i>=2530	<i>n</i>=1049	<i>n</i>=3581
18–24 years	*1.6	–	*1.4	*3.5	*1.9	*2.6
25–44 years	9.6	*5.5	9.4	8.9	15.3	11.2
45–64 years	37.0	*34.4	36.9	28.7	35.8	31.1
65+ years	63.8	*53.9	63.7	56.5	55.4	56.1
Total	20.6	8.0	20.0	21.5	23.8	22.4

* estimate has a relative standard error greater than 25%

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

3.3 Access to services

Presented in Table 3.4 is the time since last dental visit among dentate adults. Just over half of dentate adults reported that they have made a dental visit within the previous 12 months. Approximately 10% have not visited within the last 5 years.

The greatest differences by country of birth occurred among the 18–24 age group. The percentage of Australian-born persons visiting within the previous 2 years for this group was 70.3%, compared with 80.9% of overseas-born persons. Long-term non-attendance (not visiting for 5 or more years) was lower among 18–24-year-olds for persons born overseas: 5.6% compared with 11.3% of persons born in Australia.

Table 3.4: Time since last dental visit by country of birth, language spoken and age group – dentate adults

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
18–24 years	<i>n</i>=1594	<i>n</i>=108	<i>n</i>=1702	<i>n</i>=123	<i>n</i>=97	<i>n</i>=220
<12 months	52.6	53.7	52.7	58.5	60.0	59.3
1–<2 years	17.1	23.4	17.6	21.6	21.6	21.6
2–<5 years	18.9	*12.0	18.4	*14.0	*13.1	13.5
5+ years	11.3	*10.9	11.3	*5.9	*5.3	*5.6
25–44 years	<i>n</i>=5026	<i>n</i>=256	<i>n</i>=5282	<i>n</i>=993	<i>n</i>=392	<i>n</i>=1385
<12 months	53.3	62.4	53.8	54.1	49.3	52.4
1–<2 years	20.4	19.7	20.4	20.0	21.6	20.6
2–<5 years	16.3	11.5	16.0	14.4	17.2	15.4
5+ years	10.1	*6.4	9.8	11.4	12.0	11.6
45–64 years	<i>n</i>=3007	<i>n</i>=64	<i>n</i>=3072	<i>n</i>=993	<i>n</i>=392	<i>n</i>=1387
<12 months	59.6	48.8	59.3	65.5	63.2	64.7
1–<2 years	17.6	*27.5	17.9	15.6	17.0	16.1
2–<5 years	12.3	*13.3	12.3	11.0	13.2	11.8
5+ years	10.5	*10.4	10.5	7.9	6.5	7.4
65+ years	<i>n</i>=1428	<i>n</i>=18	<i>n</i>=1446	<i>n</i>=414	<i>n</i>=156	<i>n</i>=570
<12 months	62.1	*54.4	62.0	61.6	59.3	60.9
1–<2 years	13.9	*34.2	14.1	15.4	19.5	16.7
2–<5 years	11.7	*5.3	11.6	13.1	*13.9	13.3
5+ years	12.3	*6.1	12.2	9.9	*7.3	9.1
Total	<i>n</i>=11055	<i>n</i>=446	<i>n</i>=11502	<i>n</i>=2523	<i>n</i>=1037	<i>n</i>=3562
<12 months	55.6	58.1	55.7	59.4	56.3	58.3
1–<2 years	18.4	22.0	18.6	18.0	19.9	18.7
2–<5 years	15.3	11.7	15.1	13.0	15.0	13.7
5+ years	10.6	8.2	10.5	9.6	8.8	9.3

* estimate has a relative standard error greater than 25%

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

The reason for last dental visit was asked of persons whose last dental visit was in the previous 12 months, and Table 3.5 reports on the dentate respondents. There were no consistent patterns in the reason for last dental visit by country of birth, language spoken, and age group.

While Australian-born persons who spoke a language other than English at home were the group most likely to have last visited for a check-up among 18–24-year-olds (77.7%), they were also the group the least likely to have last visited for a check-up among 45–64-year-olds (23.3%). Among 25–44-year-olds, the group most likely to visit for a check-up were overseas-born persons who spoke English only (54.7%).

Table 3.5: Reason for last dental visit by country of birth, language spoken and age group – dentate adults whose last dental visit was less than 12 months ago

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
18–24 years	<i>n=790</i>	<i>n=53</i>	<i>n=843</i>	<i>n=65</i>	<i>n=53</i>	<i>n=118</i>
Problem	46.8	*22.3	44.8	38.1	50.6	45.2
Check-up	53.2	77.7	55.2	61.9	49.4	54.8
25–44 years	<i>n=2662</i>	<i>n=147</i>	<i>n=2809</i>	<i>n=523</i>	<i>n=214</i>	<i>n=737</i>
Problem	56.8	60.5	57.0	45.3	62.0	50.9
Check-up	43.2	39.5	43.0	54.7	38.0	49.1
45–64 years	<i>n=1740</i>	<i>n=40</i>	<i>n=1780</i>	<i>n=636</i>	<i>n=243</i>	<i>n=881</i>
Problem	61.5	76.7	61.8	58.9	64.5	60.7
Check-up	38.5	*23.3	38.2	41.1	35.5	39.3
65+ years	<i>n=854</i>	<i>n=11</i>	<i>n=865</i>	<i>n=239</i>	<i>n=100</i>	<i>n=339</i>
Problem	58.0	*55.1	58.0	61.6	64.6	62.5
Check-up	42.0	*44.9	42.0	38.4	35.4	37.5
Total	<i>n=6046</i>	<i>n=251</i>	<i>n=6297</i>	<i>n=1463</i>	<i>n=610</i>	<i>n=2075</i>
Problem	56.4	51.2	56.2	52.3	61.4	55.5
Check-up	43.6	48.8	43.8	47.7	38.6	44.5

* estimate has a relative standard error greater than 25%

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

The data in Table 3.6 relate to dentate adults whose last dental visit was in the previous 12 months. Presented are the mean number of visits, extractions, fillings, and scale and clean services per person in the last 12 months by country of birth, language spoken at home, and age group.

The lowest average number of visits was 1.20 visits reported by Australian-born persons aged 65 years or more who spoke a language other than English at home; this was followed by 18–24-year-old overseas-born persons who spoke English only, who made an average of 1.67 visits in the previous 12 months. Across all age groups combined, persons who spoke English only made fewer visits on average than persons who spoke a language other than English at home.

Among Australian-born persons the mean number of extractions declined from 0.34 per person among 18–24-year-olds to 0.23 per person among 25–44-year-olds. A further decline to 0.15 extractions per person was observed among persons aged 45–65 years. Overall, overseas-born persons who spoke a language other than English at home reported the highest average extraction rate of 0.33 extractions per person, compared with approximately 0.22 extractions per person among the other groups.

With the exception of overseas-born persons who spoke a language other than English at home, the average number of fillings received was lowest among 18–24-year-olds, and relatively constant across the other age groups.

For each age group the average number of scale and clean services per year among persons born overseas was greater than or equal to that for persons born in Australia.

Overall, persons born overseas who spoke a language other than English at home had the greatest number of visits, extractions, fillings, and scale and clean services.

Table 3.6: Mean number of dental visits and routine services in previous 12 months by country of birth, language spoken and age group – dentate adults whose last dental visit was less than 12 months ago

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	(mean)	(mean)	(mean)	(mean)	(mean)	(mean)
Number of visits in last 12 months	<i>n=6037</i>	<i>n=252</i>	<i>n=6289</i>	<i>n=1460</i>	<i>n=602</i>	<i>n=2064</i>
18–24 years	2.58	1.98	2.53	1.67	2.95	2.40
25–44 years	2.28	2.95	2.32	2.27	2.82	2.45
45–64 years	2.44	2.06	2.43	2.57	2.82	2.66
65+ years	2.38	1.20	2.37	2.52	2.09	2.39
<i>Total</i>	<i>2.38</i>	<i>2.56</i>	<i>2.39</i>	<i>2.38</i>	<i>2.77</i>	<i>2.52</i>
Number of extractions in last 12 months	<i>n=6042</i>	<i>n=251</i>	<i>n=6293</i>	<i>n=1465</i>	<i>n=606</i>	<i>n=2072</i>
18–24 years	0.34	*0.32	0.34	*0.30	*0.30	*0.30
25–44 years	0.23	*0.20	0.23	0.15	0.26	0.19
45–64 years	0.15	*0.07	0.15	0.26	*0.44	0.32
65+ years	0.18	–	0.18	*0.34	*0.31	0.33
<i>Total</i>	<i>0.22</i>	<i>0.22</i>	<i>0.22</i>	<i>0.23</i>	<i>0.33</i>	<i>0.27</i>
Number of fillings in last 12 months	<i>n=6027</i>	<i>n=251</i>	<i>n=6278</i>	<i>n=1462</i>	<i>n=600</i>	<i>n=2064</i>
18–24 years	0.67	*0.44	0.65	*0.49	*1.30	0.95
25–44 years	0.98	1.06	0.99	0.98	1.32	1.09
45–64 years	1.04	0.96	1.03	1.07	1.09	1.08
65+ years	1.02	1.13	1.02	0.99	0.82	0.94
<i>Total</i>	<i>0.95</i>	<i>0.88</i>	<i>0.95</i>	<i>0.99</i>	<i>1.18</i>	<i>1.05</i>
Number of scale and cleans in last 12 months	<i>n=5988</i>	<i>n=251</i>	<i>n=6239</i>	<i>n=1457</i>	<i>n=603</i>	<i>n=2062</i>
18–24 years	0.96	0.99	0.97	0.83	1.32	1.11
25–44 years	0.89	0.97	0.90	1.01	1.03	1.02
45–64 years	0.98	1.03	0.98	0.94	1.13	1.00
65+ years	0.96	*0.75	0.96	0.98	0.93	0.96
<i>Total</i>	<i>0.93</i>	<i>0.98</i>	<i>0.94</i>	<i>0.97</i>	<i>1.10</i>	<i>1.01</i>

* estimate has a relative standard error greater than 25%

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

Table 3.7 presents the percentage of persons who had extractions, fillings, and scale and clean services among dentate adults whose last dental visit was in the previous 12 months.

Among Australian-born persons there was a general decline in the percentage of persons who had extractions with increasing age across the first three age groups, from 16.1% to 11.4%.

With the exception of persons born overseas who spoke a language other than English at home, the percentage of persons receiving fillings increased with increasing age. Among overseas-born persons who spoke English only, the percentage receiving fillings in the previous 12 months more than doubled from 26.4% among 18–24-year-olds to 55.6% among persons aged 65 years or more.

For overseas-born persons who spoke a language other than English at home, the highest overall percentage having extractions, fillings, and scale and clean services was recorded.

Table 3.7: Percentage of persons receiving routine dental services in previous 12 months by country of birth, language spoken and age group – dentate adults whose last dental visit was less than 12 months ago

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
Extractions	<i>n=6042</i>	<i>n=251</i>	<i>n=6293</i>	<i>n=1465</i>	<i>n=606</i>	<i>n=2072</i>
18–24 years	15.7	*20.5	16.1	*15.1	*14.9	*14.9
25–44 years	13.6	*15.3	13.7	11.2	16.4	13.0
45–64 years	11.5	*6.8	11.4	14.7	19.4	16.2
65+ years	11.8	–	11.7	15.7	*15.4	15.6
<i>Total</i>	<i>13.2</i>	<i>15.7</i>	<i>13.3</i>	<i>13.4</i>	<i>17.1</i>	<i>14.7</i>
Fillings	<i>n=6027</i>	<i>n=251</i>	<i>n=6278</i>	<i>n=1462</i>	<i>n=600</i>	<i>n=2064</i>
18–24 years	31.1	*28.3	30.9	*26.4	52.2	40.9
25–44 years	49.8	49.1	49.7	47.5	55.4	50.1
45–64 years	54.6	†75.7	55.0	53.1	50.9	52.4
65+ years	55.9	75.7	56.0	55.6	48.3	53.4
<i>Total</i>	<i>48.6</i>	<i>46.3</i>	<i>48.5</i>	<i>49.4</i>	<i>52.5</i>	<i>50.5</i>
Scale and clean	<i>n=5988</i>	<i>n=251</i>	<i>n=6239</i>	<i>n=1457</i>	<i>n=603</i>	<i>n=2062</i>
18–24 years	69.7	72.1	69.9	64.1	83.1	74.8
25–44 years	73.9	69.7	73.6	78.4	78.5	78.4
45–64 years	73.0	†66.4	72.9	74.4	83.8	77.5
65+ years	71.5	†68.3	71.4	66.8	73.5	68.8
<i>Total</i>	<i>72.7</i>	<i>70.0</i>	<i>72.6</i>	<i>74.4</i>	<i>80.6</i>	<i>76.6</i>

* estimate has a relative standard error greater than 25%

† estimate has a standard error greater than 10%

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

All persons were asked whether their usual reason for making a dental visit was for a problem or for a check-up. Table 3.8 presents the results for dentate adults. Overall, approximately 50% of persons reported a problem as their usual reason for a visit, and 50% a check-up.

Among older adults, those who spoke a language other than English at home were more likely to usually attend for a problem than were persons who only spoke English. Approximately 50% of persons aged 65 years or more who only spoke English usually attended for a problem compared with 62.3% of overseas-born persons who spoke a language other than English, and 82.4% of persons born in Australia who spoke a language other than English at home.

Table 3.8: Usual reason for a dental visit by country of birth, language spoken and age group – dentate adults

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
18–24 years	<i>n=1587</i>	<i>n=107</i>	<i>n=1694</i>	<i>n=121</i>	<i>n=97</i>	<i>n=218</i>
Problem	43.9	39.9	43.6	50.3	44.8	47.3
Check-up	56.1	60.1	56.4	49.7	55.2	52.7
25–44 years	<i>n=5011</i>	<i>n=254</i>	<i>n=5265</i>	<i>n=988</i>	<i>n=388</i>	<i>n=1376</i>
Problem	51.8	41.8	51.2	48.0	56.1	50.8
Check-up	48.2	58.2	48.8	52.0	43.9	49.2
45–64 years	<i>n=2988</i>	<i>n=64</i>	<i>n=3053</i>	<i>n=986</i>	<i>n=389</i>	<i>n=1377</i>
Problem	51.6	65.1	51.9	46.3	47.7	46.8
Check-up	48.4	34.9	48.1	53.7	52.3	53.2
65+ years	<i>n=1412</i>	<i>n=18</i>	<i>n=1430</i>	<i>n=406</i>	<i>n=155</i>	<i>n=561</i>
Problem	50.5	82.4	50.8	49.4	62.3	53.5
Check-up	49.5	*17.6	49.2	50.6	37.7	46.5
Total	<i>n=10998</i>	<i>n=443</i>	<i>n=11442</i>	<i>n=2501</i>	<i>n=1029</i>	<i>n=3532</i>
Problem	50.2	44.6	49.9	47.7	52.3	49.4
Check-up	49.8	55.4	50.1	52.3	47.7	50.6

* estimate has a relative standard error greater than 25%

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

3.4 Social impact and economic factors

Dentate participants were asked about their experience of toothache during the previous 12 months. Table 3.9 reports the percentage of persons responding that they experienced toothache ‘very often’, ‘often’, or ‘sometimes’ during the last 12 months.

With the exception of persons born overseas who spoke a language other than English at home, there was a steady decline in the experience of toothache with increasing age. Toothache among 18–24-year-olds was approximately 16% declining to approximately 6% among dentate persons aged 65 years or more.

Overseas-born persons who spoke a language other than English at home reported the greatest experience of toothache across all four age groups. Overall, 17.3% of this group reported toothache in the previous 12 months, compared with approximately 11% among the other groups.

Table 3.9: Experience of toothache^(a) in previous 12 months by country of birth, language spoken and age group – dentate adults

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
Age	n=11079	n=448	n=11528	n=2527	n=1047	n=3575
18–24 years	16.0	*14.8	15.9	*15.3	*20.1	18.0
25–44 years	13.0	*14.9	13.1	12.4	16.9	14.0
45–64 years	7.7	*5.5	7.6	10.3	16.2	12.3
65+ years	5.9	*4.4	5.8	*8.0	18.3	11.2
Total	11.5	13.6	11.6	11.3	17.3	13.5

(a) percentage of persons reporting ‘very often’, ‘often’, or ‘sometimes’ during the last 12 months

* estimate has a relative standard error greater than 25%

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

Dental insurance by country of birth, language spoken at home, and age group is presented in Table 3.10. Dental insurance varied across age groups. Persons aged 45–64 years were the most highly insured, followed by 25–44-year-olds, then 18–24-year-olds, and finally persons aged 65 years or more.

Within each age group, Australian-born persons who spoke English only had the greatest percentage of persons insured. Australian-born persons were also more likely to be insured than persons born overseas. For example 51.5% of 45–64-year-old Australian-born persons had dental insurance compared with 39.7% of overseas-born persons from the same age group.

Among the two most highly insured age groups (45–64-year-olds and 25–44-year-olds), overseas-born persons who spoke a language other than English at home had the lowest levels of dental insurance compared with the other groups.

Table 3.10: Percentage of persons with dental insurance by country of birth, language spoken and age group

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
Age	<i>n=13046</i>	<i>n=468</i>	<i>n=13515</i>	<i>n=2894</i>	<i>n=1179</i>	<i>n=4076</i>
18–24 years	34.1	26.3	33.5	24.3	29.9	27.4
25–44 years	42.0	38.7	41.8	38.0	27.0	34.1
45–64 years	51.6	50.4	51.5	40.8	37.7	39.7
65+ years	27.7	*18.8	27.6	27.1	26.9	27.0
Total	40.9	35.9	40.7	36.3	30.8	34.3

* estimate has a relative standard error greater than 25%

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

Persons who made a dental visit during the previous 12 months were asked how much of a financial burden those visits were. The first half of Table 3.11 presents the percentage of dentate persons for whom those dental visits were a large financial burden. Overseas-born persons who spoke a language other than English at home and were 25–64 years of age had the highest percentage (approximately 17%) reporting that dental visits in the last 12 months were a large financial burden. Among persons aged 65 years or more, Australian-born persons had lower levels reporting a large financial burden (5.3%), than did persons born overseas (approximately 12%).

All persons were asked how much difficulty they would have in paying a \$100 dental bill, and the percentage reporting a lot of difficulty is presented in the second half of Table 3.11. Among persons who spoke English only, there was a general decline in the percentage reporting a lot of difficulty in paying a \$100 dental bill with increasing age. However, among persons who spoke a language other than English at home there was an increase in difficulty with increasing age. Nearly one-quarter of overseas-born persons who spoke a language other than English and were aged 65 years or more reported that they would have a lot of difficulty in paying a \$100 dental bill.

Table 3.11: Affordability and hardship in purchasing dental care by country of birth, language spoken and age group – dentate adults

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
Dental visits in the last 12 months were a large financial burden^(a)	<i>n</i>=6046	<i>n</i>=251	<i>n</i>=6297	<i>n</i>=1457	<i>n</i>=604	<i>n</i>=2063
18–24 years	10.3	*4.4	9.8	*13.3	*11.5	*12.3
25–44 years	10.1	*12.1	10.3	10.7	17.1	12.9
45–64 years	11.0	*11.2	11.0	10.7	17.5	12.9
65+ years	5.3	*5.3	5.3	12.7	*11.5	12.3
<i>Total</i>	9.8	9.7	9.8	11.2	15.8	12.8
A lot of difficulty in paying a \$100 dental bill	<i>n</i>=11064	<i>n</i>=447	<i>n</i>=11512	<i>n</i>=2514	<i>n</i>=1029	<i>n</i>=3545
18–24 years	17.6	*9.4	16.9	19.6	*13.9	16.4
25–44 years	13.6	12.2	13.6	15.7	20.7	17.5
45–64 years	10.5	*21.3	10.7	12.9	21.5	15.8
65+ years	12.6	*22.1	12.7	13.1	24.7	16.6
<i>Total</i>	13.5	12.6	13.4	14.7	20.3	16.7

(a) dentate adults whose last dental visit was less than 12 months ago

* estimate has a relative standard error greater than 25%

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

3.5 Satisfaction scores

This section presents findings related to patient satisfaction with dental care among persons who had made a dental visit within the previous 12 months.

Satisfaction with health care can be regarded as an intermediate outcome of the health care process which reflects the extent to which the care given meets the patients' needs and expectations and provides an acceptable standard of service. The dimensions of satisfaction with dental care incorporated in the Dental Satisfaction Surveys included the context (e.g. ease of making appointment, waiting time, dentist and clinic staff issues), content (e.g. communication, explanation of treatment and options, thoroughness of services), and outcome (e.g. service results and improvement in oral health).

Care which is less satisfactory to the consumer is likely to be less effective. Delay in seeking care, non-compliance with instructions and poor retention of instructions have been shown to be associated with dissatisfaction with outcome (Wilkin et al., 1993¹).

Satisfaction scores are presented by sociodemographic characteristics, dental visiting, and financial burden of dental care reported by the respondents.

Of the 2,770 respondents, 2,078 were Australian-born (75.1%) and 691 were born overseas. Those who spoke a language other than English at home (252) made up only a small part of the sample (9.1%). The majority were Australian-born and spoke English only (72.3%). There were very few respondents (177) who were Australian-born and spoke a language other than English at home (2.7%).

There was a younger age distribution among the Australian-born compared with the overseas-born respondents. It was not practicable to stratify country of birth by age and language, as the cell sizes were very small; however, the Australian-born persons who spoke a language other than English at home were more represented in the younger age groups.

Table 3.12: Distribution by language spoken at home and country of birth (unweighted)

	Language spoken at home		Country of birth		Total
	English only	Non-English	Australia	Other	
Number	2518	252	2078	691	2770
Age (%)					
18–24 years	7.9	13.1	9.9	3.8	8.4
25–44 years	34.0	30.7	35.6	27.8	33.7
45–64 years	32.6	32.7	30.4	39.4	32.6
65+ years	25.5	23.5	24.1	29.1	25.4

Source: 1994, 1995, 1996 Dental Satisfaction Surveys

¹ Wilkin D, Hallam L, Doggett M (1993). Measures of need and outcome for primary health care. New York: Oxford University Press.

Table 3.13 shows the mean satisfaction score by country of birth and language spoken at home. All groups recorded mean scores which indicate satisfaction with their most recent dental visit or series of visits, with scores ranging from 3.96 to 4.33 (measured on a scale of 1 = strongly dissatisfied to 5 = strongly satisfied; with 3 = mid-point).

The lowest mean scores occurred among those who spoke a language other than English at home. Those who spoke English only had higher scores; the Australian-born had the highest scores, while overseas-born individuals in general were mid-way between. Statistical tests (analysis of variance (ANOVA)) showed that the mean scores for those who spoke a non-English language were significantly lower than for the other groups. Among those who spoke a language other than English at home there were no significant differences between the overseas-born and Australian-born groups. Among those who spoke English only, differences by country of birth occurred, with lower context and overall satisfaction scores recorded by the overseas-born (context 4.23 cf. 4.33 and overall satisfaction 4.21 cf. 4.27).

The lowest scores occurred among card-holders who spoke a language other than English at home. Language difference appears to give rise to disadvantage in accessing dental care which is satisfactory to the consumer.

Table 3.13: Mean satisfaction score by country of birth and language spoken at home – dentate adults aged 18+ who visited in the previous 12 months

	Australian-born		Overseas-born		Total
	English only	Non-English	English only	Non-English	
	(mean)	(mean)	(mean)	(mean)	(mean)
	<i>n=2004</i>	<i>n=74</i>	<i>n=514</i>	<i>n=177</i>	<i>n=2770</i>
Context*†	4.33	4.14	4.23	4.06	4.29
Content*	4.24	4.07	4.15	3.96	4.21
Outcome*	4.26	4.17	4.20	3.97	4.23
Satisfaction*†	4.27	4.10	4.21	3.99	4.24

* Sig. $p < 0.05$ one-way ANOVA

† Sig. $p < 0.05$ one-way ANOVAs (by country of birth – English speakers only)

N.B. context = appointment/waiting time, dentist and clinic staff issues

content = communication, explanation of treatment and options, thoroughness of services

outcome = service results, improvement in oral health

Source: 1994, 1995, 1996 Dental Satisfaction Surveys

The following tables present satisfaction scores by language spoken at home and by country of birth, presented side by side to enable comparisons between persons who spoke a language other than English and the overseas-born group. It has been shown in Table 3.13 that those who spoke a language other than English, whether born overseas or in Australia, experienced lower satisfaction with their dental care than the overseas-born who have no language barrier.

Table 3.14 shows the mean satisfaction score by language spoken at home, country of birth and age group. There was considerable variation in mean scores for the aspects of satisfaction with the most recent dental visit or series of visits. Items were rated on a scale of 1 to 5, and the highest mean score, 4.55, was close to the maximum attainable while the lowest, 3.50, was still above the mid-point or neutral area of the scale.

Younger age groups reported lower levels of satisfaction than the older groups, and migrants and individuals who spoke a language other than English at home recorded the lowest mean scores. The greatest differences by language or country of birth occurred in the 18–24 age group, where the overall satisfaction scores were 3.70 for persons who spoke a non-English language, 3.60 for those born overseas and 4.06 for the group as a whole. The smallest differences were observed in the 25–44 age group, and scores then diverged in the older groups, with lower scores evident for persons who spoke a non-English language and intermediate scores recorded by those born overseas.

As may be expected, language barriers appear to constitute a greater disadvantage than being overseas-born in accessing satisfactory dental care.

Table 3.14: Mean satisfaction score for conceptual categories by language spoken at home, country of birth and age group – dentate persons aged 18+ whose last visit was within previous 12 months

	Language spoken		Country of birth		Total
	English only	Non-English	Australia	Overseas	
	(mean)	(mean)	(mean)	(mean)	(mean)
Age†					
18–24 years	n=198	n=33	n=205	n=26	n=231
Context	4.04	3.84	4.08	3.62	4.01
Content	4.20	3.71	4.21	3.59	4.12
Outcome	4.19	3.50	4.16	3.56	4.07
Satisfaction	4.14	3.70	4.15	3.60	4.06
25–44 years	n=853	n=77	n=738	n=191	n=930
Context	4.27	4.07	4.28	4.11	4.25
Content	4.13	4.04	4.14	4.03	4.12
Outcome	4.15	4.15	4.17	4.08	4.15
Satisfaction	4.18	4.06	4.19	4.09	4.17
45–64 years	n=818	n=82	n=629	n=271	n=900
Context	4.40	4.29	4.41	4.33	4.39
Content	4.30	4.13	4.30	4.25	4.29
Outcome	4.33	4.35	4.35	4.29	4.33
Satisfaction	4.34	4.24	4.35	4.29	4.34
65+ years	n=641	n=59	n=500	n=200	n=700
Context	4.50	4.40	4.55	4.34	4.50
Content	4.48	4.17	4.51	4.31	4.46
Outcome	4.47	3.98	4.52	4.22	4.44
Satisfaction	4.48	4.21	4.52	4.31	4.47
All	n=2518	n=252	n=2078	n=691	n=2770
Context*	4.31	4.09	4.32	4.18	4.29
Content*	4.23	3.99	4.24	4.11	4.21
Outcome*	4.25	4.03	4.26	4.13	4.23
Satisfaction*	4.26	4.03	4.27	4.15	4.24

* Sig. $p < 0.05$ one-way ANOVA (language; country of birth)

† Sig. $p < 0.05$ one-way ANOVAs (age group by context, content, outcome and satisfaction)

N.B. context = appointment/waiting time, dentist and clinic staff issues
 content = communication, explanation of treatment and options, thoroughness of services
 outcome = service results, improvement in oral health

Source: 1994, 1995, 1996 Dental Satisfaction Surveys

Table 3.15 shows the mean satisfaction scores recorded by male and female participants. There were statistically significant differences (ANOVA) by gender in the total mean score for each conceptual category, with females reporting higher levels of satisfaction (overall satisfaction 4.27 cf. 4.20 for males). The differences between the groups by country of birth or language spoken at home were independent of gender; those persons who spoke a language other than English at home recorded lower scores than those who spoke English only, with overseas-born persons also reporting lower scores.

The mean satisfaction scores ranged from 3.95 (content for males who spoke a language other than English) to 4.35 (context for females who spoke English only).

Table 3.15: Mean satisfaction score for conceptual categories by language spoken at home, country of birth and gender – dentate persons aged 18+ whose last visit was within previous 12 months

	Language spoken		Country of birth		Total
	English only	Non-English	Australia	Overseas	
	(mean)	(mean)	(mean)	(mean)	(mean)
Gender†					
Male	<i>n=976</i>	<i>n=93</i>	<i>n=777</i>	<i>n=291</i>	<i>n=1069</i>
Context	4.27	4.08	4.30	4.11	4.25
Content	4.20	3.95	4.19	4.12	4.17
Outcome	4.21	4.04	4.22	4.11	4.19
Satisfaction	4.23	4.00	4.23	4.12	4.20
Female	<i>n=1542</i>	<i>n=159</i>	<i>n=1301</i>	<i>n=400</i>	<i>n=1701</i>
Context	4.35	4.10	4.34	4.25	4.32
Content	4.26	4.04	4.28	4.10	4.24
Outcome	4.29	4.03	4.29	4.16	4.26
Satisfaction	4.30	4.05	4.30	4.18	4.27
All	<i>n=2518</i>	<i>n=252</i>	<i>n=2078</i>	<i>n=691</i>	<i>n=2770</i>
Context*	4.31	4.09	4.32	4.18	4.29
Content*	4.23	3.99	4.24	4.11	4.21
Outcome*	4.25	4.03	4.26	4.13	4.23
Satisfaction*	4.26	4.03	4.27	4.15	4.24

* Sig. $p < 0.05$ one-way ANOVA (language; country of birth)

† Sig. $p < 0.05$ one-way ANOVAs (gender by context, content, outcome and satisfaction)

N.B. context = appointment/waiting time, dentist and clinic staff issues
 content = communication, explanation of treatment and options, thoroughness of services
 outcome = service results, improvement in oral health

Source: 1994, 1995, 1996 Dental Satisfaction Surveys

Table 3.16 shows that individuals who made their last dental visit in response to a problem had lower mean satisfaction scores for all conceptual categories, as did those who usually visit for a dental problem rather than for a check-up. Statistical tests (ANOVA) revealed significant differences between check-up and problem in the group mean score for each conceptual category. Those persons who spoke a language other than English at home recorded lower satisfaction scores than other groups making problem-oriented dental visits, with overall satisfaction scores of 3.84 cf. 4.19, while those overseas-born recorded 4.04 cf. 4.19. There were greater differences by language and country of birth among the groups who last visited for a problem.

Table 3.16: Mean satisfaction score for conceptual categories by language spoken at home, country of birth and reason for last visit – dentate persons aged 18+ whose last visit was within previous 12 months

	Language spoken		Country of birth		Total
	English only	Non-English	Australia	Overseas	
	(mean)	(mean)	(mean)	(mean)	(mean)
Reason for last visit†					
Problem	n=1458	n=148	n=1183	n=423	n=1606
Context	4.26	3.98	4.28	4.11	4.24
Content	4.14	3.81	4.15	3.99	4.11
Outcome	4.13	3.74	4.13	3.98	4.10
Satisfaction	4.19	3.84	4.19	4.04	4.15
Check-up	n=1058	n=104	n=894	n=267	n=1162
Context	4.36	4.20	4.38	4.25	4.35
Content	4.33	4.18	4.34	4.24	4.32
Outcome	4.38	4.34	4.40	4.30	4.38
Satisfaction	4.35	4.22	4.36	4.27	4.34
All	n=2518	n=252	n=2078	n=691	n=2770
Context*	4.31	4.09	4.32	4.18	4.29
Content*	4.23	3.99	4.24	4.11	4.21
Outcome*	4.25	4.03	4.26	4.13	4.23
Satisfaction*	4.26	4.03	4.27	4.15	4.24

* Sig. $p < 0.05$ one-way ANOVA (language; country of birth)

† Sig. $p < 0.05$ one-way ANOVAs (reason for last visit by context, content, outcome and satisfaction)

N.B. context = appointment/waiting time, dentist and clinic staff issues
content = communication, explanation of treatment and options, thoroughness of services
outcome = service results, improvement in oral health

Source: 1994, 1995, 1996 Dental Satisfaction Surveys

Table 3.17 presents mean satisfaction scores by language, country of birth and usual reason for dental visits, and shows that those who usually make problem-oriented visits had lower scores (ANOVA) in all four measures of satisfaction. Differences by language and country of birth occurred with overall satisfaction scores of 3.77 cf. 4.14 (language spoken) and 4.02 cf. 4.13 (overseas-born cf. Australian-born). The lowest scores occurred among persons who spoke a language other than English and usually visit for a problem, where the scores ranged from 3.64 for content (communication and explanation aspects of the visit) to 3.93 for context of the visit (appointment and dental staff aspects) compared with 4.06 to 4.21 for the group mean.

Table 3.17: Mean satisfaction score for conceptual categories by language spoken at home, country of birth and usual reason for visit – dentate persons aged 18+ whose last visit was within previous 12 months

	Language spoken		Country of birth		Total
	English only	Non-English	Australia	Overseas	
	(mean)	(mean)	(mean)	(mean)	(mean)
Usual reason for visit†					
Problem	<i>n=970</i>	<i>n=92</i>	<i>n=793</i>	<i>n=269</i>	<i>n=1062</i>
Context	4.23	3.93	4.25	4.07	4.21
Content	4.10	3.64	4.09	3.98	4.06
Outcome	4.05	3.69	4.04	3.95	4.02
Satisfaction	4.14	3.77	4.13	4.02	4.11
Check-up	<i>n=1539</i>	<i>n=160</i>	<i>n=1279</i>	<i>n=419</i>	<i>n=1699</i>
Context	4.36	4.15	4.37	4.24	4.34
Content	4.30	4.14	4.32	4.17	4.29
Outcome	4.36	4.18	4.38	4.21	4.34
Satisfaction	4.34	4.13	4.35	4.21	4.31
All	<i>n=2518</i>	<i>n=252</i>	<i>n=2078</i>	<i>n=691</i>	<i>n=2770</i>
Context*	4.31	4.09	4.32	4.18	4.29
Content*	4.23	3.99	4.24	4.11	4.21
Outcome*	4.25	4.03	4.26	4.13	4.23
Satisfaction*	4.26	4.03	4.27	4.15	4.24

* Sig. $p < 0.05$ one-way ANOVA (language; country of birth)

† Sig. $p < 0.05$ one-way ANOVAs (usual reason for visit by context, content, outcome and satisfaction)

N.B. context = appointment/waiting time, dentist and clinic staff issues
 content = communication, explanation of treatment and options, thoroughness of services
 outcome = service results, improvement in oral health

Source: 1994, 1995, 1996 Dental Satisfaction Surveys

Table 3.18 shows that individuals who may experience financial barriers when accessing dental care had significantly (ANOVA) lower mean satisfaction scores for all conceptual categories (overall satisfaction 3.93 cf. 4.27).

Those persons who reported that they would have a lot of difficulty with a \$100 dental bill showed little difference by country of birth, with Australian-born persons recording marginally lower scores than those born overseas.

Difference in scores by language spoken at home showed that persons who spoke a language other than English consistently recorded scores approximately 0.20 lower than the English only group, with overall satisfaction 3.79 cf. 3.94 for those reporting difficulty, and 4.07 cf. 4.29 among those reporting little difficulty.

Table 3.18: Mean satisfaction score for conceptual categories by language spoken at home, country of birth and difficulty with a \$100 expense – dentate persons aged 18+ whose last visit was within previous 12 months

	Language spoken		Country of birth		Total
	English only	Non-English	Australia	Overseas	
	(mean)	(mean)	(mean)	(mean)	(mean)
Difficulty with \$100 bill†					
A lot of difficulty	n=382	n=46	n=299	n=129	n=428
Context	3.98	3.80	3.96	3.98	3.96
Content	3.95	3.78	3.91	4.01	3.93
Outcome	3.83	3.71	3.81	3.85	3.82
Satisfaction	3.94	3.79	3.91	3.96	3.93
None, hardly any/a little	n=2127	n=204	n=1772	n=558	n=2331
Context	4.34	4.13	4.36	4.21	4.32
Content	4.26	4.03	4.27	4.13	4.24
Outcome	4.29	4.09	4.30	4.17	4.27
Satisfaction	4.29	4.07	4.30	4.18	4.27
All	n=2518	n=252	n=2078	n=691	n=2770
Context*	4.31	4.09	4.32	4.18	4.29
Content*	4.23	3.99	4.24	4.11	4.21
Outcome*	4.25	4.03	4.26	4.13	4.23
Satisfaction*	4.26	4.03	4.27	4.15	4.24

* Sig. $p < 0.05$ one-way ANOVA (language; country of birth)

† Sig. $p < 0.05$ one-way ANOVAs (difficulty with \$100 by context, content, outcome and satisfaction)

N.B. context = appointment/waiting time, dentist and clinic staff issues
 content = communication, explanation of treatment and options, thoroughness of services
 outcome = service results, improvement in oral health

Source: 1994, 1995, 1996 Dental Satisfaction Surveys

Table 3.19 presents the mean satisfaction scores for dentate adults in terms of the financial burden caused by their dental visits in the previous 12 months. Significantly higher mean scores (ANOVA) were recorded by those who reported experiencing little or no burden. Those who reported 'a large burden' would not include card-holders who last received public-funded dental care unless they had made additional visits at their own expense. The lower satisfaction scores reported by those experiencing hardship appeared to be independent of language spoken at home and country of birth, with the Australian-born and English only groups recording slightly lower scores for outcome and overall satisfaction.

There were noticeable differences by country of birth and language spoken at home among those who reported little to no burden, with overall satisfaction scores ranging from 4.02 for those persons who spoke a language other than English at home to 4.17 for overseas-born persons and 4.29 for those who spoke English only or were born in Australia.

Table 3.19: Mean satisfaction score for conceptual categories by language spoken at home, country of birth and financial burden of visits in previous 12 months – dentate persons aged 18+ whose last visit was within previous 12 months

	Language spoken		Country of birth		Total
	English only	Non-English	Australia	Overseas	
	(mean)	(mean)	(mean)	(mean)	(mean)
Financial burden†					
Large	<i>n=249</i>	<i>n=30</i>	<i>n=200</i>	<i>n=79</i>	<i>n=279</i>
Context	4.21	4.18	4.21	4.19	4.16
Content	3.98	4.01	3.98	3.97	3.81
Outcome	3.83	4.18	3.84	3.98	3.76
Satisfaction	4.01	4.10	4.01	4.04	3.92
None/hardly any/a little	<i>n=2259</i>	<i>n=219</i>	<i>n=1873</i>	<i>n=604</i>	<i>n=2478</i>
Context	4.32	4.08	4.33	4.18	4.30
Content	4.26	4.00	4.26	4.14	4.23
Outcome	4.29	4.02	4.30	4.16	4.27
Satisfaction	4.29	4.02	4.29	4.17	4.27
All	<i>n=2518</i>	<i>n=252</i>	<i>n=2078</i>	<i>n=691</i>	<i>n=2770</i>
Context*	4.31	4.09	4.32	4.18	4.29
Content*	4.23	3.99	4.24	4.11	4.21
Outcome*	4.25	4.03	4.26	4.13	4.23
Satisfaction*	4.26	4.03	4.27	4.15	4.24

* Sig. $p < 0.05$ one-way ANOVA (language; country of birth)

† Sig. $p < 0.05$ one-way ANOVAs (financial burden by context, content, outcome and satisfaction)

N.B. context = appointment/waiting time, dentist and clinic staff issues
 content = communication, explanation of treatment and options, thoroughness of services
 outcome = service results, improvement in oral health

Source: 1994, 1995, 1996 Dental Satisfaction Surveys

Table 3.20 presents satisfaction scores by language spoken at home, country of birth and dental insurance and shows that individuals who had dental insurance recorded higher satisfaction with their dental care. The largest difference by insurance status was among persons who spoke a language other than English at home – uninsured persons recorded lower satisfaction scores than the insured group with outcome scores 3.77 cf. 4.28.

Among the uninsured, persons who spoke a language other than English had scores up to 0.34 lower than the group mean, for example outcome 3.77 cf. 4.11 and overall satisfaction 3.85 cf. 4.13. Overseas-born persons also reported lower scores, with outcome 3.95 cf. 4.16 for those born in Australia.

Table 3.20: Mean satisfaction score for conceptual categories by language spoken at home, country of birth and dental insurance – dentate persons aged 18+ whose last visit was within previous 12 months

	Language spoken		Country of birth		Total
	English only	Non-English	Australia	Overseas	
	(mean)	(mean)	(mean)	(mean)	(mean)
Dental insurance†					
No	<i>n=1380</i>	<i>n=152</i>	<i>n=1124</i>	<i>n=407</i>	<i>n=1532</i>
Context	4.21	3.94	4.22	4.07	4.19
Content	4.11	3.86	4.11	4.03	4.09
Outcome	4.14	3.77	4.16	3.95	4.11
Satisfaction	4.16	3.85	4.16	4.04	4.13
Yes	<i>n=1130</i>	<i>n=97</i>	<i>n=946</i>	<i>n=281</i>	<i>n=1227</i>
Context	4.43	4.22	4.44	4.30	4.40
Content	4.36	4.13	4.38	4.20	4.34
Outcome	4.37	4.28	4.37	4.33	4.36
Satisfaction	4.38	4.19	4.38	4.27	4.36
All	<i>n=2518</i>	<i>n=252</i>	<i>n=2078</i>	<i>n=691</i>	<i>n=2770</i>
Context*	4.31	4.09	4.32	4.18	4.29
Content*	4.23	3.99	4.24	4.11	4.21
Outcome*	4.25	4.03	4.26	4.13	4.23
Satisfaction*	4.26	4.03	4.27	4.15	4.24

* Sig. $p < 0.05$ one-way ANOVA (language; country of birth)

† Sig. $p < 0.05$ one-way ANOVAs (insurance status by context, content, outcome and satisfaction)

N.B. context = appointment/waiting time, dentist and clinic staff issues
content = communication, explanation of treatment and options, thoroughness of services
outcome = service results, improvement in oral health

Source: 1994, 1995, 1996 Dental Satisfaction Surveys

Table 3.21 presents the mean scores for each of the 31 individual items in the Dental Satisfaction Survey, sorted in ascending order for those respondents who spoke a language other than English at home. The difference between scores for persons who spoke a language other than English and those who spoke English only is shown.

All individual items were rated according to the scale 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree and 5 = strongly agree. Mean scores of less than 3 indicate that there is overall dissatisfaction with that aspect of dental care, while scores between 3 and 4 indicate qualified satisfaction.

Persons who spoke a language other than English at home recorded scores lower than those who spoke English only for each item except 'explained cost before treatment' where the difference was -0.14. Among the remaining 30 items, the difference in scores ranged from 0.02 for 'travel to clinic' to 0.50 for 'appropriate care'.

Table 3.21 shows that more than half of the mean item scores for persons who spoke a language other than English were below 4.00, and only one item, 'friendly staff' was above 4.40. Persons who spoke English only rated the 31 items differently and had consistently higher item scores, with only eight items having mean scores below 4.00, and a further eight items (satisfied with care, confident of good dental care, explained treatment needed, tended by preferred professional, answered questions, same professional each visit, surgery well equipped, friendly staff) having scores of 4.45 or above.

Items for which the non-English score is more than 0.30 lower than the score for persons who spoke English only are marked with an asterisk (*), and include 'ease of arranging visit', 'waiting time at clinic', 'no untreated problems', and 'explained treatment needed'.

**Table 3.21: Mean satisfaction score for individual items by language spoken at home
– dentate persons aged 18+ whose last visit was within the previous 12 months**

	Non-English	English	Difference	Total
Financially protected (dental expenses)	2.63	2.89	0.26	2.88
Avoided unnecessary treatment costs	3.14	3.52	0.38*	3.49
Explained cost before treatment	3.19	3.05	-0.14	3.06
Cost affordable	3.24	3.49	0.25	3.47
Attractive waiting room	3.56	3.62	0.06	3.61
Explained treatment options	3.60	3.88	0.28	3.85
Appropriate care	3.67	4.17	0.50*	4.12
Waiting time at clinic	3.73	4.06	0.33*	4.03
Ease of arranging visit	3.73	4.07	0.34*	4.04
Prompt visit	3.73	4.19	0.46*	4.15
Quality of care	3.77	3.98	0.21	3.96
Thorough examination	3.77	4.18	0.41*	4.14
Explained procedures during treatment	3.87	4.12	0.25	4.10
No untreated problems	3.88	4.22	0.34*	4.18
Good advice on dental care	3.89	3.97	0.08	3.97
Expected improvement	3.89	4.13	0.24	4.11
No unexpected pain	3.89	4.16	0.27	4.14
Modern surgery	4.06	4.23	0.17	4.22
Care improved dental health	4.10	4.41	0.31*	4.38
Impersonal professional	4.11	4.33	0.22	4.31
Travel to clinic convenient	4.12	4.14	0.02	4.14
Explained treatment needed	4.20	4.51	0.31*	4.48
Problems fixed	4.22	4.26	0.04	4.25
Satisfied with care	4.24	4.45	0.21	4.43
Distance to clinic	4.28	4.32	0.04	4.32
Same professional each visit	4.28	4.54	0.26	4.51
Confident of good dental care	4.36	4.49	0.13	4.48
Surgery well equipped	4.38	4.58	0.20	4.56
Tended by preferred professional	4.39	4.52	0.13	4.51
Answered questions	4.39	4.52	0.13	4.50
Friendly staff	4.43	4.62	0.19	4.60

* Difference between non-English and English greater than 0.30

Source: 1994, 1995, 1996 Dental Satisfaction Surveys

3.6 Discussion

Australian-born adults who spoke English only experienced the highest rates of edentulism. Among dentate persons aged 45 years or more Australian-born persons were the group most likely to report wearing a denture.

Among persons aged 18–24 years, the percentage who made a dental visit within the previous 2 years was 70.3% of Australian-born persons, compared with 80.9% of overseas-born persons; there was a similar pattern of dental attendance among other age groups. Overseas-born persons who spoke a language other than English were generally the most likely to report that their last dental visit was for a problem. This group was also most likely to report that their usual reason for a dental visit was for a dental problem. Overseas-born persons who spoke a language other than English had the greatest number of visits, extractions, fillings, and scale and clean services, in the previous 12 months.

Persons born overseas who spoke a language other than English had the highest percentage reporting experience of toothache in the previous 12 months, and were also the least likely to have dental insurance. Overseas-born persons who spoke a language other than English were most likely to report that dental visits in the last 12 months were a large financial burden, and more likely to have a lot of difficulty in paying a \$100 dental bill.

Dental satisfaction scores for persons who spoke a language other than English at home, and for those born overseas were significantly lower (analysis of variance) on all four measurement scales than for those who spoke English only or who were born in Australia. On a scale of 1 to 5, overall satisfaction scores for persons who spoke a language other than English were almost 0.25 lower than for those who spoke English only, and for overseas-born were almost 0.15 lower than for Australian-born, large differences given the nature of satisfaction scores. Significantly lower (ANOVA) mean satisfaction scores were recorded by younger age groups, males, those who usually visited for a dental problem rather than for a check-up, those experiencing financial hardship and uninsured persons. Within these groups, differences by language and country of birth persisted, with the lowest satisfaction scores occurring among persons who spoke a language other than English. Language barriers appeared to constitute a greater disadvantage than being overseas-born in accessing dental care that the patient found satisfactory.

Across the population measures presented, persons born overseas who spoke a language other than English were found to generally have the least favourable results. This was the group most likely to: have last visited for a dental problem, report that they usually visit for a dental problem, have more extractions, more fillings, more scale and clean services, experience more toothache, not be insured, report that dental visits in the previous 12 months were a large financial burden, and report a lot of difficulty in paying a \$100 dental bill.

4 Card-holders

This chapter presents findings related to Australian adults who reported that they possessed or were covered by a government concession card which would allow them to access public-funded dental care. It includes persons who have made private dental visits at their own expense, persons who have received public-funded dental care, and persons who received care from a private practitioner that was paid for by public funds. The findings are not restricted by time since last dental visit, and include adults who have not made a recent dental visit.

Tables 4.1 to 4.11 are of exactly the same structure as Tables 3.1 to 3.11; the indicators presented in this chapter are the same as those presented in Chapter 3. The only difference between the two sets of tables is that the data in this chapter has been restricted to card-holders only.

4.1 Sample yield

There was a total of 4,684 interviews of adult card-holders obtained from the 1994, 1995 and 1996 National Dental Telephone Interview Surveys. Among the adult card-holder sample, 72.3% (3,388) were Australian-born and spoke English only, 2.0% (94) were Australian-born and spoke a language other than English at home, 17.1% (801) were overseas-born and spoke English only, and 8.6% (401) were overseas-born and spoke a language other than English at home.

There was a younger age distribution among Australian-born card-holders compared with overseas-born card-holders. Australian-born card-holders who spoke a language other than English at home had the youngest age distribution, with nearly a quarter (24.5%) aged 18–24 years and 58.5% aged under 45 years.

Table 4.1: Age distribution of adult card-holders from the National Dental Telephone Interview Surveys by country of birth and language spoken (unweighted)

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
Number	3388	94	3482	801	401	1202
Age (%)						
18–24 years	9.9	24.5	10.3	3.1	6.2	4.2
25–44 years	18.8	34.0	19.2	15.4	15.5	15.4
45–64 years	24.8	24.5	24.8	28.1	34.2	30.1
65+ years	46.5	17.0	45.7	53.4	44.1	50.3

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

4.2 Oral health status

Table 4.2 shows the dentate status of card-holders by country of birth, language spoken, and age group. Edentulism (having no natural teeth) increased across age groups, reflecting both the accumulation of disease experience and changing treatment philosophies over time. Nearly all 18–24-year-old card-holders were dentate (had at least one natural tooth).

Australian-born card-holders who spoke English only were the group reporting the highest levels of edentulism. The percentage of 45–64-year-old card-holders who were edentulous among this group was 31.5% compared with levels of approximately 12–17% among other groups. Among card-holders aged 65 years or more, 50.0% of Australian-born card-holders who spoke English only were edentulous.

Among card-holders born overseas there was little difference between those who spoke English only at home and those who spoke a language other than English.

Table 4.2: Dentate status of card-holders by country of birth, language spoken and age group

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
18–24 years	<i>n=335</i>	<i>n=23</i>	<i>n=358</i>	<i>n=25</i>	<i>n=25</i>	<i>n=50</i>
Dentate	99.8	100.0	99.8	100.0	100.0	100.0
Edentulous	*0.2	–	*0.2	–	–	–
25–44 years	<i>n=636</i>	<i>n=32</i>	<i>n=668</i>	<i>n=123</i>	<i>n=62</i>	<i>n=185</i>
Dentate	98.8	98.9	98.9	96.7	94.2	95.6
Edentulous	*1.2	*1.1	*1.1	*3.3	*5.8	*4.4
45–64 years	<i>n=841</i>	<i>n=23</i>	<i>n=864</i>	<i>n=225</i>	<i>n=137</i>	<i>n=362</i>
Dentate	68.5	88.5	69.0	83.1	84.3	83.6
Edentulous	31.5	*11.5	31.0	16.9	*15.7	16.4
65+ years	<i>n=1576</i>	<i>n=16</i>	<i>n=1592</i>	<i>n=428</i>	<i>n=177</i>	<i>n=605</i>
Dentate	50.0	†64.6	50.1	56.0	58.6	57.0
Edentulous	50.0	*35.4	49.9	44.0	41.4	43.0
Total	<i>n=3388</i>	<i>n=94</i>	<i>n=3482</i>	<i>n=801</i>	<i>n=401</i>	<i>n=1202</i>
Dentate	72.2	94.5	73.0	73.9	79.3	76.2
Edentulous	27.8	*5.5	27.0	26.1	20.7	23.8

* estimate has a relative standard error greater than 25%

† estimate has a standard error greater than 10%

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

The percentage of dentate card-holders wearing a denture by country of birth, language spoken, and age group is presented in Table 4.3. As was the case for edentulism, the use of dentures increased with increasing age. Denture use among 25–44-year-old card-holders was higher among persons born overseas (16.0%) than among Australian-born persons (9.1%). However, for the two oldest age groupings Australian-born card-holders had higher levels of denture use than overseas-born card-holders.

Table 4.3: Percentage of persons wearing a denture by country of birth, language spoken and age group – dentate card-holders

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
Age	<i>n</i>=2252	<i>n</i>=79	<i>n</i>=2331	<i>n</i>=565	<i>n</i>=306	<i>n</i>=871
18–24 years	*2.0	–	*1.9	–	–	–
25–44 years	9.3	*7.2	9.1	*17.1	*14.6	16.0
45–64 years	44.4	†84.2	45.7	39.0	41.8	40.3
65+ years	66.7	*52.4	66.6	59.2	57.2	58.5
Total	31.5	*19.4	31.0	37.7	32.6	35.5

* estimate has a relative standard error greater than 25%

† estimate has a standard error greater than 10%

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

4.3 Access to services

Presented in Table 4.4 is the time since last dental visit among dentate card-holders. Overall, just over half of dentate card-holders reported that their last dental visit was in the previous 12 months. Among the two oldest age groups, Australian-born card-holders were more likely to have a time since last visit of 5 or more years than those born overseas. For example, 13.9% of Australian-born card-holders aged 45–64 years had not visited for 5 or more years, compared with 6.1% of card-holders born overseas.

Table 4.4: Time since last dental visit by country of birth, language spoken and age group – dentate card-holders

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
18–24 years	n=333	n=23	n=356	n=25	n=25	n=50
<12 months	52.6	†68.3	53.6	*27.6	53.6	44.0
1–<2 years	19.2	*8.8	18.5	*42.0	*25.8	*31.8
2–<5 years	16.1	*5.4	15.4	*21.4	*10.6	*14.6
5+ years	12.2	*17.6	12.5	*9.1	*10.0	*9.7
25–44 years	n=623	n=31	n=654	n=119	n=58	n=177
<12 months	51.7	†71.2	53.1	44.4	40.4	42.6
1–<2 years	18.9	*18.1	18.8	26.5	*25.8	26.2
2–<5 years	16.4	*7.1	15.7	*16.3	*18.0	*17.1
5+ years	13.1	*3.6	12.4	*12.8	*15.9	14.2
45–64 years	n=565	n=18	n=583	n=184	n=114	n=298
<12 months	54.3	†55.3	54.4	66.2	64.1	65.2
1–<2 years	19.2	*17.9	19.1	*14.1	*11.8	13.0
2–<5 years	13.0	–	12.6	13.7	*17.8	15.6
5+ years	13.5	*26.8	13.9	*6.0	*6.2	*6.1
65+ years	n=718	n=7	n=725	n=235	n=107	n=342
<12 months	52.3	*44.2	52.3	55.1	53.3	54.4
1–<2 years	15.9	*43.0	16.2	15.1	*21.1	17.3
2–<5 years	14.7	*0.9	14.6	16.0	*17.9	16.7
5+ years	17.0	*12.0	17.0	13.8	*7.7	11.6
Total	n=2239	n=79	n=2318	n=563	n=304	n=867
<12 months	52.6	66.3	53.2	53.7	53.1	53.5
1–<2 years	18.2	*16.8	18.1	19.6	20.0	19.8
2–<5 years	15.1	*5.1	14.7	15.7	17.0	16.3
5+ years	14.1	*11.7	14.0	10.9	9.9	10.4

* estimate has a relative standard error greater than 25%

† estimate has a standard error greater than 10%

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

The reason for their last dental visit was asked of persons whose last visit was in the previous 12 months, and Table 4.5 reports on the dentate card-holders. For each of the four age groups, card-holders born overseas were more likely to have last visited a dentist for a problem than were Australian-born card-holders. Nearly three-quarters (73.8%) of overseas-born card-holders last visited for a problem, compared with 61.0% of Australian-born card-holders.

Table 4.5: Reason for last dental visit by country of birth, language spoken and age group – dentate card-holders whose last dental visit was less than 12 months ago

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
18–24 years	n=166	n=15	n=181	n=8	n=12	n=20
Problem	49.9	*41.7	49.2	*65.5	96.2	89.1
Check-up	50.1	*58.3	50.8	*34.5	*3.8	*10.9
25–44 years	n=313	n=17	n=330	n=55	n=27	n=82
Problem	69.0	†74.1	69.5	66.3	89.6	76.2
Check-up	31.0	*25.9	30.5	*33.7	*10.4	*23.8
45–64 years	n=282	n=15	n=297	n=115	n=65	n=180
Problem	58.1	†70.9	58.5	82.1	66.5	74.9
Check-up	41.9	*29.1	41.5	17.9	33.5	25.1
65+ years	n=361	n=2	n=363	n=121	n=63	n=184
Problem	62.2	100.0	62.6	67.2	67.4	67.2
Check-up	37.8	–	37.4	32.8	32.6	32.8
Total	n=1122	n=49	n=1171	n=299	n=167	n=466
Problem	60.8	†64.9	61.0	72.4	75.6	73.8
Check-up	39.2	*35.1	39.0	27.6	24.4	26.2

* estimate has a relative standard error greater than 25%

† estimate has a standard error greater than 10%

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

The data for Table 4.6 relate to dentate card-holders whose last dental visit was in the previous 12 months. Presented are the mean number of visits, extractions, fillings, and scale and clean services per person in the last 12 months by country of birth, language spoken at home, and age group. Among Australian-born card-holders there was a decline in the average number of extractions with increasing age group – this pattern was not observed for overseas-born card-holders. Overseas-born card-holders aged 45 years or more received more extractions on average than Australian-born card-holders (e.g. 0.64 extractions compared with 0.24 extractions among 45–64-year-old card-holders). With the exception of overseas-born card-holders who spoke a language other than English at home, 18–24-year-olds received fewer fillings on average than older age groups.

Table 4.6: Mean number of dental visits and routine services in previous 12 months by country of birth, language spoken and age group – dentate card-holders whose last dental visit was less than 12 months ago

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	(mean)	(mean)	(mean)	(mean)	(mean)	(mean)
Number of visits in last 12 months	<i>n=1124</i>	<i>n=49</i>	<i>n=1173</i>	<i>n=298</i>	<i>n=164</i>	<i>n=462</i>
18–24 years	2.57	2.09	2.53	2.01	*3.38	*3.07
25–44 years	2.48	*5.17	2.74	2.64	*2.95	2.77
45–64 years	2.37	2.11	2.36	2.39	2.49	2.44
65+ years	2.15	1.00	2.14	2.70	2.29	2.56
<i>Total</i>	2.38	*3.69	2.46	2.55	2.66	2.60
Number of extractions in last 12 months	<i>n=1120</i>	<i>n=49</i>	<i>n=1169</i>	<i>n=299</i>	<i>n=166</i>	<i>n=465</i>
18–24 years	*0.48	*0.82	0.51	*1.40	*0.82	*0.95
25–44 years	0.43	*0.25	0.41	*0.27	*0.38	*0.32
45–64 years	0.24	*0.17	0.24	0.48	*0.83	*0.64
65+ years	0.19	–	0.19	*0.33	*0.45	0.37
<i>Total</i>	0.33	*0.40	0.34	0.41	*0.63	0.50
Number of fillings in last 12 months	<i>n=1120</i>	<i>n=49</i>	<i>n=1169</i>	<i>n=299</i>	<i>n=165</i>	<i>n=464</i>
18–24 years	0.53	*0.38	0.52	*0.60	*2.62	*2.15
25–44 years	1.42	1.64	1.44	*1.04	1.43	1.21
45–64 years	1.02	*1.12	1.02	0.96	1.21	1.07
65+ years	0.91	1.12	0.91	1.05	0.85	0.98
<i>Total</i>	1.01	1.17	1.02	1.00	1.35	1.15
Number of scale and cleans in last 12 months	<i>n=1109</i>	<i>n=49</i>	<i>n=1158</i>	<i>n=299</i>	<i>n=164</i>	<i>n=463</i>
18–24 years	0.88	*0.96	0.89	*0.61	*0.93	*0.85
25–44 years	0.74	*0.50	0.71	0.79	0.72	0.76
45–64 years	0.88	*0.88	0.88	0.70	0.91	0.79
65+ years	0.80	0.88	0.80	0.83	0.94	0.87
<i>Total</i>	0.82	*0.71	0.81	0.77	0.88	0.81

* estimate has a relative standard error greater than 25%

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

Table 4.7 presents the percentage of card-holders who had extractions, fillings, and scale and clean services among dentate card-holders whose last dental visit was in the previous 12 months. The age group reporting the lowest percentage of card-holders having extractions in the previous 12 months was the group aged 65 years or more. Among Australian-born card-holders, 18–24-year-olds had the lowest percentage receiving fillings during the last 12 months. Among card-holders aged 18–24 years, a lower percentage of those born in Australia received fillings compared with those who were overseas-born (31.0% cf. 66.2%).

Table 4.7: Percentage of persons receiving routine dental services in previous 12 months by country of birth, language spoken and age group – dentate card-holders whose last dental visit was less than 12 months ago

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
Extractions	<i>n=1120</i>	<i>n=49</i>	<i>n=1169</i>	<i>n=299</i>	<i>n=166</i>	<i>n=465</i>
18–24 years	20.9	*47.3	23.0	*43.7	*40.4	*41.2
25–44 years	23.9	*22.9	23.8	*17.0	*27.6	*21.5
45–64 years	20.1	*16.6	19.9	32.0	*28.8	30.6
65+ years	13.1	–	13.0	*14.3	*20.0	16.3
<i>Total</i>	19.4	*28.6	19.9	22.3	27.8	24.7
Fillings	<i>n=1120</i>	<i>n=49</i>	<i>n=1169</i>	<i>n=299</i>	<i>n=165</i>	<i>n=464</i>
18–24 years	31.6	*24.9	31.0	*60.0	†68.1	†66.2
25–44 years	60.8	†70.3	61.7	48.4	88.3	65.3
45–64 years	52.5	*67.1	53.0	52.2	50.6	51.5
65+ years	54.5	100.0	54.8	56.7	42.6	51.7
<i>Total</i>	51.3	†57.3	51.6	53.2	59.1	55.8
Scale and clean	<i>n=1109</i>	<i>n=49</i>	<i>n=1158</i>	<i>n=299</i>	<i>n=164</i>	<i>n=463</i>
18–24 years	61.6	†74.4	62.6	*61.4	†66.0	†64.9
25–44 years	61.1	*37.5	58.8	67.8	†67.2	67.6
45–64 years	70.7	*53.3	70.1	56.8	77.4	66.1
65+ years	64.0	†88.2	64.2	58.5	79.3	65.9
<i>Total</i>	64.2	†52.7	63.5	60.1	74.1	66.3

* estimate has a relative standard error greater than 25%

† estimate has a standard error greater than 10%

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

All persons were asked whether their usual reason for making a dental visit was for a problem or for a check-up. Table 4.8 presents the results for dentate card-holders. Overall, approximately 60% of card-holders reported a problem as their usual reason for a dental visit, and 40% a check-up as their usual reason for a visit.

Among Australian-born card-holders, persons from the youngest age group (18–24-year-olds) were more likely to report a check-up as their usual reason for a dental visit compared with card-holders from older age groups.

Table 4.8: Usual reason for a dental visit by country of birth, language spoken and age group – dentate card-holders

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
18–24 years	<i>n=331</i>	<i>n=23</i>	<i>n=354</i>	<i>n=24</i>	<i>n=25</i>	<i>n=49</i>
Problem	50.4	*38.3	49.6	†77.2	†51.4	60.9
Check-up	49.6	†61.7	50.4	*22.8	†48.6	39.1
25–44 years	<i>n=621</i>	<i>n=31</i>	<i>n=652</i>	<i>n=120</i>	<i>n=58</i>	<i>n=178</i>
Problem	63.5	*47.2	62.3	67.9	57.9	63.5
Check-up	36.5	*52.8	37.7	32.1	42.1	36.5
45–64 years	<i>n=560</i>	<i>n=18</i>	<i>n=578</i>	<i>n=183</i>	<i>n=112</i>	<i>n=295</i>
Problem	57.8	†69.4	58.1	58.8	53.5	56.4
Check-up	42.2	*30.6	41.9	41.2	46.5	43.6
65+ years	<i>n=708</i>	<i>n=7</i>	<i>n=715</i>	<i>n=228</i>	<i>n=107</i>	<i>n=335</i>
Problem	59.4	100.0	59.8	54.3	70.2	60.2
Check-up	40.6	–	40.2	45.7	29.8	39.8
Total	<i>n=2220</i>	<i>n=79</i>	<i>n=2299</i>	<i>n=555</i>	<i>n=302</i>	<i>n=857</i>
Problem	58.4	51.0	58.1	60.9	58.8	60.0
Check-up	41.6	49.0	41.9	39.1	41.2	40.0

* estimate has a relative standard error greater than 25%

† estimate has a standard error greater than 10%

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

4.4 Social impact and economic factors

Dentate participants were asked about their experience of toothache during the previous 12 months. Table 4.9 reports on the percentage of card-holders responding that they experienced toothache 'very often', 'often', or 'sometimes' during the last 12 months.

Among Australian-born card-holders, those aged 65 years or more reported lower levels of toothache than younger age groups. Among Australian-born card-holders who spoke English only those aged 45–64 years had less experience of toothache than those aged 18–44 years.

Table 4.9: Experience of toothache^(a) in previous 12 months by country of birth, language spoken and age group – dentate card-holders

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
Age	<i>n=2248</i>	<i>n=79</i>	<i>n=2327</i>	<i>n=564</i>	<i>n=305</i>	<i>n=869</i>
18–24 years	18.9	*16.4	18.7	*18.6	*28.3	*24.7
25–44 years	19.9	*36.2	21.1	22.4	*15.0	19.1
45–64 years	10.2	*17.7	10.4	*9.1	*18.4	13.5
65+ years	6.5	*8.6	6.6	*8.0	*22.1	13.1
Total	13.8	*25.9	14.4	13.0	19.6	16.0

(a) percentage of persons reporting 'very often', 'often', or 'sometimes' during the last 12 months

* estimate has a relative standard error greater than 25%

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

Dental insurance among card-holders by country of birth, language spoken at home, and age group is presented in Table 4.10. The lowest levels of insurance occurred among overseas-born card-holders. Overseas-born card-holders who spoke English only who were aged 18–24 years reported only 2.5% as insured, while 25–44-year-olds who spoke a language other than English at home reported 3.3% as insured.

For each age group, overseas-born card-holders had lower levels of insurance than Australian-born card-holders. Overall, 21.4% of those born in Australia were insured, compared with 13.2% of overseas-born card-holders.

Table 4.10: Percentage of card-holders with dental insurance by country of birth, language spoken and age group

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
Age	<i>n</i>=3378	<i>n</i>=92	<i>n</i>=3470	<i>n</i>=799	<i>n</i>=401	<i>n</i>=1200
18–24 years	26.3	*22.9	26.1	*2.5	*13.9	*9.7
25–44 years	14.5	*38.6	16.2	*12.3	*3.3	*8.2
45–64 years	25.8	*7.1	25.4	17.4	12.9	15.3
65+ years	20.3	*6.9	20.2	15.8	13.8	15.1
Total	21.2	*26.5	21.4	14.9	11.0	13.2

* estimate has a relative standard error greater than 25%

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

Persons who made a dental visit during the previous 12 months were asked how much of a financial burden those visits were. The first half of Table 4.11 presents the percentage of dentate card-holders for whom those dental visits were a large financial burden. Among Australian-born card-holders, those aged 65 years or more reported less financial burden than other age groups. Among overseas-born card-holders, those aged 18–44 years reported the lowest percentage experiencing a large financial burden.

All persons were asked how much difficulty they would have in paying a \$100 dental bill, and the percentage of dentate card-holders reporting a lot of difficulty is presented in the second half of Table 4.11. Among card-holders who spoke English only, persons aged 45–64 years were less likely to report a lot of difficulty in paying a \$100 dental bill than younger age groups. With the exception of overseas-born card-holders who spoke a language other than English at home, those aged 65 years or more were the least likely to report that they would have a lot of difficulty in paying a \$100 dental bill.

Table 4.11: Affordability and hardship in purchasing dental care by country of birth, language spoken and age group – dentate card-holders

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
Dental visits in the last 12 months were a large financial burden^(a)	<i>n</i>=1121	<i>n</i>=49	<i>n</i>=1170	<i>n</i>=299	<i>n</i>=166	<i>n</i>=465
18–24 years	*10.5	*11.6	*10.6	*38.2	–	*8.9
25–44 years	16.5	*12.6	16.1	*15.2	*2.6	*9.8
45–64 years	10.9	*22.4	11.2	*7.6	*23.2	*14.7
65+ years	*4.5	*11.8	*4.5	*15.5	*17.4	16.2
<i>Total</i>	10.7	*13.5	10.8	13.2	*14.2	13.7
A lot of difficulty in paying a \$100 dental bill	<i>n</i>=2243	<i>n</i>=79	<i>n</i>=2322	<i>n</i>=561	<i>n</i>=297	<i>n</i>=858
18–24 years	35.2	*29.7	34.9	*46.1	*15.5	*26.8
25–44 years	40.3	*30.9	39.6	53.4	44.0	49.2
45–64 years	31.1	*45.8	31.6	34.7	45.5	39.7
65+ years	21.2	*20.5	21.2	17.0	32.4	22.5
<i>Total</i>	31.9	32.2	31.9	34.4	37.8	35.9

(a) dentate card-holders whose last dental visit was less than 12 months ago

* estimate has a relative standard error greater than 25%

Source: 1994, 1995, 1996 National Dental Telephone Interview Surveys

4.5 Satisfaction scores

Table 4.12 shows that card-holders rated their satisfaction with their most recent dental care at a lower level than non-card-holders (ANOVA), with the largest differences being between those who spoke a language other than English at home. The mean satisfaction scores for card-holders who spoke a language other than English ranged from 3.62 (content) to 3.79 (context), more than 0.5 lower than the corresponding category mean scores for the whole group, 4.21 and 4.29 respectively.

Table 4.12: Mean satisfaction score for conceptual categories by language spoken at home, country of birth and card-holder status – dentate persons aged 18+ whose last visit was within previous 12 months

	Language spoken		Country of birth		Total
	English only	Non-English	Australia	Overseas	
	(mean)	(mean)	(mean)	(mean)	(mean)
Card-holder status†					
Card-holder	<i>n=1096</i>	<i>n=140</i>	<i>n=879</i>	<i>n=357</i>	<i>n=1236</i>
Context	4.18	3.79	4.17	4.00	4.13
Content	4.16	3.62	4.13	3.99	4.09
Outcome	4.12	3.71	4.12	3.91	4.07
Satisfaction	4.17	3.70	4.15	3.97	4.11
Non-card-holder	<i>n=1421</i>	<i>n=112</i>	<i>n=1198</i>	<i>n=334</i>	<i>n=1533</i>
Context	4.34	4.19	4.36	4.23	4.33
Content	4.25	4.12	4.26	4.15	4.23
Outcome	4.28	4.14	4.29	4.19	4.27
Satisfaction	4.28	4.13	4.29	4.20	4.27
All	<i>n=2518</i>	<i>n=252</i>	<i>n=2078</i>	<i>n=691</i>	<i>n=2770</i>
Context*	4.31	4.09	4.32	4.18	4.29
Content*	4.23	3.99	4.24	4.11	4.21
Outcome*	4.25	4.03	4.26	4.13	4.23
Satisfaction*	4.26	4.03	4.27	4.15	4.24

* Sig. $p < 0.05$ one-way ANOVA (language; country of birth)

† Sig. $p < 0.05$ one-way ANOVAs (card-holder status by context, content, outcome and satisfaction)

N.B. context = appointment/waiting time, dentist and clinic staff issues
 content = communication, explanation of treatment and options, thoroughness of services
 outcome = service results, improvement in oral health

Source: 1994, 1995, 1996 Dental Satisfaction Surveys

4.6 Discussion

Australian-born card-holders who spoke English only experienced the highest rate of edentulism.

Among dentate card-holders who made a dental visit in the previous 12 months, those born overseas were more likely to have last visited for a dental problem compared with Australian-born card-holders. There were no clear patterns by age group, country of birth, and language spoken in the usual reason for a dental visit. Overseas-born card-holders who spoke a language other than English at home made more dental visits in the previous 12 months than Australian-born card-holders, and had more extractions and fillings.

Overseas-born card-holders who spoke a language other than English were more likely to have experienced toothache in the previous 12 months. This group was also the least likely to have dental insurance, and the most likely to have a lot of difficulty in paying a \$100 dental bill.

Greater differences in dental satisfaction scores by language and country of birth occurred among card-holders than among their non-card-holder counterparts, with the lowest scores recorded by those card-holders who spoke a language other than English at home.

Among card-holders, overseas-born persons who spoke a language other than English were the group which generally had the least favourable results. This group was the most likely to have: last visited for a dental problem, made more visits in the previous 12 months, had more extractions and fillings, experienced more toothache, be uninsured, and reported a lot of difficulty in paying a \$100 dental bill.

5 Public-funded dental patients

This chapter presents findings related to patients receiving public-funded dental care. This includes care provided at public dental clinics as well as care provided by private practitioners to eligible patients that was paid for by public funds. Patients eligible for public dental care were primarily holders of government health cards.

Results are presented on the type of care received, oral health status, and services provided. Type of care is defined as emergency, general, screen and other, with emergency care relating to care provided for relief of pain. Oral health status refers to the health status recorded at the beginning of a course of dental care.

The oral health measures recorded were dentate status, periodontal status, and coronal caries and root caries experience. Periodontal status was assessed using the Community Periodontal Index of Treatment Needs (CPITN), while coronal caries is reported using the DMFT index.

Service provision refers to items of treatment received during a course of dental care. These items were classified into one of ten main areas of service following the ADA Schedule of Dental Services. Two variations to this classification scheme were the placement of scale and clean items in the periodontic rather than preventive area, and the classification of temporary restorations along with other emergency service items as a separate main area, labelled temporary. Service provision is presented as the percentage of persons receiving that kind of service, its percentage of total services, and the mean number of such services per course of care.

5.1 Sample yield

In total, 3,534 patients were Australian-born (62.5%) and 2,213 were born overseas. The majority of patients (3,279) were Australian-born and spoke English only (60.0%). There were only small numbers of patients (208) who were Australian-born and spoke a non-English language (3.8%).

There was a younger age distribution among Australian-born compared to overseas-born patients. Among Australian-born patients who spoke a non-English language, a high percentage of patients were from younger age groups.

Table 5.1: Age distribution by country of birth and language spoken

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
Number	3279	208	3534	647	1333	2213
Age (%)						
18–24 years	12.5	24.0	13.3	4.8	6.0	5.8
25–44 years	36.5	55.8	37.8	26.9	29.9	30.1
45–64 years	24.7	17.8	24.1	33.5	36.1	35.2
65+ years	26.4	2.4	24.8	34.8	28.0	28.9

Source: Prospective Adult Dental Programs Survey 1995–96

5.2 Type of care

Table 5.2 shows the type of public-funded course of care by country of birth, language spoken, and age of patient. The majority of care consisted of emergency and general care. The percentage of emergency care was higher for overseas-born patients (65.0%) than for those born in Australia (49.8%). The percentage of emergency care declined across successively older age groups (e.g. among those born in Australia emergency care was 62.5% for 18–24-year-olds and 41.7% for those aged 65 years or more).

Table 5.2: Type of public-funded course of care by country of birth, language spoken, and age of patient

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
18–24 years	<i>n=409</i>	<i>n=50</i>	<i>n=470</i>	<i>n=31</i>	<i>n=80</i>	<i>n=129</i>
Emergency	62.0	66.5	62.5	75.2	76.9	76.6
General	36.7	32.5	36.3	23.7	23.1	23.1
Screen	1.0	1.0	0.9	–	–	–
Other	0.4	–	0.3	1.1	–	0.2
25–44 years	<i>n=1192</i>	<i>n=114</i>	<i>n=1328</i>	<i>n=173</i>	<i>n=399</i>	<i>n=665</i>
Emergency	51.8	53.8	52.5	57.8	68.2	66.3
General	45.6	44.5	44.9	41.2	31.8	33.5
Screen	2.3	1.7	2.3	1.0	–	0.2
Other	0.4	–	0.3	–	–	–
45–64 years	<i>n=807</i>	<i>n=37</i>	<i>n=850</i>	<i>n=217</i>	<i>n=480</i>	<i>n=777</i>
Emergency	46.9	30.2	46.9	48.9	67.6	64.0
General	48.9	68.1	49.0	47.9	31.1	34.4
Screen	3.8	1.7	3.7	2.9	1.2	1.5
Other	0.4	–	0.6	0.4	–	0.1
65+ years	<i>n=853</i>	<i>n=5</i>	<i>n=866</i>	<i>n=225</i>	<i>n=371</i>	<i>n=638</i>
Emergency	41.4	27.6	41.7	47.8	65.5	61.5
General	51.2	57.5	51.0	44.7	33.3	35.5
Screen	6.7	15.0	6.7	7.4	1.1	2.9
Other	0.7	–	0.7	–	0.2	0.1
All	<i>n=3383</i>	<i>n=225</i>	<i>n=3656</i>	<i>n=659</i>	<i>n=1350</i>	<i>n=2243</i>
Emergency	49.2	52.5	49.8	53.7	67.9	65.0
General	46.8	45.6	46.3	42.7	31.4	33.5
Screen	3.6	1.9	3.5	3.5	0.7	1.4
Other	0.5	–	0.5	0.2	–	0.1

Source: Prospective Adult Dental Programs Survey 1995–96

Overall, the lowest percentage of emergency care was received by those who were Australian-born and spoke English only (49.2%) while the highest was received by overseas-born patients who spoke a non-English language at home (67.9%). Among those patients who were born overseas, the percentage of emergency care was higher for patients who spoke a non-English language at home compared to those who spoke English only. For example, among overseas-born patients who were aged 65 years or more, 65.5% of those who spoke a non-English language received emergency care compared to 47.8% of those who spoke English only.

5.3 Oral health status

Dentate status of public-funded patients is presented in Table 5.3 by country of birth, language spoken and age of patient. The percentage of edentulous patients (i.e. those having no natural teeth) was lower for overseas-born (5.2%) compared to Australian-born patients (10.3%), with this pattern occurring in each age group. Rates of edentulism tended to be higher among older age groups of patients. Among overseas-born patients the percentage of edentulous patients was higher for those who spoke English only (7.8%) compared to those who spoke a non-English language (4.7%), with this pattern occurring in age groups older than 25 years.

Table 5.3: Dentate status of public-funded dental patients by country of birth, language spoken and age of patient

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
18–24 years	<i>n=409</i>	<i>n=50</i>	<i>n=470</i>	<i>n=30</i>	<i>n=79</i>	<i>n=127</i>
Dentate	99.3	100.0	99.4	100.0	100.0	100.0
Edentulous	0.7	–	0.6	–	–	–
25–44 years	<i>n=1193</i>	<i>n=116</i>	<i>n=1331</i>	<i>n=173</i>	<i>n=390</i>	<i>n=656</i>
Dentate	97.9	100.0	98.0	99.6	100.0	99.8
Edentulous	2.2	–	2.0	0.4	–	0.2
45–64 years	<i>n=807</i>	<i>n=37</i>	<i>n=850</i>	<i>n=217</i>	<i>n=474</i>	<i>n=771</i>
Dentate	87.8	94.9	88.1	92.6	95.7	95.2
Edentulous	12.2	5.1	11.9	7.4	4.3	4.8
65+ years	<i>n=863</i>	<i>n=5</i>	<i>n=876</i>	<i>n=225</i>	<i>n=370</i>	<i>n=637</i>
Dentate	73.0	57.5	73.0	82.4	88.9	87.2
Edentulous	27.1	42.5	27.0	17.6	11.1	12.8
All	<i>n=3395</i>	<i>n=227</i>	<i>n=3670</i>	<i>n=658</i>	<i>n=1333</i>	<i>n=2225</i>
Dentate	89.3	98.3	89.8	92.2	95.3	94.8
Edentulous	10.7	1.7	10.3	7.8	4.7	5.2

Source: Prospective Adult Dental Programs Survey 1995–96

Periodontal status is presented in Table 5.4 by country of birth, language spoken and age of patient. Periodontal status is presented as the worst sextant CPITN score, with CPITN scores ranging from a best score of 'periodontal health' to a worst score of periodontal pockets of 6+ mm. Each patient is represented by their worst CPITN score, and the distribution of these worst CPITN scores is presented as a column percentage.

Overall, Australian-born patients had a higher percentage of periodontal health (11.1%) and lower percentages of periodontal pockets of 4–5 mm (18.7%) and 6+ mm (6.8%) compared to overseas-born patients (with 3.5%, 30.5% and 16.8% respectively). A similar pattern occurred across each age group. Among those born overseas there was a higher percentage of patients with periodontal health among those who spoke English only (6.0%) and lower percentages with periodontal pockets of 4–5 mm (24.1%) and 6+ mm (12.9%) compared to those who spoke a non-English language (with 2.7%, 32.0% and 15.6% respectively). This pattern of periodontal health and periodontal pockets of 4–5 mm was seen across each age group of overseas-born patients. However, percentages of pockets of 6+ mm showed only small differences by language spoken among overseas-born patients with the largest difference being seen among the 25–44 age group.

Table 5.4: Periodontal status (worst sextant CPITN score) of public-funded dental patients by country of birth, language spoken and age of patient – dentate patients

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	%	%	%	%	%	%
18–24 years	n=368	n=42	n=421	n=27	n=74	n=119
Periodontal health	12.8	23.3	12.8	4.3	2.3	4.9
Bleeding	28.7	26.8	27.5	27.2	16.3	16.0
Calculus	40.3	40.8	42.1	58.3	64.2	59.1
Pockets 4–5 mm	17.3	6.8	15.7	10.2	16.7	17.2
Pockets 6+ mm	1.1	2.3	2.0	–	0.5	2.9
25–44 years	n=1040	n=96	n=1156	n=154	n=363	n=602
Periodontal health	9.7	2.7	9.3	8.6	4.0	4.5
Bleeding	13.1	6.3	12.8	8.7	7.7	7.5
Calculus	55.9	36.5	54.5	53.3	48.5	47.7
Pockets 4–5 mm	16.9	32.5	18.0	22.7	24.8	26.5
Pockets 6+ mm	4.5	22.0	5.5	6.8	15.2	13.8
45–64 years	n=607	n=31	n=642	n=176	n=365	n=618
Periodontal health	10.6	4.7	10.3	3.9	1.9	2.3
Bleeding	13.9	–	13.4	6.6	5.7	6.3
Calculus	42.7	7.1	41.9	39.7	35.4	33.8
Pockets 4–5 mm	20.3	28.3	21.1	30.5	39.2	35.7
Pockets 6+ mm	12.4	59.9	13.3	19.3	17.9	21.9
65+ years	n=543	n=3	n=550	n=146	n=225	n=405
Periodontal health	11.5	–	11.4	4.2	1.9	2.7
Bleeding	17.5	48.0	17.4	14.9	6.0	8.8
Calculus	41.1	–	40.7	39.9	33.3	33.7
Pockets 4–5 mm	22.8	26.0	23.5	23.3	40.2	35.4
Pockets 6+ mm	7.0	26.0	7.0	17.8	18.5	19.5
All	n=2661	n=188	n=2889	n=516	n=1044	n=1775
Periodontal health	11.3	10.2	11.1	6.0	2.7	3.5
Bleeding	17.2	11.6	16.8	11.6	7.5	8.4
Calculus	47.1	34.3	46.4	45.3	42.1	40.8
Pockets 4–5 mm	18.3	21.8	18.7	24.1	32.0	30.5
Pockets 6+ mm	6.1	22.1	6.8	12.9	15.6	16.8

Source: Prospective Adult Dental Programs Survey 1995–96

Coronal caries experience is presented in Table 5.5 by country of birth, language spoken and age of patient. Overall, caries experience (DMFT) was similar for Australian-born (13.98) and overseas-born patients (13.84). However, the pattern varied by age group with the greatest disparity in DMFT occurring among 25–44-year-old patients, with 13.57 for Australian-born patients and 10.82 for overseas-born patients. Components of DMFT varied by country of birth, but the only consistent difference across age groups was a higher mean number of filled teeth for Australian-born compared to overseas-born patients.

Table 5.5: Coronal caries experience of public-funded dental patients by country of birth, language spoken and age of patient – dentate patients

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	(mean)	(mean)	(mean)	(mean)	(mean)	(mean)
18–24 years	n=371	n=45	n=427	n=30	n=78	n=126
Decayed	2.91	2.71	2.96	3.37	2.85	3.28
Missing	0.71	0.27	0.66	0.94	0.74	0.73
Filled	3.91	2.99	3.91	2.47	3.68	3.25
DMFT	7.53	5.97	7.54	6.78	7.27	7.25
25–44 years	n=1068	n=108	n=1195	n=161	n=375	n=625
Decayed	2.80	4.40	2.88	2.29	2.44	2.40
Missing	2.86	2.66	2.90	2.65	2.59	2.69
Filled	7.93	3.35	7.78	8.18	5.23	5.73
DMFT	13.59	10.41	13.57	13.12	10.26	10.82
45–64 years	n=650	n=31	n=685	n=185	n=434	n=696
Decayed	1.61	3.15	1.63	1.28	1.35	1.39
Missing	6.73	6.63	6.80	6.98	7.58	7.27
Filled	8.77	1.56	8.59	8.44	6.66	6.89
DMFT	17.11	11.34	17.02	16.70	15.59	15.55
65+ years	n=586	n=3	n=594	n=159	n=296	n=491
Decayed	0.78	2.18	0.77	1.08	1.31	1.26
Missing	9.63	–	9.51	10.05	10.01	10.04
Filled	7.43	2.40	7.44	6.85	5.70	6.04
DMFT	17.83	4.58	17.72	17.97	17.02	17.34
All	n=2783	n=206	n=3029	n=548	n=1202	n=1970
Decayed	2.07	3.53	2.14	1.68	1.77	1.80
Missing	4.80	2.45	4.70	5.90	6.13	5.96
Filled	7.28	2.99	7.14	7.65	5.77	6.08
DMFT	14.15	8.97	13.98	15.24	13.67	13.84

Source: Prospective Adult Dental Programs Survey 1995–96

Root caries experience is presented in Table 5.6 by country of birth, language spoken and age of patient. Overall, root caries experience (DF) was higher for overseas-born (0.86) compared to Australian-born patients (0.56), this pattern being seen in patients aged 25–44 years and older. This reflects higher mean numbers of filled roots among overseas-born compared to Australian-born patients among those aged 25–44 years and older. The mean number of decayed roots was higher among overseas-born compared to Australian-born patients in each age group except 25–44-year-olds.

Table 5.6: Root caries experience of public-funded dental patients by country of birth, language spoken and age of patient – dentate patients

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
	(mean)	(mean)	(mean)	(mean)	(mean)	(mean)
18–24 years	n=371	n=45	n=427	n=30	n=78	n=126
Decayed	0.18	0.43	0.19	0.15	0.28	0.25
Filled	0.25	0.36	0.26	0.28	0.08	0.26
DF	0.43	0.79	0.45	0.43	0.36	0.36
25–44 years	n=1068	n=108	n=1195	n=161	n=375	n=625
Decayed	0.28	0.27	0.29	0.34	0.29	0.28
Filled	0.15	0.03	0.14	0.38	0.27	0.28
DF	0.43	0.30	0.43	0.72	0.56	0.57
45–64 years	n=650	n=31	n=685	n=185	n=434	n=696
Decayed	0.30	0.65	0.31	0.18	0.42	0.36
Filled	0.36	–	0.40	0.38	0.81	0.66
DF	0.65	0.65	0.70	0.56	1.23	1.02
65+ years	n=586	n=3	n=594	n=159	n=296	n=491
Decayed	0.22	–	0.22	0.36	0.45	0.41
Filled	0.57	–	0.56	0.91	0.79	0.78
DF	0.79	–	0.78	1.27	1.25	1.19
All	n=2783	n=206	n=3029	n=548	n=1201	n=1970
Decayed	0.25	0.39	0.26	0.27	0.37	0.33
Filled	0.30	0.13	0.30	0.51	0.58	0.52
DF	0.55	0.52	0.56	0.78	0.95	0.86

Source: Prospective Adult Dental Programs Survey 1995–96

5.4 Provision of services

Provision of diagnostic services is presented in Table 5.7. A higher percentage of overseas-born patients received diagnostic services (95.7%) compared to Australian-born patients (87.7%), with this pattern occurring in each age group.

Diagnostic services comprised a higher percentage of services received by overseas-born (50.1%) compared to Australian-born patients (34.0%) with this pattern occurring in each age group.

The mean number of diagnostic services was higher for overseas-born (1.49) compared to Australian-born patients (1.29), with this pattern occurring for all age groups with the exception of 18–24-year-olds.

Table 5.7: Provision of diagnostic services to public-funded dental patients by country of birth, language spoken and age of patient – dentate patients

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
18–24 years	<i>n=404</i>	<i>n=50</i>	<i>n=465</i>	<i>n=30</i>	<i>n=79</i>	<i>n=126</i>
Per cent of persons	89.7	96.9	90.7	97.2	99.1	98.9
Per cent of services	40.4	48.7	40.8	52.2	58.1	56.4
Mean services	1.38	1.29	1.36	1.68	1.29	1.34
25–44 years	<i>n=1145</i>	<i>n=112</i>	<i>n=1279</i>	<i>n=169</i>	<i>n=388</i>	<i>n=649</i>
Per cent of persons	87.5	94.9	88.1	94.7	98.3	97.7
Per cent of services	33.6	40.0	34.1	47.9	56.9	54.1
Mean services	1.40	1.44	1.40	1.59	1.68	1.60
45–64 years	<i>n=692</i>	<i>n=34</i>	<i>n=732</i>	<i>n=192</i>	<i>n=445</i>	<i>n=715</i>
Per cent of persons	86.4	74.3	86.1	90.5	97.5	96.2
Per cent of services	30.5	34.3	30.6	40.6	54.3	49.0
Mean services	1.15	0.97	1.14	1.35	1.53	1.46
65+ years	<i>n=614</i>	<i>n=2</i>	<i>n=621</i>	<i>n=174</i>	<i>n=313</i>	<i>n=525</i>
Per cent of persons	87.6	35.2	87.5	85.5	93.7	91.8
Per cent of services	32.8	35.2	32.8	39.8	48.4	45.4
Mean services	1.19	0.35	1.18	1.32	1.47	1.41
All	<i>n=2971</i>	<i>n=216</i>	<i>n=3232</i>	<i>n=577</i>	<i>n=1244</i>	<i>n=2047</i>
Per cent of persons	87.4	91.3	87.7	90.6	96.9	95.7
Per cent of services	33.6	41.3	34.0	43.4	53.7	50.1
Mean services	1.30	1.28	1.29	1.45	1.55	1.49

Source: Prospective Adult Dental Programs Survey 1995–96

Table 5.8 presents the provision of preventive services. A higher percentage of Australian-born patients received preventive services (15.8%) compared to overseas-born patients (10.2%), with this pattern occurring consistently across each age group.

Preventive services comprised a higher percentage of services received by Australian-born (5.7%) compared to overseas-born patients (5.0%), with this pattern occurring across all age groups.

The mean number of preventive services was higher for Australian-born (0.23) compared to overseas-born patients (0.15), with this pattern occurring across all age groups.

Table 5.8: Provision of preventive services to public-funded dental patients by country of birth, language spoken and age of patient – dentate patients

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
18–24 years	<i>n=404</i>	<i>n=50</i>	<i>n=465</i>	<i>n=30</i>	<i>n=79</i>	<i>n=126</i>
Per cent of persons	17.0	11.8	15.9	15.2	6.9	9.0
Per cent of services	6.3	5.2	6.0	4.7	3.5	4.0
Mean services	0.22	0.14	0.20	0.15	0.08	0.10
25–44 years	<i>n=1145</i>	<i>n=112</i>	<i>n=1279</i>	<i>n=169</i>	<i>n=388</i>	<i>n=649</i>
Per cent of persons	15.6	17.3	15.4	10.0	9.5	9.4
Per cent of services	5.5	5.5	5.5	4.9	4.5	4.6
Mean services	0.23	0.20	0.22	0.16	0.13	0.14
45–64 years	<i>n=692</i>	<i>n=34</i>	<i>n=732</i>	<i>n=192</i>	<i>n=445</i>	<i>n=715</i>
Per cent of persons	14.7	1.8	14.2	15.9	8.3	10.0
Per cent of services	5.5	0.6	5.4	6.6	4.3	5.3
Mean services	0.21	0.02	0.20	0.22	0.12	0.16
65+ years	<i>n=614</i>	<i>n=2</i>	<i>n=621</i>	<i>n=174</i>	<i>n=313</i>	<i>n=525</i>
Per cent of persons	16.5	–	16.4	13.4	10.8	11.4
Per cent of services	6.7	–	6.6	5.4	5.0	5.2
Mean services	0.24	–	0.24	0.18	0.15	0.16
All	<i>n=2971</i>	<i>n=216</i>	<i>n=3232</i>	<i>n=577</i>	<i>n=1244</i>	<i>n=2047</i>
Per cent of persons	16.3	12.3	15.8	13.1	9.4	10.2
Per cent of services	5.8	4.6	5.7	5.6	4.5	5.0
Mean services	0.23	0.14	0.23	0.18	0.13	0.15

Source: Prospective Adult Dental Programs Survey 1995–96

Table 5.9 shows that a higher percentage of Australian-born patients received periodontic services (21.7%) compared to overseas-born patients (13.1%), with this pattern occurring across each age group.

Periodontic services comprised a higher percentage of services received by Australian-born (6.3%) compared to overseas-born patients (5.0%), with this pattern occurring across all age groups.

The mean number of periodontic services was higher among Australian-born (0.24) compared to overseas-born patients (0.15), with this pattern occurring across all age groups.

Table 5.9: Provision of periodontic services to public-funded dental patients by country of birth, language spoken and age of patient – dentate patients

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
18–24 years	<i>n=404</i>	<i>n=50</i>	<i>n=465</i>	<i>n=30</i>	<i>n=79</i>	<i>n=126</i>
Per cent of persons	16.1	15.9	17.0	1.4	7.7	5.4
Per cent of services	4.8	6.0	5.2	0.4	3.6	2.4
Mean services	0.17	0.16	0.17	0.01	0.08	0.06
25–44 years	<i>n=1145</i>	<i>n=112</i>	<i>n=1279</i>	<i>n=169</i>	<i>n=388</i>	<i>n=649</i>
Per cent of persons	21.8	21.5	21.2	18.1	11.8	12.9
Per cent of services	6.0	6.7	5.9	6.1	4.7	5.1
Mean services	0.25	0.24	0.24	0.20	0.14	0.15
45–64 years	<i>n=692</i>	<i>n=34</i>	<i>n=732</i>	<i>n=192</i>	<i>n=445</i>	<i>n=715</i>
Per cent of persons	22.8	12.5	22.5	24.6	10.7	14.1
Per cent of services	6.8	6.3	6.8	7.9	4.6	5.5
Mean services	0.26	0.18	0.25	0.26	0.13	0.16
65+ years	<i>n=614</i>	<i>n=2</i>	<i>n=621</i>	<i>n=174</i>	<i>n=313</i>	<i>n=525</i>
Per cent of persons	25.6	–	25.4	20.7	12.7	14.2
Per cent of services	7.5	–	7.5	6.4	4.4	4.8
Mean services	0.27	–	0.27	0.21	0.13	0.15
All	<i>n=2971</i>	<i>n=216</i>	<i>n=3232</i>	<i>n=577</i>	<i>n=1244</i>	<i>n=2047</i>
Per cent of persons	21.9	18.1	21.7	19.9	11.4	13.1
Per cent of services	6.3	6.4	6.3	6.5	4.5	5.0
Mean services	0.24	0.20	0.24	0.21	0.13	0.15

Source: Prospective Adult Dental Programs Survey 1995–96

The provision of oral surgery (extraction) services is presented in Table 5.10. Overall, a higher percentage of overseas-born patients received extractions (23.3%) compared to Australian-born patients (20.4%). However, this pattern varied by age group with a higher percentage of Australian-born patients aged 18–24 years receiving extractions (25.9%) compared to overseas-born patients (20.9%), but this pattern was reversed among those aged 65 years or more, with a lower percentage of Australian-born patients receiving extractions (10.2%) compared to overseas-born patients (26.6%).

Extractions comprised a higher percentage of services received by overseas-born (12.2%) compared to Australian-born patients (10.9%), but this varied across age groups.

The mean number of extractions was higher for Australian-born (0.41) compared to overseas-born patients (0.36), but this varied across age groups.

Table 5.10: Provision of oral surgery (extraction) services to public-funded dental patients by country of birth, language spoken and age of patient – dentate patients

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
18–24 years	n=404	n=50	n=465	n=30	n=79	n=126
Per cent of persons	27.1	16.4	25.9	32.6	14.8	20.9
Per cent of services	13.9	8.2	13.3	10.6	7.6	9.9
Mean services	0.47	0.22	0.44	0.34	0.17	0.23
25–44 years	n=1145	n=112	n=1279	n=169	n=388	n=649
Per cent of persons	22.8	50.4	24.2	25.5	22.1	23.4
Per cent of services	11.3	20.5	11.7	11.6	10.7	11.3
Mean services	0.47	0.74	0.48	0.38	0.32	0.33
45–64 years	n=692	n=34	n=732	n=192	n=445	n=715
Per cent of persons	19.2	78.6	20.4	16.9	19.8	21.9
Per cent of services	13.0	50.6	13.6	7.8	10.7	11.7
Mean services	0.49	1.44	0.51	0.26	0.30	0.35
65+ years	n=614	n=2	n=621	n=174	n=313	n=525
Per cent of persons	10.1	–	10.2	15.8	28.3	26.6
Per cent of services	4.3	–	4.3	7.5	15.8	14.3
Mean services	0.16	–	0.16	0.25	0.48	0.44
All	n=2971	n=216	n=3232	n=577	n=1244	n=2047
Per cent of persons	19.5	43.7	20.4	20.5	22.1	23.3
Per cent of services	10.6	22.1	10.9	9.1	11.9	12.2
Mean services	0.40	0.71	0.41	0.30	0.34	0.36

Source: Prospective Adult Dental Programs Survey 1995–96

Table 5.11 shows that a higher percentage of Australian-born patients received endodontic services (4.1%) compared to overseas-born patients (2.9%). This pattern of service provision occurred in all age groups 25–44 years and older.

Endodontic services comprised a higher percentage of services received by Australian-born (2.8%) compared to overseas-born patients (1.8%), with this pattern occurring across age groups 25–44 years and older.

The mean number of endodontic services was higher among Australian-born (0.10) compared to overseas-born patients (0.06), with this pattern occurring across age groups 25–44 years and older.

Table 5.11: Provision of endodontic services to public-funded dental patients by country of birth, language spoken and age of patient – dentate patients

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
18–24 years	<i>n=404</i>	<i>n=50</i>	<i>n=465</i>	<i>n=30</i>	<i>n=79</i>	<i>n=126</i>
Per cent of persons	5.0	7.4	5.7	6.7	8.5	7.8
Per cent of services	3.2	3.5	3.4	3.4	6.4	5.2
Mean services	0.11	0.09	0.11	0.11	0.14	0.12
25–44 years	<i>n=1145</i>	<i>n=112</i>	<i>n=1279</i>	<i>n=169</i>	<i>n=388</i>	<i>n=649</i>
Per cent of persons	5.1	3.7	5.0	4.9	2.1	3.3
Per cent of services	3.3	2.4	3.3	2.1	1.7	1.9
Mean services	0.14	0.09	0.13	0.07	0.05	0.06
45–64 years	<i>n=692</i>	<i>n=34</i>	<i>n=732</i>	<i>n=192</i>	<i>n=445</i>	<i>n=715</i>
Per cent of persons	3.5	–	3.4	2.3	1.9	2.1
Per cent of services	2.4	–	2.4	1.3	1.5	1.4
Mean services	0.09	–	0.09	0.04	0.04	0.04
65+ years	<i>n=614</i>	<i>n=2</i>	<i>n=621</i>	<i>n=174</i>	<i>n=313</i>	<i>n=525</i>
Per cent of persons	2.7	–	2.6	2.3	1.5	1.7
Per cent of services	2.0	–	2.0	4.0	0.9	1.7
Mean services	0.07	–	0.07	0.13	0.03	0.05
All	<i>n=2971</i>	<i>n=216</i>	<i>n=3232</i>	<i>n=577</i>	<i>n=1244</i>	<i>n=2047</i>
Per cent of persons	4.1	3.9	4.1	4.1	2.2	2.9
Per cent of services	2.8	2.3	2.8	2.4	1.6	1.8
Mean services	0.11	0.07	0.10	0.08	0.05	0.06

Source: Prospective Adult Dental Programs Survey 1995–96

Provision of restorative services is presented in Table 5.12. A higher percentage of Australian-born patients received restorative care (40.4%) compared to overseas-born patients (20.9%), with this pattern occurring consistently across all age groups.

Restorative services comprised a higher percentage of services received by Australian-born (27.9%) compared to overseas-born patients (16.2%), with this pattern occurring across all age groups.

The mean number of restorative services per course of care was higher for Australian-born (1.06) compared to overseas-born patients (0.48), with this pattern occurring across all age groups.

Table 5.12: Provision of restorative services to public-funded dental patients by country of birth, language spoken and age of patient – dentate patients

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
18–24 years	<i>n=404</i>	<i>n=50</i>	<i>n=465</i>	<i>n=30</i>	<i>n=79</i>	<i>n=126</i>
Per cent of persons	30.8	32.3	31.2	22.1	20.9	20.7
Per cent of services	23.7	19.5	23.8	20.6	12.9	15.0
Mean services	0.81	0.51	0.79	0.66	0.29	0.35
25–44 years	<i>n=1145</i>	<i>n=112</i>	<i>n=1279</i>	<i>n=169</i>	<i>n=388</i>	<i>n=649</i>
Per cent of persons	41.7	26.3	40.8	27.2	18.7	20.8
Per cent of services	31.1	16.7	30.4	19.3	16.2	17.1
Mean services	1.29	0.60	1.25	0.64	0.48	0.50
45–64 years	<i>n=692</i>	<i>n=34</i>	<i>n=732</i>	<i>n=192</i>	<i>n=445</i>	<i>n=715</i>
Per cent of persons	42.9	7.1	41.9	31.6	18.2	20.8
Per cent of services	26.6	4.4	26.3	22.3	13.7	16.1
Mean services	1.01	0.12	0.98	0.74	0.39	0.48
65+ years	<i>n=614</i>	<i>n=2</i>	<i>n=621</i>	<i>n=174</i>	<i>n=313</i>	<i>n=525</i>
Per cent of persons	44.4	64.8	44.6	29.0	18.0	20.8
Per cent of services	27.1	64.8	27.2	20.9	13.4	15.6
Mean services	0.98	0.65	0.98	0.69	0.41	0.48
All	<i>n=2971</i>	<i>n=216</i>	<i>n=3232</i>	<i>n=577</i>	<i>n=1244</i>	<i>n=2047</i>
Per cent of persons	41.1	25.9	40.4	28.8	18.6	20.9
Per cent of services	28.3	15.5	27.9	20.9	14.4	16.2
Mean services	1.08	0.51	1.06	0.68	0.41	0.48

Source: Prospective Adult Dental Programs Survey 1995–96

Table 5.13 shows that a low percentage of patients received crown and bridge services: 2.1% of Australian-born patients and 2.4% of overseas-born patients. The pattern of provision of crown and bridge services varied by age group with no consistent trends.

Crown and bridge services comprised a similar percentage of services for Australian-born (0.8%) and overseas-born patients (0.9%), but there was some variation by country of birth across age groups.

The mean number of crown and bridge services was the same (0.03) for Australian-born and overseas-born patients, but there was some variation across age groups.

Table 5.13: Provision of crown and bridge services to public-funded dental patients by country of birth, language spoken and age of patient – dentate patients

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
18–24 years	<i>n</i> =404	<i>n</i> =50	<i>n</i> =465	<i>n</i> =30	<i>n</i> =79	<i>n</i> =126
Per cent of persons	0.7	–	0.6	–	–	–
Per cent of services	0.3	–	0.3	–	–	–
Mean services	0.01	–	0.01	–	–	–
25–44 years	<i>n</i> =1145	<i>n</i> =112	<i>n</i> =1279	<i>n</i> =169	<i>n</i> =388	<i>n</i> =649
Per cent of persons	3.0	–	2.8	3.1	1.1	1.6
Per cent of services	1.0	–	1.0	1.0	0.4	0.5
Mean services	0.04	–	0.04	0.03	0.01	0.02
45–64 years	<i>n</i> =692	<i>n</i> =34	<i>n</i> =732	<i>n</i> =192	<i>n</i> =445	<i>n</i> =715
Per cent of persons	2.5	–	2.4	2.9	2.4	2.8
Per cent of services	0.8	–	0.8	0.9	1.3	1.2
Mean services	0.03	–	0.03	0.03	0.04	0.04
65+ years	<i>n</i> =614	<i>n</i> =2	<i>n</i> =621	<i>n</i> =174	<i>n</i> =313	<i>n</i> =525
Per cent of persons	2.0	–	2.0	4.9	3.2	3.8
Per cent of services	0.6	–	0.6	1.5	1.0	1.2
Mean services	0.02	–	0.02	0.05	0.03	0.04
All	<i>n</i> =2971	<i>n</i> =216	<i>n</i> =3232	<i>n</i> =577	<i>n</i> =1244	<i>n</i> =2047
Per cent of persons	2.3	–	2.1	3.3	2.0	2.4
Per cent of services	0.8	–	0.8	1.1	0.9	0.9
Mean services	0.03	–	0.03	0.03	0.02	0.03

Source: Prospective Adult Dental Programs Survey 1995–96

Table 5.14 shows that a higher percentage of Australian-born patients received prosthodontic services (9.1%) compared to overseas-born patients (5.9%). This pattern occurred consistently across each age group.

Prosthodontic services comprised a higher percentage of services received by Australian-born (6.8%) compared to overseas-born patients (5.2%), with this pattern occurring across each age group.

The mean number of prosthodontic services was higher for Australian-born (0.25) compared to overseas-born patients (0.15), with this pattern occurring across each age group.

Table 5.14: Provision of prosthodontic services to public-funded dental patients by country of birth, language spoken and age of patient – dentate patients

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
18–24 years	n=404	n=50	n=465	n=30	n=79	n=126
Per cent of persons	1.9	1.0	1.8	–	0.4	0.3
Per cent of services	1.1	0.4	1.0	–	1.1	0.7
Mean services	0.04	0.01	0.03	–	0.02	0.02
25–44 years	n=1145	n=112	n=1279	n=169	n=388	n=649
Per cent of persons	5.2	5.6	5.1	0.6	1.6	1.2
Per cent of services	3.3	4.6	3.3	1.0	1.0	0.9
Mean services	0.14	0.16	0.14	0.03	0.03	0.03
45–64 years	n=692	n=34	n=732	n=192	n=445	n=715
Per cent of persons	11.3	3.6	10.9	9.5	7.8	7.5
Per cent of services	9.8	1.3	9.6	9.7	7.5	7.3
Mean services	0.37	0.04	0.36	0.32	0.21	0.22
65+ years	n=614	n=2	n=621	n=174	n=313	n=525
Per cent of persons	21.9	–	21.6	13.0	11.6	11.5
Per cent of services	15.5	–	15.4	9.5	8.8	8.7
Mean services	0.56	–	0.56	0.31	0.27	0.27
All	n=2971	n=216	n=3232	n=577	n=1244	n=2047
Per cent of persons	9.5	4.1	9.1	6.9	6.3	5.9
Per cent of services	7.0	2.9	6.8	6.3	5.4	5.2
Mean services	0.26	0.10	0.25	0.20	0.15	0.15

Source: Prospective Adult Dental Programs Survey 1995–96

Table 5.15 shows that a higher percentage of Australian-born patients received temporary services (9.1%) compared to overseas-born patients (6.0%). This pattern occurred in age groups younger than 65 years, with the largest difference measured for patients in the 45–64 age group.

Temporary services comprised a slightly higher percentage of services received by Australian-born (3.0%) compared to overseas-born patients (2.4%), with some variation by country of birth across different age groups.

The mean number of temporary services was higher for Australian-born (0.11) compared to overseas-born patients (0.07), with this pattern occurring in all age groups less than 65 years.

Table 5.15: Provision of temporary services to public-funded dental patients by country of birth, language spoken and age of patient – dentate patients

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
18–24 years	<i>n=404</i>	<i>n=50</i>	<i>n=465</i>	<i>n=30</i>	<i>n=79</i>	<i>n=126</i>
Per cent of persons	11.1	8.5	10.4	16.4	9.8	9.8
Per cent of services	4.5	4.3	4.4	5.1	6.4	5.4
Mean services	0.16	0.11	0.15	0.16	0.14	0.13
25–44 years	<i>n=1145</i>	<i>n=112</i>	<i>n=1279</i>	<i>n=169</i>	<i>n=388</i>	<i>n=649</i>
Per cent of persons	11.0	6.5	10.8	9.9	6.5	7.2
Per cent of services	3.3	1.8	3.2	4.8	2.5	3.1
Mean services	0.14	0.06	0.13	0.16	0.07	0.09
45–64 years	<i>n=692</i>	<i>n=34</i>	<i>n=732</i>	<i>n=192</i>	<i>n=445</i>	<i>n=715</i>
Per cent of persons	8.6	3.6	8.9	4.7	3.7	4.1
Per cent of services	3.1	1.3	3.2	1.5	1.6	1.6
Mean services	0.12	0.04	0.12	0.05	0.04	0.05
65+ years	<i>n=614</i>	<i>n=2</i>	<i>n=621</i>	<i>n=174</i>	<i>n=313</i>	<i>n=525</i>
Per cent of persons	4.2	–	4.1	11.3	3.3	5.4
Per cent of services	1.3	–	1.2	3.9	1.3	2.0
Mean services	0.05	–	0.04	0.13	0.04	0.06
All	<i>n=2971</i>	<i>n=216</i>	<i>n=3232</i>	<i>n=577</i>	<i>n=1244</i>	<i>n=2047</i>
Per cent of persons	9.2	6.1	9.1	9.7	4.8	6.0
Per cent of services	3.0	2.4	3.0	3.4	2.0	2.4
Mean services	0.12	0.07	0.11	0.13	0.06	0.07

Source: Prospective Adult Dental Programs Survey 1995–96

From Table 5.16 it is evident that a higher percentage of Australian-born patients received miscellaneous services (5.3%) compared to overseas-born patients (2.8%). This pattern occurred consistently across all age groups.

Miscellaneous services comprised only a small percentage of services for both Australian-born (1.7%) and overseas-born patients (1.1%), constituting a higher percentage among Australian-born patients in each age group.

The mean number of miscellaneous services was higher for Australian-born patients (0.06) compared to overseas-born patients (0.03), with this pattern occurring across each age group.

Table 5.16: Provision of miscellaneous services to public-funded dental patients by country of birth, language spoken and age of patient – dentate patients

	Australian-born			Overseas-born		
	English only	Non-English	Total	English only	Non-English	Total
18–24 years	<i>n=404</i>	<i>n=50</i>	<i>n=465</i>	<i>n=30</i>	<i>n=79</i>	<i>n=126</i>
Per cent of persons	5.1	9.2	5.1	9.6	0.8	2.5
Per cent of services	1.7	4.2	1.8	3.0	0.4	1.0
Mean services	0.06	0.11	0.06	0.10	0.01	0.02
25–44 years	<i>n=1145</i>	<i>n=112</i>	<i>n=1279</i>	<i>n=169</i>	<i>n=388</i>	<i>n=649</i>
Per cent of persons	4.9	6.7	5.1	3.9	3.3	3.9
Per cent of services	1.5	1.9	1.6	1.4	1.3	1.5
Mean services	0.06	0.07	0.07	0.05	0.04	0.04
45–64 years	<i>n=692</i>	<i>n=34</i>	<i>n=732</i>	<i>n=192</i>	<i>n=445</i>	<i>n=715</i>
Per cent of persons	4.7	3.6	4.6	4.7	0.6	2.1
Per cent of services	1.4	1.3	1.4	1.5	0.5	0.9
Mean services	0.05	0.04	0.05	0.05	0.01	0.03
65+ years	<i>n=614</i>	<i>n=2</i>	<i>n=621</i>	<i>n=174</i>	<i>n=313</i>	<i>n=525</i>
Per cent of persons	6.7	–	6.6	2.7	2.5	2.6
Per cent of services	2.3	–	2.3	1.0	1.0	1.0
Mean services	0.08	–	0.08	0.03	0.03	0.03
All	<i>n=2971</i>	<i>n=216</i>	<i>n=3232</i>	<i>n=577</i>	<i>n=1244</i>	<i>n=2047</i>
Per cent of persons	5.2	6.4	5.3	4.2	1.9	2.8
Per cent of services	1.7	2.4	1.7	1.4	0.9	1.1
Mean services	0.06	0.07	0.06	0.05	0.03	0.03

Source: Prospective Adult Dental Programs Survey 1995–96

5.5 Satisfaction scores

The majority of card-holders received their most recent dental care through private practices at their own expense. Table 5.17 presents the mean satisfaction scores by the funding of the last dental visit, and shows that card-holders whose latest dental care was public-funded recorded satisfaction scores which were significantly lower (ANOVA) for all conceptual categories.

Card-holders who spoke a language other than English at home and whose last dental care was public-funded reported very low satisfaction scores. Their mean satisfaction scores ranged from 3.20 to 3.27, compared with 3.69 to 3.85 for overseas-born recipients of public-funded care, and the group mean 3.80 to 3.87.

Table 5.17: Mean satisfaction score for conceptual categories by language spoken at home, country of birth and funding of last dental visit – dentate persons aged 18+ whose last visit was within previous 12 months

	Language spoken		Country of birth		Total
	English only	Non-English	Australia	Overseas	
	(mean)	(mean)	(mean)	(mean)	(mean)
Funding of visit†					
Public-funded	<i>n=447</i>	<i>n=66</i>	<i>n=330</i>	<i>n=183</i>	<i>n=513</i>
Context	3.91	3.27	3.87	3.69	3.82
Content	3.99	3.21	3.88	3.85	3.87
Outcome	3.91	3.20	3.84	3.70	3.80
Satisfaction	3.96	3.26	3.89	3.77	3.86
Private – own expense	<i>n=2071</i>	<i>n=186</i>	<i>n=1748</i>	<i>n=508</i>	<i>n=2257</i>
Context	4.34	4.19	4.35	4.24	4.33
Content	4.25	4.10	4.26	4.14	4.24
Outcome	4.27	4.15	4.29	4.18	4.26
Satisfaction	4.29	4.13	4.29	4.19	4.27
All	<i>n=2518</i>	<i>n=252</i>	<i>n=2078</i>	<i>n=691</i>	<i>n=2770</i>
Context*	4.31	4.09	4.32	4.18	4.29
Content*	4.23	3.99	4.24	4.11	4.21
Outcome*	4.25	4.03	4.26	4.13	4.23
Satisfaction*	4.26	4.03	4.27	4.15	4.24

* Sig. $p < 0.05$ one-way ANOVA (language; country of birth)

† Sig. $p < 0.05$ one-way ANOVAs (funding of visit by context, content, outcome and satisfaction)

N.B. context = appointment/waiting time, dentist and clinic staff issues
 content = communication, explanation of treatment and options, thoroughness of services
 outcome = service results, improvement in oral health

Source: 1994, 1995, 1996 Dental Satisfaction Surveys

5.6 Discussion

Among public-funded dental patients there were consistent differences in type of care received, with higher percentages of emergency treatment received by patients born overseas compared to those born in Australia. However, patterns of oral health were not consistently better or worse in the case of overseas-born patients.

Overseas-born patients had lower percentages of edentulism but among overseas patients who were dentate there were lower percentages with periodontal health and higher percentages with periodontal pockets compared to Australian-born patients. Some of these differences in periodontal status may be due to a survivor effect associated with different levels of tooth loss.

Overall coronal caries experience (DMFT) was similar for Australian-born and overseas-born patients, but this varied by age and there were some differences in the components of DMFT. Root caries experience was higher among overseas-born patients than Australian-born patients, but the absolute contribution of root caries to total caries experience was small.

Although there were no clear trends in oral health status, the pattern of service provision varied for nine of the ten service areas. Lower percentages of Australian-born patients received diagnostic and oral surgery (extraction) services, while higher percentages received preventive, periodontic, endodontic, restorative, prosthodontic, temporary and miscellaneous services compared to overseas-born patients.

Some of these differences in service provision may be related to the type of care received by patients. Overseas-born patients received a higher percentage of emergency care, which may be expected to be associated with a different service-mix compared to non-emergency care, including lower total numbers of services per course of care. However, overseas-born patients received fewer total services per course of care than Australian-born patients in each age group when stratified into both emergency and non-emergency care.

To control for the effect of factors such as age and type of care the receipt of services was analysed using multiple logistic regression. Each of the nine service areas which had showed variation in the descriptive analysis was included as the dependent variable in nine separate regressions which each included age, geographic location, type of care, country of birth/language spoken, indigenous status, numbers of decayed teeth, numbers of missing teeth, numbers of decayed tooth roots, and the presence of periodontal pockets. Differences in service provision by country of birth/language spoken persisted after controlling for these factors. For example, significant differences were found between the reference category of Australian-born patients who spoke English only and overseas-born patients who spoke a non-English language for diagnostic (odds ratio (OR) = 5.02), preventive (OR = 0.70), periodontic (OR = 0.54), endodontic (OR = 0.50), restorative (OR = 0.31), prosthodontic (OR = 0.42), temporary (OR = 0.49) and miscellaneous services (OR = 0.38). Overseas-born patients who spoke English only also had higher odds for diagnostic services (OR = 1.54) and lower odds for restorative (OR = 0.60) and prosthodontic services (OR = 0.56), compared to the reference category of Australian-born patients who spoke English only. These findings indicate cultural differences in service delivery, with variation relating to aspects including the receipt of emergency care and the pattern of services received. These differences in service provision persist after controlling for age, type of care, geographic location and oral health status.

Differences in dental satisfaction scores by language were greater among recipients of public-funded care than among those persons who received private own-expense care. Lower satisfaction scores were also recorded by overseas-born recipients of public-funded care, although the differences by country of birth were smaller than those by language. (Satisfaction scores recorded by recipients of public-funded care were significantly lower (ANOVA) than for recipients of private own-expense care.)

6 Comments on dental care received

This chapter presents comments that were made in the 1994, 1995 and 1996 Dental Satisfaction Surveys. Comments which particularly reflect the concerns and expectations of those persons born overseas have been selected. These relate to difficulties that persons who spoke a non-English language experienced, whether in terms of lack of explanation for treatment received, attitudes of the dental staff, lack of availability of services and facilities, or unmet expectation that teeth would be extracted.

More than half of the surveys returned included comments. The individuals' wording and use of spelling has been preserved. The comments listed below were all made by card-holders who were born overseas.

Comparison comments

Last dental visit was to a public clinic

“As an international standard dentistry is below standard.”

Last dental visit was to a private clinic (including CDHP funded)

“I had spent a lot of money in my time on my teeth, before I finished work I spent over \$3,000 on my teeth. After some of the work came undone, and I complained the dentist told me I was wise. From the country I come we do look after our teeth.”

“I have found that in my relatively short time in Australia (3.5 years) any treatment that I have received has been thorough and professional at all times.”

Attitude – dissatisfied

Last dental visit was to a public clinic

“Dental clinics have too few dentists. They are overworked brusque & hurried. Staff are officious.”

“Staffs were racist, unfriendly & rude. Why is it every time I visit, I have to wait at least 1 hour before I get treated? The staffs think I can't understand English, so they make racist comments, I hope those people are fired.”

Last dental visit was to a private clinic (including CDHP funded)

“An abrupt attitude, of if you want better you should pay a lot more.”

Dental care received – dissatisfied

Last dental visit was to a public clinic

“I was in more pain after the treatment. I have never been satisfy every time I visited the place.”

“Treats one problem at a time. Costs are to *(sic)* expensive to hav *(sic)* all dental problems repaired.”

“... kept waiting two hours for appointment not booked trough *(sic)* from office to clinic as appointment had been made by phone. Then one filling done by different student which took 4 minutes approximetley *(sic)*. Filling applied without any cleaning preparation.”

“... was told was now 2 year waiting list but my case back dated so I would only have to wait 1 year. Fortunately I have 5 top and 1 bottom teth *(sic)* so can still eat”

“A small temporary filling was given over 2 years ago. I could not get an appointment for a permanent filling. The tooth deteriorated as a result, and pain ensued. When I visited for emergency treatment recently it was refilled, but was still painful. On a repeat emergency visit I was given the option of putting up with the pain & having the tooth extracted – with great pain, despite injections. Now the adjoining teeth are becoming loose, and I fear further extractions will follow.”

“My teeth are now stained even after polish and have become very consious *(sic)* when I try to smile. My teeth become increasingly sencitive *(sic)* but can not have the treatment I would have if I would be financially well of *(sic)*.”

Last dental visit was to a private clinic (including CDHP funded)

“The person I saw was to *(sic)* rough. My mouth wasn't frozen properly before he began treatment.”

“... unable to receive treatment when required, I was forced to seek private attention for fillings which had fallen out on work performed by the health centre.”

“I was so ill when I came out of the surgery, I couldn't drive my car home. I think that some dentists treat you so bad because you have a health care card, and deep down they really do not want to treat those patients, as the five I have been to didn't even treat me as a human being ... last time (at a dental hospital) I spent something like 5 hours there to get 1 tooth extracted, or told they have no room and my name goes, yet again on another waiting list, and so it goes on and on.”

“... a check-up of all teeth etc was not given or advised after the specific problem was treated.”

“I thought that a tooth should have been extracted a lot sooner, but they would not listen and as a result I suffered a lot of pain. In the end they did pull it out and its OK now.”

“I had half a double tooth missing (no problems) he filled it, pain when anything cold touches it. As I don't like having my teeth played about with, I'll put up with it.”

“I go to a private practitioner because I feel the standard of care is superior to the public service alternative.”

“A small temporary filling was given over 2 years ago. I could not get an appointment for a permanent filling. The tooth deteriorated as a result, and pain ensued. When I visited for emergency treatment recently it was refilled, but was still painful. On a repeat emergency visit I was given the option of putting up with the pain & having the tooth extracted – with great pain, despite injections. Now the adjoining teeth are becoming loose, and I fear further extractions will follow.”

“My teeth are now stained even after polish and have become very consious (*sic*) when I try to smile. My teeth become increasingly sencitive (*sic*) but can not have the treatment I would have if I would be financially well of.”

Communication/explanation – dissatisfied

Last dental visit was to a public clinic

“Very short and abrupt advice, esp. of care to be taken to avoid complications after extraction of tooth.”

“You SHOULD be told "exactly" what could be done to fix your teeth whether or not you could afford it.”

“Not enough explanation by dentist.”

“I have been a fortnight ago to the Dental Clinic and Dr (*name supplied*) put me on (*sic*) Temporary Filling in, because I lost the other filling. My tooth is half gone and I have to come in 4 weeks back. Maybe the Dokter (*sic*) can put me a good Filling in. That is the best what I can Fill out. I am not that good in engl (*English*) and no-one what can help me. I am 80 years old and can see only on my left eye. I am sorry.”

Last dental visit was to a private clinic (including CDHP funded)

“... and not fully aware of what was going on for some of my treatment until after.”

“The dentist never explained what treatment he was performing. I always had to ask – which is quite difficult when you have 2 hands and a handful of instruments in your mouth.”

Attitude – satisfied

Last dental visit was to a private clinic (including CDHP funded)

“I am satisfied with how the dentist treats me as his patient. ... I am Asian. He is friendly and polite.”

Cost/Government assistance – dissatisfied

Last dental visit was to a private clinic (including CDHP funded)

“I wish that dental treatments should not cost exorbitantly.”

“If dental costs were not so high people would visit more often and the more expensive treatment may not be necessary.”

“There is only one dentist for us in this town, his attitude leaves much to be desired and he charges to *(sic)* high a price for all that he does, and wont do the work that you ask for but forces his will on you so that he can justify his higher charges.”

“I do think that the cost of dental treatment is way to *(sic)* expensive, this causing people like me not to go as often as I should.”

Waiting time – dissatisfied

Last dental visit was to a private clinic (including CDHP funded)

“I would use the public dental clinic more often if I didn't have to wait so long for an appointment.”

Dental care received – satisfied

Last dental visit was to a private clinic (including CDHP funded)

“Very gentle is private cleaning teets filing *(sic)* – etc. My dentist is: *(name and address supplied)*”

“I'm satisfied with dental treatment in general because at age 48 I still have all my own teeth a situation that was rare among adults in my youth.”

Other

Last dental visit was to a private clinic (including CDHP funded)

“Always treated as a person not a dollar.”

“As a child my parents did not, nor could afford dental hygiene. Teeth were never filled only extract if they ached. I had full top denture in my teens. One episode in my late teens when it required 3 professional to remove one tooth put me off dentists for life and still only visit when absolutely necessary.”

“I had lots of trouble with my dental health. My first dentist was very good. He had treated me very well, then he change place, and I start to see some other one, that was bad. The treatment somehow wasn't the same, so I had to go more times than necessary I believe. I also believe a lot of dentists do not do they job well, because they may think they will be out of work, if they do a good job. All my dentists have been private, and all together about 4 only one had been good to fix what had been wrong.”

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- Dental Care for Adults in Australia: Proceedings of a Workshop (1993)*
Commonwealth Dental Health Program, Baseline Evaluation Report 1994 (1995)
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