AUSTRALIAN INSTITUTE OF
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THE UNIVERSITY OF ADELAIDE

Commonwealth Dental Health Program Baseline Evaluation Report 1994

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The AIHW Dental Statistics and Research Unit (DSRU) is an external unit of the Australian Institute of Health and Welfare, and was established in 1988 at The University of Adelaide. The DSRU was funded to improve the range and quality of dental statistics and research on the dental workforce, dental health status, dental practices and use of dental services.

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EXECUTIVE SUMMARY

Research regarding variation in dental health within the adult community has highlighted manifest social inequalities in dental health status and access to basic dental care in the Australian adult population. The formative document on adult dental health, *A research database on dental care in Australia* (AIHW Dental Statistics and Research Unit, 1993), identified three principal themes of interest, including the need to convert care provided to health care card holders from:

- emergency to basic dental care;
- extraction to restoration;
- treatment to prevention.

Accordingly, the Commonwealth Dental Health Program (CDHP) aims to reduce geographic and financial barriers that are at present preventing adult card holders and their dependants receiving timely and appropriate dental care.

The AIHW Dental Statistics and Research Unit (DSRU) is evaluating the Program to assess its effectiveness in altering the profile of health and access to care of the eligible card holder population relative to the broader community.

A hierarchy of surveys was designed to collect information: from the whole community via a national telephone survey (including a survey of satisfaction with care received); from eligible persons who actually received care; and about services provided to recipients during their courses of care.

Annual repeats of these surveys will track the oral health, access to care, and satisfaction with care of recipients of care under the CDHP relative to the broader community.

This report summarises key findings of detailed technical reports from the above surveys in one accessible document. The tables and figures have been selected with specific regard to the terms of reference for the evaluation of the CDHP. Following are the key findings of the surveys presented with the relevant terms of reference.

Access and availability

- Perceived need for treatment was higher amongst card holders, compared with non-card holders (27.7% *vs* 20.6%), including the need for extraction, where there was a greater than two-fold variation (7.3% *vs* 3.6%).
- Significantly fewer card holders were able to cite a check-up as their usual reason for visiting a dentist compared to non-card holders (40.9% *vs* 52.5%).

Barriers

- Cost of dental care was related to both avoiding or delaying care, and in preventing the receipt of recommended or wanted treatment.

Use of services

- Card holders were more likely than non-card holders to have last visited a dentist more than 5 years ago.
- Rural dwellers were less likely than urban dwellers to cite a check-up as the reason for their last visit to a dentist.

- There was substantial variation between States and Territories in the percentage of public patients receiving emergency rather than routine care, and in the average number of services received.

Health status

- Rural dwellers were greatly disadvantaged in oral health status, with 53.6 per cent of the 65 years and older group having no natural teeth, compared with 35.4 per cent of urban dwellers of the same age.
- Card holders were more likely than non-card holders to have no natural teeth, with this trend being more evident in older age groups and in rural areas.
- There was substantial variation between States and Territories in the percentage of persons with no natural teeth, with the differences being most striking for persons aged 45–54 years where the range varied from 20.1 per cent in Tasmania to 4.3 per cent in the Australian Capital Territory.
- The pattern of disadvantage for card holders noted for the loss of all teeth was reflected in the average number of missing teeth, where card holders reported greater numbers of missing teeth than non-card holders.
- Rural dwellers reported greater numbers of missing teeth compared to urban dwellers.
- The patterns of total tooth loss between States and Territories was also reflected in the average numbers of missing teeth, and Tasmanians reported more missing teeth than other locations.
- Card holders were more likely than non-card holders to report avoiding certain foods due to problems with their teeth, mouth, or dentures in the past 12 months.

Appropriateness of care

- Consistent with observed variation in health status, card holders were more likely to report having received extractions than non-card holders.
- Persons visiting for a problem rather than for a check-up were more likely to receive extractions.
- Non-card holders were more likely than card holders to have received a filling at the last visit.
- A clear inverse relationship existed between receiving fillings or extractions, particularly for those presenting with problems.
- Insured card holders were substantially less likely to have received an extraction at their last visit.
- Consistent with reported findings, the recorded percentage of public sector services that were extractions was high at 14.6 per cent.
- There was wide variation between States and Territories in the percentage of services made up of extractions.
- Emergency care was associated with high rates of extraction.
- Persons in rural areas received high rates of extractions.

- A multivariate model predicts higher extraction rates for younger persons, males, Aboriginals, rural dwellers, and those receiving emergency care.

- Private patients were, in general, more satisfied with their care than public patients, particularly in waiting time and choice of dentist.

- Insured card holders were less likely to offer comments of dissatisfaction than non-insured card holders, particularly in waiting time and cost.

Together these findings indicate that the population eligible for public dental care is at a clear disadvantage in terms of access to care and the treatment received, and in oral health as a consequence. Moreover, the variations in satisfaction between public and private patients, and between insured and non-insured public patients highlights several of the perceived difficulties in obtaining timely and appropriate care within the public sector. These findings provide a clear basis for assessing the progress of the CDHP towards its objectives.

1. INTRODUCTION

1.1 BACKGROUND

The Commonwealth Dental Health Program is a response to the documentation of social inequalities in oral health status and access to dental care among Australian adults (National Health Strategy, 1992). While oral diseases and their consequences are widespread, there is evidence that they are not equally distributed through the community. Those most in need are the least likely to use dental services or receive basic dental care to maintain an acceptable and functional natural dentition. This arises from both an apparent inability by many adults to purchase recommended private dental care and rationing of dental care in the public sector where demand has reportedly grown rapidly to exceed available resources.

The burden of disease and the focus of dental health policy was recognised several years ago to have shifted from children to adults. However, no commensurate information was available to guide professionals and decision-makers, or to evaluate whether targets of improved oral health and access to dental care, especially for health card holders were being achieved. This need for improved national data led to the development of *A research database on dental care in Australia* in 1993 (AIHW Dental Statistics and Research Unit, 1993).

The research database extended the documentation on the problem of access to dental care and oral health among adult health card holders and analysed a number of key issues for policy development. These issues included the desirability of moving dental care for adult health card holders from:

- emergency to basic dental care;
- extraction to restoration;
- treatment to prevention (Spencer, 1993a).

A conclusion to the discussion paper *Policy directions on dental care for Australian adults* stated that there was a reasonable expectation that a combination of increased availability, improved affordability and reduced hardship in accessing dental care, and more appropriate guidelines and performance targets in public dental services, and subsidised dental care in private dental practices, would alter the situation and lead to improved access and better oral health for more Australians (Spencer, 1993b).

The Commonwealth Dental Health Program, which commenced at the beginning of 1994 has the overall objective of improving the dental health of financially disadvantaged persons in Australia. The specific aims of the Program are:

- to reduce barriers, including economic, geographical and attitudinal barriers, to dental care for eligible adults;
- to ensure equitable access of eligible persons to appropriate dental services;
- to improve the availability of effective and efficient dental interventions for eligible persons, with an emphasis on prevention and early management of dental problems;
- to achieve high standards of program management, service delivery, monitoring, evaluation and accountability.

An evaluation project is assessing the impact of the Program in terms of effectiveness and appropriateness, in particular:

- whether the Program has met its aims effectively;

- the impact of the Program on the dental health of eligible adults and the comparison of the dental health of eligible persons with that of the general community.

The AIHW Dental Statistics and Research Unit (DSRU) is conducting the Evaluation Project and examining and analysing the effectiveness of the Program in terms of the:

- availability, access and use of dental services as a result of the Program;
- dental health of eligible adults who received treatment under the Program, compared with the general population, and the nature of dental care need among adults;
- attitudinal, economic and geographic barriers to dental care;
- appropriateness of dental care received by eligible adults under the Program.

In addition, the Evaluation Project will:

- identify areas where the delivery of the Program can be enhanced;
- recommend ways in which the Program can be made more effective.

The DSRU is conducting four surveys as part of the Evaluation Project. Two surveys to capture information among persons receiving public-funded dental care; one of attitudes and satisfaction with dental care; and one on the impact of the Program within the broader population. The surveys comprise:

1. The cross-sectional Adult Dental Programs Survey of public-funded dental visits to provide information about dental care throughout the public-funded sector.
2. A Prospective Adult Dental Programs Survey to obtain details of the oral health status and services received throughout a course of care, of persons receiving public-funded dental care.
3. Surveys of Dental Satisfaction with care and attitudes and health behaviours to integrate with the Adult Dental Programs Surveys and a telephone interview survey of the population.
4. The National Dental Telephone Interview Survey to capture information about dental care among users and non-users of dental services, covering both 'eligible' health card holders and 'non-eligible' persons.

Annual repeats of these surveys will provide comparative cross-sections from which time series trends can be analysed.

Together, the first three surveys aim to establish: the reasons for seeking care under the Program; the characteristics of those who receive care; the oral problems they have at the time they seek care; the types of care they receive; and their perceptions of the process of care. This information will allow detailed evaluation of Program outcomes, including conversion of emergency patients to general dental care patients, increases in restorative care in preference to extraction, decreases in untreated disease and improvements in oral health.

A second aspect of evaluation is the impact of the Program on social inequalities in access to dental care and oral health outcomes. This requires monitoring population samples, not just the users of the Program, and provides the rationale for the fourth survey. It is envisaged that the National Dental Telephone Interview Survey will be conducted annually and that in 1997–98 there will be an accompanying dental examination survey. Such information serves as the highest level evaluation of the Program's impact through its ability to document those within eligible target groups who have received care and the extent to which the initial problem of social inequalities in access and oral health outcomes has been ameliorated by the Commonwealth Dental Health Program.

This report on the Commonwealth Dental Health Program Evaluation Project is the fourth of a series. The three technical reports completed in 1994 were:

- National Dental Telephone Interview Survey 1994
- Adult Dental Programs Survey (Cross-sectional) 1994
- Dental Satisfaction Survey 1994

Together these technical reports present the methods and findings of the surveys conducted by the DSRU during 1994.

This report of the Commonwealth Dental Health Program Evaluation Project:

- briefly describes the evaluation data and their sources;
- relates the terms of reference for the Evaluation Project to specific population and patient indicators;
- describes the key findings among those population and patient indicators in 1994, at the initiation of the Program;
- puts forward a series of objectives drawn from the key findings.

The report is mostly a graphic presentation with a minimum of explanatory text. Further details of the data and their sources can be obtained from the three technical reports listed above.

1.2 POPULATION AND PATIENT INDICATORS

Table 1.2.1 provides a summary of the terms of reference of the Commonwealth Dental Health Program Evaluation Project, the corresponding population and patient indicators, and the explanatory variables by which the indicators are cross-tabulated.

The terms of reference considered include: availability and access, barriers to service use, use of services, health status, appropriateness of care including patient satisfaction with care.

The population and patient indicators operationalise the terms of reference, and any change in an indicator can be assessed with regard to the objectives of the Program. The explanatory variables provide the level of detail required for observing change in the groups for whom care is being provided. The explanatory variables of health card holder (HCH), location, and State or Territory, are designed to provide a social and geographic distribution of the indicators such as the prevalence of edentulism and the usual reason for a dental visit.

Table 1.2.1
Terms of reference, and population and patient indicators

Terms of reference	Population and patient indicators	Explanatory variables
Availability and access	Perceived need for dental visits and treatments	by State, location and HCH
	Usual reason for a dental visit	by State, location and HCH
	Dental insurance	by State, location and HCH
	Waiting time for a check-up	by place and HCH
Barriers	Distribution of affordability and hardship in purchasing dental care	by State, location and HCH
Use of services	Time since last visit	by State, location and HCH
	Place of last visit (public/private)	by State and location
	Check-up (percentage last visiting)	by State, location and HCH
	Public-funded dental visits	by State and age
	Persons eligible for public care	by State and age
	Type of public-funded course of care	by State
	Emergency care	by age, sex, language, aboriginality, oral status, new patient/previous care and location
	Mean number of public-funded dental visits and services	by State and age
Health status	Edentulism	by State, location, HCH and age
	Missing teeth (mean)	by State, location, HCH and age
	Social impact	by State, location and HCH
Appropriateness of care	Extractions and fillings (per cent of persons)	by State, HCH and reason. by HCH and insurance
	Service areas	by State, emergency/non-emergency and location
	Oral surgery (extractions)	by age, sex, language, aboriginality, emergency/non-emergency, new/previous and location
	Patient satisfaction scores and comments	by place by place and HCH

1.3 REFERENCES

AIHW Dental Statistics and Research Unit (1993). *A research database on dental care in Australia.* The University of Adelaide, Adelaide.

National Health Strategy (1992). *Improving dental health in Australia. Background paper no. 9.* Melbourne: National Health Strategy.

Spencer AJ (1993a). Cost of dental care. In: *Dental care for adults in Australia,* pp 61-67. AIHW Dental Statistics and Research Unit. The University of Adelaide, Adelaide.

Spencer AJ (1993b). *Policy directions on dental care for Australian adults. Final report.* The University of Adelaide, Adelaide.

2. DATA SOURCES

The data presented in this report are from the:

- 1994 Adult Dental Programs Survey (Cross-sectional);
- 1994 National Dental Telephone Interview Survey;
- 1994 Dental Satisfaction Survey.

2.1 ADULT DENTAL PROGRAMS SURVEY (CROSS-SECTIONAL)

Purpose

The purpose of the survey was to describe levels of dental attendance and service provision within public-funded dental programs. This baseline information will help to quantify levels of access and service provision for users of public-funded dental care at the initiation of the Commonwealth Dental Health Program.

Data collection

Data for the survey were collected by State and Territory dental services using optical mark read forms which were forwarded to the AIHW DSRU for scanning and data processing. Queensland and Western Australia used other data collection methods; Queensland collected data in October 1993 and Western Australia in late 1994. The other States and Territories collected data over a varying number of days in March and April 1994. Each State and Territory determined its own sampling rates and survey periods to obtain an appropriate yield for analysis. In Victoria, the Royal Dental Hospital of Melbourne provided data from its information system for a sample of patients attending during the survey period.

Sampling rates

To obtain 595 persons in each of six age groups, a sample equivalent to 3,570 persons for a large State was determined. Age groups of this size enabled prevalence estimates to be calculated for five sub-groups within each age group with a relative standard error of less than 40 per cent (AIHW Dental Statistics and Research Unit, 1992).

The report *Adult Dental Programs Survey (Cross-sectional) 1994* has further details.

2.2 NATIONAL DENTAL TELEPHONE INTERVIEW SURVEY

The 1994 National Dental Telephone Interview Survey collected responses about basic features of oral health and dental care within the Australian population.

Purpose

The purpose of the 1994 survey was to provide the evaluation baseline with measures of the use of services, frequency of dental problems, and the types and sources of dental care received across Australia.

Data collection

The 1994 National Dental Telephone Interview Survey selected a random sample of Australians aged five years and over in all States and Territories.

The DSRU established a telephone interview laboratory within the Department of Dentistry at The University of Adelaide with each work station equipped for computer assisted telephone interviewing. The interviewers read questions from the computer screen and entered responses from sampled persons directly onto a database.

Weighting of data

The data were weighted to ensure that the sample for each stratum more accurately represented the estimated resident population of each stratum.

Response levels

The overall participation level achieved was 71.6 per cent. The analysis presented in this report was based on the total of 7,987 participants.

The report *National Dental Telephone Interview Survey 1994* has further details.

2.3 DENTAL SATISFACTION SURVEY

The context and style of the Dental Satisfaction Survey 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 aims of the Dental Satisfaction Survey are to examine:

1. differences in satisfaction primarily between health card holders and non-card holders in the National Dental Telephone Interview Survey;
2. changes over time in satisfaction among health card holders from both the National Dental Telephone Interview Survey and the Prospective Adult Dental Programs Survey in response to the Commonwealth Dental Health Program.

Data collection

The statements used in this satisfaction survey were based on the content of existing satisfaction scales.

The items were presented as statements pertaining to the personal experiences 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 Dental Satisfaction Survey were drawn from the group that had participated in the 1994 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 with the details already held in the database. A questionnaire was mailed to the address, usually within a week of the telephone interview.

Sampling rates

There were 1,332 potential respondents drawn from the 1994 National Dental Telephone Interview Survey who were aged 18 years and older, and who had made a dental visit within the previous 12 months. The response rate to the questionnaire was 83.8 per cent.

The report *Dental Satisfaction Survey 1994* has further details.

2.4 REFERENCES

AIHW Dental Statistics and Research Unit (1992). *New Initiatives for Dental Surveys.* The University of Adelaide, Adelaide.

AIHW Dental Statistics and Research Unit (1995). *Adult Dental Programs Survey (Cross-sectional) 1994.* The University of Adelaide, Adelaide.

AIHW Dental Statistics and Research Unit (1995). *National Dental Telephone Interview Survey 1994.* The University of Adelaide, Adelaide.

AIHW Dental Statistics and Research Unit (1995). *Dental Satisfaction Survey 1994.* The University of Adelaide, Adelaide.

3. RESULTS

3.1 AVAILABILITY AND ACCESS

Availability and access may be measured by indicators such as perceived need for dental visits and treatment, usual reason for a dental visit, insurance status and waiting time for a check-up.

Perceived need for dental visits and the **type of dental visit** required can be predictors of the use of dental services and outcomes of the success of dental programs.

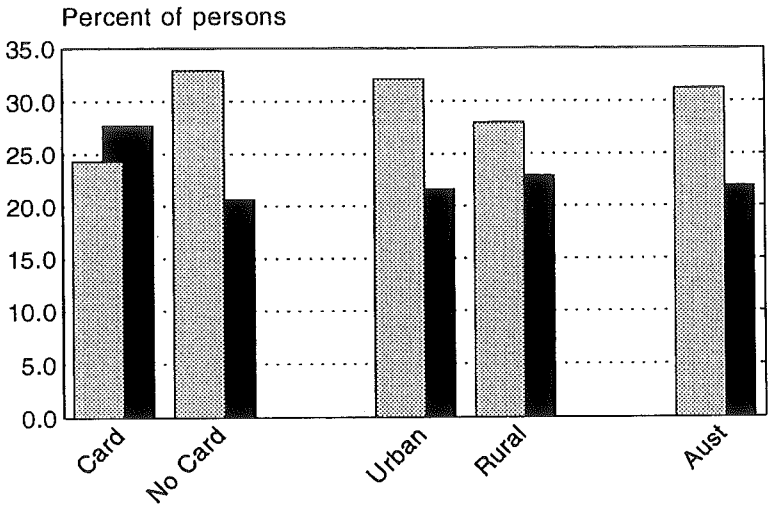
Perceived need for types of treatment reflects individuals' expectations.

The usual reason for a dental visit may indicate attitudes to regular dental care and also the ability to obtain care.

Dental insurance influences the ability to gain access to services within the private sector and is related to the burden of cost of dental care.

Waiting time for routine dental care provides a measure of access to timely care.

Figure 3.1.1
Perceived need for dental visits by health card status and location – dentate persons aged 18+



	Card	No Card		Urban	Rural		Aust
Check-up only	24.3	32.9		32.1	28.0		31.2
Treatment	27.7	20.6		21.6	22.9		21.9

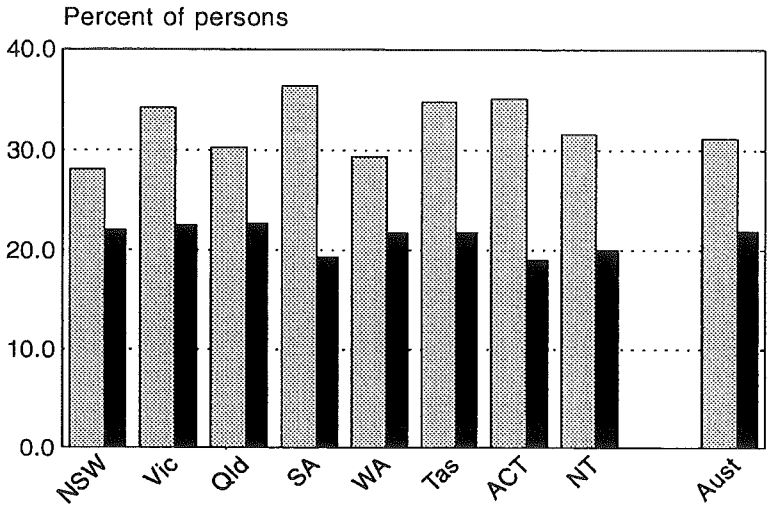
Source: 1994 National Dental Telephone Interview Survey

- Perception of the need for a dental visit and the type of dental visit required act as predictors of the use of dental services and outcome measures of the success of dental programs.
- While the percentage of persons who perceived a need for a dental visit was approximately the same for both card holders and non-card holders (52.0% *vs* 53.5%), the percentage of card holders who perceived a need for treatment was considerably higher than for non-card holders (27.7% *vs* 20.6%); the reverse was the case for persons requiring a check-up.
- More card holders perceived a need for dental treatment than for a check-up.
- Urban and rural areas had similar percentages of persons who reported a need for treatment, but a higher percentage of persons from urban areas than from rural areas reported the need a for a check-up (32.1% *vs* 28.0%).

Objective

- A shift in card holders' perceived needs from treatment based visits to check-up visits.

Figure 3.1.2
Perceived need for dental visits by State and Territory – dentate persons aged 18+



	NSW	Vic	Qld	SA	WA	Tas	ACT	NT		Aust
Check-up only	28.1	34.2	30.3	36.4	29.4	34.8	35.1	31.6		31.2
Treatment	22.0	22.5	22.7	19.3	21.7	21.8	19.0	20.0		21.9

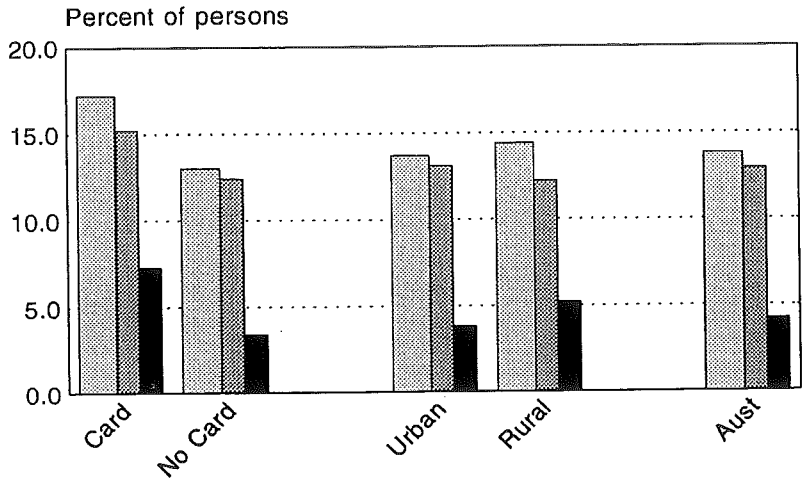
Source: 1994 National Dental Telephone Interview Survey

- Lower levels of perceived need for a check-up were reported in New South Wales (28.1%), Queensland (30.3%), Western Australia (29.4%) and the Northern Territory (31.6%) relative to the other States and Territories. Little variation between States and Territories was apparent in the level of perceived need for treatment.

Objective

- No objective specified; included to indicate baseline estimates for the States and Territories.

Figure 3.1.3
Perceived need for fillings, clean and scale, and extractions by health card status and location – dentate persons aged 18+



	Card	No Card		Urban	Rural		Aust
Fillings	17.2	13.0		13.7	14.4		13.8
Clean/Scale	15.2	12.4		13.1	12.2		12.9
Extractions	7.3	3.4		3.8	5.2		4.2

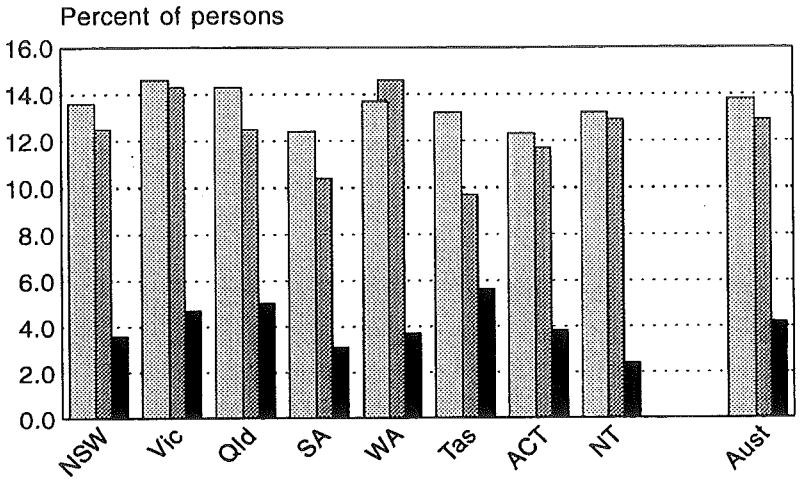
Source: 1994 National Dental Telephone Interview Survey

- The type of treatment perceived to be needed reflects not only disease experience but also previous treatment experiences.
- A higher percentage of card holders perceived a need for fillings than did non-card holders (17.2% *vs* 13.0%), similarly the perceived need for a clean and scale was higher for card holders (15.2% *vs* 12.4%).
- More than twice the percentage of card holders as non-card holders perceived a need for an extraction (7.3% *vs* 3.4%).
- There was little difference in the perceived need for fillings, extractions, and clean and scale services between persons in urban and rural areas.

Objective

- A decrease in the overall percentage of card holders perceiving a need for treatment, particularly for extractions and fillings.

Figure 3.1.4
Perceived need for fillings, clean and scale, and extractions by State and Territory – dentate persons aged 18+



	NSW	Vic	Qld	SA	WA	Tas	ACT	NT		Aust
Fillings	13.6	14.6	14.3	12.4	13.7	13.2	12.3	13.2		13.8
Clean/Scale	12.5	14.3	12.5	10.4	14.6	9.7	11.7	12.9		12.9
Extractions	3.6	4.7	5.0	3.1	3.7	5.6	3.8	2.4		4.2

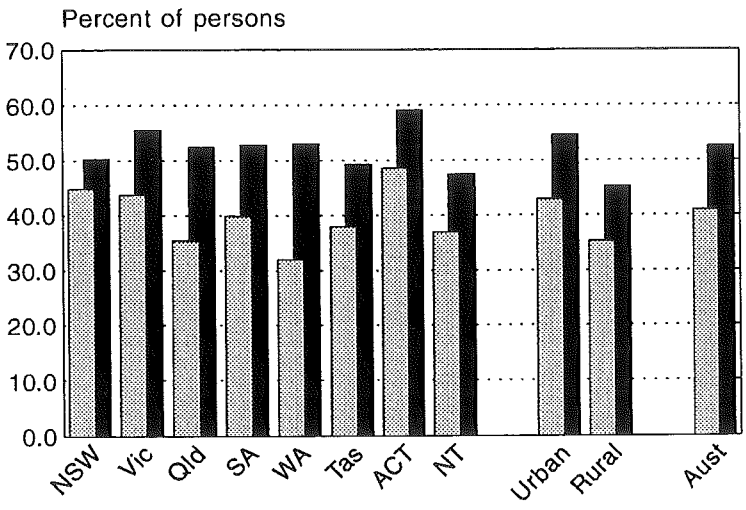
Source: 1994 National Dental Telephone Interview Survey

- The perceived need for a clean and scale in South Australia and Tasmania was lower than in the other States and Territories (10.4% and 9.7% respectively *vs* 12.9% nationally).
- Victoria, Queensland and Tasmania had higher perceived needs for extraction(s) than other States and Territories (4.7%, 5.0% and 5.6% respectively *vs* 4.2% nationally).

Objective

- No objective specified; included to indicate baseline estimates for the States and Territories.

Figure 3.1.5
Percentage of persons usually visiting for a check-up by State and Territory, location and health card status
– dentate persons aged 18+



	NSW	Vic	Qld	SA	WA	Tas	ACT	NT	Urban	Rural	Aust
Card holder	44.8	43.7	35.4	39.9	32.0	38.0	48.6	36.9	42.9	35.3	40.9
Non-card holder	50.2	55.5	52.4	52.8	53.0	49.3	59.1	47.4	54.5	45.2	52.5

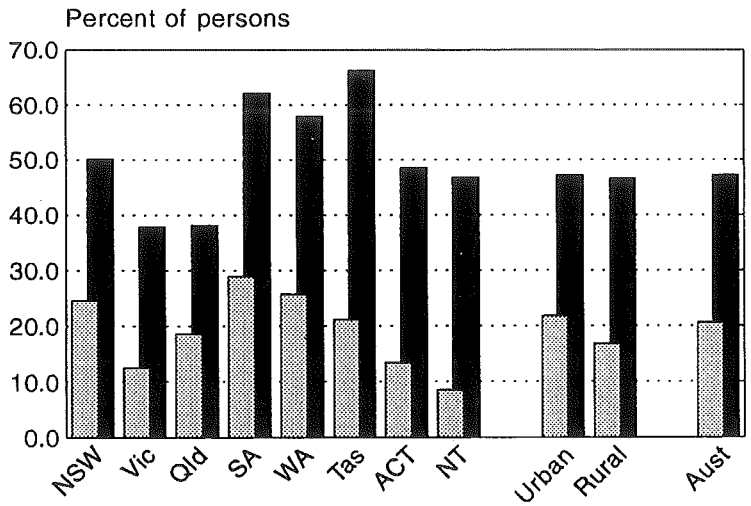
Source: 1994 National Dental Telephone Interview Survey

- A person's usual reason for making a dental visit provides an indication both of attitude towards regular dental care and ability to obtain ongoing regular care.
- A significantly lower percentage of card holders reported a check-up as the usual reason for a dental visit than did non-card holders (40.9% *vs* 52.5%). The same result was true across all States and Territories.
- The difference between card holders and non-card holders varied considerably across the States and Territories, with the smallest difference (5.4%) in New South Wales, and the largest difference (21.0%) in Western Australia where card holders had the lowest level of persons reporting that they usually visit for a check-up (32.0%).
- A lower percentage of persons from rural areas than from urban areas reported that they usually go to a dentist for a check-up. This was the case for both card holders and non-card holders.

Objective

- An increase in the percentage of card holders reporting a check-up as the usual reason for making a dental visit to levels comparable with non-card holders.

Figure 3.1.6
Percentage of persons with dental insurance by State and Territory, location and health card status
– dentate persons aged 18+



	NSW	Vic	Qld	SA	WA	Tas	ACT	NT		Urban	Rural		Aust
Card holder	24.5	12.5	18.6	29.0	25.7	21.1	13.4	8.5		21.8	16.8		20.5
Non-card holder	50.1	37.8	38.1	62.1	57.9	66.2	48.5	46.8		47.2	46.6		47.1

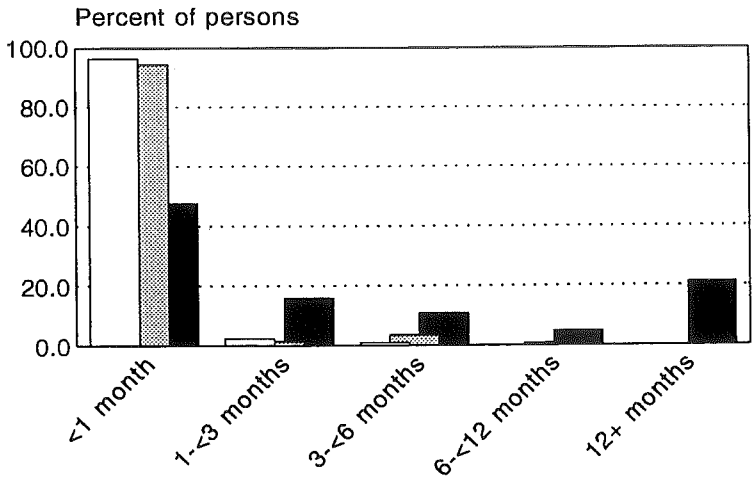
Source: 1994 National Dental Telephone Interview Survey

- Dental insurance is a factor which influences the ability of an individual to access services within the private sector, mostly in relation to the burden of cost of care.
- Considerable variation across States and Territories was apparent, with insurance being higher in South Australia, Western Australia and Tasmania relative to other State and Territories for both card holders and non-card holders. New South Wales also had a relatively high level of insurance for card holders.
- Insurance rates among non-card holders were lowest in Victoria (37.8%) and Queensland (38.1%).
- Card holders from urban areas were more likely to be insured than card holders from rural areas (21.8% *vs* 16.8%), whilst there was little difference for non-card holders.

Objective

- No objective specified; included to indicate baseline estimates for the States and Territories. A decrease in the percentage of card holders with dental insurance might be expected if those with insurance change to public-funded dental care in the private sector.

Figure 3.1.7
Waiting time* distribution by place of last dental visit and health card status – dentate persons aged 18+ whose last visit was <12 months ago for a check-up



	<1 month	1-<3 months	3-<6 months	6-<12 months	12+ months
Non-card Private	96.4	2.4	1.0	0.1	0.0
Card Private	94.3	1.4	3.5	0.8	0.0
Card Public	47.5	15.9	10.7	4.8	21.1

* time from first contacting the dental clinic to the time of making the visit

Source: 1994 National Dental Telephone Interview Survey

- The length of time persons must wait before being able to obtain routine dental care is a measure of access to timely dental care.
- Waiting times for persons seeking care in the public sector were much longer than in the private sector. Nearly all persons who visited a private dentist for a check-up were seen within a month of contacting the clinic (about 95%), compared to less than a half of persons who visited a public clinic (47.5%).
- More than 1 in 5 persons (21.1%) who visited a public clinic waited for more than 12 months for a check-up.

Objectives

- Reductions in the percentage of card holders who must wait 12 months or more for a check-up within the public sector system.
- Increases in the percentage of card holders obtaining more timely care in the public sector system, with increases in the percentage receiving treatment within 3 months in the first instance and within 1 month in the longer term.

3.2 BARRIERS

A number of geographic, economic and attitudinal barriers may hinder access to dental care. This section focuses on economic barriers to purchasing dental care. Financial burden may explain why some persons have not recently visited a dentist or taken recommended treatment, reflecting both direct and indirect costs of dental care.

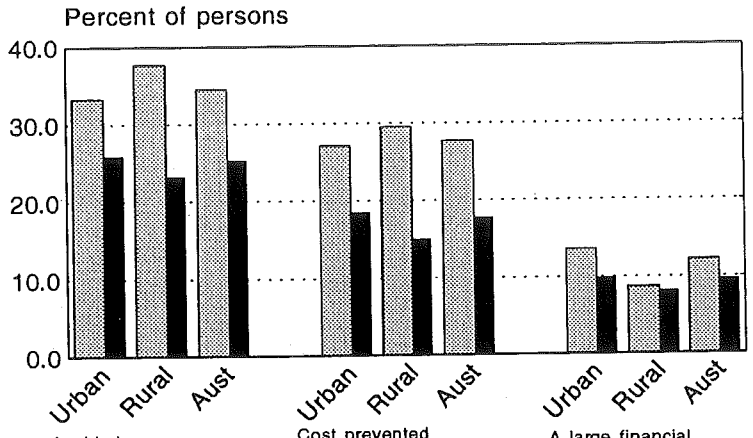
Economic barriers are measured here by whether or not in the last 12 months:

Visiting was avoided or delayed because of cost.

Cost prevented dental treatment which was recommended or wanted.

Dental visits were a large financial burden.

Figure 3.2.1
Affordability and hardship in purchasing dental care by location and health card status – dentate persons aged 18+



	Avoided or delayed visiting because of cost			Cost prevented dental treatment which was wanted or recommended			A large financial burden: dental visits in last 12 months*		
	Urban	Rural	Aust	Urban	Rural	Aust	Urban	Rural	Aust
Card holder	33.3	37.7	34.5	27.1	29.5	27.7	13.6	8.6	12.2
Non-card holder	25.8	23.1	25.2	18.4	15.0	17.7	9.8	8.0	9.5

* dentate persons aged 18+ whose last dental visit was <12 months ago

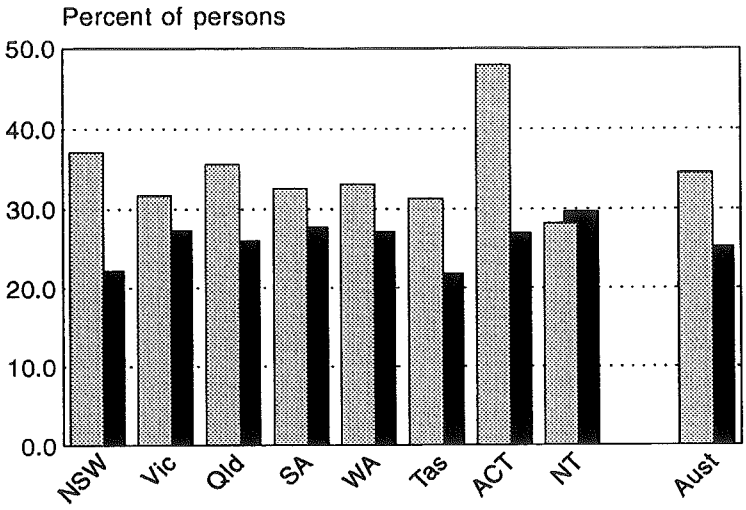
Source: 1994 National Dental Telephone Interview Survey

- Financial burden is often cited as a reason why persons have not recently visited a dentist or complied with recommended treatment, and reflects both the direct and indirect cost of dental services to the individual.
- A higher percentage of card holders than non-card holders avoided or delayed visiting because of cost (34.5% *vs* 25.2%). A higher percentage of rural card holders avoided or delayed visiting (37.7%).
- A higher percentage of card holders than non-card holders reported that cost prevented dental treatment which was recommended or wanted (27.7% *vs* 17.7%). A higher proportion of rural card holders reported that cost prevented recommended or wanted treatment.
- A slightly higher percentage of card holders than non-card holders reported a large financial burden associated with visits in the last 12 months (12.2% *vs* 9.5%). The low percentages reporting financial burden and the similarity between card and non-card holders indicates a rationing of dental care by consumers to match their capacity to purchase such care.

Objectives

- Reductions in the percentage of card holders who have avoided or delayed visits due to cost.
- A decrease in the percentage of card holders for whom cost has prevented dental treatment which was recommended or wanted.
- Greater reductions in the percentage of rural card holders who avoid or delay visiting due to cost, or for whom cost prevents recommended or wanted dental treatment.

Figure 3.2.2
Percentage of persons who avoided or delayed visiting because of cost, by State and Territory, and health card status – dentate persons aged 18+



	NSW	Vic	Qld	SA	WA	Tas	ACT	NT		Aust
Card holder	37.1	31.7	35.6	32.6	33.1	31.3	47.9	28.2		34.5
Non-card holder	22.2	27.3	26.0	27.7	27.1	21.8	26.9	29.7		25.2

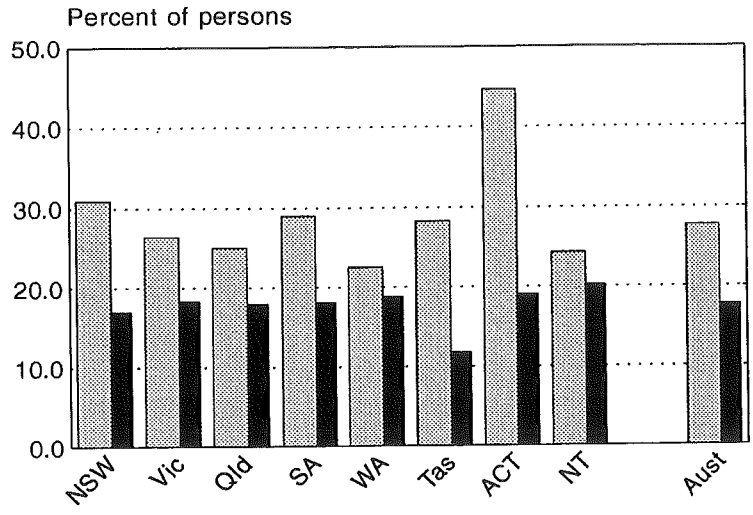
Source: 1994 National Dental Telephone Interview Survey

- The differential between card holders and non-card holders avoiding or delaying dental visits because of cost was greatest in New South Wales (37.1% *vs* 22.2%), Queensland (35.6% *vs* 26.0%), Tasmania (31.3% *vs* 21.8%), and the Australian Capital Territory (47.9% *vs* 26.9%).

Objective

- Reductions in avoidance and delay of dental visits due to cost among card holders compared to non-card holders.

Figure 3.2.3
Percentage of persons for whom cost prevented recommended or wanted dental treatment, by State and Territory, and health card status
– dentate persons aged 18+



	NSW	Vic	Qld	SA	WA	Tas	ACT	NT		Aust
Card holder	30.9	26.4	25.0	29.0	22.6	28.3	44.6	24.3		27.7
Non-card holder	17.0	18.3	17.9	18.1	18.8	11.8	19.0	20.2		17.7

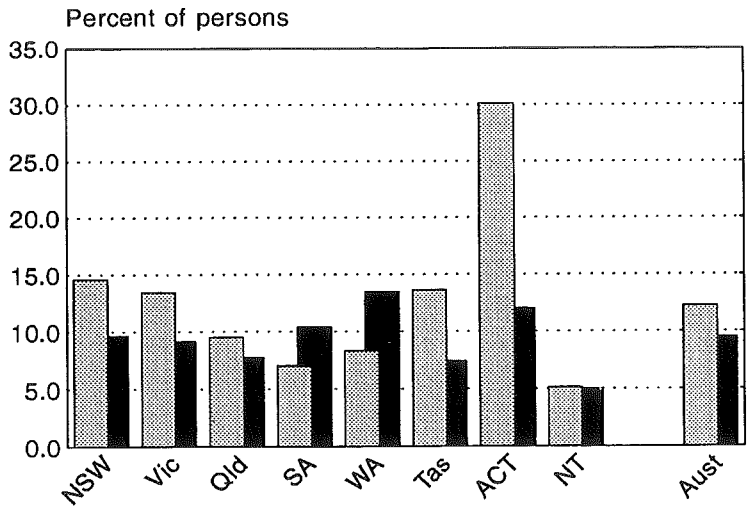
Source: 1994 National Dental Telephone Interview Survey

- The differential between card holders and non-card holders who failed to receive recommended or wanted dental treatment due to cost was higher in New South Wales (30.9% *vs* 17.0%), South Australia (29.0% *vs* 18.1%), Tasmania (28.3% *vs* 11.8%) and the Australian Capital Territory (44.6% *vs* 19.0%).

Objectives

- Reductions in the percentage of card holders reporting that cost prevented recommended or wanted dental treatment.
- Larger reductions for card holders in New South Wales, South Australia, Tasmania and the Australian Capital Territory.

Figure 3.2.4
Percentage of persons for whom dental visits in the last 12 months were a large financial burden, by State and Territory, and health card status – dentate persons aged 18+ whose last dental visit was <12 months ago



	NSW	Vic	Qld	SA	WA	Tas	ACT	NT		Aust
Card holder	14.6	13.4	9.5	7.0	8.3	13.6	30.1	5.1		12.2
Non-card holder	9.6	9.1	7.7	10.4	13.4	7.4	12.0	5.0		9.5

NB: Due to small cell sizes estimates for card holders in this graph are subject to greater variability, and are thus less reliable.

Source: 1994 National Dental Telephone Interview Survey

- The percentage of non-card holders who reported that dental visits in the last 12 months were a large financial burden ranged from 5.0% to 13.4%. Greater variability was observed for card holders.

Objective

- Reductions in the financial burden of dental visits for card holders.

3.3 USE OF SERVICES

The use of services is presented by time since last visit, place of last visit, percentage visiting for a check-up and various measures of public-funded dental care.

Time since last visit indicates levels of recent dental care and also longer term visiting patterns.

Percentage of persons last visiting a public dental clinic shows the pattern of use between private and public dental care.

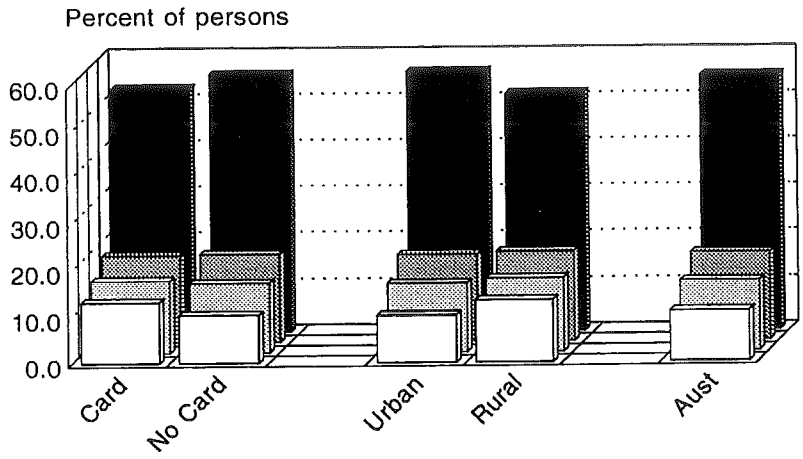
The percentage visiting for a check-up may reflect the type of care likely to be received as well as levels of untreated dental problems. These data are presented firstly for the Australian population as a whole, and the latter part of the section deals with patients eligible for public-funded care.

Numbers of persons eligible for public-funded care and **numbers of persons treated at public dental clinics.**

Type of public-funded course of care is presented, along with a breakdown of factors associated with **receipt of emergency care** under public-funded dental programs. Levels of emergency care may reflect oral health status and extent of unmet treatment needs, which may influence services provided.

Mean number of public-funded dental visits and **service provided per visit** may be influenced by a range of factors including type of course of care, complexity of treatment needs and access to dental care.

Figure 3.3.1
Time since last dental visit by health card status and location – dentate persons aged 18+



	Card	No Card	Urban	Rural	Aust
<12 months	52.7	55.7	56.2	51.3	55.1
1-<2 years	18.7	19.0	18.8	19.4	18.9
2-<5 years	15.5	15.0	14.8	15.9	15.1
5+ years	13.1	10.3	10.2	13.4	10.9

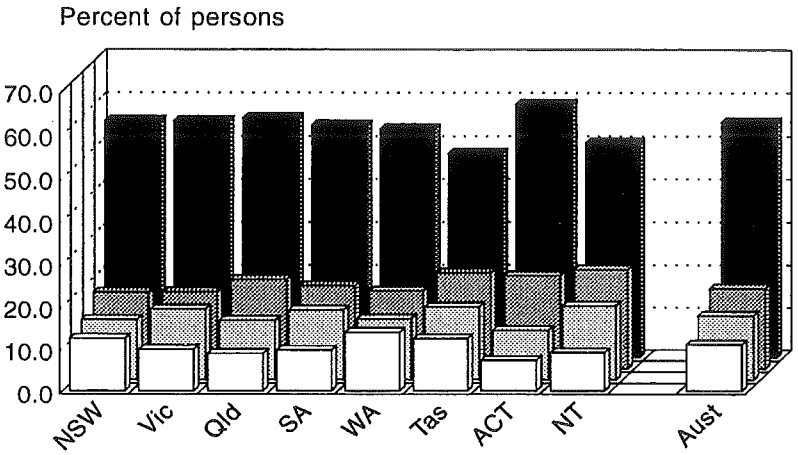
Source: 1994 National Dental Telephone Interview Survey

- The time since last dental visit indicates levels of recent dental care as well as longer term visiting patterns, reflecting both the value placed on maintaining regular dental care and an individual's ability to obtain that care.
- Non-card holders had a visiting pattern of more recent care than card holders, with non-card holders being more likely to have visited within the previous twelve months and less likely to have last visited 5 or more years ago. Similar percentages for both groups were found for the intermediate time periods.
- Persons from urban areas had a visiting pattern of more recent care than persons from rural areas, with a higher percentage from urban areas having visited within the last 12 months and a lower percentage last visiting 5 or more years ago. The differences between urban and rural areas was more marked than the differences between card holders and non-card holders.

Objectives

- A decrease in the percentage of card holders whose last visit was 5 or more years ago.
- An increase in the percentage of card holders visiting within the last year to levels that are more comparable with non-card holders.

Figure 3.3.2
Time since last dental visit by State and Territory – dentate persons aged 18+



	NSW	Vic	Qld	SA	WA	Tas	ACT	NT		Aust
<12 months	55.4	55.4	56.0	54.4	53.5	47.9	59.2	50.3		55.1
1-<2 years	18.0	18.1	21.1	19.6	18.3	22.6	22.0	23.3		18.9
2-<5 years	14.2	16.7	14.0	16.4	14.4	17.2	11.6	17.4		15.1
5+ years	12.4	9.8	8.8	9.6	13.8	12.3	7.2	9.0		10.9

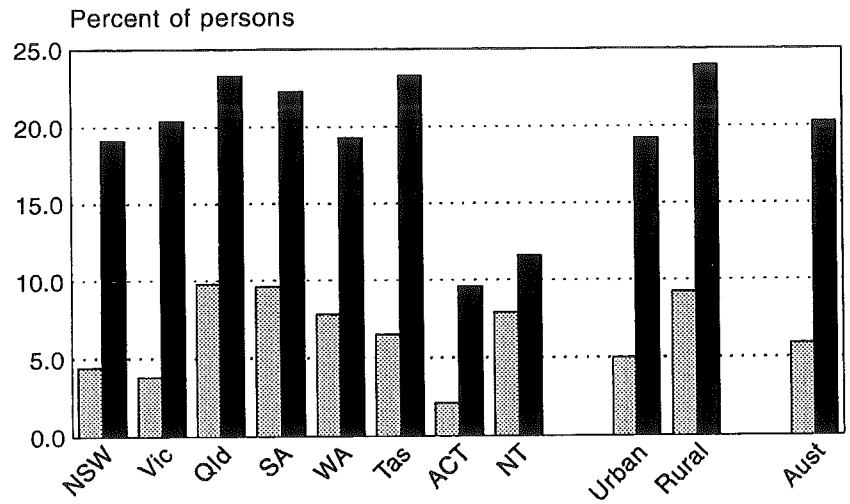
Source: 1994 National Dental Telephone Interview Survey

- The Australian Capital Territory had the visiting pattern of most recent care of all States and Territories with the highest percentage of persons visiting within the last 12 months and the lowest percentage of persons whose last visit was 2 or more years ago. Tasmania and the Northern Territory had the lowest percentages of persons visiting in the past twelve months.

Objective

- No objective specified; included to indicate baseline estimates for the States and Territories.

Figure 3.3.3
Percentage of persons last visiting a public dental clinic and percentage of persons eligible for public care by State and Territory, and location
– dentate persons aged 18+ whose last visit was <12 months ago



	NSW	Vic	Qld	SA	WA	Tas	ACT	NT	Urban	Rural	Aust
Public	4.4	3.8	9.8	9.6	7.8	6.5	2.1	7.9	5.0	9.2	5.9
Eligible	19.1	20.4	23.3	22.3	19.3	23.3	9.6	11.6	19.2	23.9	20.3

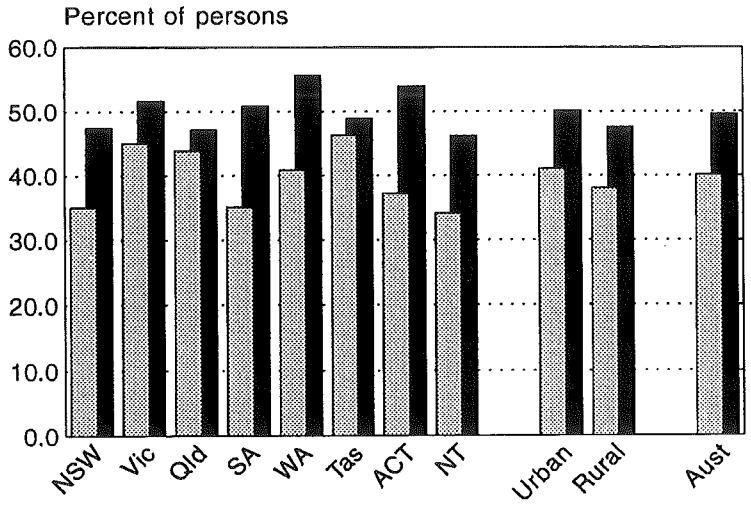
Source: 1994 National Dental Telephone Interview Survey

- The percentage of persons last visiting a public dental clinic varies by State and Territory, from 9.8% in Queensland to 2.1% in the Australian Capital Territory. This is partly a reflection of underlying differences in the percentage of persons eligible for public care in each State and Territory (represented by the black bars).

Objectives

- Increases in the percentage of eligible persons accessing public-funded dental care.
- Maintain the percentage of eligible persons who receive care in public clinics.

Figure 3.3.4
Percentage of persons whose last dental visit was for a check-up by State and Territory, location, and health card status – dentate persons aged 18+ whose last visit was <12 months ago



	NSW	Vic	Qld	SA	WA	Tas	ACT	NT	Urban	Rural	Aust
Card holder	35.1	45.0	43.9	35.1	40.8	46.3	37.2	34.1	41.0	38.0	40.1
Non-card holder	47.4	51.6	47.1	50.8	55.6	48.9	53.9	46.1	50.1	47.5	49.6

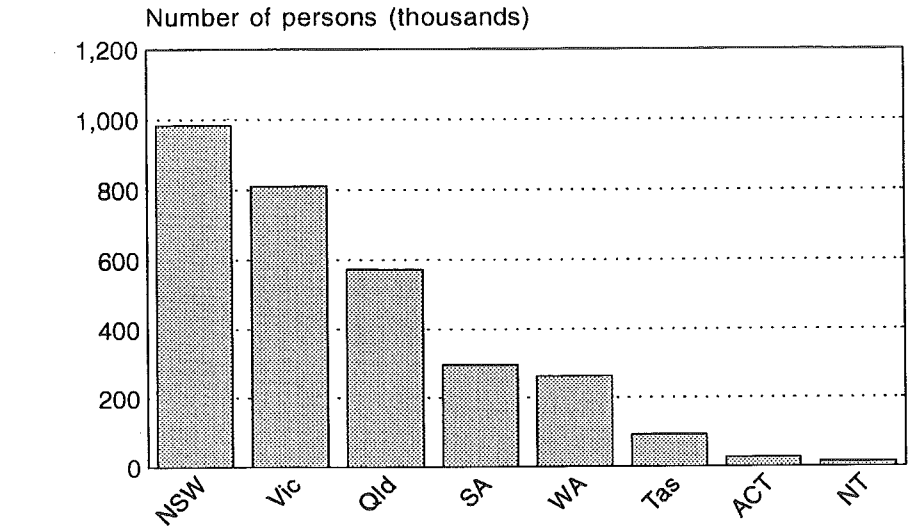
Source: 1994 National Dental Telephone Interview Survey

- The reason for seeking dental care influences the type of care likely to be received and may be an indicator of the level of untreated problems.
- A higher percentage of non-card holders than card holders went for a check-up at their last visit (49.6% *vs* 40.1%).
- Compared to the other States and Territories a lower percentage of card holders last visited a dentist for a check-up in New South Wales, South Australia, the Northern Territory and the Australian Capital Territory.
- Rural areas had a lower percentage of persons last visiting for a check-up than urban areas. The difference between card holders and non-card holders was approximately the same in each area.

Objective

- An increase in the percentage of card holders who last visited for a check-up to a level approaching that observed for non-card holders.

Figure 3.3.5
Estimated number of persons eligible for public care by State and Territory – persons aged 18+



	NSW	Vic	Qld	SA	WA	Tas	ACT	NT
Eligible	983	811	573	296	264	92	27	14

NB: These estimates exclude institutionalised persons eligible for care.

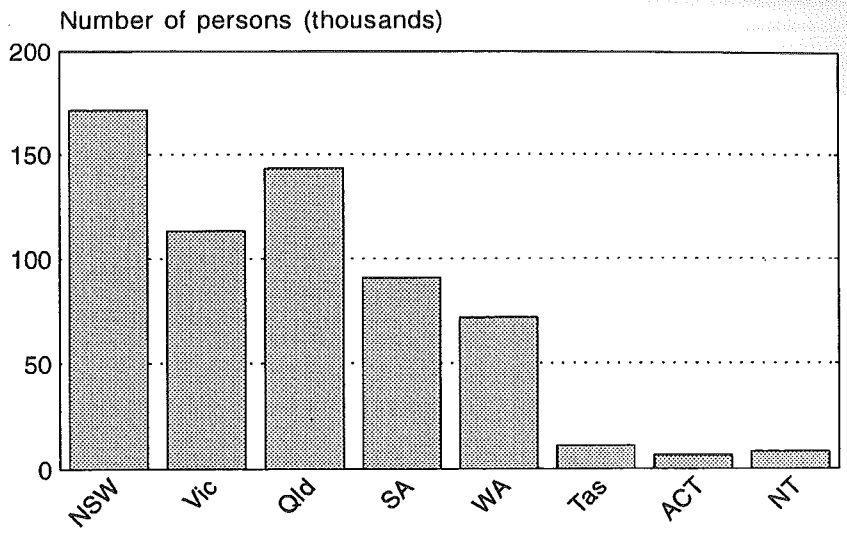
Source: 1994 National Dental Telephone Interview Survey

- The number of persons eligible for public care was largest in New South Wales, followed by Victoria and Queensland. There were fewer eligible persons in South Australia and Western Australia, and fewer again in Tasmania, the Australian Capital Territory, and the Northern Territory, reflecting the underlying State and Territory populations.

Objective

- No objective specified; included to indicate baseline estimates for the States and Territories.

Figure 3.3.6
Estimated number of persons who made their last visit to a public dental clinic within the last 12 months by State and Territory – persons aged 18+



	NSW	Vic	Qld	SA	WA	Tas	ACT	NT
Public	171	113	143	91	72	11	6	8

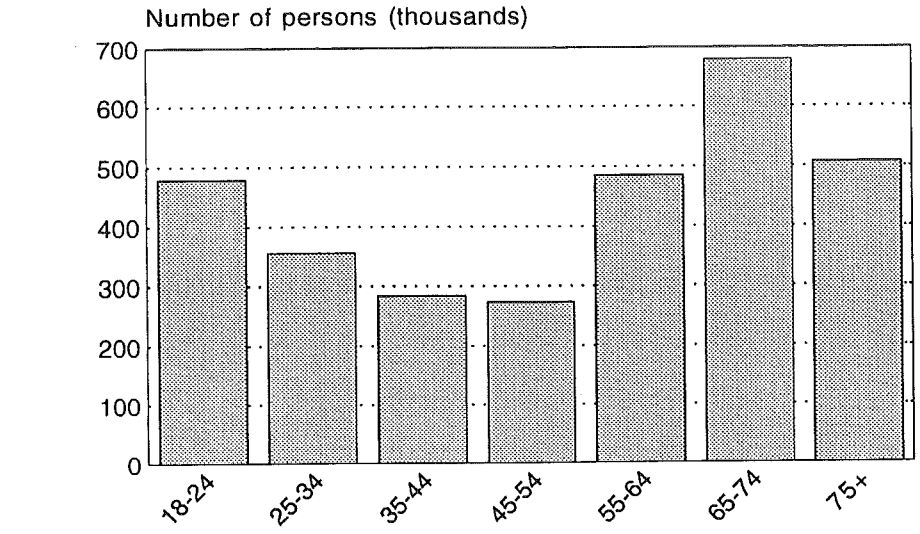
Source: 1994 National Dental Telephone Interview Survey

- These data provide a baseline estimate of the number of persons treated in public-funded dental clinics at the initiation of the CDHP.
- More persons were treated at public dental clinics in the larger States (New South Wales, Victoria, Queensland), followed by South Australia and Western Australia, with smaller numbers in Tasmania, the Australian Capital Territory and the Northern Territory.

Objective

- Increases in the number of persons being treated as a result of improved access to public-funded dental services.

Figure 3.3.7
Estimated number of persons eligible for public care by age – persons aged 18+



	18-24	25-34	35-44	45-54	55-64	65-74	75+
Eligible	478	356	283	273	484	679	507

NB: These estimates exclude institutionalised persons eligible for care.

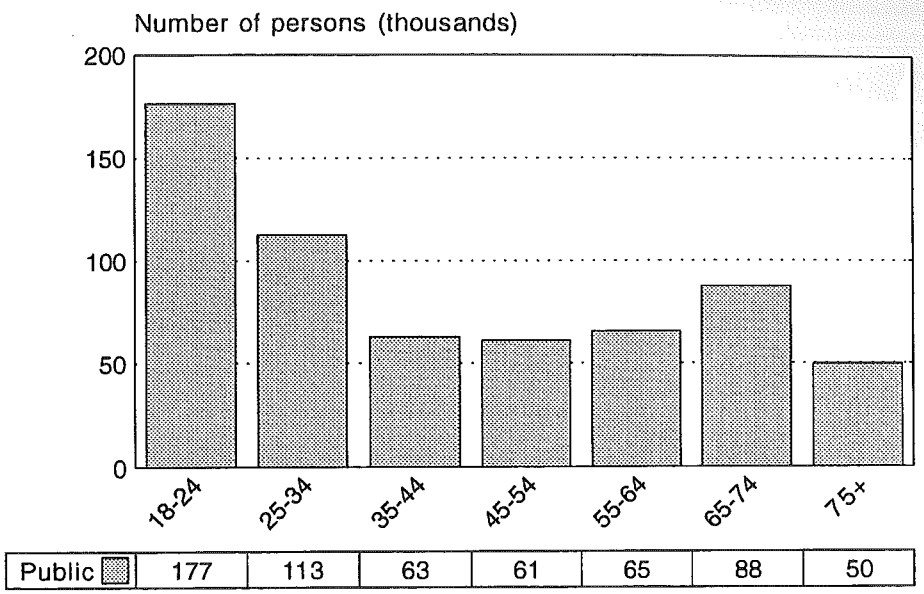
Source: 1994 National Dental Telephone Interview Survey

- The number of persons eligible for public dental care was highest in older age groups, especially in the 65–74 year age group, but it was also high for the 18–24 year age group.

Objective

- No objective specified, included to indicate baseline estimates by age groups.

Figure 3.3.8
Estimated number of persons who made their last visit to a public dental clinic within the last 12 months by age
– persons aged 18+



	18-24	25-34	35-44	45-54	55-64	65-74	75+
Public	177	113	63	61	65	88	50

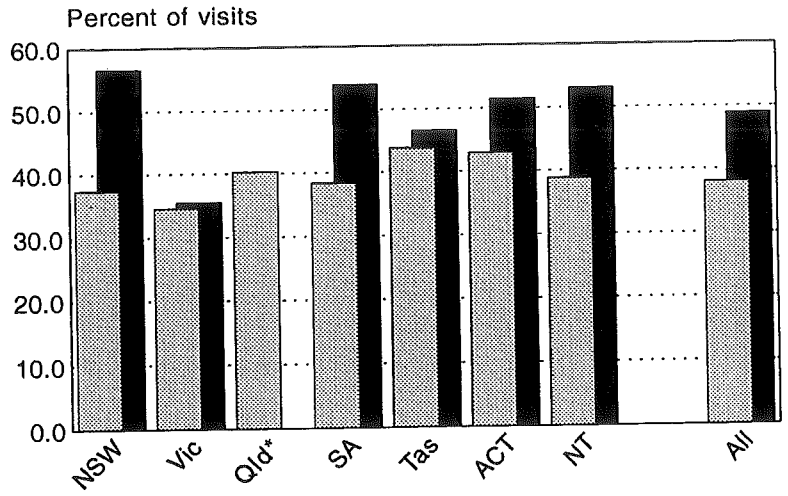
Source: 1994 National Dental Telephone Interview Survey

- Larger numbers of persons were treated at public dental clinics for the two younger age groups, 18–24 and 25–34 years, compared with the older age groups.

Objective

- No objective specified; included to indicate baseline estimates by age groups.

Figure 3.3.9
Type of public-funded course of care by State and Territory – persons aged 18+



	NSW	Vic	Qld*	SA	Tas	ACT	NT		All
Emergency	37.4	34.6	40.3	38.4	43.8	42.9	38.8		38.0
Scheduled	56.6	35.4+		53.9	46.5	51.4	53.0		48.8

* data not classified as 'Scheduled' in Queensland
\+ 'Scheduled' visits were low in Victoria due to large percentage of 'Other' visits at Royal Dental Hospital of Melbourne
NB: Western Australia not included as it was not part of the CDHP at the beginning of 1994.

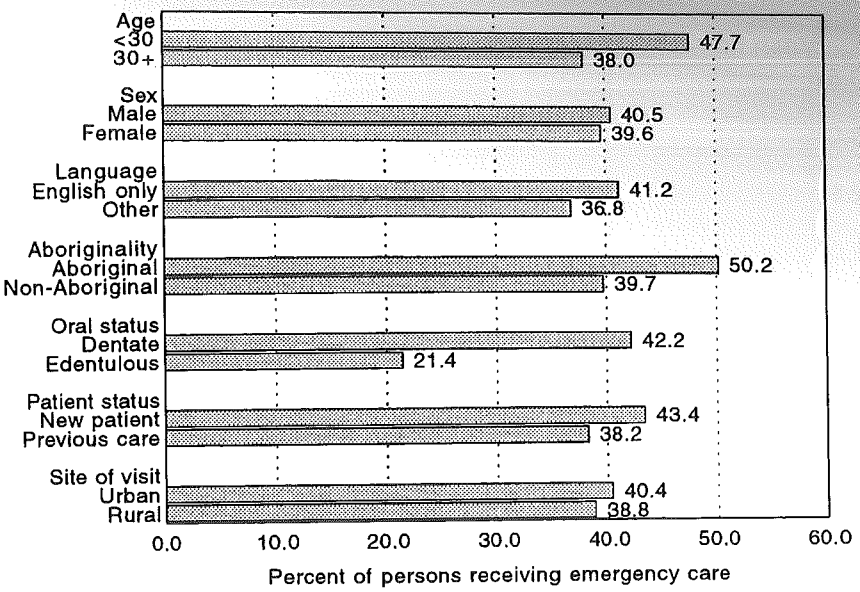
Source: 1994 Adult Dental Programs Survey (Cross-sectional)

- The level of emergency care broadly reflects the types of services received and provides a measure of the level of service provision aimed at immediate treatment rather than maintenance and prevention.
- Overall, 38.0% of public-funded visits were initiated for emergency care, varying from 34.6% in Victoria to 43.8% in Tasmania.

Objectives

- A decrease in the levels of emergency care received by persons receiving public-funded dental care.
- An increase in the level of scheduled care received.

Figure 3.3.10
Percentage of persons receiving emergency care under public-funded dental programs – persons aged 18+



NB: Shown are percentages of the sub-stratum who received emergency care. Summing across sub-strata does not yield care.

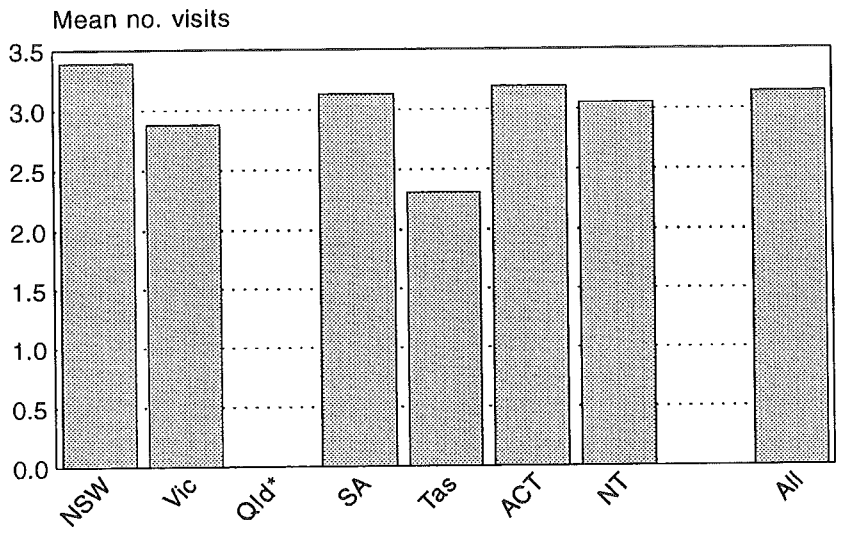
Source: 1994 Adult Dental Programs Survey (Cross-sectional)

- All variables except sex were significantly associated with emergency care.
- A higher percentage of younger persons, persons who spoke English only, Aboriginal persons, dentate persons, new patients to public-funded dental care and persons at urban sites received emergency care.
- There were large differences in the use of emergency care based on oral status (dentate persons 42.2% *vs* edentulous persons 21.4 %), Aboriginality (50.2% *vs* 39.7% for non-Aboriginals) and age (47.7% for those aged <30 years *vs* 38.0% for persons aged 30+ years).

Objective

- Reductions in emergency care for younger persons, Aboriginals and patients new to public-funded dental programs.

Figure 3.3.11
Mean number of public-funded dental visits per public patient in the last year by State and Territory
– persons aged 18+



	NSW	Vic	Qld*	SA	Tas	ACT	NT		All
Public	3.4	2.9		3.1	2.3	3.2	3.1		3.1

* Data not available for Queensland
NB: Western Australia not included as it was not part of the CDHP at the beginning of 1994.

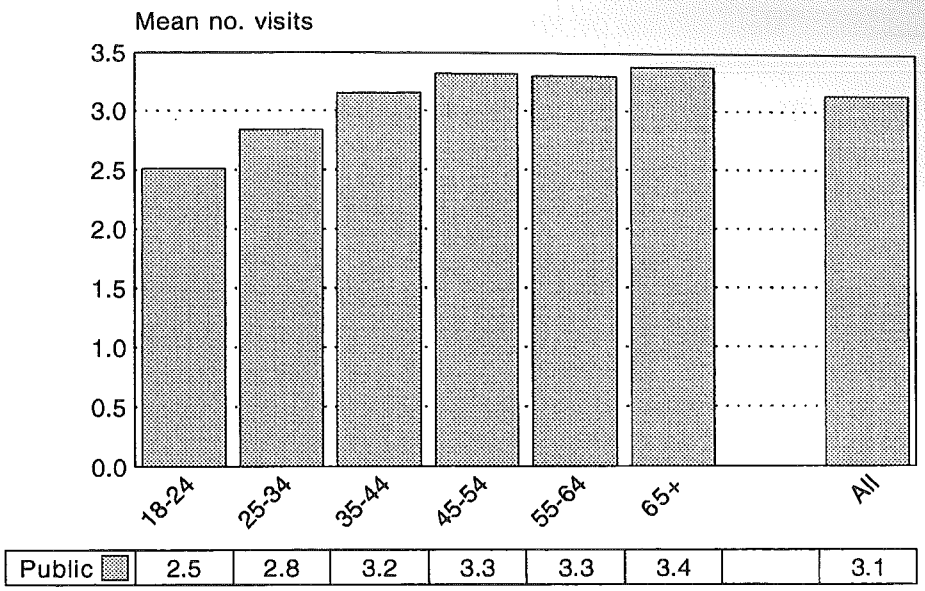
Source: 1994 Adult Dental Programs Survey (Cross-sectional)

- The mean number of public-funded dental visits may be influenced by a range of factors, including type of course of care, complexity of treatment needs, and access to dental care.
- Overall, the mean number of dental visits in the last year was 3.1 visits, ranging across States and Territories from 2.3 visits in Tasmania up to 3.4 visits in New South Wales.

Objective

- A decrease in the variation in the mean number of visits across States and Territories.

Figure 3.3.12
Mean number of public-funded dental visits per person in the last year by age – persons aged 18+



	18-24	25-34	35-44	45-54	55-64	65+		All
Public	2.5	2.8	3.2	3.3	3.3	3.4		3.1

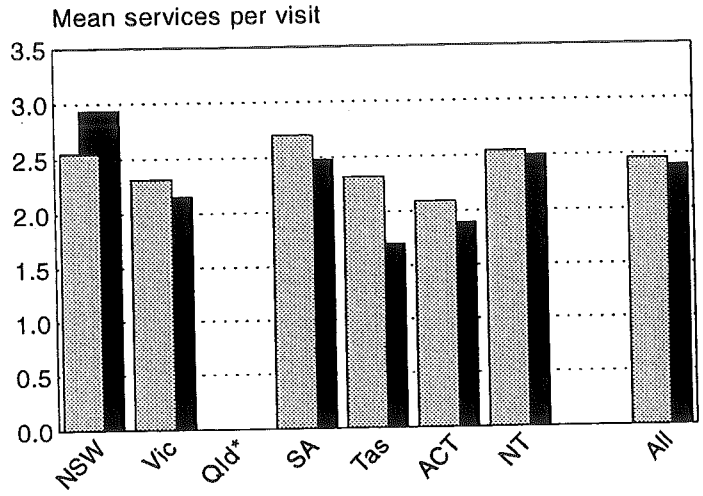
Source: 1994 Adult Dental Programs Survey (Cross-sectional)

- The mean number of dental visits tended to increase across age groups from 2.5 visits in the 18–24 year age group up to 3.4 in the 65+ year age group.

Objective

- No objective specified; included to indicate baseline estimates by age groups.

Figure 3.3.13
Mean services per public-funded dental visit by State and Territory and type of course of care – dentate persons aged 18+



	NSW	Vic	Qld*	SA	Tas	ACT	NT	All
Emergency	2.6	2.3		2.7	2.3	2.1	2.5	2.5
Non-emergency	2.9	2.2		2.5	1.7	1.9	2.5	2.4

* Data not available for Queensland
NB: Western Australia not included as it was not part of the CDHP at the beginning of 1994.

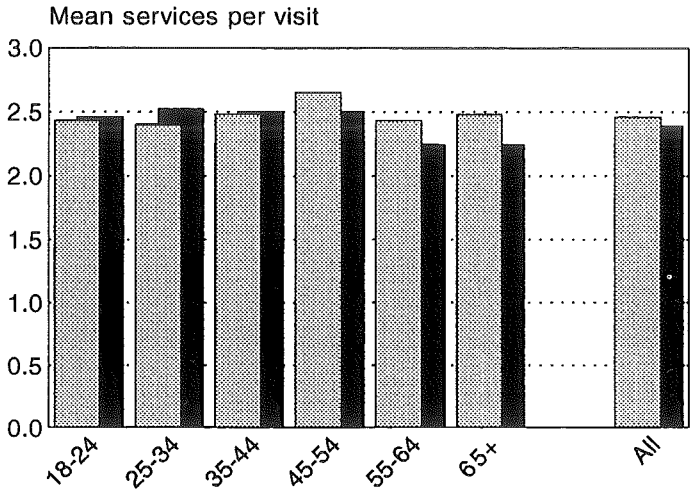
Source: 1994 Adult Dental Programs Survey (Cross-sectional)

- The mean number of services per visit indicates the complexity of required treatment and the way in which services are spread across a number of visits.
- In most States and Territories there were larger numbers of services per visit for emergency care, with the exception of New South Wales where larger numbers of services per visit were provided for non-emergency care.
- Variation occurred across States and Territories with mean services per visit for emergency care ranging from 2.1 in the Australian Capital Territory up to 2.7 in South Australia, while mean services per visit for non-emergency care ranged from 1.7 in Tasmania up to 2.9 in New South Wales.

Objective

- Reduction of variation of the mean number of services per public-funded dental visit across States and Territories.

Figure 3.3.14
Mean services per public-funded dental visit by age and type of course of care – dentate persons aged 18+



	18-24	25-34	35-44	45-54	55-64	65+		All
Emergency	2.4	2.4	2.5	2.7	2.4	2.5		2.5
Non-emergency	2.5	2.5	2.5	2.5	2.2	2.2		2.4

Source: 1994 Adult Dental Programs Survey (Cross-sectional)

- There was little variation in the number of services across age groups for emergency care and a slight decrease in the number of services for non-emergency care among 55–64 year olds and 65+ year olds compared with younger age groups.

Objective

- No objective specified; included to indicate baseline estimates by age groups.

3.4 HEALTH STATUS

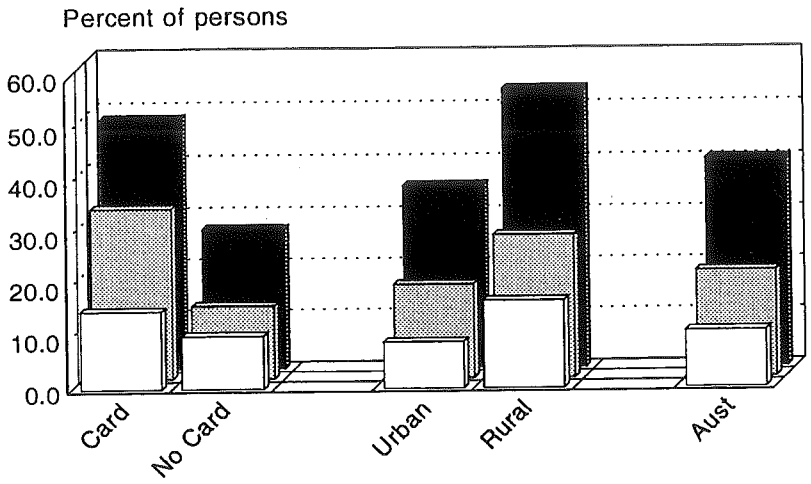
Health status is represented in this section by measures of edentulism, missing teeth and social impact.

Edentulism reflects the cumulative effects of past disease and treatment.

The mean number of **missing teeth** can be interpreted similarly and also indicates the extent of progression toward edentulism.

Social impact is measured by the percentage of persons **feeling uncomfortable about their appearance**, those **avoiding some foods**, and those **experiencing toothache.**

Figure 3.4.1
Percentage edentulous persons by health card status, location and age – persons aged 45+



65+ years	48.3	27.1		35.4	53.6		40.3
55-64 years	33.1	14.0		18.1	27.7		20.6
45-54 years	15.0	10.2		8.9	16.8		10.9

Source: 1994 National Dental Telephone Interview Survey

- Edentulism is an indicator which reflects the cumulative effects of past disease and treatment practices.
- Despite the restriction to specific age bands to account for differing age profiles, card holders were still considerably more likely to be edentulous than non-card holders across all age groups. The most substantial differences were evident in the age groups 55 years and over, possibly indicating the extent of inequalities in past years.
- Persons in rural areas were more likely to be edentulous than persons from urban areas. For those aged 65 or more, 53.6% of persons from rural areas were edentulous compared with 35.4% in urban areas indicating differing historical treatment patterns between geographic locations.

Objectives

- Reductions (in the long term) of differences in edentulism rates between card holders and non-card holders by age groups.
- Reductions (in the long term) of the differences in edentulism rates between persons in rural and urban areas by age groups.

Figure 3.4.2
Percentage edentulous persons by State and Territory, and age – persons aged 45+

	NSW	Vic	Qld	SA	WA	Tas	ACT	NT		Aust
65+ years	36.0	42.2	38.1	46.8	45.7	50.9	40.1	46.3		40.3
55-64 years	17.8	24.7	20.7	22.5	14.1	36.3	11.5	14.3		20.6
45-54 years	8.2	14.7	12.3	8.8	8.2	20.1	4.3	10.6		10.9

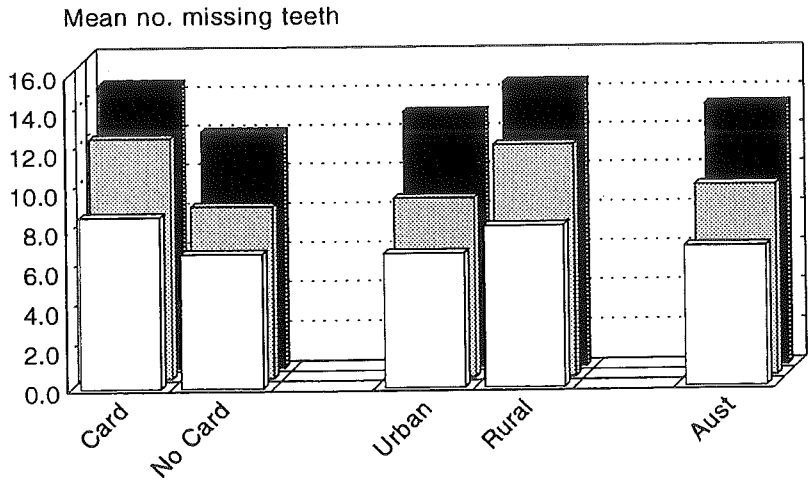
Source: 1994 National Dental Telephone Interview Survey

- Of the States and Territories, Tasmania had the highest edentulism rates across all three age groups, with substantially higher levels recorded for the 45–54 and 55–64 year old age groups.
- For the two age groups 45–54 and 55–64 years, the Australian Capital Territory had the lowest edentulism rates across the States and Territories.

Objective

- No objective specified; included to indicate baseline estimates for the States and Territories.

Figure 3.4.3
Mean number of missing teeth by health card status, location, and age – dentate persons aged 45+



65+ years	14.5	12.0		13.0	14.5		13.3
55-64 years	12.2	8.7		9.1	11.8		9.7
45-54 years	8.7	6.8		6.8	8.2		7.1

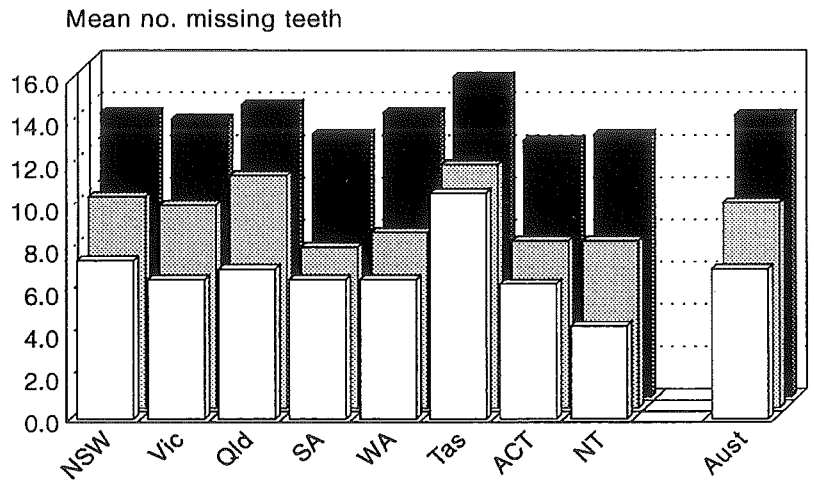
Source: 1994 National Dental Telephone Interview Survey

- As for edentulism the mean number of missing teeth reflects the cumulative effects of past disease and treatment. It can also be viewed as an indicator of the extent to which a dentate group has progressed toward edentulism.
- Similar patterns to those for edentulism were observed (see Fig. 3.4.1). Card holders had on average a greater number of missing teeth than non-card holders across all three age groups.
- Persons from rural areas had more missing teeth than persons from urban areas across all three age groups, the differences being slightly less marked than those by card status.
- Thus not only do card holders and persons from rural areas have higher levels of edentulism, but those who are still dentate have also experienced a higher level of tooth loss than non-card holders and urban dwellers.

Objectives

- Medium term reductions in the differences of average tooth loss between card holders and non-card holders by age groups.
- Medium term reductions in the differences of average tooth loss between persons in rural and urban areas by age groups.

Figure 3.4.4
Mean number of missing teeth by State and Territory, and age – dentate persons aged 45+



	NSW	Vic	Qld	SA	WA	Tas	ACT	NT		Aust
65+ years	13.4	13.1	13.8	12.4	13.4	15.1	12.1	12.4		13.3
55-64 years	10.0	9.6	11.0	7.6	8.3	11.5	7.9	7.9		9.7
45-54 years	7.5	6.6	7.1	6.6	6.6	10.7	6.4	4.4		7.1

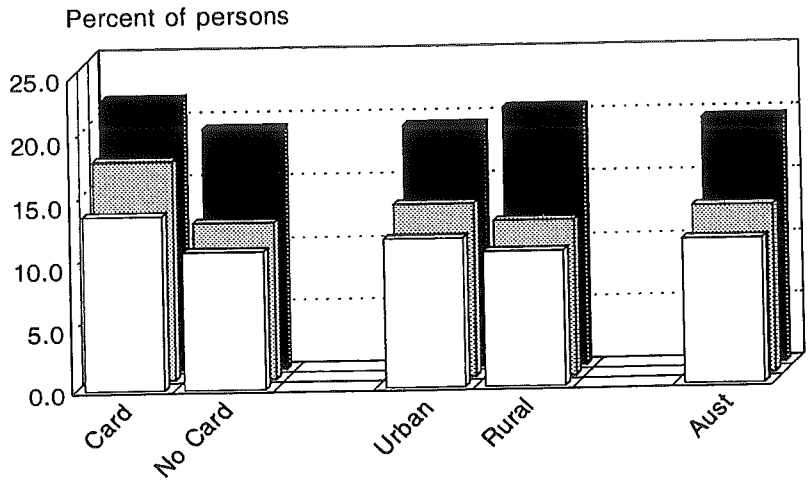
Source: 1994 National Dental Telephone Interview Survey

- As for edentulism (see Fig. 3.4.2), Tasmania stood out against the other States and Territories with the largest mean number of missing teeth across the three age groups. Demonstrating that Tasmania's high edentulism rate has a correspondingly high rate of missing teeth amongst those who are still dentate.
- The Northern Territory had the lowest mean number of missing teeth for 45–54 year olds (4.4 per person compared to 7.1 per person nationally).

Objective

- No objective specified; included to indicate baseline estimates for the States and Territories.

Figure 3.4.5
Social impact by health card status and location – dentate persons aged 18+



	Card	No Card		Urban	Rural		Aust
Appearance	21.6	19.2		19.3	20.6		19.6
Avoid food	17.5	12.6		13.9	12.5		13.5
Toothache	14.0	11.1		12.0	10.9		11.7

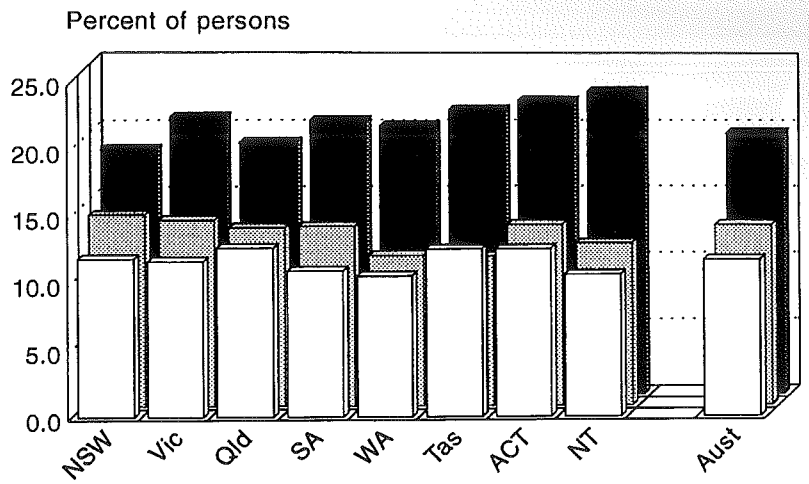
Source: 1994 National Dental Telephone Interview Survey

- Three measures of social impact are presented: the percentage of persons feeling uncomfortable with their appearance; those avoiding some foods; and those experiencing toothache.
- Card holders reported being affected to a greater degree across all three measures of social impact than non-card holders. The largest difference was associated with the avoidance of foods (17.5% *vs* 12.6%).
- There was little difference between persons from urban and rural areas for all three measures.

Objective

- Reductions in the degree of social impact for card holders to levels more comparable with those experienced by non-card holders.

Figure 3.4.6
Social impact by State and Territory – dentate persons aged 18+



	NSW	Vic	Qld	SA	WA	Tas	ACT	NT		Aust
Appearance	18.4	20.8	18.9	20.5	20.1	21.3	22.0	22.7		19.6
Avoid Food	14.3	13.9	13.3	13.4	11.2	11.1	13.5	12.1		13.5
Toothache	11.8	11.6	12.6	10.9	10.5	12.5	12.5	10.6		11.7

Source: 1994 National Dental Telephone Interview Survey

- Little difference among States and Territories was evident with respect to the social impact measures; no State or Territory clearly stood out from the remainder.

Objective

- No objective specified; included to indicate baseline estimates for the States and Territories.

3.5 APPROPRIATENESS OF CARE

Appropriateness of care is measured by the type of treatment services provided to patients.

Extraction of teeth indicates the ultimate failure of preventive and restorative efforts.

Fillings reflect attempts to restore damaged teeth and prevent further deterioration.

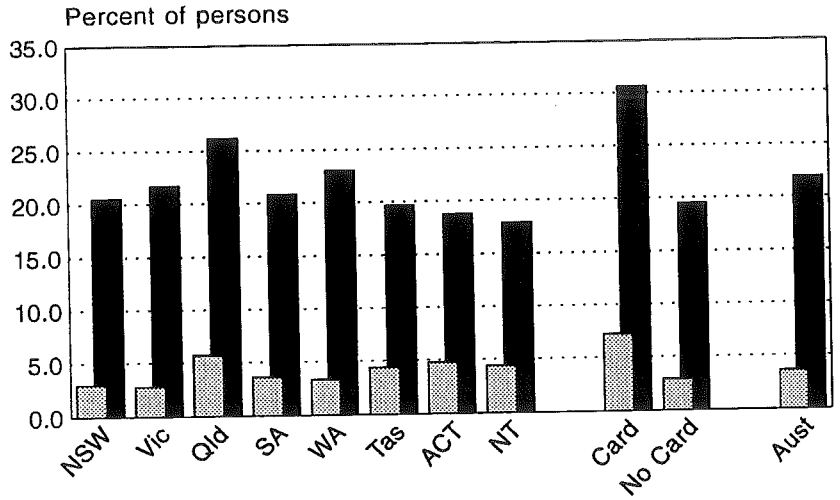
Receipt of services by main service areas is also presented for public-funded programs.

Satisfaction reflects the extent to which dental care received meets the needs and expectations of patients and the acceptability of the standard of service and is measured by:

satisfaction scores from an attitudinal scale

comments collected from patients about aspects of their satisfaction with dental care.

Figure 3.5.1
Percentage of persons receiving extractions by State and Territory, health card status, and reason for last visit
– dentate persons aged 18+ whose last visit was <12 months ago



	NSW	Vic	Qld	SA	WA	Tas	ACT	NT	Card	No Card	Aust
Check-up	3.0	2.8	5.7	3.6	3.3	4.4	4.8	4.4	7.2	2.9	3.6
Problem	20.5	21.7	26.2	20.8	23.0	19.7	18.8	17.9	30.6	19.5	21.9

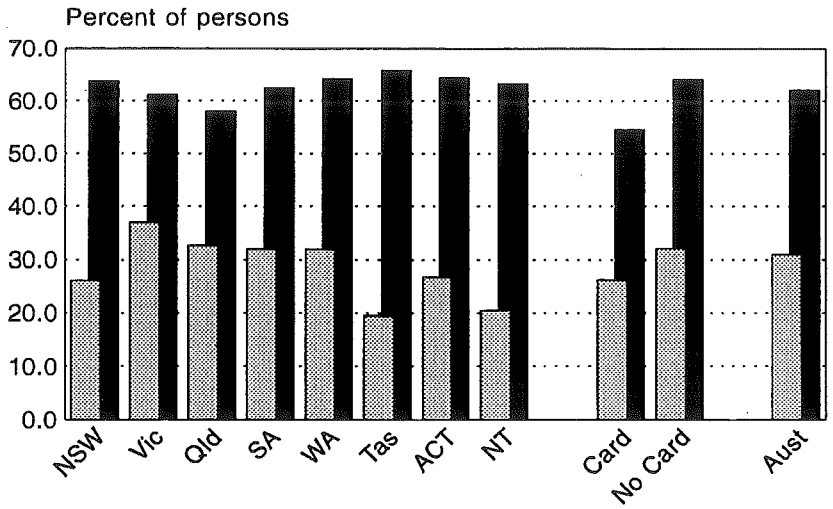
Source: 1994 National Dental Telephone Interview Survey

- The loss of a tooth is a measure of dental mortality and indicates the failure of all preventive and restorative efforts.
- A higher percentage of card holders than non-card holders experienced extractions, both for persons last visiting for a check-up and those visiting for a problem. Of those last visiting for a problem, 30.6% of card holders received an extraction compared to 19.5% of non-card holders.
- A higher percentage of persons who last visited for a problem had extractions compared with those whose last visit was for a check-up (21.9% *vs* 3.6%).
- Queensland had the highest percentage of persons receiving extractions compared with the other States and Territories regardless of the reason for the last visit.

Objective

- Reductions in extraction rates for card holders to the rates for non-card holders, for those visiting for a problem and those visiting for a check-up.

Figure 3.5.2
Percentage of persons receiving fillings by State and Territory, health card status, and reason for last visit
– dentate persons aged 18+ whose last visit was <12 months ago



	NSW	Vic	Qld	SA	WA	Tas	ACT	NT	Card	No Card	Aust
Check-up	26.1	37.0	32.6	31.9	31.9	19.5	26.8	20.5	26.2	32.1	31.0
Problem	63.7	61.1	58.0	62.4	64.2	65.8	64.4	63.2	54.5	64.1	62.1

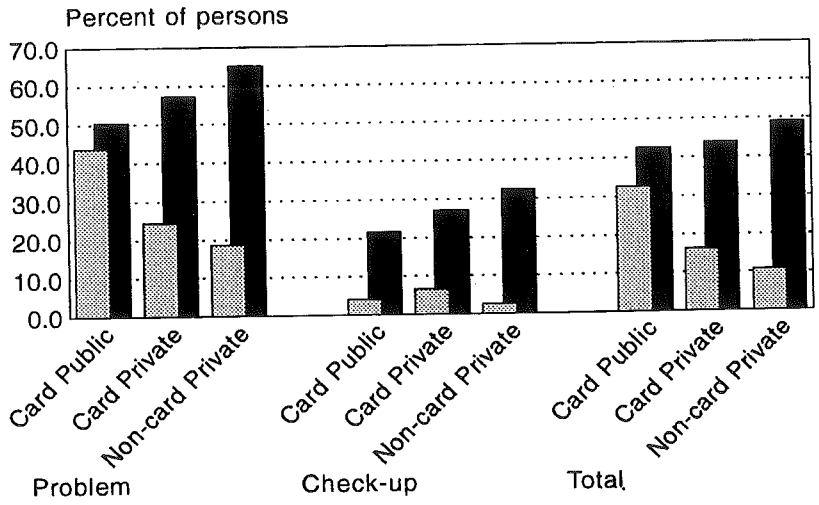
Source: 1994 National Dental Telephone Interview Survey

- The receipt of a filling reflects the attempt to restore a damaged tooth and to prevent further deterioration which might require the extraction of the tooth.
- A higher percentage of non-card holders than card holders received a filling both for persons last visiting for a check-up and for persons last visiting for a problem.
- Persons who last visited for a problem were twice as likely to receive a filling than those who last visited for a check-up (62.1% *vs* 31.0%).
- In Tasmania and the Northern Territory, a lower percentage of persons who last visited for a check-up received fillings compared with the other States and Territories.

Objective

- An increase in the receipt of fillings by card holders, both for those visiting for a problem and those visiting for a check-up.

Figure 3.5.3
Percentage of persons having extractions and fillings by place of last visit, health card status and reason for last visit
– dentate persons aged 18+ whose last visit was <12 months ago



	Problem			Check-up			Total		
Extractions	43.8	24.5	18.7	4.0	6.6	2.6	32.6	16.3	10.8
Fillings	50.5	57.3	65.1	21.7	27.1	32.4	42.5	43.9	49.1

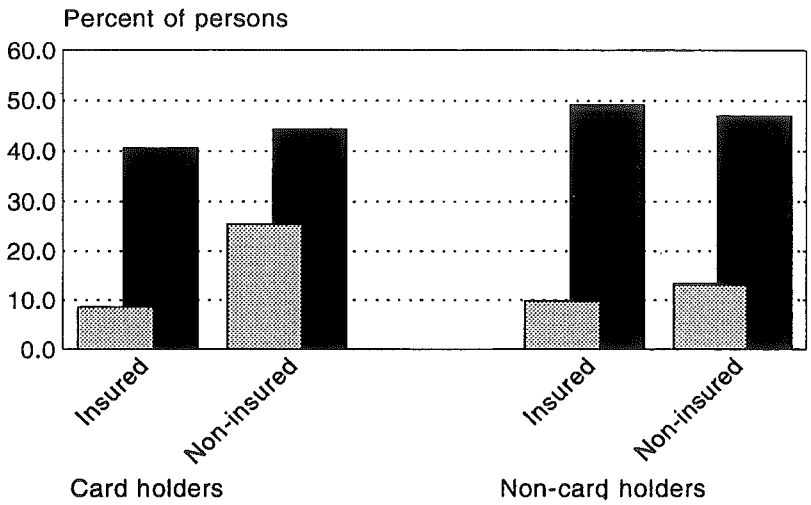
Source: 1994 National Dental Telephone Interview Survey

- The percentage of card holders last visiting a public clinic for a problem who received an extraction almost equalled the percentage receiving fillings (43.8 *vs* 50.5% respectively). This contrasts with the experience of non-card holders last visiting a private clinic for a problem of whom 65.1% received a filling and 18.7% had extractions. The corresponding figures for card holders who last went to a private dentist for a problem lie between these two groups.
- There is an inverse relationship between provision of fillings and provision of extractions, particularly for those who last visited for a problem.
- Relative to other treatment rates, persons visiting for a check-up experienced low levels of extractions.

Objective

- A reduction in extraction rates for card holders and increase filling rates to levels experienced by non-card holders, particularly for those visiting for a problem.

Figure 3.5.4
Percentage of persons receiving extractions and fillings by insurance status and health card status
– dentate persons aged 18+ whose last visit was <12 months ago



	Card holders		Non-card holders	
Extractions	8.6	25.5	9.8	13.2
Fillings	40.6	44.4	49.2	47.0

Source: 1994 National Dental Telephone Interview Survey

- For card holders insurance status had little effect on the percentage of persons receiving fillings; however a dramatic reduction in the percentage having extractions is observed for insured card holders.
- Having insurance is not strongly related to receiving either fillings or extractions for non-card holders.

Objective

- A decrease in extraction rates for non-insured card holders to rates found for non-card holders and insured card holders.

Table 3.5.1
Percentage of persons receiving services under public-funded dental programs by main service areas, and State and Territory – dentate persons

Service area	State or Territory							
	NSW	Vic	Qld*	SA	Tas	ACT	NT	All**
	Per cent of persons							
Diagnostic	47.5	56.1	2.8†† †	48.3	50.7	34.3	57.1	50.1
Preventive	16.0	10.6	17.8	14.4	2.9	11.8	16.9	12.4
Periodontic	13.3	8.9	8.1	13.3	6.0	12.1	18.0	11.4
Oral surgery	12.7	15.8	16.8	9.7	27.9	10.6	19.0	14.6
Endodontic	2.8	4.0	3.8	4.6	4.2	5.6	11.3	4.2
Restorative	35.8	27.2	34.3	42.2	37.9	27.2	35.1	34.4
Crown/bridge	3.0	1.4	1.2	4.3	1.0	1.0	1.6	2.4
Prosthodontic	9.1	16.5	11.5	6.8	13.2	20.2	12.9	12.0
Miscellaneous	20.1	5.0	2.2	13.3	4.5	8.4	7.8	11.1
Temporary/emergency	6.8	8.5	#	13.5	9.6	14.6	8.9	9.8

* Service areas may not correspond exactly with definitions in other States and Territories
** Total does not include Queensland owing to variation in definitions of service areas
† Primary service area only
†† 2.8 % received diagnostic only
\# Data not classified in this service area
NB: Western Australia not included as it was not part of the CDHP at the beginning of 1994.

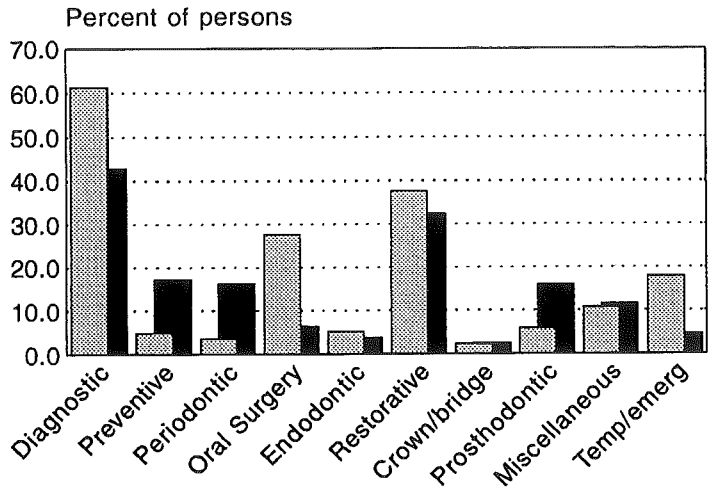
Source: 1994 Adult Dental Programs Survey (Cross-sectional)

- The mix of services received by a group of persons indicates the range and type of care being provided.
- Overall the service distribution is dominated by the provision of diagnostic (50.1%) and restorative services (34.4%).
- The provision of oral surgery services (extractions) is high (14.6% of persons) and varies across States and Territories.

Objective

- Reductions in oral surgery (extractions) and increased levels of preventive care.

Figure 3.5.5
Percentage of persons receiving services under public-funded dental programs by type of course of care and main service area – dentate persons aged 18+



	Diagnostic	Preventive	Periodontic	Oral Surgery	Endodontic	Restorative	Crown/bridge	Prosthodontic	Miscellaneous	Temp/emerg
Emergency	61.3	4.8	3.5	27.6	5.1	37.6	2.3	5.9	10.7	18.0
Non-emergency	42.9	17.2	16.2	6.3	3.7	32.3	2.5	15.9	11.5	4.5

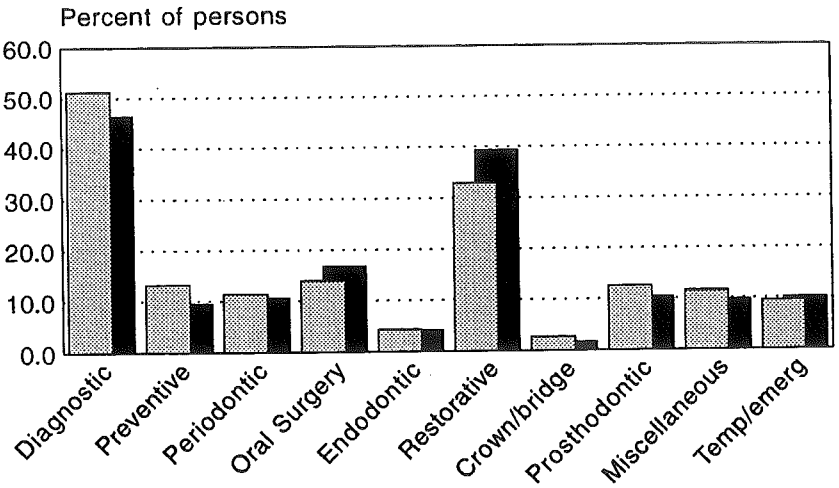
Source: 1994 Adult Dental Programs Survey (Cross-sectional)

- Higher percentages of diagnostic, oral surgery (extractions), restorative and temporary/emergency services were associated with emergency care.
- Non-emergency care was associated with higher percentages of preventive, periodontic, and prosthodontic services.

Objective

- A shift in service provision towards restorative procedures for those attending for emergency care.

Figure 3.5.6
Percentage of persons receiving services under public-funded dental programs by site of visit and main service area – dentate persons aged 18+



	Diagnostic	Preventive	Periodontic	Oral Surgery	Endodontic	Restorative	Crown/bridge	Prosthodontic	Miscellaneous	Temp/emerg
Urban	51.2	13.2	11.4	13.9	4.3	32.9	2.7	12.5	11.5	9.5
Rural	46.3	9.5	10.6	16.8	4.1	39.3	1.6	10.3	9.8	10.1

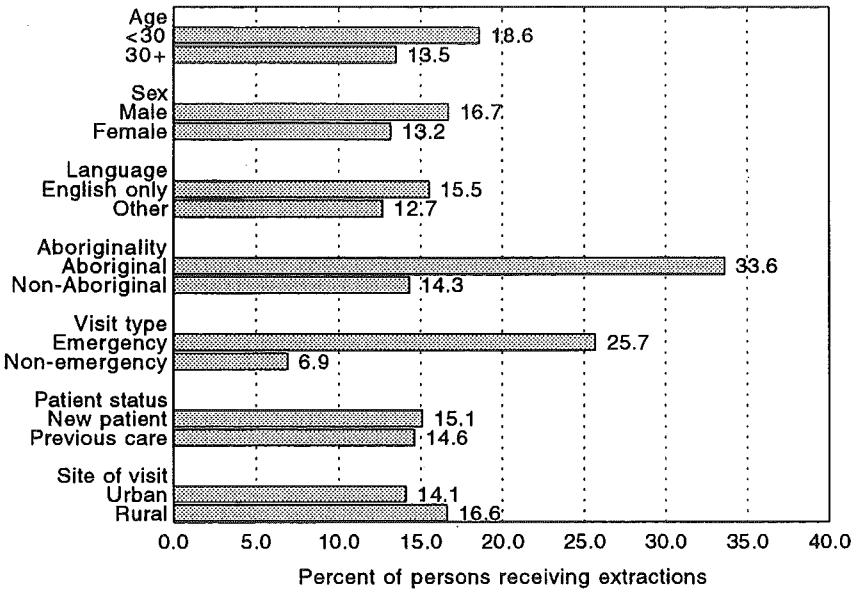
Source: 1994 Adult Dental Programs Survey (Cross-sectional)

- Urban sites were associated with slightly higher percentages of diagnostic and preventive services.
- Rural sites showed higher percentages of oral surgery (extractions) and restorative services.

Objectives

- Increases in diagnostic and preventive services for persons from rural areas
- Decreases in oral surgery and restorative procedures for persons from rural areas.

Figure 3.5.7
Percentage of persons receiving oral surgery (extractions) under public-funded dental programs – dentate persons aged 18+



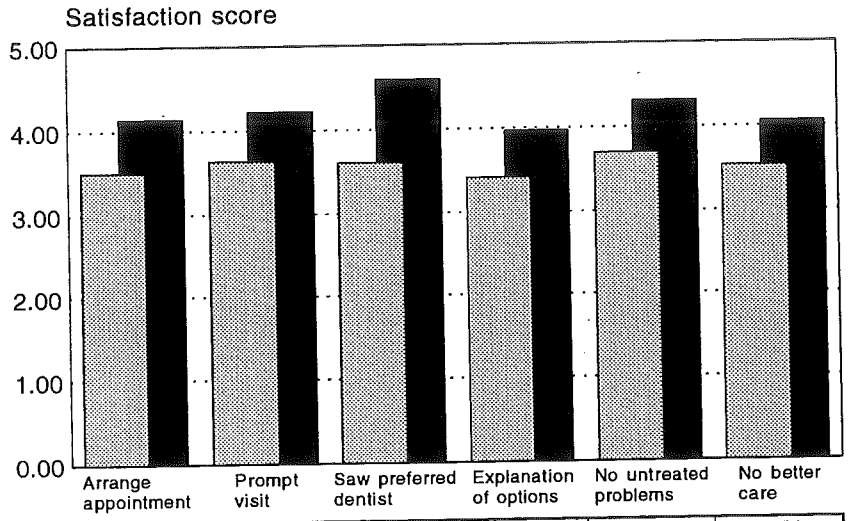
Source: 1994 Adult Dental Programs Survey (Cross-sectional)

- All variables except language and patient status (new or previous public care) were significantly associated with receipt of oral surgery.
- Younger persons, males, Aboriginal persons, persons visiting for an emergency and those visiting at rural sites were more likely to receive oral surgery (extractions).
- There were large differences in the receipt of extractions by visit type (25.7% of emergency patients had extractions compared with 6.9% for non-emergency) and Aboriginality (33.6% had extractions compared with 14.3% for non-Aboriginals).

Objective

- Reductions in the frequency of oral surgery, particularly for emergency care patients, younger persons, males and Aboriginals.

Figure 3.5.8
Mean satisfaction scores for individual items by place of last visit – dentate persons aged 18+ whose last visit was <12 months ago



	Arrange appointment	Prompt visit	Saw preferred dentist	Explanation of options	No untreated problems	No better care
Public	3.51	3.64	3.61	3.42	3.70	3.54
Private	4.14	4.22	4.59	3.97	4.31	4.06

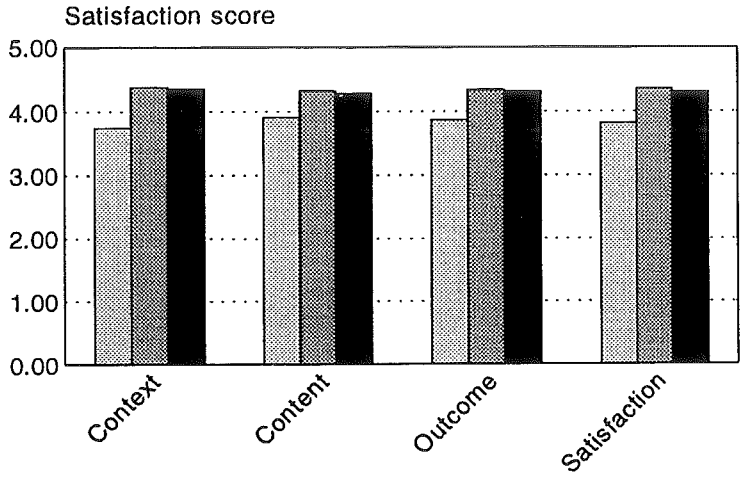
Source: 1994 Dental Satisfaction Survey

- Satisfaction reflects the extent to which the care given meets the patients' needs and expectations and provides an acceptable standard of service.
- This figure shows the mean satisfaction scores for public and private patients for six of the twenty-four individual items from the Dental Satisfaction Survey.
- On a scale of 1 ≡ strongly dissatisfied to 5 ≡ strongly satisfied, recipients of public care, although satisfied, had a score more than 0.5 points lower than private patients for these items.
- Care must be taken in the interpretation of individual items of a satisfaction survey; the differences between participating groups are measured by the global and sub-scale satisfaction scores.

Objective

- Increases in satisfaction scores across individual items for persons receiving public care.

Figure 3.5.9
Mean satisfaction scores for conceptual categories by place of last visit – dentate persons aged 18+ whose last visit was <12 months ago



Card Public	3.75	3.91	3.87	3.82
Card Private	4.38	4.32	4.33	4.35
Non-card Private	4.35	4.28	4.31	4.30

* context = appointment/waiting time, dentist and clinic staff issues
content = communication, explanation of treatment and options, services provided
outcome = service results, improvement in oral health
satisfaction = mean score for all 24 satisfaction items

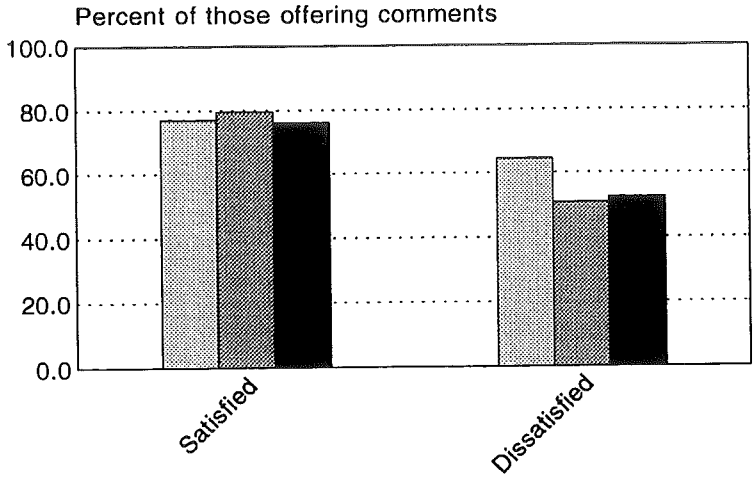
Source: 1994 Dental Satisfaction Survey

- 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.
- All groups recorded mean scores which indicate satisfaction with their most recent dental visit, with scores ranging from 3.75 to 4.38 (measured on a scale of 1 ≡ strongly dissatisfied to 5 ≡ strongly satisfied).
- Users of public clinics (health card holders only) recorded significantly lower satisfaction scores on all scales than users of private practices.
- For all scales, card holders who used private practices had very similar mean satisfaction scores to non-card holders using private practices.
- The largest difference in mean scores was recorded on the context scale, highlighting waiting time, appointment and preferred dentist issues.

Objective

- Increases in the mean satisfaction scores, particularly the context score, for card holders who receive public care.

Figure 3.5.10
Frequency of satisfied and dissatisfied comments by place of last visit – dentate persons aged 18+ whose last visit was <12 months ago



Card Public	77.0	64.6
Card Private	79.6	50.7
Non-card Private	76.1	52.4

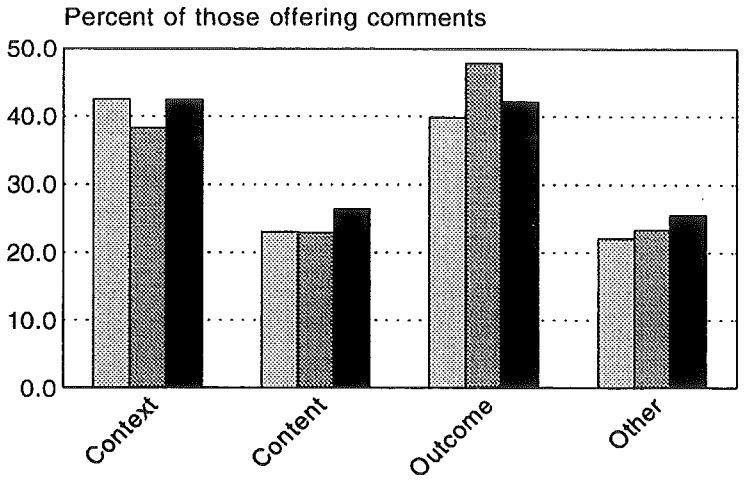
Source: 1994 Dental Satisfaction Survey

- Comments volunteered by respondents to a mailed survey may include areas of concern which were not covered in the survey and may strengthen the associations found by quantitative research methods. Almost two-thirds of the respondents to the Dental Satisfaction Survey proffered comments regarding aspects of their dental care.
- There was very little difference in the frequency of satisfied comments, with between 76% and 80% of each group proffering one or more positive comment(s).
- The frequency of dissatisfied comments was similar among card holders and non-card holders who attended private practices, with higher levels of dissatisfied comments expressed by card holders who were recipients of public care.

Objective

- Reductions in the frequency of dissatisfied comments from persons receiving public care.

Figure 3.5.11
Frequency of satisfied comments broken down into conceptual categories by place of last visit – dentate persons aged 18+ whose last visit was <12 months ago



Card Public	42.5	23.0	39.8	22.1
Card Private	38.3	22.9	47.8	23.4
Non-card Private	42.4	26.4	42.1	25.5

* context = appointment/waiting time, dentist and clinic staff issues
content = communication, explanation of treatment and options, services provided
outcome = service results, improvement in oral health
other = cost, hygiene, other comments

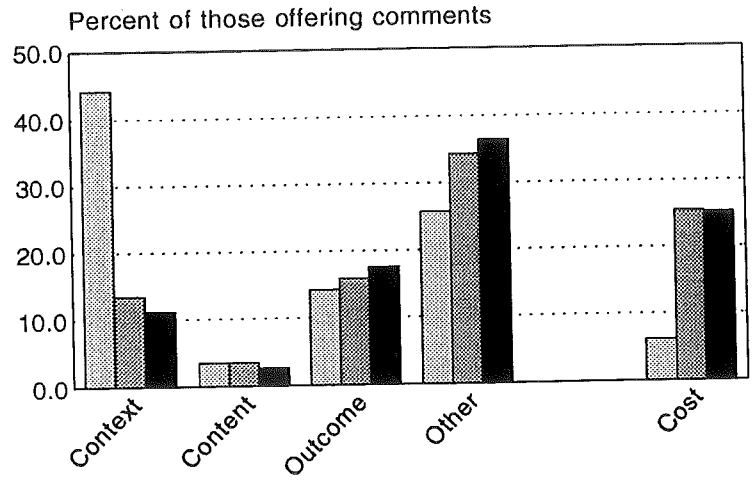
Source: 1994 Dental Satisfaction Survey

- There was little difference between public and private patients in each of the four comment categories.
- The key areas of satisfaction were friendly and caring dental providers and dental staff, and the service provided.

Objective

- Retention of the level of satisfied comments provided by card holders, particularly among those receiving public-funded dental care.

Figure 3.5.12
Frequency of dissatisfied comments broken down into conceptual categories by place of last visit
– dentate persons aged 18+ whose last visit was <12 months ago



	Context	Content	Outcome	Other		Cost
Card Public	44.2	3.5	14.2	25.7		6.2
Card Private	13.4	3.5	15.9	34.3		25.4
Non-card Private	11.2	2.7	17.6	36.4		25.2

* context = appointment/waiting time, dentist and clinic staff issues
content = communication, explanation of treatment and options, services provided
outcome = service results, improvement in oral health
other = cost, hygiene, other comments

Source: 1994 Dental Satisfaction Survey

- There were large differences between those in public care and those in private care in the area of context. Dissatisfied comments were made by 44.2% of recipients of public care compared with between 11.2% and 13.4% of private patients depending on whether or not they had a health card.
- The key areas of dissatisfaction were waiting times and cost.

Objective

- A decrease in the level of dissatisfied comments among users of public care concerning access to services and waiting times.

4. SUMMARY OF POPULATION & PATIENT INDICATORS AND OBJECTIVES

4.1 AVAILABILITY AND ACCESS

Perceived need for dental visits

- A shift in card holders' perceived needs from treatment based visits to check-up visits.

Perceived need for treatment

- A decrease in the overall percentage of card holders perceiving the need for treatment, particularly for extractions and fillings.

Usual reason for a dental visit

- An increase in the percentage of card holders reporting a check-up as the usual reason for making a dental visit, toward the check-up level found for non-card holders.

Waiting time

- Reductions in the percentage of card holders who must wait for 12 months or more for a check-up within the public sector.
- Increases in the percentage of card holders obtaining more timely care in the public sector, with increases in the percentage receiving treatment within 3 months in the first instance and within 1 month in the longer term.

4.2 BARRIERS

Distribution of affordability and hardship in purchasing dental care

- Reductions in the percentage of card holders reporting avoidance and delay of dental visits, and inability to receive recommended or wanted dental treatment due to cost, to levels at or below those reported by non-card holders.
- Reductions in the percentage of rural card holders reporting avoidance and delay of dental visits, and inability to receive recommended or wanted dental treatment due to cost, bringing the difference between card holders and non-card holders in rural areas closer to that in urban areas.
- Reductions in the percentage of card holders reporting avoidance or delay of dental visiting due to cost, particularly in New South Wales, Queensland, Tasmania and the Australian Capital Territory.
- Reductions in the percentage of card holders reporting cost preventing recommended or wanted dental treatment, particularly in New South Wales, South Australia, Tasmania and the Australian Capital Territory.

- Reductions in the percentage of card holders reporting that dental visits were a large financial burden.

4.3 USE OF SERVICES

Time since last visit

- A decrease in the percentage of card holders whose last visit was 5 or more years ago.
- A corresponding increase in the percentage of card holders visiting within the last year, to achieve a visiting pattern closer to that of non-card holders.

Place of last visit

- Increases in the proportion of eligible persons who are able to obtain public funded dental care.
- Maintain the percentage of eligible persons who receive care in public clinics.

Check-up (percentage last visiting)

- An increase in the percentage of card holders who last visited for a check-up rather than a problem, to a level approaching that observed for non-card holders.

Persons eligible for public care

- Increases in the estimated number of persons being treated, as a result of improved access to public-funded dental services.

Type of public-funded course of care

- A decrease in the levels of emergency care received by persons receiving public-funded dental care.
- A corresponding increase in the level of scheduled care received by persons receiving public-funded dental care.

Emergency care (at public clinics)

- Reductions in emergency care for younger persons, Aboriginals and patients new to public-funded dental programs.

Mean number of visits (at public clinics)

- Less variation across States and Territories in the mean number of visits in the last year per recipient of public care.

Mean number of services per visit (at public clinics)

- Less variation in the mean number of services per public-funded dental visit across States and Territories, with increases in the number of services per visit for

non-emergency care in some States and Territories such as Tasmania and the Australian Capital Territory.

4.4 HEALTH STATUS

Edentulism

- In the long term, reductions in edentulism rates for card holders – less difference between card holders and non-card holders of the same age group.
- In the long term, reductions in edentulism rates for residents of rural areas – less difference between persons of the same age group in rural and urban areas.

Missing teeth

- In the medium term, reductions in tooth extractions resulting in lower mean numbers of missing teeth for card holders – less difference between card holders and non-card holders of the same age group.
- In the medium term, reductions in tooth extractions resulting in lower mean numbers of missing teeth for residents of rural areas – less difference between persons of the same age group in rural and urban areas.

Social impact

- Reductions in the degree of social impact (*ie* feeling uncomfortable with one's appearance, avoiding some foods, and experiencing toothache) felt by card holders to levels more comparable with those experienced by non-card holders.

4.5 APPROPRIATENESS OF CARE

Extractions and fillings (% of persons)

- A reduction in extraction rates for card holders with a corresponding increase in filling rates to levels experienced by non-card holders, particularly for recipients of public care presenting for a problem.
- Reduction in extraction rates for non-insured card holders to rates found for non-card holders and insured card holders.

Service areas (public-funded clinics)

- Reductions in extractions and increased levels of preventive care in public dental clinics.
- A shift in service provision towards restorative procedures for those attending public dental clinics for emergency care.
- Increases in diagnostic and preventive services for persons from rural areas attending public dental clinics.
- Decreases in oral surgery and restorative procedures for persons from rural areas attending public dental clinics.

Extractions in public funded clinics

- Reductions in the receipt of extractions in public–funded clinics, particularly for emergency care patients, younger persons, males, and Aboriginals.

Patient satisfaction

- Increases in satisfaction scores across individual items for persons receiving public care.
- Increases in the mean satisfaction scores, particularly the context (access to services and waiting time issues) score, for card holders who receive public care.
- Reductions in the frequency of dissatisfied comments from persons receiving public care.
- Retention of the level of satisfied comments provided by card holders, particularly amongst those receiving public-funded dental care.
- Reduction in the level of dissatisfied comments amongst users of public care with respect to access to services and waiting times.