THE UNIVERSITY OF ADELAIDE

Commonwealth Dental Health Program Evaluation Report 1994—1996

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AIHW Catalogue No. DEN 14

The AIHW Dental Statistics and Research Unit (DSRU) is a collaborative unit of the Australian Institute of Health and Welfare 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.

Suggested citation

Brennan DS, Carter KD, Stewart JF, Spencer AJ (1997). *Commonwealth Dental Health Program Evaluation Report 1994—1996*. AIHW Dental Statistics and Research Unit, The University of Adelaide, Adelaide.

Acknowledgements

The data presented in this report were collected under a grant to AIHW from the Commonwealth Department of Health and Family Services.

The project was planned in conjunction with the Dental Health Branch, Health and Family Services and the Evaluation Project Steering Committee for the Commonwealth Dental Health Program. The data were collected in collaboration with the dental authorities in the participating States and Territories of Australia. The support of those dental authorities and their staff was crucial to the successful collection of data for this project.

The assistance provided by Mrs Lorna Lucas in the preparation of this report is acknowledged and much appreciated.

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ISBN 0 86396 436 2

Printed in Australia by The University of Adelaide, Adelaide.

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Symbols used

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

– **nil or rounded to zero**

.. **not applicable**

n.a. **data not available**

Abbreviations

ADPS – Adult Dental Programs Survey

AIHW – Australian Institute of Health and Welfare

CDHP – Commonwealth Dental Health Program

CPITN – Community Periodontal Index of Treatment Need

DMFT – Decayed, Missing, and Filled Teeth

DSRU – Dental Statistics and Research Unit

DSS – Dental Satisfaction Survey

EDS – Emergency Dental Scheme

GDS – General Dental Scheme

MIS – Management Information System

NDTIS – National Dental Telephone Interview Survey

OMR – Optical Mark Read

Explanatory notes

Card status

This variable is the combination of card-holder status (whether a card-holder or non-card-holder) at the time of the interview, with the place of last visit (public-funded or private at own expense). It is therefore possible, for example, that some card-holders whose last dental visit was private at their own expense, may not have been a card-holder at the time of that dental visit. The relevant cards are the Pensioner Concession Card, the Health Benefits Card, the Health Care Card or the Commonwealth Seniors Health Card.

Eligibility

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

Reason for visit

The self-reported reason for a visit (problem or check-up) does not directly link with a classification by providers of whether a visit was for emergency or general dental care. The National Dental Telephone Interview Survey and the Dental Satisfaction Survey collect self-reported reasons for a dental visit as either a problem or a check-up, whereas the Adult Dental Programs Surveys collect provider classified reason for dental visit as either emergency or general dental care. Emergency care includes dental problems involving relief of pain, while general dental care includes both check-ups and dental problems which do not involve relief of pain.

Year of survey

The National Dental Telephone Interview Surveys (NDTIS) were conducted in the first quarter of 1994, 1995, and 1996, and questionnaires for the Dental Satisfaction Survey (DSS) were sent shortly after the telephone interview. Many questions in the NDTIS correspond to the period 12 months prior to the telephone interview. The data in the tables for the NDTIS and DSS are all labelled with the year of survey. Therefore, items such as the number of persons whose last dental visit was public-funded in the previous 12 months labelled under 1994 will correspond with visits mostly made in 1993. However, items such as dentate status which reflect current status will correspond with the year in which the survey took place.

Aboriginality

The term Aboriginal is used in this document to refer to persons of Aboriginal, Torres Strait Islander, and South Sea Islander origin.

Preface

This Report provides findings from the Evaluation Project for the Commonwealth Dental Health Program (CDHP). At the initiation of the CDHP a series of data collections were put in place that would generate a series of population and patient indicators of access and availability, barriers, use of services, health status and appropriateness of care. Baseline estimates for these indicators were published in the *Commonwealth Dental Health Program Baseline Evaluation Report 1994*. In the following 24 months these indicators were updated.

The purpose of this Report is to document the change in the indicators over the 24 month period. The approach is primarily descriptive in nature, providing percentages and means broken down by key explanatory variables, such as age, card status, and location. No formal analysis (i.e. inferential statistical testing of specific hypotheses) has been conducted on what worked or did not work in the CDHP and why. Such analyses will be conducted in the ensuing months. Therefore this Report offers only a first glance at what can be learnt from the Evaluation Project for the CDHP. While some interpretive comments are offered, these are more illustrative of possible areas for investigation than definite conclusions about what can be learnt. Such comments are made in good faith, but warrant further attention. It is the aim of further analytic work to provide more focussed information for future policy on public-funded dental care.

Executive Summary

Research within the adult community has highlighted manifest inequalities in oral health status and access to basic dental care in the Australian adult population. The Commonwealth Dental Health Program (CDHP) was introduced in January 1994 with the aim to reduce geographic and financial barriers which prevented adult card-holders and their adult dependants from receiving timely and appropriate dental care. The three principal objectives identified were to move the dental care received by adult card-holders from:

- **emergency to general dental care;**
- **extraction to restoration; and**
- **treatment to prevention.**

The Program injected additional funds into public-funded dental care provided by States and Territories. Care was provided under two separate schemes:

- **the Emergency Dental Scheme (EDS); and**
- **the General Dental Scheme (GDS).**

The EDS was implemented in January 1994. In July 1994, the GDS was implemented with funding equal to the EDS, both schemes receiving $30 million per annum. In July 1995 funding was increased for the GDS to $70 million, while the EDS continued to receive $30 million per annum. The timing of the implementation of the Program and the phasing in of full funding, set ceilings to what could be expected in outcomes from the Program over the short time that it operated.

The AIHW Dental Statistics and Research Unit (DSRU) has conducted a set of surveys designed to collect information to evaluate the Program. These surveys aimed to assess the Program's effectiveness in altering the profile of oral health and access to dental care of the eligible card-holder population relative to the broader community. These surveys included information: from the whole community via annual national telephone interview surveys (NDTIS) with an associated postal survey of satisfaction (DSS) with care received, from eligible card-holders who actually received public-funded care, and about public-funded services provided to card-holders during their courses of care (ADPS).

This report summarises key findings from the above surveys. The tables presented have been selected with specific regard to the terms of reference for the evaluation of the CDHP, as set out in the *Commonwealth Dental Health Program Baseline Evaluation Report 1994*.

Who benefited?

Eligible card-holders were the beneficiaries of the CDHP. This includes:

- **200,000 additional persons who received public-funded dental care in any year (under the full-funding in 1995/96); and**

- **the baseline number of 616,000 persons who had received public-funded dental care prior to the CDHP, but who benefited from shifts in the mix of services provided with the additional resources available.**

What were the benefits?

In the 24 months following the introduction of the CDHP eligible card-holders who received public-funded dental care

- **had a decreased perceived need for extractions (12.7 to 9.3 per cent in 1994 and 1996 respectively) or fillings (25.8 to 17.1 per cent);**
- **reported less frequent experience of toothaches (23.3 to 19.8 per cent);**
- **visited more frequently for dental care (the percentage who made a dental visit in the previous 12 months increased from 58.6 to 67.4 per cent);**
- **waited a shorter time for a check-up (those waiting for less than one month increased from 47.5 to 61.5 per cent; those waiting for 12 or more months decreased from 21.1 to 11.3 per cent);**
- **received fewer extractions (especially among those last visiting for a problem, 43.8 to 36.5 per cent) and more fillings (among those last visiting for a check-up, 21.7 to 53.5 per cent); and**
- **were more satisfied with the dental care they received, both public-funded care in public clinics and at private dentists (satisfaction scores for those receiving public-funded care increased from 3.69 in 1994 to 3.93 in 1996; measured on a scale of 1 to 5).**

Limitations to gains achieved by the Program

- **despite the intention behind the CDHP of moving care away from emergency dental care toward general dental care, there was only a small shift in public-funded care away from problem and emergency care, even in the one year with full-year funding of the CDHP;**
- **problem-oriented visiting and emergency dental care are both associated with higher rates of tooth extraction and lower rates of fillings for decayed teeth;**

Despite gains made during the CDHP, holders of government health concession cards (both those receiving public-funded care and those paying for private care) remained:

- **more likely to visit for a problem;**
- **more likely to have an extraction;**
- **more likely to perceive the need for an extraction; and**
- **more likely to experience toothache.**

Implications for future public-funded dental care

Improvement in access to dental care for eligible adults faces two core tasks:

- **altering the nature of care provided; and**
- **increasing the number of card-holders who are able to access public-funded care in any year.**

General dental care is associated with more comprehensive (and initially costly) care. Given limited resources, and the aim of including those card-holders most in need, strategies may include:

- **specific targeting using criteria such as duration of hardship, permanent disability and severity of unmet dental needs;**
- **different waiting times for different care;**
- **creation of recall systems to create a continuity of general dental care; and**
- **introduction of more restrictive criteria on emergency dental care.**

What was the reaction of providers?

- **The majority of private dentists, when offered the opportunity, participated in providing care under the Program**
- **Concerns emerged from private dentists about the restricted scope of benefits, fees paid for items of care, and administrative arrangements such as the separation of emergency and general dental care.**
- **Most of these concerns could be addressed by policy changes leading to restrictions on emergency care and emphasis on more comprehensive, but highly targeted general dental care.**

Secondary benefits identified under the CDHP include:

- **the development of a dental policy focus in the Commonwealth Department of Health and Family Services;**
- **monitoring and evaluation of adult access to dental care; and**
- **a number of smaller ancillary activities supported such as the Remote and Aboriginal Dental Care Demonstration Projects and Rural Dental Projects under the National Oral Health Advisory Committee and the Quality Assurance Program.**

Together these findings indicate that the CDHP increased the number of eligible card-holders who received public-funded dental care in any year, reduced their waiting time, increased their satisfaction with care, and moved the provision of services in the direction of less extractions and more fillings. However, during the 24 months since implementation, a substantial shift from emergency to general dental care was not achieved, which will have limited the movement away from extractions and added to provider dissatisfaction.

Despite improved public-funded dental care for more card-holders, card-holders are still disadvantaged in terms of their oral health and access to dental care. Future initiatives to improve access to care and the oral health of disadvantaged Australian adults could benefit from more restricted targeting of eligibility, and altered procedures for the provision of care so as to give more emphasis to general dental care.

1 Introduction

1.1 Background

The Commonwealth Dental Health Program was 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 regularly or receive basic dental care to maintain an acceptable, 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 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 decision-making, or to evaluate whether targets of improved oral health and access to dental care, especially for 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 card-holders and analysed a number of key issues for policy development. These issues included the desirability of moving dental care for adult card-holders from:

- **emergency to basic dental care;**
- **extraction to restoration; and**
- **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 had the overall objective of improving the dental health of financially disadvantaged people in Australia. The specific aims of the Program were:

- **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; and**

- **to achieve high standards of program management, service delivery, monitoring, evaluation and accountability.**

An Evaluation Project was initiated to assess the impact of the Program in terms of effectiveness and appropriateness. In particular:

- **whether the Program met its aims effectively; and**

- **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) has conducted the Evaluation Project, 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 needs among adults;**

- **attitudinal, economic and geographic barriers to dental care; and**

- **appropriateness of dental care received by eligible adults under the Program.**

In addition, the Evaluation Project has:

- **identified areas where the delivery of the Program could be enhanced; and**

- **recommended ways in which the Program can be made more effective.**

The DSRU conducted four surveys as part of the Evaluation Project. Two surveys captured 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 comprised:

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. **A survey of Dental Satisfaction with care and attitudes and health behaviours to integrate with 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' card-holders and other 'non-eligible' persons.**

Annual repeats of most of these surveys provided comparative cross-sections from which time series trends could be analysed.

Together, the first three surveys aimed to establish: the reasons for seeking care under the Program; the characteristics of those who received care; the oral problems they had at the time they sought care; the types of care they received; and their perceptions of the process of care. This information allowed detailed evaluation of Program outcomes, including conversion of emergency patients to general dental care patients, increases in fillings in preference to extraction, decreases in untreated disease and improvements in oral health.

A second aspect of evaluation was the impact of the Program on social inequalities in access to dental care and oral health outcomes. This required monitoring of population samples, not just the users of the Program, and provided the rationale for the fourth survey. It was envisaged that the National Dental Telephone Interview Survey would be conducted annually, and in 1997–98 there would 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 part of a series which includes Evaluation Reports, Research Reports, and technical reports. Earlier technical reports completed were:

- **National Dental Telephone Interview Survey 1994**
  National Dental Telephone Interview Survey 1995
  National Dental Telephone Interview Survey 1996 (Draft Tables)

- **Adult Dental Programs Survey (Cross-sectional) 1994**
  Adult Dental Programs Survey (Cross-sectional) 1995
  Adult Dental Programs Survey (Cross-sectional) 1996
  Prospective Adult Dental Programs Survey 1995/96 (Draft Tables)

- **Dental Satisfaction Survey 1994**
  Dental Satisfaction Survey 1995
  Dental Satisfaction Survey 1996 (Draft Tables)

Together these technical reports present the methods and findings of the surveys conducted by the DSRU during the period 1994 to 1996.

Three Research Reports have been produced in the form of brief newsletters to provide readily interpretable summaries of details from the technical reports.

The *Commonwealth Dental Health Program Baseline Evaluation Report 1994*:

- **briefly described the evaluation data and their sources;**

- **related the terms of reference for the Evaluation Project to specific population and patient indicators;**
- **described the key findings among those population and patient indicators in 1994, at the initiation of the Program; and**
- **put forward a series of objectives drawn from the key findings for monitoring over the life of the Program.**

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

This report updates the findings obtained at baseline, by adding data collected in 1995 and 1996. This enabled trends over the period of the Program to be identified. The population and patient indicators from the baseline report are repeated, plus some additional analyses have been incorporated, presenting either new data items collected since baseline or new breakdowns of data to more fully describe changes under the Program.

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, and oral health needs.

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 card status, residential 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 & Patient Indicators

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