Maroubra Senior Dental Benefits Scheme Demonstration Project (SDBS-DP)

PROJECT REPORT

2026

"Expanding access to oral health across the community"

ForHealth primary dental phn CENTRAL AND EASTERN SYDNEY An Australian Government Initiative ADA AUSTRALIAN DENTAL ASSOCIATION

Race Dental THE UNIVERSITY OF SYDNEY

CONTENTS

FOREWORD

Oral health is an essential component of healthy ageing, yet many older Australians continue to experience significant barriers to accessing dental care. Financial constraints, long waiting times, chronic health conditions, and competing priorities can delay treatment and contribute to poorer oral health outcomes, despite the important role oral health plays in overall health, wellbeing, nutrition, communication, and quality of life.

The Seniors Dental Benefits Scheme Demonstration Project (SDBS-DP) was developed to explore a different approach. By providing targeted dental care for older adults within an integrated medical-dental setting, the project sought to improve access to care, address unmet treatment needs, and better understand the potential role of a future Seniors Dental Benefits Scheme in Australia.

This report presents the findings of the demonstration project, including participant characteristics, service utilisation, implementation processes, clinical outcomes, patient experiences, and economic considerations.

Together, these findings provide valuable insights into the feasibility, acceptability, and potential impact of delivering targeted dental care to older Australians experiencing chronic health conditions and socioeconomic disadvantage.

While further research is needed, the findings highlight the importance of affordable and accessible dental care and provide an important foundation for future policy, service planning, and program development aimed at improving oral health outcomes for older Australians.

"Through this collaboration, we have generated important evidence regarding the feasibility, acceptability, and potential future role of targeted dental care programs for older Australians."

EXECUTIVE SUMMARY

The Seniors Dental Benefits Scheme Demonstration Project (SDBS-DP) was implemented as a proof-of-concept initiative to explore the feasibility of providing targeted dental care to older Australians through an integrated primary healthcare setting. The program assessed service delivery, treatment outcomes, patient experiences, and the potential implications of a scaled-up national scheme.

A total of 70 eligible patients were enrolled from the Maroubra Medical & Dental Centre based on age (≥65 years or ≥55 years for Aboriginal and Torres Strait Islander people), concession card status, and the presence of a chronic disease management plan. The cohort was socioeconomically diverse, with the majority not in paid employment, holding concession cards, and reporting low household incomes. Over half of participants spoke a language other than English at home.

> "I was desperate because I could not afford treatment. I was three years behind with my dental care."

The program delivered a broad range of dental services, including diagnostics, prosthodontics, periodontics, restorations, and preventive care. Clinical outcomes indicated a reduction in untreated decay and an increase in completed restorative and prosthodontic procedures.

> "The dentures fit much better now and I can eat things I couldn't eat before."

The average cost of care was $1,099 per patient, with 39% of participants exceeding the proposed $1,032 benefit-cap. A small proportion of patients were lost to follow-up following missed appointments, highlighting challenges with continuity of care for some participants.

Qualitative findings demonstrated high levels of participant satisfaction and engagement.

> "Dental treatment is very expensive and impossible for me to afford."

Participants consistently described the program as accessible, respectful, and highly valuable. Key themes included improved access to affordable dental care, positive experiences of person-centred care, strong communication and trust, improvements in oral health literacy, and benefits extending beyond clinical treatment, including enhanced confidence, social participation, and wellbeing.

> "I can eat properly now."

Participants also strongly supported continuation of the program and highlighted the importance of improving access to affordable dental care for older Australians.

> "My self-esteem was very low before I came here, but it improved a lot."

The project demonstrated that the delivery of comprehensive dental care within an integrated medical-dental setting is operationally feasible and highly valued by participants.

> "There are many people who still need help."

While the findings support the potential of similar models to improve access to oral healthcare for older adults, further evidence from larger and more diverse populations is required to assess service demand, workforce capacity, long-term outcomes, implementation requirements, and economic impact. These considerations will be important in informing the design and implementation of a broader Seniors Dental Benefits Scheme.

FUNDING AND ACKNOWLEDGEMENTS

Funding

The Maroubra Seniors Dental Benefits Scheme Demonstration Project was co-funded by Central and Eastern Sydney PHN and ForHealth.

Acknowledgements

The project team would like to acknowledge the staff at Maroubra Medical & Dental Centre for their support and contribution to the implementation of the Seniors Dental Benefits Scheme Demonstration Project. We particularly thank the clinicians, practice staff, and administrative team members involved in providing care and supporting the delivery of services throughout the project.

A special thank you to the treating dentists, Dr Milli Shrestha BDS and Dr Craig Taylor BDS, and key practice and administrative team members Sharath Chandru, Ishita Rao Mohite, and Lourdes Catroppa, whose dedication and contributions were foundational to the delivery of the program.

We would also like to particularly acknowledge the supportive General Practitioners and nurses at Maroubra Medical & Dental Centre for their collaboration and support throughout the project. Their involvement was integral to the delivery of the integrated model of care.

We also sincerely thank the patients who participated in the project. Their involvement, engagement, and feedback were invaluable in helping to understand the delivery, outcomes, and potential benefits of the program.

OUR PARTNERS

ForHealth

primary dental

phn CENTRAL AND EASTERN SYDNEY
An Australian Government Initiative

ADA AUSTRALIAN DENTAL ASSOCIATION

Race Dental

THE UNIVERSITY OF SYDNEY

OUR TEAM

The Seniors Dental Benefits Scheme Demonstration Project (SDBS-DP) was delivered through a collaborative partnership between Primary Dental (a part of the ForHealth Group) and the University of Sydney. The project brought together expertise in primary healthcare, dentistry, oral health, research, evaluation, and service delivery to support the implementation and evaluation of the demonstration project.

A multidisciplinary Working Group, comprising representatives from ForHealth, Central and Eastern Sydney PHN, the Australian Dental Association, Race Dental, and the University of Sydney, provided guidance throughout the project. This collaborative approach supported the design, implementation, and evaluation of the program, ensuring that both clinical service delivery and research perspectives informed the project.

The project team met approximately every 6–8 weeks throughout the project to provide oversight of project activities, discuss implementation progress, review emerging findings, and support decision-making.
Additional meetings were held by the University of Sydney project team as required to coordinate project activities, undertake evaluation tasks, and support reporting.

The partnership enabled the integration of practical service delivery experience with research expertise, contributing to the generation of evidence on the feasibility, outcomes, and potential considerations associated with a broader Seniors Dental Benefits Scheme.

The partnership enabled the integration of practical service delivery experience with research expertise, contributing to the generation of evidence on the feasibility, outcomes, and potential considerations associated with a broader Seniors Dental Benefits Scheme.

Richard Hoskins
ForHealth Group

Lisa Conway
ForHealth Group

Brendan Goodger
Central and Eastern Sydney PHN

Chris Sanzaro
Australian Dental Association

Brad Race
Race Dental

Bradley Christian
The University of Sydney

Arash Rudman
The University of Sydney

Woosung Sohn
The University of Sydney

Zoe Szewczyk
The University of Sydney

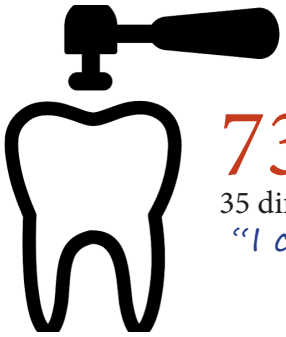
Shilpi Ajwani
The University of Sydney

Leanne Smith
The University of Sydney

PROJECT AT A GLANCE

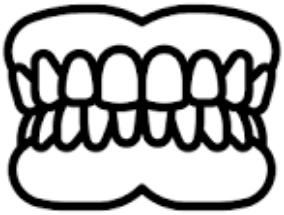
70 Participants

"I was desperate because I could not afford treatment".



735 Dental services delivered across 35 different treatment types

"I can eat properly now."



131 denture services

"The dentures fit much better now and I can eat things I couldn't eat before."

100 Periodontal services

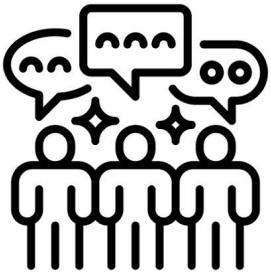
"The dentist taught me how to clean my gums properly."

100% management of untreated decay

"I can eat properly now."

$1099 Average patient cost

"Dental treatment is very expensive and impossible for me to afford."



17 Patients provided feedback (interviews and narratives)

"There are many people who still need help."

ORAL HEALTH CHALLENGES FACING OLDER AUSTRALIANS

Australia is experiencing a significant demographic shift, with the population aged 65 years and older steadily increasing. As of June 2023, approximately 4.5 million Australians (17% of the population) were aged 65 years and over. This figure is projected to increase to 6.66 million by 2041 and represent between 21% and 23% of the population by 2066, largely due to improvements in life expectancy [1-3]. While most older Australians live in major cities, approximately 34% reside in regional, rural, and remote areas. As the population ages, supporting healthy ageing will be critical to maintaining quality of life, promoting independence, and reducing pressure on the health system [3,4].

What the evidence tells us

- 50% of Australians aged 65 years and over have some form of disability [3]
- 28% have three or more chronic conditions [3]
- Oral diseases remain a leading cause of non-fatal disease burden among older Australians [5]
- Poor oral health is associated with cardiovascular disease, diabetes, stroke, respiratory infections, and kidney disease [6-8]
- Missing teeth have been associated with increased all-cause and disease-specific mortality [6-8]

Impacts of Poor Oral Health in Older Adults

Poor oral health among older adults can have significant impacts on health and wellbeing. Beyond causing pain and discomfort, oral diseases can negatively affect self-esteem, psychological wellbeing, social participation, and overall quality of life. Oral functional limitations, such as difficulty chewing, can also affect nutritional intake and contribute to poorer health outcomes.

As people age, cognitive and physical impairments, together with increasingly complex medical needs, can make maintaining good oral health more challenging.

Evidence suggests that proactive oral health care, particularly periodontal treatment, can improve health outcomes among people living with diabetes and may reduce cardiovascular disease risk. For example, individuals with diabetes who receive periodontal treatment have been shown to experience improvements in HbA1c levels [6-8]. The impacts of poor oral health are often greater among Aboriginal and Torres Strait Islander peoples, people from culturally and linguistically diverse backgrounds, and those living in regional, rural, and remote communities [3].

The Need for Improved Access to Oral Health Care

Despite the growing body of evidence linking oral health with systemic conditions, oral health care remains under-prioritised in aged care policy and funding. While some public dental services are available, access is often inconsistent and insufficient to meet the complex needs of older adults. Furthermore, oral health is frequently overlooked in the management of chronic diseases, despite the potential for integrated models of care to improve health outcomes and reduce long-term costs [9-12].

AIMS AND OBJECTIVES

The Seniors Dental Benefits Scheme Demonstration Project

The Seniors Dental Benefits Scheme Demonstration Project (SDBS-DP) was established to explore the feasibility and impact of a targeted oral health initiative for older Australians. The project sought to generate evidence on the benefits of proactive oral health care for older adults and inform future models for a national oral health scheme that supports healthy ageing and chronic disease management.

Evaluation Aims and Objectives

The primary aim of this project is to evaluate the SDBS-DP.

Primary Objectives

1. Assess the impact of the SDBS-DP on patient oral health outcomes and the extent to which it addressed unmet oral health needs.
2. Assess service delivery outcomes, including referrals, service uptake (demand), and stakeholder experiences of the program (acceptability).
3. Explore participant perspectives on what worked well and what could be improved during program delivery.

The secondary aim is to estimate the economic impact of an SDBS using evidence from the SDBS-DP.

Secondary Objectives

4. Evaluate the cost of delivering the SDBS-DP, including any out-of-pocket costs incurred by participants.
5. Estimate the budget impact of delivering a Seniors Dental Benefits Scheme over relevant time horizons.

Purpose of this Report

This report presents the findings of the Seniors Dental Benefits Scheme Demonstration Project. It outlines the implementation of the program, participant characteristics, service delivery and oral health outcomes, patient experiences, and economic findings. The report also identifies key considerations for future models of care aimed at improving access to oral health services for older Australians.

THE MAROUBRA SDBS-DP MODEL OF CARE

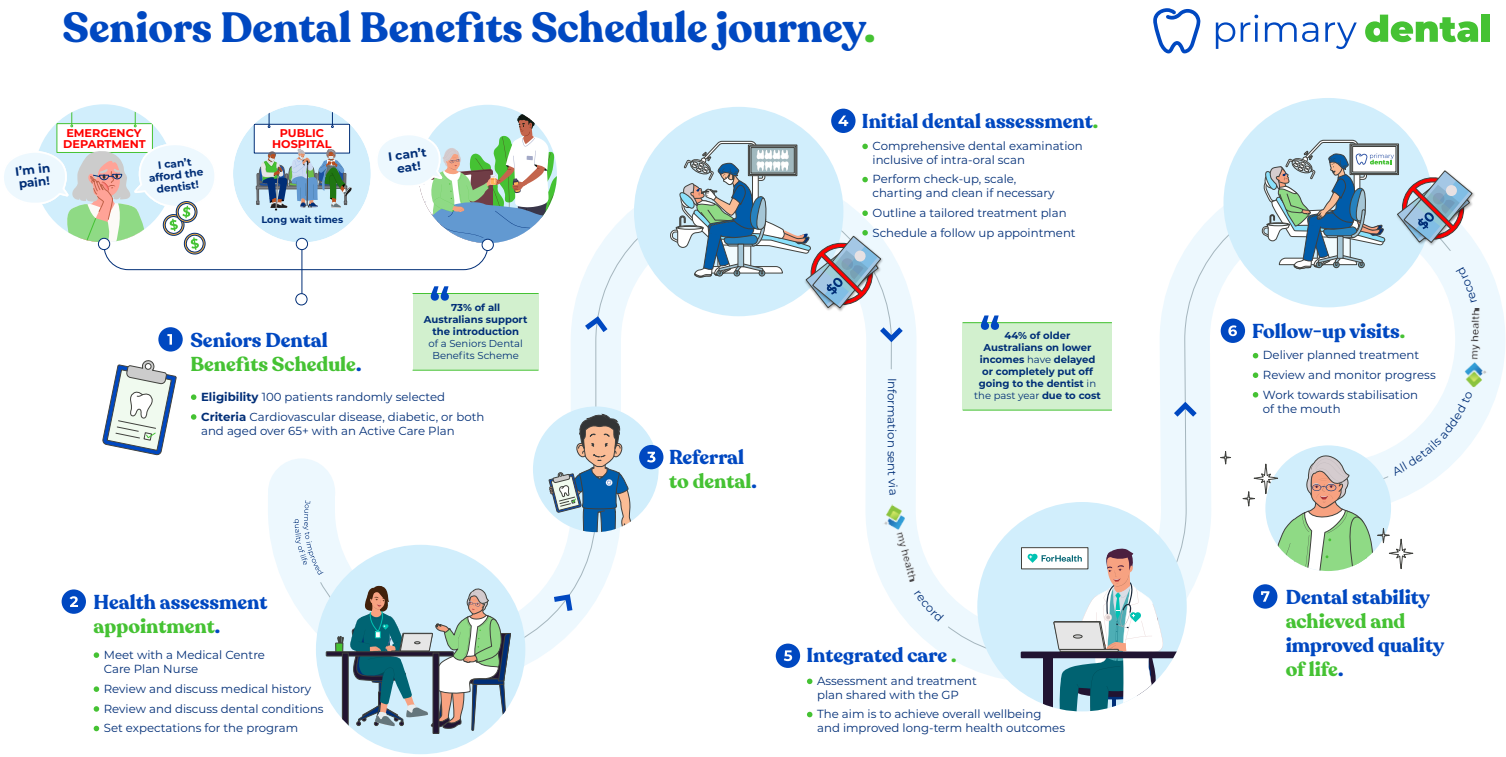
Eligible participants were identified using Maroubra Medical & Dental Centre's clinical management system, Medical Director.

Patients were eligible to participate if they:
- were aged 65 years or older and held a concession card, or were aged 55 years or older and identified as Aboriginal and/or Torres Strait Islander
- were an active patient of Maroubra Medical & Dental Centre
- had an active diabetes or cardiovascular disease-related care plan.

Eligible participants were allocated a program number, and program numbers were randomised to determine the order of contact. Maroubra Medical & Dental Centre Chronic Disease Management nurses contacted eligible patients by telephone and invited them to participate in the program (Figure 1).

Participation was confirmed on a first-come, first-served basis, with appointments scheduled by Primary Dental administrators.

Figure 1: The Maroubra SDBS-DP Model of Care



At their initial appointment, participants underwent an oral health examination, including intraoral digital scans, to establish their baseline oral health status. Based on these assessments, dental treatment plans were developed with the objective of achieving dental fitness and reaching oral stability, a point at which no acute dental problems were likely to occur within the 12 months following treatment.

Participants were supported to book follow-up appointments, with treatment frequency and delivery guided by their treatment plan. Upon completion of treatment, a treatment summary was uploaded to the participant's My Health Record, supporting an integrated approach to care between the treating dentist and the participant's usual general practitioner.

Demographic, socioeconomic, and clinical data were collected throughout the program to support project evaluation and review.

EVALUATION OF THE SDBS-DP

The evaluation methods are presented according to the primary and secondary objectives of the Seniors Dental Benefits Scheme Demonstration Project (SDBS-DP). A combination of quantitative and qualitative approaches was used to assess oral health outcomes, service delivery, participant experiences, and economic outcomes associated with the program.

Primary Objective 1: Assess the impact of the SDBS-DP on patient oral health outcomes and addressing unmet needs

To assess oral health outcomes and identify unmet needs, patient-level demographic, clinical, treatment, and cost data were extracted from SDBS-DP data collection forms and electronic records.

Descriptive analyses were undertaken to summarise participant characteristics, oral health status, service utilisation, treatment provided, and associated costs. Oral health indicators examined included the number of decayed, missing, and filled teeth (DMF), as well as treatment activity and service uptake.

Comparisons were made between initial and final visit data to assess changes in oral health status and treatment outcomes. This included clinical needs, treatment completion and treatment costs.

Service delivery patterns across treatment categories were also examined.

Primary Objective 2: Assess SDBS-DP delivery process outcomes such as referrals, service uptake (demand), and stakeholder experience (acceptability)

Appointment and treatment records were analysed to assess patient attendance, rebooking, and participation status. All scheduled appointments were classified as attended, unable to attend (UTA), or failure to attend (FTA). Reasons for missed appointments and whether the patient was rebooked were also recorded. These indicators were used to assess accessibility and responsiveness of the service delivery model.

Service uptake was quantified using the total number and type of services delivered across patients and appointments. Delivery patterns across service categories (e.g. diagnostic, restorative, preventive) were reported.

Primary Objective 3: Report Participant Perspectives on What Worked and Did Not Work During SDBS-DP Delivery

Participant perspectives were explored using patient narratives collected during program delivery and interviews conducted following participation in the SDBS-DP. Qualitative analysis identified key themes relating to access, affordability, care experiences, treatment outcomes, oral health literacy, and future oral healthcare needs. Detailed methods and findings are presented in the Participant Perspectives section of this report.

Primary Objective 4: Evaluate the financial cost and any out-of-pocket costs of the SDBS-DP per patient

The average cost per patient was estimated using study data and calculated across different age and socio-demographic groups. Socio-demographic information was provided by participants and included date of birth, education, employment status, language spoken at home, ethnicity, and residential postcode. Postcodes were used to determine area-level socioeconomic status using the Socio-Economic Indexes for Areas (SEIFA) Index of Relative Socio-economic Disadvantage (IRSD), with lower quintiles indicating greater socioeconomic disadvantage.

Out-of-pocket costs were estimated assuming a Seniors Dental Benefits Scheme (SDBS) benefit-cap. As no comparable Australian program currently exists for older adults, estimates were informed by the Child Dental Benefits Schedule (CDBS), which provides eligible children with access to up to $1,132 in dental benefits over two consecutive calendar years [13]. Costs exceeding the proposed SDBS benefit-cap were considered out-of-pocket expenses.

Secondary Objective 5: Estimate the budget impact of delivering the SDBS-DP over relevant time horizons

A theoretical population eligible for a Seniors Dental Benefits Scheme (SDBS) was estimated using Australian Bureau of Statistics population data and Australian Institute of Health and Welfare estimates of people aged 65 years and over receiving income support payments, including the Age Pension [14,15].

As the proportion of Pensioner Concession Card (PCC) and Commonwealth Seniors Health Card (CSHC) holders is not publicly available, eligibility estimates were based on available Age Pension data.

Using these population estimates, the budget impact of providing an SDBS benefit-cap to eligible older Australians was modelled. A two-year time horizon (2025–2027) was selected to align with the Child Dental Benefits Schedule (CDBS). Scenario analyses were undertaken using the average, minimum, and maximum patient costs observed in the SDBS-DP pilot.

Ethics Approval

The University of Sydney Human Research Ethics Committee 2025/HE001276 and 2025/HE000020

Results

Participant Demographics and Characteristics

A total of 70 participants were enrolled in the SDBS-DP (Table 1). Participants were predominantly older adults experiencing socioeconomic disadvantage, with most reporting low household incomes, holding a concession card, and not being in paid employment.

The cohort included participants from a range of marital backgrounds and was culturally and linguistically diverse, with more than half reporting a language other than English spoken at home.

Table 1: Demographic summary

Variable	Category	Count (n=70)	Prevalence (%)
Employment	Full-time	2	2.9
	Part-time	5	7.1
	Not working	63	90.0
Gender	Male	36	51.4
	Female	34	48.6
Healthcare Card Ownership	Seniors Health Card*	61	87.1
	No Card	7	10.0
	Missing	2	2.9
Income	<$20k	17	24.3
	$20k–$40k	36	51.4
	$40k–$60k	8	11.4
	$60k–$80k	2	2.9
	$80k–$100k	1	1.4
	$100k–$120k	1	1.4
	Missing	5	7.1
Language	English	29	41.4
	Other	41	58.6
Martial Status	Married or de facto partnership	33	47.1
	Single, never married	10	14.3
	Widowed	19	27.1
	Divorced	5	7.1
	Separated	3	4.3

*Senior Health Care Card in this table includes records reported as Commonwealth Senior Card and Senior Card.

Oral Health Status and Treatment Outcomes

Participants presented with untreated dental disease at baseline (Table 2). Among the 61 participants who completed treatment and attended the final assessment, all clinically evident dental decay had been addressed.

Changes in the DMF components reflected the provision of restorative treatment and, where required, extractions of unrestorable teeth, indicating improved oral health status and successful treatment completion.

Table 2: Caries experience (DMF)

	Baseline				Last visit			
Measure	D	M	F	DMF	D	M	F	DMF
Mean	1.14	9.78	6.57	17.24	0	10.13	7.84	17.71

Nature and Intensity of Services Provided

The SDBS-DP delivered a broad range of dental services to address participants' treatment needs (Table 3). Prosthodontic, periodontal, restorative, and diagnostic services accounted for the greatest proportion of care provided, reflecting the complex oral health needs of the cohort.

Table 3: Average number of services per patient by service category

Service Categories	Mean
Diagnostic service	2.94
General Services	1.00
Oral Surgery	2.12
Periodontal services	4.55
Preventive, prophylactic and bleaching services	2.70
Prosthodontic Services	6.75
Restorative Services	3.77

Service Distribution by Item

The distribution of services by individual item is presented in Table 4. Frequently provided services included prosthodontic care, diagnostic imaging, comprehensive oral examinations, oral hygiene instruction, periodontal treatment, preventive care, and restorative procedures.

Table 4: Total number of services

Service	Number
Tooth/teeth (partial denture)	108
Intraoral periapical or bitewing radiograph per exposure	72
Comprehensive oral examination	71
Oral hygiene instruction	62
Removal of calculus first appointment	58
Topical application of remineralisation and/or cariostatic agents, one treatment	54
Periodontal debridement per tooth	46
Panoramic radiograph per exposure	45
Active non-surgical periodontal therapy per quadrant	36
Adhesive restoration one surface anterior tooth direct	34
Adhesive restoration one surface posterior tooth direct	34
Clinical periodontal analysis and recording	18
Removal of a tooth or part(s) thereof	13
Adhesive restoration two surface anterior tooth direct	10
Adhesive restoration two surface posterior tooth direct	8
Diagnostic model per model	8
Partial mandibular denture cast metal framework	6
Partial maxillary denture cast metal framework	6
Photographic records intraoral per appointment	6
Adhesive restoration four surface posterior tooth direct	5
Partial maxillary denture resin base	5
Adhesive restoration three surface posterior tooth direct	4
Comprehensive head and neck cancer examination and risk assessment	4
Removal of calculus subsequent appointment	4
Surgical removal of a tooth or tooth fragment not requiring removal of bone or tooth division	4
Cleaning and polishing of pre-existing denture	2
Complete maxillary denture	2
Partial mandibular denture resin base	2
Adding tooth to partial denture to replace an extracted or decoronated tooth per tooth	1
Adhesive restoration five surface anterior tooth direct	1
Adhesive restoration five surface posterior tooth direct	1
Adhesive restoration three surface anterior tooth direct	1
Adjustment of a denture	1
Complete mandibular denture	1
Occlusal splint	1
Resilient lining	1

Service Categories

Table 5 summarises services by category, demonstrating that participants required a broad range of diagnostic, preventive, periodontal, restorative, and denture-related care.

Table 5: Total number of services by service type

Service type	Number
Examinations	188
Dentures and Denture Components	131
Periodontics	100
Dental prophylaxis and bleaching	62
Other Preventive service	62
Remineralisation agents	54
Adhesive Restorations Posterior Teeth Direct	52
Adhesive Restorations Anterior Teeth Direct	46
Other Diagnostic services	18
Extractions	13
Surgical extractions	4
Denture Maintenance	3
Denture Repairs	1
Occlusal Therapy	1

Services per Patient

Table 6 presents the average number of services provided per patient by service category. Diagnostic and preventive services were the most frequently delivered, followed by prosthodontic, periodontal, and restorative care. Oral surgery and general services were less commonly required.

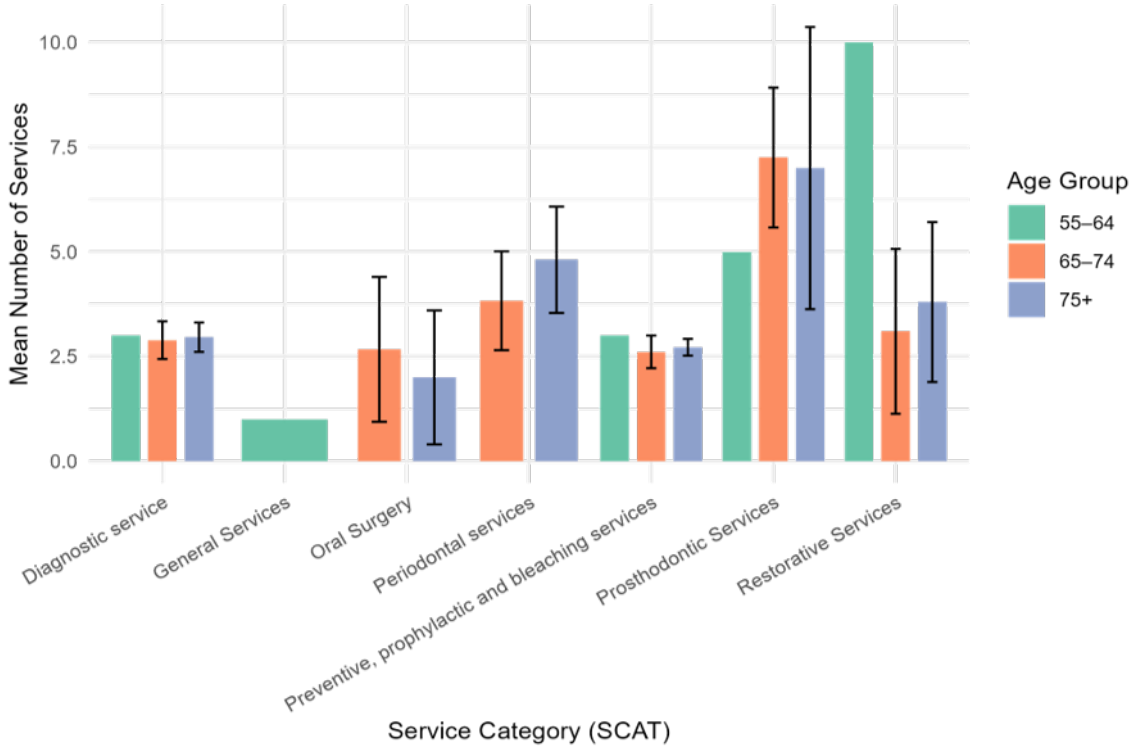
Table 6: Total number of services by service category

Service Category	Number	Mean per patient
Diagnostic service	206	2.94
Preventive, prophylactic and bleaching services	178	2.54
Prosthodontic Services	135	1.93
Periodontal services	100	1.43
Restorative Services	98	1.40
Oral Surgery	17	0.24
General Services	1	0.01

Service Intensity by Age Group

Figure 2 illustrates service intensity by age group. Prosthodontic, periodontal, and restorative services were the most intensive forms of care across age groups, reflecting the complexity of treatment needs among participants. Overall, the findings suggest that many participants required multiple appointments and procedures to achieve oral stability and address unmet oral health needs.

Figure 2: Mean number of services by service category and age group



Attendance, Rebooking, and Continuity of Care

Out of 70 enrolled participants, 17 experienced one or more missed appointments (Table 7). Reasons for missed appointments included acute illness, hospitalisation, transport difficulties, forgetfulness, and, in some cases, a lack of interest in continuing treatment.

Of these participants, eight were successfully rebooked, while nine did not re-engage with the program and were subsequently lost to follow-up. Rebooking attempts were initiated by the clinical team through follow-up telephone calls and voicemail messages. The absence of return communication was the most common reason for permanent disengagement.

Table 7: Summary of missed appointments and follow-up outcomes

Category	Count
Total patients with at least one UTA or FTA	17
Rebooked and participated	7
Rebooked but did not participate	1
Did not rebook / lost to follow-up	9

Cost of the SDBS-DP

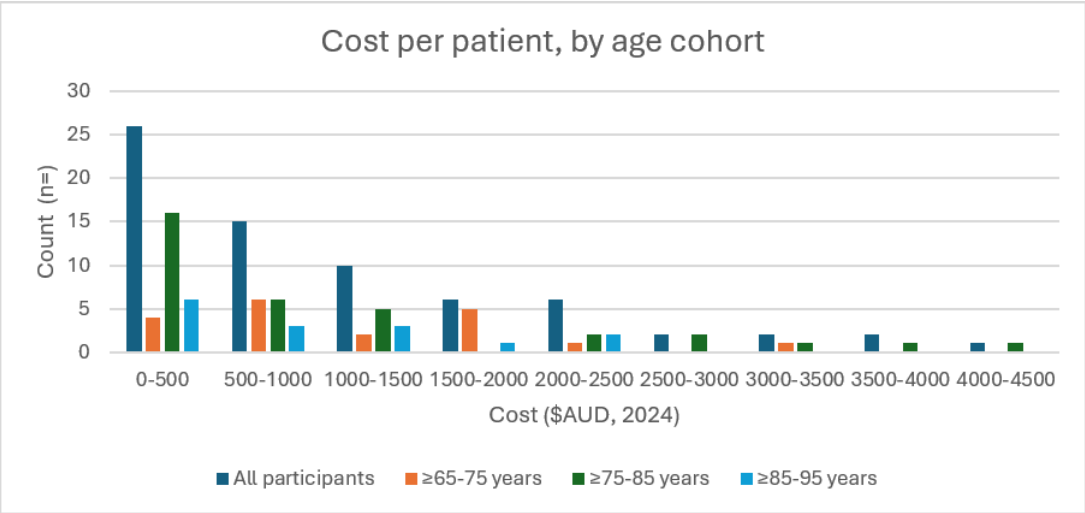
The average cost per patient was $1,099, with costs ranging from $56 to $4,270 (Table 8). Costs were generally comparable across age groups, although interpretation of the 55–65 years and ≥95 years age categories should be undertaken with caution, as only one participant was represented in each group.
A detailed summary of costs by age category is presented in Table 8.

Table 8: Dental costs per patient in the SDBS-DP, by age category

Group	n	Mean ($)	Min ($)	Max ($)	Median ($)	Interquartile Range ($)
All Patients	70	1,099	56	4,270	654	1,259
≥55-65 years	1	3,631	3,631	3,631	3,631	0
≥65-75 years	19	1,138	56	3,334	816	1,204
≥75-85 years	34	1,061	154	4,270	558	999
≥85-95 years	15	895	109	2,316	659	839
≥95 years	1	2,167	2,167	2,167	2,167	0

In all age groups, the median cost was lower than the mean cost, indicating a right-skewed distribution of treatment costs, with a small number of participants requiring higher-cost care (Figure 3).

Figure 3: Average costs per patient, by age category



Estimated Out-of-Pocket Costs Under a Benefit-Cap

Amongst participants in the SDBS-DP 51 (73%) reported having a PCC, 12 (17%) reported having a CSHC and 3 (4%) reported having no concessions. There were 3 participants (4%) with missing data for concession card status. Regarding socio-economic status, as measured by SEIFA IRSD, 1.5% (n=1) of participants were in the most disadvantaged category, 4% (n=3) were in the least disadvantaged category, and 94% (n=66) in mid-three quintiles.

In total, 39% (n=27) of participants exceeded the proposed $1,032 benefit-cap. Amongst those who exceed the cap, the average total cost per participant was $2,112 (Range $1,046 - $4,270) and the average out-of-pocket costs was $1,080 (Range $14 - $3,238). Refer to Table 9.

Table 9: Costs per patient for those who exceed the proposed SDBS benefit-cap

Group	n	Mean ($)	Min ($)	Max ($)	Median ($)	Interquartile Range ($)
All Patients	27	2,112	1,046	4,270	1,982	1,129
≥55-65 years	1	3,631	3,631	3,631	3,631	0
≥65-75 years	9	1,864	1,046	3,334	1,820	439
≥75-85 years	11	2,353	1,048	4,270	2,426	1,573
≥85-95 years	5	1,714	1,234	2,316	1,699	851
≥95 years	1	2,167	2,167	2,167	2,167	0

Eligible Population and Budget Impact

The AIHW does not publish population statistics for pension (PCC and/or CSHC) card holders. However, the AIHW reports that in 2023, 63% (around 2.8 million people) of Australians aged 65 years and over received income support payments. Of these, 92% (approximately 2.6 million people) received an Age Pension. Table 10 presents the estimated population of New South Wales and Australia receiving an Age Pension in 2023, by age category and sex.

Table 10: Estimated resident population, by age and sex, on 30 June 2023

Male	Female	Total				
	NSW	Australia	NSW	Australia	NSW	Australia
≥65-75	377,906	1,192,512	409,235	1,293,411	787,141	2,485,923
≥75-85	229,693	714,297	256,097	798,789	485,790	1,513,086
≥85-95	53,466	161,746	76,961	231,633	130,427	393,379
≥95	5,238	15,816	12,586	37,183	17,824	52,999
Total ≥65 years	681,849	2,130,108	777,842	2,429,949	1,459,691	4,560,057
Age pension recipients	429,565	1,341,968	490,040	1,530,868	919,605	2,872,836

Eligible Population and Budget Impact

There are over 4.5 million Australians aged 65 years and over, of whom almost 2.9 million receive an Age Pension. The cost of providing all Australians aged 65 years and over with a single $1,032 benefit-cap is estimated at $4.7 billion over two years. The cost of providing a single benefit-cap to Australians receiving an Age Pension is estimated at almost $2.9 billion over two years (Table 11). These findings align with previous Parliamentary Budget Office analysis, which also highlighted the substantial financial investment required to implement a national Seniors Dental Benefits Scheme [16].

Table 11: Estimating the cost of the SDBS benefit-cap (only) for Australians aged over 65 years

	Population (n=)	Cost (n)	Age Pension (n_2=)	Cost (n_2)
	-	(n) x $1032 =	(n) x 0.63 =	(n_2) x $1,032 =
≥65-75	2,485,923	$2,565,472,536	1,566,131	$1,616,247,698
≥75-85	1,513,086	$1,561,504,752	953,244	$983,747,994
≥85-95	508,049	$524,306,568	320,071	$330,313,138
≥95	52,999	$54,694,968	33,389	$34,457,830
Total ≥65 years	4,560,057	$4,705,978,824	2,872,836	$2,964,766,659

This cost estimate assumes 100% adoption of the SDBS, which is unlikely in practice. For the purposes of this study, we were unable to estimate the potential proportion of people eligible for a SDBS that would also utilise the scheme and those who would not utilise the scheme because the out-of-pocket costs are prohibitive.

Additionally, this cost estimate does not include the cost of implementing a new model of funding, changing clinical practice to screen for SDBS eligibility, addressing barriers experienced by recipients of the benefit-cap; the cost to develop, implement and maintain referral pathways to and from the new model of care, and the cost of developing and delivering appropriate audit review of the program and conducting ongoing and evaluation of the program.

PARTICIPANT PERSPECTIVES

Understanding patient experiences is an important component of evaluating the implementation, acceptability, and perceived value of the Senior Dental Benefits Scheme Demonstration Project (SDBS-DP). Older adults frequently experience barriers to accessing dental care, including treatment costs, long waiting times for public services, chronic health conditions, mobility limitations, and competing financial priorities. The SDBS-DP was established to improve access to dental care through the provision of free dental services within an integrated primary healthcare setting.

While quantitative findings provide important information on service utilisation, treatment provision, costs, and outcomes, they provide limited insight into how participants experienced the program and the aspects of care they valued most.

To explore participant experiences of the program, qualitative data were collected through semi-structured interviews and patient narratives. This section presents findings relating to access and engagement, experiences of care delivery, perceived impacts of treatment, and considerations for future implementation.

Participant Overview

Qualitative data were collected from two sources: semi-structured interviews and patient narratives. The interview dataset comprised nine interviews with participants of the SDBS-DP, while the secondary dataset comprised eight anonymised patient narratives collected during program delivery.

Together, these data sources provided 17 participant perspectives. Interviews explored participants' experiences of accessing and participating in the program, perceptions of care received, perceived impacts on oral health and wellbeing, and views regarding future oral healthcare for older adults.

Data Collection

Semi-structured interviews were conducted with patients who had participated in the SDBS-DP. Interviews explored participants' pathways into the program, motivations for participation, experiences of enrolment and attendance, perceptions of care quality, communication with staff, perceived benefits and challenges, and views regarding future dental care services for older adults.

Interviews were conducted by one of two members of the evaluation team and were undertaken either in person, by telephone, or via videoconference. Interviews were audio-recorded where consent was provided and subsequently transcribed.

Where recordings were unavailable, detailed contemporaneous notes were used. All transcripts and notes were reviewed and cleaned prior to analysis. Participant identifiers, names, locations, and other potentially identifiable information were removed during the anonymisation process.

In addition to the formal interviews, eight patient narratives collected during routine program evaluation activities were included in the analysis. These narratives described patient experiences relating to access, affordability, treatment outcomes, denture replacement, oral health education, and perceived impacts on quality of life. Although these narratives were not collected using the same interview guide, they provided valuable contextual information and were used to complement and enrich interpretation of the interview findings.

Data Analysis

Data were analysed using reflexive thematic analysis [17-19]. Interview transcripts, notes, and patient narratives were reviewed and coded inductively, with themes developed from participant accounts and refined through iterative review of the data. Findings were interpreted in relation to the broader process evaluation objectives and implementation science frameworks.

Reflexivity

The analysis was undertaken by researchers involved in the broader evaluation of the SDBS-DP. Recognising that researchers bring prior knowledge and assumptions to qualitative analysis, themes were developed and refined through repeated engagement with the data to ensure that interpretations remained grounded in participant perspectives.

Trustworthiness and Rigour

Trustworthiness was enhanced through the use of multiple qualitative data sources, iterative review of themes, and the inclusion of direct participant quotations. Interpretation was informed by established qualitative methodology and implementation science frameworks. Reporting was guided by the Consolidated Criteria for Reporting Qualitative Research (COREQ) [20].

All data were de-identified prior to analysis. Quotations have been edited minimally to improve readability where required while preserving the meaning and intent of participants' responses. All data were managed and analysed in accordance with approved ethical and governance requirements.

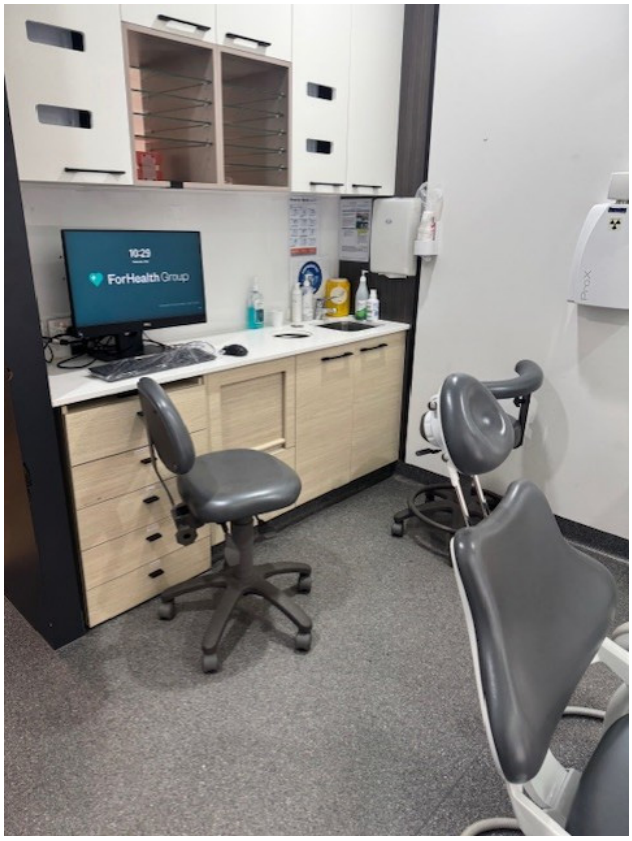
Overview of Findings

The qualitative dataset comprised nine semi-structured interviews and eight supplementary patient narratives, generating seventeen patient accounts of participation in the SDBS-DP. Participants described diverse pathways into the program, varying motivations for participation, and a wide range of experiences related to access, treatment, communication, and perceived outcomes.

Although individual experiences varied, several patterns emerged consistently across the dataset. Many participants described longstanding barriers to dental care prior to enrolment, particularly financial barriers and difficulties accessing affordable treatment. Participants consistently valued the opportunity to receive care without financial pressure and frequently highlighted the respectful and supportive nature of interactions with staff. Many also described benefits extending beyond oral health, including improvements in confidence, self-esteem, social participation, reassurance, and wellbeing.

Nine themes were identified through the analysis:

1. Financial barriers and affordability shaped access for many participants, but not all.
2. Participation was influenced by diverse motivations, including altruism and community benefit.
3. The program improved access through local, timely, and supported pathways.
4. Respectful and person-centred care was central to participants' experiences.
5. Communication, explanation, and trust supported confidence in care.
6. Treatment generated functional and psychosocial benefits.
7. Oral health literacy and self-management improved for several participants.
8. Some challenges remained despite overall positive experiences.
9. Participants strongly supported continuation of the program and broader investment in oral healthcare for older adults.



Theme 1: Financial Barriers and Affordability Shaped Access for Many Participants, but Not All

Financial barriers were a dominant feature of participants' oral healthcare experiences prior to enrolment in the SDBS-DP. Many described not accessing dental care *"as often as I should, mainly because of the cost."* Despite recognising the importance of maintaining their oral health, dental appointments were frequently delayed, postponed, or avoided because it is *"very expensive and impossible [for me] to afford."*

These challenges were often discussed within the broader context of retirement, pension dependence, essential expenses and competing household priorities, with the need to *"prioritise what I spend money on"*. Although "*Dental health is important it is not always easy to maintain because of cost."*

Over time, delayed treatment had become normalised for some participants and unmet dental needs had accumulated. One participant described being *"desperate because I could not afford treatment"* and reported being *"three years behind with my dental care."*

Patient narratives reinforced these experiences. Several participants described postponing treatment for extended periods because private dental care was unaffordable, while others reported living with deteriorating dentures or ongoing discomfort because treatment costs exceeded what they could reasonably afford.

> *"Dental treatment is very expensive and impossible for me to afford."*

For many participants, the removal of financial barriers was one of the most immediate and valued benefits of the program.

These accounts highlight the diversity of participant experiences. While affordability was a major determinant of access for many participants, it was not universally the primary reason for engagement with the program.

Theme 2: Participation Was Influenced by Diverse Motivations, Including Altruism and Community Benefit

Although affordability emerged as a major theme, participants described other motivations for participation that were beyond direct personal benefit. Some participants viewed the program as an opportunity to *'contribute', "help people who cannot afford dental care",* or to *"talk to people"* and described a desire to support future access to dental care for other older Australians. While financial support was important for many participants, the findings suggest that engagement with the SDBS-DP was also influenced by a willingness to contribute to future improvements in oral healthcare access and service delivery.

> *"I joined only because I thought it would help people who cannot afford dental care."*

Theme 3: The Program Improved Access Through Local, Timely, and Supported Pathways

Participants consistently described the process of joining and accessing the program as *"So easy. It was amazing,"* straightforward and manageable. Many contrasted their experiences with previous difficulties obtaining timely dental care.

Entry into the program occurred through several pathways, including referrals from general practitioners, dentists, clinic staff, and family members.

Family support also played an important role. Several participants reported that children, spouses, or other relatives assisted with communication, appointment attendance, or understanding program information.

> *"The doctor organised everything before I came here."*

Timely access was frequently identified as a valued feature of the program. Participants contrasted their experiences with anticipated waiting periods in public dental services and described the benefit of being able to access care when treatment was needed.

Location and convenience also contributed positively to participants' experiences. Many described the clinic as familiar and easy to access using public transport or support from family members. *"I don't drive anymore but public transport was fine."*

Participants' accounts suggest that local service delivery, timely access to appointments, and supported referral and enrolment processes reduced barriers to care and facilitated engagement with the program.

Theme 4: Respectful and Person-Centred Care Was Central to Participants' Experiences

Respectful treatment emerged as one of the strongest and most consistent themes across the dataset.

Many participants spoke positively about the attitudes and behaviours of staff and described them as *"kind"*, *"friendly"*, *"helpful"*, *"professional"*, and *"caring."* Participants expressed that the staff were *"extremely polite,"* *"not abrupt or rude"* and *"very kind in what they did."*

For some participants, these experiences extended beyond the dental treatment itself and influenced broader feelings of self-worth and wellbeing.

> *"My self-esteem was very low before I came here, but it improved a lot through the program"*

Participants frequently discussed that they felt *"respected"*, *"acknowledged,"* *"valued"* and *"recognised"*.

> *"It made me feel that somebody cared about me."*

Several participants contrasted these experiences with their expectations of free healthcare services. One participant admitted initially expecting a lower standard of care because treatment was provided without charge.

> *"I thought there might be discrimination because it was free, but it was completely the opposite."*

Participants who reported anxiety about dental treatment also described staff as reassuring and supportive, helping to reduce apprehension and strengthen confidence in the care being provided. For many participants, the experience of being listened to, respected, and treated with dignity was itself an important outcome of participation.

Theme 5: Communication, Explanation, and Trust Supported Confidence in Care

Clear communication emerged as a critical component of participants' experiences. Participants consistently described clinicians as approachable, informative, and willing to spend time explaining oral health issues, treatment options, treatment plans, procedures and answering questions.

Participants expressed that the clinicians *"explained everything step by step and told me exactly what was happening."*

> *"If I didn't understand something, they would explain it again."*

Communication was particularly important for participants undergoing procedures that generated anxiety or uncertainty.

Several participants described feeling informed and involved throughout the treatment process because the clinicians *"always told me what they were doing and checked if I was okay."*

> *"I never felt rushed. They took the time to explain things properly."*

Together, these findings suggest that communication and trust were fundamental elements underpinning participants' confidence in care and their overall experience of the program.

Theme 6: Treatment Generated Functional and Psychosocial Benefits

Participants consistently described benefits that extended beyond the completion of dental procedures. While many reported improvements in oral health, comfort, and function, the findings also highlighted broader psychosocial benefits relating to confidence, self-esteem, appearance, social interaction, and quality of life.

> *"I can eat properly now"*

Functional improvements were particularly evident among participants who received restorative treatment, denture replacement, denture adjustment, or management of longstanding oral health problems. Participants frequently described improvements in chewing, comfort, everyday functioning.

> *"The dentures fit much better now and I can eat things I couldn't eat before."*

Several participants reported relief from pain, discomfort, irritation, or difficulties that had persisted for extended periods. For these individuals, treatment restored important aspects of daily functioning and reduced ongoing distress.

However, the psychosocial impacts of treatment were equally prominent. Participants often discussed confidence, appearance, and self-esteem when reflecting on the outcomes of care.

> "I smile more now."

Participants frequently described oral health as influencing social participation and confidence in interpersonal interactions. Several reported feeling "much more confident talking to people," smiling, eating in public and interacting with others following treatment.

> "I don't feel embarrassed anymore."

These findings suggest that the impacts of the SDBS-DP extended beyond oral health treatment itself. Improvements in oral function were closely connected to broader improvements in confidence, self-esteem, social participation, and perceived quality of life.

Theme 7: Oral Health Literacy and Self-Management Improved for Several Participants

Many participants frequently described the value of increased oral health knowledge through education provided by clinicians to learn about oral health conditions, preventive care, denture maintenance, oral hygiene, and self-management.

> "The dentist taught me how to clean my gums properly."

Participants often noted that they received information they had not previously known or understood and that "they [clinicians] explained "why I needed to do things differently."

Participants also reported increased understanding of the importance of regular dental attendance and preventive care. As one participant noted, "I learnt that I should not wait until something goes wrong."

These findings suggest that the program contributed not only to treatment provision but also to improved oral health literacy and self-management, potentially supporting longer-term oral health outcomes beyond the immediate treatment period.

Theme 8: Ongoing Challenges and Unmet Needs Remained Despite Positive Experiences

Although participant experiences were overwhelmingly positive, several participants remained uncertain about how they would access affordable care in following the conclusion of the program.

> "The treatment helped me, but I still worry about future dental costs."

Another participant reflected on the broader challenges facing older adults because "There are many people who still need help."

These findings suggest that while the SDBS-DP addressed important barriers to care, many participants continued to view oral health as an ongoing need requiring support beyond the duration of the project.

Theme 9: Participants Strongly Supported Continuation of the Program and Broader Investment in Oral Healthcare for Older Adults

Support for continuation of the program emerged as one of the most consistent findings across interviews and narratives. Participants frequently expressed gratitude for the care received and strongly advocated for ongoing funding, expansion, or broader implementation of similar initiatives.

Several participants explicitly linked oral health to general health and wellbeing, expressing that *"Your mouth is part of your body. I don't know why it is treated differently."*

Many participants believed that the program addressed an important gap within the healthcare system and that *"Older people need this sort of support."* They expressed that many are unable to afford private treatment or faced lengthy waiting times within public dental services.

> *"There are lots of people worse off than me who need this."*

They frequently referred to the financial barriers experienced by older adults and the challenges associated with accessing affordable dental care and requesting that dental care should receive greater policy attention and public investment.

> *"Dental care should be similar to medical care under Medicare."*

Participants frequently described the program as "fair", "worthwhile", and "deserving" of continuation. Several suggested that similar services should be available nationally.

Importantly, support for continuation was not restricted to participants who had experienced financial hardship. Even participants who reported having private dental care expressed support for broader public investment because of the perceived benefits for others.

These findings suggest that participants viewed the SDBS-DP not only as a source of individual benefit, but also as a socially valuable initiative capable of addressing broader inequities in access to oral healthcare.

Alignment with Implementation Frameworks

The themes identified through the qualitative evaluation aligned with key domains of the RE-AIM framework and implementation outcomes framework (Table 12), providing additional insight into program reach, implementation, effectiveness, and sustainability.

Table 12: Mapping of themes to RE-AIM domains and implementation outcomes

Theme	Primary RE-AIM Domain	Relevant Implementation Outcomes
Financial barriers and affordability	Reach	Appropriateness, feasibility
Diverse motivations for participation	Reach	Acceptability, appropriateness
Local, timely and supported access	Reach, Implementation	Feasibility
Respectful and person-centred care	Implementation	Acceptability, fidelity
Communication and trust	Implementation	Acceptability, fidelity
Functional and psychosocial benefits	Effectiveness	Acceptability
Oral health literacy and self-management	Effectiveness, Maintenance	Fidelity
Ongoing challenges and unmet needs	Implementation, Maintenance	Feasibility, sustainability
Continuation and future policy directions	Maintenance	Sustainability, appropriateness

Summary of Findings

The themes identified across interviews and patient narratives collectively illustrate how the SDBS-DP addressed multiple barriers to oral healthcare while generating benefits that extended beyond clinical treatment. Participants consistently described improved access, respectful care, enhanced confidence, and greater oral health awareness. Viewed through an implementation science lens, the findings suggest that the program demonstrated strong acceptability and perceived value among participants while also highlighting ongoing challenges associated with long-term access to affordable dental care.

FUTURE DIRECTIONS AND CONCLUSION

Future Directions

- Conduct larger multisite pilot studies to better understand variation in oral health needs, service utilisation, and program reach across different settings and populations.
- Evaluate long-term oral health, quality of life using formal quality of life metrics and validated tools, and economic outcomes associated with participation in a Seniors Dental Benefits Scheme.
- Explore integrated oral health and primary care models that strengthen referral pathways and improve access to care for older adults.
- Investigate implementation requirements, including workforce capacity, service delivery models, and barriers to broader adoption.
- Examine funding approaches, including benefit-cap thresholds, eligibility criteria, and willingness-to-pay, to support equitable and sustainable program design.

Conclusion

The Maroubra Seniors Dental Benefits Scheme Demonstration Project (SDBS-DP) demonstrated that targeted dental care for older adults experiencing chronic health conditions and socioeconomic disadvantage is feasible to deliver and highly valued by participants. The program successfully reached its intended population, delivered a broad range of dental services aligned with clinical need, and was associated with observed improvements in measured oral health indicators among participants with follow-up data. Participants also reported benefits extending beyond clinical treatment, including improved confidence, oral health literacy, social participation, and wellbeing.

Participants strongly endorsed continuation of the program and frequently highlighted the importance of improving access to affordable dental care for older Australians. The findings suggest that integrated dental care models may offer a promising approach to addressing barriers to care while simultaneously promoting positive patient experiences and meaningful health outcomes.

REFERENCES

1. Australian Institute of Health and Welfare (AIHW). Profile of Australia's population. Health of population groups. 2025 [cited 2025 Apr 22]. Available from: https://www.aihw.gov.au/reports/australias-health/profile-of-australias-population.

2. Wilson T, Temple J. New population projections for Australia and the States and Territories, with a particular focus on population ageing. CEPAR, ARC Centre of Excellence in Population Ageing Research; 2022.

3. Australian Institute of Health and Welfare (AIHW). Older Australians. Older people. 2025 [cited 2025 Apr 22]. Available from: https://www.aihw.gov.au/reports/older-people/older-australians/contents/demographic-profile.

4. Australian Institute of Health and Welfare (AIHW). Australia's health 2014. Australia's health series no. 14. Cat. no. AUS 178. Canberra: AIHW; 2014. Available from: https://www.aihw.gov.au/getmedia/19dbc591-b1ef-4485-80ce-029ff66d6930/6_9-health-ageing.pdf.aspx.

5. Australian Institute of Health and Welfare (AIHW). Australian Burden of Disease Study 2024. Burden of disease. 2024 [cited 2025 Apr 22]. Available from: https://www.aihw.gov.au/reports/burden-of-disease/australian-burden-of-disease-study-2024/contents/interactive-data-on-disease-burden/fatal-vs-non-fatal-burden.

6. Chari M, et al. Oral health inequality in Canada, the United States and United Kingdom. PLOS ONE. 2022;17(5):e0268006.

7. Arbildo-Vega HI, et al. Periodontal disease and cardiovascular disease: umbrella review. BMC Oral Health. 2024;24(1):1308.

8. Gobin R, et al. Periodontal diseases and the risk of metabolic syndrome: an updated systematic review and meta-analysis. Frontiers in Endocrinology. 2020;11:336.

9. Beard JR, et al. The World report on ageing and health: a policy framework for healthy ageing. The Lancet. 2016;387(10033):2145-2154.

10. Wilmoth JR, et al. World social report 2023: Leaving no one behind in an ageing world. United Nations; 2023.

11. World Health Organization. WHO highlights oral health neglect affecting nearly half of the world's population [Internet]. Geneva: World Health Organization; 2022 [cited 2025 Apr 22]. Available from: https://www.who.int/news/item/18-11-2022-who-highlights-oral-health-neglect-affecting-nearly-half-of-the-world-s-population.

12. World Health Organization. Progress report on the United Nations Decade of Healthy Ageing, 2021–2023. Geneva: World Health Organization; 2023.

13. Department of Health and Aged Care. Child Dental Benefits Schedule. 2024 [cited 2025 Apr 22]. Available from: https://www.health.gov.au/our-work/child-dental-benefits-schedule.

14. Australian Bureau of Statistics. National, state and territory population. Canberra: ABS; 2024.

15. Australian Institute of Health and Welfare. Income support for older Australians. Canberra: AIHW; 2023.

16. Parliamentary Budget Office. Various policy options for reforming Commonwealth subsidies of dental services. Canberra (AU): Parliamentary Budget Office; 2023. Available from: https://www.pbo.gov.au/sites/default/files/2025-04/PBO%20-%20Various%20policy%20options%20for%20reforming%20Commonwealth%20subsidies%20of%20dental%20services.pdf

17. Braun V, Clarke V. Using thematic analysis in psychology. Qualitative Research in Psychology. 2006;3(2):77-101.

18. Braun V, Clarke V. Reflecting on reflexive thematic analysis. Qualitative Research in Sport, Exercise and Health. 2019;11(4):589-597.

19. Braun V, Clarke V. Thematic analysis: a practical guide. London: Sage; 2021.

20. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research: a 32-item checklist for interviews and focus groups. International Journal for Quality in Health Care. 2007;19(6):349-357.

21. Werbrouck A, et al. Oral healthcare delivery in institutionalised older people: a health-economic evaluation. Gerodontology. 2022;39(2):107-120.

22. Marino RJ, et al. Cost-minimization analysis of a tailored oral health intervention designed for immigrant older adults. Geriatrics & Gerontology International. 2014;14(2):336-340.

23. Moeller JF, Chen H, Manski RJ. Investing in preventive dental care for the Medicare population: a preliminary analysis. American Journal of Public Health. 2010;100(11):2262-2269.

24. McKenna G, et al. Tooth replacement for partially dentate elders: a willingness-to-pay analysis. Journal of Dentistry. 2016;53:51-56.

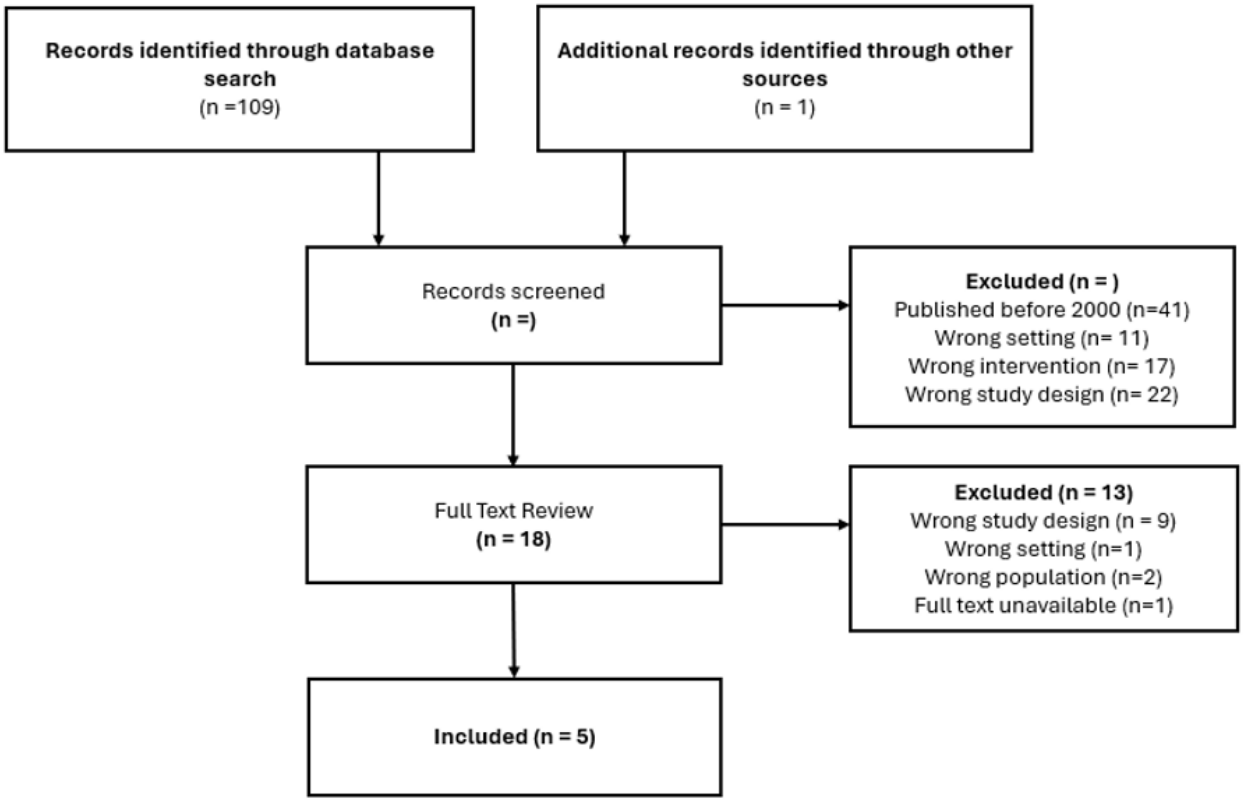
25. Gaglio B, Shoup JA, Glasgow RE. The RE-AIM framework: a systematic review of use over time. American Journal of Public Health. 2013;103(6):e38-e46.

APPENDICES

Appendix 1: Literature Review

A rapid review of downstream benefits associated with a SDBS and alternative models of care was conducted to inform future models for Australia. The rapid literature review identified five peer-reviewed publications that included economic benefits associated with investment in (and improved) oral health in older adults, refer to Figure 4.

Figure 4: Rapid review of economic benefits associated with improved oral health in older adults, PRISMA flow chart



The literature review identified a wide range of health, social, and economic benefits associated with investment in, and improved, oral health amongst older adults. Refer to Table 13.

Table 13: Description of papers included in the literature review

Title	Year	Author	Country	Study design	Study aims	Economic benefits	Link
Cost-minimization analysis of a tailored oral health intervention designed for immigrant older adults	2014	Marino et. Al	Australia	Trial based cost-minimization analysis (CMA)	Compare a community-based oral health promotion program aimed at improving the gingival health of immigrant older adults, with one-on-one chairside oral hygiene instructions at a public dental clinic in Melbourne, Australia	Cost and cost-savings.	Marino et. al. 2014
Tooth replacement for partially dentate elders: A willingness-to-pay analysis	2016	McKenna et al.	UK	Willingness to pay (WTP) analyses	Investigate partially dentate elders' WTP for different tooth replacement strategies	WTP for removable partial dentures, shortened dental arch, and dental implant	McKenna et al. 2016
Investing in preventive dental care for the Medicare population: a preliminary analysis	2010	Moeller et al.	USA	Cohort study using Medicare Current Beneficiary Survey (MCBS) data	To estimate the use of preventive dental care services by the US Medicare population	Cost, out-of-pocket costs by preventive and non-elective procedures	Moeller et al. 2010
Modelling the long-term cost-effectiveness of the caries management system in an Australian population	2010	Warren et al.	Australia	Markov model	Evaluate the long-term cost-effectiveness of the preventive approach underpinning the Caries Management System, used in the general practice setting and modelled to the Australian population.	Incremental cost per DMFT avoided at 2 years, 3 years, and lifetime	Warren et al. 2010
Oral healthcare delivery in institutionalised older people: A health-economic evaluation	2022	Werbrouck	Belgium	Markov model	Assess the cost-effectiveness of alternatives for preventive and curative oral health care in institutionalised older people in Flanders	Healthy Oral Years (HOYs)	Werbrouck et al. 2022

A diverse range of health and social benefits associated with improved oral health were identified through the literature review. However, few could be measured and valued in dollars (or economic metrics) to be included in a health economic evaluation that systematically compares the costs and benefits of alternative interventions or investment priorities. For example, Werbrouck et al report, evidence between "oral health status and health-related quality of life… is limited for older adults". This is associated with the lack of longitudinal, publicly available, or routinely collected dental data available for research and evaluation purposes, as well as methodological and ethical challenges associated with valuing quality of life in older adults.

Oral health outcomes identified, measured, and valued for inclusion in a health economic evaluation included:

- Quality of life data: Healthy Oral Years (HOYs): a bespoke unit constructed for inclusion in an economic model and was calculated based on the average time people spend in the state without oral health problems. More oral problems prevented or treated thus results in more HOYs gained [21].
- Financial data: costs [22, 23], out-of-pocket costs by preventive and non-elective procedures [21], cost savings [22].
- Preference data: Willingness-to-pay (WTP) for dental procedures [24].
- Resource use data: potentially avoidable hospitalisations, emergency department attendances, urgent care dental appointments, general practitioner visits for dental care.

Anecdotally, there was substantially more peer-reviewed evidence reporting the health, social, and economic benefits of improved infant and child oral health, where return on investment was modelled across a lifetime time horizon. As evidenced by this literature review and quality appraisal of economic evaluations done on oral health preventive programs [25].

End of Report