

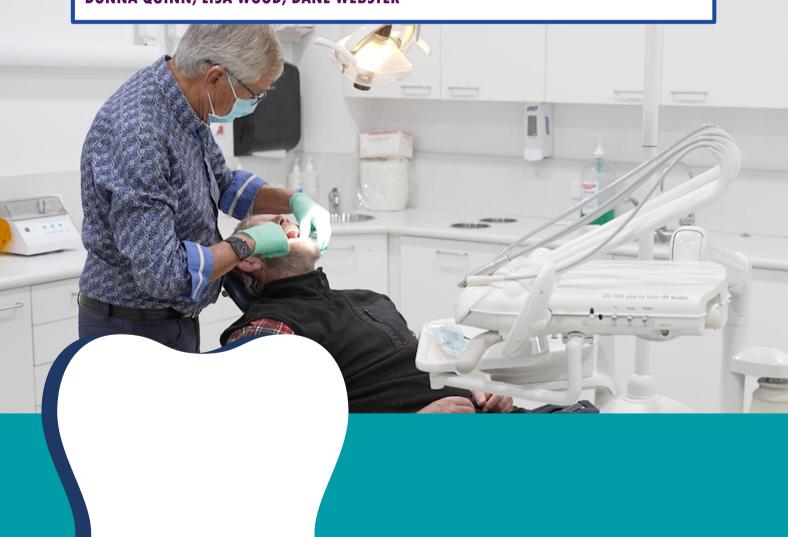




PALMERSTON ORAL **HEALTH PROJECT**

Evaluation of the first year

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This report has been produced by members of the <u>Home2Health</u> research team at the Institute for Health Research (IHR) at the University of Notre Dame Australia (UNDA).

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Home2Health acknowledges the traditional owners and custodians of the land in which they are located and have undertaken this research, the Whadjuk people of the Noongar Nation. The authors pay their respects to Elders both past and present, for they hold the knowledge, language, traditions, and culture of their people and of their land. Sovereignty has never been ceded. It always was and always will be, Aboriginal land.

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ACRONYMS & ABBREVIATIONS

ACE Adverse Childhood Experiences

AIHW Australian Institute of Health and Welfare

AOD Alcohol and Other Drugs

GP General Practitioner

HREC Human Research Ethics Committee

IHR Institute for Health Research (at UNDA)

LGOHI Locker's Global Oral Health Item (questionnaire)

OCHWA The Oral Health Centre of WA

OHIP-14 Oral Health Impact Profile-14 (questionnaire)

PALMERSTON Palmerston Association

PALMERSTON FARM OR THE FARM Palmerston AOD Residential Rehabilitation Therapeutic Community

PCI Participant Consent and Information (forms)

ST PAT'S St Patrick's Community Support Centre

TC Therapeutic Community

UNDA University of Notre Dame Australia

WA Western Australia

1 PROJECT BACKGROUND

Palmerston Association (hereafter Palmerston) is a leading and respected not-for-profit provider of a range of alcohol and other drug (AOD) services in Western Australia (WA). One of its services is residential rehabilitation, with this delivered as a 'Therapeutic Community' in a semi-rural location south of Perth, known as the Farm. As a Therapeutic Community, the Farm provides a structured, supportive environment where residents work together as a community to benefit their own recovery as well as each other.

A holistic approach to AOD recovery is an important aspect of the Palmerston ethos across all of its services, including its Therapeutic Communities. One of the key strategic priorities within the Palmerston current strategic plan is to positively influence more peoples' needs with greater impact, and one of the outcomes sitting under this priority is that clients:

- receive coordinated care and referral pathways to assist with identified co-morbidity needs, and
- receive assistance with ancillary needs, such as aftercare, housing, health, education, and employment.

AOD use can often co-occur with poor dental health and barriers to accessing dental care. This has ramifications for AOD recovery and quality of life and can impact directly and indirectly on other ancillary needs and life trajectories. This is evident across a range of client groups supported by Palmerston and led in 2021 to the development of an idea to investigate ways that no-cost dental care could be offered to Palmerston residents.

Understanding the dental needs of residents

In late 2021, a focus group was held at the Farm with 17 residents, facilitated by experienced, retired dentist Dr Richard Slattery and Palmerston staff. The purpose of the focus group was to gauge the nature and extent of residents' dental needs and prior access to regular dental care. Significant dental issues and treatment needs were identified across the participant group, ranging from infrequent access to dental hygiene and cleaning through to dental pain, infections, and historical tooth trauma, and the need for treatments such as root canal work, fillings, restoration of old dental work, and failing tooth implants. Of the 17 residents, only two previously had private health insurance which they had used to access dental care. Most residents had not seen a dentist for a considerable period of time.

"Oral health is fundamental to overall health, wellbeing, and quality of life. A healthy mouth enables people to eat, speak, and socialise without pain, discomfort, or embarrassment. Many of our clients report dental pain, or embarrassment regarding their smile, often covering their mouths when they talk. I wanted to address this and explore the difference a healthy smile might make to long-term recovery outcomes."

Emma Jarvis, Palmerston CEO

Previously in Australia, the Medicare Chronic Disease Dental Scheme was a pathway for people with chronic conditions and complex care needs to access dental care when their oral health was likely to impact on their general health. However, this scheme ended in 2012, leaving a service gap for people with complex issues (including AOD issues) to access dental care. For those who are eligible for public dental clinics in WA there are generally lengthy waitlists, and for people who attend clinics at the government-funded WA Oral Health Centre there can still be out-of-pocket treatment costs.

Development of the Palmerston Oral Health Project pilot

The findings from the focus group informed the development of the concept of an oral health pilot project, tailored to meet the needs of residents at the Farm. Initially, the potential to run dental clinics at the Farm was explored, but this was not logistically feasible, particularly in relation to the dental equipment and sterile environment that would be required. This led to the idea of delivering the service in partnership with St Patrick's Community Support Centre (St Pat's), located in Fremantle. St Pat's has an on-site, already equipped dental clinic (St Pat's Dental Clinic), dental treatment software, and access to dental staff who are experienced in providing dental care for people who have AOD issues, and who may also have experienced trauma and had lengthy periods without regular dental care.

Dr Slattery was involved in the development of the service from the outset, offering all his time on a voluntary basis.

Overarching aim and scope of the oral health project

The overall aim of the Palmerston Oral Health Project (hereafter the 'project') is to remove barriers to oral health promotion and improve access to dental treatment for clients who are participating in the residential AOD treatment program at the Farm. This project provides access to no-cost dental treatment for Palmerston Farm residents as part of their AOD treatment and recovery.

The project was instigated initially as a one-year pilot, with funding for the pilot and an independent evaluation approved by the Palmerston Board. The project commenced in June 2022, with all residents at the Farm being offered the opportunity to access dental care. Funding has been recently approved to continue the project for another year.

This pilot project is being evaluated by the Home2Health research team, from the Institute for Health Research (IHR) at the University of Notre Dame Australia (UNDA). This evaluation report focuses on the first 12 months of the project.

1.1 EVIDENCE RATIONALE

In March 2023, the Australian Senate resolved that a Select Committee into the Provision of and Access to Dental Services in Australia be established, to inquire into matters relating to the nation's oral and dental health, and access to services. The Interim Report from this Inquiry recognised that:

"...the effects of poor oral health can be profound and impact the whole body, decreasing a person's general health." - Senate Inquiry, p4

The Inquiry has explored the barriers that many Australians experience when trying to access dental services. A survey conducted by the Senate Committee found that:

"...cost was the largest barrier affecting peoples' access to dental services, when compared to accessibility, cultural and/or language barriers, wait times, and fear of the dentist." - Senate Inquiry, p25

This correlates with other research, which has highlighted that, in contrast to other comparable countries, Australians are significantly more likely to avoid or delay going to the dentist because of the cost.²

The Senate Inquiry also highlighted that there are specific populations who are at a greater risk of poor oral health due to access barriers, and that these populations include people on a low income and/or receiving some form of government income assistance, people experiencing homelessness, and people with additional and/or complex health care needs. People who are on a low income are particularly unlikely to get dental care because of the cost, and are also more likely to have periodontal disease, untreated tooth decay, or missing teeth. Research has also highlighted that people with severe or long-term mental health issues have a higher prevalence of oral health problems than the general population.

The Senate Interim Report noted that there is limited current, comprehensive research and data available which accurately reflects economic costs in Australia of poor oral health. One measure which can be used to partly determine this cost is the number of people seeking dental care from general practitioners (GPs) and/or hospitals when they are unable to access a dentist for pain relief from dental issues or for other treatment for oral conditions.²

In 2019–20, expenditure in Australia for oral disorder conditions was \$639 million in hospitals and \$65.7 million on GP services.⁴ - AIHW

Rates of potentially preventable hospitalisations measure hospitalisations for dental conditions that theoretically would not result in hospitalisation if adequate and timely non-hospital dental care was received. The number of potentially preventable hospitalisations in 2020–21 due to dental conditions was about 83,000 hospitalisations across Australia and over 10,600 in Western Australia.⁴

The Senate Committee highlighted that:

"...the prohibitive cost of dental care means simple, treatable dental problems turn into medical emergencies, leading to preventable hospitalisations and the costs associated with that." - Senate Inquiry, p40

People who have had problematic AOD use will frequently have a much higher prevalence of **chronic dental issues** than the general population, and this can often be caused or exacerbated by AOD use. Reasons for this can include the following factors:

- direct impact of some AOD use on teeth and mouth health (e.g. consumption of tobacco and alcohol contribute to poor oral health,⁴ methamphetamine is highly acidic and can damage tooth enamel),
- other risk factors that often co-occur with AOD use (such as tobacco use or poor diet),⁵
- lack of awareness about the impact of AOD use on oral health,⁵
- neglect of dental hygiene due to AOD use or other priorities,
- financial barriers to regular dental check-ups or treatment,
- shame or stigma about AOD use if seeking dental care,
- previous negative experiences of dental treatment (e.g. dental treatment in prison), and
- previous experiences of trauma which can increase vulnerability, especially in instances where trauma to the mouth has occurred (e.g. from assault, violence).

Studies on the **prevalence and severity of oral health conditions** among people experiencing AOD issues highlight the quality of life repercussions and the significant personal, psychological, and social impacts of these conditions.^{5–8} In addition to the direct adverse impacts, poor oral health is also associated with a number of co-occurring conditions, including diabetes, stroke, cardiovascular disease, oral cancers, lung conditions, and adverse pregnancy outcomes.⁴ Hence, there is a considerably wider impact on health and wellbeing.⁵

There is currently **limited published evidence available** which specifically relates to improving oral health care for people experiencing AOD issues. The literature that does exist tends to focus more on describing the issues, challenges, and barriers people face, rather than signposting to effective interventions. In a recent review of published literature on the oral health care needs and interventions among clients receiving AOD treatment, only two of the 37 studies reviewed described actual interventions that support AOD staff and services to promote oral health among their clients.⁵ Instead the majority of studies in this review focused primarily on 'describing the problem' i.e. on the prevalence of poor oral health and dental hygiene and barriers to dental care.⁵

The potential role of AOD organisations and their staff in supporting clients to access oral healthcare has been discussed in a number of recent papers. One paper noted that existing skills and experience in working with AOD services clients could help to mitigate some of the reluctance, fear and concerns about stigma that are barriers to engagement with dental services. The authors also noted that staff working in AOD settings can play a role in encouraging clients to access dental services, including timely treatment. Further, the paper highlighted that there is limited oral health advice provided within AOD services. Of the 32 papers reviewed:

"...only three studies reported on clients receiving oral health advice from AOD treatment services."
- Poudel, p361

Overall, the available literature emphasises the **need for greater access to oral health care** for people experiencing AOD issues, the potential for oral health care assessment and advice to be provided by a broader range of AOD and non-AOD clinicians, and the **need for ongoing collaboration** between AOD services and dental services.^{5,6,8} Some studies have also highlighted the need for integrated and interprofessional approaches to oral health care for people with co-occurring conditions and circumstances (e.g. mental health issues and homelessness).^{5,6}

A recent Australian study highlighted the need for a focus on "potential strategies that could promote delivery of integrated oral health promotion and guidance in AOD services".⁵

1.2 EVALUATION AIMS & OBJECTIVES

Palmerston's strategic plan articulates a strong commitment to evidence-based practice and evaluation, including the evaluation of its services, having demonstrable evidence of service effectiveness, and contributing to continuous improvement in the wider AOD sector.

Therefore, this evaluation has been designed to not only evaluate the impact of the project itself, but also draw out learning and insights regarding the way in which attending to the oral health care needs of people in AOD programs can complement and strengthen AOD program engagement and recovery outcomes.

The overarching research question underpinning the evaluation was to examine how access to oral health care and addressing dental needs contributes to overall client recovery, including outcomes relating to AOD use and relapse prevention, confidence, self-worth and quality of life, residential treatment completion, and employment pathways.

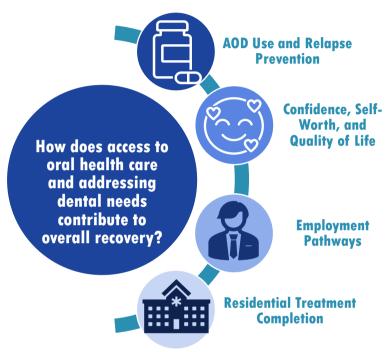


Figure 1: Overarching aims of the Palmerston Oral Health Project evaluation

The objectives of this evaluation have been to:

- 1. Undertake a rapid review of relevant literature and existing measures/data collection tools that can potentially be adapted or drawn upon for data collection,
- 2. **Develop an evaluation framework** in collaboration with Palmerston and St Pat's and obtain Human Research Ethics Committee (HREC) approval for the evaluation,
- Examine the impact of the pilot project from the perspectives of clients, Palmerston, and wider
 potential impacts relevant to the AOD sector (note: this includes consideration of both oral healthrelated outcomes and impacts relevant to people's broader recovery), and
- 4. **Synthesise evaluation findings and provide recommendations** for possible project improvement, extension, and expansion.

1.3 EVALUATION ETHICS APPROVAL

All human research has ethical considerations and as such, ethical review and approval processes ensure that human research is designed and conducted safely, sensitively, legally, and responsibly. As part of ethical review processes, issues relating to risk assessment and management, data collection methods, and data management and confidentiality are also all considered.

Participant Consent and Information (PCI) forms also need to be developed and used with all research participants. These forms outline how research will be conducted with participants and ensure that participants are providing informed consent before participating.

Ethics approval for the evaluation was received from the UNDA Human Research Ethics Committee (HREC) in July 2022 (Reference Number 2022-089F).

1.4 RESEARCH METHODS

This section describes the types of data used in the evaluation and how those data were captured.

1.4.1 TYPES OF DATA

The evaluation of the project pilot has been a **mixed methods evaluation**, drawing on both qualitative and quantitative data to capture multiple perspectives to inform a complete analysis. The data collected between July 2022 and June 2023 are summarised in **Figure 2**.

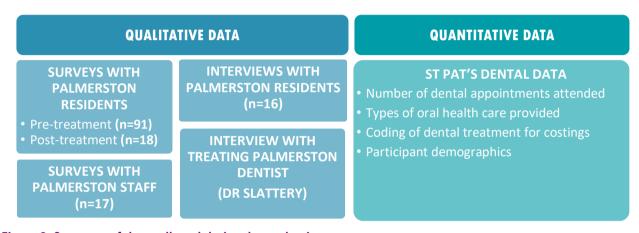


Figure 2: Summary of data collected during the evaluation

1.4.2 DEVELOPMENT OF DATA COLLECTION METHODS AND TOOLS

1.4.2.1 Pre- and post-treatment surveys

Short pre- and post-treatment surveys were developed to be administered to participants in the project. Feedback from residents in a formative focus group run by the evaluation team before the program began had indicated a preference for surveys that are clearly worded, with tick response options where possible. Both surveys were informed by a review of relevant literature and tools that have been used elsewhere. Drafts of the surveys were reviewed by key Palmerston staff and Dr Slattery (the project dentist).

The **pre-treatment survey** (Appendix 1) captured baseline data on overall oral health and problems people might be experiencing due to oral health issues, and elicited views on the key areas of people's lives that were impacted by their oral health. The survey incorporated a question from *Locker's Global Oral Health Item* (LGOHI), which has been used in many past studies to measure oral health perceptions to reflect experiences of oral symptoms, behaviours, and functioning. This question asks patients to self-rate their oral health as 'excellent', 'very good', 'good', 'fair', or 'poor'.⁹

Other questions used in the pre-treatment survey were based on the *Oral Health Impact Profile-14* (OHIP-14),¹⁰ which asks participants to rate how often oral health issues impacted on their quality of life in the preceding 12 months. As well as being a valid and reliable tool to assess quality of life in relation to oral health, the OHIP-14 was also used in a recent study on oral health perceptions and client satisfaction at St Pat's Dental Clinic.⁶

In total, the pre-treatment survey asked 13 questions, comprising:

eight of the 14 questions asked in the OHIP-14, with some of the questions adapted slightly to simplify the language used, and an additional five questions that related to themes raised by participants in the pre-project focus group.

Together, the questions related to how oral health impacted on participants' confidence, sleep, comfort in relationships, speech and pronunciation, pain or discomfort, ability to bite or chew food, and participation in activities.

The **post-treatment survey** was designed to be completed by participants after completion of their treatment. Some of the questions from the pre-treatment survey were asked, to allow comparison of responses pre- to post-treatment. Additional questions examined participants' experiences of the treatment as part of the project, as many participants had previously disclosed feeling extremely anxious about having dental treatment. These questions elicited responses regarding how comfortable participants felt during dental appointments, how well the dentist listened to and understood their needs, how clearly the treatment and treatment options were explained, and how they would rate their overall satisfaction with the treatment.

1.4.2.2 Interviews with residents who were receiving dental care

These interviews sought to inform a more in-depth understanding of any changes participants noticed in themselves relating to their experiences of the project and their treatment, barriers or challenges they had previously experienced in accessing dental treatment, and insights as to how dental treatment might complement their AOD recovery. The discussion guide for the interviews was developed by the evaluation team, reviewed by key Palmerston staff, and included in the research materials submitted to the HREC for review.

1.4.2.3 Dental treatment data

St Pat's Dental Clinic already has a database set up for the recording the dates and types of dental treatment data, and it was arranged that a summary of this data would be provided to Palmerston and the evaluation team each month. The St Pat's Health Clinic Coordinator also maintained a list of clinic dates and the clients scheduled to attend these.

1.4.2.4 Project dentist interview

An interview guide was developed to explore from the dentist's perspective, the benefits and changes observed in clients, any challenges, and discussion of perceptions of critical success factors of the project.

1.4.2.5 Staff feedback survey

This survey was developed to gather staff perspectives on the support provided through the project and any benefits or challenges observed for dental project participants. The development of the survey was informed by discussions with Palmerston Farm staff and other project evaluation surveys completed by the evaluation team.

1.4.3 DATA COLLECTION

Data were collected using a range of approaches, including directly from participants and with the support of the project partners (Palmerston and St Pat's).

Pre- and post-treatment surveys

Pre-treatment surveys were administered at the Farm by Palmerston staff and subsequently provided to the evaluation team. Post-treatment surveys were administered by St Pat's Dental Clinic staff and subsequently provided to the evaluation team. Completion of surveys was voluntary therefore, as some participants opted not to complete them, data were not available for everyone.

Participant interviews

Interviews were undertaken by the evaluation team at St Pat's Dental Clinic sessions, during wait times before or after treatment.

Interviews were completed at three clinic sessions across the course of the first year of the project. All Palmerston Farm residents who were attending on a specific clinic day were invited to participate in an interview. Therefore, no specific sampling was used for interviews.

Clinic attendees were advised that participation in interviews was voluntary and confidential, and that their participation in an interview (or not) would not impact their dental treatment or the support or services they received at the Farm.

All interview participants provided informed consent and signed a Participant Consent Form prior to their interview. The Participant Consent Form and a Participant Information Form were both read to interview participants prior to the interview, to ensure accessibility of this information and accommodation of any literacy issues. Interviews were audio recorded with consent and transcribed verbatim to ensure that interview participants experiences and perspectives were reflected accurately.

Interview participants were reimbursed with a \$40 gift voucher, to acknowledge their time and participation. This rate of reimbursement is aligned with the payment scale outlined in the Lived Experience Framework developed by the WA Council of Social Service.¹¹

As for the participant surveys, participation in interviews was voluntary. Therefore, as some participants opted not to participate in an interview, data were not available for everyone.

Staff surveys

The staff feedback survey was offered to Palmerston staff at two time points – near the beginning of the project in September 2022 and again at the end of the pilot project period in June 2023.

This survey used Qualtrics, a cloud-based platform for creating web-based surveys. Survey links were distributed to Palmerston staff by email.





Image 1 and 2: Dr Slattery at St Pat's Dental Clinic

2 SCOPE OF THE ORAL HEALTH PROJECT

The scope of the project was determined with consideration of a range of factors, including the dental treatment needs of participants and the budget and time which were available for treatment.

2.1 LOCATION & FREQUENCY OF DENTAL CLINICS

Weekly clinics commenced at St Pat's in June 2022, with Dr Slattery providing his time and dental services on a pro bono basis. St Pat's have provided the attending dental nurse at the clinic, to work alongside Dr Slattery, and Palmerston has paid a monthly amount to St Pat's to cover this and other clinic costs. The St Pat's Health Clinic Coordinator oversees management of the clinic, the patient list, and coordinating the completion of the post-treatment surveys. Transport from the Farm to St Pat's Dental Clinic has been provided by Palmerston. Generally, six residents have been seen on any one day at the clinic.

2.2 OVERALL AIMS OF THE DENTAL TREATMENT

The overall aims of the dental treatment as part of the Palmerston Oral Health Project have been to:

- Undertake individual assessments of the dental needs of Palmerston Farm residents,
- Provide dental care which includes physical dental needs, as well as improving the aesthetics and appearance of residents' teeth,
- Assess what dental work is feasible and develop a treatment plan, considering not only what is
 possible in terms of the clinic infrastructure and budget, but also what treatment is achievable within
 the likely length of a resident's stay at Palmerston Farm,
- Support participants to increase their awareness and practice of good oral care and hygiene, in order to maintain the dental treatment that they receive through the project and to reduce or prevent future dental issues, and
- Ensure that dental treatment is trauma informed and that participants' dental assessments and treatment plans are developed in a way that recognises and accommodates their experiences of trauma. This includes an understanding of some participants' previous negative experiences of dental treatment, as well as experiences of trauma to the mouth (e.g. from assaults, violence).

"I envisage increasing or improving the aesthetics or the looks of the teeth, because it's been shown in millions of studies that an attractive smile is going to be far more attractive to the person who is selling you things, who is evaluating you for a job, who is wondering if you're going to be a friend or not. That smile is what's going to make a lot of difference to so many people. So if we can get the aesthetics looking good too, it's a major, major plus." — Dr Slattery, prior to dental clinics commencing

2.3 WHO HAS BEEN SUPPORTED?

All residents at the Farm have been offered the opportunity to access dental care as part of the project. The dental clinics have been held weekly, most weeks at St Pat's. A **total of 36 clinic dates were held** from July 2022 to June 2023.

Figure 3 summarises the demographics of participants who received dental treatment through the project.

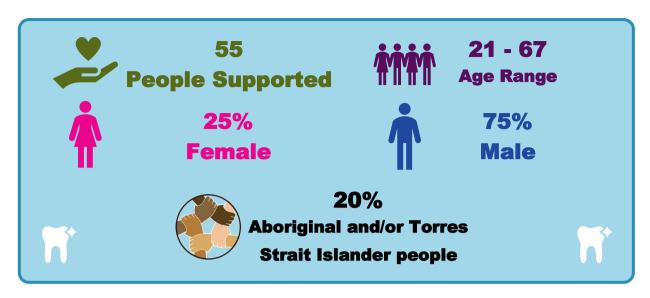


Figure 3: Demographics of participants in the project

2.4 TREATMENT COMPLEXITY & ACCESSIBILITY

The St Pat's Dental Clinic is well-equipped for many of the oral health needs of Palmerston Farm residents, but the project also needed to operate within a model of weekly clinics and the budget available. Hence there were some limitations on the dental treatment that could be undertaken. As the project progressed, it became apparent that a number of participants required treatments which were outside the original scope of the project (e.g. full or partial dentures). Approval for these items was therefore sought and agreed by the Palmerston CEO.

The number of dental sessions that each resident completed varied, depending on:

- The complexity of residents' dental needs, including whether multiple procedures or follow ups were required,
- Duration of residence at the Farm (some dental treatments were not completed if a person left earlier than anticipated), and
- Individual considerations (for example if a resident had past negative experiences of dental care, the dentist may have offed treatment over multiple sessions).

It is important to note that the range of dental treatment provided through the project extended well beyond what participants could typically access in emergency public dental clinics or at volunteer dental clinics which are run by some dental practices for people on a low income.

The project pilot has therefore provided people with more access to:

- Treatments that might require multiple visits,
- Tooth repair or restoration of teeth instead of extraction, and
- Preventive dental care and advice (beyond the main presenting dental problem).

"So we should be able to do most everything there. St Pat's have a setup, it is very good from a dental point of view. They've got good, modern equipment. They've got the sterility that we need. They've got high-grade x-ray machines so we can check that we can see everything. We can do virtually everything that we need to do there." – **Dr Slattery,** prior to clinics commencing

"Some aspects of dentistry take longer to do and so we're probably not set up to do implants and that sort of thing which starts becoming a full program. But what I envisage doing is to get basic dental health sorted for people that need basic dental health." – **Dr Slattery,** prior to clinics commencing

2.5 TREATMENT & PREVENTATIVE DENTAL CARE PROVIDED

The range of treatments provided through the Project has included diagnostic (e.g. X-rays), preventative (e.g. cleans, smoking advice, hygiene advice), and definitive or corrective (e.g. fillings, root canal). The breakdown of these treatments is outlined in **Figure 4**.

A critical point of difference of the treatment provided through the Project has been the range of treatments which have been provided. People on lower incomes will often access dental care in settings where options for comprehensive dental care can be more limited (e.g. public dental clinics, Emergency Departments).

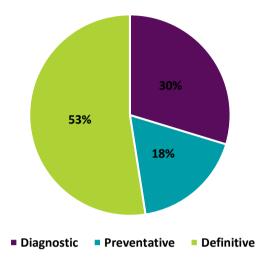


Figure 4: Categorising treatments by diagnostic, preventative, and definitive procedures

Dental treatment provided through the project has ranged from routine cleanings and advice on dental care, to vital diagnostical visits and dental procedures such as fillings, dentures, tooth extractions, and root and gum treatments. The most common dental and oral health treatments provided are summarised in **Table 1**.

TREATMENT TYPE	NUMBER OF TREATMENTS	% OF TREATMENTS
Fillings	238	32%
Diagnostics (e.g. X-rays)	152	21%
Exams	71	10%
Dentures	63	9%
Extraction	61	8%
Cleaning	57	8%
Smoking & hygiene advice	55	7 %
Root canal treatment	20	3%
Gum disease treatment	15	2%
TOTAL TREATMENTS	732	100%

Table 1: Treatments completed during the project pilot

Given the extent of dental problems and long periods without dental care for many clients, it is pertinent to draw attention to the relatively low proportion of teeth extracted (removed) over the course of the year. This is notable because tooth removal is often the quickest and cheapest intervention for people without private dental cover, and in quite a number of the interviews with the evaluation team, residents shared past experiences of having teeth extracted when they sought dental care.

This was evident also from the interview with Dr Slattery, whose ethos was that extraction of teeth is a last resort. Whilst inevitably some teeth were unsalvageable, the evaluation team's analysis of dental treatment data conveys the emphasis on trying to save and restore teeth where possible.

"Dentists nowadays do extractions as the last resort. When I first graduated, we used to do it as a first resort almost. But we can do virtually everything that we need to do at the St Pat's clinic." – **Dr Slattery**

As noted later in this report, this has been much appreciated by residents, particularly those who have had negative past experiences of associating dental visits with having multiple teeth taken out.

Indeed, the work of Dr Slattery with residents from the Farm has been described by another WA dentist (who has provided advice to the evaluation team) as having a beneficial 'tooth-sparing' focus:

"Many multiple appointment 'tooth-sparing' treatments, like root canal therapy vs extraction, are cost prohibitive in private & public dental centres for low-income patients. From my own experience, the threshold for extracting vs saving a tooth with root canal is much lower in government clinics purely because cost is such an issue. By contrast, many of the residents attending this clinic have benefitted from tooth repair and saving of the tooth" — **Dr Jack Hawkesford, Dentist**

2.6 ORAL HEALTH PROJECT COSTS

The cost outlay of the program for the period of this evaluation is summarised in Table 1.

MONTH	NUMBER OF SESSIONS	COST
July 2022	4	\$4,800
August 2022	4	\$4,800
September 2022	4	\$4,800
October 2022	3	\$3,600
November 2022	4	\$4,800
December 2022	1	\$1,200
January 2023	3	\$3,600
February 2023	1	\$1,200
March 2023	3	\$3,600
April 2023	3	\$3,600
May 2023	3	\$3,600
June 2023	3	\$3,600
July 2022 – June 2023	-	\$2,324 (other dental costs, e.g. dentures)
TOTAL	36	\$45,524

Table 2: Total costs of dental treatment provided during the project pilot

A total of **732 dental treatments** were provided through the project from July 2022 to June 2023, for a **total cost of \$45,524**. Based on the item codes, the actual cost of this treatment if provided in a general dental setting would be **\$85,873**. This represents considerable value for money and substantial cost savings which have been provided through the project to date. The availability of an experienced and qualified dentist being able to provide pro bono services for the project has made a significant contribution to the program being much more affordable.

Cost-benefit or economic analysis is challenging in dental services, as it is hard to precisely quantify the likelihood and dollar value of preventing a worsening dental problem, and even harder to attribute an economic value to important quality of life impacts (such as self-esteem, confidence to apply for jobs, or nutritional intake). The **social and economic impact of improved dental healthcare** is however one of the themes that will be reported on by the current Australian Senate-instigated Inquiry into the Provision of and Access to Dental Services in Australia, and it is hoped that this will yield information and data that might be incorporated into year two of the Palmerston Oral Health Project evaluation.

3 KEY FINDINGS

3.1 ORAL HEALTH BEFORE DENTAL TREATMENT

Pre-treatment surveys were completed by 91 Palmerston Farm residents prior to starting dental treatment. These surveys provided a comprehensive picture of participants' oral and dental health, as well as how they considered they would benefit from having dental treatment through the project.

Pre-treatment surveys asked about the frequency of a range of oral health issues, with the most common responses including:

- Avoid smiling because of teeth (67% of respondents experienced this very often, fairly often, or sometimes),
- Felt uncomfortable in close relationships due to teeth or breath (66% of respondents),
- Lack of confidence due to teeth and/or dental issues (62% of respondents),
- Felt embarrassed or self-conscious due to appearance of teeth/mouth (60% of respondents),
- Pain or discomfort from dental issues (60% of respondents), and
- Limited types of food they can eat due to dental issues (43% of respondents).

These issues are illustrated in Figure 5.

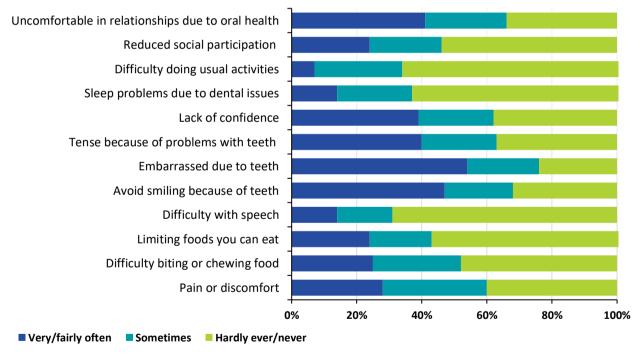


Figure 5: Problems due to oral health issues (pre-treatment ratings)

Perceptions of personal oral health are incredibly important to investigate in order to explore self-image and psychological implications of poor oral health, especially relating to future health and potential effects on rehabilitation. Some responses from project participants can be compared with general population data from the *National Study of Adult Oral Health*, in which people are asked about their oral health and dental appearance.^{9,12}

These comparisons are outlined in Figure 6.

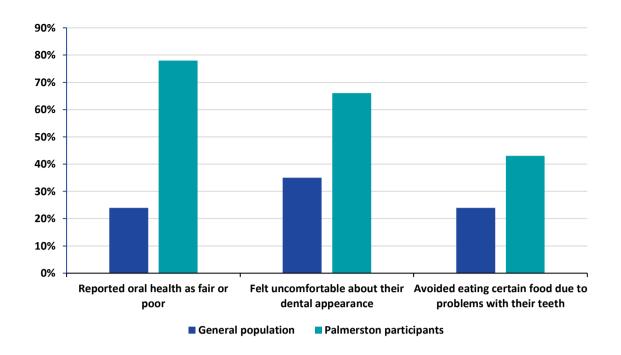


Figure 6: Comparisons of oral health between project participants and general population

When people were asked in pre-treatment surveys how they would describe the state of their teeth and gums, the majority of people described their oral health as fair or terrible (78%). Two people said their oral health was very good and only one respondent described their teeth and gums as excellent.

These findings are illustrated in Figure 7 below.

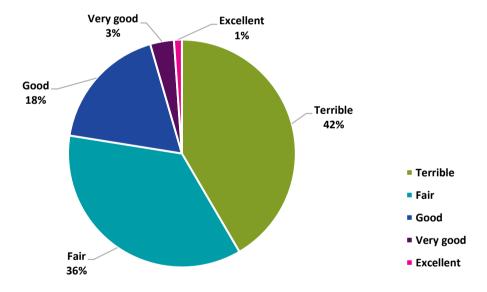


Figure 7: Self-reported state of teeth and gums

During interviews, participants were asked about the current state of their dental and oral health, with many people describing very poor long-term oral health.

"I do have my four front teeth missing and I have cracked teeth and ulcers that have come and gone, but I've got one at the top that is permanent there. If you have your teeth broken for too long, you can get general poisoning from your own mouth and gums and that and it does affect your blood system and all that." — **Palmerston Farm resident**

"In the past I had a fight, and my two front teeth were semi knocked out. I went to a dentist then and he started root canal treatment, but the cost and the pain I was going through was too much, so I never followed up further treatment. I'd regularly get an infection in my gum because the root canal was only half done." — Palmerston Farm resident

"I'd probably lost all confidence, probably about five, six years ago. That's when I lost everything. But before that it was just a slow decline of a couple of teeth here, a couple of teeth there. I had two or three go at once and face was swollen out here. It was hell pain." — **Palmerston Farm resident**

"Pain in this side, the right side, and the top bit, it was excruciating. I had to get it extracted." – **Palmerston Farm resident**

"There's a lot of health benefits. We'll get people coming in with really quite nasty gum infections, with gums that are bleeding every day. The endotoxins that go down through your body with all the stuff coming out of your gums and your body has just got to control that all the time. Then you can see a week later the healing that's gone on there, that the poor body has been trying to heal for years before that. There is a clinical difference in their overall health because of that. Particularly as gum disease is as big a factor towards heart disease as smoking is." — **Palmerston project dentist**

Participants were also asked how long it had been since they had last had dental treatment, with many stating they had not accessed dental treatment in many years.

"So, my two front teeth then died and went black. That was over 10 years ago." – **Palmerston Farm** resident

"It's been a bit over two years since I lost my teeth." - Palmerston Farm resident

"I haven't had dental work in over 10 years." - Palmerston Farm resident

"My teeth had just snapped off leaving brown stumps. I was left with about six or seven teeth when I had them all pulled. From then on then I had nothing for two years." – **Palmerston Farm resident**

A number of residents referred to **time spent in prison** and how this had impacted on both their dental health and the limited nature of dental care that was available.

"Any other dentist I've been to, they just take them out. I've done a lot of jail. I've done 14 years all up and you see them dentists, they just rip them out. They don't bother trying to fix them. I said I wasn't ready to get them ripped out when I seen the dentist in prison. So I just sat there with black teeth for the last five years because I didn't want to walk around showing gums by having teeth missing and not have anything to replace them." — Palmerston Farm resident

"I spent a lot of time in jail, and the dentists that come in there, if it's broken, they just rip it out. They don't kind of fix it. They just pull it out." — **Palmerston Farm resident**

"I've never gone to the dentist on the outside. I've only ever gone in prison. I don't have the money."

- Palmerston Farm resident

Some participants also discussed the direct relationship between their dental health and AOD use.

"I consistently get tooth infections from AOD use. My body is run down so I get infected." – **Palmerston Farm resident**

"The sugar content in ciders – that was, I think, what did it. And I'd chipped a front tooth on a drinking binge. Also, meth use. I would just not have the energy or motivation to go to the dentist, and I was prioritising drinking over the dentist work." – **Palmerston Farm resident**

One of the significant problems that participants discussed in interviews was having difficulties with eating as a result of dental and oral health issues.

"I haven't been able to eat on the right side of my mouth for five or six months. If I did accidentally chew something on the other side, it would be that painful, I couldn't concentrate. If you're in pain with dental issues while you're in rehab, it can be a reason why you might potentially leave, and it could be a reason why it makes the program a lot more difficult to focus on." — Palmerston Farm resident

"The way I eat is one of the big things too as well, usually I have to go to the side of my mouth. So biting and eating properly would be good for me." — **Palmerston Farm resident**

"I ended up having to have replacement drink meals. I couldn't enjoy eating a potato chip. Without having teeth I couldn't even eat a bit of lettuce." – **Palmerston Farm resident**

As part of the pre-treatment survey, residents were asked which areas of their life they thought would benefit in the future from being able to access dental treatment through this project.

Overall health was the most significant benefit identified (86% of respondents), followed by self-esteem and self-worth (84%), relationships (60%), AOD recovery (57%), and employment opportunities (51%).

These issues are shown in Figure 8.

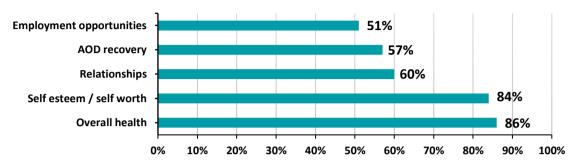


Figure 8: Respondents' views on areas of life which would benefit from dental treatment

3.2 ORAL HEALTH AFTER DENTAL TREATMENT

Participants were invited to complete a follow-up survey after they had completed their dental treatment. Participants were asked again about any dental problems or issues that they had been experiencing since their dental treatment. The same questions were asked as in the pre-treatment survey, to allow comparison of participants' responses pre- and post-treatment.

Participants responses are detailed in Figure 10.

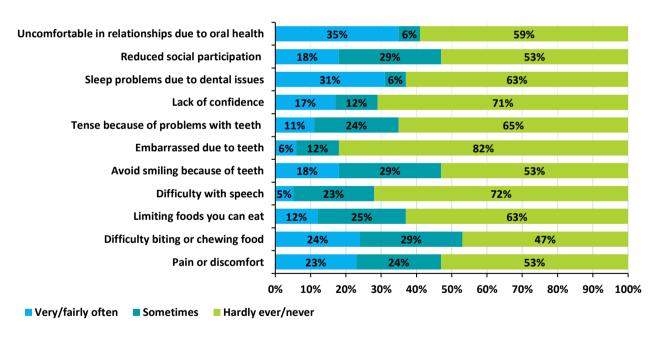


Figure 9: Problems due to oral health issues (post-treatment ratings)

The changes in responses from participants were significant, as highlighted below:

- Before dental treatment, 76% of respondents often or sometimes felt embarrassed due to their teeth – after treatment, this dropped to 18% of respondents,
- Prior to dental treatment, 46% of respondents often avoided smiling because of their teeth after treatment, this dropped to 18% of respondents,
- Pre-treatment, 64% of respondents often or sometimes had a lack of confidence due to their teeth
 post-treatment this dropped to 29% of respondents, and

 Before dental treatment, 40% of respondents often felt tense because of problems with their teeth – after treatment, this dropped to 11% of respondents.

Participants were also asked in the post-treatment survey about their experiences of the dental treatment. These reflections are significant, as issues such as participants feeling comfortable and respected can influence their willingness to engage with dental treatment in the future.

- Participants rated their overall satisfaction with dental treatment during the program as excellent (83%) or very good (11%),
- All participants said that their comfort during dental treatment was excellent (83%) or very good (17%),
- Participants stated that the respect shown to them by the dentist was excellent (94%) or very good (6%).
- The majority of participants rated the clarity of how treatment options were explained to them as excellent (78%) or very good (17%), and
- Participants stated that the opportunity the dentist gave them to express their concerns or fears was excellent (72%) or very good (17%).

These outcomes are outlined in Figure 9.

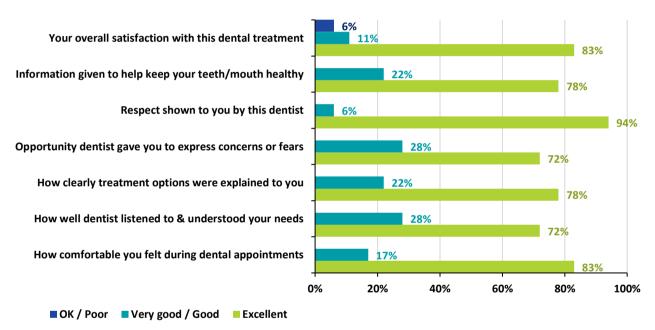


Figure 10: Experiences of dental treatment

3.3 BENEFITS OF DENTAL TREATMENT

As has already been highlighted, participants noted in their post-treatment surveys that they had significant changes in their experiences of dental issues and problems. The benefits of dental treatment for project participants were also noted throughout interviews with residents, in the interview with the project dentist, and in surveys with Palmerston staff.

3.3.1 AOD TREATMENT & REHABILITATION

One of the objectives of the project evaluation was to consider the impacts of oral health related outcomes on people's broader AOD treatment and recovery. Throughout their interviews, participants confirmed that being able to receive dental treatment was definitely a **motivating factor to remain in AOD treatment** at Palmerston Farm.

"It gives good incentive to stay in the program. I mean, sometimes we can have down days and a lot of us sometimes we don't like ourselves anymore. We beat ourselves up and hate ourselves. You start to like yourself and you start to want more. I think it's very beneficial to the program to get somebody to be happy with themselves." - Palmerston Farm resident

"It has made me want to stay here longer than what I would have otherwise. It gives me extra incentive to work on myself." - Palmerston Farm resident

"These people are all making a big step. It's a big personal cost to them to drag themselves out of addiction, alcohol and drugs. It's a live in residential program. It's costly personally and the changes are always tough to make. These people are putting the big effort in. If we can make it easier for them, it's just wonderful." - Dr Slattery

"The transformation that people get inspires newer

residents to continue on and achieve their goals and dreams." - Palmerston Farm resident

"It just gives me more hope now that things aren't as bad as what I make them out to be. I've always catastrophised a lot of my thinking all my life, everything in my life, and this shows – I've been catastrophising about my teeth. My teeth have just made me think, eventually I'll get my smile back. It will take time, but patience, I've just got to be patient, like my recovery. I've been clean three years now." - Palmerston Farm resident

"I've seen a lot of success stories come out of this dental program. I think it's something that gets people committed to the rehab program, because they know that there's an incentive for them to stick around." - Palmerston Farm resident

AOD RECOVERY & OVERALL HEALTH AND WELLBEING

Many residents noted how important dental treatment and improved oral health were in contributing to their AOD recovery and overall health and wellbeing.

"It's part of that recovery. It sounds like it's just for important things like job interviews, but it's really for living your life and walking down the street adequately." - Dr Slattery

"Something like this is essential for recovery. In active addiction you lose sight of your own health, selfcare, all that sort of stuff. So, to be actively participating in your own selfcare, it's hand in hand with recovery." - Palmerston Farm resident

"It fits with the culture of moving forward in life and having things that may have held you back from before, now it's been fixed. It's one more reason to keep going. If you're going to be helping people in a therapeutic community to fix their lives, you've got to fix all the aspects of their lives, because you can't leave a reason to fall back into old ways." - Palmerston Farm resident

"If you know for a fact that, through your drug use, that you've done damage to your teeth. Then you're getting it addressed and fixed, it's another reason to not go back to using. A visible reason. It's a massive part of people not going back to how things were." - Palmerston Farm resident

"It's huge. Not only for the mental health side of things. It's a massive part of recovery as far as I'm concerned." - Palmerston Farm resident

"Life changing towards my recovery." - Palmerston Farm resident

"Knowing I have received dental treatment has also helped me reduce my cigarette intake & AOD use." - Palmerston Farm resident

"To keep looking at yourself in the mirror and be unhappy is not a thing to really motivate you to keep going. So something like this actually helps people to keep moving forward as far as their recovery goes." – **Palmerston Farm resident**

3.3.3 SPEECH & TALKING

Residents also spoke about the **impact of poor dental health on talking** – for some this included an actual impact on their capacity to talk clearly, whilst more often it was about their confidence to talk to other people.

"I've spoken with people and they say they don't like to talk much in groups, they don't like to smile much because they are self-conscious of the fact that they have no front teeth or no teeth." – **Palmerston Farm resident**

"It's not just in the inside you need to work on, it's the outside. It gives you more confidence to find your voice, to talk up. A lot of people are a bit ashamed through the way they look, find it very hard for them to open up. They're embarrassed. It helps with finding your voice." — Palmerston Farm resident

"I look horrible. If I talk, I want to cover my mouth. Because I get shamed when I talk." – **Palmerston Farm resident**

"So this will help me in a lot of ways, mainly to be more presentable I think and also healthier in a lot of ways, not only in appearance but also with my health. So it's a big confidence thing too as well." — **Palmerston Farm resident**

"So this is just the next step, getting my teeth fixed. It might take time but in the long run it's worth it, because I'll be a lot more confident and be able to face life and be happy. Just seeing the dentist and knowing that they can be fixed, it's making me feel a lot better in myself." — Palmerston Farm resident

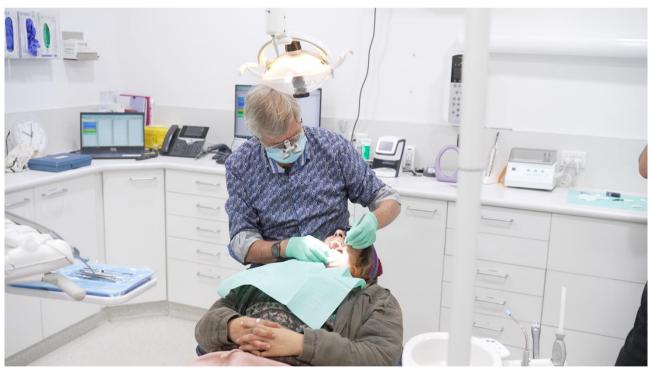


Image 2: Dr Slattery treating a patient at St Pat's Dental Clinic

CASE STUDY 1: A FRESH START

Background

Nathan* is a man in his 40s who has experienced homelessness for many years. He reported a history of AOD use since the age of 18. This use had cause significant damage to his teeth and contributed to him having most of his teeth removed 9 years ago.

"When I'm in addiction [dental treatment] goes on the back burner. I've been in addiction on and off for 30 years... I've had a lot of clean time. In that time, I've maintained my dental health, but never had the full funds to be able to go and actually get it done because I've never had a private health insurance."

While he had been wanting dentures ever since, it was cost-prohibitive, and he had missed several scheduled dental appointments due to homelessness.

"I did at the end of last year actually connect with [State Government Clinic] and they did a lot of work on me, did a lot of extractions and a few fillings for me, but I slipped back in to AOD use so missed the appointments."

Before Dental Treatment

Nathan had many large gaps in his teeth, most noticeably missing the front teeth to his upper jaw, of which he was very self-conscious. Nathan described the state of his teeth and gums as poor, and noted that having so many teeth missing significantly limited his food options and mad it difficult to bite or chew food.

Nathan advised that he very often felt embarrassed or self-conscious due to the appearance of his teeth and mouth and that he avoided smiling because of his teeth. This impacted on his confidence in meeting new situations and people, therefore reducing his participation in social activities. Nathan stated that he frequently felt uncomfortable in close relationships due to his teeth.

"Foodwise I can't eat 60 per cent of foods basically. I've got no bottom teeth at all at the moment, and I've only got five top teeth, and digestion wise it's not too good. A little bit of pain too if I eat hard stuff obviously it bites into my gums. I've got to be really selective around what I eat."

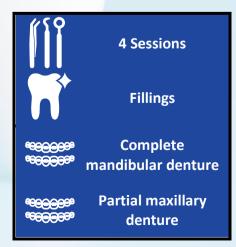
"When I'm not in addiction I'm pretty confident socially, I can talk with people and bridge conversations and stuff like that, but I always notice the look down – oh you've got no front teeth – I always notice that. Of course, people are going to do that, of course they are. Then, maybe they sort of thought, oh I wonder what that's about, what's going on there."

After Dental Treatment

Nathan completed alcohol and other drug treatment at Palmerston's residential rehabilitation service and was also able to complete his dental treatment in this time. When Nathan left the service, he decided to move away to a different region for a fresh start.

Nathan reported that getting dental care and dentures while at the Palmerston Farm was a huge moment for him. This dental treatment gave him the courage and confidence to move away and with his new teeth, he no longer feels visually marked by the stigma and perceptions associated with his past.

(* name changed)



3.3.4 CONFIDENCE IN APPEARANCE

Palmerston Farm resident s have shown considerable insight into the impact of oral health in their lives. The impact of dental issues on **confidence and self-esteem** was mentioned in nearly all the interviews with Palmerston Farm residents. Often this was mentioned in relation to feelings of **self-consciousness about their appearance** and impacted on how participants interacted with other people.

"Once your teeth get to that stage, it's about embarrassment going to see a professional for it. They fear they are going to be judged and they don't want to be. Everyone is judging them anyway. They've got an anxiety about it. A lot of them have a smile that they're embarrassed about. They just can't even walk into a shop without showing their smile." — **Dr Slattery**

"A lot of people because they're so self-conscious about their appearance. Especially in group interactions. I notice that, when you're laughing in a funny situation, people always put their hands over their mouth. That's quite common on The Farm. I know that I do it too." — Palmerston Farm resident

"I try if I smile, I don't really show my teeth. I know that I'm conscious of that. Mainly to do with smiling, avoidance of photos taken, all of that sort of stuff. Especially with chipped teeth as well. And that affects your self-esteem." — Palmerston Farm resident

"I just hid my smile a little bit because I knew it was easy to hide it. So not many people would actually see it." — **Palmerston Farm resident**

"I always notice the look down — "oh you've got no front teeth" — I always notice that." — **Palmerston Farm resident**

"It was always something for me to be conscious of. Always conscious about photos and that sort of stuff." – **Palmerston Farm resident**

"When you talk, you have your hand over your mouth and when you smile you don't show your teeth, you just keep your lips closed." — **Palmerston Farm resident**

Being able to smile again was frequently mentioned and the significance of this to healing, mental health, and wellbeing was evident.

"If you're not smiling, you feel embarrassed about not being able to smile but also when you don't smile, you don't feel happy even if you are. So, if you want to smile and then you don't, it takes away from that feeling of happiness which is such a basic emotion." — Palmerston Farm resident

"But you can't smile – and smiling is a way of healing and moving forward too. To smile and see a horrible smile because of your teeth, doesn't help someone's motivation to move forward." – **Palmerston Farm resident**

"When I'd look in the mirror at my teeth, I'd look at myself and it's just like, what have you done, where has your life gone? Now I'm smiling, I'm taking selfies." — **Palmerston** Farm resident "When you sort out that smile on people – whether it's false teeth or replacing awful old fillings or just getting rid of stains – a light develops behind their eyes. They have life in their eyes again. And now they talk to you, they look at you. There's a guy I'm seeing at the moment that normally holds his hand in front of his mouth. And now he just smiles a lot more." – Dr Slattery

"The impact I've noticed on other residents who have now got a mouth full of teeth, you can see it in them, just how much joy that they're feeling. People laugh and it brings out people's lighter side. At the end of the day, I think that's what we're all searching for, is just that little bit of happiness." — Palmerston Farm resident

"Also what impact it has had on the community and their confidence and just seeing another side of a person, not only their smile and that but the way they talk and hold their selves and present themselves, it is a big, big confidence booster for them too as well." — **Palmerston Farm resident**

"I'm just used to closing my mouth, so it was just nice to be able to genuinely smile like everybody else. I feel like a new person – a little bit reborn." – **Palmerston Farm resident**

Participants discussed the impact of improved dental health on their overall appearance and the considerable impact this had on **how they were perceived** – by themselves and by other people.

"A lot of people take people at face value, and if I look like I've got no teeth and I look like a drug addict then they're going to treat me like one. It's nice to have that first impression to somebody so they - yeah someone, it stops their judgement. People are quite judgemental when it comes to visuals with people." — Palmerston Farm resident

"I hadn't looked in the mirror for a long time. I'd go months and months and months without even looking at a mirror. I caught myself in the mirror the other day and I'm starting to like what I see in the mirror." — Palmerston Farm resident

"It makes a big difference, especially when it comes to going to a job interview. If they see you're hiding your mouth or not showing confidence they're more than likely not going to give you the job. Because my teeth are better, I can be confident. I know I've got nothing to hide now." — Palmerston Farm resident

"Knowing that they're going to get a full mouth of dentures provided to them and seeing the happiness on their face, when they go back to The Farm and then people see what they've had provided to them, it motivates and inspires them and that's really good for morale." — Palmerston Farm resident



Image 3: Positive dental outcomes for resident of the Farm

CASE STUDY 2: I CAN SMILE & I'LL HAVE CONFIDENCE

Background

Kylie* is an Aboriginal woman in her 40s who has experienced significant trauma, complex mental health issues, and has had a long history of AOD use.

Before Dental Treatment

Prior to dental treatment, Kylie described the state of her teeth and gums as poor and she said that she hadn't received dental treatment for many years. Kylie said that she frequently experienced pain and discomfort due to dental issues, including due to a considerable number of cavities.

"It's been ages. I let all my teeth go and now I've got to wear falsies now. I let myself go. When I was on the drugs I couldn't feel it, so I didn't take notice. Until now. All the pain's coming to me again. It catches up on you."

Chewing food caused her so much difficulty that she often had to limit the type of foods she could eat. Dental issues also impacted on her sleep, causing her to be non-productive in her usual activities. Kylie frequently avoided smiling because of her teeth, often feeling embarrassed and self-conscious due to the appearance of her mouth.

"If I talk, I want to cover my mouth." Because I get shamed when I talk, sometimes I wear a mask. I get embarrassed. Because that's taken my confidence away, I'll be honest. I look at everyone else smile, I think want to be like them. Because I look at everyone else when they smile, I'm like, oh, I want my teeth done."

This impacted on her confidence in new situations and in meeting new people and therefore reduced her participation in social activities. Kylie stated that he frequently felt uncomfortable in close relationships due to her teeth.

After Dental Treatment

After dental treatment, Kylie noted a number of areas where her dental health had significantly improved. Difficulties in biting or chewing food had greatly improved – after treatment she reported problems occurring much less often. She could also eat an increased range of foods again due to receiving dental treatment.

Kylie's embarrassment and self-consciousness due to the appearance of her teeth was reduced after her dental treatment. As a result of dental treatment, Kylie said that her confidence in new situations and in meeting new people had improved considerably – from frequently lacking confidence prior to treatment to only sometimes experiencing this after treatment.

Kylie considered that of the areas of her life that would benefit most from the dental treatment that she was receiving was opportunities for future employment.

"I can smile and I'll have confidence. Then I'll definitely get a job.

Because that's what I really want. It would make me happy. Because I could smile at the people, the customers. But I can't get a job like this, with my teeth like this. But when my teeth get done, I can smile. Then I can be confident in myself, and then I can help other people."

8 Sessions
(28 treatments)

Fillings (x8)

Gum Disease
Treatment

X-Rays

Root Canals

Oral Hygiene
Preventative
Education

Partial Maxillary
Denture

(* name changed)

3.3.5 QUALITY OF LIFE & FUTURE HOPES

A number of residents noted that their dental health and treatment had an **impact on their children and other family members**.

"Your loved ones are scared to death that, basically, you're going to die. Having this done, with me feeling better about myself, the people who love me and know me will notice that. It's not just beneficial for me, it's beneficial for everyone that cares about me." – **Palmerston Farm resident**

"Just them asking, 'Dad, what happened to your teeth' and that, it's like I've got to tell them." – **Palmerston Farm resident**

"It's just maybe the confidence thing with going around to other parents and schools and maybe kids talking about 'your dad has got no teeth.' So for future, with going to school and that and attending assemblies and talking with other parents, I want to be on top of it and I'm glad and grateful for it really that this opportunity is here." – Palmerston Farm resident

"Every time I ring up my kids, I'm smiling in the thing showing them off. They complain that I'm showing them off too much." — **Palmerston Farm resident**

Participants confirmed how improved dental health impacted on their future hopes and aspirations.

"To start something and see it through, and finish it, just reinforces that I am more capable than I probably give myself credit for. It's a nice feeling – that I'm getting stuff done that's for me. It's been good for my soul, good for my head." – **Palmerston Farm resident**

"I can't get a job like this, with my teeth like this. But when my teeth get done, I can smile. Then I can be confident in myself, and then I can help other people. It would make me happy. Because I could smile at customers." — **Palmerston Farm resident**

"I haven't had a relationship for 20 years so to think about meeting someone now, not having your own teeth, it is a big deal. To have that confidence to move forward. I haven't had hope for a long time." – **Palmerston Farm resident**

"I think it will be easier for employment, easier when I go for study, a lot of things, because I will have dentures. It's the long-term things like employment, social connection, all that sort of stuff." – **Palmerston Farm resident**

"Even if it's just a little bit of a difference, I'll be happy." — Palmerston Farm resident

"In a year from now, I'll be smiling everywhere. Chewing steaks and yeah, smiling at people." – **Palmerston Farm resident**

"To know that I'm healthy and have a good smile in the end and be able to go to job meetings and job interviews and that and also just to be able to talk with my family and my kids. That's a big, big thing for me." – **Palmerston Farm resident**

3.3.6 POSITIVE EXPERIENCES OF DENTAL TREATMENT

A common theme for many residents was enthusiasm about access to dental treatment.

"I've talked to people that have had work done here. They're super stoked, they seem to be excited when they come back as well. There definitely is a boost in confidence. It's all been really positive, which I believe will play into people's confidence and their self-esteem." — Palmerston Farm resident

"I think at the Farm everyone's been super excited to go and get their teeth done. I don't think I've ever heard of anyone excited to go to the dentist. Everyone's like 'yes, we get to go to the dentist'. People are so keen just because it really, really does affect them, really." – **Palmerston Farm resident**

The keen response to the oral health project contrasted significantly with many accounts of **previous negative experiences with dentists and/or dental treatment** and therefore, considerable anxiety for many residents prior to their treatment.

There was unanimously positive feedback about the **kind and respectful manner of the dentist** and the way the clinics were conducted, noted to be particularly important in supporting people to manage their anxiety and to feel supported to engage in dental treatment.

"I didn't have to explain myself much. It was so easy and so simple. I had imagined for 10 years in my head I was going to be having panic attacks, freaking out, crying. I was going to have to warn the dentist 'I'm really, really, really scared' because I was worried, they're going to be like 'we have to pull out your teeth'. It wasn't like that at all." — Palmerston Farm resident

"He explains every single material that he's going to use, what they use it for. He explained what needed to be done, and the way he spoke, I felt good and confident. When he was demonstrating the level of care, from the way he spoke, you knew that it was going to be okay." — **Palmerston Farm resident**



Image 4: Dr Slattery discussing dental treatment with a patient

CASE STUDY 3: I FEEL A MILLION BUCKS

Background

John* is an Aboriginal man in his 30s who has had a long history of AOD use, multiple traumas, and time in prison.

Before Dental Treatment

John described the condition of his dental and oral health as poor prior to dental treatment. He reported that his teeth were "broken", and his teeth were "rotten down to the gums". John hadn't seen a dentist in over 10 years, and never outside of prison.

"I've done a lot of jail and you see them dentists, they just rip them out. They don't bother trying to fix them. I said I wasn't ready to get them ripped out when I seen the dentist in prison. So I just sat there with black teeth for the last five years because I didn't want to walk around showing gums by having teeth missing. I don't have the money."

"Even I see that when I look in the mirror at my teeth. It always comes back. I look at myself and it's just like, what have you done, where has your life gone?" Due to his dental issues, John talked about avoiding certain foods and experiencing considerable pain due to dental issues.

"There's a lot of stuff I avoid eating because it just gets stuck in the gums, hurts the gums and the mouth ends up sore, getting infected ulcers. But I just push through the pain."

John said that he often felt embarrassed or self-conscious due to the appearance of his teeth and that he avoided smiling. This impacted on his confidence in new situations and in meeting new people.

After Dental Treatment

When asked about how dental treatment had benefitted him, John talked a lot about benefits for his self-esteem and confidence.

"I've been walking around smiling a lot more, not hiding my smile.

Now I'm smiling, I'm taking selfies. Because (my teeth) were so black I used to hide my smile. Now I smile confidently... I'm going to continue working on myself and continue seeing a dentist and stop hiding from it, you know what I mean, because you never know what they can do."

He also had a greater sense of hope after having dental treatment.



"It just gives me more hope now that things aren't as bad as what I make them out to be. I've always catastrophised a lot of my thinking all my life and this shows — I've been catastrophising about my teeth. My teeth have just made me think, eventually I'll get my smile back. It might take time but in the long run it's worth it. I've just got to be patient, like my recovery. I've been clean three years now."

"I feel a million bucks, you know what I mean... It's just making me feel a lot better in myself... I'm not dreading going out in the world and going for job interviews. It makes a big difference, if they see you're hiding your mouth or not showing confidence they're more than likely not going to give you the job... I walk in confident and actually talk to them. I'm not sitting here hiding."

(* name changed)

4 DISCUSSION

The overarching research question underpinning this evaluation has been to examine how access to oral health care and addressing dental needs can contribute to overall client recovery, including outcomes relating to AOD use and relapse prevention, confidence, self-worth and quality of life, residential treatment completion, and employment pathways.

A total of 55 people accessed dental treatment through the project, in the initial 12 months since its inception. The findings from this evaluation have demonstrated significant benefits for participants in this project, as well as a range of critical success factors which have supported this project to work so effectively.

Key overarching themes and critical success factors of the program are discussed below.

4.1 TRAUMA INFORMED APPROACH

Trauma has been a significant factor in the lives of the residents at Palmerston Farm. In interviews as part of the evaluation for this project, participants frequently referred to traumatic experiences – family and domestic violence, growing up with parents and other family members with significant AOD and/or mental health issues, homelessness, and housing instability.

"I never really had a stable place when I was younger, so I never really had the chance, the opportunity to brush my teeth." — **Palmerston Farm resident**

Studies have found a correlation between Adverse Childhood Experiences (ACEs) and poor oral health outcomes, including significant tooth decay and a higher incidence of gum disease and mouth infections. Research also highlights that "dental patients with a history of traumatic experiences are more likely to engage in negative health habits and to display fear of routine dental care". 14

Shame and stigma have also been significant factors for many participants in not accessing dental treatment. Trauma informed care can therefore have an important role in ensuring that an already traumatised group of people can feel safe, supported, and comfortable to access dental treatment.

Trauma informed practice is already central to the ethos of Palmerston and St Pat's and from the outset, the project was developed in accordance with trauma informed principles. The importance of this approach was reflected in comments from residents in the formative focus group before the program began. When asked what they wanted the dentist to be aware of with regard to their dental care, focus group participants discussed that important factors to consider included sensitivity, compassion, reassurance, being non-judgemental, and not making people feeling ashamed.

Residents who have participated in the oral health project have given unanimously positive feedback about the kind and respectful manner of the dentist and how this was particularly important in supporting their engagement in dental treatment.

4.2 NOT JUST ABOUT TEETH

Teeth are **not just about how people chew or smile**. Missing teeth or poor oral health can negatively impact on confidence, resilience, and self-worth, as well as future hopes, aspirations, and opportunities.

As has been highlighted throughout this report, there is a holistic and interconnected relationship between oral health and many other aspects of project participants' lives. Many participants have referred to physical, practical, and psychological benefits which are of much greater significance than simply 'having their teeth fixed'. Many have reflected on how their dental care and treatment complements their AOD recovery goals, their broader health and wellbeing, and their sense of having a fresh start.

As noted by one participant "It is not just about teeth. It's about mental health, confidence, self-esteem, and hope. It's a massive part of recovery."

4.3 PARTNERSHIPS

The **collaborative partnership** between Palmerston, St Pat's, and the project dentist has been critical to the effectiveness of this project.

All of the project partners have a comprehensive understanding of the histories and circumstances of the project participants and understand the importance of providing trauma-informed and non-judgemental care and support.

The project has also effectively capitalised on the strengths and expertise of the project partners. The use of the St Pat's Dental Clinic has allowed participants to receive full, professional dental care. The St Pat's Health Clinic Coordinator has also been invaluable in supporting coordination, administration, and data collection for the project. The skills and experience of the project dentist have been essential in ensuring that project participants have received excellent dental care and have felt supported throughout their treatment.

All of the project partners have had a key role in the collection of evaluation data and this has been critical to the success of the project evaluation.

As a result of these elements, the project has been a genuine and effective collaboration.

4.4 CO-DESIGN & CLIENT FEEDBACK

From the outset, Palmerston Farm **residents were involved** in discussions about a potential oral health project. Residents' input was sought on the types of dental needs and prior barriers to dental care, and on two occasions, a cohort of residents had the opportunity to meet the dentist. Residents also were asked for their input into the design and development of the project evaluation. This has been a part of the program's success and is consistent with the observations of good practice in this area.

"Following a process in which the end-users are central to the development of the intervention will ensure that it ultimately will address the oral health needs of clients who use AOD treatment services, and hence increasing the acceptability and effectiveness of the intervention." – **Poudel,** p363

4.5 GROUP CONTEXT

One of the unique features about this project is that residents travel every week as a group to attend the dental clinic and all wait together at the dental clinic while each participant has their dental treatment. The project participants can therefore all support each other before and after their dental treatment.

This type of peer support aligns with the Therapeutic Community Model of Treatment within which Palmerston Farm operates. ¹⁵ Throughout the evaluation it emerged that the group travelling together to and from the clinics, and the shared experience of being part of the oral health project, has been an additional factor for project success, and would likely have been less evident if the clinics were run onsite at Palmerston Farm itself.

"I think that group participation has been a really major factor in creating such a pleasant environment for people to come in. They help each other while they're waiting. I'd say they're probably a little bit less stressed, even those that say they're stressed to the hilt. That thing about being part of a cohort, I think it's helped the program to be so successful. I think that it's the group stuff, being able to experience it all together, it helps them. So I think that's been really vastly important" — **Dr Slattery**

The importance of the group element of the project has been highlighted in interviews with the dentist who has been providing treatment through the project.

"We had a particular week just recently where we had three or four come – they all come in together as a group. So you see the first one and it follows through. The last one walked out. He had come in with two completely black front teeth and two very broken lateral teeth. We cleaned them up. When he walked out, all the group out there cheered. It gives you goosebumps when you can see people change like that." – **Dr Slattery**

4.6 CONSIDERATION OF OTHER HEALTH ISSUES

There were a range of specific issues that needed to be considered in supporting participants through this project, including understanding of and sensitivity to health and medical issues.

Mental health issues have been a significant consideration in the development of the project and in the ongoing work of developing treatment plans and providing dental treatment. For some participants, mental health issues can increase their anxiety and fear about going to the dentist. For others, mental health and/or AOD treatment have impacted on their oral health.

"I've got a lot of shame and anxiety around any visit to the dentist. I went on antidepressants for probably 35 years and was on the methadone program about 20 years ago. There was never any real education, how damaging these antidepressants mainly can be to your teeth. More recently, I've just had five extractions. My dentist said we really believe that it's a result of antidepressants and dry mouth. That just really made me feel worse. Then there's talk of having to have either expensive implants or a plate in my mouth. Anything regarding that just builds more and more anxiety." — Palmerston Farm resident

In the formative focus group run by the evaluation team prior to the project commencement, the project dentist explained to Palmerston Farm residents that he would take a full medical history prior to any treatment, to ensure that he was aware of any potential issues and so that he could also explain ongoing oral health care that was specific to individuals' health needs and history.

"Antidepressants will dry out our saliva a lot. Saliva is so important to stop decay. So we can often find it that people need to go on antidepressants and their decay rate goes through the roof. So it's one of the things we've got to watch. One of the reasons why we do medical history forms, so we've got an idea of what we're going to be getting." — **Dr Slattery**

4.7 GENEROSITY

In an interview as part of the project evaluation, the dentist who is providing treatment through the project **noted the generosity** of Palmerston in providing such comprehensive dental treatment for residents.

"And Palmerston themselves have been quite generous. You know, we need to pay for a dental technician to make some false teeth. They have been quite generous in doing that too. Everyone that gets false teeth knows that we've got to get permission. So they are aware that there's no one being stingy about it. The fact they can see Palmerston being generous with it, I think it made a difference. I have a feeling that they are also thinking – this is Palmerston really looking after us." – **Dr Slattery**

The project dentist also highlighted the generosity of St Pat's as being critical to the success of the project.

"It was good being able to get St Pat's, which was already set up for this thing, and so the generosity of St Pat's in opening that out and in doing the appointments and all that sort of stuff is really important." – **Dr Slattery**

A number of residents had been to Palmerston Farm previously and had also engaged with other AOD treatment services and residential rehabilitation programs.

Residents identified that the availability of dental treatment for all residents at Palmerston Farm is a considerable point of difference between the Farm and other residential rehabilitation services and **expressed genuine appreciation** about the availability of the program and the range of treatment provided.

"I think it makes, it makes the program look really good, it makes Palmerston look really good, because it's a way of showing that they actually care, they care about their residents, so to be able to provide something like this to their residents is, it's massive, it goes a long way to people having faith and trust in the program." — Palmerston Farm resident

"I think it's probably one of the best add-ons to the program. It just makes the program a whole lot more appealing." — **Palmerston Farm resident**

4.8 LOWER BARRIER FOR EXPENSIVE TREATMENT

The project significantly lowers the barrier for expensive dental corrective treatment such as root canals and dentures.

As has already been noted, the range of dental treatment provided through this project extended beyond what participants could typically access in emergency public dental clinics or at volunteer dental clinics run by some dental practices for people on low incomes.

"I had all my teeth pulled out when they had to do surgery on my jaw. But then because I didn't have any money, I couldn't get the second part done. I was on the wait list at St Pat's for about a year and a half. When I went to Palmerston, within the space of two months I ended up with my dentures." — Palmerston Farm resident

4.9 ACCESSIBILITY OF DENTAL TREATMENT

Access to affordable, timely, and restorative dental treatment was discussed frequently throughout the evaluation of this project — both by project participants and by the project dentist. As has already been highlighted, participants in this project had often significantly delayed accessing dental treatment, in some instances for over 10 years. Participants in this project discussed cost and waiting lists as some of the significant barriers to being able to access dental care.

"If you want to go to a government dentist or a university dentist, the wait times are astronomical. Access to dentistry for people like this is really tough. It is one of those areas where it is such a life changer to so many people that it would enable them to overcome those chronic disadvantages they have. It would enable them to be able to live well in our society. I think that a lot of our people that we have who are having trouble with health problems, to be able to get affordable dentistry would be brilliant" — **Dr Slattery**

4.10 OTHER HEALTH CONSEQUENCES OF POOR ORAL HEALTH

In addition to significant financial implications, research has also highlighted that oral health issues are risk factors for a range of other general health conditions including diabetes, cardiovascular disease, chronic pain, and mental health issues ²

As participants in this evaluation have noted, delaying, or avoiding dental treatment has extensive consequences throughout people's lives, affecting their confidence and self-esteem, diet and nutrition, quality of life, relationships, employment opportunities, and overall health.

5 CONCLUDING RECOMMENDATIONS

Continuation of the project and its evaluation

From the midpoint of the year one evaluation, it was evident to the evaluation team that the oral health project is yielding enormous benefits and impact for the individuals receiving dental care and for Palmerston. It is thus heartening that funding has been recently approved by the Palmerston Board to continue the project for another year.

While there are many valuable insights within this evaluation report, there are none that fundamentally alter any aspects of the service delivery in the view of the evaluation team. This is noteworthy, as the evaluation team has evaluated other pilot projects in the not-for-profit sector where there were many areas for improvement or gaps in evidence of impact.

For the second year of the oral health project, the evaluation team will continue with a mixed-methods approach, combining quantitative and qualitative data collection and analysis. Other strategies will also be employed to determine some of the longer-term outcomes of the project, including where possible some follow-up interviews with residents who have completed dental treatment earlier in the project and have now left Palmerston Farm.

The final report of the current Senate instigated Inquiry into dental services in Australia will be critical, particularly around the social and economic impacts of dental care, and the recommendations it might make for improving access to dental care for those with greatest need and without private dental cover. The year two evaluation report will consider any implications of the final Inquiry report and its recommendations.

A number of resident interviews mentioned that having the opportunity to receive free dental care while at the Farm was motivating for their AOD recovery and sustained engagement, and it is hoped that additional insights around this can be gathered in year two of the project.

Implications for the wider AOD sector in WA and Australia

To the knowledge of this team, this is the only program of its kind in Australia to be integrated into AOD residential rehabilitation. There is also a paucity of examples of targeted dental healthcare access for non-residential AOD service clients. This seems an enormous unaddressed gap.

As noted in the Evidence Rationale section of this report, the published literature to date predominantly highlights the poor oral health of people who have experienced AOD use and the many barriers they face to accessing dental care, with far fewer evidence-based examples of how to rectify this. The oral health program instigated by Palmerston has considerable potential to serve as an exemplar and model that could be adapted elsewhere.

Many of the critical success factors identified in the previous chapter could be achieved in a program offered to non-residential AOD clients also, although there are undoubtedly some unique benefits and synergies afforded by its delivery in a Therapeutic Community context. Dr Slattery himself and the St Pat's Dental Clinic have unique and invaluable strengths that are not necessarily easy to replicate.

There is recognition in the literature of the greater role that AOD services and clinicians can play in encouraging and supporting access to oral health care assessment and advice, for the merits of collaboration between AOD and dental services. Strategies to promote the integration of oral health promotion and guidance into AOD services has also been advocated.⁵ The Palmerston Oral Health Project is an excellent example of these points in action, and this should be emphasised in the proposed paper to be submitted to a peer-reviewed journal.

Importantly, a key learning from the Palmerston Oral Health Project has been that 'it is not just about teeth'. The deeper quality of life repercussions for participants and recognising and validating these has been an important attribute of the project and its effectiveness to date. Also insightful for both AOD and dental services is the palpable impact of acknowledging and mitigating some of the reluctance, fear, and concerns about stigma associated with teeth and dental care.

There is also scope for AOD services generally to consider how oral health screening is incorporated into AOD treatment services, as a part of standard health assessments and to provide oral health information, advice, and referrals within AOD services. This could include discussing the impact of AOD use on oral health and potential options for treatment.

With growing recognition of the physical health issues that can co-occur with AOD use, many of the critical success factors of the oral health project and its collaborative partnership model could be adapted to other areas of unmet physical (or mental) health needs for clients of AOD services. This is particularly relevant for those in residential settings, where there is a longer window of opportunity for intervention and synergies for AOD recovery engagement.

Finally, the contribution that Palmerston and others in the AOD sector can make as advocates for greater access to dental care in Australia for those in society who face significant barriers in this regard. Whilst it is hoped that the findings and recommendations from the current Senate Inquiry into the Provision of and Access to Dental Services in Australia will initiate positive change, there are other potential avenues for advocacy also that AOD services and their peak bodies could give voice to.

As summed up by one resident at the Farm, the Palmerston Oral Health Project has been "Life changing towards my recovery."

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PRE-TREATMENT SURVEY QUESTIONS

Client name	
Date completed	

Palmerston Oral Health Project Evaluation

1.	Overall, how would you describe the state of your teeth and gums?							
	EXCELLENT	VERY GOOD	GOOD	OK	POOR			

2. Because of the state of your teeth or mouth, how often have you experienced any of the following problems during the past 12 months? (please tick a box)

	Very often	Fairly often	Sometimes	Hardly ever	Never
Pain or discomfort					
Difficulty in biting or chewing food					
Limiting type of foods you can eat					
Difficulty with speech/ pronouncing words					
Avoided smiling because of teeth					
Felt embarrassed or self-conscious due to appearance of teeth/mouth					
Felt tense because of problems with teeth or mouth					
Lack of confidence meeting new people/in new situations					
Sleep problems due to dental issues					
Difficulty doing usual activities					
Reduced participation in social activities					
Uncomfortable in close relationships due to teeth or breath					

3.	of the following areas of your life do you feel will benefit from the dental treatment you have ed? (Tick all that apply)
	Relationships
	Self-esteem/self-worth
	Employment opportunities
	AOD recovery
	Overall health
	Other (please specify)

POST-TREATMENT SURVEY QUESTIONS

Client name	
Date completed	

Palmerston Oral Health Project Evaluation

1.	When thinking about your experience having treatment during the program,	how would you
	rate:	

	Excellent	Very good	Good	ОК	Poor
How comfortable you felt during your dental appointments?					
How well the dentist listened to and understood your needs?					
How clearly the treatment and treatment options were explained to you?					
The opportunity the dentist gave you to express your concerns or fears?					
The respect shown to you by this dentist?					
The information given to you to help you keep your teeth/mouth healthy?					
How would you rate your overall satisfaction with the dental treatment?					

2. Since your dental treatment, how often have you experienced any of the following problems during the past 12 months? (Please tick a box)

	Very often	Fairly often	Sometimes	Hardly ever	Never
Pain or discomfort related to your mouth or teeth					
Difficulty in biting/chewing food					
Types of food you can eat					
Speech/pronouncing words					
Appearance of your mouth or teeth					
Confidence in meeting new people					
Smiling					
Sleep					
Participation in social activities					
Comfort in close relationships					
Feeling tense about problems with your mouth or teeth					

Э.	you have received? (Tick all that apply)
	□ Relationships
	□ Self-esteem/self-worth
	☐ Employment opportunities
	□ AOD recovery
	□ Overall health
	☐ Other (please specify)
4.	Do you have any suggestions for how your oral health and how it impacts on your life could be improved?
5.	Any other feedback about this pilot project you would like to share?

INTERVIEW QUESTIONS

Palmerston Oral Health Project Evaluation – Client Interviews

- 1. Have you experienced any barriers or challenges in the past in relation to your oral health or accessing dental treatment? If so, can you give us one or two examples?
- 2. As the oral health project is a pilot, and we are keen to get your feedback on it. Can you tell us a bit about:
 - a. The dental treatment itself. [what did you have done, was it well explained, were you able to raise any concerns with the dentist etc]
 - b. The difference it has made (if any) to your health or other areas of your life so far [prompt with examples, e.g. sleep, nutrition, confidence etc]
 - c. Any longer-term benefits, e.g. once you have completed your time at The Farm
- 3. As you are aware, The Farm at Palmerston is a residential therapeutic recovery program. What do you think would be potential benefits of Palmerston continuing to offer residents this type of access to oral health care?
- 4. Do you have any suggestions to improve or change the way that the oral health care project is delivered?

Thank you for your time

INTERVIEW QUESTIONS

Palmerston Oral Health Project - Staff Survey

This survey is part of an evaluation of the Oral Health Project, which is being offered by Palmerston in partnership with the dental clinic at St Pat's.

The overall aim of the evaluation is to investigate how access to oral health care and addressing dental needs contributes to overall client recovery, including outcomes relating to AOD use, quality of life, confidence and self-worth, residential treatment completion, and relapse prevention.

This survey is only seeking feedback from Palmerston staff, with feedback from clients and other project stakeholders being collected through separate processes.

Participation in this evaluation and in this survey is completely voluntary.

- Q1. Can you provide any feedback about client engagement and attitudes towards the oral health project when it was first offered (e.g. were people enthusiastic, curious, anxious)?
- Q2. From your perspective, how is this project supporting treatment and recovery for clients?
- Q3. Is there a particular example or case study that you can share about how a client has benefitted from this opportunity to access dental treatment?
- Q4. Can you provide any feedback about the logistics of the project (e.g. transport for people to clinic, wait times at the clinic, follow up appointments)?
- Q5. Do you have any suggestions or recommendations for changing or improving the project in the future?
- Q6. Is there anything else you would like to add?