WORD OF MOUTH:
Evaluation of the ‘Filling the Gap’ Indigenous Dental Program

Dec 09

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Alternatively, the report can be accessed online at www.sphcm.med.unsw.edu.au/SPHCMWeb.nsf/page/MMIHUResearch

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Muru Marri Indigenous Health Unit is an academic unit within the School of Public Health and Community Medicine, Faculty of Medicine, The University of New South Wales.

For further information about the ‘Filling the Gap’ Indigenous Dental Program go to www.fillingthegap.com.au
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‘Filling the Gap’ began in January 2006 when a group of individuals based in Sydney set out to recruit volunteer dentists in response to the chronic shortage of dental professionals available to Aboriginal and Torres Strait Islander people in northern Queensland.

A partnership was established with Wuchopperen Health Service based in Cairns, with the aim of reducing the more than 12-month wait for dental treatment, and to provide continuity of service until the needs of the community could be met through permanent dental staff.

This report describes the first formal evaluation of ‘Filling the Gap’ and focuses on the program from its beginnings in January 2006 until December 2007. The evaluation provided an important snapshot of the program and evidence critical to the shaping of ‘Filling the Gap’ in the years since.

‘Filling the Gap’ has grown from strength to strength since those early days. By December 2009, the program had recruited over 125 dentists and several dental hygienists from across Australia who together have provided more than 6,000 episodes of care.

The original 12-month wait to see a dentist at Wuchopperen has long gone, and for most of 2008 and 2009 there has been an almost full-time dental service provided at the Base Clinic in Cairns. Wuchopperen’s Mobile Dental Clinic has also been able to sustain and expand services to communities on the Atherton Tablelands and Innisfail.

An additional benefit of the program has been its capacity to provide volunteer dental professionals the opportunity to ‘give something back’ of their knowledge and skills to others, and to gain a powerful first-hand experience of the critical health issues facing Aboriginal and Torres Strait Islander peoples.

These and other benefits of the program are highlighted in the following report, Word of Mouth: Evaluation of the ‘Filling the Gap’ Indigenous Dental Program.

We wish to acknowledge the contribution of the Muru Marri Indigenous Health Unit of The University of New South Wales for its excellent work led by Professor Lisa Jackson Pulver in collaboration with Associate Professor Jan Ritchie, Ms Sally Fitzpatrick and Ms Marion Norrie. We are also grateful to Ms Fitzpatrick for her detailed Masters research that contributed to this report.

We are also extremely grateful to the Wuchopperen Health Service for their generous contribution to this research effort.

We commend this Evaluation Report to everyone interested in exploring solutions to the provision of quality oral health care to Australia’s First Peoples.

Uri Windt, President

On behalf of the Board of Directors of ‘Filling the Gap’

Mr Uri Windt, Ms Gael Kennedy, Dr Ivor Epstein, Dr David Rosenwax AM, Mr Simon Palmer, Ms Jennifer Symonds, Ms Marion Norrie, Professor Lisa Jackson Pulver, Ms Sally Fitzpatrick
Executive Summary

Word of Mouth: Evaluation of a volunteer Indigenous dental program, ‘Filling the Gap’

Introduction

Whilst community-based primary health care facilities are generally available across Australia, for many Aboriginal and Torres Strait Islander peoples equivalent access to dental and oral health care is not nearly so extensive. This is despite the fact that cost, lack of availability and infrequency of such care are recognised barriers to peoples’ good oral and dental health and contingent health outcomes. The separation of dental and oral health care from general health care is an artificial one in holistic terms, and numerous Aboriginal and Torres Strait Islander community health services have been tackling the broad range of barriers their clients face in accessing quality acute and preventative care. These efforts are thwarted by endemic difficulties in recruiting and retaining dentists to regional and remote areas across the country.

To address this workforce issue in the interim, a volunteer Indigenous dental program, ‘Filling the Gap’, was initiated to provide volunteer dentists in an Aboriginal and Torres Strait Islander Community Controlled Health Service, the Wuchopperen Health Service in Cairns, Far North Queensland. The program is a multi-way partnership between Wuchopperen and the community it serves, the ‘Filling the Gap’ Steering Committee and the growing number of volunteer dentists and oral health professionals who have provided care.

This report documents the first formal evaluation of the ‘Filling the Gap’ program.

Aim of the evaluation

The major question addressed by this evaluation was:

“What is the worth or value of the ‘Filling the Gap’ Indigenous Dental Program as it is provided in an Aboriginal and Torres Strait Islander Community Controlled Health Service environment?”

The question was addressed using the following criteria:

1. What is the context within which the volunteer dental program has been operating?

2. What are the perceptions of the various stakeholders – those having a vested interest in the ‘Filling the Gap’ program – regarding the practical arrangements and administration of the program?

3. What details can be accumulated to provide a description of dental volunteer involvement, client attendance and treatment provision?

4. What are the perceptions of stakeholders regarding the actual provision of oral health care through the program?

5. What are the perceptions of stakeholders regarding future directions the program might take?
Method

A mixed methods approach was employed, drawing on three different sources of data collected over 2006 and 2007, following ethics approval gained from both Wuchopperen and the University of New South Wales (UNSW).

Firstly, a literature review was undertaken in order to understand the background to the voluntary program and the policy environment in which it was operating, in particular to reveal the extent of oral health problems experienced by Aboriginal and Torres Strait Islander peoples nationally and also the issues around access to dental services in regional and remote areas.

Secondly, and specific to Wuchopperen’s Oral Health Care Unit, quantitative service and program data were collected to reveal numbers of patients seen, patterns of dental care and patient characteristics at Wuchopperen Base Clinic and one mobile outreach clinic on the Atherton Tablelands. Service data, in relation to patterns of care, was gathered from a random sample of patient charts and from clinic records. Program report data included regularly updated administrative reports of treatment types, as well as details of the time and length and frequency of stays of dental volunteers.

Thirdly, qualitative data to tap into perceptions of the program was collected, through face-to-face or telephone interviews with individuals or groups. The stakeholders’ views include several members of Wuchopperen’s Board of Directors and staff, the dental staff in particular, the dental volunteers, their patients, and the program’s Steering Committee.

The quantitative data and its analysis is reported below in Part A. Analysis of the contextual and process elements of the data is reported below in Part B, with the explicit value of the program explored in Part C.

Results

Part A: The Who and the What

Over the period from January 2006 to December 2007, 2,537 people were treated by Wuchopperen’s Oral Health Care Unit, including 396 new patients to the service.

In order to understand patient characteristics, the Evaluation Team examined 50 dental patient records selected using a random number generator from files held at Wuchopperen’s Base Clinic. Of these 50 records, 31 were identified as belonging to Aboriginal people, five (5) as belonging to Torres Strait Islander people, ten (10) were identified as belonging to people of both Aboriginal and Torres Strait Islander heritage, three (3) more belonged to people of unknown background and one (1) to a person who was identified as non-Indigenous.

Of the sample, 32 people were women, and 18 were men. Forty three (43) of the patients recorded Cairns as their place of residence and seven (7) were visitors to the locality.

The average age of the people whose records were examined was 37 years. Thirty (30) years was the average age at recorded first visit. The average number of visits over the life of the client at the service was counted at nine (9). There are 37 records showing that the patients have some outstanding work, and 13 whose work was concluded at their last visit.

Twenty eight (28) of the 50 records examined showed that the patient had visited the service in 2007.

Over the calendar year of 2006, 20 dental volunteers provided 24 volunteer weeks of practice at Wuchopperen. For that year there were, on average, five (5) dental volunteers per quarter, each providing an average of 1.2 weeks of service.
Over the calendar year of 2007, there were 70 weeks of dental care provided at Wuchopperen, with 55 of those weeks provided entirely by dental volunteers. On the basis that presence in any calendar month equals one visit, over the calendar year of 2007 there were 48 volunteer visitors providing dental care: 35 volunteer dentists on their first visit; five (5) returning dental volunteer visits; seven (7) visits by students – six (6) of whom were accompanied by one (1) clinical supervisor; one (1) visit by a dental hygienist. Also, one former volunteer provided services as a locum twice, for six and eight weeks respectively.

**Part B: Perceptions of the context and the processes**

Forty three (43) participants selected both purposefully and opportunistically across all stakeholder groups contributed to qualitative components of the evaluation, giving their perceptions of the context and processes of this volunteer dental program.

The Steering Committee is responsible for the day-to-day administration of the program, plus recruiting dental volunteers, publicity and promotion, and fundraising. It puts a deal of effort into planning and strategising for the future. The hard work and good contacts of a number of Steering Committee members has ensured necessary donations to sustain the program. They see the many-way partnership as very constructive to the success and ongoing organisation of the program.

Wuchopperen directors and managers expressed a high level of appreciation for the efforts made by the Steering Committee, and for the solution to the lack of dental services the program provides. High appreciation of the Steering Committee’s efforts and for the dental care provided was shown by many of the staff interviewed.

Of the 20 dental volunteer interviews that were completed, 18 interviews were with volunteers who had visited Wuchopperen and two (2) were with dentists yet to visit. Eleven (11) of those who had already visited Wuchopperen said they would like to return (61%), including three who had already visited Wuchopperen more than once, and one other who had returned as a locum. Upon being questioned about how they heard of ‘Filling the Gap’, the dental volunteers referred most commonly and often to ‘Filling the Gap’ volunteers or Steering Committee members and meetings, lectures and conferences. Closely following these were friends and workplace and newspaper and radio. Of the 20, only five (5) had undertaken previous voluntary dental service.

In general, all dental volunteers seemed accepting of the administrative arrangements, travel and accommodation, and were appreciative of the way they were assisted in programming their visit. Almost without exception, they were highly complementary of the effective management of the dental unit and the positive attitudes of the dental staff – often commenting positively on the capabilities of the Dental Manager; which together they felt were key to the success of the program.

Most of the patients interviewed stated just how appreciative they were to get appointments with and obtain treatment from a dentist, and were markedly appreciative of the volunteer aspect when it was discussed. There was no dissatisfaction expressed at the fact the dentists were volunteers.

Appreciation for the contribution made by Wuchopperen’s Dental Manager to the success of the program was clearly signalled to the Evaluation Team.
Part C: Perceptions of program value

What works well

Most of those interviewed felt four aspects of the volunteer dental program worked very well.

Meeting the needs: When asked whether the volunteer dental program was needed, there was virtually unanimous agreement from all stakeholders that something of this nature providing dental services to Wuchopperen’s community was a distinct and valued alternative and met a pressing need.

Workforce development: Program organizers valued the increase in dental services due to the voluntary program and an increase in the employment of dental unit staff.

Quality service: In discussing the extent to which they valued the provision of the service, interviewees expressed their opinions of all those providing care, including the health service – particularly the dental volunteers and Wuchopperen’s dental staff – and indicated they found it a quality service. An important discussion point was whether a series of volunteers coming and going would threaten continuity of care. Although virtually all indicated continuity of care was essential, the majority did not feel there were any more risks with a voluntary service than any other arrangement for patient care. It appeared that one of the reasons patients readily accepted the turnover of dental volunteers was the presence of the same dental staff on each visit. By far the majority of dental volunteers praised the unit’s staff very highly, indicating that their skills, dedication and efficiency was one of the primary reasons the program worked well for them. This respect and admiration was returned to the dental volunteers by, not only the dental unit staff, but also a range of other health service informants.

Building cross-cultural relationships: Most volunteers admitted having had no experience of Aboriginal and Torres Strait Islander culture until their involvement in the volunteer program, yet the sharing of the same goal to reduce the burden of poor oral health through a quality service appeared to allow good cross-cultural relationships to develop.

Ideas for strengthening the program

Informants identified some areas where the volunteer dental program could work better.

Increasing mobile van services: There was resounding support amongst stakeholders for sustaining the Mobile Dental Clinic and regret at the current barriers to providing the service regularly. There is the potential for more volunteer time to be dedicated to the mobile service – if there are two dental volunteers, it may be possible for one to go out for a whole week.

Strengthening oral health promotion: The potential for the volunteer dental program to raise the level of oral health awareness throughout the health service was suggested by informants who talked about the importance of increasing oral health promotion and disease prevention and also a more deliberate integration between the oral health messages given by the health workers and doctors, and the team in the dental clinic.

Working relationship of the partnership: One area that some informants felt could be more actively nurtured is the working relationship between the partners through activity focussed on this purpose, importantly between the wider Wuchopperen Health Service management team and members of the Steering Committee, particularly as new people join.

On a more practical level, increasing the accommodation options, within the defined budget, was important to a number of dental volunteers.

The future: Finally, informants gave their opinions on how the program overall might be strengthened, and the possibilities of expanding to other sites with high needs.
**Part D: Discussion**

Reflecting on the results described above, the Evaluation Team believes key contributing factors to the 'Filling the Gap' program and its achievements to date are:

- having an existing, well-resourced dental practice with highly skilled support staff, and
- a strong culture of community ownership, through the agency of community control.

The recruitment issues faced by Wuchopperen reflect the national shortage of oral health professionals in regional and remote Australia. This evaluation provides real world examples of the pressing need – evident in the literature – for publicly funded oral health services that are accessible to Aboriginal and Torres Strait Islander peoples. The perceptions of the dental volunteers and health service staff of the high levels of untreated decay amongst patients and of the relatively severe periodontal disease, and the high number of extractions showing in the service statistics tend to confirm this pressing need.

Before the commencement of 'Filling the Gap', Wuchopperen's service activity reports for 2005 showed no significant activity by dentists in that year. Since then, 'Filling the Gap' volunteers have provided a substantial number of dental treatments. However, the evaluation found frustration at the amount of dental work that still needed to be done, and great concern amongst those informants who discussed the relationship between high levels of untreated decay and chronic disease.

Locally, there is particular need for increased activity by the mobile service to provide care to people on the Atherton Tablelands, quite a number of whom have not seen a dentist for years, as well as to give integrity to the health care check process and related care plans. There is also potential to develop existing levels of awareness of oral health issues and oral health promotion amongst all personnel. The findings suggest a need for comprehensive prevention work at all levels of the health care continuum in order to overcome further high levels of tooth decay and tooth loss.

A number of factors present themselves in the data indicating ongoing need for the program:

- Although waiting lists are now shorter, there are still relatively high numbers of new dental patients appearing in Wuchopperen’s service data in 2007
- There is evidence that more women than men are presently accessing the service, suggesting that strategies might be considered to encourage men to seek care; and
- It also appears that patients are presenting late with dental problems.

Therefore, it is arguable that there remains a high need for dental care in the region that has yet to be identified, particularly routine care.

**In summary**

The outstanding aspect of the program that seemed to be apparent to all stakeholders was what the Evaluation Team has termed enriching engagement. It seemed that engagement in the program, whether from the provider or client perspective, enabled benefits to be gained beyond the provision of better dental and oral health care.

Closely related to the above was the opportunity and benefit arising from two-way learning, with many interviewees favourably describing their learning from other program participants.

Respondents indicated also that the feeling of cultural safety provided by Wuchopperen Health Service embraces the oral health unit within it. Thus, the dental volunteers are regarded within that comfortable setting rather than as outsiders with whom locals needed to relate. The quality of the Aboriginal and Torres Strait Islander dental unit staff in particular is core to preserving this cultural safety.

In providing a relatively regular supply of dental volunteers, the program has enabled the dental unit to support the training of additional Aboriginal and Torres Strait Islander dental assistants for whom there would otherwise not have been employment.
The ongoing improvement of systems initiated by the Dental Manager has resulted in treatment plans to be developed coherently. Thanks to efforts on all sides, there has also been streamlining of the paperwork associated with administering the program.

Promoting oral health, preventing dental disease, and inclusion of a dental hygienist’s care as routine would be valued additions to those services offered currently, rather than relying on opportunistic health education, as at present.

Finally, as its name implies, ‘Filling the Gap’ has been developed as an interim program, and success of the program in this interim is not the same as success in the provision of accessible oral health care over the longer term.

Much of the program’s present success - notably the growth in episodes of care as well as volunteer numbers - is a result of the capacity and culture of the partner organisations, and because that within Wuchopperen Health Service, there is a specific Oral Health Care Unit, with its own dedicated team, entirely focused on providing dental care. These elements would be key considerations should the program expand or be transferred in a similar form to new settings.

It is important for all authorities – dental and general health services, and their advocacy bodies, community representatives, and all levels of government – to recognise that a volunteer program of this nature, despite its value as depicted in this report, should not be allowed to become the norm in the delivery of essential health care. The best outcome would be a fully-resourced and permanent community-based oral health service for every regional and remote community in Australia.
Evaluator: What else do you think? Is there anything else this evaluation needs to hear?

Respondent: I think it probably needs to hear from us to say to the dentists how grateful we are for them coming up. The staff and management really, really appreciate them coming up as well. We do a lot to try and make the dentists very, very happy and comfortable in their stay up here, and if we’re not, we’d like the dentists to let us know what we can do to help make their stay a little bit happier … Just to know that. So, I think that’s all we really need to know.

The evaluators acknowledge the traditional owners of the countries upon which this evaluation took place, the Cairns and hinterland areas, Far North Queensland – the area served by Wuchopperen, as well as Kensington, NSW – the location of The University of New South Wales.

This evaluation of the ‘Filling the Gap’ Indigenous Dental Program is by a collaboration led by Professor Lisa Jackson Pulver (CI), with Associate Professor Jan Ritchie and Ms Sally Fitzpatrick from the Muru Marri Indigenous Health Unit, School of Public Health and Community Medicine, UNSW, and Marion Norrie from Wuchopperen Health Service and Conjoint Lecturer at UNSW.

This evaluation would not have happened without the hard work and commitment of the ‘Filling the Gap’ Steering Committee: Ms Gael Kennedy, Mr Uri Windt, Ms Marion Norrie, Dr Ivor Epstein, Dr David Rosenwax AM, Professor Lisa Jackson Pulver, Ms Sue Green (retired), Ms Jennifer Symonds, Mr Simon Palmer and Ms Sally Fitzpatrick, as well as the wider ‘Filling the Gap’ community.

The Evaluation Team extends their heartfelt acknowledgements to everyone at Wuchopperen Health Service in Cairns and their affiliates on the Atherton Tablelands who made such generous contributions of time and support to this evaluation. In particular, we would like to acknowledge the generosity and expertise of all the dental volunteers and other oral health professionals who have contributed their service to ‘Filling the Gap’ and made this program and its evaluation possible.

We also acknowledge the contribution of Ms Heléna Brusic, designer and layout artist for ‘Filling the Gap’, particularly for this report and related materials. We thank also all those who have contributed photographs to illustrate this work.
Authors’ note

All italicised quotes used in this report are directly from the transcribed interviews recorded by the Evaluation Team in 2007. Occasional slight edits have been made for readability and they do not change the meaning or intent of what has been said by the informant.

The term Aboriginal and Torres Strait Islander peoples is used throughout this document to describe the First Peoples of the Cairns area, other than when quoting from research or government reports which use the collective term Indigenous.

Details of definitions, acronyms and terms used can be found in Appendix 12.

Finally, this evaluation has not been done at arm’s length. Muru Marri has been part of the ‘Filling the Gap’ Steering Committee since the program’s inception, and was the initiator and conductor of this evaluation. The Evaluation Team also includes a member of the Wuchopperen Oral Health Care Unit, who also plays a key role on the ‘Filling the Gap’ Steering Committee. Muru Marri has committed $7,000 to the ‘Filling the Gap’ evaluation by way of direct costs. This sum does not include the time dedicated to the project by Muru Marri’s Director and one staff member, which amounts to approximately 350 hours over the January 2007 – June 2009 period.

Image 1: Peace Garden, Wuchopperen Health Service, Cairns Courtesy Wuchopperen Health Service

The shape is a sphere, spears, and seat which is message sticks, and boomerangs as the legs … The spears are the members, the sphere is the community and how we went out with the message to take to the people and the boomerang is bringing the message back …

Aunty Eslyn Wargent describing to the Evaluation Team the work of Wuchopperen’s founders who undertook the original needs assessment in the late 1970s.
The cost, the lack of availability and the infrequency of dental care are recognised barriers to the enjoyment of good oral and dental health by many Aboriginal and Torres Strait Islander people. Whilst Australians seeking public dental care are generally under-serviced, a large proportion of Aboriginal and Torres Strait Islander people are reliant on publicly-funded dental care. Meanwhile, Australia’s public dental system is often described as being at breaking point.

Community-based primary health care facilities are regularly available across Australia, however, similar access to dental practices is not as extensive and providers in rural and remote areas, including Aboriginal and Torres Strait Islander services, find it difficult to recruit and retain dentists.

Poor planning, lack of emphasis on dental as a health issue, and distance from major cities are all factors affecting populations throughout regional and remote Australia. Specific barriers include public dentistry’s current reliance on state grants, and services’ ability to match – and sustain – the dollars that agencies pay dentists.

One Community Controlled Health Service, the Wuchopperen Health Service in Cairns, Far North Queensland, has been finding it difficult to recruit a permanent dentist for nearly a decade, despite having a modern, fully resourced dental clinic. To address this workforce issue as an interim measure, an independent, volunteer Indigenous dental program, ‘Filling the Gap’, was initiated in 2006. The aim of ‘Filling the Gap’ is to provide dental volunteers to ‘fill’ or deliver comprehensive dental and oral health services to adult clients of Wuchopperen’s Base Clinic in Cairns and their Mobile Dental Clinic that services the Atherton Tablelands.

‘Filling the Gap’ is run through an informal many-way partnership that was formulated and agreed to in 2005 involving Wuchopperen, a volunteer Steering Committee – the majority of whom are based in Sydney, New South Wales, and a growing cohort of dental volunteers who provide one or two weeks of clinical care. The dental volunteers at this time are usually from New South Wales and Victoria, although the program is open to dental professionals from elsewhere and the program has had dental volunteers attend who were travelling from overseas.

Whilst ‘Wuchopperen’s Oral Health Care Unit’ provides care to children when a full-time dentist is available, for a number of reasons – including insurance issues – ‘Filling the Gap’ dental volunteers do not treat children. However, Wuchopperen does interact with local children’s services to provide oral health promotion and this has involved ‘Filling the Gap’ volunteers. At the same time, young adults and children are encouraged to attend the local public dental clinic whenever possible.

Alternative public dental services in the region serviced by Wuchopperen are provided by Queensland Health. Most of the smaller towns in the region have clinics, other than Ravenshoe. In Cairns, the public clinic is situated within the Base Hospital, where it has been without a permanent home for over three decades. Those services that are publicly available have long waiting lists. There is also a state-sponsored schools’ program, which provides regular services to school-age children. There are a number of private dental practices in the Cairns area and these also have waiting lists. Nevertheless, the costs of private care are beyond many people in the Aboriginal and Torres Strait Islander community. Access issues are described more fully in the Literature Review, which can be found in Appendix 2.

The literature shows that over a decade of reports and strategies have identified Aboriginal and Torres Strait Islander oral health – particularly in relation to its impact on chronic disease – as a key...
priority for governments. For the founders of ‘Filling the Gap’, it was no longer possible to wait for those responsible to provide the solution. This is what motivated them to start ‘Filling the Gap’.

Let me think about this ... I mean my first instinct is fillings, you know filling the gap that’s in your teeth, but also I think it ties in really well with filling the gap in terms of the ... mortality rates across Indigenous Australia [compared] with mainstream Australia ... and also filling the gap until we get a permanent dentist here and can retain [them]; this is filling that gap for us! (Wuchopperen director)

Wuchopperen Health Service

Wuchopperen Health Service (Wuchopperen) is an Aboriginal and Torres Strait Islander Community Controlled Health Service that since 1978 has been providing holistic primary and social health care in the Cairns area, Far North Queensland.

It is a company limited by guarantee employing around 110 staff, the majority of whom are Aboriginal and Torres Strait Islander. Like all Community Controlled Health Services, the financial members of Wuchopperen are entitled to vote at Annual General Meetings and elect a Board of Directors.

In 1997, Wuchopperen moved into the newly built complex in the suburb of Manoora, a short distance from Cairns CBD. Today, Wuchopperen’s services include specialist clinics and chronic disease management, oral health, and social health and wellbeing [1]. The majority of these services are housed in a modern integrated medical and oral health complex, with the social health team in a separate building adjacent. Being integrated increases the effectiveness of cross referrals, as one staff member affirmed: Yes and that’s what holistic is about, that big circle.

Wuchopperen’s vision is that:

“Aboriginal and Torres Strait Islander peoples enjoy a level of good health to contribute to and share in the economic wealth and cultural richness and prosperity of Far North Queensland” [2].

Their stated purpose is,

“to improve Aboriginal and Torres Strait Islander health outcomes through excellence in service delivery” [2].

Wuchopperen believes that,

“to address a person’s health factors such as spiritual attachment to land, economic status and social and emotional well-being all impact on a person’s well-being and the treatment of a person’s health cannot be done in isolation from these factors” [3].

This is in accord with the view that is widely accepted by Aboriginal and Torres Strait Islander peoples that health is,

“not just the physical well-being of the individual, but the social, emotional and cultural well-being of the whole community” [4].

On their website, Wuchopperen states that their working definition of Primary Health Care is consistent with the 1974 Declaration of Alma Ata,

“essential health care based on practical, scientifically sound, socially and culturally acceptable methods and technology made universally accessible to individuals and families in the community in which they live through their full participation at every stage of development in the spirit of self-reliance and self-determination” [3].

Wuchopperen was recognised in the prestigious Indigenous Governance Awards by Reconciliation Australia and BHP Billiton in 2006, the citation reading:

“National Winner for excellence in governance in the category of Organisations Established before January 1996” [3].
The Oral Health Care Unit

Established in 1983, Wuchopperen’s Oral Health Care Unit comprises a Base Clinic with two fully equipped dental surgeries – newly fitted in 1997 – as well as a recently upgraded, fully-equipped Mobile Dental Clinic [5].

Image 2: Dental volunteer Anna Lai, patient Marsha Davis, and Dental Assistant Jean Wilson in one of one of two fully-equipped surgeries (i.e. William Green Tantus Dental Unit systems) at the Base Clinic, Wuchopperen Oral Health Care Unit. Courtesy ‘Filling the Gap’

Base Clinic

The Base Clinic also has a fully-equipped laboratory staffed by a full-time dental technician. Between two and three dental health workers staff the practice, its operation overseen by a Dental Manager.

Wuchopperen currently has two dentist positions vacant [2]. This has been the case for the better part of a decade, a result of, “the acute nationwide shortage of dentists” [5]. Wuchopperen has persisted in its recruiting efforts, whilst in the meantime, services have been sustained by relying heavily on short-term locum dentists [5].

Mobile Dental Clinic

The Mobile Dental Clinic provides outreach services to communities within a radius of 200 km (shown here in Map 1), including:

• Mossman to the north;
• Midin, a primary health care service that Wuchopperen auspices, located in Atherton;
• Mulungu (Mareeba) also on the Atherton Tablelands; and
• Mumu (Innisfail and Ravenshoe), independent health services that Wuchopperen previously supported [2].

Map 1: Service footprint, Wuchopperen Oral Health Care Unit Courtesy Wuchopperen Health Service

Demographics

According to their 2006-2009 Strategic Plan,2 14,230 Aboriginal and Torres Strait Islander people live in the Cairns (13,467) and Atherton (763) regions serviced by Wuchopperen, with a further 1,522 from Cape York to the north also relying on essential services provided in Cairns [2].

In common with other Aboriginal and Torres Strait Islander populations in Australia, the Wuchopperen community is a youthful population. In the 2006 Census,3 4,679 out of the 9,920 identified Aboriginal and Torres Strait Islander people living in the Cairns Local Government Area were under the age of 18 (47%), compared to 24% in that age group who identify as non-Indigenous [6].

According to the Accessibility/Remoteness Index of Australia (ARIA+) that is used by the Australian Standard Geographical Classification system, Cairns and the city’s immediate surrounds, including parts of the Atherton Tablelands, are classified as ‘outer regional’, with those areas further out classified as ‘remote’ [7].

2 Based on Cairns Health Service District figures, as well as Atherton/Eacham ATSIC region and Cape York ATSIC Region data.
3 Based on usual place of residence.
4 To locate the ARIA+ values used to assess this, go to www.gisca.adelaide.edu.au/products_services/ariav2_about.html (accessed Sep 2008).
‘Filling the Gap’ Indigenous Dental Program

How it all started

Originally, two Sydney advocates sought out Wuchopperen, having heard of the skills shortages facing the health service – shortages typically affecting services throughout regional and remote Australia.

Committed to ethical citizen action, the advocates then contacted their networks and soon reasoned that dental care in particular could be effectively attended to by visiting volunteers, given sufficient support. Wuchopperen was impressive, they agreed, its internal competence and positive work ethic easily apparent: We didn’t think it would work if the dentists walked into a chaotic environment.

For Wuchopperen’s Oral Health Care Unit, there had been virtually no dental service activity reported at all during 2005. Several dentists had attended for short periods before that, with some employed full-time for a few months, and others working one day a week, etc. However, according to evaluation participants, the last time a dentist worked full-time for an extended period was close to a decade ago, when both a full-time dentist and a part-time dentist were employed.

At Wuchopperen, first impressions of the program were reportedly very favourable:

Oh yeah! That was such a relief; because we had been struggling for so long to attract dentists and then when we did attract dentists retaining them was a huge problem as well. So hearing that there was somebody out there who was willing to volunteer their time was a really big, big relief for us, well for me and, you know, and for the organisation as well (Wuchopperen director).

Too good to be true ... So in that very first impression, it just sounded wonderful, it sounded great that people were actually prepared to, you know, put their money where their mouth is I guess, to support the program (Wuchopperen management).
'Filling the Gap' began providing volunteer dental care in January 2006, kick-started by a generous donation from an anonymous benefactor.

You know and this is the generosity of it [that] has got to be understood. I mean this was an entirely unknown proposition and no dentist had actually been up there. They didn’t know much about it, so it was done entirely on trust (Steering Committee member).

Within the partnership, each stakeholder was and continues to be expected to make a significant, ongoing, contribution involving financial and other resources. As the evaluation proceeded, the following broad roles and responsibilities within the program were identified:

‘Filling the Gap’ Steering Committee

The Steering Committee includes a number of Sydney-based community advocates and dental volunteers and one member who plays a key coordinating role on-site at Wuchopperen. Listed alphabetically, members’ roles include:

- Community Advocates (three people) (administration, recruitment, networking, promotion, fundraising)
- Dental Manager (based in and employed by Wuchopperen) (see below)
- Dental Agency Manager (one) (recruitment, promotion, communications, dental volunteer support) (joined 2007)
- Dentist, practising (one) (recruitment, dental volunteer support, marketing) (joined second half 2006)
- Dentist, retired (one) (recruitment, networking, promotion, fundraising)
- Indigenous Advisors (two) (additional health-related academic and evaluation skills, networking) (one advisor retired late in 2007).

The Committee is responsible for the day-to-day administration of the program. It raises funds to cover the dental volunteers’ airfares to and from Cairns and other costs as they arise; as well as

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5 Ethical principles imbued the approach made to Qantas regarding air travel support. The Steering Committee proposing discounted rather than free tickets. The tickets needed to be fully flexible to accommodate busy dentists. Qantas agreed to provide ‘Filling the Gap’ fully flexible tickets at ‘Red e-Deal’ prices. Dentists can upgrade their seating using Frequent Flyer points.
recruiting the dental volunteers and other oral health professionals such as dental hygienists through advertising and marketing ‘Filling the Gap’, or responding to direct inquiries.

Two Indigenous Advisors based in The University of New South Wales (at Muru Marri Indigenous Health Unit and Nura Gili Indigenous Programs respectively) provide ongoing advice to the Steering Committee on issues of cultural safety. Muru Marri has contributed directly to the program’s formal evaluation as well, and has promoted the program through poster and conference presentations (see Appendix 11).

Over time, there has been growing emphasis on promoting and planning for the future of the program including business planning and evaluative research. ‘Filling the Gap’ was incorporated in the second half of 2008.

**Wuchopperen Health Service**
Since the decision to enter the partnership was made by Wuchopperen’s Board of Directors, numerous service personnel continue to be involved in running the program:

- Executive Officer (program champion and management support)
- Financial Manager (management of some donations; payment of invoices and reporting)
- Dental Manager (as well as regular duties, liaison with other Steering Committee members; support for dental volunteers before and during visits – including Queensland registration for dental volunteers, organising airfares and accommodation for volunteers and their families; recruiting and supporting patients; support and management of other dental practice staff; oversight of record keeping; evaluation research; conference attendance and other promotional activities; and regular reporting to Wuchopperen and Steering Committee on program progress)
- Dental Assistants (as well as regular duties, assisting in the orientation of volunteers within the Base and Mobile Dental Clinic settings; familiarising and communicating with patients; and assistance in the maintaining of records)
- Dental Technician (as well as regular prosthetic work; liaison with dental volunteers and other dental staff)
- Also valuable are the roles of health service management and staff in the outlying communities serviced by the Mobile Dental Clinic.

Wuchopperen covers the cost of accommodation for the dental volunteers, provides a car for them to use out of working hours along with a fuel card, and administers donations to the program when gift deductibility has been requested.6

The Dental Manager co-ordinates registration of out-of-state dental volunteers with the Queensland Dental Board.

Some Wuchopperen dental staff choose to put in additional time after hours supporting the dental volunteers, taking them out, organising fishing expeditions and ensuring that the visitors enjoy their stay in Cairns.

**Dental volunteers**
A growing cohort of volunteer dentists and other oral health professionals has contributed to the program.

- Dentists (clinical care including specialist care such as endodontics, oral health education, record keeping, sourcing and/or contributing additional resources, recruitment and program promotion)
- Dental Hygienists (clinical care, oral health education and promotion, record keeping, sourcing and/or contributing additional resources, recruitment and program promotion).

Dental volunteers are assisted during their own recruitment process by the Dental Manager and members of the Steering Committee. As well as numerous dentists and an endodontist, one hygienist has contributed directly to the program during the period under evaluation.

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6 Wuchopperen has deductible gift recipient status.
The dental volunteers give their time and expertise providing one to two week blocks of dental care, supported by staff from the dental practice. Some also bring their own equipment or secure materials and equipment from elsewhere. After talking it over with the Dental Manager after arriving in Cairns, they may also decide to go out and work in the Mobile Dental Clinic, accompanied by a dental unit staff member.

Each dental volunteer must be eligible to register in the state of Queensland to take part in the program, with the registration application process co-ordinated by the Dental Manager.

Each dental volunteer must also have professional indemnity insurance.

Dental volunteers also contribute to promoting 'Filling the Gap', not only through word of mouth, but through providing testimonials and articles to professional journals, other media and potential sponsors and making presentations about the program at national and regional oral health conferences.

Community and patients

A number of individuals and organisations have contributed considerably to the program to date:

- The management of the holiday units adjacent to Wuchopperen (husband and wife team) (The support involves pick up from and travel to Cairns airport for visiting dental volunteers; and other practical assistance such as organising tours)
- Professional organisations (Australian Dental Association NSW)
- Donors (cash to cover costs such as airfares; in-kind donations of dental materials, website design and promotion of program, program evaluation)
- The dental patients themselves.

Figure 1: Venn diagram showing the relationship between program partners.
The evolution of the method

Since the program’s beginning, there has been continuous improvement through onsite and post-visit feedback from dental volunteers and other stakeholders. This is in accord with both the ‘Filling the Gap’ Steering Committee’s own and Wuchopperen’s service goal of continuous quality improvement and risk management [2]. As the program developed, stakeholders wanted to know whether it has the acceptance of the local community, and whether the program can be improved. The Steering Committee particularly wanted to investigate the program’s sustainability and to assess effectiveness of their particular style of dental volunteer recruitment strategies. An overarching reason for the evaluation has been to understand the optimum means of delivering a health service such as this to Aboriginal and Torres Strait Islander peoples [8]. The investigators expect that results from this evaluation will inform advocacy for future service provision.

A pattern of regular consultation meetings between stakeholders and the Evaluation Team was established at the outset. A scoping visit to Cairns by two representatives of Muru Marri took place in February 2007. The purpose was to meet with key personnel at both the Base and outreach clinics; deepen understandings of the evaluation partnership; clarify the evaluation questions and dates the field work might take place; advance the ethics clearance for the proposal with Wuchopperen’s Board of Directors and their Ethics Committee; and continue to develop the ethics submission required by the UNSW.

There was general agreement that the evaluation should inform the usefulness of the program at Wuchopperen and provide knowledge that may assist the Steering Committee with recruitment strategies for dental volunteers, to provide a lobbying tool viz., Commonwealth support for regional dental programs, and to make recommendations regarding the possible uptake of a similar volunteer program elsewhere.

It was also resolved that dental chart data should be examined for patterns of treatment. It was noted that direct improvement in health would be unlikely to show in patient data within the evaluation window (24 months). However, such an examination in the future would be beneficial to assess early impacts of the program.

In April 2007, Wuchopperen’s Board of Directors formally engaged Muru Marri Indigenous Health Unit at the School of Public Health and Community Medicine, University of New South Wales, to undertake this evaluation, which was a collaboration between three evaluators – including one student – from Muru Marri and one evaluator from Wuchopperen. Over the course of this evaluation, there has also been significant input from individual members of the ‘Filling the Gap’ Steering Committee.

Literature review

In planning for this evaluation and to understand the background and context of the program, a survey was made of peer-reviewed and non-peer reviewed literature from 1997 to 2006. The review explored access to oral health care by Aboriginal and Torres Strait Islander peoples with a focus on Aboriginal and Torres Strait Islander Health Service providers. In 2008, brief surveys were also made of additional oral health literature up until November 2008 and recent Australian literature concerning volunteering involving Aboriginal and Torres Strait Islander peoples.

Themes that emerged from the literature included the social and cultural as well as physical access issues experienced by Aboriginal and Torres Strait Islander peoples in respect of oral health care and the role these factors play in their populations’ relatively poor oral health outcomes evident over the past decade; the nature of the delivery of
both acute and preventative oral health care to Indigenous peoples, including by Community Controlled Health Services; and related evidence of established oral health service and care values that reflect Aboriginal and Torres Strait Islander health values more broadly; and the broader political, regulatory and socio-economic pressures on public dentistry in Australia and related workforce issues.

The review found no peer-reviewed or evaluation literature within that timeframe concerning the delivery of dental care to Aboriginal and Torres Strait Islander communities by volunteers, although some references were found in regard to the motivation of both Indigenous and non-Indigenous volunteers generally, as well as best practice by non-government volunteer agencies.

This review is in condensed form in Appendix 2 and its method is further described below.

**Aim of this evaluation**

The aim of this evaluation was to test the usefulness or efficacy of the ‘Filling the Gap’ program as it operated from January 2006 to November 2007. This evaluation used a mixed methods approach to systematically review the program’s process of delivery and its acceptability to participants.

The evaluation set out to quantify changes in episodes and types of care provided by the dental volunteers during the period under study, and the recruitment and retention of dental volunteers. It has qualitatively explored stakeholders’ feelings, attitudes and perceived value of the program. Barriers and enablers to the program’s provision and sustainability, including implications for similar services, have also been identified.

This evaluation has aimed to be participatory, and has been characterised by a capacity development approach, involving the transfer of evaluation skills and ‘two-way learning’ between the Evaluation Team and Wuchopperen personnel.

The approach taken was for the evaluation to not be done at arm’s length, but instead for it to endeavour to obtain both insiders’ and outsiders’ perspectives. Such evaluations are enriched by real-time, iterative querying between the evaluators, informants and stakeholders [10].

This evaluation did not seek to quantify the financial or monetary worth of the volunteer services provided.

**Evaluation question**

The major question addressed by the evaluation was:

“What is the worth or value of the ‘Filling the Gap’ Indigenous Dental Program as it is provided in an Aboriginal and Torres Strait Islander Community Controlled Health Service environment?”

The question was addressed using the following criteria:

1. What is the context within which the volunteer dental program has been operating?
2. What are the perceptions of the various stakeholders – those having a vested interest in the ‘Filling the Gap’ program – regarding the practical arrangements and administration of the program?
3. What details can be accumulated to provide a description of dental volunteer involvement, client attendance and treatment provision?
4. What are the perceptions of stakeholders regarding the actual provision of oral health care through the program?

7 Some qualitative data was still being collected from volunteers during December, 2007.

8 Stakeholders included Wuchopperen’s Board of Directors and staff, the dental volunteers, the dental practice’s clients both in Cairns and in one outreach site, staff from the outreach site, and the program’s Steering Committee.

9 To be self-determining and sustainable, capacity development must be driven by a local agenda, must build on the existing capacities of the group, must allow ongoing learning and adaptation within the group, requires long term investments, and requires that activities be integrated at various levels to address complex problems. Importantly, capacity development within a partnership aimed at sustainable development involves developing the capacity of all stakeholders [9].
5. What are the perceptions of stakeholders regarding future directions the program might take?

Ethics application and approval process

Ethical approval was first obtained from the Wuchopperen Health Service Ethics Committee, with written confirmation from Wuchopperen’s Chairperson received on 10 April 2007; and ethical approval for the evaluation through the UNSW, Human Research Ethics Committee (HREC) was received by the Chief Investigator on 24 October 2007 (See Appendix 1).

In preparing the ethics applications, the Evaluation Team referred to the National Health and Medical Research Council’s Values and Ethics Guidelines and Road Map documents [8, 11], as well as the NACCHO website [12], to guide the proper establishment of a respectful and culturally appropriate evaluation partnership.

Evaluation design

A mixed methods approach enabled this evaluation to firstly test the program’s efficacy, partly through understanding patterns of service use at the Base and Mobile Dental Clinics – both before and during the ‘Filling the Gap’ program – and secondly to understand the patterns of volunteer recruitment and engagement throughout the evaluation period.

Data used in this evaluation

Data for this evaluation was obtained through:

1. A review of relevant literature made by the student member of the Evaluation Team
2. Investigation of service and program reports and patient records, and
3. Stakeholder interviews.

1. In early 2007 – by way of preparation for this evaluation – an electronic search was made of relevant databases for peer-reviewed literature concerning the barriers and enablers experienced by Aboriginal and Torres Strait Islander Health Services in meeting the dental and oral health needs of their patients. Searches were conducted using the key words ‘care and service’, ‘Aboriginal or Indigenous’, ‘dental or oral health’ and ‘Australia’. The search was year limited from 1997 to the present, although only literature up to 2006 was included in the original review.

Non-peer reviewed literature, including government reports, was also sought from Google, Google Scholar, Indigenous HealthInfoNet, the Australian Institute of Health & Welfare and the Australian Bureau of Statistics.

Additional searches, seeking material on Aboriginal and Torres Strait Islander Health Services and dental care, particularly Aboriginal Community Controlled Health Services, were also made. Wherever possible, journal articles cited were obtained in full and only literature in English was sought. Examinations were also made of articles and reports for further references. Relevant literature reviews were also summarised.

Finally, the original literature review was condensed for the purposes of inclusion in this report. A further search of the databases and online search engines revealed additional relevant literature up until 2008, particularly up-to-date statistical data. Literature was also sought relating to dental volunteer activity in Australia. The condensed review forms Appendix 2 of this report.

2. De-identified data from a random sample (n=50) of patient dental charts active over the previous five years [2002-2007] selected from records held at Wuchopperen’s Base Clinic in November, 2007, was used to quantify changes in episodes and types of care. Program data collected by the Steering Committee and made available to the Evaluation Team was used to quantify the recruitment and retention of volunteer dentists, including annual reports of time and length of stay of volunteers and the frequency of individual dental volunteer visits.

3. Data on stakeholder attitudes was sought through semi-structured interviews using stakeholder specific guides approved by the Wuchopperen Health Service ethics committee. These guides can be found in Appendix 3. Perusal of relevant program documentation,
including the experiences of the dental volunteers gleaned from existing testimonials held by the Steering Committee and some participant observation, supported the interview data.

Evaluation participants

Evaluation participants included members of Wuchopperen’s Board of Directors and staff, dental volunteers who agreed to participate, the dental practice staff, dental practice clients in Cairns and at one outreach site at the time of the site visit, staff from the outreach site, and a number of the program’s Steering Committee.

Analysis and reporting strategy

The quantitative service and program data were analysed using multivariate methods. The qualitative data was thematically analysed manually.

Analysis of the data from the 50-record sample allowed a picture to be painted of baseline information including patient characteristics, the top three dental conditions treated and the level of dental staffing at Wuchopperen within the period under evaluation. These findings are reported in Part A below.

Analysis of the interview data revealed interviewee’s opinions on Wuchopperen Health Service itself, the need for the voluntary dental program and its development and maintenance, various views on how the dental program has been regarded by the different stakeholders and what people would like to see evolve in the future. These findings are reported in Parts B and C below.

The quantitative and qualitative analysis was then synthesised by the Evaluation Team together with background data obtained from the Literature Review. The results of this synthesis can be found in Part D of this report.

Quantitative data collection

A sample of 50 active dental clinic patient records was selected using a random number generator. Each record was examined and the following de-identified information recorded:

- Indigenous status
- Age
- Gender
- Place of residence
- History of service use

Qualitative data collection

Qualitative data from multiple stakeholders was collected through both individual and group face-to-face interviews at Wuchopperen’s Base Clinic and at one outreach site one hour’s drive north-west of Cairns on the Atherton Tablelands over three days in November, 2007. The planned collection of patient focus group data was replaced by a group interview process due to circumstances beyond the control of the Evaluation Team. Further individual and group telephone and face-to-face interviews of dental volunteers and Steering Committee members occurred off-site in December 2007.

Both an opportunistic and purposeful selection of participants provided the interview data – including patients of the service (both Base and Mobile Dental Clinics), dental volunteers, health service personnel and a number of members of Wuchopperen’s Board of Directors, as well as ‘Filling the Gap’ Steering Committee members. The interview guides were adapted to suit two participants that fulfilled multiple roles within the program as well as the group interview environments, the latter taking the form of focussed conversations. With the informed consent of participants, all face-to-face and group interviews were recorded digitally and later transcribed. Participants were also invited to provide any written post-interview ‘after thoughts’ by email or telephone.
Recruitment and data collection strategy

Steering Committee participants

Interviews were planned for all nine members of the Steering Committee, either on an individual basis or as a group. Apprised of the evaluation process and with the data collection underway, the Steering Committee convenor emailed all committee members to arrange the interviews planned for Sydney.

Another member of the Steering Committee working at Wuchopperen was interviewed face-to-face in Cairns.

Wuchopperen and outreach service personnel

Staff members of the Base Clinic and one of the outreach services, as well as members of the Board of Directors were made aware of the evaluation during the Evaluation Team’s scoping visit early in 2007. This was followed up through personal oral invitations and forewarning of potential interview dates by the Dental Manager. A service-wide email was sent around the day before interview data collection to introduce the Evaluation Team, and to reaffirm that all members of the service were welcome to participate. The email also invited written contributions to the evaluation.

Shortly before the Evaluation Team’s site visit, information and invitations were also passed onto the manager of the outreach site where the Mobile Dental Clinic was in operation. This site was different to the one scoped earlier that year, because the original site was undergoing refurbishment.

Wuchopperen and outreach service patients

In the two months following final ethics approval, in preparation for the field work, the Dental Manager passed on information to Wuchopperen’s Base and Mobile Dental Clinic clients inviting them to participate in a patient focus group to help with the evaluation of the volunteer dental program. These invitations were made both in person and by email. Interested patients were provided with the evaluation’s participant information sheet and details such as the date of the focus group.

Detailed arrangements were made for interviews with patients during the weeklong field trip in November 2007. Patient participants were also recruited opportunistically – at both service sites – at this time.

Dental volunteer participants

All dental volunteers who had participated in ‘Filling the Gap’ by November 2007, and for whom there were current email addresses were sent an email invitation by the Dental Manager (Appendix 4), to participate in a short (approximately 20 to 30 minute) telephone interview. Dental volunteers in Sydney were also offered the option of a face-to-face interview.

Similar invitations to participate were also emailed to all dental volunteers who had filled in an expression of interest to participate in ‘Filling the Gap’ (EOI), but who had not yet visited Wuchopperen.

No attempt was made to follow up missing or bouncing email addresses.

Former and prospective volunteers interested in taking part in the evaluation responded by return email and interview times were confirmed by further email exchange. Participant information and consent forms and reminder details were emailed to the respondent a day or so prior the planned interview.

Dissemination strategy

This Full Report will be presented to Wuchopperen’s Board of Directors and – with the Board’s permission – be used by the ‘Filling the Gap’ Steering Committee to assist with the ongoing work of recruiting dental volunteers. A plain-English community report will also be developed and used as a community communication and promotion tool. Peer reviewed journal articles and posters authored by the Evaluation Team and Wuchopperen, and a number of PowerPoint presentations for use at meetings, conferences, and for teaching and volunteer recruitment purposes are also planned. Copies of this evaluation will go,
with the Board’s permission, to the Indigenous HealthInfoNet website, the Aboriginal Health & Medical Research Council, the Cooperative Research Centre for Aboriginal Health and other key Aboriginal and Torres Strait Islander health organisations and research clearing houses.

Image 5: Wuchopperen Oral Health Care Unit staff and volunteers, Cairns, May 2007
Courtesy ‘Filling the Gap’
The results section is documented in four parts.

The first, Part A, describes the dental service provided – the patients, their episodes of care and the dental volunteers providing the voluntary program.

The second, Part B, reveals what people think about the context and the organisational aspects of the program.

The third, Part C, looks at stakeholder perceptions of the program and whether or not they see it is useful or valuable to the community, the service and to the dental volunteers.

The fourth, Part D, discusses the reflections of the Evaluation Team concerning all the quantitative and qualitative findings together with relevant literature.
A multivariate analysis of de-identified service data and program report data revealed the following:

**Overall patient characteristics**

- From the commencement of the program until the end of 2006, there were 977 episodes of care, including 116 new patients;
- In 2007, there were 1,560 episodes of care, including 280 new patients;
- In total for the period under evaluation, 2,537 episodes of care took place, including 396 new patients that accounted for 16% of all services provided.

**The fifty randomly selected records**

**Indigenous status**

Of the patient records examined (n=50), there were 31 Aboriginal people, five (5) Torres Strait Islander people, ten (10) who were identified as both Aboriginal and Torres Strait Islander people, three (3) of unknown status and one (1) person was identified as non-Indigenous.

**Age**

The average age of the patients in the records examined was 37, with the average age of first visit recorded as 30 years of age.

**Gender**

Of the sample, 32 people were women, and 18 were men.

**Place of residence**

Most records have a local address – with a post code of Cairns recorded as the place of residence (n=43). Seven visitors were registered at the service.

**History of service use**

The earliest year of first visit recorded on the sample records was 1984, the latest 2007. The mode year, the year of first visit most frequent in the sample, was also 2007. The average number of visits over the whole life of the client at the service was counted at nine (9), and the mode number of visits as one (1) (range 01 to 56).

The average number of visits for those whose first visit was in 2006 or 2007 was three (3). Thirty seven people had a record of outstanding work, and most (n=41) had their last visit in either 2007 (n=28) or 2006 (n=13).

**Dental volunteer and procedural review 2006 and 2007**

**Dental volunteer visits**

Over the calendar year of 2006, 20 dental volunteers provided 24 volunteer weeks of practice at Wuchopperen. In summary, there were on average five (5) volunteers per quarter, each providing an average of 1.2 weeks of service. All volunteers during 2006 were registered dentists. There were no dentists repeating visits of any kind during this time and no students.
Graph 1: Number of weeks of care by fully qualified dental workers (volunteer and locum) 2006 and 2007 by quarter

Source: ‘Filling the Gap’ Steering Committee, 2008

1 Includes care provided by dental volunteers and locums but does not include students. Counted on the basis that presence in any calendar month equals one visit, over the calendar year of 2007 there were 48 volunteer visitors providing dental care: 35 volunteer dentists on their first visit; five (5) returning dental volunteer visits; seven (7) visits by students – six (6) of whom were accompanied by one (1) clinical supervisor; and one (1) by a hygienist. Also, one former volunteer provided services as a locum twice, for six and eight weeks respectively. Together they provided 70 weeks of dental care at Wuchopperen, with 55 of those weeks provided entirely by dental volunteers.

Graph 1 shows summary information for 2006 and 2007, with the number of weeks of service, per quarter, per year by dental workers. Graph 2 shows the breakdown of ‘Filling the Gap’ visitors for 2007 per quarter.

Graph 2: Number and type of ‘Filling the Gap’ visits per quarter, 2007

1 Presence in any calendar month counted per visit

Source: ‘Filling the Gap’ program data.

Procedures completed by dental volunteers

- From the commencement of the program until the end of 2006, 1,088 patients were treated with 2,433 procedures;
- Over the calendar year 2007, 1,485 patients were treated with 2,955 procedures;
- Over the two-year period under evaluation, for the 2,537 patients who visited the service, there were 5,388 procedures in total;
- According to service activity reports, the total number of treatments; i.e., patients seen by dental volunteers and locums, phone calls and contacts with and by Wuchopperen’s Oral Health Care Unit was 6,436.

Most frequent procedures

The most frequently occurring patient treatments provided over the two-year period under evaluation were restorative treatments and extractions, oral hygiene and prosthetics.

Table 1 shows the procedures administered by the dental volunteers, including the visiting dental students and their clinical supervisor for both 2006 and 2007. This table does not include any data regarding treatments by locums.

11 The tabulated form of dental weeks provided data for 2006 and 2007 is available in Appendix 7.
12 Dental students are not included.
The top three procedures for 2006 were recorded as composites/GIC (n=574), radiographs (n=427) and extractions (n=271).
This differed slightly in 2007, where the top three recorded were radiographs (n=683), composites/GIC (n=646) and extractions (n=417).

### Table 1: Frequency of treatments 2006, 2007 and combined

<table>
<thead>
<tr>
<th>Types of care</th>
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<th>2007</th>
<th>Total</th>
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</thead>
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<tr>
<td><strong>Diagnostic</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exams</td>
<td>242</td>
<td>333</td>
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<tr>
<td>Radiographs</td>
<td>427</td>
<td>683</td>
<td>1110</td>
</tr>
<tr>
<td><strong>Treatments</strong></td>
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<td>Amalgams</td>
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<td>241</td>
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<td>Composites/GIC</td>
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<td>646</td>
<td>1220</td>
</tr>
<tr>
<td>Endodontics</td>
<td>55</td>
<td>128</td>
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<td>66</td>
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<td>226</td>
</tr>
<tr>
<td>Extractions</td>
<td>271</td>
<td>417</td>
<td>688</td>
</tr>
<tr>
<td>Medications</td>
<td>11</td>
<td>52</td>
<td>63</td>
</tr>
<tr>
<td>Impressions</td>
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<td>200</td>
<td>265</td>
</tr>
<tr>
<td>Bites</td>
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<td>34</td>
<td>41</td>
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<td>4</td>
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<tr>
<td>Try-in</td>
<td>18</td>
<td>15</td>
<td>33</td>
</tr>
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<td>Reline</td>
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<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Repair</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Denture inserts</td>
<td>21</td>
<td>38</td>
<td>59</td>
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<tr>
<td>Denture adjusts</td>
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<td>32</td>
<td>54</td>
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<tr>
<td>Minor oral surgery</td>
<td>8</td>
<td>25</td>
<td>33</td>
</tr>
<tr>
<td><strong>Preventative</strong></td>
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<td></td>
</tr>
<tr>
<td>Oral hygiene instructions</td>
<td>99</td>
<td>159</td>
<td>258</td>
</tr>
<tr>
<td>Scale and polishes</td>
<td>129</td>
<td>239</td>
<td>358</td>
</tr>
<tr>
<td>Mouth guards</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
<td>83</td>
<td>98</td>
<td>181</td>
</tr>
</tbody>
</table>

Source: Service data, Wuchopperen Health Service, 2007

Graph 3: A bar diagram showing frequencies of types of dental care, Wuchopperen Oral Health Unit, 2006 and 2007
Source: Service data, Wuchopperen Health Service, 2007
Part B: Perceptions of the program’s context and the processes

Forty three participants contributed their perceptions to this component of the evaluation and their impressions are reported thematically below.

Participants were selected either purposefully or opportunistically and their opinions were recorded by face-to-face interview, group interview or phone interview. There was one post-interview ‘after thought’ contributed by email.

Who responded

The stakeholders who participated in this evaluation were:
- Service personnel – four (4) general staff members, three (3) from management and two (2) directors (as well as Wuchopperen Health Service personnel, this group includes staff from one outreach clinic on the Atherton Tablelands);
- Wuchopperen Oral Health Care Unit personnel – five (5) dental unit staff including the Dental Manager (who is also on the Steering Committee);
- The Steering Committee – five (5) members (one of whom is also a dental volunteer and one who is employed by Wuchopperen);
- The Patients – four (4) interviewed at Wuchopperen itself and two (2) interviewed at the outreach clinic; and
- The Dental Volunteers – 17 dentists who have been involved, plus two (2) who have expressed interest in future involvement and one (1) hygienist.

Additional salient material was also found in one of the volunteer dentists’ written testimonials provided to the Steering Committee upon their return.

The following are the results of the recruitment strategy in more detail:
- Upon receiving their invitations to participate from the Dental Manager, there was broad enthusiasm from patients, directors and staff of Wuchopperen and the outreach clinic to take part. Unexpectedly, plans for the patient focus group changed due to sorry business13 for a highly regarded member of the community. A group interview of Wuchopperen personnel, dental volunteers and dental patients took place instead; with morning tea offered. This meant that fewer patients were interviewed than originally planned. However, staff members who were also clients of the dental unit would also comment on their experience of the program. All participants consented to having a recording made of their interviews.
- Including the convenor, nine invitations to participate were issued to the Steering Committee. Five apologies were received and there was one non-response. Three Steering Committee members attended the group interview and, of the apologies, one was later interviewed by phone, giving a total of four Steering Committee members interviewed in Sydney, one of whom is also a dental volunteer. One other member of the Steering Committee working at Wuchopperen was interviewed during the November site visit. All consented to being recorded.
- Fifty one dental volunteers (including one student) who had participated in ‘Filling the Gap’ by November 2007 and for whom there were current email addresses were sent an invitation to participate by the Dental Manager. Thirteen volunteers responded positively including one hygienist. Although dental volunteers in Sydney were offered the option of a face-to-face interview, all dental volunteers agreed to being interviewed by the telephone; with all participants consenting to the having their interviews recorded and the interviews taking around 20-30 minutes.
- At the recommendation of a number of volunteers one further dentist was contacted directly with an invitation to participate, and the invitation was accepted. Three

13 A funeral held on the day of the planned focus group.
volunteer dentists in Cairns at the time of the November site visit were interviewed face-to-face. One member of the Steering Committee was also asked to comment on his work as a volunteer dentist.

- Invitations to participate in a phone interview were also emailed to 78 dental volunteers who had filled out an expression of interest to participate in the program (EOI), but had not yet visited Wuchopperen. Eight emails bounced including one automated reply message. Of the 70 who may have received the invitation, three replied positively. After following up the responses, two were able to complete a phone interview.

- In total, there were 21 responses from 129 invitations, with 20 actual or prospective dental volunteers finally interviewed. One ‘afterthought’ was sent by one dental volunteer by email, providing one remark in addition to their original interview.

**What do we know about the dental volunteers**

Of the 20 dental volunteer interviews that were completed, 18 interviews were with volunteers who had visited Wuchopperen and two (2) were with dentists yet to visit. Eleven (11) of those who had already visited Wuchopperen said they would like to return (61%) including three (3) who had already visited Wuchopperen more than once; plus one (1) other who had returned as a locum.

Table 2 summarises interviewees’ memories of how they heard about ‘Filling the Gap’. Reference was made most commonly to “other ‘Filling the Gap’ volunteers or Steering Committee members”, and “meetings, lectures and conferences”, closely followed by “friends and workplace” and “newspaper and radio” (see Appendix 5 for more detail).

The volunteers’ interview data was also reviewed for mention of previous experience of volunteering (Table 3). Of the 20 interviewees, five (5) had volunteered previously as a dentist and eight (8) had not, although two (2) had engaged in other volunteer activity and eight (8) did not mention any previous volunteering activity at all.

### Table 2: How volunteers & prospective volunteers heard about ‘Filling the Gap’

<table>
<thead>
<tr>
<th>Heard about ‘Filling the Gap’ through</th>
<th>Friends and workplace</th>
<th>Newspaper and radio</th>
<th>Professional journals</th>
<th>Other ‘FTG’ volunteer or Steering Committee member</th>
<th>Meetings, lectures, conferences</th>
<th>Not stated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volunteer Dentist</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Prospective Volunteer</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volunteer Hygienist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

### Table 3: Frequency & nature of previous experience of volunteering mentioned by dental volunteers

<table>
<thead>
<tr>
<th>Previous experience of volunteering</th>
<th>Providing dental health care</th>
<th>None previously as dentist [but had other volunteer experience]</th>
<th>Other volunteer experience</th>
<th>No previous volunteering mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volunteer Dentist</td>
<td>3</td>
<td>6 [2]</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Prospective Volunteer</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Volunteer Hygienist</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>7 [2]</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>
How is ‘Filling the Gap’ organised?

This section relates to the impressions of all stakeholders regarding the practical organisation of the program.

Program implementation

From the Steering Committee perspective, the partnership between them and Wuchopperen’s management was basically very constructive. One Committee member acknowledged, *I think there has been this great division of labour.* Another, though, was realistic about the amount of work this kind of scheme demanded from them to initiate and maintain the required amount of activity:

> You have got to be careful that it is manageable, I suppose. Doing a bit of work every week and keeping it chugging along, it is okay. But if it gets big, and we are talking about big visions ...

The Steering Committee informed the Evaluation Team that all work by the Steering Committee is voluntary, with one retiree amongst the group and everyone else balancing working lives with the demands of the Committee. It was anticipated by a number of members that growth, including expansion to other sites would bring with it extra complexity, paid staff, incorporation, committees, and being caught up in the bureaucracy of applying for and acquitting grants. This would impact on what the Committee felt was a strength already identified, that of being very flexible and informal.

Committee members also identified that workloads varied according to the level of volunteer activity. If busy, some non-core business would be dealt with in a rather haphazard way, although front line activity such as responding to expressions of interest from dental volunteers was taken very seriously and dealt with immediately.

> It’s just been a pleasure to work on the committee (Steering Committee member).

Extensive networking by the Steering Committee remains central to program promotion, and this also involves accessing professional journals and mainstream print and radio journalists. The Steering Committee is responsible for the day-to-day administration of the program, plus recruiting dental volunteers, publicity and promotion, and fundraising. Individual members champion tasks according to their skills and talents; committee membership has also expanded over the period of the program with new members bringing significant skills assets. The Committee puts a deal of effort into planning and strategising for the future. Hard work and good contacts of a number of Steering Committee members has ensured necessary donations to sustain the program, importantly donations to cover airfares to and from Cairns.

Wuchopperen directors and managers related that there is a high level of appreciation expressed by others for the efforts made by the Steering Committee and confirmed this themselves, and their relief at the solution to the lack of dental services that the volunteers now offer:

> [A]nything was better than us having the facilities down there that we couldn’t use to provide the service to the community; there was just no other alternative for us. And so we thought, well, let’s give it a go! (Wuchopperen management).

Of the program’s working relationship with the volunteers: *If it’s about making our service stronger and better ... I’m definitely very supportive of it!* (Wuchopperen director).

Once the scheme was established, enthusiasm grew; and again there was appreciation shown for the Steering Committee’s efforts and for the work of the dental volunteers by all staff interviewed.

Paperwork

Both Steering Committee members and dental volunteers acknowledged that administering the program involves a large amount of paperwork, especially fulfilling regulatory requirements. The administrative paperwork includes the volunteer’s application form; information about
the program and frequently asked questions, such as details about the Cairns climate; and an introductory email sent to those who express interest. Largely, this is handled by the Steering Committee. The bureaucratic paperwork includes, for those who are overseas-trained, evidence of a licence to practise dentistry in Australia; professional indemnity insurance; and local registration to practice in Queensland. The Dental Manager handles the latter, for which under the current regulations application and registration fees for periods of five weeks or less are waived. It is anticipated that dental registration will soon be offered on an Australia-wide basis rather than the current state-based system.

The dental volunteers were fairly accepting of the paperwork saying that it was not a problem, although some mentioned it was a bit of a hassle. The way the Dental Manager and representatives of the Steering Committee stepped them through the process they described as being “very helpful”, “smooth” and “seamless”:

[H]e sent out all the information and the registration form for Queensland and a myriad forms ... It wasn't that complicated really, it’s just time consuming ...

And at one point, I was thinking, 'Oh God! What am I doing this for?' Because it did take a long time to ... you know.14

An additional hurdle was noted by repeat volunteers:

Having to re-register up there is a bit of a pain ... I would have thought that records and that sort of stuff could be kept from year to year.

Volunteers also mentioned support from outsiders in the process of sorting out their registrations and other paperwork, e.g., university dental schools, justices of the peace and family members. I have never ever heard a negative word from anyone [about the program].

Travel, accommodation and general support

In general, all interviewees seemed accepting of the administrative arrangements, travel and accommodation and were appreciative of the way they were assisted in programming their visit. They also commented that there was a supportive team and that they felt that their needs would be – and were – met:

I asked [the Dental Manager], ’What should I know?’ I was told there was good equipment and good everything and I did not need to bring my dental nurse (Dental volunteer).

Another volunteer described how they had chatted with a Steering Committee member and how he set it up, really well ... explaining the type of patient that I would be seeing, so I was reasonably prepared. Another favourably described the very stimulating, and very supportive, interaction they had with one member of the Steering Committee; although they, have never met face to face!

Travel

Participants from Wuchopperen’s management stated that an important contribution they make to the partnership is handling the monetary donations ‘Filling the Gap’ receives. These are kept track of by Wuchopperen’s finance department. Donations are paid into Wuchopperen’s “Oral health ‘Filling the Gap’ account”, which is then used for airfares for the dental volunteers.

Each dentist takes care of their actual flight bookings in and out of Cairns with direction from the Dental Manager, who informs them of how to book flights with reduced rates using a special code.15 The cost is invoiced to Wuchopperen and paid out of the ‘Filling the Gap’ account. Dental volunteers reported they are generally happy with these arrangements, although one volunteer did not realise that he could have upgraded his flights using frequent flyer points.

14 A couple of volunteers were caught out by the fact that there was a change in the requirements for the Queensland registration and who, with the support of the Dental Manager, had to complete the registration process twice.

15 Early in the program’s roll-out, Qantas agreed to provide ‘Filling the Gap’ fully flexible tickets at ‘Red e-Deal’ prices. Dentists can upgrade their seating using Frequent Flyer points.
Use of vehicle
Dental volunteers appreciated the fact that there was a Wuchopperen Health Service vehicle and fuel card provided for the duration of their stay. This is very valuable since the availability of the car enhanced their visit, enabling it to be a working trip and a holiday experience, particularly for those visiting with a family.

... it was quite simple to just jump in the car and go and have a round [of golf] or pop into Cairns itself ... (Dental volunteer).

Accommodation
Wuchopperen Health Service funds the dental volunteers’ accommodation. The resort accommodation, where the dental volunteers usually stayed at the time of this evaluation, is virtually next door to Wuchopperen. The resort host’s role in greeting the dental volunteers arriving at the airport has become a defining feature of the program with the dental volunteers indicating this was very welcoming. People were also very taken with how it was only a short walk to the Base Clinic.

Issues with the accommodation, which were mostly around the quality of the family style apartments at the resort, were balanced against its proximity and convenience to the Wuchopperen Health Service, and the helpfulness of the resort host ... ideally situated ... extremely convenient. Others noticed that the accommodation needed maintenance.

Personally, when I go up there next year I would rather 'Filling the Gap' just gave me the money that they would have spent on [the accommodation] and I'll go and look for my own ... (Dental volunteer).

Before their visit, volunteers are provided information about the accommodation options available to them. Taking advantage of the offer of a vehicle, several volunteers made the choice to stay closer to the beach or the centre of town, especially those travelling with their family.

Dental volunteers working in the mobile van have a number of options. When the van is in Atherton, it is possible make the trip each day from Cairns; but if the van is based say in Ravenshoe, this is not feasible as it is two hours each way, so accommodation is provided locally.

Another suggestion made by one of the dental volunteers was that they would be helped enormously if, on their first evening in the accommodation, there was provision for a small welcome basket of food:

... or something [to tide you over] basic things. At least, until he [sic] knows where the shopping area [is], or a food basket ...

Something like that ... because when I came in ... there was nothing at all ... it was heavy raining here, and I asked where are the shops and things and have to walk ... to get the things ... the initial things (Dental volunteer).

Practice management
Almost without exception, participants were highly complementary of the effective management of the dental practice and the positive attitudes of the dental practice staff, both considered key to the success of the program. The facility itself was also complemented: it’s a very impressive facility (Dental volunteer).

Volunteers who worked in the mobile van were also satisfied:

I did a week in the van and ... that worked quite well too, I was quite surprised you know three people stuck in a tiny little caravan, I thought it was going to get a bit cramped and uncomfortable, but once again all the materials and things were fine there and well organised ... (Dental volunteer).

The Base Clinic, according to the dental staff, is set up like any other private practice to handle basic restoration and prevention work and, with a dental technician on hand full-time, prosthetics.

Those dental volunteers with specialist skills told how they had brought some of their own kit. One dental assistant reflected that specialist volunteers’ equipment was, just like an education for us. Most volunteers were more than willing
to go with what materials and instruments were available, as described on the clinic’s information sheet: We were easy to get along with. By far the majority found the set up very satisfactory and, for those few who felt they did need something extra, the problem was easily overcome.

Some dental volunteers used to different types of matrix bonds and lining sets have decided to bring their own and, when it was time to go, have offered to leave behind any unused materials for the next practitioner.

One volunteer was very happy that the chairs could be set up for right or left hand use. The hygienist who visited was grateful to find a good ultrasonic scaler but mentioned that if more hygienists came they might need some more hand instruments. Some again offered to extend their voluntary contribution by asking supply houses to donate relevant materials, such as endodontic materials; and in one case, a volunteer dentist had an x-ray developing machine donated by a dental company.

A prescription pad is provided by the clinic and the volunteers have to supply their own provider and prescriber numbers and fill them out as they go.

**Programming appointments**

When possible, the Dental Manager arranges for volunteer visits to occur over consecutive weeks. On arrival at the Base Clinic, the volunteers generally find a full book of appointments has been arranged, including new as well as follow-up work. Many volunteers stay at the Base, with only a few volunteering to go out for a period – of about one week – in the Mobile Clinic; a decision usually made after they arrive.

At the time of the Evaluation Team’s site visit, it was found that the mobile van service might only reach some communities around once a year. One of the implications of not being able to plan mobile visits ahead of time was a short lead time in setting up appointments. Patients do, however, get wind of a visit by the Mobile Clinic: This community full stop works on word of mouth really (Wuchopperen staff member).

You’ll get a whole heap of families come in at the one time, like they’ll spread the word that there’s a volunteer dentist in town (Dental unit staff member).

We’ve rung families … that might want a dental appointment and … it must just be getting passed along the grapevine that there’s a dentist in town, because people are coming in and asking if there’s a dental van as well (Outreach service staff member).

Usually, Base Clinic staff will set up appointments for the Mobile Clinic, although local staff will also ring around. A comment from one such local suggests just how complicated the process is of setting up times and appointments for people to see the mobile service:

We try to rely on word of mouth and we try to, like, ring certain family members and say, ‘You tell everyone about that,’ and that sort of thing and, you know, we do a lot of just whoever rings up for appointments and that sort of thing. ‘We’ll say, ‘Oh! Did you know the dentist is coming?’ And then we’ll all look at everyone who’s, you know … it’s been so long. We used to keep a list of people who have said, ‘Oh! I’ve got a dental problem …’. But it’s been so long we’ll probably scrap the list … We used to think of going back to the health care check, but by the time we’ve rung up all the chronic disease clients to let them know, and just targeted families, we thought we’d pretty much covered everyone … We’ve reached out to as many people and by then the books were full … But ideally … everyone who’s had their health check, should get an opportunity to go through the dentist, but then we thought, ‘Oh! It’s been so long, it’s unfair to, you know, book it up with people who may not need it. We should ring around and get people who need it to come in’ (Outreach service staff member).

Most of the patients that we spoke to stated just how appreciative they were to get appointments with, and make it to see, the dentist. A persistent obstacle is that clients’ contact phone numbers change and the tendency is to not let dental staff know their new numbers. Staff are encouraged to enter up-to-date numbers in the appointment book when they can.
While clients at the Atherton Tablelands site expressed delight in having the service in their town, the short notice of the van’s availability has meant that some clients have been disappointed that they could not make an appointment, and that the person organising appointments has been unable to say when the Mobile Dental Clinic would be back.

This uncertainty has also affected service personnel in the field:

... like people ask [for] that van everywhere, you know; but the full-time dentist is a big issue and you know, we can’t really even guarantee when we’re going to get up there or do any outreach services (Wuchopperen staff member).

I’ve got a friend that works up in [name of community] and she supports Wuchopperen when they come up. But they never know on that end when they’re going to come up. They just arrive one day with the van, because they can’t give them any solid times because they don’t have the full-time dentist. And that again stops their stats and their numbers and that, because the community doesn’t know about them and won’t access the service (Wuchopperen staff member).

Missed appointments were discussed by a number of dental volunteers, some finding it more frustrating than others did. Most mentioned that the Dental Manager did what she could to fill those spaces. Patients themselves went to some lengths to take up the opportunity:

When someone misses their appointment they call the next patient in who is maybe an emergency ... I could have lost the whole tooth and I didn’t want to do that, so I just kept coming back ... I’ve got a little one at home and just thinking of the timing. So I think it might be an hour, ’cos, I’ve just got a babysitter (Wuchopperen dental patient).

However short notice does not work for everyone:

It was last minute telling our patients what time their appointments were ... some travelled from Herberton and things like that and some don’t even have transport; and to get up and on their feet that quick ... even just fifteen minutes away is kind of hard for them (Outreach staff member).

Very occasionally, health service staff also fill an unexpected opening in the schedule: So that’s when they ring around and say has anyone got a toothache or come down if you need your teeth cleaned (Wuchopperen staff member).

Sometimes, patients failing to show cannot be avoided:

But sometimes you know ... but it’s okay because the dental volunteers work really, really hard and they can have a break, I tell them to go and have a coffee and they say, “I’m here to work not to sit and drink coffee,” and I say look you know, “It’s okay”. We’ve got to take in and respect that with the culture of the Aboriginal people, the funerals that they have, you know, and most people go to the funerals, especially in small towns like this, everyone knows each other ... like we had yesterday (Dental unit staff member).

Each dentist has their own way of doing things and that can alter scheduling, for example with one dentist instead of the two visits scheduled for the procedures he was undertaking, he was able to complete complicated procedures in one appointment and saw 30 patients in two days. As one staff member commented:

He keeps on wandering around there going (gesture) really sternly, as if I’m in trouble for no patients turning up (Dental unit staff member).

Record keeping

According to the Dental Manager, the Oral Health Care Unit holds approximately 4,300 active records, although altogether with small charts and mobile records there are about 10,000. All dental records are stored centrally in the Base Clinic. To maintain continuity of care, a ‘miniature’ mobile record for each outreach patient is carried to and from the Base Clinic. This mobile record is stored at the Base Clinic, where the primary record is also regularly
updated after a Mobile Dental Clinic visit. If someone from an outlying community attends the Base Clinic in Cairns, the data is entered into their mobile record as well.

While there is no direct linkage between client’s medical and dental records, their proximity makes accessing patient’s medical history possible, and questions such as what medication the clients are using can be quickly answered.

In Wuchopperen here, they have the medical service actually just so close ... so it gives sort of confidence to the clinician to the dentist ... if it’s a medical emergency or something like that ... and Wuchopperen have excellent communication with outside [service providers] as well ... the specialists and stuff like that (Dental volunteer).

Occasionally the volunteer dentist will refer the patient onto the medical clinic. According to the Dental Manager, often the dentist referring patients to the doctor will, with assistance from dental practice staff, take the patient to the medical reception to ensure that they make an appointment. Reportedly, patients are generally very keen to follow up the care recommended.

**Promoting the program**

After their visit to Wuchopperen, each dental volunteer is contacted by the Steering Committee. Occasionally dental volunteers may also write to the Committee with testimonials, which have proved valuable in promoting the program. Some testimonials have been forwarded to the Australian Dental Association and to Reconciliation Australia for program promotion purposes. Some volunteers reported that they have told others about their positive experiences thus acting as referees for the program. This is seen as very positive amongst Wuchopperen personnel and dental volunteers interviewed:

I think the word of mouth from the dentists that have been here is very important because I knew two that were very supportive of the scheme ... I have actually worked with one of them ... and the other guy I worked with, he had a photograph taken of himself [and] he put it on an email and sent it round saying, “This is what I’ve just done!” And of course I saw this and I thought, “Gee, this looks good!” (Dental volunteer).

All the dental volunteers who visit have their photograph taken and have approved the use of the photo for promotional purposes. Steering Committee members commented that the program’s promotional literature – glossy brochures with testimonials that seek expressions of interest, a six month report card, a sheet of frequently asked questions and descriptive material for publication on the website – was of high importance in getting the word out.

Networks available to the Steering Committee were seen as critical to the success of 'Filling the Gap'. This was particularly appreciated by a member of Wuchopperen’s management:

I think ... if they didn’t have the ability to attract the volunteers then no matter what we could offer here you know, I don’t think it would work (Wuchopperen management).

Midway through the period under evaluation, the Steering Committee was approached by a leading dental practice management consultancy, which, in their words were, looking to get more involved in a dental charity or a dental volunteer group ... to become more community conscious and get that into our business. The consultancy representative now plays an active role on the Steering Committee and contributes to program promotion via in-house and external publications. The consultancy also undertook to provide design, hosting and maintenance for the website www.fillthegap.com.au. At the time of writing, the website ranks very highly on both Google and Yahoo for the phrase “filling the gap”. Further online searches using the terms “volunteer dental program Aboriginal” ranks documents about the program highly as well. A description of 'Filling the Gap' can also be found on Wuchopperen Oral Health Care Unit’s webpage.

A number of members in the Steering Committee also commented that they felt 'Filling the Gap' has a growing reputation for
professionalism and that this may be attracting dental volunteers who may otherwise choose to volunteer overseas. The offer of a $5,000 humanitarian grant towards ‘Filling the Gap’ by the NSW branch of the Australian Dental Association (ADA), the first time such a grant has been made to an Australian program, and ADA’s accompanying offer to help with publicity, could be attributed to this growing reputation for professionalism.

Program messaging

Program messaging and maintaining a sustainable level of professional interest in the program was discussed, particularly by the Steering Committee:

It is quite easy to get publicity when it is a new program because it is news and afterwards, when it is not news anymore it becomes a bit more of a challenge to get the articles in the magazines and get it out (Steering Committee member).

From the outset, both Wuchopperen Health Service and the Steering Committee have stressed in their promotion of the program that the issue is not funding, but the inability to recruit a full-time dentist.

As one member of the Steering Committee put it:

In fact, even an hour outside of Sydney [recruitment] is a problem - and it is not the [lack of] money as they are being offered private practice rates, if not more sometimes, plus incentives such as rent, and it is not the [lack of] a well-equipped practice either.

As one Wuchopperen director said: So, there is this big gap in dental ... nationally; it’s just a disgrace.

Numerous dentists were similarly unimpressed:

I think it is really a sad reflection on public health ... that you have got such a fabulous facility as Wuchopperen that just could not attract a dentist and actually that’s a problem for us everywhere, there is a man power shortage. And that’s just very poor planning on the part of Federal governments over the last 15 or 20 years (Dental volunteer).

According to a number of Wuchopperen informants, questions from the dental volunteers about the lack of a full-time dentist are often dealt with by them during the course of the dentist’s stay; and, according to the staff, the dental volunteers readily grasp the issue when it is explained to them.

However, the immediate rationale for the program was not clear to all volunteers. As one dentist wrote to the Steering Committee, he had volunteered on the basis that there was no finance available to pay people to provide services. The volunteer was dismayed that the service’s patients were not more remotely located and expressed concern that providing a free service was sending the wrong message to government. He was also concerned about treating staff.

On the issue of staff receiving treatment, reportedly this has happened very rarely when there have been spaces in the appointment book that have come up and have not been able to be filled. The role of staff receiving the same level of dental care as other members of the community is vital part of the holistic values of the service, and this was noted by other informants during the evaluation.

The role of the Dental Manager

Appreciation for the contribution of the Dental Manager was clearly signalled to the Evaluation Team:

I was very impressed with the way [the Dental Manager] ran the whole centre – and the equipment far exceeded my expectation (Dental volunteer).

But the other thing that has made it work though of course is [the Dental Manager] (Steering Committee member).

Well, it’s lucky that they have people like [the Dental Manager] who are not conservative minded, are very open minded and willing to learn new things all the time and listen to new ideas because they are getting a range of highly regarded dentists [and] a lot of good ideas from them. So, I think the Wuchopperen dental clinic’s going to evolve into a top
Numerous dental volunteers and Steering Committee members spoke of the hard work the Dental Manager put into supporting the dental volunteers during both their working hours and during their leisure time.

And she invests as much socially as she does professionally. So you know every dentist gets taken out. If they stay one week, she'll take them out to lunch somewhere. If they stay two weeks, she'll take them to an Indigenous theatre ... 16 So, that's a big effort on her part (Steering Committee member).

16 'Tjapukai by Night', for more information go to Tjapukai Aboriginal Cultural Park at www.tjapukai.com.au/night.html
Part C: Perceptions of program value

The interview data revealed the perceptions of members of the different stakeholder groups regarding the extent to which the volunteer program was valued. A thematic analysis of these perceptions illustrated by direct quotes reveals those aspects interviewees valued highly and those less valued.

What is working well

Most of those interviewed particularly valued four aspects of the ‘Filling the Gap’ volunteer dental program. These were the program’s ability to meet the pressing need; to provide opportunities for dental workforce development; to provide quality care; and to strengthen cross-cultural understanding.

Meeting a pressing need

When asked whether the volunteer dental program was needed, there was virtually unanimous agreement from all stakeholders that something of this nature providing dental services to Wuchopperen Oral Health’s client base was a distinct and valued alternative. The only other public dental facilities such as Cairns Base Hospital reportedly have massive waiting lists.

Look, 99% of our population need more oral health services ... it means a lot because it’s the health of the people. Without the service or without the dentist coming, there’d be a huge gap in service and an increase in chronic diseases, no doubt about it (Outreach clinic management).

In the last year or two where we started doing the Adult Health Assessments and the Child Health Checks, dental has been, you know, the consistent [high need] factor that we’ve picked out (Outreach clinic staff member).

The difficulties recruiting a full-time dentist have meant that while Wuchopperen works to a model of Primary Health Care that might be described as holistic, it has not been able to consistently provide oral health care - what we’ve said about early intervention and prevention, when we’ve given that message (Outreach service staff member).

Several dental volunteers named the strong link between poor oral health and serious chronic diseases: Well ... they’ve linked periodontal disease, which is your gum disease, to cardiac problems, heart problems ... that’s a definite link (Dental volunteer).

The dental volunteers were very concerned about the state of oral health in numerous patients they saw, as illustrated by this quote:

In my heart of hearts, I am sad that there is so much ... You have to clean infection and do a lot of extractions. In a suburban Brisbane practice, you might do one extraction a month because of patient neglect; but not up there, you might do half a dozen or more in a day. And that makes me sad.

For one volunteer, her overall feeling upon returning was frustration, because there was just so much work. She felt overwhelmed that she was not able to achieve enough in the ten days she was there; she was just scratching the surface.

It is widely recognised that for a number of factors, including long waiting lists and the high cost of private dental care, Aboriginal and Torres Strait Islander people tend to present late with dental problems. In Cairns, there is additional pressure upon public services available to health card holders due to the number of people relocating or visiting from the Torres Strait Islands, Cape York and Mt Isa.17 As one member of the service management reflected:

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17 Means tested entitlement to a Low Income Health Care Card or a Pensioner Concession Card is the criterion used to determine eligibility for most public dental services provided to adults [13].
Given that Medicare doesn’t cover dentists, people simply wouldn’t go anywhere else. A whole heap of Aboriginal and Islander people just wouldn’t go. So it leads, after a period, to terribly, terribly severe health problems.

Health-damaging delay was affirmed by a number of the Aboriginal and Torres Strait Islander staff members interviewed: “It’s only when they’re in pain, that they tend to go, and: They’re scared of dentists…

Some of those interviewed also pointed out that poor oral health could affect self-esteem:

Look there were people with badly broken down mouths and I think they wanted them fixed up… I think it improved their feelings of self-worth and they walked out much happier (Dental volunteer).

The compelling need for the program was also reflected in this statement regarding the markedly reduced waiting list for Wuchopperen’s dental service, attributed to ‘Filling the Gap’:

I mean before the program came in the place we had a waiting list that was, I think it was two years long, you know… I think they’ve caught up with all of that (Wuchopperen director).

Throughout Wuchopperen, great appreciation was shown by individuals for the dental volunteers’ service towards meeting the oral health needs of the community – both in first hearing of the program and over time, for example: How generous are these people! and: It is needed. It is very, very much needed in rural and remote, you know.

Providing opportunities for dental workforce development

Informants valued the way the increase in dental services due to the voluntary program had led to an increase in employment of dental practice staff. By late 2007, four Aboriginal and Torres Strait Islander dental clinic staff were employed by Wuchopperen – the Dental Manager who is also a radiographer, and three fully qualified dental assistants – two as a direct result of the increased activity generated by the visiting dental volunteers. A highly experienced dental technician is employed full-time as well. As with all Wuchopperen staff, each is encouraged to undertake professional development.

Of the dental assistants interviewed, one has plans to study dentistry at nearby James Cook University. Another, who had deferred from dentistry and who has since completed her dental assisting training, was considering resuming dental studies.

Providing quality care

In discussing the extent to which they valued the provision of the service, interviewees expressed their opinions of those providing dental care – both the dental volunteers and the Wuchopperen dental clinic staff.

One Steering Committee member agreed that the dental volunteers who joined the program seemed willing to work unpaid as it gave them a sense of commitment, something out of it; whereas if the work had been paid, it would be, just the normal thing. A Wuchopperen director was even more convinced that people volunteering had strong emotional reasons for becoming involved: Passion, definitely passion, yeah.

Value was placed on the wide range of ethnic backgrounds of the providers, with a senior management person stating the volunteers come from diverse backgrounds, which has added to what I think is a really nice mix here at Wuchopperen. Another Wuchopperen staff

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18 All Australian Government funded Aboriginal Community Controlled Health Services can apply to be covered by Medicare for services, e.g. by their doctor and allied health workers such as dentists; and patients using these services are bulk-billed. [14] p 198.

19 Wuchopperen is a registered training practice and offers placements to students undertaking a range of health and social study education.
member agreed with that comment: Yeah, it’s great isn’t it, it’s lovely. I really like it.

An important discussion point was whether a series of volunteers coming and going would threaten continuity of care. One Wuchopperen staff member talked of risks, for example problems arising if a procedure was done differently or if the patient suffered from allergies that were not well recorded. Although virtually all indicated continuity of care was essential, the majority did not feel the voluntary service was necessarily at more risk than any other arrangement for patient care, notably public services where a patient may be treated by a different dentist at each visit. One informant noted that systems seem to be in place. The Dental Manager confirmed that medical history forms are filled in yearly and by all new patients before they see the dentist, in order to assist continuity of care. A member of the outreach clinic management agreed that there certainly are risks, but mentioned that in fact there is similar risk associated with medical and dental care in any outlying community; since if they are able to secure professional staff at all, they tend to come and go. With some irony the informant noted there was a greater risk in not accessing dental care at all!

It was inevitable sometimes that patients developing trust in a dentist would be disappointed in not being able to retain that relationship. As a dental unit staff member commented:

They really get attached; and in half an hour you know, ‘I want to see that dentist next time I come.’ And I have to explain to them, ‘Look, you’ll have another dentist next time you come.’ ... That’ll be the only downfall … they like the way that the dental volunteers have worked on them and that.

Most patients interviewed realised the situation and were very accepting. A common thread was the trust they placed in Wuchopperen:

So that personally didn’t bother me, that I had a different dentist each time … I think that the feeling of ownership is that they are here in Wuchopperen. This is our health service! I think that that’s how I feel anyway (Wuchopperen patient).

It appeared that one of the reasons patients readily accepted the turnover of dental volunteers was the presence of the same dental clinic staff on each visit. Not only were some of these staff members long-term employees, but also they brought the additional benefit of being Aboriginal or Torres Strait Islander themselves. One of the dental assistants described their support role for patients who are confronted by unknown terms or unexpected treatment suggestions: I’ll always explain it to them and they’ll be like, ‘Oh thank you, sis, now I understand.’

Numerous patients reinforced this perception, particularly how safe they felt with the dental staff:

Seeing the faces. The familiar ones that you’ve built up the relationship with. Again it may be family, and that’s a good point, too. Like even if they’re not, you trust them … you feel safe (Dental patient).

The dental staff were also very positive from the perspective of what they were gaining themselves:

I found it [the volunteer aspects] more demanding, but the more demanding it got the more interesting, and the more we got to learn as a dental assistant … I’ve learnt so much more because working with a different dentist every week gave me so much (Dental unit staff member).

By far the majority of dental volunteers praised the dental clinic staff very highly, indicating that the efficiency of the dental assistants was one of the primary reasons the program worked well for them. For example, their skills in orienting the new dentist within the clinic, the layout, instruments, equipment, etc., were often complimented:

They are so skilled those staff that they slide every dentist into position within two hours and they make you feel very comfortable and they get the best out of you … they virtually put instruments into your hand (Dental volunteer).
This respect and admiration was returned by dental unit staff:

Look, we’ve been so fortunate that the quality of dentists that we’ve had here – that have worked in a full-time capacity and the volunteers – has just been quite extraordinary, so we’ve been very fortunate in that regard (Dental unit staff member).

Informants were quick to point out that Wuchopperen is the community’s own service and community members feel confident to use it in that way, one client commenting: To me this is like a family, this is like my home. Enthusiasm for Wuchopperen from those working there was also evident, with one staff member keen to say: It’s just a fantastic place to work.

As one of the Wuchopperen management team emphasised:

You know in a hospital or a GP practice the doctor is usually God. In our setting here that’s not necessarily so, but there’s that understanding that health workers and everyone else in the team is just as important than the other if we’re wanting to make long term systemic changes to our health outcomes.

This perspective was reinforced by a dental unit staff member who explained:

The best part about it, I think that a lot of the dentists, they come up and they look at us for leadership here. They don’t kind of come up here and take over the surgery. They always look back on us and say like, ‘You guys lead us … We’ll do whatever you want us to do.’ You know, and that is really great.

Dental volunteers were unanimous in their praise for the Dental Manager. They commented on her comfortable way of relating to patients; they recognised the training she provided for dental assistants; and in particular, they valued the infection control and other efficient dental procedures she oversaw.

I really felt the staff were very, very good sterilising the instruments; and the chain of sterility was maintained as best one can; and they were very careful about it. As a matter of fact, it was almost irritating how every little handle is covered with plastic strips and things after every patient, and stripped and cleaned. It is certainly a big thing, but it was good ... it was good (Dental volunteer).

There was learning spoken of on all sides:

Because a lot of the dentists, they like to look at how we do things and they also take things back to their practices, you know. How we do things too. So it works out good, like two ways. We try and bend them and curve them, but ... you know! [laughter] (Dental unit staff member).

One of the volunteers was a hygienist whose visit reignited a long held desire by the service to provide long-term oral health care and promotion while continuing to respond to patients’ acute dental problems. One patient’s comment illustrates the interest shown here and the potential for diffusion of innovation:

Like I didn’t know what floss was for, I mean, I was well into my mid 40’s at that stage and I still didn’t understand ... And I pass that onto my family so we all use floss now.

Strengthening cross-cultural understanding

The issue of the dental volunteers working in a different cultural setting was discussed. Most volunteers had had no experience of Aboriginal culture; one was ashamed to admit this, and another recognised himself as having a biased, suburban, westernised-type of view of the Aboriginal people, before his Wuchopperen experience.

Several volunteers described how they had given some prior thought to the poor state of Aboriginal health generally, and that the oral health needs they might encounter would likely be different and more problematic than those they experienced in their city clinics.

On the issue of perceived cultural differences, one volunteer reflected:
I mean I may have crossed their cultural barriers without knowing it, but they didn't make me feel that, so they were all pretty tolerant towards me ... When you prove that you are there for the right reasons ... they are very open.

Several informants from Wuchopperen showed appreciation of the diversity in cultures of the dental volunteers. So too the willingness of the volunteers generally to give of their time and provide professional care to their patients; to fit in with the practices of the dental unit; and to share their practical knowledge.

**What could work better**

Overall, provision of dental care through the volunteer dental program in the weeks where volunteers were present was considered by all stakeholders to be more than adequate. The downside, as it was noted by one informant, were the weeks where the clinic had no volunteers.

Informants identified several areas where the program could work better. These included addressing barriers to servicing outlying communities; ensuring integrated care and more prevention work; strengthening the 'Filling the Gap' partnership; and resolving questions of how to sustain and expand the program overall.

On a more practical level, increasing the accommodation options, within the defined budget, was important to a number of dental volunteers.

Further suggestions listed by stakeholder group are presented in Appendix 9.

**Addressing barriers to servicing outlying communities**

There was resounding support amongst stakeholders for sustaining the Mobile Dental Clinic and regret at the current barriers to providing the service regularly. When Wuchopperen had its full staff quota of two full-time dentists, the mobile dental van used to be out on the road 48 weeks of the year, with a dentist attending the van for at least two days out of every week, other than at Christmas when the van would be serviced. Services were regularly provided to numerous smaller townships in the Wuchopperen footprint. More recently, this mobile service has – by necessity – been extremely restricted, and just visits the major centres when a dentist is available.

If we had a full-time dentist here, we would be different and we would be able to do a lot more outreach ... Because there's a lot out there, and especially out the back of Kuranda I know it's just horrible, and like it wouldn't surprise me if half of those people have got blood poisoning with their teeth (Wuchopperen staff member).

During the period under evaluation, the willingness of volunteers to work in the van has enabled visits to Atherton, Mossman, Kuranda and Mareeba, accompanied by a dental assistant.

More far-flung areas like Ravenshoe had not had a visit for some time [eight years according to one account]. Innisfail too, although road access is restricted during the wet season.20

Reference to the difficulties of access in outer areas was frequent amongst health service staff:

Because dental to me is extremely important ... I always used to push it up in [community] and try and get all these done. And I used to run a bus down to [town], just to get into the dentists there. So like I've always asked Aunty [...], ‘How come you guys don’t go up to [community]?’ But then, for us, our drama is trying to put that van somewhere where it’s nice and safe and secure on level ground. That would be another big drama (Wuchopperen staff member).

The Mobile Clinic operates between one and five days per week depending on the number of dental volunteers available. During weeks

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20 The Mobile Dental Clinic has been able to meet this demand in 2008.
when there have been two and even three dental volunteers, and a dentist wants to go out in the van, it has been possible to have the mobile van operating for the whole week.

There is the potential for more volunteer time to be dedicated to the mobile service. If there are two dental volunteers, it may be possible for one to go out for a whole week; if there is only one dentist, they might spend two days in the van and three days at the Base Clinic.

Image 6: Wuchopperen Mobile Dental Clinic and Dental Assistant, Siobhain Morgan
Courtesy ‘Filling the Gap’

Ensuring integrated care and more prevention work

On three occasions reported to the Evaluation Team, dental volunteers picked up health issues that required medical intervention. One volunteer reported that from their point of view there was little apparent co-ordination between the dental and medical sections. For instance, no “straight path” to refer on a patient they saw as needing treatment for diabetes II. It is unclear whether the issue described by the informant was one of diagnosis or management. According to the Dental Manager, the proximity of the dental and medical clinics facilitates cross referrals and patients are generally very diligent in following up the advice of the dentists. This proximity also provides for very good access to medical information by the dentists.

The dental practice itself has a one-page medical history form designed to be easy to read and fill out correctly. One volunteer felt that the form was very basic; for example, it did not include information about artificial joints (important because they need antibiotic cover). At the time, this dental volunteer provided the Dental Manager with about ten categories of medical information considered important.

According to the Dental Manager, the current medical history form design included input from a number of dentists and the health service’s Executive Management Team. There is an open-ended question to capture additional conditions not listed.

The same dental volunteer also identified the importance of staff professional development on some basic health issues that affect teeth and gums. Both staff and volunteers recognise the variety of dental visitors as being one of the advantages of the program, because each has some new knowledge to share. Some of the barriers to training relayed by the Dental Manager are associated with Cairns’ regional location, including the scarcity of courses. However, if there is a course on health promotion they do their best to see that dental staff members attend. Often the decision was a cost one. Such courses can be prohibitively expensive.

The potential for ‘Filling the Gap’ to raise the level of oral health awareness throughout the service was suggested by three informants who talked about a more deliberate integration between the oral health messages given by the health workers and doctors, and the team in the dental unit. One dental volunteer, quoting from the Australian Dental Association’s volunteer manual [15], affirmed:

Projects should “aim to reduce the levels of dental disease and not simply deal with the terminal stages of it” (Dental volunteer).
An medical staff member saw his own efforts at oral health education as part of a greater effort:

Even simple things, about how many times you brush a day, that’s it. For a doctor to say twice a day ... well he’s just a layman, see, but if it comes from a dental hygienist over there, that’s gospel truth!

One member of the dental unit staff related efforts made at the chair side:

It’s easy to break the ice because when we book them in for a check-up comprehensive, we do all that then, that’s at the start of their treatment. So their brushing and all that, oral health hygiene ... They know to brush their teeth and that now, and that’s the start. At least we get them fixed. At the end of the visit, they’re walking out and they know how to look after their teeth, they know what foods to eat and not eat, you know ... And so it works out really good.

Another in the unit reported that the volunteers do review oral care practice with patients over time. If the dentists see there is still need for improvement, they will reiterate to the patient:

You need to brush!

However, time pressure makes it hard to sustain the preventative work:

They’re only in there to get what they come in for and then they’re gone, it’s just like a boom bang! If they get continuous work done, then it’s, ‘Make sure you brush your teeth.’ ‘Make sure you do this.’ Just little dribs and drabs of the education itself. When the hygienist was up here, she was good ... because the dentists are like, get in there, get out, but the hygienists do clean [and scale], do basic hygiene (Dental unit staff member).

At the time of interview, oral health promotion resources were scarce – like hen’s teeth – as there had been so many health promotion initiatives across the service. Each year, oral health promotion takes place at National Aboriginal and Islander Children’s Day (4 August) and “Kiddies Day” during NAIDOC (early July), as well as Dental Health Week (late winter), and more recently National “Close the Gap day” (March - April).

The mobile service also contributes to initiatives on the Atherton Tablelands, such as dental health education with local Aboriginal day care centres, and the “Many Ways Strong” program that targets children entering school. Other settings include health promotion with 13 to 18 year olds at Friday night basketball and seniors’ get-togethers.

So, we’re doing quite a few things and it’s how we deliver our health messages, but it has to be subtle, otherwise people will say, ‘Ah ... so’ (Outreach clinic management).

Several dental volunteers have devoted considerable time to working through oral health promotion strategies and participating in health promotion activities, while working closely with dental unit staff. A number of interviewees were highly appreciative of this education, recalling seminars where it was provided to health service personnel and other work with children. The Dental Manager, lamenting that most of the problems encountered in the clinic are caused by the fact that people do not brush their teeth, told of a particular education tool being designed to assist with this.

While the demarcation between oral and medical responsibilities was respected, there was some discussion of the possibility that trained dental staff and volunteers could work alongside and share their knowledge with the Aboriginal Health Workers, to further the aim of better integration. The potential benefits were discussed enthusiastically by one member of the outreach clinic staff:

The whole idea of Primary Health Care and improving people’s health ... the nutrition side of things is just as important for your teeth as it is for your body, that sort of thing. [The] same sort of things we’re telling them in that brief intervention that you might have, and that [the volunteers] have some way of imparting that sort of message ... the whole health message.

It also came to the attention of the Evaluation Team that young people enter Wuchopperen as trainees in a variety of roles, some of them
spending time in the dental service. They may then move into other specialisations such as chronic disease management, potentially armed with increased knowledge of oral health and ready with prompts such as: “How’s your oral health?” or: “Do you brush your teeth?”

At the time of the evaluation site visit, there were around 12 hygienists waiting to do volunteer placements as soon as clinical support by a qualified dentist could be co-ordinated (as dictated by Queensland legislation). The Evaluation Team heard of the high value placed on the contribution by one hygienist who had been able to arrange for a dentist to volunteer at the same time:

She was excellent. I think every person that she did clean and scale and did the whole sort of check on, [she] gave lots of education and so on through the consultation ...(Wuchopperen management).

And handing out the little packs, smoking packs and all that stuff ...(Dental unit staff member).

No I guess that’s really our first exposure to having one [hygienist] in the work place (Wuchopperen management).

She taught the girls how, when the patients do come back that she treated, to go in and check how they’re going with their oral hygiene (Dental unit staff member).

Strategies employed by the volunteer hygienist, plus a number of barriers that are currently inhibiting oral health promotion identified in this evaluation, are summarised in Appendix 8.

The visiting hygienist had considerable experience working with an Aboriginal Medical Service in Victoria through their oral health centre and suggested that they seem to have a very similar way of working to Wuchopperen. The hygienist made the suggestion that linking up in some way might be worth considering:

[B]ecause I think they have got so much in common, they could both learn from each other ... I think a lot of it is about just swapping ideas and just getting best practice from all different areas and putting it together and sometimes we seem so isolated in what we are doing and if we can bring more ... Indigenous oral health centres together, it will be fantastic ... I think there is a real lack of resources available. So if we can add to the pool of what resources are there, I think it is a positive thing too.

**Strengthening the ‘Filling the Gap’ partnership**

Informants were asked how they saw the partnership between Wuchopperen and the Steering Committee in providing the volunteer dental program. Several Steering Committee members agreed that regular focus and reflection on the partnership and the program’s running was desirable, suggesting periodic interaction with Wuchopperen’s Board of Directors and the CEO should be arranged so that the program and its delivery, both from the dental unit’s perspective and the Steering Committee’s perspective, is well understood by everyone. Their remarks included:

Because people change, people turn over.

People were assuming ‘Filling the Gap’ was a program run by Wuchopperen and weren’t aware of the other side of it; with these people in Sydney ... putting in some effort to make it all happen ... Which is kind of good ... you are doing things seamlessly and it is just sort of happening in the background (and is valued), [but it] also needs to retain its profile if it is going to attract support or be known outside in the bigger world as something that can be replicated.

Also, it can also slip into a very old and unacceptable paradigm of ‘do-gooding’. You know this was sort of set up as a partnership. A partnership needs to be reaffirmed from time to time, so it is valued equally by both partners.

While not directly related to the terms of the partnership, some Steering Committee members

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wondered whether Wuchopperen was actively recruiting for dentists at this time. Health service respondents mentioned to the Evaluation Team that recruitment efforts are continuing and this is also stated on the service’s website. One member of the Committee also related a niggling concern about the profile of ‘Filling the Gap’ within Wuchopperen itself. They were apprehensive that the program may be, 

... somewhat detached ... it runs itself, it is not a problem, therefore people at the top only see money going out for accommodation ... it doesn’t loom large as a core service that is actually working well (Steering Committee member).

Accompanying this latter point was some uncertainty felt by some personally when visiting the service, about where they actually stood. From the Dental Manager’s point of view, the program was well represented at the management level, noting her own role on the Steering Committee and in Wuchopperen’s management team and that the autonomy the program is accorded is a reflection of senior management’s confidence in the running of the dental unit.

Amongst the Wuchopperen staff interviewed, there were several who recognised with great appreciation the role played by the other partners, for instance the Steering Committee’s work in raising money: There’s the other ones who generate the funds ...

Tremendous gratitude was shown by one dental assistant as their interview wound up, who asked that the evaluator pass onto Steering Committee members - each identified by name: Thank you from the bottom of my heart ... Thank you for all that you are doing for my people.

Sustaining and expanding the program

Overcoming the backlog of need for dental care was an early objective of the program, half a year was better than nothing. Then the whole year was covered and the number of people on the waiting list fell to almost nil.

we’d reached that point [where waiting lists had been reduced and a full-time dentist was looking likely], but it may not be the case (Steering Committee member).

According to the Committee, over the two years systems became more streamlined and what they perceived as a slowing in volunteer recruitment was addressed by increased promotional efforts, with mixed success. Through the evaluation process itself, the unmet need for dental care in the Cairns hinterland became more apparent to the Steering Committee. A number of questions arose:

So, let’s say a full-time person was found. What is the next step ... there is a lot of scope for vision beyond Wuchopperen, but it hasn’t quite been exploited because ... there hasn’t been the need to yet (Steering Committee member).

Sustaining volunteer numbers remains a critical concern and it was discussed often:

We had a wonderful year last year [2007]. Now we are facing a bit more of not such a great year coming up. So, we again are looking at how we can do things better or differently (Steering Committee member).

We always said that once Wuchopperen reached its full capacity, then you start looking for other centres. So you know, a few months ago, it looked like it was heading in that direction and suddenly there’s a downturn [in volunteer recruitments] (Steering Committee member).

The number of dental volunteers who choose to return and why has been one way of gauging appeal:

Overall, we have very good feedback from dentists who have gone there. And we are starting to get now a reasonable percentage of those who want to return for a second time (Steering Committee member).

On the other hand, there is the question,
‘What’s the driver?’ as far as the dentist is concerned, and what I hear [is that the] driver is [the volunteer’s] sense of experience, involvement (Steering Committee member).

The Steering Committee recognised that Wuchopperen’s, and hence the program’s first priority is volunteer dentists; however, there was a lot of support amongst the Committee for recruiting hygienists – there being a number of standing offers by hygienists to volunteer. Making the best of opportunities for involving hygienists as well as dental students depends on the availability of a dentist and the capacity of the clinic. How student placements might overlap with ‘Filling the Gap’ requires further discussion.

Some members of the Committee discussed that if a hygienist were there for a week, the non-clinic days could be used for health promotion. They were respectful of the effort that would have to go into managing this and that ultimately plans rest with the Dental Manager.

The Committee has also given thought to other models of recruitment, for example locums. Locums may be drawn from those dental volunteers with greater mobility such as new arrivals to Australia seeking permanent residency or travellers on working visas. Locums work for twelve-week stretches. The data also shows that a number of volunteers have since returned as locums. Appealing to overseas dental volunteers was also discussed. Working visas are presently tightly limited to one year; is this likely to change?

Several informants talked about strengthening the inherent capital of the program in word of mouth between dental volunteers and exposure to the program at conferences and the like.

They really need to sort of showcase what they have and how professional and how well supplied it is, and then I guess from the personal aspect of just helping a community that do really appreciate what you are doing for them (Dental volunteer).

Note was made of the positive response to the 2007 ADA Conference Volunteer Expo. One informant who attended, related that just knowing where you stand with your airfares and your accommodation and the fact that you get a car and having all that nitty gritty all written out for you is really important; as are the testimonies of participants.

In considering the sustainability of the program, it became apparent that ‘Filling the Gap’ relied on a number of individual champions within the partnership. With that came the concern that if something should happen, it doesn’t bring the whole thing grinding to a halt. There are moves within the dental unit to train up some of the dental assistants to manage particular aspects of the program. However, one informant remains particularly concerned at the load being carried by the Dental Manager:

The basic weakness in Wuchopperen is that everything is pivotal and dependent on [the current Dental Manager]... So it would be wise to look at some sort of broader team there. First of all, to relieve to a degree ... the huge effort that she is putting into it. And I think she would like extra help. When I was there she was quite stressed, getting headaches and you know, she is always being put under pressure. And Wuchopperen [Dental Unit] minus [this person] is nothing, and that’s a basic weakness. And someone should look at that situation really. And that’s why other [services] haven’t been as successful. They haven’t got a [name of Dental Manager].

Interest has been shown in ‘Filling the Gap’ in other locations and the Steering Committee has also discussed partnering with other volunteer programs. The Dental Manager has provided advice to another mobile service in South Australia. Mt Isa, now part of Wuchopperen, is seeking funds to create a dental service, which is likely to seek dental volunteers.

As one informant put it, there is actually greater need for oral health care in some parts of NSW according to objective criteria. Which site to expand to requires intentional choice and this could be politically sensitive. The establishment protocols would also differ from those at Wuchopperen, which it was pointed out by one
Steering Committee member, began at a point where the program was untested and all that each party could guarantee was good will and a commitment to put some financial resources on the table.

So there is an issue of where do you expand. And the question is whether you take the Wuchopperen model and replicate it somewhere else. Or do you use Wuchopperen as a base with the competency of [name of Dental Manager] at its core ...(Steering Committee member).

Options to serve communities with existing Aboriginal and Torres Strait Islander Health Services without a dental clinic are slight, however, as the federal funding for new dental infrastructure has been non-existent.

If anybody else wanted to look at duplicating a program like 'Filling the Gap', like a service like ours, well they couldn’t even consider that if they haven’t got the clinic already existing ... and they’re not going to get it at this point in time because there’s that whole argument about who will pick up responsibility ... and I think in a way it’s an indication of where oral health sits in the bigger scheme of things ... there’s this constant ‘blameship’ thing ...(Wuchopperen management).

If the program is to be sustained, according to a member of the Steering Committee, and experience is the driver for motivating dental volunteers to recruit or to return for a second or third visit, it might be worth ‘Filling the Gap’ providing a range of host sites. A member of the dental staff agreed: if there were other programs at other locations with a similar sort of set up [these might be] attractive to other dentists as well.

In that regard, the Committee felt that they had not yet fully tapped the pool of potential recruits as some had already expressed their desire to work somewhere more remote or exotic.

Well my wife has been telling me that they should organise a clinic over at The Kimberley or something; go over there too (Dental volunteer).

While they’re not so keen on Cairns, well Thursday Island, if that was on the cards, they would love to go (Dental unit staff member).

Another volunteer was more circumspect:

I think they have to bear in mind how big is that section of the dental profession in Australia that is willing to volunteer and if you have too many [sites] you’re going to stretch everything too thin, because I don’t think it’s an infinite number that are willing to volunteer and so you might end up with having lots of sites and not enough people to fill all of them.

Several dental volunteers mentioned during their interview that they were in fact willing to make a return visit; it is just their own disorganisation stopping them. Others have filled in the paperwork but not confirmed the dates they are available.

In terms of replicating the role played by the dental unit team, the capacity and training expertise of the Dental Manager was spoken of highly: So between us [the Steering Committee], we’ve become a unit and she is part of the spearhead of that if we wanted to make this happen anywhere else. So that’s a good thing that’s come out of it (Steering Committee member).

When stakeholders were asked the question what are the key things that make ‘Filling the Gap’ work that would be essential to the program’s implementation elsewhere, their responses included:

- **Flexibility**: You know, in the clinic, everyone has to be flexible really ... (Dental unit staff member).
- **Very experienced staff**: You can have a really rough time with patients and you can have difficult things, but if you’ve got staff around you that are supportive and are there for the same reason ... (Dental volunteer).
- **Good basic equipment**: There was one dentist who indicated that over a short term the dental facilities were not as important as long as there were surgical kits, like scissors.
One volunteer was emphatic that for the program to work elsewhere, comparable support would have to be in place.

Oversight: I think you do need somebody to oversee and provide a continuum like [the Dental Manager] does, and

A car is a big incentive!
Part D: Discussion

This section looks back on the data and reflects on the quantitative and qualitative findings together with the relevant literature.

Commentary

Reflecting on the results above, the Evaluation Team believes that having an existing, well-resourced dental practice that includes highly skilled Aboriginal and Torres Strait Islander support staff, and that is offered within a strong culture of community ownership through community control, is the key contributing factor to the ‘Filling the Gap’ program and its achievements to date.

The qualitative and quantitative data provides real world examples of the pressing need – evident in the literature – for publicly funded oral health services that are accessible to Aboriginal and Torres Strait Islander peoples. The frustration of the dental volunteers and the health service staff at the high levels of untreated decay amongst patients, with the relatively severe periodontal disease and the persistently high number of extractions that the dental volunteers found themselves performing, tend to confirm this. The evaluation also found great concern amongst those informants who discussed the relationship between high levels of untreated decay and chronic disease. The findings suggest that increased comprehensive prevention work and oral health education is essential to overcoming the high levels of tooth decay and tooth loss. There is also potential to raise awareness of oral health issues and oral health promotion throughout the wider medical service.

In terms of outreach, there is particular need for increased activity by the mobile service on the Atherton Tablelands in order to overcome a backlog of need, as well as to give integrity to the health care check process and related care plans. Moves already underway to achieve this are to be encouraged.

A number of factors present themselves in the data that indicate ongoing need for the volunteer program itself:

- Although waiting lists are shorter, there are still relatively high numbers of new patients in the service data for 2007;
- There is evidence that more women than men are presently accessing the service, suggesting that strategies might be considered to encourage men to the service;
- It also appears that patients are presenting late with dental problems.

Therefore, it is arguable that there remains a high need for dental care in the region that has yet to be identified, particularly routine care.

Even if one full-time dentist were recruited tomorrow, Wuchopperen has a second dental chair as well as the mobile service that could be operating with the support of volunteers. The second chair presents an opportunity in respect of increasing activity in oral health promotion that might involve volunteer hygienists.

Having a hygienist on site could also strengthen oral health promotion across the entire medical service, work that ‘Filling the Gap’ volunteers and support networks could potentially facilitate. There is a growing corporate understanding of the multifactorial causes of disease amongst the dental unit’s staff, some of whom have also worked on the service’s medical side. The effect of comprehensive primary health care in reducing the overall disease burden is recognised in the literature, and there is a role for integrating dental into mainstream medical models. Such integration has the potential to contribute to the improvement in the very grave statistics regarding chronic disease rates in the Aboriginal and Torres Strait Islander population.

The volunteer program has highlighted a number of structural barriers involved in the expansion of oral health promotion activity. A particular
concern was that dental assistants did not see hands-on prevention as a possibility for them due to the distinct roles mandated within oral health regulations – for example, dental hygienist versus dental assistant. According to one respondent, dental assistants can get in with the sucker, do charting and help with instruments, but they can’t get in there. A similar barrier is the regulation that a dental hygienist cannot work in Queensland without a dentist on site. While this is not the case throughout Australia, it presents obstacles to the expansion of oral health promotion by ‘Filling the Gap’ in its present setting.

During the ten-year gap since the service was last able to obtain a full-time dentist, and despite occasional visits by locums, the oral health care needs of Wuchopperen’s clients have been identified repeatedly through the regular adult health check process (Medicare Item No 710) [16]. The recruitment problems faced by Wuchopperen echo a national maldistribution of oral health professionals in regional and remote Australia [17, 18]. As one Wuchopperen director said: So, there is this big gap in dental ... nationally, it’s just a disgrace.

A Steering Committee member remarked:

In fact, even an hour outside of Sydney [recruitment] is a problem – and it is not the [lack of] money as they are being offered private practice rates, if not more sometimes, plus incentives such as rent; and it is not the [lack of] a well-equipped practice either.

In terms of its success in overcoming the lack of access to dental care created by the shortage of full-time dentists ‘Filling the Gap’ was mentioned in the Productivity Commission’s, Overcoming Indigenous Disadvantage: Key Indicators 2007 [1].

A notable outcome of the evaluation is the strong message that ‘Filling the Gap’ has contributed, and continues to contribute, to strengthening the Aboriginal and Torres Strait Islander dental workforce [19]. Developing a skilled Indigenous health workforce is a national priority [20]. ‘Filling the Gap’ is contributing to this, not only through increased stability of Wuchopperen’s oral health program and related trainee support for those studying the Certificate III in Dental Assisting, but also through the intrinsic benefits of working with a broad variety of dental volunteers who willingly impart a wealth of experience and mentoring.

Coupled with the importance of the mediating role of Aboriginal and Torres Strait Islander dental assistants in the exchange between volunteer dentist and patient, these factors suggest that the unit’s Aboriginal and Torres Strait Islander staff are both the valued and the value within the ‘Filling the Gap’ program. This accords with other successful programs which have visiting non-Indigenous health professionals supported by Aboriginal program champions and Aboriginal Health Workers [21-23].

Other keys to the success of ‘Filling the Gap’ that were observed by the Evaluation Team include: flexibility, particularly from the volunteers, good basic equipment, administrative support, oversight by practice management to ensure a continuum of service and very experienced Aboriginal and Torres Strait Islander clinical staff forming the core of the program’s delivery.

With regard to volunteer recruitment, the interview data confirmed mainstream best practice for volunteer management in that dental volunteers appreciated having their roles and responsibilities set out clearly [24], including the nitty gritty, such as how to get to and from the health service, accommodation that was convenient, the vehicle while in Cairns, etc. The car is a big incentive! It also accords with other research that shows that personal satisfaction is a key motivation for volunteering, including the appeal of adventure to some volunteers [25]. Through the provision of accessible dental care, there is also a meaningful purpose [26].

“We just set ourselves one small thing”

We just set ourselves one small thing that a few people, citizens, could try and do something about, but we also knew that it had a chance of success because it was a very well run sort of place to start with, so if it was going to work there, it was going to work ...

(Steering Committee member).

While an obvious immediate outcome is that Wuchopperen has been able to maintain a quality dental service through the ‘Filling the Gap’ volunteer program, it should not immediately be presumed that the program can be replicated elsewhere or that it is infinitely sustainable.

What this evaluation does show is that in attempting to alleviate a workforce shortage, the original assumptions of the program’s originators were well founded. The overwhelming acknowledgement of the Oral Health Care Unit’s good organization, and excellent staff, suggests that to give the program the best chance of succeeding – and to provide the volunteer dentists with as much support as possible – such a program must involve a health service partner that is strong and coherent within itself, and has the confidence associated with that strength to host the program.

The founders felt they needed to trial the volunteer concept in a place where there were not structural barriers; i.e., there was a well-resourced dental facility, where there was stability in the health service management, and where there was an obvious program champion to mediate between the dental volunteers, the health service and the other members of the Steering Committee. An airport close by, to simplify travel, was also an asset. As Steering Committee members emphasised to the Evaluation Team, they felt that every effort should be made so that the visiting dentist could just arrive and step straight into their clinical role.

A number of factors characterise the program in its current form.

1. It is able to recruit highly skilled dental volunteers motivated to serve not only for altruistic reasons, but also to have a working holiday in an attractive setting, and through their service make a difference to Aboriginal and Torres Strait Islander oral health.
2. Wuchopperen is able to recruit and retain high quality Aboriginal and Torres Strait Islander dental staff who have in turn been inspired by the number and diversity of the dental volunteers that they meet, and are also sustained through ongoing staff development including mentoring opportunities and support to undertake further study.
3. Trust in the Aboriginal and Torres Strait Islander clinical staff members is key to the success of the program, as is the trust the community has demonstrated in Wuchopperen itself.
4. The extensive networks available to the individual members of the current Steering Committee are significant success factors.
5. There are opportunities for continued program – and ultimately service improvement – through opportunistic as well as structured feedback, in keeping with the health service’s ethos.

It was also noted by several informants that if the program were to roll out elsewhere, they would need a person of the calibre of the current Dental Manager and according to one, that won’t be easy to find.

While only targeting adults in terms of clinical care, ‘Filling the Gap’ has also stimulated engagement around oral health promotion for both adults and young people including children, within and outside of the health service. Offers have been made by dental volunteers to continue developing this area; e.g., educational resources.
Despite these important contributions of the program, it remains inherently fragile. Volunteer recruitment rates have fluctuated during the period under evaluation, and a number of marketing and promotional areas remain to be exploited by the Steering Committee, including the development of a locum strategy. At the same time, Wuchopperen has continued its recruiting efforts.

Beyond the service, the overall policy environment with regard to public dental care remains quite fluid with the likelihood of increased federal government support for public dentistry. While this may improve access generally, it will not immediately address the shortfall in dentists ready to work in regional and remote settings. In the meantime, ‘Filling the Gap’ will have a role to play for some time to come.

I think that Wuchopperen are very fortunate that people like [the founders of the program] came up with the idea … I think their legacy is going to continue long past the time when they drop out of it (Steering Committee member).

Valued aspects of the program

So to summarise, six aspects of the program stood out as contributing to its value, the first three described here being valued very highly.

Enriching engagement

The outstanding aspect of the program that seemed to be apparent to all stakeholders was what the Evaluation Team has termed “enriching engagement”. It seemed that engagement in the program whether from the provider or client perspective enabled benefits to be gained; over and above the improvement in oral health care, reduction in acute dental problems among Wuchopperen patients, and a marked decrease in waiting list length.

Each stakeholder group was enriched slightly differently. Dental volunteers enjoyed the different experience, and most acknowledged the positive opportunity to do something where they felt they were giving of themselves. Dental practice staff benefited from achieving the skill to adapt to work with a wide range of dental approaches through supporting the dental volunteers’ different ways of doing things. Many patients developed a trusting relationship with those relieving them of pain and distress, even if the relationships were very short-lasting. Wuchopperen management was allowed some relief, in that at last they were able to complete treatment plans for clients visiting the Base Clinic and at the same time build up their mobile service, and stand by their ethic of holism. Finally, the Steering Committee gained a sense of achievement in making it all happen by virtue of the tremendous amount of effort they were putting into the program.

Two-way learning

Closely related to the above were the opportunities, so often described by many interviewees, that the learning arising from the program was not just one-sided, but went both ways. The most marked example of this was the learning occurring between the dental volunteers and staff in the dental practice, as already described in the previous section, as well as the interaction between dental volunteers and patients.

Preserving cultural safety

One of the most important aspects of an Aboriginal and Torres Strait Islander Community Controlled Health Service is the emphasis placed on preserving the cultural patterns of the community served by the service, and honouring them. This aspect is rarely, if ever, an issue for consideration in mainstream health services, but is something that is very meaningful and relevant for Aboriginal and Torres Strait Islander peoples. Wuchopperen is no exception in the importance it gives to family linkages and Aboriginal and Torres Strait Islander patterns of living. One of the concerns of the Steering Committee from the start was that a series of dental volunteers arriving for a week or two, and then flying off into the night, might not understand the importance of this aspect and possibly breach cultural safety boundaries. Respondents indicated that the feeling of safety provided by Wuchopperen Health Service itself embraces the dental service within it, so that the volunteers were regarded within that
comfortable setting rather than as outsiders with whom locals needed to relate. Again, the quality of the Aboriginal and Torres Strait Islander dental unit staff in particular is core to preserving this cultural safety.

The above three aspects are valued very highly. The following three aspects are also considered to be positive outcomes:

**Building a local Aboriginal and Torres Strait Islander dental workforce**

In providing a relatively regular supply of dental volunteers, the program has enabled the dental unit to support the employment and training of additional Aboriginal and Torres Strait Islander dental assistants for whom there would otherwise not have been employment. Interest from local Aboriginal and Torres Strait Islander people in taking up this occupation, and in dentistry itself, has been raised as well. Knowledge of the quality of the unit’s staff has also spread widely.

**Development of coherent treatment plans**

The ongoing evaluation and improvement of systems initiated by the Dental Manager in conducting the unit’s clinics and in supporting the dental volunteers has enabled treatment plans to be developed coherently, and has resulted in excellent linkages from dentist to dentist as they come and go. The dental unit staff members are keen to see the development of more comprehensive and forward-looking treatment plans, including oral health promotion, for the greater benefit of their patients.

**Reduction in recruitment paperwork**

An initial concern, especially of the dental volunteers but also of the Steering Committee, was the amount of paperwork involved in recruiting the dental volunteers, especially to ensure registration in Queensland. This problem seems to have eased considerably over the life of the program, thanks primarily to streamlining of the process by the Steering Committee and through advocacy by the Dental Manager; with thanks due also to Wuchopperen senior staff.

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**Strengthening the program**

The evaluation has also revealed two areas where the volunteer program has been unable to provide the ideal and where it is important to consider what can be done to influence change. These areas are:

**Promotion of oral health**

Due to the severity of the existing dental problems as described by care providers, patients and in the literature, the service’s objective of dealing satisfactorily with acute dental disease is – understandably – also the primary objective of the volunteer program. However, as discussed above, respondents have indicated that an effective dental service should also include promotion of oral health, and expansion of efforts in this area would be welcomed according to comments from the health service management, the dental practice staff and patients. Building on current capacity to promote oral health, preventing dental disease and inclusion of a dental hygienist’s care as routine, would be valued additions to those services offered currently by the Oral Health Care Unit, rather than relying on opportunistic situations and less than ideal health check follow up as at present.

**Sustainability**

The title of the volunteer dental program, ‘Filling the Gap’, deliberately symbolises the intention of the Steering Committee to develop this intervention as a temporary program operating in an interim period, whilst there is no reliable, consistent and quality dental service being provided due to the difficulties in recruiting a full-time dentist. Success in this interim is not the same as success in the provision of accessible oral health care over the longer term.

Much of the program’s present success - notably the growth in episodes of care as well as volunteer numbers - is a result of the capacity and culture of the partner organisations, and because that within Wuchopperen Health Service, there is a specific Oral Health Care Unit, with its own dedicated team, entirely focused
on providing dental care. These elements would be key considerations should the program expand or be transferred in a similar form to new settings.

It is important for all authorities – dental and general health services, and their advocacy bodies, community representatives, and all levels of government – to recognise that a volunteer program of this nature, despite its value as depicted in this report, should not be allowed to become the norm in the delivery of essential health care. The best outcome would be a fully-resourced and permanent community-based oral health service for every regional and remote community in Australia.

Image 8: Dr Anita Griffin and Dr Robert Griffin with performer Warren Clements, Tjapukai Aboriginal Cultural Park
Courtesy Tjapukai Aboriginal Cultural Park & ‘Filling the Gap’
Appendices

Appendix 1: Ethics approval documentation
Appendix 2: Literature review
Appendix 3: Guided questionnaires x 4
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Appendix 8: Strategies used by the volunteer dental hygienist
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Appendix 10: Step by step process of the evaluation
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Appendix 12: Glossary of acronyms and definitions
Appendix 1: Wuchopperen and UNSW Ethics approval documentation

ATTACHMENT 1

10th April 2007

UNSW Human Research Ethic Committee
UNSW
SYDNEY NSW 2052

Dear Committee Members,

I refer to the research project entitled “Filling the Gap Program” by Lisa Jackson Pulver, Sally Fitzpatrick, Jan Ritchie (UNSW) and Maron Norrie (Wuchopperen Health Service Ltd).

The program evaluation has the full support of Wuchopperen Health Service Board of Directors for ethical approval.

Ms Rachael Wargent
Chairperson
Wuchopperen Health Service Ltd.
24 October 2007

Dr Lisa Jackson Pulver
School of Public Health & Community Medicine

Dear Dr Jackson Pulver

Evaluation project of the 'Filling the Gap' Indigenous Dental Program
(HREC 07/244)

Thank you for your letter and attachments to Mrs Annamarie D’Souza dated 11 October 2007.

At the Executive meeting held on 23 October 2007, the Committee provided approval for the above project to proceed. In accordance with the guidelines set out in the National Statement on Ethical Conduct in Research Involving Humans* (NS) and exercising the authority delegated by the Deputy Vice-Chancellor (Research), I give permission for this project to proceed.

Would you please note:-

- approval is valid for five years (from the date of the executive approval i.e. 23 October 2007);
- you will be required to provide annual reports on the study’s progress and any adverse events to the HREC, as recommended by the National Statement on Ethical Conduct in Research Involving Humans;
- you are required to immediately report anything which might warrant review of ethical approval of the protocol (NS 2.37), including:
  a) serious or unexpected adverse effects on participants;
  b) proposed changes in the protocol; and
  c) unforeseen events that might affect continued ethical acceptability of the project;
- any modifications to the project must have the prior written approval of the Committee;
(HREC 07244 cont’d)

...2...

- the Ethics Secretariat should be notified if serious or unexpected outcomes are experienced by research participants or if there are unforeseen events;

- consent forms are to be retained within the archives of the School and made available to the Committee upon request;

- if this approval relates to a clinical trial any serious adverse event arising in the course of the study should be reported promptly using the proforma on the Human Research Ethics website at [http://www.ro.unsw.edu.au/ethics/human](http://www.ro.unsw.edu.au/ethics/human/)

Yours sincerely

[Signature]

Professor Andrew Lloyd
Presiding Member
HREC

Appendix 2: Literature Review

As part of the evaluation, a survey was made of peer-reviewed and non-peer reviewed literature from 1997 until present relating to access to oral health care by Aboriginal and Torres Strait Islander peoples; including the status of Indigenous oral health, access issues, patterns of care and best practice in the delivery of oral health care to Indigenous people, public dentistry in Australia, and related workforce issues. These are reported in Part 1 below. A brief survey of recent Australian literature concerning volunteering, particularly the sustainable recruitment of volunteers by not for profit organisations is reported in Part 2.

Data issues

The accuracy of data on Aboriginal and Torres Strait Islander peoples depends on both their willingness, and the opportunities presented to them to identify themselves to services such as health care providers. Non-identification at the service level, as well as a tendency to not access available services, leads to an under-representation in data collections generally. Consequently, care should be taken in interpreting results, particularly when analysing trends, as a recorded increase in the use of a service might reflect either actual increase in the use by Indigenous people, or better identification of existing service users [1].

Methodology

A combined search of seven databases [Australasian Digital Theses, APAIS Health, Cochrane Library, CINAHL Medline, CDC-Centres for Disease Control and Prevention, Rural and Remote Health] was made for peer-reviewed literature using the key words ‘care and service’, ‘Aboriginal or Indigenous’, ‘dental or oral health’ and ‘Australia’. The search was year limited to the period from 1997 to the present, although only literature up to 2006 is included in the review.

Non-peer reviewed literature, including government reports, was also sought from Google, Google Scholar, Indigenous HealthInfoNet, the Australian Institute of Health & Welfare and the Australian Bureau of Statistics.

Additional searches were also made of Informit, PubMed and Google using combinations of the above key words, particularly seeking material on Aboriginal and Torres Strait Islander Health Services (ATSIHSs) and dental care.

Wherever possible, journal articles cited and available online were obtained in full and where this was not possible, abstracts were obtained. Where no abstract was available (one article), or the abstract was insufficient (one article), the article was not considered for review. Only literature in English was sought.

Examinations of articles and reports for further references were also made, including those in the literature up to June 2007. Relevant literature reviews have also been summarised.

In 2008, a further search of the databases and online search engines revealed significant additional literature. References to dental volunteer activity in Australia were also sought.

Part 1: Access to oral health care by Aboriginal and Torres Strait Islander peoples

Indigenous oral health has been recognised for some time as one of the top 10 priority areas requiring urgent government attention and a national approach is advocated [27, 28]. Currently, the situation for Indigenous oral health is such that in many regions any dental care comes down to a “relief of pain” basis, usually an extraction, with no co-ordinated care or education being provided [19].

Recently Dr John Matthews from the Australian Dental Association declared, “For far too long the States and Territories of Australia have failed to meet their obligation to ensure proper delivery of dental care to economically disadvantaged Australians. The public sector in the States and Territories are inadequately resourced. The problems are
deep set and the extra dollars dispensed\textsuperscript{24} will not immediately solve the problems that beset it.” \cite{29}.

### Indigenous oral health trends

Prior to European contact Aboriginal and Torres Strait Islander peoples reportedly enjoyed good oral health \cite{19, 30-32}. This would change in post-contact settings, with increasing levels of dental caries\textsuperscript{25} reported amongst communities as they were introduced to European diets, including through the regime of food rations, particularly sugar \cite{19, 31, 32}.

Since the 1970s, improvements in the oral health of the majority of the wider population as a result of water fluoridation and school dental schemes have not been shared by the Indigenous population \cite{31}. Reports show that in some populations, young children with ‘baby teeth’ have more than twice the caries rate of non-Aboriginal children, and for 12-year-old children with permanent teeth, the rate was close to twice that of non-Aboriginal children \cite{30, 32-36}. A high dental caries experience is also reported in adolescents \cite{32}. The consequences of oral disease in childhood extend into adulthood, with “caries and periodontitis in deciduous teeth being one of the best predictors of caries and periodontal disease in the permanent dentition” \cite{33}.

In 2007, the National Survey of Adult Oral Health found, “disproportionately elevated rates of tooth loss, untreated decay and tooth wear among Indigenous Australians” \cite{13}.

Hospitalisation for dental conditions remains one of the most significant acute ambulatory care-sensitive conditions for Aboriginal and Torres Strait Islander peoples \cite{28}. In 2005-06, there were approximately 2,395 hospitalisations of Aboriginal and Torres Strait Islander people for diseases of the oral cavity, salivary glands and jaw shown in the national data. These hospitalisations in the majority were for dental caries (54%), followed by diseases of the pulp and periapical tissues (14%)\textsuperscript{26}. However, they were less likely to be hospitalised for diseases of the oral cavity, salivary glands and jaw than other Australians \cite{14}.

Gaps in primary health care services, including access to dental services and subsequent poor oral health, are recognised as contributing to the reduced life expectancy and quality of life experienced by Indigenous people \cite{28, 30, 33}.

### Oral health has a social gradient

Of all the health conditions in Australia, oral health has been shown to be the most strongly socio-economically related \cite{30, 37}. With the retail cost of dental care averaging $350 per hour and an estimated 25% of all dental patients delaying care due to its cost \cite{38}, it is not unexpected that uninsured, low income families living in low-socio-economic areas in Australia report higher rates of edentulism\textsuperscript{27}, higher rates of extractions, lower rates of fillings, and longer periods since their last dental visit when compared to people with dental insurance living in more affluent areas \cite{33, 39}.

In terms of rurality, health card holders from rural areas are more likely to be edentulous, wear a denture, have fewer dental visits, usually visit for a dental problem, and not be insured, than card holders from urban locations.\textsuperscript{28} Beyond this, card holders from remote locations are more likely to have not visited a dentist.

\textsuperscript{24} There is a commitment of $290m through the Rudd Government’s proposal for a Commonwealth Dental Plan. The ADA argues that “the additional Federal funding provided to the States and Territories will be offset by a reduction in those States and Territories “real” contribution to dental health improvement.

\textsuperscript{25} Dental caries is one of many types of caries; i.e., the progressive destruction of bone structure or teeth. Dental caries affects different parts of the teeth: enamel, dentin or cementum; in the crown or the root of the tooth. Nearly all cases contain bacteria such as streptococcus mutans and lactobacillus, which produces lactic acid as the products responsible for the caries. Source: Wikipedia.

\textsuperscript{26} Periapical tissues are the issues around the root of the tooth.

\textsuperscript{27} Edentulism is the condition of being toothless to at least some degree. Loss of some teeth results in partial edentulism, while loss of all teeth results in complete edentulism. Source: Wikipedia.

\textsuperscript{28} Means tested entitlement to a Low Income Health Care Card or a Pensioner Concession Card is the criterion used to determine eligibility for most public dental services provided to adults \cite{13}, and hence is used as a predictor of socio-economic disadvantage.
recently, usually visited for a dental problem, have fewer visits, more extractions, fewer fillings, not be insured, and have a lot of difficulty in paying a $100 dental bill, compared with urban locations [40, 41].

A public system providing only “sporadic and problem-oriented care to a small percentage of the eligible population” [42] exacerbates the situation, as does the limited number of public dentists, with 82.7% choosing to work in the private sector [43]. Issues in attracting dentists to the public sector include lack of salary parity with the private sector, although some do choose public dentistry for more altruistic reasons. An image of being “second-rate” also affects dentists working in “non-private” practice [19].

For Aboriginal and Torres Strait Islander Health Services (ATSIHSs), there is further lack of salary parity [44], with award salaries for dentists in ATSIHSs reportedly less than those in public dental programs [19].

As well as issues around workforce recruitment and retention, additional systemic barriers affecting Aboriginal and Torres Strait Islander oral health include lack of integration of oral health into other health services, inappropriate models of care, waiting lists, and differing eligibility criteria for dental programs [19]. Evidence from sources such as public expenditure analyses and reports from the Aboriginal community indicate that Aboriginal people tend to under-utilise mainstream dental services [45]. In 2008, the Australian Health Ministers reported that,

“per person expenditures on dental services for Aboriginal and Torres Strait Islander peoples were less than half that for other Australians in 2004-05” [28].

For regional-dwelling Aboriginal and Torres Strait Islander children there are also historical factors involved, including forced separation from families, efforts towards assimilation, ongoing problems with alcohol, family violence and land ownership issues, all of which have impacted on the social cohesion of community groups and consequently their health [36].

Two decades ago, the National Aboriginal Health Strategy (NAHS) identified dental health as a major problem in Aboriginal communities due to factors such as limited access to services, high costs, lack of awareness and fear; factors which in turn are driven by poverty, diet and lack of fluoridated water [46].

In 2007, factors impacting the oral health outcomes of Aboriginal and Torres Strait Islander children continue to be:

“[L]imited access to dental services, low fluoride content in many communities’ drinking water, limited culture-specific oral health education and promotion strategies, a dental profession that (largely) does not embrace Indigenous philosophies, negligible oral health training in health professional courses, and increasing availability of cariogenic food and beverage products [33].”

Of fluoridation, a relatively recent baseline study of communities in Far North Queensland made prior to water fluoridation found untreated dental caries prevalent amongst the 594 children examined. The caries rate was more than twice the state average and four times the experience of Australian children generally for both six-year-old dmft and 12-year-old DMFT

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29 The Health Services Union of Australia (Aboriginal and Torres Strait Islander Health Services) 2002 award is a federal award that includes dental workers. It presently covers NSW, QLD, SA and Victoria and can be accessed at https://extranet.deewr.gov.au/ccmsv8/CiliteKnowledgeDetailsFrameset. htm?KNOWLEDGE_REF=89311&TYPE=X&ID=4225986388064060088869912894&DOCUMENT_REF=99319&DOCUMENT_TITLE=Health%20Services%20Union%20of%20Australia%20%26Aboriginal%20and%20Torres%20Strait%20Islander%20Health%20Services%202002&DOCUMENT_CODE=AP919920

30 A similar disparity between regional and state rates has also been discerned in regional South Australia [36]
Aboriginal and Torres Strait Islander children. For 10 per cent, the rate was up to 10 times the caries experience [48]. In 2007, the Premier of Queensland announced capital funding to increase rates of water fluoridation across the state, including in Aboriginal and Torres Strait Islander communities [49].

Barriers to care

Access issues affecting the uptake of oral health care by Aboriginal and Torres Strait Islander peoples include [19, 28, 50-52]:

• Geographic isolation and problems with access to care such as lack of patient transport
• Longstanding shortage of health care providers and services and lack of access to specialist services for complex treatment needs
• Socio-economic disparities
• Significant Indigenous health issues including comorbidities
• Greater exposure to injury
• Poorer road quality
• Small, sparsely distributed populations
• Financial constraints.

For remote dwelling people, insufficient services are a barrier to preventative strategies such as systematic screening and promoting regular dental attendance for a check up [32]; with lack of hospital care also affecting the oral health of remote dwelling Aboriginal children [53]. More remote patients are likely to present with pain concerns, whereas patients presenting in capital cities have more nil concerns [54]; and a higher proportion of people aged 55 years and over in remote areas (19%) than in non-remote areas (10%) said they required dentures but did not have them [55].

Remoteness itself does not automatically mean that people living in those areas access dental services less than people living in urban areas, as some remote dwelling patients routinely visit dentists in city locations. Access may have more to do with car ownership, road conditions and socio-economic factors beyond degrees of remoteness [18].

Barriers in accessing school dental services include, “consent issues, unsuitability of screening programs, of site delivery of care and a high administrative load faced by staff” [19].

Cultural barriers appear to have an influence in all geographic regions [56]. Some of the cultural barriers encountered when Aboriginal people access mainstream services include, “a lack of health professionals that they can relate to; a perceived unfriendliness of health centre staff; inappropriate body language; long waits and an appointment system that is difficult to adhere to; and lack of understanding about the way Indigenous people construct reality, their knowledge and values” [57]. Inadequate addressing of language and cultural issues is particularly acknowledged as a problem in appropriate Indigenous oral health service delivery [19], with reports showing a preference towards communicating through an Aboriginal Health Worker [50].

Patient attitudes also affect service access. A recent large cross-sectional study in the Goulburn Valley region of Victoria suggests that it may be a lack of knowledge of oral health needs leading to under-use of dental services, unless for emergency treatment [58]. Other reports suggest that for some patients the value of and need for dental care in terms of general health may not be fully appreciated [21]. For many, health is the absence of disease, thus accessing the health-care system is usually for acute and chronic disease management as opposed to primary care and health promotion. As a consequence, demand for preventative services is negligible and this is evidenced in much dental and oral health research [40].

Indigenous status has also been shown to be amongst a number of interrelated determinants of Indigenous oral health with one study...
showing Indigenous children who were least disadvantaged having worse oral health than the most disadvantaged non-Indigenous children. The evaluators concluded that Indigenous status influences oral health outcomes irrespective of social disadvantage. They recommended population-wide oral health promotion among Indigenous children irrespective of socioeconomic status [59].

**Oral health and chronic disease**

The literature draws attention to the high level of diabetes in the Aboriginal and Torres Strait Islander population, which has the potential to significantly increase severe periodontal disease and dental caries [32, 46, 60].

The resultant high levels of edentulism and tooth loss contribute to a vicious cycle [61], as the loss of teeth means that people tend to eat soft, sugary and fatty foods of poor nutritional value, which in turn encourages obesity and increases the risk of diabetes [60].

Also of concern is the link between periodontitis and overall systemic health [33]. Chronic oro-dental infections are recognised as making a substantial contribution to the overall burden of infection carried by the body [62]. Associations have been found between oral diseases and cardiovascular disease, cerebrovascular disease, diabetes, pre-term low birthweight babies, aspiration pneumonia, blood-borne diseases and infective endocarditis (associated with rheumatic heart disease and rheumatic fever) [19, 46, 60, 62].

For example, it has been shown that periodontitis induces systemic inflammation - that is inflammation within the body as a whole - which in turn increases the risk of cardiovascular disease and pregnancy complications [62]. These are two conditions which disproportionately affect Aboriginal and Torres Strait Islander people [14], adding weight to the call for “medically necessary dentistry” targeted toward pregnant women and adults with advanced cardiovascular disease [62].

**Current rates and patterns of dental visits by Indigenous people**

In 2004-05 the National Aboriginal and Torres Strait Islander Health Survey collected information for the first time about the oral health of Indigenous people. Of the 10,439 Indigenous Australians surveyed (5,757 adults and 4,682 children), 4 per cent (of people aged two years and over) had seen a dentist in the two weeks prior to interview. Compared to non-Indigenous people, Indigenous people were around half as likely to have seen a dentist during that period. Of Indigenous people aged 15 years and over, 11 per cent had never visited a dentist or other health professional about their teeth. This proportion was 24 per cent for Indigenous people in remote areas compared with 6 per cent in non-remote areas [55] in [63].

The major reason reported by Indigenous people for not visiting a dentist when needed was ‘cost’ (21%) [63]. In terms of location, ‘cost’ was reported twice as often by respondents in non-remote areas than remote areas [14]. However, for the ensuing categories, i.e., ‘transport and distance’ and ‘service not available in the area’, the issue was far more frequent amongst remote dwellers. Beyond this, for the categories ‘waiting time too long or not available at time required’, ‘dislikes (service/professional/afraid/embarrassed)’, and ‘too busy (including work, personal or family responsibilities)’ location was not a factor [14].

Data collected in 1994 and 1996 in Queensland have been used to assess access to public oral health care by gender, Indigenous status and rurality. The study found that males and Indigenous people were more likely to attend dental clinics when a problem with pain existed, resulting in a high need for emergency services (and fewer preventive and rehabilitative services), more diagnoses of dental caries and periodontal disease (with periodontal disease higher in rural areas), and treatment more often involving oral surgery, including extractions, with fewer restorations and prosthodontic treatment items [54].

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32 Periodontitis or bone disease refers to a number of conditions that inflame the tissues that surround and support the teeth, including the ridge of bone containing the tooth sockets. The condition leads to the teeth becoming loose and falling out. Source: Wikipedia.
The Queensland study found that the emergency rate for Indigenous people was especially high in ‘rural other’ and ‘remote major’ areas, with dental staff reporting that Indigenous people tended to present to the clinic when a problem existed and that they wanted the problem fixed immediately. If, for example, a sedative dressing was applied for further treatment at a later date, the person was not likely to attend the second appointment. If placed on the waiting list, they were likely not to attend and not be contactable. Clinicians reported trying to complete as much treatment as possible at each presentation.

Related to this is the higher number of Indigenous people receiving extractions for both emergency and general services [54].

The size of waiting lists for public dental treatment precludes optimal dental care for those reliant on the public system [46], as well as ATSIHSs [19]; and Aboriginal people tend not to join lengthy waiting lists [32, 54]. The Queensland study found a smaller mean waiting time for general services for Indigenous people in all rurality areas, although higher waiting times occur in areas of dense population or would vary according to the availability of clinic personnel [54].

It has been suggested that, for Aboriginal and Torres Strait Islander peoples, financial and cost barriers are relatively less important than cultural barriers in accessing health care services. It is suggested that people are often prepared to travel some distance to receive more culturally appropriate services and that culturally appropriate services often involve community control [64] in [65].

Related to this is that the cumulative effects of Aboriginal and Torres Strait Islander peoples’ contact with the health system have created significant mistrust, particularly of government services. This mistrust is regarded as a key determinant of the under-utilisation of all health services [65]. Aboriginal and Torres Strait Islander people tend to prefer dental services provided by ATSIHSs over mainstream services, subject to a number of factors [19]:

- Availability of an ATSIHS nearby
- Availability of another local practice or hospital that most Indigenous Australians use
- Indigenous Australians may not feel comfortable coming to a mainstream practice
- Cost – may be unable to afford the charges [or find the billing system culturally appropriate [65]]
- Location/transport difficulties
- No Indigenous Australians on staff
- Language barriers
- Practice does not bulk bill [50].

ATSIHSs are able to accommodate family and cultural obligations and associated mobility that is known to affect attendance patterns [21, 46], and which traditional modes of delivery oriented around set appointments finds difficult. ‘Failure to show’ can seriously affect clinic productivity, impede the timely delivery of treatment plans, and impact on clinical service time available to other patients [21]. Many ACCHSs have overcome these barriers by providing transport and childcare facilities and structuring their programs to be flexible, and, where possible, take into account family and community responsibilities [65].

Aboriginal and Torres Strait Islander Community Controlled Services

Aboriginal and Torres Strait Islander Community Controlled Health Services (ACCHSs) have featured in the delivery of primary health care in Australia since 1971. ACCHSs are,

“culturally appropriate and autonomous primary health care services initiated, planned and governed by local Aboriginal [and Torres Islander] communities through their elected Aboriginal [and Torres Strait Islander] board of directors” [44].

Within the Ottawa Charter, providing culturally appropriate services falls within the action area of creating supportive environments [66]. This principle is encapsulated in the vision of the National Aboriginal and Torres Strait Islander Oral Health Action Plan: To improve the oral health status of Aboriginal and Torres Strait Islander people in culturally supportive ways that induce overall health benefits [19].

As well as being culturally appropriate, advantages typically attributed to ATSIHSs
include provision of services free of charge, supportive staff, sensitivity to gender issues (e.g., separate male and female clinics), availability in some cases of free medications, and other benefits such as assistance with transport [50]. ACCHSs rely almost entirely on public funds, with the Office of Torres Strait Islander Health (OATSIH) the primary funding source [44], although ACCHS can and do attract funds from State and Territory governments [19]. It is up to each service to allocate where funds are spent, and while funds are allocated to dental on a priority basis [19], there is no requirement for dental services to be maintained. Services face considerable pressure from budgetary constraints, including unfunded dental services and other pressures, and since 1995, no new Commonwealth funds have been provided to the sector to establish new dental services or expand existing clinical dental programs. However, OATSIH has maintained the agreed levels of funding for those ATSIHSs where there was a dental component, including the replacement and maintenance of dental equipment [19]. There is considerable impetus for services to generate additional funds from the MBS, PBS system (e.g., Medicare billings) “to at least partially fund and enhance the comprehensive services they provide” [44].

In 2003, 39 full-time equivalent (FTE) dentists and 47 FTE dental assistants were employed in Australian Government funded Aboriginal and Torres Strait Islander primary health care services [67]. In 2003-2004, 50% of ACCHSs reported providing dental care through either a dentist, dental therapist or education [45]. Twenty two per cent had dental radiology facilities. In one Queensland review published in 2005, five out of eight ACCHSs sampled included a dentist [44].

Nationally, most services are providing dental care for people outside of their communities. Many urban services are seeing people who have travelled long distances from rural or remote areas, because they cannot access appropriate dental care locally or regionally [46, 68].

With ATSIHSs grappling with scarce financial resources and the imperative to place acute care over preventive care, NACCHO advocates greater financial assistance, saying that oral health, nutrition and other health promotion is vital before and after dental care, and that funding to services must include clinical and health promotion components. They also suggest that a support network of dentists be established that maintains contact with each other, and that alternative modes of employment might be appropriate, such as job sharing. Overarchingly, they advocate that “any dental health program for Aboriginal communities needs to have a recognised framework, determined in consultation with the local community or communities concerned, so that if there is a turnover of dental staff there is at least some continuity and co-ordination of the method of dental service delivery” [68].

Potential enablers in the provision of oral health care to Aboriginal and Torres Strait Islander people

It is suggested that access to and use of health services by Aboriginal and Torres Strait Islander people are both influenced by:

- Language skills
- Availability of interpreters
- Concepts of health and illness
- Cultural factors
- Gender issues
- Physical set up of the services and method of delivery
- Sensitivity of staff to Indigenous issues
- Presence of appropriate Indigenous staff
- Racism
- Community ownership of services, and
- Confidentiality [56].

It is also emphasized that services must be delivered in such a way that Aboriginal and Torres Strait Islander people can feel confident in accessing them [19, 46, 60]. The National Aboriginal and Torres Strait Islander Oral Health Workshop identified the following elements of best practice to promote access: “The provision...
of services that instil respect and trust with confidentiality; culturally appropriate services, preferably in an Aboriginal community controlled health care setting; strong partnerships and networks; mobile services; on-site delivery of school dental services; organisational flexibility; and a holistic approach” [19].

Cultural awareness training including in undergraduate training, is seen as essential to the provision of culturally appropriate oral health services, whether Aboriginal community controlled, government or private [19, 50, 69].

Conceptually, the key enabling factors to providing dental care to Indigenous patients are contained with the five goals of the National Aboriginal and Torres Strait Islander Oral Health Action Plan [19]:

• Goal 1: Provide culturally appropriate oral health services to all Aboriginal and Torres Strait Islander people;
• Goal 2: Increase the oral health workforce available to improve the oral health of Aboriginal and Torres Strait Islander people;
• Goal 3: Increase oral health promotion activity with the aim of improving health outcomes for Aboriginal and Torres Strait Islander people;
• Goal 4: Improve the collection, quality and dissemination of oral health information about Aboriginal and Torres Strait Islander people; and
• Goal 5: Foster the integration of oral health within health systems and services, particularly with respect to primary health care and Aboriginal and Torres Strait Islander people.

Factors contributing to the high demand for oral health services in one South Australian Aboriginal Community Controlled Health Service include:

• A team approach utilising each stakeholder’s area of expertise
• The allocation of an Aboriginal Health Worker to the program team
• The recruitment of staff who did not have rigid and preconceived ideas on the way the service should be organised and delivered
• The ability of the program to be flexible and adapt with feedback from the community
• Including local staff in decision-making, seeking opinions and including them in the development of the program – this has been vital in ensuring continued positive relationships between local organizations and the staff
• The employment of local staff living in the community
• The acceptance of cultural diversity and its impact on clinical service [21].

A community enabler: Aboriginal Health Workers

There is evidence to show, albeit on a regional scale, that a key component of the success of the NSW Aboriginal Eye and Visioncare Program is the role of the regional Aboriginal Eye Health Co-ordinators who provide the critical “cultural link” between the visiting optometrist and Aboriginal patient, and – as do Aboriginal Health Workers – broker relationships with their local communities and encourage the uptake of services [22, 23].

Aboriginal [and Torres Strait Islander] Health Workers are often the first point of contact for a client seeking health care. Historically, however, other than in the Northern Territory [19], they have had little or no oral health training. This is despite the fact they are the ones who remain in the communities, while dentists generally come and go [46].

The development of some clinical skills in dental care amongst remote nurses and Aboriginal Health Workers has long been advocated [19, 70]. Within the confines of state and territory legislative framework, there are opportunities for appropriate training in oral health promotion and the development of some clinical skills in order to provide basic dental procedures, including basic emergency care [46, 70].

Progress has included a pilot training program in
Western Australia in conservative and preventive dental care [31]. Meanwhile there are new and emerging national competency standards for Aboriginal Health Workers, with training provided by community-controlled health organizations in each jurisdiction. Increased involvement of Aboriginal Health Workers in initiating health care checks is recommended [44].

Integrated primary health care

The provision of and funding for dental services is seen by doctors as a high priority for improving ATSIHSs [50].

“More Indigenous people are becoming more worried about their teeth than other health issues. We get them in to see the attending dentist and then have the dentist ask about other health issues which generally leads to the client coming to the other side of the Health Centre.

‘The dentist will sometimes become a counsellor at times as most of the dental problems are experienced by female clients who have become victims of family violence’ [50] p 152.

However, there is no evidence that simply increasing the provision of oral health services decreases inequity in oral health and more effective treatment, given earlier, or with better compliance and addressing the wider determinants of oral health inequality, is argued for [71]. Changed patterns of service provision, such as a ‘common risk approach’, could improve access to equitable oral health care. It is hypothesised that by addressing a small number of risk factors, the health system could approach a large number of diseases more effectively, at lower cost and with greater efficiency than disease-specific approaches or treatment modalities alone. Oral health is determined by a combination of factors similar to heart disease, cancer, strokes and injuries (i.e., diet, hygiene, smoking, alcohol use, stress and trauma) [33, 72] in [39, 71]. Further development of integrated primary health care approaches has been advocated [32], including early intervention training for oral health workers, and better training in the complexity of Indigenous health problems for all health workers [19]. It is suggested that outcomes for the Medicare Enhanced Primary Care item system such as the Adult Indigenous Health Checks and Child Health Checks would be enhanced by such training [16]. ACCHSs, with their comprehensive service model, and systems and care plans already in place for complex chronic diseases [44], are well placed to include preventative oral health care strategies in their approach.

Oral health promotion

Successful oral health promotion is underpinned by access to health services generally [19]. To address the poor oral health outcomes of Aboriginal and Torres Strait Islander children, culturally appropriate oral health promotion and education initiatives are recommended [33, 73]. Tennant et al. recommend new strategies targeting at risk groups, particularly new parents of young children [53]. A number of gaps and barriers were identified by the National Aboriginal and Torres Strait Islander Oral Health Workshop around oral health promotion:

• Absence of a relationship with other health issues
• Lack of funds and other resources
• Focus of funding on treatment rather than prevention
• Lack of food choices and poor practices by some community stores in some remote communities
• Poor water quality in some remote locations, and
• Lack of culturally appropriate education material [19].

Workforce

The Australian Dental Association (ADA) reports a sizeable increase in the recruitment of dentists in Australia. Reporting unpublished AIHW data they note, “that in 2005, the dental labour force comprised 10,164 dentists, a 12.4% increase since 2000”. with the comment that while the workforce is ageing, there is not yet a shortfall [47]. The problem, it is reported, rests with a maldistribution of dentists per head
of population in rural and remote regions as compared to metropolitan areas of Australia [17, 18].

In Queensland, the distribution of dentists and dental specialists was:

- Major cities – 59.2 dentists per 100,000 population
- Inner Regional – 40.7 dentists per 100,000 population
- Outer Regional – 37.8 dentists per 100,000 population
- Remote – 17.7 dentists per 100,000 population [47].

Nationally in 2006, 204,341 Aboriginal and Torres Strait Islander people comprised 0.7% of dental workers: 18 dental practitioners, 15 dental hygienists, technicians and therapists and 171 dental assistants; i.e., those dental workers who identified as Aboriginal and/or Torres Strait Islander [28, 74]. Aboriginal and Torres Strait Islander participation rates in dental studies remain very low [28].

Issues such as safety, support, professional development, educational opportunities for children, [lack of] employment opportunities for partners, high workload and poor remuneration are of concern to both Indigenous and non-Indigenous health professionals in rural and remote locations, with issues such as cultural awareness and respect, relationships and specialist support of concern in urban Indigenous health settings [56].

Incentives such as professional development and the support of colleagues are suggested to overcome these difficulties [35, 74], as well as above award payments strategies [46] and financial packages that attract dental personnel to work in Indigenous communities [33].

With regard to new recruits, workforce strategies include attracting Aboriginal and Torres Strait Islander people to a career in dentistry through scholarships, career planning and mentoring [19, 74].

Enrolments in the higher education sector for Aboriginal and Torres Strait Islander students in dental studies rose from 3 (0.23%) in 2001 to 10 (0.60%) in 2006. In dentistry itself the numbers rose from 1 to 6 over the same period [74].

Within the vocational education and training sector, Aboriginal and Torres Strait Islander VET course enrolments for dental studies were 40 in 2002, rising to 55 in 2004, and were 45 in 2006; with almost 100% of Aboriginal and Torres Strait Islander enrolments in dental studies in receipt of an apprenticeship. Course completions within this period have remained steady at around 10 per year (although in 2004 there were 20 completions) [74]. In 2008, significant targets were set to achieve this through a Federal Government co-ordinated process with the Dental Schools, the Australian Dental Council, the Royal Australasian College of Dental Surgeons, the Indigenous Dentists’ Association of Australia and related professional representative organisations “to promote careers in oral health and support students and practitioners” [20].

Other suggested strategies include a variety of scholarships and a refund or reduction in Higher Education Contributions [19]; selective recruitment and support for new graduates [75]; and incentive schemes where fees are waived and entrance criteria are altered [33].

Extending the role of dental therapists to treat adults is another potential strategy [19]; this involves states and territories removing legislative barriers [30, 76].

Programs utilising private practitioners to visit remote Aboriginal communities have also been

34 This figure is 209 in AHMAC, 2008 [28].
35 Similar figures are reported on Indigenous HealthInfoNet, which are regularly updated, www.healthinfonet.ecu.edu.au/health-systems/health-workers/reviews/background-information
36 In 2001, of the 155 people making up the Indigenous dental health workforce, 14 were dental practitioners (proportion Indigenous 0.2 per cent), 17 dental associate professionals (0.4 per cent), and 124 were dental assistants (0.9 per cent) [63].
37 Dentistry, dental assisting and dental technology.
38 It is likely that these numbers are underestimates as Aboriginal and Torres Strait Islander student data relies on students self-identifying at enrolment. It also may include students involved in enabling and bridging course enrolments [74].
39 See www.idaa.com.au/)
developed [19], including dentist visits on a ‘fly-in-fly-out basis’, and volunteer dental programs delivered in partnership with ACCHSs, such as the ‘Filling the Gap’ Indigenous Dental Program [77]. Increased use of mobile van clinics is also supported [19].

**Part 2: Dental volunteering in Indigenous communities**

In 2006, 34 per cent of the Australian population aged 18 years and over participated in voluntary work. Thirty per cent of these had been volunteering for five years or less (an indicator of whether the volunteer pool is being refreshed). Women volunteered more often than men did (36 % compared to 32%), and this held true amongst those whose volunteering involvement was in a health organisation. Amongst employed people, the volunteering rate for managers/administrators and professionals was high (46%).

Helping others or the community was the primary motivation to volunteer (57%); but volunteers also wanted to help themselves. Forty four percent reported ‘personal satisfaction’ and 36 per cent reported ‘to do something worthwhile’ as motivators. Learning new skills and gaining work experience was also prominent (11%). Fifty eight per cent incurred expenses, with less than a quarter (23%) reporting reimbursement. Almost two-thirds of those becoming involved for the first time did so through word of mouth, either by being asked (35%), or because they knew someone involved (29%). Only five per cent were recruited through the media [25].

People aged 35-44 years were most likely to volunteer (43%), including many with dependent children [25]. Young people typically wanted to engage over a shorter term focused on particular projects that provided skills development or as a way to involve themselves in a cause. Older people also sought shorter engagement because they wanted to combine part-time work, leisure, travel and minding grandchildren as well as community work [78].

Literature regarding volunteer organisations reports that best practice in the management of volunteers involves a systems approach to their management; compliance with standards to ensure that volunteer rights are protected; that the volunteer’s role is explicit; and that work environments are safe and healthy [24]. These include the “purchase of public liability and personal accident insurance for volunteers, the maintenance and periodic review of written volunteer policies and, appointing managers of volunteers” [79].

A key finding in a recent national survey was the affirmation by volunteers of the need for clear conceptualisation and communication of roles and responsibilities of volunteers by the organisation, including the nature of the time commitment involved and the attributes required. The research also suggests that organisations communicate their processes and policies actively to volunteers, so that volunteers benefit from them [79].

With regard to dental volunteering programs the Australian Dental Association (ADA) reports that projects should be efficient, sustainable, integrated and accepted by host communities. They recommend [15]:

“Projects should begin with the objective of making themselves redundant in a particular area rather than creating a dependency. The training, enabling and status-raising of local workers and the reduction of the burden of disease should be the goal of any project.”

In terms of sustainability, 97 per cent of national volunteer organizations surveyed rate volunteer recruitment as an issue of importance to their organisation [79]; with findings suggesting that well formulated job descriptions promote volunteer recruitment and retention, “because volunteers can assess at the outset, the nature and volume of the volunteer work involved”. Recruitment and retention of volunteers is also facilitated by the “creation of enjoyable and meaningful volunteer roles”. It also found that ninety percent of volunteer-involving organizations identified “managing the
relationships between paid and volunteer staff as an important issue for their organization [79].

Research shows that Aboriginal and Torres Strait Islanders actually engage in voluntary work at a higher rate than all Australians, but much of this work occurs outside the framework of volunteering through an organization [80]. Recommended strategies for involving Indigenous people in organisational volunteering include:

- 'word of mouth' as a proven way of creating awareness that may lead to recruitment
- clear information about the volunteer program
- due the historical legacy of exclusion, Indigenous people be invited to participate
- program information targeted to an Indigenous audience
- young people are more likely to participate if there are clear benefits and the commitment is relatively short; and
- a specific engagement strategy to ensure that the volunteer program is inclusive [80].

Conclusion
The literature surveyed in this review reveals a complex web of factors impacting on the delivery of dental and oral services to Aboriginal and Torres Strait Islander people and their uptake. Whilst the nature of many of the barriers are well described, their impacts vary between remote and non-remote areas [28]. Factors identified as enabling the provision of dental services require adapting to local circumstances, monitoring and evaluation.

It is suggested that improvements in oral health outcomes will only occur when there is access to affordable services, appropriate oral health education, and prevention programs – including fluoride supplementation and interventions targeted at a population level [39]. For equity to be achieved, two categories of political and policy impediments in need of reform have been identified:

- Internal barriers: e.g., reluctance to form effective partnerships between the private and public sectors
- External barriers: e.g., community commitment, legislative constraints, and government inaction [39].

The need for substantive acknowledgement of the population health importance of oral health, and the capacity of dental care in improving people’s well-being, is evident throughout the literature surveyed [39]. In delivering improved care, the imperative for oral health initiatives that are targeted and implemented in accordance with Aboriginal and Torres Strait Islander best practice cannot be ignored [33].
Appendix 3: Participants’ guided questionnaires (x 4)

Filling the Gap Program Evaluation
Attitudes of Patients

The Dental Clinic staff will invite some patients who have used the volunteer dental service to join a focus group discussion of about one hour to give their opinions on the service provided. Depending on interest, up to three discussion groups will be conducted – one or two at Wuchopperen and one at the outreach station at Mareeba. Patients will be read the patient information sheet explaining the evaluation, and if they are willing to be involved, will be given the date and time to join a small group over morning tea.

Interview Guide

1. Why did you choose to use this dental service?
   a. How did you hear that the dentist was coming to the clinic in your area?

2. How easy was it to get the service?
   a. Transport?
   b. Staff attitude when booking appointment?
   c. Waiting time?

3. How did you find the treatment?
   a. Cultural sensitivity of dentist?
   b. Physical comfort/discomfort?
   c. Support from other staff?
   d. Clear instructions and information?

4. Have any of you returned a second time or more? How did you feel when you found there was a different dentist attending to you at the next visit?

5. Is there anything else you liked or disliked about being treated by a volunteer dentist?

Filling the Gap Program Evaluation
Attitudes of Health Service Staff

Clinic and health service staff are regarded as key informants in this evaluation, with the potential to offer key information. All dental clinic staff will be invited by the practice manager to participate in this program, as will other key personnel serving as Directors of the WHS Board, or working within the WHS having duties associated with or alongside the dental program, including the mobile service. Participants will be asked to give their opinions on the Filling the Gap program. The interviews will be semi-structured inviting open answers.

Interview Guide

1. What is your current role in (one of the following: the WHS, the Board or the outreach centres)?

2. Can you remember what was your first impression of the Filling the Gap volunteer dental program?

3. Have you had an opportunity to learn more about the program, and if so, has your opinion stayed the same, or changed?

4. What benefits do you think this volunteer program has for the WHS?

5. What might be some of the disadvantages of this program operating from Wuchopperen?
   a. Do you feel there are risks in engaging short-visit professionals, such as the risk of them lacking cultural competence?
   b. If so, how can this problem be addressed?

6. Can you suggest any improvements generally to the way these dental services are provided at the WHS and its outreach centres?
Filling the Gap Program Evaluation
Attitudes of Steering Committee members

Members of the Filling the Gap Steering Committee are regarded as key informants in this evaluation, with the potential to offer key information. All members will be invited by the WHS Dental Manager to participate in this evaluation. Participants will be asked to give their opinions on all relevant aspects of the Filling the Gap program, especially as to how they feel the initial conceptual ideas for the program have been implemented in practice. The interviews will be semi-structured inviting open answers.

Interview Guide

1. What is your current role in the Steering Committee?
   a. Inaugural or recent member
   b. Decision-maker at meetings, taking action, or both

2. Can you remember what was your first impression of the Filling the Gap volunteer dental program?

3. Have you had an opportunity to learn more about the program, and if so, has your opinion stayed the same, or changed?

4. What benefits do you think this volunteer program has for the WHS?

5. What might be some of the disadvantages of this program operating from Wuchopperen?
   a. Do you feel there are risks in engaging short-visit professionals such as them lacking cultural competence?
   b. If so, how can this problem be addressed?

6. Can you suggest any improvements generally to the way these dental services are provided?

Filling the Gap Program Evaluation
Attitudes of Dental volunteers

All dental volunteers who have participated in this program will be mailed an invitation/information sheet explaining the evaluation and how they could contribute. A follow-up phone call will seek to make a date and time for a telephone interview in the near future, when they will be asked to give their opinions on their experience of volunteering. Prospective volunteers will also be approached. If the dentists agree to have their interview recorded, formal consent will be digitally recorded at the start of the interview. If they prefer their interview not to be recorded, a faxed consent form will be sought before commencing and their comments will be taken in note form. The interviews will be semi-structured inviting open answers.

Interview Guide

1. How did you hear of the Filling the Gap volunteer dental program?

2. What prompted you to decide to get involved?

3. How did you find the overall experience?
   a. Did you have any concerns about being sensitive to cultural aspects of your interaction with Aboriginal and Torres Strait Islander patients?

4. How did you find the practicalities of your stay?
   a. Personal comfort - distance away, accommodation, transport, isolation?
   b. Clinic equipment and resources, infection control measures?
   c. Attitude of clients?
   d. Support from other staff?
   e. Clear instructions and information?

5. What benefit, if any, did you personally get from the program?
   a. What would you say to others thinking about joining the program?
   b. Would you go again?

6. What is your opinion generally about a volunteer program of this nature?
   a. Positives
   b. Negatives
   c. Would you consider a similar program at another site?
Appendix 4: Invitation to participate and confirmation emails to dental volunteers

Email 1:

Please respond to:

[Researchers’ email addresses]

Subject: Invitation to take part in ‘Filling the Gap’ evaluation

Hi all

I am writing to you on behalf of the research partnership involved in evaluating the ‘Filling the Gap’ volunteer dentist program at Wuchopperen Health Service in Cairns, Queensland.

The “Filling the Gap” volunteer dentist program has been underway for two years now and the Muru Marri Indigenous Health Unit at the University of NSW and Wuchopperen Dental Unit are undertaking an evaluation to see how the ‘Filling the Gap’ program is going, what Wuchopperen’s client’s think of the program and how it might be improved.

In order to do this research we are approaching all the dentists who have contributed, those who are about to contribute and those who may still be thinking of contributing, to see if they would like to participate in a short telephone interview of no more than 20 minutes with our team.

We anticipate conducting these interviews on Thursday, 13 December 2007.

However, if you were free at some other time and would like to participate, we would love to hear from you.

If you are able to assist us, could you please let both me and my colleague Sally Fitzpatrick from the UNSW know as soon as possible. Our emails are at the top of this message.

We will then forward you more detailed information about the evaluation and details about obtaining your formal consent to be part of the research process. We would also need to know the best time to contact you (you may want to give us a couple of options in order of preference) and the best telephone number to contact you on. If you are in the centre of Sydney, we may be able to come and visit you in person.

We realise that this is a hectic time of year, so thanks for taking the time to read this message. We anticipate that findings from this evaluation will be of great benefit to the Wuchopperen community, the ‘Filling the Gap’ program and other dentists who may consider volunteering in the future.

Your potential contribution means a lot to us.

We look forward to hearing from you

Marion and Sally
on behalf of the ‘Filling the Gap’ Evaluation Team

Email 2:

I am writing to confirm your participation in the ‘Filling the Gap’ evaluation.

I confirm that Associate Prof Jan Ritchie and or I will telephone you on [no provided by dentist] at approximately [time] on [date]. The interview should take around 20 minutes.

I will email you further information specific to the interview by [date].

Thank you

Sally Fitzpatrick
on behalf of the ‘Filling the Gap’ Evaluation Team [mobile phone number]
Table 4: Volunteers’ experience of volunteering, motivation to join program and how they heard about ‘Filling the Gap’ (Note: OTD = Overseas-trained Dentist)

<table>
<thead>
<tr>
<th>FTG volunteers interviewed</th>
<th>Previous volunteer experience</th>
<th>Primary motives for contacting FTG and filling in an expression of interest (EOI)</th>
<th>Found out about FTG from</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dentist</td>
<td>2 (going back)</td>
<td>‘It was very worthwhile’</td>
<td>-</td>
</tr>
<tr>
<td>Dentist OTD working in Australia (the good pay) before going back home</td>
<td>1</td>
<td>Aware that Aboriginal communities are underserved and that there was disadvantage, wanted to help; opportunity to do a variety of surgical procedures and build on experience</td>
<td>Friend who is a dentist, plus encounter with FTG volunteer</td>
</tr>
<tr>
<td>Endodontist</td>
<td>1</td>
<td>Only working one day a week now and thought, ‘Geel! That looks interesting!’</td>
<td>Email from friend with pictures</td>
</tr>
<tr>
<td>Dentist</td>
<td>1 (plus locum work)</td>
<td>Retired, still active, love dentistry. ‘I like to work with Aboriginal people [in NSW] and I feel they deserve to be serviced’. Also, chance to visit Cairns ‘a new place’ and also ‘to help the people’. Also had experience working in vans</td>
<td>Saw an article in SMH Health and thought, ‘Gosh! That’s a good thing!’ Followed the website details given</td>
</tr>
<tr>
<td>Dentist</td>
<td>1 (wants to return)</td>
<td>Wanted to do something outside normal working environment, e.g., social justice, preferring Australia to overseas</td>
<td>ADA Newsletter</td>
</tr>
<tr>
<td>Dentist</td>
<td>1 (wants to return)</td>
<td>Dentist patients treated on Sundays at their practice</td>
<td>Unsure, one of the dental journals</td>
</tr>
<tr>
<td>Dentist OTD</td>
<td>1 (will definitely go back, but can’t right at the moment)</td>
<td>From Ireland originally and wanted to give back to Australian community</td>
<td>Via FTG volunteer</td>
</tr>
<tr>
<td>Dentist</td>
<td>1 (would happily go back, but ultimately prefers ‘more remote’)</td>
<td>Asked by partner (visited as a couple), set up first dental clinic on Groote Eylandt and always wanted to go back</td>
<td>‘Word of mouth’, as my partner was approached by a hygienist as they needed a dentist present</td>
</tr>
<tr>
<td>Dentist</td>
<td>1 (very enth. but ret. not said)</td>
<td>Poster caught my eye and FTG rep. there spoke to him, sent home with EOI, took student daughter</td>
<td>Saw poster at ADA Conference 2007</td>
</tr>
<tr>
<td>Hygienist</td>
<td>1 (would return, work on resource dev.)</td>
<td>Seemed like a fantastic program. Good way of doing volunteer work in Aus. Family could come too. Had to ask all the dentists I knew if they would come.</td>
<td>Full day, volunteer program at the ADA Conference, Sydney, 2007</td>
</tr>
<tr>
<td>FTG volunteers interviewed</td>
<td>Previous volunteer experience</td>
<td>Primary motives for contacting FTG and filling in an expression of interest (EOI)</td>
<td>Found out about FTG from</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Dentist 2</td>
<td>OS Vietnam, est. dental unit in Viet. orphanage. Free dental work for various charities in Sydney</td>
<td>Because that is the country I come from; help people in our country as well; empathy Aboriginal health issues, 'I think they do need our help'.</td>
<td>FTG was promoted at an implant surgery meeting, invited anyone interested to come and speak to them, 'which I did'.</td>
</tr>
<tr>
<td>Dentist 1 (would do it again, but ask for alt. accom; her colleague same)</td>
<td>None as a dentist, but does work voluntarily at community level</td>
<td>Some regret at stopping dentistry, having retiring early. I have always loved clinical dentistry, I had a sort of calling. I'm not religiously inclined, but I felt there was a calling.</td>
<td>Listening to ABC on car radio. Only heard the end, stopped and wrote down the phone number</td>
</tr>
<tr>
<td>Dentist 1</td>
<td>N (friends have, but I had only thought about it)</td>
<td>Life intervened; it took a while to get around to it [friends had volunteered in Nepal or Cambodia]. Saw obvious and immediate need in Aboriginal health, thought might as well do something closer to home.</td>
<td>Via one of his patients who knows FTG SC and posted EOI to him.</td>
</tr>
<tr>
<td>Dentist 2 OTD 1</td>
<td>-</td>
<td>Volunteerism is a service, not a charitable thing, doing it for lesser privileged. Worked in African communities. Be a wonderful way to meet Aboriginal people in Aus.</td>
<td>SMH Health</td>
</tr>
<tr>
<td>Dentist 1 (telling colleagues, wants to ret. but not poss 2006)</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dentist 2 (will go back this year and probably in years to come)</td>
<td>N</td>
<td>I have done plenty of dentistry, I would like to give something back. Returns because he sees need.</td>
<td>Saw flyer at a lecture in Melbourne a few years ago.</td>
</tr>
<tr>
<td>Dentist 1</td>
<td>N</td>
<td>Always interested in volunteer work, not just dentistry but any kind of volunteering, 'It's our nature to care'.</td>
<td>North shore Times article</td>
</tr>
<tr>
<td>Dentist 1</td>
<td>OS</td>
<td>Has volunteered for many years fundraising and for the last 5 years establishing mobile dental services in post conflict settings.</td>
<td>Through the Sicilian Society of Dentistry; a flyer at one of our meetings.</td>
</tr>
<tr>
<td>Dentist 0 OTD (In Australia 4 years)</td>
<td>0 (had to postpone visit )</td>
<td>Money is no interest; usually salaried so patients not paying. Not seeking reward, just patients need treatment. Might be nice to see mainland Australia, meet up with friend in Townsville.</td>
<td>Ad on staff noticeboard at practice, treats Aboriginal patients referred to his practice in Hobart.</td>
</tr>
<tr>
<td>Dentist 1 (would return)</td>
<td>N</td>
<td>Thought it would be interesting.</td>
<td>Asked to go by hygienist</td>
</tr>
<tr>
<td>Dentist 0 (has not booked)</td>
<td>OS Kiribati, Solomons. Nepal</td>
<td>Subsidised holiday with his family, not well off, few chances to get away with family.</td>
<td>Contacted by SC. Doing MOH</td>
</tr>
</tbody>
</table>
## Appendix 6: Dental visitors, 2008

Table 5: Length of visit by dental workers by month, 2008

<table>
<thead>
<tr>
<th>Month</th>
<th>Dates</th>
<th>No of volunteers</th>
<th>No of weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>9 to 15</td>
<td>1 dentist (returnee)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>7 to 15</td>
<td>1 dentist</td>
<td>1.4</td>
</tr>
<tr>
<td>February</td>
<td>22 &amp; 25 to 29</td>
<td>1 dentist</td>
<td>1.2</td>
</tr>
<tr>
<td>March</td>
<td>3 to 7</td>
<td>1 dentist (returnee)</td>
<td>1</td>
</tr>
<tr>
<td>April</td>
<td>31/3 to 4/4</td>
<td>1 dentist</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>31/3 to 4/4</td>
<td>1 dentist</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>14 to 18</td>
<td>1 dentist</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>28/4 to 2/5</td>
<td>1 dentist (returnee)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>28/4 to 2/5</td>
<td>1 dentist (returnee)</td>
<td>1</td>
</tr>
<tr>
<td>May</td>
<td>6 to 30</td>
<td>1 dentist</td>
<td>4 (2 as locum)</td>
</tr>
<tr>
<td></td>
<td>12 to 16</td>
<td>1 dentist (returnee)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>19 to 23</td>
<td>1 dentist</td>
<td>1</td>
</tr>
<tr>
<td>June</td>
<td>June 9 to 20</td>
<td>2 dentists</td>
<td>4</td>
</tr>
<tr>
<td>July</td>
<td>30/6 to 4/7</td>
<td>1 dentist</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>7 to 18</td>
<td>1 dentist</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>14 to 18</td>
<td>1 dentist</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>21 to 25</td>
<td>1 dentist</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>21 to 30</td>
<td>1 dentist</td>
<td>1.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(plus 1 dentist not practicing)</td>
<td></td>
</tr>
<tr>
<td>August</td>
<td>28/7 to 5/8</td>
<td>1 dentist</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>4 to 8</td>
<td>1 dentist</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>11 to 15</td>
<td>1 dentist (returnee)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>18 to 22</td>
<td>1 dentist</td>
<td>1</td>
</tr>
<tr>
<td>September</td>
<td>22 to 3/10</td>
<td>1 dentist</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>15 to 26</td>
<td>1 dentist</td>
<td>2</td>
</tr>
<tr>
<td>October</td>
<td>6 to 17</td>
<td>1 dentist</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>13 to 24 Leave</td>
<td>1 dentist</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>20 to 31</td>
<td>1 dentist</td>
<td>2</td>
</tr>
<tr>
<td>November</td>
<td>29/10 to 4/11</td>
<td>1 dentist</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>29/10 to 4/11</td>
<td>1 dentist</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>10-14 X-ray install</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>December</td>
<td>1 to 5</td>
<td>1 dentist</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>8 to 14</td>
<td>1 dentist</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>8 to 22</td>
<td>1 dentist</td>
<td>2.2</td>
</tr>
<tr>
<td></td>
<td>15 to 22</td>
<td>1 dentist</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Source: ‘Filling the Gap’ Steering Committee
### Appendix 7: Tabulated data, Part A: The Who and the What

#### Table 6: Number of weeks of care by fully qualified dental professionals (both volunteer and locum) 2006 and 2007 by quarter (See Graph 1)

<table>
<thead>
<tr>
<th>Year</th>
<th>Jan-Mar</th>
<th>Apr-Jun</th>
<th>Jul-Sep</th>
<th>Oct-Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>5</td>
<td>8</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>2007</td>
<td>14</td>
<td>15</td>
<td>20</td>
<td>14</td>
</tr>
</tbody>
</table>

#### Table 7: ‘Filling the Gap’ visits, per quarter, 2007 (See Graph 2)

<table>
<thead>
<tr>
<th>Year</th>
<th>Jan-Mar</th>
<th>Apr-Jun</th>
<th>Jul-Sep</th>
<th>Oct-Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volunteer New</td>
<td>6</td>
<td>14</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Volunteer Returning</td>
<td></td>
<td></td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Students (and academic)</td>
<td></td>
<td>6(1)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Volunteer Hygienist</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Locum</td>
<td>2</td>
<td></td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

1 Presence in any calendar month counted as one visit.
Appendix 8: Strategies for oral health promotion in Wuchopperen context

During their visit, the volunteer hygienist employed a number of oral health promotion strategies previously trialled in an Aboriginal community in Victoria[73], which include:

- Focus on oral health promotion, and hands on oral health education, e.g., teaching people how to floss and brush and recommending fluoride mouth rinses or different products that can be used at home;

- Always give patients a sample bag that has some tailor made brochures about oral health, including a lot of quit smoking materials, information about fluoridation, and some samples, e.g., sensitive toothpaste, flosses, so as to reinforce the health messages, including stickers which attract the children;

- Talk to the patients when they are in the dental chair. Realise that in trying to give them so much information in one session, a lot of it goes in one ear and out the other. So it is good to actually have some of that written down or in visual materials as well that they can take home and they can revisit it; and so extend the education into the home.

During their stay at Wuchopperen, the hygienist prepared a number of sample bags and gave them to clients, as well as explaining them to the dental staff. The kits contained the following samples obtained freely from the suppliers. There was not a large cost in putting the sample bags together, which included:

- ‘Nicotine ... the facts’ Factsheet (GlaxoSmithKline)
- Pamphlet ‘Quit here. Quit now.’ (GlaxoSmithKline, ‘Nicabate’)
- Starter kit (GlaxoSmithKline, Nicabate)
- ‘Tips for strong teeth and healthy gums’ brochure (Macleans)
- ‘Oral health for adults’ brochure (Colgate)
- Toothpaste for sensitive teeth, 25 g sample (Sensodyne, ‘Fresh Impact’)
- Waxed floss, 2.74m sample (Colgate, ‘Total’)

A number of interrelated processes that impact on the effectiveness of oral health promotion were described to the Evaluation Team by respondents, not all of which are related to the dental volunteers:

- The patient, how aware are they of the importance of oral health and their capacity related to oral health care
- Roles within the dental practice; i.e., dental regulations, and their influence
- Established treatment protocols; i.e., comprehensive check
- How well oral health education is delivered and by whom
- Time spent on oral health education
- Different dental volunteers and a diversity of approaches
- Emphasis each dentist places on health promotion and their own knowledge in the area
- Perceived outcomes of the education that is delivered and compliance by patients; i.e., perceptions of the dental volunteers themselves
- Vigilance of the dentist in following up
- Willingness of the dentist or another dentist or the practice staff to go through the education again.
Appendix 9: Suggested improvements to ‘Filling the Gap’ by stakeholder group

This Appendix contains short summaries of suggestions towards improving the program that were made to the Evaluation Team, grouped by stakeholder category:

**Health service personnel**

Overwhelmingly, when posed the question what could be done better or how could the service be improved, respondents from Wuchopperen and the outreach clinic felt they liked the program pretty much the way it is. Rather than criticise the program, they tended to offer suggestions:

- **Regular visits by volunteer hygienists to provide the opportunity for Wuchopperen to do some really good work in the area of oral health promotion.**
- **Dietary education, that’s where it all starts from you know your diet and that and how to brush your teeth.**
- **Securing a full-time dentist!**
- **Mobile van: if there was some way to work it … at least one dentist covering all year round.**
- **Related to this was the suggestion from the Outreach Clinic management that it would be good if there was a month turnaround time. It certainly would make a bigger difference ... a regular pattern. [The informant acknowledged that the availability of volunteers was a factor]:**
- **If it wasn’t every month, a month at a time, you think of the number of people that’s on the Tablelands, just the Indigenous ... which could be five, six thousand or more; how would get them all to access the service and to make that a priority; so we’d need a couple of years ... to actually ... ’cos you know very well, it’s the people who want to improve their health and maintain their health will come first and those ones who don’t see it as a priority.**
- **Longer lead in time regarding availability of mobile van. Sometimes if someone tells somebody who is visiting Cairns, they will know before we do; and: If we’re given plenty of notice, we will then send a note to our clients who we think are really in urgent need, and we’ve actually done that and we’ve filled up a week without no problems at all. We’d like two or three weeks (Outreach clinic management).**
- **Probably at least a month’s notice before [a visit by the dental van]. Just a sense of how often the van will visit, so that patients can be reassured. It’s not knowing that upsets them. There is some people ... coming down from Ravenshoe for this visit, but yeah, I know they’ll be upset to hear that they’re not getting a dental visit again ... (Outreach service staff member).**
- **That to me it would help the people out in the communities you know to say ‘Okay, We’re coming on such and such a week!’ (Wuchopperen director).**
- **It [the mobile van] seemed to just disappear for a long time ... we didn’t ever get any updates or anything as to where it was going and what the progress was ... I guess anything like that ... where there’s something that is missing [i.e., a service], we want it like tomorrow! (Outreach service staff member).**
- **Ensure the service is well advertised. Assuming that everything is in place with the program, personnel and equipment, etc.**
- **I’d like to do more studying. Dental assistants are looking to further their education and training. Potentially there is the opportunity for assistants to visit other practices:**
- **I don’t know, I mean the biggest thing that we lack is opportunities for our dental assistants to learn more and train and get away, because I guess I’m thinking if there were opportunities - we get the dentists come - if there are**
opportunities where our dental assistants can go back to their services perhaps and help and learn and see how it operates in their clinic, and see how a big mainstream dental service operates. (Wuchopperen director).

- Possibly getting government to acknowledge the value of volunteers dollar for dollar.

- Longer stays by the volunteers, although it was acknowledged these are hard for the dentists to arrange. This would add value to the investment, as far as airfares went and allow more direct follow up with patients.

- Encouraging the dentists to return regularly.

- Finding ways to obtain liability cover for dentists who have retired. So that retirees could do some volunteering without the burden of professional liability premiums.

- While most dentists who visited are pretty adaptable occasionally there is an item or product that the service does not have:

  - One thing that would probably be an advantage is if every dentist that came up could let us know if there is anything specific they use. Because, like there are some dentists that use you know one sort of instrument, and we might not have it or one product that we don’t have. So if they could let us know any of the special items that they like and then we can order it before they get here it would be good (Dental unit staff member).

  - If staff knew what the dentists like doing best, their specialisations. This would be helpful for both staff and patients. It would also save time.

  - At least we know we can get all our fillings done with this dentist if they’re really quick at that, all our XO’s done there, and if they’re happy to do them sort of things, no good putting like a dentist in the situation where they’re not happy … oh I don’t know how to explain it, it’s just easier on us and them if we give them you know everything … that’s just so much better for our patients … ‘cos they feel so much more comfortable …

- Reviewing processes around treatment plans for dentures.

- Assist in the fulfilment of chronic disease care plans, possibly through the collaboration of Wuchopperen and ‘Filling the Gap’ and the local dentists. Without a full-time dentist, or consistent availability of a dental assistant and the mobile van, it is difficult to fulfil the care plans. Compounding this is that when the mobile van does become available it is on short notice, which also affects follow up.

One informant elaborated processes by which a volunteer program could ensure continuity of care, i.e., having an established process, that there is a focal person, that there is a central point of contact who manages issues as they came up, if there is the need for an impromptu visit, if there is the need to manage travel for a patient to Cairns, to know that a client is a regular client of the service and give priority to their need. So that if the dental teams change, that there is a system in place. Similar to the Royal Flying Doctors who rely on people on the ground. It could be an oral health-trained person on the ground at the outreach clinic, say an AHW, not necessarily a hygienist or whatever, but somebody who is stationed here specifically for that, so that the mobile team is supported, i.e.,

[H]e or she is there with them … as a way of risk management … because then you know, so and so had that procedure … So this person is sort of trained. So they have an idea of what’s involved in an extraction, what’s involved in a root canal treatment and then when they make a follow up, somebody suggests something that’s sort of suggests an infection … Say, ‘Oh yeah … Let’s get in touch with Cairns … Yes. This is what’s happening’. Not necessarily the mobile team … but the oral health sort of person … so that they don’t disturb these guys doing their work (Outreach service staff member).

Suggestions around recruiting volunteers included, actively promoting the program as a holiday, even to the extent of finding further travel support; encouraging people to come for a week of work followed by a week of holiday.
Also, publicising the success of the program.

It’s really important to get more people!

To take local sensibilities into account. You can have the brilliance of the dentists coming up and all that; as long as we don’t advertise, as long as we don’t take into account the sensitivities, then we’ve missed. Sensitivities, such as visiting a hospital that are passed on from generation to generation. For some patients, the location of the dental van may not suit them. Always be aware that there will be a portion of the population that it will miss, because they will be those who will oppose that place [even when] the majority supported it. To have strategies to approach those people and let them know when the van is visiting a location nearby. They look seemingly minor, but [these issues] actually count in these sort of communities ... there are frictions within communities and even now, we know that this here, the van here missed quite a number ... but our task now is how do we reach out to those ones we’ve missed (Outreach clinic staff member).

Patients

Patients tended to be similarly supportive of the program:

Only having them [the dental volunteers] here longer ... (Wuchopperen patient)

There are times when there’s a gap when you just have to wait and you have to be prepared to wait [but being told the right things to do in between does help] ... it would be great to have someone there consistently. Not necessarily the same person ... (Wuchopperen patient)

Dental volunteers

A number of dental volunteers suggested that they would handle aspects of record keeping and filing a bit differently. It was the filing that gave me the cold heart ... I could make some suggestions.

Apart from noting several smaller repairs to finishes in the clinic, one volunteer suggested that a mirror fastened to the wall would be beneficial, both to patients:

They are still a bit numb and they want to reassure themselves that they still look in one piece, and also to practitioners who spend all day pulling a mask on and off their face: [T]o see if my lipstick is all over my nose.

One volunteer noted: The chair was a bit low on torque ... I would have like a bit of technical support to have that tuned, to just get a bit more oomph in it. It just wasn’t efficient enough but you sort of cope. [This problem has been investigated.]

One volunteer with extensive experience establishing dental aid in post conflict scenarios commented that in terms of return for investment it might be worth looking at expanding the mobile van service in the region. There is excellent portable equipment available now which we didn’t have ten, fifteen years ago ... it is readily available ... it is certainly economical and easily maintainable. She noted that a lot more work needed to be done in the outlying communities surrounding Cairns. She described her experience with a massive population health education program in a similar population overseas where they have been able to halve the amount of decay in school children below the age of 16:

So you know I think if we can take a mobile dental service that provides at least basic dental care and a lot of preventative dentistry and a lot of combined with dental health education and reinforcing that dental education repeatedly can bring about a turn around. And I think that is where the dollar needs to be spent (Dental volunteer).

One volunteer felt that the assistants could take a leading role in updating the volunteer on the patient’s treatment status:

They know already in the computer there, what the patient is coming for, whether they are coming for an exam or follow up or treatment or something like this. It’s in the
computer, on the patient appointment list and these are actual ... printed list. So just the dentist [has to] try and follow it. And to the volunteers generally, it was suggested: if he has to change a treatment plan or something, he should write there, why he changed the treatment plan or why this one would be better for the patient and stuff like this. So yeah, from follow up from one dentist to another, I don't think there is a problem at all. There's no problem there.

There were differing views on the potential of computerising the dental records. One volunteer thought that each dentist's ability to manage the computer record would be an obstacle. Another described how the computerising of records in their own practice had empowered their entire team and everybody could read them. 'Dental for Windows' was promoted as being the simplest and as having many practical advantages in terms of patient continuity and patient communication as well as staff communication about that patient. But for a practice like Wuchopperen, where patient practitioners are coming and going all the time, that would be my recommendation to them.

At the population health level, there was some strong advocacy for fluoride in the local water supply:

Cairns should have fluoride in the water supply. We just do not see that [level of decay] in suburban Melbourne and it doesn't matter how crappy your diet is you know, what you eat, you just don't see the amount of decay that you see up in Cairns (Dental volunteer).

One volunteer who had worked in Ireland told of how the school program over there would give out fluoride tablets, while doing routine education and work on oral hygiene.

Oral health promotion was discussed with a heavy focus on the periodontal disease and treating that as well suggested, through the inclusion of more hygienists and periodontists, in order to, look at the other side of the oral disease ... once we can start getting past the emergency work ... (Dental volunteer). Training staff members in oral health promotion was also mentioned often.

One volunteer remarked that the down time between dental visits could be useful to do more oral health promotion. She was not sure of how much training was there, but felt that it would be very good if staff were trained to give dental health advice to some of the other groups that they have in the health centre, e.g., antenatal clinics, or the youth group, or while people are waiting for appointments, or the diabetic clinic – because they wait there for a long time [during testing]; it's just something to sort of do a little bit more prevention as well rather than just fixing things up when things have already gone wrong.

Another volunteer also offered to do professional education for staff, offering to do seminars about linking oral health to general health.

One volunteer yearned for a little more about Indigenous culture:

Just that whole experience of travelling up there ... it works really well. And I, even if there was a little bit more, if we could learn a little bit more about the Indigenous culture or about their art or things like that, that would have been really good (Dental volunteer).

Steering Committee

Suggestions made by the Steering Committee included:

- [What we should really do is] explore the hygienists! Because that would deal with taking some of the pressure off the dentists and do some preventative work (Steering Committee member).
- More aggressive marketing plan: [S]o that every dentist in Australia knows about it, because they don't, a very small percentage know.
- Better funding: [S]o they can have a better organizational set up with an office and its facilities [so that if people] look up the phone book, find 'Filling the Gap' and ring them up, secretary answers the phone and tells them what the need to know (Steering Committee member).
Appendix 10: Process of this evaluation – step by step

To achieve this evaluation, the team took the following fifteen steps over an extended period of 24 months:

• Preliminary meetings between members of the Steering Committee and Wuchopperen;

• Scoping visit by the Sydney based members of the evaluation team to Wuchopperen;

• Bibliometric analysis and literature review;

• Writing and submission of student protocol to the Post Graduate Co-ordinator and the academic supervisor of the student component of this evaluation;

• Creation of trigger question instruments and information sheets, consent forms, community letters and other materials for the evaluation team;

• Ethics application development, review, submission and eventual approval process, to both Wuchopperen and the University’s Ethical Review Committees;

• Development of the poster demonstrations and other presentations for the program and the evaluation methodology;

• Data collection, both in person and via the telephone, on site at Wuchopperen and in Sydney;

• Qualitative – including thematic assessment and analysis - and quantitative data analysis and interpretation;

• Draft report preparation and delivery of primarily qualitative findings to the Steering Committee;

• Incorporation of feedback from Steering Committee and other stakeholders;

• Second draft prepared for review by the Steering Committee and the Wuchopperen Board of Directors;

• Incorporation of final revisions;

• Proofing and preparation of Final Report and submission for approval to publish; with contemporaneous production of Poster Presentation and journal article

The use of volunteer dental professionals to address a profound need in Aboriginal communities in Australia

Lisa Jackson Pulver, Jan Ritchie, Sally Fitzpatrick, Marion Norrie, Uri Windt, Gael Kennedy

For Aboriginal and Torres Strait Islander populations across Australia, access to dental care is a key determinant of their overall health and well-being. The lack of access to dental care has significant implications for many aspects of life, including education, employment, and quality of life. This is particularly evident in remote and disadvantaged Aboriginal communities, where dental care is often limited or non-existent.

The Filling The Gap Indigenous Dental Program is one initiative aimed at addressing this issue. It is a community-based, peer-led program developed in partnership with Aboriginal and Torres Strait Islander communities across Australia. The program trains volunteers to provide basic dental care, including cleanings, fillings, and extractions, to help bridge the gap in access to dental care.

The Filling The Gap program has been successful in improving oral health outcomes for participants. Studies have shown that participants report improved confidence in their ability to maintain their oral health, as well as increased access to dental care.

However, despite these successes, there is still a need for increased support and funding to expand the program. Further research is needed to fully understand the impact of the program and identify areas for improvement.

References:
Appendix 12: Glossary of acronyms and definitions

Acronyms

ACCHO  Aboriginal Community Controlled Health Organisation
ACCHS  Aboriginal Community Controlled Health Service
ADA    Australian Dental Association
AHW    Aboriginal Health Worker
AMS    Aboriginal Medical Service
APAIS  Australian Public Affairs Information Service
ARCPOH Australian Research Centre for Population Oral Health
ARIA   Accessibility or Remoteness Index of Australia
ATSIHS Aboriginal and Torres Strait Islander Health Service
CDC    Centres for Disease Control and Prevention
CDM    Chronic Disease Management
CDHP   Commonwealth Dental Health Program
CHINS  Community Housing and Infrastructure Needs Survey
CINAHL Cumulative Index to Nursing and Allied Health Literature
DoHA   Department of Health and Ageing
EPC    Enhanced Primary Care
FTE    Full-time equivalent
IPTAAS Isolated Patient Transport and Accommodation Assistance Scheme
IT     Information Technology
MBS    Medicare Benefits Schedule
NACCHO National Aboriginal Community Controlled Health Organisation
NSCCAHS Northern Sydney Central Coast Area Health Service
OATSIH Office for Aboriginal and Torres Strait Islander Health
OTD    Overseas-trained Doctor
PAT    Patient Assisted Transport
PBS    Pharmaceutical Benefits Scheme

Definitions

Base Clinic
Wuchopperen Oral Health Care Unit’s dental clinic is housed within the Wuchopperen Health Service complex in Manunda, Cairns, and is referred to as the Base Clinic throughout this document.

Community
In the public health and community development literature, ‘community’ is generally used to refer to categories of people based on identity, geography or issue [81].

Community Control
According to NACCHO:

“The ‘Community Control is a process which allows the local Aboriginal community to be involved in its affairs in accordance with whatever protocols or procedures are determined by the community.

The term Aboriginal Community Control has its genesis in Aboriginal peoples’ right to self-determination.

An Aboriginal Community Controlled Health Service is:

• An incorporated Aboriginal organisation
• Initiated by a local Aboriginal community
• Based in a local Aboriginal community
• Governed by an Aboriginal body which is elected by the local Aboriginal community
Delivering a holistic and culturally appropriate health service to the community which controls it” [82].

Aboriginal and Torres Strait Islander Community Controlled Health Services in Far North Queensland are primary health care services delivering not only primary medical care with clinical services for treating diseases and the management of chronic illness, but also pharmaceuticals, counselling, preventive medicine, pre- and post-natal care and various other services.

Cultural safety
While it is a developing field of practice in Australia, historically, the term cultural safety has described the effective professional practice of a person from another culture that is determined by those who receive the service. It involves reflection on one’s own cultural identity in order to recognise the impact that one’s own personal culture has on how one practices. Unsafe cultural practice is any action, which diminishes, devalues, or disempowers the cultural identity and wellbeing of an individual (Adapted from Ramsden, 2002 in [83]).

Dentist
Dentists diagnose and treat diseases, injuries and abnormalities of teeth and gums, undertake preventive procedures, conduct surgery and perform other specialist techniques.1 A dentist may perform the following tasks: examine patients’ teeth and gums using dental equipment and X-rays; diagnose dental conditions and plan oral health care in consultation with patients; clean teeth and cavities and provide preventive care, such as scaling, cleaning and fluoride therapy; repair decayed and broken teeth by rebuilding tooth structures and providing crowns and bridges; treat diseases of the roots, gums and soft tissues of the mouth; perform routine surgical procedures, such as extracting teeth, as well as complex operations on the jaws and soft tissues; give local anaesthetics when necessary for carrying out treatment; design and fit dentures, crowns and bridges for the replacement of lost or unsound teeth; refer patients to dental specialists for further treatment. Specialisations include: Endodontist, Oral/Maxillofacial Surgeon, Orthodontist, Paediatric Dentist, Periodontist, Prosthodontist [84].

Dentistry
According to the Dental Practitioners Registration Act 2001 (Qld) (s139A(4)) “dentistry means all or any of the following — (a) diagnosis of conditions of the mouth; (b) fitting or intra-oral adjustment for a person of artificial teeth or corrective or restorative dental appliances; (c) performance of exposure prone or irreversible procedures on a person’s teeth, jaw, mouth and associated structures.” [85].

Dental Assistant
Dental assistants prepare patients for oral examination and assist other dental workers, such as dentists, dental therapists and dental hygienists, in providing treatment to the teeth, mouth and gums. Dental assistants also carry out chair-side and reception duties.3 Dental assistants may perform the following tasks: receive patients and prepare them for necessary dental procedures; prepare surgery for dental treatment with correct instruments/materials ready for use as directed by the operator; record findings from the oral examination; during oral examination or treatment, provide instruments and dispense materials as directed by the operator; provide pre- and post-operative instructions for patients undergoing general or local anaesthesia; clear the patient’s mouth of saliva or dental materials used in the

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1 Source: http://www.myfuture.edu.au/services/default.asp?FunctionID=50506&ASCO=258111A

2 ‘Exposure prone’ procedure means— (a) a sub-mucosal invasion with a surgical instrument; or (b) a procedure dealing with sharp tissues or bone spicules in a body cavity or site; ‘irreversible procedure’ means a treatment, or series of treatments, that causes a permanent change to the affected hard or soft tissues. Dental Practitioners Registration Act 2001 (Qld) (s139A(4)).

3 Source: http://www.myfuture.edu.au/services/default.asp?FunctionID=50506&ASCO=639111A
treatment by operating handheld suction or air and water-spraying equipment; clean and sterilise the instruments used after treatment, clean and tidy the surgery and implement standard decontamination procedures for infection control; process, mount and file dental X-rays; maintain and re-stock dental supplies; perform routine care and maintenance of dental equipment and instruments; make appointments for patients, keep records of patients' treatments and send out reminders for re-examinations; prepare accounts and collect payments; answer the telephone and carry out other office duties [84].

Dental auxiliary
According to the Act,⁴ dental auxiliary means a person qualified for dental auxiliary registration in 1 or more of the following categories—(a) dental therapy; (b) dental hygiene; (c) another category prescribed under a regulation. The term dental profession includes dental auxiliaries.

Under the Act, a locally registered dental auxiliary cannot practice without a supervising registrant, e.g. a dentist or specialist registered in Queensland. (NB: This is different to the immediate personal supervision that a student requires.)⁵ [85].

Dental hygienist
Dental hygienists provide preventive oral health care under the supervision of a dentist.⁶ Dental hygienists may perform the following tasks: educate and counsel children and adults on dental health, plaque control, oral hygiene and nutrition; remove deposits and stains from teeth by scaling and root planing; assist in the prevention and control of dental caries (decay) and gum disease; select and use appropriate fluoride treatments and polish tooth restorations; expose and process dental X-rays; make impressions of patients’ mouths for the construction of study casts and mouth guards; select and size orthodontic bands (braces), and remove orthodontic wires and attachments; apply and remove periodontal packs; instruct patients on how to look after their teeth and mouth after operations [84].

Dental technician
Dental technicians construct and repair dentures (false teeth) and other dental appliances, including crowns and bridges.⁷ Dental technicians may perform the following tasks: make models of the mouth and teeth from impressions of the patient’s mouth (taken by the dental prosthetist or dentist); build up wax replicas of part or all of the mouth and/or teeth using the model; encase the wax in a mould material and melt away the wax; replace the wax with plastic, metal or ceramic materials to make the replacement appliance; polish and finish the appliance prior to being placed in the patient’s mouth; make appliances for patients with cleft palates, braces and plates for correcting irregular teeth and mouth guards. General prostheses is the largest field in dental technology, in which partial or full dentures (metal and non-metal) are constructed to replace the partial or total loss of natural teeth [84].

Dental therapist
Dental therapists examine and provide routine treatment of teeth under the general supervision of dentists. They also help to promote preventive dental practices among school children and the broader community.⁸ Dental therapists may perform the following tasks: educate and motivate children to maintain good oral health; help to educate the community in the principles of preventive dentistry by addressing adult groups such as parents’ groups, play groups and parents and citizens’ groups and parents and citizens’ associations;

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⁴ Dental Practitioners Registration Act 2001, Reprint No 3, Schedule 4.
⁵ Dental Practitioners Registration Act 2001, Reprint No 3, s140.
⁷ Source: http://www.myfuture.edu.au/services/default.asp?FunctionID=5050&ASCO=349215A
⁸ Source: http://www.myfuture.edu.au/services/default.asp?FunctionID=5050&ASCO=349211A
provide routine dental treatment for children, including dental examinations and diagnosis, cleaning, scaling and polishing teeth, filling cavities and extracting deciduous (baby) teeth under local anaesthetic; treat gum conditions, take X-rays of teeth and jaws, apply sealants and fluoride therapy, and take impressions for mouthguard construction; bring more complex dental problems to the attention of dentists; work with managers of school canteens, advising them about healthy food; liaise with other health care providers [84].

**Dental workers**

In Australian government reports, ‘Dental workers’ comprises Dental Practitioners, Dental Specialist, Dentist; Dental Hygienists, Dental Technicians, Dental Therapists, Dental Prosthetist; Dental Assistant.

**Health**

For Aboriginal and Torres Strait Islander people:

“Health does not just mean the physical well-being of the individual but refers to the social, emotional, spiritual and cultural well-being of the whole community. This is a whole of life view and includes the cyclical concept of life-death-life. Health services should strive to achieve the state where every individual can achieve their full potential as human beings and thus bring about the total well-being of their communities” [4].

**Holistic**

Also spelt wholistic. Including or involving all of something, especially all of somebody’s physical, mental, and social conditions, not just physical symptoms, in the treatment of illness.

Encarta® World English Dictionary © 1999 Microsoft Corporation

**Locum**

A locum is someone temporarily taking the place of another in the same profession, for example a doctor or dentist.

**Outreach clinic**

Several health services in the region surrounding Cairns provide a site for Wuchopperen’s Mobile Dental Clinic. These are referred to as outreach clinic services or mobile services throughout this document.

**Primary Health Care**

According to the National Aboriginal Health Strategy Working Party, a working definition of primary health care is, “Essential health care based on practical, scientifically sound, socially and culturally acceptable methods and technology made universally accessible to individuals and families in the communities in which they live through their full participation at ever stage of development in the spirit of self-reliance and self-determination” [4]. See also the Declaration of Alma Ata, 1974.

**Volunteer dentist**

In the context of this report, a volunteer dentist is a dentist, dental specialist or hygienist delivering professional care for one or two week periods on a volunteer basis, through the ‘Filling the Gap’ program. The term ‘dental volunteer’ is used as a collective term for convenience.
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