Evaluation of Outreach Models of Medical Specialist Service Delivery

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Acknowledgements

No evaluation of the type being undertaken would be possible without the cooperation and help of the services themselves. The evaluators are extremely grateful to the eight projects selected for their interest in being evaluated and for their willingness to work with the evaluators.

Disclaimer

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Contents

Executive summary .................................................................................................................. 4
Chapter 1: Introduction and methodology........................................................................... 8
Chapter 2: Literature review of medical specialist outreach services .................................. 11
Chapter 3: Physician outreach services (endocrinology), Northern Territory ...................... 32
Chapter 4: Report on WA surgical outreach service ............................................................. 42
Chapter 5: Obstetrics and Gynaecology outreach service, Victoria ...................................... 53
Chapter 6: Specialist outreach support in mental heath, Victoria ......................................... 61
Chapter 7: Paediatric outreach, South Australia .................................................................. 69
Chapter 8: Surgical outreach, Queensland ......................................................................... 81
Chapter 9: Physicians (Internal medicine) outreach service, Victoria ................................. 89
Chapter 10: Dermatology outreach, NSW ............................................................................. 103
Chapter 11: Review of stakeholder consultations ................................................................. 114
Chapter 12: Findings – Critical success factors for sustainable medical specialist outreach ...... 122
Appendix A: Stakeholder organisation consulted ................................................................. 137
# Tables and Figures

Summary of specialist outreach service models nominated for this study .......................................................... 5
Table 1.1: Specialist outreach service models nominated for this study ................................................................. 10
Table 2.1: Specialist Medical Colleges defined population catchment requirements for a viable outreach service by location ......................................................................................................................................... 19
Table 2.2: Characteristics of different models of outreach provided by the SOS ...................................................... 30
Table 2.3: Models of ophthalmic services .................................................................................................................. 31
Table 3.1: Physician admitting teams, Royal Darwin Hospital .................................................................................. 33
Table 4.1: Population of towns serviced by the RSS & prevalence of visits .............................................................. 43
Table 4.2: RSS budget outline .................................................................................................................................... 43
Table 4.3: Characteristics of towns receiving outreach treatment ............................................................................. 45
Table 4.4: Broad diagnostic groups of patients presenting to the RSS ...................................................................... 46
Table 4.5: Actual procedures performed .................................................................................................................. 46
Table 5.1: Population: District Health Services within Cairns Sub-zone .................................................................. 54
Table 5.2: Characteristics of towns receiving outreach treatment ........................................................................... 54
Table 5.3: Specialist services attributable to the outreach service ........................................................................... 56
Table 6.1: Overseas trained psychiatrists trained by Uni outreach program ........................................................... 63
Table 6.2: Tele-conferencing, location by service type, January 1999 – May 2001 ...................................................... 64
(117 operational weeks) ......................................................................................................................................... 64
Table 7.1: NRPU outreach activity .......................................................................................................................... 71
Table 7.2: NPRU clinic activity statistics ................................................................................................................ 75
Table 7.3: Analysis of NPRU clinic statistics ........................................................................................................... 76
Table 8.1: Population: District Health Services within Cairns Sub-zone .................................................................. 81
Table 8.2: Population indicators by Sub-zone ........................................................................................................... 81
Table 8.3: Organisation of surgery at CBH ............................................................................................................... 82
Table 8.4: Characteristics of hospitals receiving surgery outreach treatment ....................................................... 83
Table 8.5: Outreach workload in general surgery .................................................................................................. 83
Table 9.1: Provision of outreach services ................................................................................................................ 89
Table 9.2: Population: Wangaratta and surrounding outreach towns in Hume Region ........................................ 90
Table 9.3: Characteristics of towns receiving outreach treatment ........................................................................... 90
Table 9.4: Specialist services attributable to the outreach service for Myrtleford and Yarrawonga for 2000-2001 ........................................................................................................................................ 93
Table 10.1: Catchment population for the Port Macquarie and Taree outreach services ........................................... 104
Table 10.2: Key variables of service to towns receiving outreach treatment ......................................................... 106
Table 10.3: Proportion of total services provided by Medicare Item Number (2002 calendar year) ....................... 108
Table 10.4: Distribution of fees earned in 2002 by type of billing ........................................................................ 109
Table 12.1: Classification outreach services reviewed by type ................................................................................. 128
Table 12.2: Classification outreach services by funding arrangements ................................................................. 129
Table 12.3: Summary of strengths and weaknesses of outreach services ............................................................. 134
Executive summary

Disparities in the availability of health services between rural and metropolitan Australia, and in particular specialist medical services, have been well documented.

To assist in promoting the availability of quality specialist outreach services to rural and remote Australia, the Commonwealth launched the Medical Specialist Outreach Assistance Program (MSOAP) in May 2000, with funding amounting to $48.4 million over four years.

This study evaluates eight, nominated demonstration outreach services, which had been established before the commencement of MSOAP and which had not therefore attracted MSOAP funding. The services, with their broad characteristics and their main source of funding are summarised in the table below. The purpose of the evaluation is to determine the factors that make the provision of outreach services attractive to specialists and the factors that make outreach services sustainable over time. The information gathered from this study will help to inform future medical specialist outreach endeavours across regional, rural and remote Australia.

<table>
<thead>
<tr>
<th>Type of service</th>
<th>Source of service</th>
<th>Target population</th>
<th>Type of model</th>
<th>Main source of funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermatology</td>
<td>Private specialist service</td>
<td>Mid North Coast region of NSW</td>
<td>Multi-site practice</td>
<td>Private</td>
</tr>
<tr>
<td>Endocrinology and other physician services</td>
<td>Royal Darwin Hospital, Darwin</td>
<td>Regions of the Northern Territory north of Tennant Creek (mostly ATS communities)</td>
<td>Fly-in, fly-out</td>
<td>Public</td>
</tr>
<tr>
<td>Obstetrics &amp; Gynaecology</td>
<td>Private specialist service located in Warmambool</td>
<td>Hamilton, Timboon, Hampton, Toorang and Camperdown</td>
<td>Multi-site practice</td>
<td>Private</td>
</tr>
<tr>
<td>Internal Medicine &amp; Endoscopy</td>
<td>Private specialist service located in Wangaratta</td>
<td>Hume Region, North East Victoria and Southern NSW</td>
<td>Hub and spoke</td>
<td>Private</td>
</tr>
<tr>
<td>Paediatrics</td>
<td>Northern Regional Paediatric Unit, Port Augusta</td>
<td>Port Pirie, Wyalla, Roxby Downs, Yalata, Cooper Pedy, Ceduna and Port Lincoln. The service area covers about 74% of SA</td>
<td>Hub and spoke</td>
<td>Public</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>Royal Melbourne Hospital</td>
<td>Warmambool, Shepparton and Ballarat</td>
<td>Fly-in, fly-out</td>
<td>Public</td>
</tr>
<tr>
<td>Surgery</td>
<td>Sir Charles Gardiner Hospital, Perth</td>
<td>Pilbara, Wheatbelt and South Eastern Goldfields Regions</td>
<td>Fly-in, fly-out</td>
<td>Public</td>
</tr>
<tr>
<td>Surgery</td>
<td>Cairns Base Hospital, Cairns</td>
<td>Innisfail, Mareeba, Atherton, Cooktown, Mosman and Weipa</td>
<td>Hub and spoke</td>
<td>Public</td>
</tr>
</tbody>
</table>

Genuine outreach services are where a discernable operations base provides sustainable services to a defined rural and remote population. The services may be either privately operated with a private practice service base or publicly funded with a public hospital service base. Few models rely exclusively, however, on a single source of funding. Both private and public models, for instance, generally rely in part on patient Medicare entitlements.

Each nominated service received a consultant visit of two to five days duration that included its service base and one or more of its host target sites. Material collected during visits was used to construct comparative profiles of each of the nominated models.

Apart from the disciplines of general surgery and physician services being common to more than a single service, a comparative analysis of the attributes and characteristics of the models reveals

Executive Summary

5
few, if any, similarities between them. Each had developed in part as a discrete response to specific local exigencies and in part, and usually primarily, because public or private sponsors possessed skills and resources that they were willing to deploy in outreach activities. As a consequence, the evolution and character of services has been fashioned by the imprimatur of the provider. It is thus difficult to recognise a systematic pattern or theory to explain the germination of services or their subsequent performance and growth.

Decisions affecting the evolution of outreach activities typically seem unlikely to be precipitated by systematic evaluation of needs and priorities or to take into consideration the burden and location of rural disease. Most outreach services appear to be substantially supply-driven.

Public health criteria that may favour initiating new specialist outreach services in ‘greenfield’ locations that cannot accommodate a resident service include:

- patient convenience
- preservation of local facilities
- maintenance of GP skills

Against specialist outreach, it may be argued that:

- there may be a loss of consumer choice
- local facilities and infrastructure are costly to maintain
- it may be more costly than bringing patients to specialists

Because of the importance of maintaining and effectively utilising infrastructures such as operating theatres and the associated staffing overhead, hurdles for procedural outreach services are likely to prove considerably more challenging than for services such as psychiatry, physician services, or even the consulting component pre- and post a procedural event.

Given the moral and social imperatives of delivering specialist care to disadvantaged rural and remote communities, it is unlikely to be productive to attempt to justify the principle of specialist outreach services by appealing in general terms to economic criteria such as cost benefit or cost effective criteria. There would be few specialists outreach services capable of realising net social benefit. Cost effectiveness of specialist outreach as against patient travel remains a moot proposition. Once, however, provision of a specialist outreach service is accepted in itself as a given endpoint, cost effectiveness considerations can play a part in ensuring that site-specific least cost solutions are adopted.

This allows discussion to concentrate on:

- the type of basic conditions likely to be most propitious to the successful launch of a specialist outreach service
- assessing the range of models that attempt to address outreach needs and which, indeed, if any, are likely to most effective.

Specialist outreach decision criteria will include:

- adequate local unmet demand to justify specialist outreach
- local host site support from GPs, etc
- appropriate local infrastructure and complementary resources

Choice of model will involve selecting from three broad classes of outreach vehicle as follows:
• fly-in, fly-out models
• the multi-site practice models
• hub and spoke models

Each of these models or their hybrids is represented in the eight case studies explored in this study (see table, above). There is a recurring pattern in at least six of the models evaluated of dependence on one or two individual specialist providers who are ardent proponents of the outreach cause. These individuals have been the service champions whose verve and enthusiasm has provided the energy for initiating and developing specialist outreach.

On the evidence available, we believe that there are no universal claims to be made about the ‘best’, most effective or workable outreach models. The best models are necessarily the ones that fit local needs and harmonise with local practice.

Although the manner and extent of specialist outreach funding is important to the realisation of service outcome, funding is a necessary rather than a sufficient condition for successful outreach activity.

Given a societal ‘willingness to pay’ for new specialist services (either by way of public funding, or a mixture of public and private self funding) we believe that the element most critical to the success of an outreach service will be its sustainability.

A theory of sustainability is likely to be associated with notions of continuity in conjunction with developing strength. Continuity with strength is a significant hurdle. Each of the eight specialist outreach services reviewed in this study, for instance, has at least a five-year experience of uninterrupted operations. By any reasonable assessment, these services could claim to have met a longevity test. And yet, challenges to their sustainability remain.

The principal influence of a service champion on outreach sustainability is also its main vulnerability: without clear succession plans, outreach services remain fragile. Many health authorities appear to take specialist outreach services for granted and underestimate the risk associated with a high level of dependence on single key players. We believe that it is of paramount importance for outreach services to develop succession plans.

Indicators for future development of outreach services should include:

• sites that are neediest in terms of the burden of untreated disease
• sites that do not have resident services, but that either possess, or can be readily equipped with the requisite infrastructure
• sites whose cause is clearly articulated by a motivated service champion—usually a specialist provider—who is at least aware of the importance of developing a succession plan (if not already in place)
Chapter 1: Introduction and methodology

Background

Disparities in the availability of health services between rural and metropolitan Australia, and in particular specialist medical services, have been well documented in the past (eg Gadiel and Ridoutt, 1995). Health planners have generally accepted that impaired access to specialist services has an important bearing on poor health status. Powerful relationships have been demonstrated between service availability and utilisation (Humphreys and Rolley, 1993), and the latter is often construed as a proxy for health status (Pampalon, 1991). This verdict has been reinforced by the perceptions of rural health consumers themselves (Gadiel and Ridoutt, 1995).

Although rural health consumers value the availability of resident medical services above all else (Humphreys and Weinand, 1991), in the case of specialist services this has not always been feasible for all disciplines because of the infrastructure required to support specialist care (Gadiel and Ridoutt, 1995). One consequence has been a series of ad hoc services that has developed by arrangement between individuals or institutions to provide specialist outreach care. These efforts have not always been successful either in the short or longer term.

Medical Specialist Outreach Assistance Program (MSOAP)

To assist in promoting the availability of quality specialist outreach services to rural and remote Australia, the Commonwealth launched the Medical Specialist Outreach Assistance Program (MSOAP) in May 2000, with funding amounting to $48.4 million over four years.

MSOAP provides funding to visiting specialists to cover certain costs associated with the delivery of outreach services, including:

- specialist travel and accommodation whilst on outreach
- specialist communication with local medical practitioners
- specialist training and upskilling to local general practitioners as well as to other health professionals

MSOAP funding is for the benefit of new services and existing services who wish to expand. Specialists who are involved in existing outreach services may be eligible to receive MSOAP funding, provided they add new components to existing outreach services.

Study overview

The Commonwealth has spent considerable resources examining the barriers that exist to providing medical services in rural Australia. However, there is little evidence demonstrating the important issues for the establishment of sustainable specialist outreach services. The current research study was therefore funded to “evaluate” eight, diverse, outreach models. None of the eight services included in this research study have received funds through MSOAP.
Purpose of study

The purpose of this study is:

- to evaluate eight specialist outreach services which had been established before the commencement of MSOAP
- to determine the factors that make the provision of outreach services attractive to specialists and the factors that make outreach services sustainable over time

The information gathered from this study will help to inform future medical specialist outreach endeavours across regional, rural and remote Australia.

The Commonwealth has commissioned a separate study, parallel to the work of this evaluation, to specifically consider the outcomes of the first round of MSOAP funding.

Literature review

A literature review (reported in Chapter 2) is based upon documents that include:

- national and international literature on the provision and evaluation of medical specialist outreach services;
- data provided by fifteen outreach models from which the eight evaluation models were selected (see below);
- available documentation for each of the selected models (including public domain literature, records of Commonwealth, State and Northern Territory departments of health and records of service providers themselves).

Stakeholder and consumer perspectives

Relevant stakeholders were identified, including the specialists delivering the service, consumers and other stakeholders.

Site-specific stakeholders were mostly interviewed during site visits and included:

- personnel engaged in outreach operations—e.g. specialists delivering services, local administrative staff, regional, public and private fund holders;
- host outreach site providers—e.g. resident specialists, general practitioners, nurses, hospital and other administrators, etc; and
- local consumers—usually patients, but in some instances these could more appropriately be defined as ‘users’ (e.g. beneficiaries of specific training packages or support systems rather than end-user patients)

Where feasible, patient perspectives were collected through “pen and paper” surveys. Patient perspectives were also gathered through focus groups. ‘User’ consumer views were collected in face to face meetings, telephone interviews and electronically.

Non-site specific stakeholder perspectives were gathered in the course of approaches to twenty separate stakeholder organisations that included:

- Specialist medical colleges;
- State/ Northern Territory health authorities;
- Advocacy groups;
• Rural workforce agencies; and
• Divisions of General Practice.

The views requested from these non-site specific stakeholder organisations were guided (but not prescribed) by a template. These questions covered a range of issues including sustainability factors, key decision criteria, benefits and problems of specialist outreach.

For confidentiality reasons, it was determined not to publish persons consulted in the course of site visits, however the organisations that provided responses to the stakeholder questionnaire are provided in Appendix A.

**Web site**

A project web site, attached to the Department’s Rural Health page, described the purpose and direction of the project ([http://www.ruralhealth.gov.au/services/outreach_evaluation.htm](http://www.ruralhealth.gov.au/services/outreach_evaluation.htm)). This provided information about the consultant team and Steering Committee. It also gave information to stakeholders.

Once uploaded, the web site was helpful in facilitating stakeholder engagement and involvement. In addition to general evaluation information, downloadable versions of consumer questions and the Evaluation Framework were also made available.

**Site visits**

Eight models were selected for detailed investigation from a short list of 17 possible models on which sufficient data were available.

In selecting the eight outreach services for the study, the Project Steering Committee took into consideration the following criteria:

I. Services needed to be genuine outreach services, with care provided on a regular, systematic and ongoing basis.
II. Services needed to have significant operational experience and a capacity to explore continuity of care, capacity building and sustainability.
III. In so far as possible, the portfolio of outreach models needed to:
   • reflect geographical coverage of all States and the Northern Territory;
   • reflect varying degrees of remoteness, ie regional, rural and remote situations;
   • reflect a reasonable distribution across disciplines, including procedural and non-procedural specialists;
   • include at least one service primarily concerned with indigenous care; and
   • include representation from both public and private practice.

The specialist outreach services nominated for the study are described in Table 1.1 below.

<table>
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<td>Internal Medicine &amp;</td>
<td>Private specialist service</td>
<td>Hume Region, North East</td>
<td>Private</td>
</tr>
</tbody>
</table>
Each service was the subject of a site visit lasting between 2 and 5 days to assist the formative aspects of the evaluation as well as to collect data in the field and to interview local stakeholders (see above).

The material collected during the site visits in conjunction with desk analysis was used to construct comparative profiles of each of the nominated models.

Chapter 2 is the literature review of discussions on factors that make medical specialist outreach attractive and sustainable, whilst Chapters 3 to 10 describe each of the models investigated. To the extent possible, a common reporting format is adopted for each of the models, however, considerable differences between the purposes and the type targets of the nominated models (contributing to the richness and diversity of the information yield) precluded a rigid reporting framework.

Chapter 11 draws together key stakeholder perspectives and Chapter 12 discusses some of the critical success factors unearthed by the evaluation.
Chapter 2: Literature review of medical specialist outreach services

Aim

The main aim of this literature review is to identify:

- Factors that make the provision of medical specialist outreach services attractive to specialists; and
- Factors that make medical specialist outreach services sustainable over time.

To determine these issues, a review was undertaken of national and international literature on the provision and evaluation of medical specialist outreach services. This review is a summary of the published literature. Information on each of the selected service models, likely to include “grey literature” such as unpublished planning, program and evaluation reports, will be examined as these documents come to hand following the site visits.

AMWAC (1998) has defined an outreach specialist service as “A specialist service provided on a regular basis by a specialist(s) who does not reside in the population catchment area (i.e., the specialist/s visits the area on a regular basis in order to provide a specialist service)”. Visiting specialists tend to provide consultative services or, if they are surgeons, conduct operating sessions (National Rural Health Policy Forum and NRHA, 1999).

Rationale for providing specialist outreach services

People living in rural, regional and remote communities in Australia have problems accessing a range of health services, including specialist medical services, due to the related problems of maldistribution and undersupply. This means they often have to travel long distances to see a specialist, which can cause disruption and delays in receiving treatment, and additional cost to families. Specific barriers faced by remote indigenous people in accessing hospital-based specialist services include:

- Geographical remoteness of patients, including inadequate public transport to regional centres, inappropriate accommodation, disorientation and fear experienced in unfamiliar urban centres and dislocation from family;
- Cultural inappropriateness of services, including poor appreciation by hospital staff of the needs of indigenous people and concepts of health, illness and medicine that may be unfamiliar to patients;
- Poor doctor-patient communication, characterised by indigenous people with limited English language skills, lack of access to interpreters, lack of family and familiar health staff in attendance and difficulty obtaining informed consent;
- Poverty, resulting in lack of money for transport, accommodation and food; and
- Health service structure, including rushed consultations, inflexible appointments and inadequate communication between hospitals and remote community clinics (Gruen et al, 2002b).

Research shows that consumers living in rural and remote locations are less likely to seek a specialist opinion or return for follow-up because of the barriers (social, economic, cultural and geographic) associated with accessing specialist services (AHMAC, 1998). Thus, although rural health consumers value the availability of resident medical services above all else (Humphreys and Weinand, 1991), this has not always been feasible for all specialist disciplines because of the infrastructure required to support specialist care (Gadiel and Ridoutt, 1994).
General practitioner (GP) referral patterns may also be affected. A survey by Gruen et al (2002a) of data from 3030 GPs through the Bettering the Evaluation and Care of Health (BEACH) program showed that absence of a local specialist did not significantly influence the proportion of general surgical, orthopaedic, ENT, urological or gynaecological problems referred by GPs, but the proportion referred was significantly lower for obstetric and ophthalmological problems.

Australia as a whole has a large specialised medical workforce but its distribution is inequitable, with most choosing to work in capital cities. Twenty eight per cent of the Australian population, but only 12% of specialists, live in rural and remote areas (Gruen et al, 2002b).

**Rural specialist practice**

The main incentives and disincentives for rural specialist practice have been well documented (eg Bruening and Maddern, 1998; Alexander and Fraser, 1999). A recent literature review, undertaken by James Cook, Flinders and Monash Universities (DoHA, 2002), found that the main **incentives** for rural specialist practice were:

- the attractions of the rural lifestyle;
- the opportunities for professional autonomy and scope of practice;
- the financial rewards; and
- the opportunities to work as part of a multi-disciplinary team.

On the other hand, the **key disincentives** for rural specialist practice included:

- the negative image of rural lifestyle and practice;
- undergraduate selection processes that favoured metropolitan students;
- lack of exposure to rural practice in post graduate education;
- professional isolation;
- long hours of work and on call demands;
- lack of locum relief;
- poor infrastructure support and back up;
- spouse and family issues; and
- pessimism about the viability and future of rural practice.

In addition, the report identified a range of further disincentives, namely:

- the barriers to re-entry to metropolitan practice;
- the problems associated with solo practice;
- financial issues such as higher establishment costs and lower remuneration than in metropolitan areas;
- the stigma attached to and lack of recognition of rural practice;
- the lack of access to continuing medical education activities;
- the increasing sub-specialisation of specialist medical practice; and
- the need for generalist specialist training to meet the demands of rural practice (DoHA, 2002a).

Many rural communities are too small to support resident specialist services. For these communities service options will continue to include a mix of initial care by resident primary care practitioners, coverage from a specialist outreach service, travel to a larger centre to access a specialist service, and, perhaps, increasingly, accessing specialist services via telehealth (AMWAC, 1998).
**Provision of outreach specialist schemes**

In response to the barriers faced by rural and remote communities, a number of specialists have been providing visiting services from metropolitan and regional centres for some time, and outreach services in at least some specialties appear extensive. Three workforce surveys by the Australian Medical Workforce Advisory Committee (AMWAC) revealed that of metropolitan based general surgeons, ENT surgeons and dermatologists, 14.0%, 28.9% and 41.2% respectively, were providing rural outreach services. In addition, AMWAC states that the Royal Australasian College of Physicians (RACP) estimates that throughout Australia approximately 7.0% of physicians are involved in providing visiting services and that city-based physicians spend approximately one to two percent of their working hours doing this type of work (AMWAC, 1998). However, only some of these outreach programs have been sustained. Most often they have been organised on an ad hoc basis, without a systematic approach to determining needs and providing services (Gruen et al, 2002, AMWAC, 1998).

The Commonwealth responded to the need for developing systematic, quality specialist outreach services by establishing the Medical Specialist Outreach Assistance Program (MSOAP) in May 2000, with funding of $48.5 million over four years.

Under MSOAP, funding has been allocated to each state and the Northern Territory based on their population in regional, rural and remote areas. In general, funds are divided between state governments, for services provided in the public sector, and identified fundholders, for non-hospital based services provided by private practitioners. Funding is provided to specialists for (a) travel, accommodation and other costs, and (b) provide upskilling and professional support to local general practitioners and specialists for up-skilling and to improve communication and shared care arrangements. Decisions on the allocation of funding are made according to need, in consultation with State/Territory advisory groups (DoHA, 2002b). While services have progressively been funded since in 2001, little in the way of data is available from the funded services because of the newness of the Program.

A wide range of services and models now exist for delivering outreach specialist services. For example, concerning the provision of specialist surgery services to rural areas, Green (2002) notes the following examples:

- The Flying Surgical Service in Queensland (based in Roma and Mt Isa) which provides outreach services to many Queensland country towns;
- The University of Adelaide Department of Surgery which provides a rotating specialist surgeon to Port Augusta;
- The University of Western Australia outreach program which provides a cost-effective service to many small rural towns; and
- The New South Wales Department of Health which is trialling a “mobile surgical bus” fully equipped to provide specialist surgical services (particularly elective services in ENT, urology and ophthalmology) to rural centres without requisite surgeons or facilities (Green, 2002).

Related programs to improve access to specialist services in rural and regional Australia include:

- Telemedicine services, such as the Victorian Telepsychiatry Program, established in 1996 (DHS, 1999); and
- The Advanced Specialist Training Posts in Rural Areas (ASTPRA) Program, which provides funding towards the cost of establishing advanced training posts in Australian rural and regional hospitals (DoHA, 2002c).
**Evaluation of schemes**

A brief summary of some recent evaluations of specialist outreach programs in Australia, the US and the UK appears below. Issues arising are discussed in more detail in the section on program sustainability.

**Australia**

Gruen and Bailie (2000) undertook an evaluation of the Specialist Outreach Service (SOS), initiated in 1997 by Darwin-based specialist staff in Surgery and Obstetrics and Gynaecology (O&G) with support from the two specialist colleges. The aim of the program was to improve access for remote community people, mostly Aboriginal, to surgical, obstetric and gynaecological specialists, and subsequently to ophthalmic and ENT specialist care. The evaluation found that, based on the number of consultations undertaken, there was improved access for remote people to specialist consultations. A total of 3647 consultations and procedures took place in remote community clinics between June 1997 and September 1999 (O&G 1719, surgery 647, ophthalmology 1214 and ENT 67). Up to 5 times more specialist consultations took place than previously when patients were transferred to Darwin hospital outpatients (increases of 390% in gynaecology, 363% in ophthalmology, 169% in general surgery, 160% in ENT and 34% in obstetrics). Orthopaedics, with no outreach service, showed no increase over the same time period. The proportion of patients seen in their home community rose from zero to over 90% in gynaecology and ophthalmology, and to 70% in general surgery and ENT.

A costing study showed that the SOS provided the most cost efficient method of providing specialist consultations for people in remote NT. The cost of transporting and accommodating patients with the Patient Assistance Travel Scheme (PATS) as well as specialists’ salaries, travel and travel allowance, were considered. For remote patients, the average cost of a consultation with the SOS was $277. This compared to a cost of $357 if the consultation took place in outpatients at hospitals in Gove or Katherine, and $450 at Darwin Hospital. A break up of total costs showed that 59% was spent on personnel costs, 29% on operation costs and 12% on capital expenditure (Gruen and Bailie, 2000).

The authors concluded that, compared to hospital based outpatient services alone, the SOS was a more accessible, appropriate and efficient method of providing specialist medical services to remote Aboriginal communities in the NT (Gruen et al, 2001). It reduced costs and inconvenience associated with patient travel, and used the positive supports for people in their communities. Potential benefits included greater access to surgical services, and better understanding and more informed participatory decision making by patients. Specialists who became familiar with the community context also helped to reduce the barriers between large urban hospitals and smaller remote clinics (Gruen and Bailie, 2000).

Some of the characteristics of the three different models of outreach provided by the SOS, including potential advantages and disadvantages, are set out in Literature Review Appendix 1.

Keriath et al (1998) described a pilot project started in 1995 by the University Department of Surgery at Queen Elizabeth II Medical Centre in Perth to provide surgical services to country communities without such services. Three surgeons undertake a regular schedule of appointments, and are accompanied by final year medical students to give them experience with common conditions rarely managed in teaching hospitals. The main focus of the visits is specialist consultations, with surgical procedures a secondary focus. The service is supported by a central administrative office and coordinated by a GP, who negotiates with the regional health care providers. Patients are referred by their GP, who may work with the surgeon as an anaesthetist or surgical assistant.
Keriath et al (1998) concluded that the service was feasible and cost-effective, and was supported by both GPs and patients. They stated it fulfilled an unmet community need, comprising patients who previously would have travelled outside their local area, patients who would have delayed a consultation because of inconvenience and loss of time from work, and GPs who have taken the opportunity to more easily obtain a second opinion. They found that, in remote areas, a population of 4000 people generates sufficient patients to justify monthly visits. Smaller towns about 2-3 hours drive from Perth can be grouped so that total air travel time is no longer than 3 hours in 1 day. This reduces the number of patients that can be seen but offers the service to a much wider population.

In an evaluation of the 17 GPs regularly using the service, all stated that it benefited their practice, all reported patients happy to be referred and patient satisfaction high, 60% reported no decrease in the number of surgical procedures they performed, 80% had access to hands on reskilling, and 50% had an opportunity to maintain skills, such as giving anaesthetic. The direct savings from the PATS exceeded the costs of the service in its first year of operation.

Taylor (1997), who examined the effectiveness of eye health programs for Aboriginal and Torres Strait Islander peoples, suggested that ophthalmic services can be characterised into two distinct groups by the way they are organised: a publicly funded service; or a regional service using a mix of private and public funding. He stated that the organisation of the service seems to be significantly related to the efficiency of the service, its output and the level of satisfaction of both consumers and service providers. The characteristics, potential advantages and disadvantages of the two models are set out in Literature Review Appendix 2.

Taylor concluded that the best eye health was provided through a regional public-private model, which was used in the Pilbara and Eastern Goldfields regions and in Far North Queensland. This combines public funding for infrastructure and hospital services with Medicare bulkbilling for specialist eye services, which are organised regionally. This model ensures ongoing commitment from both the private ophthalmologist and the health services in the region. It also provides services to outlying communities that are visited at least annually. Cataract and laser surgery, and more frequent patient review, can be carried out at the regional centres.

In 2000 the Department of Psychiatry at Flinders and the Commonwealth Department of Health and Aged Care undertook an evaluation of the Rural and Remote Mental Health Service, which had commenced 3 years earlier and which attempted to address emergency needs and issues of distance by integrating the Inpatient, Telepsychiatry and Emergency/Triage Liaison services. A survey of all 28 currently visiting psychiatrists, 114 general practitioners, 54 community health workers, 140 consumers, 30 carers, 12 representatives of non-government organisations and 12 representatives of support agencies showed the services were efficient and were highly valued by both practitioners and consumers. GPs had the strongest links with the service: 90% of GPs referred their inpatients to visiting psychiatrists and 72% were satisfied or very satisfied with the service they received.

United States

Desch et al (1999) analysed the financial impact of the Rural Cancer Outreach Program (RCOP) between two rural hospitals and the Medical College of Virginia's Massey Cancer Centre (MCC), which was developed to bring state-of-the-art cancer care to medically underserved rural patients. Pre- and post-RCOP financial data were collected on 1,745 cancer patients treated at the participating centres, two rural community hospitals and the MCC. The authors found that the net annual cost per patient fell from $10,233 to $3,862 as a result of more use of outpatient services, more efficient use of resources, and the shift to a less expensive locus of care. The cost for each rural patient admitted to the Medical College of Virginia fell by more than 40 percent compared with only an 8 percent decrease for all other cancer patients. The authors concluded that the RCOP had a positive financial impact on the rural and academic medical centre.
hospitals, provided state-of-the-art care near home for rural patients and was associated with lower overall cancer treatment costs.

United Kingdom

The studies described above suggest that the potential benefits of outreach may be more evident in settings where specialist care is otherwise relatively inaccessible (Gruen et al, 2002). On the other hand, studies in the UK indicate that improvements in health outcomes are small and the costs of outreach clinics higher than outpatients clinics (Black et al, 1997; Gosden et al, 1997; Bond et al, 2000; Bowling and Black 2001).

Black et al (1997) found only modest benefits of outreach clinics in dermatology and orthopaedic surgery to patients, GPs and consultants, suggesting that a cautious approach be taken to their further development because their higher costs means that they are unlikely to be cost-effective. Similarly, Gosden et al (1997) found that outreach clinics in both of the above specialties were significantly more costly in terms of staff, staff travel and associated opportunity costs compared with outpatient clinics.

Bond et al (2000) examined the processes of care, health benefits and costs of outreach clinics held by hospital specialists in general practices in England, compared to matched outpatient clinic controls, for the specialties of cardiology, ENT, general medicine, general surgery, gynaecology and rheumatology. The study found that outreach patients were more satisfied with the processes of their care than outpatients, their access to care was better and they were more likely to be discharged. Doctors reported that the main advantages of the outreach clinics were improved patient access to specialists and convenience to patients. However, the impact of outreach on health status was small, and the NHS costs of outreach were significantly higher than outpatients.

In a larger study Bowling and Black (2001) reached similar conclusions, noting that outreach clinics are a means of improving access to specialist services for patients, in addition to improving the efficiency and quality of health care. Most results were similar across specialties and areas. They felt that the benefits of the outreach service need to be weighed against their substantially higher NHS costs, in comparison with outpatients clinics, and concluded outreach clinics are unlikely to be financially justifiable for NHS funding given that the impact on patients’ health status was small.

Factors influencing sustainability

This section examines those requirements that make a specialist outreach service sustainable. After a survey of 20 Australian specialist colleges, the Australian Medical Workforce Advisory Committee (AMWAC) has defined a sustainable specialist service as one that “is clinically appropriate and adaptable to the needs and expectations of the local community, is provided on a regular basis and is well integrated with local primary care services. Essential to the provision of a sustainable service is the ability to recruit and retain specialists in areas as required” (AMWAC, 1998). Thus responding to the demands of primary care requires much more than enumeration of remote populations—it includes consideration of the demographics of disease and the capacity of primary care services. A sustainable outreach service that is organised appropriately, responsive to local community needs, and has an adequate regional specialist base can effectively integrate with and support primary health care processes. On the other hand, poorly planned and conducted outreach can draw resources away and detract from primary health care (Gruen et al, 2002b).

AMWAC identified five important dimensions of a sustainable specialist service: succession (ie, ability to recruit), economic (eg, financial and non-financial incentives that apply to specialists), social, such as family and lifestyle considerations, administrative (eg, supportive structures and processes), and resource, notably, population size requirements for practice viability and hospital and health
service infrastructure and related service requirements (AMWAC, 1998). These are also relevant considerations for outreach services.

**Requirements for a sustainable specialist outreach service**

Gruen et al (2002b) identified a range of issues that remote practitioners, specialists and administrators felt were likely to influence its sustainability. These are outlined below:

*Specialist base considerations:*

- Adequate number of specialists – sufficient specialists in each discipline to provide regular services.
- Outreach is integrated, facilitated and valued as an accepted part of normal practice, and builds on the resources and skills that are available locally.
- Outreach specialist has a hospital role.
- Outreach is shared and not dependent on one person – provision for illness, resignation, or retirement should be incorporated.

*Primary care considerations*

- Demand exists for specialist care - an unmet demand from primary care.
- Remote clinics are adequately resourced and staffed, to ensure visits are run smoothly and are efficiently integrated with other clinic activities. Remote staff participate in the scheduling of visits. Improving specialist services without improving primary care services could worsen, rather than improve, health outcomes, if the efforts draw resources away from primary care.
- A multidisciplinary framework centred in primary care and not dominated by specialists. This uses the full potential of primary care resources.

*The outreach service*

- Coordination and prior planning of visits; patients have prior notification.
- Funded separately, so that some of the financial and administrative disincentives are reduced.
- Evaluated regularly, and there are formal channels for staff feedback.

*The nature of outreach visits*

- Regular and predictable.
- Respond to individual community needs.
- Accountable to the referring practitioner and community.
- Appropriate mix of clinical services, education and support.
- Utilise education and training opportunities.
- Reliable correspondence and good communication.

In relation to the successful implementation of specialist eye services, Taylor (1997) recommends the following:

Eye services should be delivered through a regional public-private model, with joint responsibility by the Commonwealth and State and Territory Governments. Where possible outpatient services should be delivered through the Aboriginal Medical Services.

The proposed funding method is for the Commonwealth Government to:
- Continue to allow Medicare bulk billing for specialist eye services; and
- Make available Commonwealth funding, through Medicare or another mechanism, to cover the surgeon's involvement in cataract and other eye surgery performed in public facilities in remote regions. State and Territory Governments are to provide funds for the overhead-free environment required for the provision of the above services. This would include, among other things, equipment, infrastructure, travel and support.

Regional and local healthcare services must identify a person, preferably an Aboriginal person, to be responsible for the administration and community liaison for the specialist eye services. The hospital should be resourced to provide Aboriginal Health Workers with liaison responsibilities to assist Aboriginal patients undergoing surgery.

Links should be established between primary health care services in urban areas and optometrists, ophthalmologists and hospitals that provide eye services so that primary health care services can readily refer their patients for appropriate eye care.

The Commonwealth and State/Territory Governments must ensure that cross-border funding issues are addressed at a local level so that the quality of care is not jeopardised for patients who may be referred from centres in other States.

Similarly, the RACP has suggested that, in so far as possible, specialist outreach services should:

- be provided from regional centres with close links to the community they serve (e.g. from University Departments of Rural Health, rural Clinical Schools and rural hospitals)
- offer reliable and sustainable service continuity
- build upon, and contribute to local capacity and infrastructure (RACP, 2000).

Distribution of specialist outreach services

(a) Population requirements

AHMAC (1998) found that there was no distribution pattern with respect to population catchment requirements for providing of sustainable rural outreach services. On average, a survey of 20 specialist disciplines indicated a requirement for a population catchment of between 14,000 to 30,000 to provide a sustainable specialist outreach service. However, there was wide variation among the responses, with some disciplines indicating that much smaller populations (e.g. 2,000) are required in remote locations. These estimates are set out in Table 2.1 below.

Table 2.1: Specialist Medical Colleges defined population catchment requirements for a viable outreach service by location

<table>
<thead>
<tr>
<th>Resident service requirements</th>
<th>Rural outreach service requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Close to urban centre</td>
</tr>
<tr>
<td><strong>10,000-20,000</strong></td>
<td></td>
</tr>
<tr>
<td>- General Surgery</td>
<td>5,000-10,000</td>
</tr>
<tr>
<td>- Anaesthesia</td>
<td>Rarely justifiable</td>
</tr>
<tr>
<td><strong>20,000-60,000</strong></td>
<td></td>
</tr>
<tr>
<td>- O&amp;G*</td>
<td>Varies widely</td>
</tr>
<tr>
<td>- Gen Paediatric Medicine*</td>
<td>15,000-20,000</td>
</tr>
<tr>
<td>- Psychiatry*</td>
<td>20,000</td>
</tr>
<tr>
<td>- Orthopaedic Surgery*</td>
<td>Level of service#</td>
</tr>
<tr>
<td>- Geriatric Medicine</td>
<td>Not specified</td>
</tr>
<tr>
<td>- Pathology</td>
<td>Collection service</td>
</tr>
<tr>
<td><strong>50,000-85,000</strong></td>
<td></td>
</tr>
<tr>
<td>- ENT Surgery</td>
<td>Varies widely</td>
</tr>
</tbody>
</table>

Chapter 2
### (b) Infrastructure requirements

AMWAC (1998) notes that population catchment size is only one of several key factors impacting on sustainability. Most specialist disciplines indicated that the type of outreach service that can be provided is limited by the availability of appropriate infrastructure, support services and resident practitioners wanting and able to care for patients once the specialist leaves town.

A regular specialist consulting service (involving cognitive and minor procedural work) to primary care practitioners and specialists resident in the catchment area can be provided to areas with quite small catchment populations and with limited infrastructure and support services. On the other hand, providing major specialist diagnostic and procedural services depend on the availability of the necessary hospital/health facility infrastructure and support services. These tend to be associated with reasonably large regional centres. Hence, most specialist Colleges emphasised the importance of good links between outlying district hospital/health facilities and larger well resourced regional and urban facilities so that patients can be transferred rapidly and appropriately to a location where procedures can be safely performed (AMWAC, 1998).

The AMWAC report describes the infrastructure requirements to support a viable outreach service in a range of specialties, including the differing requirements in terms of facilities, equipment, services, essential support staff, education and training requirements, communication, transport and accommodation requirements and reimbursement for costs.

### Factors that make outreach services attractive to consumers

The impetus for introducing outreach specialist services is improving access for rural and remote communities (Gruen and Bailie, 2002). A number of studies have provided information on what makes such services attractive to consumers.

Examining rural residents’ use of health and visiting specialist services in Western Australia (WA), Rankin et al (2002) found that focus group participants supported using visiting specialist services for consultations, diagnostic and minor procedures. Use was conditional on the provision of information on specialist reputation, service outcomes, integration of the service into local facilities, and recommendation by the local GP. The main advantages of visiting specialist services were convenience, availability, second opinion and shorter waiting lists. Visiting services were preferred for non-urgent conditions, provided the service was regular and connected to local services.
Rankin et al (2002) found that safety concerns were paramount in the decision to use a visiting specialist service for a surgical procedure in local hospitals. Some participants were concerned with the risks of procedures performed in the rural setting and whether appropriate follow up would be available. Diagnostic tests and day procedures were considered acceptable provided the procedure risk was the same as in larger centres. Participants indicated a willingness to undergo operations locally if standard safety, anaesthetic and sterilisation procedures were in place. However, the need for community awareness programs to be incorporated with visiting specialist services was evident by the participants’ poor knowledge of visiting services in comparison to resident services (Rankin et al, 2002).

Similarly House (2002) found that in WA the concept of visiting specialist surgical services was well accepted, with 75% of 779 recent health consumers responding to a written survey indicating a willingness to access a consultative service and 71% a procedural service. A further 10% were unsure but might use a visiting service provided certain requirements were met. Four factors were identified as being very important in influencing individual decisions to use a visiting service: GP referral, follow up care, severity of illness and quality of care. Confidentiality and the specialist reputation were the next most influential factors. Respondents relying on Medicare and those who lived within 30 minutes drive of a hospital were more likely to use a visiting specialist service for a consultation, whereas privately insured patients where more likely to bypass a visiting service (House, 2002).

A study of specialist psychiatry services in rural and remote South Australia by the Department of Psychiatry at Flinders University (2000) found that the consultation-liaison model of specialist service provision, where the specialist consultation is to determine diagnosis and give treatment recommendations for ongoing care by the GP and Community Mental Health Workers, was used frequently and well received by mental health consumers and their carers.

Rankin et al (2001) assessed the personal costs to rural patients in WA accessing specialist treatment in a rural or metropolitan setting. The study concluded that an estimated saving of $1077 was made per specialist consultation when accessing a local service. Savings were observed in travel time, distance travelled, lost income, provision of an escort and waiting time. The study found that 10% of patients would not have sought a surgical opinion in the absence of a local service. The authors concluded that a local service causes fewer disruptions to rural and remote patients and their families and reduces cost and inconvenience to rural residents.

Gruen and Bailie (2002) identified a number of benefits from implementing the SOS in the NT. One was an improvement in communication and trust. The authors stated that staff and patients reported much better doctor-patient communication in the community setting than was possible in outpatients. This was due to involvement of family and local clinic staff, local interpreter support, and greater time for explanation during the consultation. Being around familiar people with familiar language and culture was said to allow the patient to relax and participate more in the consultation, considered by the medical staff to be important in obtaining informed consent and encouraging adherence to treatment advice. The long term involvement of the specialist with the community was important in this regard.

Other benefits included negating the need to travel large distances to town for outpatients, which lessens anxiety and to the patients as well as disruption to families and workplaces, and avoids uncertainties, difficulties and costs associated with transport and accommodation (Gruen and Bailie, 2002; Gruen et al, 2002b).

**Factors that make outreach services attractive to specialists and other health professionals**
Specialists have a range of motivations for providing outreach services. These can include altruistic reasons (improving aboriginal health, providing better access to people), professional satisfaction from helping people with high needs and developing trust and rapport with the local community, and bridging the gap between community and hospital for patients and remote staff (Gruen and Bailie, 2002).

Outreach can be demanding for specialists, as it entails early departures, late returns, overnight stays, and often combines travel over large distances with a day of consulting and procedures (Gruen et al, 2000b). Prior to the introduction of MSOAP, lack of appropriate transport and lack of any reimbursement for the time the specialist spends travelling to a rural centre, vehicle wear-and-tear and the cost of away from home accommodation, presented major barriers to providing regular specialist outreach services (Jeffries-Stokes, 2002; AMWAC, 1998).

As discussed earlier in this review, the type of outreach service that can be provided is limited by the availability of appropriate infrastructure and support services. Keriaht et al (1998) note the importance of wide consultation with local GPs, health care agencies and community organisations when starting a new service, to ensure all relevant parties are aware of each other’s expectations, and to establish clear lines of communication. The expertise of local staff (eg operating room and outpatient experience of nurses, and surgical and anaesthetic experience of GPs) should be defined and reskilling programs arranged. Physical facilities are also inspected to ensure there is a consulting and examination area offering adequate privacy.

Gruen and Bailie (2000) found that even specialists employed for full time outreach needed a hospital base, and in the procedural specialties, they needed an operating role. They stated that regular operating commitments help specialists to maintain both their skills and peer respect. Another important benefit of a hospital base is support from within the clinical department, such as the development of administrative and departmental procedures within the department to facilitate outreach. One evaluation noted the importance of providing appropriate administrative support to the clinical service, such as a medical coordinator (for liaison) and an administrative secretary (to arrange patient bookings, transport etc) (Keriaht et al, 1998).

Commitment to the service is important, including an understanding by the hospital of the importance of outreach and regularity of visits undertaken. Another important factor is support from colleagues to fill the gap, supervise registrars, change on-call arrangements, etc. In this context team approaches to providing outreach are not dependent on any one person to keep the services functioning and overcome difficulties of leaving private metropolitan specialists’ rooms unattended, whereas there is the potential for exhaustion by single specialists (Gruen and Bailie, 2000).

The opportunity for education and skills transfer to rural and remote staff is an important incentive for their involvement. In the evaluation of the SOS, remote GPs, nurses and AHWs all positively mentioned the support and learning opportunities provided by specialist visits Gruen and Bailie (2002). In this case informal education, such as asking questions, assisting in procedures and summarising patients seen during the day, were preferred to more formal education processes, due to time constraints. However, it has been suggested that hospital doctors were unable to consult frequently with their seniors in the SOS because of the volume of patient care and the workloads of all concerned (McNeil, 2002).

A study of specialist psychiatry services in rural and remote South Australia by the Department of Psychiatry at Flinders University (2000) recommended a number of strategies to improve service delivery by health professionals, including:

- Provide opportunities for increased coordination/mutual support/group development of visiting psychiatrists;
- Provide professional development for visiting psychiatrists in telepsychiatry;
• Provide orientation of visiting psychiatrists to rural and remote service delivery and their regions;
• Improve liaison between all service providers;
• Visiting psychiatrists develop GPs’ expertise in (a) recognising mental illness by promoting shared care and consultation liaison models of psychiatric care delivery and (b) managing mental illness through greater use of telepsychiatry.

**Improving the distribution of sustainable specialist outreach services**

AMWAC, 1998 notes five different approaches to providing specialist outreach services:

• **Regional specialist clusters with specialists allocated responsibility for specific communities.** An example of this model is a group of physicians consulting with primary care practitioners to establish a comprehensive regional rural outreach service with specialists formally allocated and rostered to provide services to specific rural and remote communities.

• **Regional centres as specialist service hubs.** This model focuses on the base hospital as the centre of a service hub with each hub supported by a critical mass of resident staff in each appropriate specialist discipline with sufficient staff and resources to provide regular outreach services to outlying communities.

• **Urban based teaching/research hospitals with specialist departments accepting responsibility to provide specialist support to specific locations.** For example, a visiting specialist service to remote areas could be the responsibility of departments within teaching hospitals with a specialist appointed to provide services on a regular basis to selected locations. Such programs should allow resident rural specialists to spend time in urban teaching hospitals with relief provided by either advanced trainees or other relevant specialists based in the teaching hospital.

• **Regional health authorities as purchasers of services from specialist provider consortiums.** Under this model, a regional or district health authority could assume the role of purchaser of specialist services with power to negotiate service contracts with providers of specialist services. Under this model service contracts could be tied to various performance indicators, including, quality and quantity indicators (Gadiel and Ridoutt, 1994).

• **Groups of general practitioners as purchasers or brokers of specialist services.** In this model large group practices or Divisions of General Practice may pool their skills and supplement them, where appropriate, with specialist services either by sub-contracting selected specialist work to specialists providing required specialist services not available locally on an outreach basis or brokering specialist services for patients (Gadiel and Ridoutt, 1994).

AMWAC (1998) notes that suggestions advanced by specialist Colleges for improving the distribution of sustainable specialist services included:

• Ensuring service continuity and cultural appropriateness. These characteristics were considered essential for the development of trust and awareness of visit times among local residents, many of whom may need to travel considerable distances to access the service.

• Professional guidelines for the provision of sustainable specialist outreach services. Several specialist Colleges indicated that to be sustainable a visiting specialist service needs to be well received by the resident medical community. In this respect, the Royal Australasian College of Surgeons and the Australian and New Zealand College of Anaesthetists have developed guidelines to facilitate cooperation between visiting specialists and medical providers resident in a local community and provide appropriate and safe care.
In addition, three specialist Colleges who participated in the AMWAC survey, namely the Royal Australasian Colleges of Surgeons, Obstetricians and Gynaecologists and Physicians, indicated they had special programs to improve services to remote Aboriginal and Torres Strait Islander communities. Particular emphases of these three Colleges were the importance of a specialist service being culturally responsive and acceptable, the changing nature of methods used to improve access to specialist services, the need to transfer skills and knowledge from specialist to resident health workers, the importance of research into health problems prevalent amongst remote communities, and the need to give attention to practical issues that act as barriers to access (AMWAC, 1998).

**Analysis of critical success factors**

*Introduction*

To facilitate site selection for this study, the consultant collected data on seventeen potential models in late 2002 and early 2003. This involved interviewing a key member of the program delivery team, normally the Director or equivalent and/or one of the specialists delivering the service. A simple data collection tool was used to guide the interview process, and included a question about critical success factors. The sites who responded to this question were located in NSW, Victoria, Queensland, South Australia, Western Australia and the Northern Territory. They comprised a wide range of specialist areas, including dermatology, obstetrics and gynaecology, surgery, paediatrics, endocrinology, internal medicine and endoscopy, ophthalmology, brain injury, oncology, radiotherapy, aged care and geriatric services, medical imaging, nephrology and psychiatry.

This section examines the qualitative data collected from the seventeen sites, and analyses those factors seen by program staff as important to the critical success of their service. Specifically services were asked to respond to the question “Why do you believe the service is a success and what are the key factors that have contributed to this success?” As no attempt was made to direct responses according to set criteria, feedback was unstructured and ranged across a wide number of variables.

*Findings*

The range of issues identified by Program Directors and Specialists as critical success factors are collated below under a five main sub-headings:

1. **Economic**

   - Adequacy of funding of service, including ongoing access to resources: This was noted by about ½ of the respondents. Some services stated that they currently operate with a budget shortfall, and need to seek funds from other areas. One service noted that all activities associated with the service need to be self-funded. These comprise staffing costs (e.g. staff insurance, staff / personal superannuation); security (e.g. surveillance/patrols, electronic security back-to-base networks, etc); suitable rooms and facilities in the various locations; costs of overheads for outreach, such as travel and accommodation, food, repairs, equipment and vehicles for travel to outreach locations, etc; accounting including updating and billing; and professional development. It was suggested that everyone involved in the service needed to be fiscally responsible to ensure it was value for money. Another service director expressed concern that the savings to the Patient Assistance Travel Scheme generated from increased use of outreach services by consumers were not available to support outreach operations.
• **Appropriate incentives:** Incentives for doctors and staff to provide the service and which contribute to its success include appropriate funding, goodwill, camaraderie, academic links and networking opportunities.

• **Profitability:** Some noted that the service needed to be profitable, and provide an adequate income for the specialist. It was suggested that many specialists experienced reduced income and financial loss in providing the service, and there was a need for top up payments. One suggested that specialists should be guaranteed a reasonable income level, e.g. at Medicare level or above. Other concerns raised included adequate reimbursement for teleconsultations, and reimbursement at above state award rates when services are delivered in clinics across borders into states with higher awards.

2. **Administrative**

• **Coordination and prior planning of visits:** A number of services emphasised the need for a dedicated service coordinator and / or secretary to support and coordinate the specialist service, and ensure the service is fully booked with clients ready at the other end so that it runs to full capacity and maximum efficiency.

• **Service regularity:** There should be a regular, planned and stable pattern of visits, with continuity of specialist staff.

• **Remote clinic staff:** Some pointed to the need for well established infrastructure and sufficient staff such as liaison officers located in outreach clinics or outlying areas, who provide support and reduce time wasting for specialists and nurses going to the area.

• **Back-up support:** Adequate staff and ‘backup support’ is considered essential so that the work of the specialists in their ‘regular jobs’ was continued while they were away performing outreach duties. Otherwise there is potential for the specialist’s home service waiting list to blow out.

• **Organisational structure:** One service suggested an appropriate organisational structure, such as a University Department or a hospital, is needed within which to locate the outreach service. To attract other specialists it should be a well known/prestigious department and include specialists of national and/or international reputation.

• **Administrative skills:** Some services noted the importance of specialists having business skills in records management, resource management, electronic skills, accounting skills and people management skills.

• **High level support:** One service noted that support from Cabinet, Health Minister, Director and Deputy Director-Generals and Zonal (Health) Commanders was important to overcome obstacles and/or obstructive individuals. Indeed several services expressed concern about a lack of clarity on how their services related to regional health services administration.

• **Ability to address medico-legal challenges.** Medico-legal challenges can present potential problems, especially given the cost of medico-legal insurance and of greater risks because follow up is less thorough than from a home base. One service director stated medico-legal issues need to be addressed by providing services of highest quality. However questions were asked about who will take responsibility for any challenges that occur, and whether it is the specialist’s private cost/risk.
• **Equipment:** There is a need for high quality infrastructure, facilities and technology in outreach areas, including appropriate computer hardware and software.

• **Evaluation:** Regular monitoring of staff feedback is considered important. One service suggested the importance of examining survival rates, morbidity and mortality rates directly related to the outreach service being provided, which was not happening in their service at the moment.

3. **Service delivery**

• **Consumer demand:** Several services noted factors such as a positive community response, community demand for the service and an absence of other providers as important success factors. Some undertake patient surveys to assess the effectiveness of their programs, or other assessment and accreditation programs (e.g. E.Q.U.I.P). One service has set goals to address issues such as equity of access to their service. The importance of local knowledge and of knowing the people who live in your area was also stressed. One stakeholder commented that “an outreach service should be an invited service to that area”.

• **Availability of specialists:** It was suggested there needs to be an adequate number of specialists for service continuity. It was also noted that outreach services should be shared, so the system is not dependent on any one person.

• **Succession planning and training:** It is important to ensure that systems are setup so that people can be replaced (especially given a high turnover in most outreach services).

4. **Professional**

• **Quality of service:** Professionals need to provide a quality service that is above reproach and at the best of their capacity. One stakeholder suggested that it is the currency of practice of its consultants that contributes to its service’s success.

• **Sustainable motivating factors:** Personal drive was seen as an important factor in service sustainability. One respondent suggested it was important to have the “right” motivations, i.e. not “missionary” or “tourist” attitudes. Positive motivating factors that were identified included: professional variety and diversity from everyday practice; clinical complexity and interest; a moral/ethical responsibility to give back to the community and a commitment to better health for the local community, including aboriginal health improvement; and rural patients who are “a pleasure to work with” and “generally thankful and pleasant”.

• **Relationship with other health professionals, particularly local GPs:** It was suggested it was important to have an effective relationship with GPs, be accessible by phone, be up-to-date, approachable and flexible, and set limits on contacts and workloads. The importance of working in a multidisciplinary team environment and establishing camaraderie with colleagues who were responsible for the ongoing care of patients was also stressed. One service noted the importance of their service in providing emergency back up clinical support to regions, providing a critical mass of professional and collegial support and a general direction and affirmation of the work that is being done in the country.

• **Training:** Suggestions included a commitment to training local health professionals, and a strong CME culture, both internally and externally.
5. Social

- Meeting personal needs: The personal needs of specialists, including maintaining a home life balance need to be met. An example is requiring each specialist to be away from home for only short periods of time, e.g. 2 working weeks broken up over the year from each specialist. This both addresses the needs of workers and ensures less reliance on each individual specialist.

**Conclusion**

As would be expected there is considerable overlap between the critical success factors identified by the sites, and those factors identified in the general literature as contributing to sustainable outreach services. Taking into account both sources of information, it appears that some of the most important factors are:

- Appropriate levels of funding for the service;
- Adequate income levels for specialists;
- Sufficient numbers of specialists, to ensure regular services for consumers and protect against specialist “burn out”;
- Suitable administrative support structures and processes, including remote clinics that are adequately resourced and staffed, and appropriate planning and coordination of outreach visits;
- Consumer demand for the service, and a positive consumer response; and
- A service that builds upon local services and contributes to local capacity building and infrastructure.

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### Literature Review Appendix 1: Characteristics of the Specialist Outreach Service (SOS)

#### Table 2.2: Characteristics of different models of outreach provided by the SOS

<table>
<thead>
<tr>
<th>Model</th>
<th>Characteristic</th>
<th>Potential Advantages</th>
<th>Potential Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intensive Outreach Individual</strong></td>
<td>Single Outreach Specialist often accompanied by regular nursing assistant</td>
<td>Well known by communities, especially given the mobility of people and reputation</td>
<td>Sustainability of the service in the event of leave, sickness or resignation</td>
</tr>
<tr>
<td>(O&amp;G)</td>
<td>Outreach 2-3 days/week</td>
<td>Standardised care across the Top End</td>
<td>Exhaustion</td>
</tr>
<tr>
<td></td>
<td>Hospital role 2-3 days/week</td>
<td>Knows most of the remote patients &amp; communities personally and can respond to/prioritise their needs</td>
<td>Family and personal sacrifice</td>
</tr>
<tr>
<td></td>
<td>Visits medium to large communities every 3-4 months</td>
<td>Trust</td>
<td>Integration with base hospital, Royal Darwin Hospital (RDH)</td>
</tr>
<tr>
<td></td>
<td>Employed as Outreach Specialist</td>
<td>Central contact person</td>
<td>Limits to maintaining or expanding service</td>
</tr>
<tr>
<td></td>
<td>Use regional hospitals where possible</td>
<td>Committed to outreach</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attracts most remote patients under her care in hospital</td>
<td>Reliable</td>
<td></td>
</tr>
<tr>
<td><strong>Team Approach to Outreach</strong></td>
<td>Many specialists within a field (eg 4/7 general surgeons at RDH)</td>
<td>Sustainable (whole service not dependent on an individual, although each community is)</td>
<td>Commitment to outreach may be overtaken by demands of hospital work, resulting in cancellations, postponements and less attention to correspondence etc</td>
</tr>
<tr>
<td>(General Surgery)</td>
<td>Usually unaccompanied</td>
<td>Less personal and family sacrifice due to fewer days/nights away</td>
<td>Non-standardised service</td>
</tr>
<tr>
<td></td>
<td>Outreach 2-5 days in every 3 months, usually day trips, to communities and Katherine Hospital (KH), overnight at Gove District Hospital (GDH)</td>
<td>Expansion of service spread across more personnel</td>
<td>No visits to small-medium sized communities</td>
</tr>
<tr>
<td></td>
<td>Busy hospital/private practice base</td>
<td>Each specialist well known in community visited</td>
<td>Less broad knowledge of rural/remote context</td>
</tr>
<tr>
<td></td>
<td>Visit large communities only, every 3 months</td>
<td>Central contact for individual communities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use regional hospitals where possible</td>
<td>Strongly integrated into base hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Remote patients usually under care of relevant specialist unit in hospital</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Intensive Outreach Specialist 2</strong></td>
<td>Single outreach specialist, often with transient assistant (eg registrar)</td>
<td>As for O&amp;G</td>
<td>As for O&amp;G</td>
</tr>
<tr>
<td>(Ophthalmology)</td>
<td>Outreach 2-4 days/week</td>
<td>Potential for less reliance on physical presence by tele-ophthalmology to maintain level of service</td>
<td>Potential to provide uneven service across Top End due to focus at KH</td>
</tr>
<tr>
<td></td>
<td>RDH 1-2 days/week</td>
<td>More significant impact on reducing demand for procedural services at RDH</td>
<td>Value of service provided through annual visits to small communities?</td>
</tr>
<tr>
<td></td>
<td>Visits small to large communities, some annually, others more often</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Emphasis on road travel, therefore more in Katherine District</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maximal use of regional hospitals, particularly KH with shift of operating from RDH to KH</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ensures most remote patients are under his care in hospital by providing services at KH and GDH</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aims to reduce reliance on his physical presence by implementing tele-ophthalmology</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Gruen and Bailie, 2000, Table 11.1 p 81
## Literature Review Appendix 2: Models of ophthalmic services

### Table 2.3: Models of ophthalmic services

<table>
<thead>
<tr>
<th>Model</th>
<th>Characteristic</th>
<th>Potential Advantages</th>
<th>Potential Disadvantages</th>
</tr>
</thead>
</table>
| Public ‘Voluntary’ Model | Funded by the public health system  
Ophthalmologists are volunteers, salaried, paid a sessional fee, or paid fee-for service to conduct eye clinics and perform surgery  
Example is State Trachoma and Eye Health Committee | Visits appreciated by local health staff – only ophthalmic service available  
Ophthalmologists enjoy change of routine from city practice and philanthropic activity  
Relatively low cost |  
- Ophthalmologist’s visits infrequent, short, subject to change of date or personnel  
- Little direct communication between ophthalmologist and local community  
- Uncertain how many who need treatment receive it  
- Inadequate feedback from ophthalmologist about patients  
- Little time for prevention, promotion or in-service education  
- Does not meet existing need |
| Regional Public-Private Model | Organised on a regional basis  
Mixture of public funding and Medicare Rebates  
Ophthalmologist bulk bills Medicare for services  
State/regional health service pays travel and accommodation costs, and provides appropriate facilities and liaison  
In some cases additional monetary incentive paid to ophthalmologist  
Models evident in Pilbara region, Eastern Goldfields of WA and Far North Queensland | Regular regional visits every 2-3 months – to regional centre where surgery is performed and surrounding communities  
Sufficient time for all patients to be seen  
Flexibility to change visit date at short notice, in response to community need  
Sense of ownership of service by both community and ophthalmologist  
Close understanding relationship between community and ophthalmologist  
Provision for primary eye care  
Financial involvement leads to commitment by both ophthalmologist and health service  
Delivery of culturally appropriate service  
Savings in PAT scheme | (none identified in literature reviewed) |

Chapter 3: Physician outreach services (endocrinology), Northern Territory

Demographic characteristics

Endocrinology is one element in a spectrum of physician services based at Royal Darwin Hospital, serving the Top End of the Northern Territory. The endocrinology service has been providing outreach specialist services to remote communities and regional centres in the Top End since the early 1990s.

The Top End is a vast, sparsely populated area of more than 700,000 square kilometres. It includes the Tiwi islands and the land mass stretching from the shores of Van Dieman Gulf and the Arafura Sea in the north to a latitude approximately 19 degrees south (just north of Tennant Creek). It has a population of about 160,000 persons, some 70% of whom reside in Darwin. More than half the population outside Darwin consists of Indigenous persons.

Top End health needs are served by the Territory Health Regions of Darwin, Katherine and East Arnhem. The towns of Katherine—300 KM south of Darwin, in the Katherine Region, and Nhulunbuy—650 KM east of Darwin, in the East Arnhem Region, are the main Top End centres outside Darwin. Katherine and Nhulunbuy are also the regional hubs of medical outreach service provision, radiating south and east from Darwin. Katherine has a 60-bed general hospital, serving a combined rural and remote population of some 20,000 as well as a significant transient visitor population. At Nhulunbuy, Gove District Hospital is 30-bed a general hospital, serving the families of employees of the local bauxite mining and alumina processing industry as well as a remote hinterland of some 11,000 mainly indigenous persons in East Arnhem Land. There are no resident specialists in either Katherine or Nhulunbuy.

Outline of health service model

Outside the main centres, indigenous persons reside either in remote villages of 1,000 to 2,000 persons or nearby outstations, which may be home to extended families of 10 – 50 members. Remote villages may consist of little more than an airstrip, a school and a health clinic, staffed by remote area nurses and Aboriginal health workers. Clinic health workers are supported by primary care practitioners. These may either be resident salaried GPs, retained by Aboriginal-controlled Health Organisations, or visiting District Medical Officers (DMOs) from the regional hospitals, who travel to the communities and provide periodic clinics and public health guidance. To perform their roles effectively, they should ideally possess a public health Fellowship. GPs and DMOs are in turn supported by physicians.

Indigenous persons living in the Top End have shorter life expectancies than the non-indigenous population and are afflicted by greater prevalence of multiple and complex chronic diseases, including renal failure, diabetes, depression, and heart and respiratory ailments. These diseases are prolonged conditions that often fail to improve and are rarely completely cured. Moreover, because they are more likely to reside in remote areas, indigenous persons are further disadvantaged because of limited access to health services. The distance separating remote villages and outstations from regional centres may both inhibit the recruitment and retention of local health workers as well as constrain support from visiting primary care practitioners.
Because indigenous persons are reluctant to travel to regional centres for specialist care, primary care practitioners may seek the assistance of a specialist outreach physician. This generally happens when a patient’s diagnosis is uncertain or when multiple diseases are present or when prolonged care and long term monitoring of chronic disease is indicated. There are various models of collaborative disease management involving primary and outreach specialist physician care (see below). All are nevertheless activated by the primary referring practitioner and ideally involve education and skills transfer from physician to primary care practitioner.

**Organisation of physician service base**

The organisation of Top End specialist endocrinology, along with other specialist physician services substantially originates from Royal Darwin Hospital, which is the major regional centre. Royal Darwin is also a base for the Northern Territory Clinical School, which is a campus of the Flinders Medical School in Adelaide. Most physicians at Royal Darwin hold teaching appointments at Flinders. The endocrinologist, for example, holds an honorary appointment at the clinical school as Senior Lecturer. Since is foundation in 1997, the school has proved to be an important influence in attracting senior specialists to Darwin.

The allocation of physician responsibilities, and the disposition of their time, is negotiated through the Chairman of the Division of Medicine. The 12 resident physicians at Royal Darwin are organised into six admitting teams, each comprising 2 - 3 physicians backed up by 10 registrar appointments as set out in Table 3.1.

Most physicians are designated as being a 0.5 staff specialist (although there at least two physicians with 0.7 designations). The practical implication of this is that a physician’s non-inpatient work, including their outreach work, becomes ‘private’ and is billed as fee for service to the Commonwealth. The endocrinologist, as in the case of most other privatised specialists, maintains rooms at Darwin Private Hospital, which is co-located on the Royal Darwin campus. When patients are discharged from Royal Darwin, physicians generally provide follow up care from their private rooms; alternatively, patients may be treated by a Registrar as public outpatients, with problem situations referred on to physicians in their private rooms as required.

<table>
<thead>
<tr>
<th>Team designation</th>
<th>Core team discipline</th>
<th>General medicine roster</th>
<th>Registrars*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicine 1</td>
<td>Oncology</td>
<td>Rotating generalists</td>
<td>1 general registrar</td>
</tr>
<tr>
<td>Medicine 2</td>
<td>Neurology</td>
<td>Rotating generalists</td>
<td>1 general registrar</td>
</tr>
<tr>
<td>Medicine 3</td>
<td>Endocrinology</td>
<td>Rotating generalists</td>
<td>1 general registrar + 1 advanced registrar in endocrinology</td>
</tr>
<tr>
<td>Medicine 4</td>
<td>Infectious diseases</td>
<td>Rotating generalists</td>
<td>1 general registrar + 1 advanced registrar in ID</td>
</tr>
<tr>
<td>Medicine 5</td>
<td>Cardiology</td>
<td>Nil</td>
<td>1 advanced registrar</td>
</tr>
<tr>
<td>Medicine 6</td>
<td>Nephrology</td>
<td>Nil</td>
<td>1 advanced registrar</td>
</tr>
</tbody>
</table>

*There are three other basic trainees in each of ICU, A&E and general practice

The physician team liaises at the beginning of each year under the Division Chairman to develop a service plan and to determine an ‘on-call’ roster. Once the roster is finalised, physicians can then formulate their private practice arrangements and also determine their availability for outreach work.

Precisely how much outreach work physicians undertake is a decision that they make for themselves. Physicians take up appointments at Royal Darwin on the understanding that they will undertake at
least some outreach work. The consultant was told, however, that “if a physician were to cut back on their outreach work, it would be regarded as pretty poor form.” No outreach work is undertaken by registrars.

Most physicians with 0.5 – 0.7 staff specialist appointments visit at least two to four remote communities. The endocrinologist, for example, visits six communities in the Darwin and Katherine Regions, in the course of which she delivers some 15 days of outreach patient contact time per year. Almost all outreach work is undertaken in the dry season (April to October) which, allowing for travel, involves an absence of about a week per month from Royal Darwin. Travel time required to deliver outreach is generally roughly equivalent to patient contact time (i.e. on average, a day of patient contact time will necessitate a day of travel). In addition to time spent out in the communities, on return to Darwin there is additional unfunded time spent in telephone conferencing with health workers and bush nurses in the communities and completing correspondence.

**Opportunity costs of physician outreach**

Inasmuch as the financial return from private practice in Darwin is considerably greater than from outreach practice, physicians undertaking outreach work appear to do so at considerable financial sacrifice.

In the case of endocrinology, for example, when practising in Darwin, the physician adopts a three-tier fee structure. This involves bulk billing cardholders, Schedule Fee charges to non-cardholders who are chronically ill or elderly, and AMA charges to others. Most physicians would employ at least a two-tier fee structure for their Darwin work, such as bulk billing and AMA rate billing. In the case of outreach, on the other hand, all physician work is bulk billed. There is too, an additional potentially greater billing loss associated with time lost to the extensive travel.

Physician outreach work also devolves as a cost to clients in Darwin: physicians are currently working off a three-month waiting list for their non-inpatient work in Darwin. This is a marker for the underlying overall shortage of physicians in the NT. The consultant was told that simply to bring rural and remote areas of the Territory up to sustainable practice, it has been calculated that a further 18 physicians would be needed.

Given the opportunity costs of outreach activities both to patients in Darwin (through reduced service access) and to physicians themselves (by way of potential income relinquished), the consultant asked how it was possible that any physician could regard outreach work as sustainable. One physician’s view was that:

“….we all love [outreach] … everybody who works in the Royal Darwin in the Division of Medicine. One of the reasons they’re on the ground, in the Territory is that they love the Territory and they love Aboriginal medicine. They are basically a very altruistic mob … It’s huge medicine … you see the worst sorts and combinations of gross disease that you could see anywhere. People like to feel that they’re doing a job that has some value in it. I couldn’t practise in metropolitan medicine … It’s most important work … you’re seeing people in the most dire situations. It’s good to be doing a job that you feel you’ve been trained to do and has some value.”
Summary of physician outreach activity

Figure 3.1 summarises the pattern of regular physician outreach activity to rural and remote communities within each of the three Health Regions in the Top End. After taking into consideration the service plan of the Division of Medicine at Royal Darwin, an outreach schedule is developed for each year by a salaried Community Physician who works in an administrative capacity in Territory Health. He also undertakes Top End outreach work himself, supplementing the activity of the Royal Darwin physicians. In addition, there are 3 – 4 academic physicians with appointments at the Menzies School of Health, who also undertake some sessional Top End outreach work. This brings the total number of physicians participating in the outreach roster to about 15.

The aim of the roster is to link formally each physician with individual communities to create some service predictability and continuity and to enable outreach visits to be planned in conjunction with local community health workers and DMOs (Weeramanthri, 1998). The result is that 44 Top End communities and 93 clinics now have formal links with a physician.
### A: East Arnhem Region

<table>
<thead>
<tr>
<th>Community</th>
<th>Frequency by days per visit</th>
<th>Total days</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.5</td>
<td>1</td>
</tr>
<tr>
<td>Galiwin’ku</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Gapuwiyak</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Gove Hospital / Yirrkala</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Groote / Bickerton</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Marrgarr</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Milingimbi</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Nambulvar</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Ramingining</td>
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</tr>
<tr>
<td>Total General</td>
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<td>10</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Frequency</th>
<th>Total days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiology</td>
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<td>8</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Neurology</td>
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<td>2</td>
</tr>
<tr>
<td>Nephrology</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total Sub specialist</td>
<td>24</td>
<td>24</td>
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</tbody>
</table>

### B: Katherine Region

<table>
<thead>
<tr>
<th>Community</th>
<th>Frequency by days per visit</th>
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</tr>
</thead>
<tbody>
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<td>0.5</td>
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</tr>
<tr>
<td>Barunga</td>
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<tr>
<td>Beswick</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Binjari</td>
<td>3</td>
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</tr>
<tr>
<td>Borroloola</td>
<td>4</td>
<td></td>
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<tr>
<td>Bulman</td>
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</tr>
<tr>
<td>Hodgson Downs</td>
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<td></td>
</tr>
<tr>
<td>Jilkiringan /</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mataranka</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Kalkaringi / Dagaragu</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Katherine Hospital</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Kikdulk</td>
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</tr>
<tr>
<td>Kintore Clinic</td>
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<td></td>
</tr>
<tr>
<td>Lajamanu</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Ngukurr</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Timber Creek / Bulla Camp</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Wurlu-Wurlinjang</td>
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<td></td>
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<tr>
<td>Yarralin</td>
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<td></td>
</tr>
<tr>
<td>Total General</td>
<td>7</td>
<td>46</td>
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</table>

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Frequency</th>
<th>Total days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiology</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Nephrology</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Total Sub specialist</td>
<td>20</td>
<td>20</td>
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</tbody>
</table>

### C: Darwin Region

<table>
<thead>
<tr>
<th>Community</th>
<th>Frequency by days per visit</th>
<th>Total days</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.5</td>
<td>1</td>
</tr>
<tr>
<td>Bagot</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Belyuen</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Danila Dilba</td>
<td>24</td>
<td></td>
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<tr>
<td>Jabiru</td>
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<td></td>
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<tr>
<td>Kunbarljaninja</td>
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<tr>
<td>Maningrida</td>
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<td>Milikapiti</td>
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<td>Minjilang</td>
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<td>Nguiu</td>
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<td>Palumpa</td>
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<td>Peppimenarti</td>
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<tr>
<td>Pirlangimpi</td>
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</tr>
<tr>
<td>Wadeye</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Warruwi</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Total General</td>
<td>28</td>
<td>41</td>
</tr>
</tbody>
</table>
One physician felt that the success and expansion of outreach physician services since the mid 1990s had actually “taken the pressure off” Territory Health to provide resident specialists in the Regional centres of Katherine and Nhulunbuy. Another remarked that:

“...there is no doubt in my mind that Katherine would be better served by having resident physicians. The goal of any outreach service provider to Katherine should simply be to sustain and develop the area, so that it becomes obvious to people to come in and work there.”

**The physician outreach practice model**

Although about half the physicians participating in outreach work practise within various sub-specialties in Darwin—and some sub specialist work is done by visiting specialists at the Regional Hospitals—the predominant call on physicians in their outreach capacity, is to practise as generalists. The Division of Medicine at Royal Darwin now has policy of not making new appointments unless appointees are capable of practising as generalists and declare their willingness to do so (even though sub specialist, skills such as endocrinology, may on occasion, prove helpful).

The consultant was told that unless there is a clear demarcation between generalist and sub specialist cultures in outreach work, inefficiencies can occur because it may result in patients being seen by more than one physician for the same problem. For instance, an endocrinologist generalist and a renal sub specialist each need to be able to express an opinion on a diabetes case without doubling up on each other. If an endocrinologist knows that a renal physician has seen a diabetic patient, then it is unnecessary for the endocrinologist also to see the patient. A problem arises when primary care, ‘receiving’ doctors may think that their patients deserve to be seen by a sub-specialist. The purpose of the emphasis on outreach ‘generalism’ is to assist in educating GPs and DMOs that either an endocrinologist or a renal physician may manage diabetic patients quite adequately and independently of one another in their capacities as generalists.

One physician felt that the appointment of Regional Coordinators (nurses with chronic disease backgrounds) who could monitor patient lists to ensure that patients were not on more than one list would be helpful. There is precedent for this type of arrangement in other Top End outreach services, such as surgery and O&G, separately funded by Territory Health under the Specialist Outreach Service (SOS). This type of funding is not, however, available to physician services (see below).

Physician outreach becomes complicated because physicians with sub-specialist training travel to Regional Hospitals, both as generalists and as sub-specialists. It may then be open for DMOs to claim that sub-specialists are “creating their own review lists”. Physicians working on outreach need to exercise care not to generate their own review lists, even though they may be under pressure from clinic nurses.

A further complication often arises because the continuity of outreach physicians has been much greater than in the case of resident GPs. Continual turnover of primary care practitioners (some incumbents lasting no more than few days after their arrival) means that it sometimes becomes difficult for specialists to develop appropriate interaction with primary care settings.

**Chronic disease management**

Without high quality resident primary care, it becomes extremely difficult to deliver effective physician services. To this end, and to support GPs and DMOs, Territory Health’s Community Physician has been working on the development of Chronic Disease Guidelines, as part of a Chronic
Disease Strategy. There are now guidelines for renal disease, hypertension, chronic airways disease and diabetes. GPs and DMOs can use these as a blueprint for individual care plans. Staffing constraints have nevertheless prevented the implementation of care plans for each and every chronic patient.

Remote sites have adopted a standard practice treatment manual, which has been tailored to remote indigenous practice by the Central Australian Rural Practitioners Association (the CARPA Manual). The CARPA Manual has been progressively developed, mostly through voluntary physician work since the late 1980s, for use by remote nurses and Aboriginal Health Workers. The most recent (5th) edition available (at the time of writing) places particular emphasis on team management of chronic disease with physician involvement.

Correct use of the CARPA Manual relies on the availability of a diagnosis. Nurses, however, have no training in diagnostic skills. Once a DMO has made diagnosis, a decision can be made about whether a patient should be treated locally or referred. However, as one senior DMO remarked:

“… trying to work out what the proper division of labour between physicians and GPs should be, is something we are still working on. For example, you do not need a specialist for the management of asymptomatic mitral valve disease. You do need a physician for persons with complex, multiple diseases—especially to make sure that there isn’t anything a GP has missed.”

All chronic case records in the Top End are now being entered onto a central Chronic Disease Register. This is a potentially an invaluable tool for DMO / physician liaison. It also opens the door to what one physician described as a “virtual outreach model”, allowing physicians to monitor the progress of patients without actually seeing them, but in partnership with the local primary care team. Although the Register receives no infrastructure funding from Territory Health, the introduction of Enhanced Primary Care item numbers for multidisciplinary case conferencing means that Medicare payments are at least available to assist doctors in their application of this type of model to chronic disease management.

**Funding issues**

Outreach physician services have grown with the strong and formal moral support from Royal Darwin Hospital, and by virtue of Territory Health funding since 1994 for the Community Physician appointment. These factors, in conjunction with the reputation that Darwin has acquired as a centre of excellence because of its association with Flinders Medical School, have contributed to a steady expansion of physician numbers and, as a corollary, a diffusion of their outreach activity.

Although physician outreach is conducted outside the NT Health-salaried time of almost all the physicians involved and there is no identifiable budget allocation for outreach, Royal Darwin provides financial support by way of ‘hospital time’ that is available for travel. The inherent, largely self-directed evolution of physician outreach work has probably discouraged direct departmental funding. There is a striking contrast, for instance, between physician services and specialist surgical services under the aegis of the Surgical Outreach Service (SOS).

The SOS was established in 1997 with direct funding from a variety of sources, including Territory Health and OATSIL, which provided for a set up cost of $0.5 M and recurrent annual funding of $0.9 M. The latter covers costs for specialist and support staff (including a Coordinator), travel and backfill specialists at Royal Darwin. The SOS now supports a full time outreach O&G specialist, plus general surgeons, a 0.5 anaesthetist and an ophthalmologist (Gruen and Bailie, 2000). In addition, it provides administrative coordination to the outreach paediatricians.
In the case of physician services, the outreach activity was ‘engineered’ by physicians themselves. They recognised a need, and in the absence of specific funding, simply worked out how to do it themselves. Territory Health acquiesced to the arrangement because it was largely cost neutral. There is no funding for registrars to accompany specialists on outreach—an experience that might reasonably have been expected to have been part of their training curriculum. Possible explanations for this are that the registrars are being used to help backfill physicians at Royal Darwin whilst physicians are on outreach and the lack of funding to cover the cost of registrar travel to outreach communities.

As there is no physician travel budget, Top End Health Regions generally meet the costs of outreach physician travel from their Patient Assistance Travel Scheme (PATS) budgets. Taking one physician out to see a dozen patients is obviously more efficient than bringing 12 patients to see one specialist in Darwin (Weeramanthri, 1988)—quite apart from the reluctance of indigenous persons to leave their communities for hospital environments that they regard as intimidating. Outreach travel costs regularly exceed available PATS funding and NT Health contributes to the shortfall.

Travel arrangements for many communities and Regional Hospitals, especially Nhulunbuy, are highly sensitive to regional air services. The main local carrier, Air North has been gradually pruning its ‘Top End service’! This may in part be attributable to Air North’s close association with Ansett before its demise. It may also have been influenced by the diversion of a number of the Air North fleet to the more lucrative Darwin-Dili route, under a Department of Defence contract. As the opportunity cost of continuing to commit aircraft to local Top End routes increases, it can be expected to strain progressively specialist outreach travel budgets.

**Consumers**

The consultant was told that it would be inappropriate to interview members of indigenous communities as ‘consumers’ of physician outreach services; first, because in many communities there could be confusion as to the identities of visiting DMOs and visiting physicians; and second, because it would be difficult to gain a proper understanding of indigenous perspectives on outreach services by questionnaire or in a short, face to face meeting. During the consultant’s visit to a clinic at Katherine, no attempt was therefore made to interview patients.

As the service model is a hierarchical one, in which physicians primarily work through GPs and DMOs, it was generally felt that the conventional definition of the consumer was unsuitable. The *de facto* consumer of physician outreach services was hence the primary care team.

Primary care doctors clearly value support from physicians, especially in cases where multiple and complex chronic diseases were present. There are many borderline situations, however, where primary care practitioners are uncertain whether the cost of using their Region’s PATS funding justifies the travel cost of an outreach specialist. One DMO remarked that there were significant medico-legal issues at stake, e.g. failure to refer to a specialist when - with the aid of hindsight - referral had clearly been warranted, exposed primary providers to risks of litigation. There was, thus, a case for developing a set of evidence-based best practice guidelines “based on outcome” for rural and remote practice, which could yield proper indicators for clinically supportable referral.

One DMO told the consultant that:

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2. Although primarily indeed for nurses and Aboriginal health workers, The CARPA manual was claimed to be an example of a systems based approach, as distinct from an outcomes philosophy.
“... the problem with outreach is that it tends to be driven by specialists rather than by primary care needs. There is no good process for matching outreach schedules against community needs. And there is little in the way of timetabling. A great deal of informality drives outreach, with specialists just pitching up.”

Another echoed these sentiments:

“Specialists are a problem in that they go in there, and the DMO doesn’t even know he’s there. This is very wasteful because the specialist will end up seeing a whole lot of people that he shouldn’t need to see.”

Although there is likely to be clear philosophical agreement between specialists and primary practitioners as to the principles of outreach, it seems that where the exigencies and practicalities of implementing service delivery are concerned, there is room for better operational coordination and communication.

Conclusion

Territory Health is relying on a group of highly dedicated specialists to maintain a fragile, under funded and under staffed physician outreach service. Some physicians expressed doubt as to the sustainability of the service; in some cases, remarks by physicians about the “futility” of curative services to indigenous persons—as opposed to preventive and educational services—were evident signs of burn out. If one or two staff specialists were to resign, it could clearly have secondary, flow on consequences for the services as whole.

As one physician put it in relation to the sustainability of the specialist workforce in Darwin:

“Of the 12 part-time staff specialist physicians we have, there would be 5 – 7 who would do the bulk of the clinical consultations; if two of the latter were to leave, the whole system could implode. So Territory Health cannot take the situation for granted. They are competing too, with other places like Queensland.... So it is potentially an extremely fragile system.”

Everyone interviewed by the consultant stressed the importance of the continuation of the service as an inherent and vital component of Territory health care provision; discussion ranged only around how to make it more effective and cost-efficient. Whilst there were differences regarding the effectiveness of various strategies, there was common agreement amongst the ten physicians interviewed that their efforts would be greatly enhanced by coordinated administrative support.

There is a clear need and a strong argument for funding and organisational support analogous to the SOS, a service that received nothing but praise from the surgeons and gynaecologist involved. In fact, the Coordinator of the service (a highly competent Bush nurse) expressed the view that the SOS could provide infrastructure and organisational support to the physicians with a single coordinator and the addition of a little administrative assistance (1-2 AAs) to cover the additional load. Without such continuous funding the sustainability and survival of all the outreach services is in doubt.

Successful outreach services are frequently dependant on the vision of one or two committed people. In this case, the physicians of the Royal Darwin Hospital have managed to entrain all their members into providing outreach at some personal cost and in the absence of a contractual obligation to do so. There can be no doubt of the success of the model provided by the SOS on its pilot funding for 3
years. The case for appropriate and continuing dedicated financial and administrative support is strong.

References


Chapter 4: Report on WA surgical outreach service

Background

The Rural Surgical Services (RSS) specialist outreach service conducts 50 visits per year to five remote sites. Each site receives a visit approximately monthly. Each visit requires travel of up to 300km from Perth, usually on a day only basis (except for Esperance) and uses;

- car travel to the airport,
- either a chartered Beechcraft airplane or a commercial flight to fly into the rural or remote area and
- car travel from that landing site into the surgical rooms and return at days end.

The outreach service visits areas with from 2,000 to 5,000 persons, most commonly at the smaller end (with the exception of Esperance which has a population of over 13,000).

Since its inception in 1995 the service has provided over 7500 items of service, just over a third of which (36%) have been procedures (see upcoming publication of Hughes-Anderson, et. al.3). The diagnostic grouping of the surgical activity has been consistent with the top thirty separations from all Australian hospitals.

History of the outreach service

Professor House and colleagues found a growing need for specialist surgical services in rural and remote Western Australia about 1995 and began to develop the outreach service. Professor House at the time (and still) held senior appointments in the Department of Surgery in the University of Western Australia and too in its affiliated teaching hospital, Sir Charles Gardiner. Professor House’s own background is instructive, having been borne and raised in a large family in remote Western Australia, and hence having a strong commitment to serving the needs of rural and remote communities.

When establishing the service, areas of need were identified that had no specialist surgical services at all and had no resident surgeon within a reasonable distance. With the help of a senior public servant responsible for rural health, applications were made to the Commonwealth Department of Health for a grant. An initial grant (grant 102) was awarded to design, develop and offer the beginning outreach service to rural and remote Western Australia on the proviso it was taken over at the end of the grant by the Health Department of WA. This subsequently occurred and the service is still being funded by WA Health. The role of the senior public servant in the establishing of the service (including the legal structure), its initial protection and medium term successful implementation cannot be understated.

In the early days of the service, some towns that were included in the service delivery rotation are now not serviced as other arrangements have been made for example becoming a ‘spoke’ in a ‘hub and spoke’ service. It has been a feature of the history of the service how it has been able to fairly flexibly redirect its outreach service offering.

A total of six surgeons have participated in the service over the years, on average spending approximately three years with the service before moving on (the obvious exception being Professor House who has been a constant and major service provider).

In recent years, the WA Department of Health has considered reducing or removing funding for the RSS. As recently as 2001 the service was notified it would not be refunded for subsequent years. The Department’s concerns were (and still are) primarily that the service:

as a ‘fly in, fly out’ model, is not consistent with the current WA rural specialist service provision philosophy of a ‘hub and spoke’ model (this is discussed further below under consumer perspectives);

- is comparatively costly; and

- has unconventional infrastructure.

**Demography and geography**

Five centres\(^4\) are currently serviced by the Rural Surgical Service, some comparatively close to Perth but paradoxically traditionally difficult to service. The service currently covers a significant catchment area, predominantly in the Wheatbelt and Goldfields Regions.

<table>
<thead>
<tr>
<th>Local Government Area</th>
<th>Region</th>
<th>Catchment population</th>
<th>Number of visits per annum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moora / Wongan-Ballidu</td>
<td>Wheatbelt</td>
<td>4,236</td>
<td>11</td>
</tr>
<tr>
<td>Merredin / Bruce Rock</td>
<td>Wheatbelt</td>
<td>4,799</td>
<td>10</td>
</tr>
<tr>
<td>Lake Grace / Ravensthorpe</td>
<td>Wheatbelt / Goldfields</td>
<td>3,047</td>
<td>9</td>
</tr>
<tr>
<td>Esperance</td>
<td>Goldfields</td>
<td>13,329</td>
<td>11</td>
</tr>
<tr>
<td>East Pilbara (Paraburdoo)</td>
<td>Pilbara</td>
<td>5,773</td>
<td>9</td>
</tr>
</tbody>
</table>

*Source: ABS Regional Population Growth, Australia and New Zealand, 2001-02*

**Funding arrangements & costs**

The Western Australia Health Department provides salary funding for one full time academic equivalent person to work the outreach service. The surgeons apportion this funding across all three persons on the basis of actual attendances to all rural and remote venues. Each ‘visit’ is given a nominal value of $3,000 per day (Wheatbelt Region) or $3,500 per day (Esperance) based on service commitment plus ‘time out’. As noted above, the service to Paraburdoo is additional to the other contracted services and is costed out the same as Esperance at $3,500 per day.

Several slightly different budget estimates (based on slightly varying time periods) were made available to the consultant, from which the budget details for the service were estimated as shown in Table 4.2 below.

<table>
<thead>
<tr>
<th>Budget item</th>
<th>Detail</th>
<th>Unit Cost</th>
<th>Budget Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixed costs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Coordinator</td>
<td>5 sessions per week</td>
<td>$82,000</td>
<td></td>
</tr>
<tr>
<td>Medical secretary</td>
<td>0.8 FTE</td>
<td>$40,000</td>
<td></td>
</tr>
<tr>
<td>Business expenses</td>
<td></td>
<td>$10,000</td>
<td></td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td></td>
<td></td>
<td>$132,000</td>
</tr>
<tr>
<td><strong>Wheatbelt visits</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgeons</td>
<td>30 visits @ $3,000 per visit</td>
<td>$90,000</td>
<td></td>
</tr>
<tr>
<td>Air charter</td>
<td>$1,000 per day x 30 visits</td>
<td>$30,000</td>
<td></td>
</tr>
<tr>
<td>Rent of rooms</td>
<td></td>
<td>$1,000</td>
<td></td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td></td>
<td></td>
<td>$121,000</td>
</tr>
<tr>
<td><strong>Esperance visits</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surgeons</td>
<td>11 visits @ $7,000 per visit</td>
<td></td>
<td>$77,000</td>
</tr>
<tr>
<td><strong>Paraburdoo optional visits</strong></td>
<td>9 visits @ $3,500 per visit</td>
<td></td>
<td>$31,500</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td>$361,500</td>
</tr>
</tbody>
</table>

All the expenses in the above table, including the charter aircraft, the Coordinator and secretary, and the room rental, are funded by the WA Department of Health. Other expenses (principally commercial flights

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\(^4\) The fifth centre, Paraburdoo, is an addition to the contracted centres to be visited and is therefore funded outside of that contract arrangement.
to outreach sites, especially Esperance) are not funded by the Department. These flights have to be paid for by the end-user’s (rural/remote) health budget.

Indeed this is a sign of funding arrangements to come, as the WA Department of Health is moving to renegotiate its current single contract with the RSS in favour of several contracts between host service providers (like Esperance Hospital) and the RSS. This has the appearance of a sound business decision, giving ownership and responsibility to local providers in the presumption that they will best elicit value from the outreach service. However, initial cursory examination of the record keeping and management operating systems at the host health services indicates service contracts for visiting services may be difficult to supervise, and indeed be reliant on the record keeping of the RSS itself. In which case, it is arguable that the current single contract arrangement is more appropriate, particularly if it is considered likely that the RSS will need to maintain sufficient flexibility to be able to shift its service delivery to new sites on reasonably short notice.

The RSS is maintained by a small, but nevertheless still somewhat complex web of financial and other resource supports. The actual contracted body to deliver the RSS is the Western Australian Surgical Research and Development Foundation Inc, a trust fund established when the service was first created as a vehicle to administer the RSS funding. The Trust originally had (and indeed still has) representation from the University Department of Surgery, Sir Charles Gardiner Hospital (Department of Surgery) and the WA Department of Health.

Why was the original contract not constructed directly with either the hospital or the university? In the case of the university, they requested a 30% administration fee which would have significantly reduced the funding available for direct services, and in the cases of both the hospital and university, it was thought best to ‘quarantine’ the funding for the service outside of either body in order that funds would not become ‘lost’ and dissipated into their broader budget.

In any case, the effects of the decision to establish and fund a trust have been as follows:

- The Trustees represent the following organisations: the AMA, WACRRM, Country Shires, Wheatbelt Development Commission, outreach surgeon, WA Department of Health.
- Original Trustees have slowly been replaced over the years.
- It appears the current WA Department of Health representative is no longer an employee of the Department of Health.

Healthy governance structures provide strong checks and balances on internal practice, while at the same time acting as strong and persuasive advocates externally on behalf of the organisation. They also should embody best practice in terms of probity and transparency. When public monies are involved, transparency is always important.

Not all the effects of funding the Trust have been negative—the primary objective of protecting the RSS budget from leakage to other service areas appears to have been achieved, albeit at the expense of leaving the service vulnerable to criticism and to a slow erosion of the funding amount itself.

Some stakeholders were posed the possibility of changing the funding arrangements, for instance to provide funding directly to say the university or the hospital. They felt this might have a positive effect, particularly if management of the funded institution embraced ownership of the process and all the surgeons gained a better understanding of ‘local’ practice in less favourable facility and equipment support circumstances. However the risk was considered to be still strong that the RSS would be relegated to an “after-thought” in the university or hospital’s work priorities, and eventually lose focus and ultimately support.

Most of the patients covered by the service are public patients and there is no reimbursement available. Nor can the specialist surgeons access Medicare reimbursements to makeup for service expense shortfalls.
There are not sufficient numbers of aboriginal/indigenous patients in the outreach service catchment areas to allow access to funding tied to those patient groups.

**Outreach service model**

Five rural and remote venues are visited on approximately a monthly basis and include Merredin, Bruce Rock, Moora, Paraburdoo, Lake Grace, Ravensthorpe, Esperance, Wongan Hills etc.

### Table 4.3: Characteristics of towns receiving outreach treatment

<table>
<thead>
<tr>
<th>Town</th>
<th>Mode of travel</th>
<th>Surgeon</th>
<th>Time of travel (one way)</th>
<th>Type of setting for service delivery</th>
<th>Hospital procedures (per visit)</th>
<th>Consultations (per visit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moora / Wongan Hills</td>
<td>Chartered plane</td>
<td>Aitken/ Keirath</td>
<td>1.5 hours</td>
<td>Hospital / GP rooms</td>
<td>8</td>
<td>10-12</td>
</tr>
<tr>
<td>Merredin / Bruce Rock</td>
<td>Chartered plane</td>
<td>House/ Keithath</td>
<td>1.5 hours</td>
<td>Hospital / specialist consulting rooms</td>
<td>6-8</td>
<td>10-12</td>
</tr>
<tr>
<td>Lake Grace / Ravensthorpe</td>
<td>Chartered plane</td>
<td>House</td>
<td>2 hours</td>
<td>Hospital / consulting rooms</td>
<td>2-3</td>
<td>6</td>
</tr>
<tr>
<td>Esperance</td>
<td>Commercial flight</td>
<td>House</td>
<td>3 hours</td>
<td>Hospital / specialist consulting rooms</td>
<td>6-8</td>
<td>10-16</td>
</tr>
<tr>
<td>Paraburdoo</td>
<td>Chartered plane</td>
<td>Keithath / Aitken</td>
<td>3 hours</td>
<td>Hospital / specialist consulting rooms</td>
<td>9-11</td>
<td>12-14</td>
</tr>
</tbody>
</table>

There are currently three specialist surgeons on the outreach service list, all of whom are VMOs at Sir Charles Gardiner Hospital. The three surgeons attend to planning for the outreach service each month as this has been found to be the best, most workable model. This way, when one surgeon needs to attend a conference or other professional event, the outreach service and workload at Sir Charles Gardiner can be covered by one of the other team members. The surgical roster is worked out 3 to 6 months in advance so patients in the region can know when/what dates the surgeons are due in on visits.

The service has a part-time medically-qualified Coordinator who does the organising of each visit, including patient bookings, travel arrangements and whatever else is required so that when the surgeon arrives at the rural/remote venue, they can do their work without managing any organisational problems. The service also has a part-time secretary to organise / manage / process all written reports, letters, and other correspondence - the surgical procedures and consultations can generate up to 30 pieces of written correspondence each day.

Some questions have been raised by certain stakeholders of the need for such high level support for the surgeons. Other stakeholders argue that the need to make the surgeons’ experience as rewarding as possible, as well as effective and efficient, fully justifies the investment in high order coordination and administrative support. Certainly the service runs very smoothly with the level of support provided, and based on evidence from the qualitative data collected, led to high levels of satisfaction of stakeholders at different points of interface with the RSS (that is the surgeons supplying services, local health institutions receiving a service, general practitioners, and of course patients). Would a less smoothly run operation still be appreciated? This is indeed a potentially key area of debate in discussion of what makes a service sustainable over a long period of time, the debate being focussed on the trade-offs between apparent value for money, and valuing the service and the service providers.
The normal process involved in the delivery of services to an outreach service site is for the surgeon to do a full day at a time. The day is usually of approximately 15 hours duration, eg 5am start to 8pm return, and includes forward travel, consultations, surgery and return travel to Perth.

Each of the three specialist surgeons makes a visit to a rural or remote venue once or twice per month, sometimes up to 4 times per month depending on availability of the other surgeons in the group. While this person is away on visits, another specialist surgeon must take on his/her surgical workload at the Sir Charles Gardiner Hospital. This arrangement allows at least one specialist surgeon to be flying and conducting outreach services each week.

In each site visited the service uses room provided to it by the regional hospital. The local hospital needs to support the outreach service to operate as well as provide furniture, linen, equipment etc. The local hospital usually rosters at least one RN on to help during the surgery, but sometimes more operating theatre nurses are required. The hospital covers the cost of surgery support including the consumables. The treating GP(s) will normally come in and do the surgical assistance and anaesthetics for their patients. This process has recently been changed in Esperance (where there is normally a longer list) in favour of a single GP being rostered on for the duration of the list (resulting in greater efficiency as there is no 'change-over'). Post operative patient observations also are normally the responsibility of the treating general practitioner, although again Esperance is the exception since the visiting surgeon stays overnight to personally make observations over the first 24 hours post operation. This allows more complex surgery to be performed in Esperance.

For consulting work, the outreach service prefers the rooms it uses to be independent of the local hospital services if possible.

As noted earlier, the patient mix being dealt with by the surgical outreach service is not dissimilar to the mix that might present to the average Australian hospital. The broad diagnostic groups presenting problems to the RSS are as shown in the Table below.

<table>
<thead>
<tr>
<th>Diagnostic group</th>
<th>Frequency (n = 5584)</th>
<th>Proportion of total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gastro-intestinal</td>
<td>2092</td>
<td>37</td>
</tr>
<tr>
<td>Hernia</td>
<td>701</td>
<td>13</td>
</tr>
<tr>
<td>Skin lesions</td>
<td>558</td>
<td>10</td>
</tr>
<tr>
<td>Male genital</td>
<td>537</td>
<td>10</td>
</tr>
<tr>
<td>Vascular</td>
<td>416</td>
<td>7</td>
</tr>
<tr>
<td>Hand / limb</td>
<td>305</td>
<td>5</td>
</tr>
<tr>
<td>Breast disease</td>
<td>261</td>
<td>5</td>
</tr>
</tbody>
</table>

The type of procedures performed over the years has obviously reflected the presentations.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Frequency (n = 2676)</th>
<th>Proportion of total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endoscopy</td>
<td>763</td>
<td>29</td>
</tr>
<tr>
<td>Ano-rectal</td>
<td>324</td>
<td>12</td>
</tr>
<tr>
<td>Male genital</td>
<td>314</td>
<td>12</td>
</tr>
<tr>
<td>Facial lesions</td>
<td>273</td>
<td>10</td>
</tr>
<tr>
<td>Skin lesions</td>
<td>243</td>
<td>9</td>
</tr>
<tr>
<td>Hernia</td>
<td>232</td>
<td>9</td>
</tr>
<tr>
<td>Subcutaneous</td>
<td>132</td>
<td>5</td>
</tr>
<tr>
<td>Vascular</td>
<td>115</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hand surgery</th>
<th>97</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast</td>
<td>87</td>
<td>3</td>
</tr>
</tbody>
</table>

Over the past few years the service has noticed the patient acuity has increased, the patient load is bigger and there are more referrals to the service. The up-skilling of the rural and remote GPs has been of assistance with treating more acute cases in the post-operative phase. Hence, the service has been maintained with no evidence of a difference in quality standards, based on analysis of unplanned readmissions, between the RSS and metropolitan services with a similar procedural throughput.

**Referral mechanisms**

All patients have to be referred by their doctor and no other health professional can refer to the visiting specialist. There are clearly strong relationships between local general practitioners and the RSS, built up over several years of experience working together. Some observers note the critical nature of this relationship to the viability of the service, and how fragile the viability of the service would be in the absence of high quality surgeons who had earned the trust and respect of local GPs.

**Training and outreach**

Both the nurses and the general practitioners access professional development through the visiting outreach service. The GPs who perform this work with the outreach service can maintain their accreditation and surgical skills through this opportunity. For most of the general practitioners in the outreach service areas this is a major benefit.

The tightness of the visiting surgeons’ program however precludes any serious efforts at structured learning/training aimed at strategically increasing competence of local staff and GPs. Rather, outside of theatre practice, learning is mostly *ad hoc* and done during informal meetings (“around a cup of coffee”) or occasionally by phone. In this regard, general practitioners were grateful that the visiting specialists would take phone calls once they had returned to Perth and “talk through cases”. For those that perform procedures while the surgeon is away from the outreach site, especially in response to emergencies, they indicated they would appreciate a video link up to the operating theatre. In this way, remotely located surgeons could provide advice while the procedure is in progress.

There are currently no linkages between the RSS and other health programs. The Outreach Service is fully booked and has no unallocated personnel or time to give to other health program linkages. Because of the structure, personnel and location of the RSS though, there are naturally linkages with the University of Western Australia Medical School. This results in the surgeons taking the occasional medical student on a day visit, and once per year the RSS organises and runs a weekend Surgical Camp in a rural area. The camp is for final year medical students.

The medical students must self-fund their attendance at the weekend camp, while the local emergency services participate in a mock disaster and retrieval and the local farmers donate livestock. The local vets do the animal anaesthetics and the community provides the venue/ accommodation/ food etc so the medical students can practice in a mock disaster situation.

**Stakeholder perspectives**

There are three very interested stakeholder parties; consumers of the services, the creators and on-going providers of the service, and the funders of the service. Only marginally less interested stakeholders are the general practitioners in the towns where services are delivered (and their representatives such as WACRRM), and too the service ‘hosts’ ie the health services where surgical procedures are performed. In the next section the specific views of consumers are outlined, here the views of other stakeholders are discussed.
Stakeholders associated with this outreach service tend to line up on one side or the other of the following debate:

**Figure 4.1: Stakeholder perspectives – for and against outreach service**

<table>
<thead>
<tr>
<th>In support of the outreach service …</th>
<th>In argument against the outreach service …</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Convenience for the patient</td>
<td>▪ An outreach service, depending on referral behaviour, potentially decreases consumer/patient choice</td>
</tr>
<tr>
<td>▪ Maintenance of GP procedural skills</td>
<td>▪ Maintenance of equipment and facility standards can be difficult</td>
</tr>
<tr>
<td>▪ Retention of trauma management competence in health services</td>
<td>▪ Cost of infrastructure maintenance (equipment, staff, etc.) can be high</td>
</tr>
<tr>
<td>▪ Utilisation of facilities</td>
<td></td>
</tr>
</tbody>
</table>

Neither of the two arguments is easy to sustain with evidence because of the complex inter-relationships between various clinical, social and economic variables. Hence, the separate sides tend to focus on specific issues that reflect more a philosophical stance.

For instance those in support of the RSS tend to focus on patient convenience, cost and timeliness of care. They argue that patient costs of travel to services are vastly under-estimated, and that even with patient assisted travel schemes, consumer transfers to metropolitan specialist services will on average place them over $1,000 out of pocket⁶ (based on 1999 dollar values). Moreover, they believe that presentation by patients to a trusted, outreach service will be much earlier than if the only alternative is to travel, resulting in a better (and less costly) prognosis in many cases.

Those who argue against the RSS, advocate instead for a model of service based on resident services located in regional/provincial towns providing an ‘outreach’ service to smaller nearby communities – the so called ‘hub and spoke’ model. Where this is not appropriate, they argue for patient assisted transport services, on the basis primarily that this is less costly, although this contention is disputed by the other side (see for instance Kierath, Hamdorf, House and House, 1998, where it is stated estimates show “… savings from the Patient Assisted Travel Scheme have exceeded costs within the first year of operation (of the RSS).” One of the problems too, is that patient transfer costs are split between a number of payors – the Scheme, the patient and the local health service, such that no one person or body can gain a full appreciation of the true total costs. Possibly in some cases this would still not be persuasive, for instance local health service providers attempting to balance their budgets may still opt in favour of transferring patients since this is less of a burden on their budget than conducting many procedures in-house⁷.

At least one less passionate but still keenly interested stakeholder consulted, advocating on behalf of its health consumers, felt there was a way of accommodating both the above arguments. They felt that while

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⁷ Of course the cost of the procedure itself is transferred to the metropolitan hospital.
the hub and spoke model was potentially preferable to a ‘fly in, fly out’ model, it was nevertheless difficult to establish and even harder to maintain intact over a long period of time. Thus, a visiting outreach service, like the RSS had a place in supporting a broad framework of resident based outreach services, flexibly being diverted to those sites where and when the preferred service framework breaks down—in other words, providing a safety net service. A second important role for a service like the RSS could be in managing the change process to a hub and spoke model in the first place, particularly if it involved replacing a service that already existed in an outreach site (possibly provided in the past by a retiring GP proceduralist). It was noted even by the WA Department of Health that the RSS was acting as a service ‘buffer’ in Paraburdoo, and thus facilitating the transition of the services in that town ultimately to a primary care focus.

Consumers

Consumers are almost universally in favour of the RSS but not undiscriminating in respect to all outreach services. Despite an aversion to travel no matter how well subsidised, consumers are not willing to suffer inappropriate service delivery or services lacking in credibility. Their general practitioners will also often make that ruling for them. Some of the stories of patients of the RSS are instructive:

“I was going to my local GP for nearly 5 months in a lot of pain. I think there was a lot of guessing being done by the GP. When my specialist saw me for the first time, he picked the bowel cancer first go, and had me evacuated out to Perth for an immediate operation. He even got back to do it. I just think there is a difference in the quality of diagnosis … it saved my life.”

“My mother was pretty sick, so I was looking after her, and it was a bad time to take time off work. But my GP said I had to have surgery. I saw the specialist though and he indicated I did not need the surgery. He helped us make an informed decision. I am now seeing another GP and going down a different course of action, and its working well.”

“I had to go to Kalgoorlie and Perth for tests. By the time I had paid for accommodation, travel, child care, etc. it cost me over $1,000, even after I got some back from PATS.”

“I had a procedure done here, by the RSS, and I was able to get back to work in four days. I believe if I had to travel to Perth, I would have lost nearly a fortnight.”

“Some years ago my GP referred me for some problems to Perth. I just kept putting it off, I have no family or friends there, no support, it’s like living in another country. Eventually it became almost an emergency, it was my own fault for putting it off so long, and luckily I was able to be referred this time to the RSS specialist.”

The consumer quotes, a sample only of those provided, illustrate the main benefits that patients see from have the RSS come to their town. These can be summarised as:

- Higher quality of decision making around the need for procedures to be performed. It is often forgotten that the increased quality of decision making can also result in reduction of inappropriate intervention;
- Delaying treatment to avoid the inconvenience. Clearly the absence of a local service delivery option leads to rural consumers putting off action until it becomes absolutely necessary, sometimes that means an emergency situation;
- Costs of travelling to where services are offered (rather than outreach to patients) is generally very costly. Patient transport assistance schemes do not cover these costs, often leaving a significant gap;

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In Esperance in the past, certain specialist services were available in the regional ‘hub’ service location, but local GPs rarely referred to that service.
• Loss of time travelling to obtain health services adds to the time away from productive effort (work, child rearing, caring for another). The loss of time can even be significant when travelling to a ‘hub’ regional service.

Many representatives of consumers’ interests emphasised the anxiety a majority of rural and especially remote people feel in having to travel to a metropolitan centre like Perth. This anxiety is only heightened during a period of ill health and separation from family connections. As one local stakeholder noted:

“Country people by choice simply do not like the city experience. Given a choice between going to Perth or Kalgoorlie, 70% would go to Kalgoorlie, but if the choice were Esperance, 100% would choose Esperance.”

**Motivations and objectives**

The RSS is at something of a cross roads at this point in time. The architect and still the main resource for the service is getting increasingly closer to retirement, and there are no obvious alternatives for his replacement. It is causing some consternation amongst stakeholders keen for the service to be maintained.

The replacement concerns arise mostly because of the fairly unique motivations of the individual specialist driving the RSS. Several observers have summed up this motivation as evolving from a strong rural background, formed from an upbringing in a remote farming community virtually until leaving for medical school studies. There is a great desire evident in the specialist concerned in “wanting to give something back to the community”.

There are other attributes identified by observers that would ideally be sought in a replacement:

• Not to get easily disheartened by efforts to erode the service’s operational performance and/or financial viability;
• Capacity to relate well to and enjoy communication with rural people;
• Capacity to be open to and respond to the needs of local health service providers (eg the operating theatre nurses);
• Flexibility in being able to perform procedures according to the prevailing conditions. For instance, one general practitioner noted how one of the specialist with the RSS was willing to remove gall bladders in the local hospital judging it was best for the patient (rather than sending to Perth) even in the absence of laparoscope equipment – other surgeons may be reluctant to do so.

**Sustainability of the service**

Proponents of the RSS, and other stakeholders, all commented on what they felt had contributed to the viability and sustainability till this point of the service. They also identified threats to the future sustainability of the service. All these are summarised below.

• The credibility of the service providers is particularly important. It was pointed out that “not just any outreach provider will do” for rural service delivery. Local general practitioners can and do play a powerful filtering role in their referral behaviour. There was anecdotal evidence from one town that a resident specialist service in a nearby ‘hub’ regional centre had been made virtually non viable by the general practitioners’ referring practice, which was to ‘bypass’ the regional specialists in favour of sending patients to Perth. In a RHSET funded study provided to the consultants it was identified that 80% of patients who bypassed a local, outreach or regional service, did so because of the general practitioner referral³.

• The background and status of individuals providing the service can be important in developing the credibility required and in other ways sustaining support. Persons from a rural background are perceived favourably as having the requisite commitment.

• A personal interest is also thought to be important for long term engagement. Many local health service providers and consumers have become wary of fly-in, fly-out service providers that are just on a “fishing expedition”, that is a short term mission to build a referral base for a metropolitan service.

• A critical mass of outreach service resources is perceived as important to ensure continuity of service in the event of one or two specialists becoming unavailable.

• Several stakeholders believed that time and space needed to be built in to outreach service models so that knowledge and skills transfer could be more structured, and that capacity building actions could be more strategic compared to the current ‘opportunistic’ approach.

In respect to the threats to the RSS, some commentators noted that the system needed to support and back interested people, the implication being that in fact the reverse had occurred in recent times, through a gradual chipping away at the resolve of the RSS’s proponents.

From their perspective though, funders of the RSS wanted stronger relationships to evolve between the service and local and state public health services providers. This probably implied in the longer term greater control over the service direction and even operational management being transferred from those who have created and nurtured the service thus far to service planners and local service ‘hosts’.

Therein lies a real irony—the success of the service to date has been linked with its capacity to keep tight control over its resources thus delivering high quality services while promoting significant surgeon job satisfaction. The sustainability of the service though possibly depends on its capacity to relinquish much of that control, and accept the service changes that will inevitably result.

Conclusion

It has been a feature of the history of the RSS how it has been able to fairly flexibly redirect its outreach service offering on reasonably short notice. It is possible that proponents of a (necessarily) more rigid ‘hub and spoke’ model of service delivery do not fully appreciate this flexibility, in particular its ‘lubricant’ qualities as a facilitator of change.

The RSS appears to be comparatively costly in terms of unit costs per visit. This is argued to be the result primarily of employing very high quality surgeons (and paying them accordingly) and providing significant co-ordination and administrative support. This is a key area of debate in discussion of what makes a service sustainable over a long period of time, the debate being focussed on the trade-offs between apparent value for money, and valuing the service and the service providers.

From the stakeholders’ perspective at the outreach sites there is little argument. Most observers note the critical nature of the relationship between the RSS and local GPs, and how fragile the viability of the service would be in the absence of high quality surgeons who had earned the trust and respect of local GPs.

Concerns surround the age (nearing retirement) and the fairly unique motivations of the individual specialist driving the RSS. A replacement or succession plan is urgently required. The attributes identified by observers that would ideally be sought in a replacement:

• Not to get easily disheartened by efforts to erode the service’s operational performance and/or financial viability;
- Capacity to relate well to and enjoy communication with rural people;
- Capacity to be open to and respond to the needs of local health service providers (eg the operating theatre nurses);
- Flexibility in being able to perform procedures according to the prevailing conditions.
- Capacity to engender respect amongst GPs, local health staff and patients.

The long term sustainability of the RSS appears dependent on its capacity to relinquish much of the current control it enjoys over service parameters, and share ‘ownership’ (and therefore responsibility and accountability) more widely amongst key stakeholders. The question remains as to how acceptable will be the service changes that will inevitably result.

**References**

House, AK (2002) *A needs assessment of specialist services in rural and remote Western Australia-Access and utilisation.*


Chapter 5: Obstetrics and Gynaecology outreach service, Victoria

General context of outreach service

Services are provided on an outreach basis from a private obstetrics and gynaecology practice located in Warrnambool, a major regional town within the Otway / Western Districts area. Warrnambool is located on the coast of Southern Victoria and has a population of approximately 28,000. It has a base hospital in the town (at which the Warrnambool private practice obstetricians have both fee for service sessions and private practice privileges.

The majority of the practice’s total work is completed in Warrnambool, either at the practice or in the base hospital. As an indication, the income from the outreach points of service accounts for only approximately 17% percent of the total practice income. Most patients are residents of Warrnambool, however many of the procedures especially performed in Warrnambool are on patients from surrounding districts (including from points of outreach service delivery).

Outreach services from Warrnambool are to Hamilton (every Monday), from Warrnambool to Terang and Cobden (every second Monday) and from Warrnambool to Timboon and Camperdown (every second Wednesday). Three specialists (based in the private practice at Warrnambool) provide the outreach visits detailed above. The service to Hamilton (north of Warrnambool) is provided largely by one specialist, and the round trips to the towns east of Warrnambool by one of the other specialists.

Travel is by specialist’s own car, and entails travel time of approximately 1.5 hours each way to Hamilton, slightly less for other centres (see details in later section).

History of the outreach service

The outreach service has existed since 1985. There has been no substantive change in arrangements over that time, other than an increase in the specialists in the main practice and participating in the outreach arrangements.

The service to Hamilton seems to have been largely initiated to maintain a service that had been provided for five years as the resident O&G practice. This service was threatened after the resident specialist moved to Warrnambool and set up practice in that town. The move was no doubt inspired by the larger catchment area of Warrnambool, but also because Warrnambool is on the coast, and this tends to be a more attractive option for settlement than the inland resident options.

The Hamilton service predates the other outreach services. The outreach service to the eastern towns (Terang, etc.) was started at the time of the commencement of the partnership arrangement between Drs Pettigrew and Beaton. The concern was that there may not be sufficient work in the town of Warrnambool alone (plus Hamilton) to support a two person practice, hence Dr Beaton constructed the outreach service to create a sufficient patient base. It was quickly established that the visits exposed significant unmet demand, and running the service out of GP offices created strong referral links that further consolidated the patient numbers.
Demography of catchment

The Barwon-South Western Region comprises a population of about 323,400 persons\(^{10}\). In the catchment area within the Region covered by the Warrnambool practice and its outreach centres, some 9% of the population is concentrated in Warrnambool, a further 3% reside in Hamilton and the remainder reside in towns immediately east of Warrnambool.

Table 5.1: Population: District Health Services within Cairns Sub-zone

<table>
<thead>
<tr>
<th>Warrnambool</th>
<th>Hamilton</th>
<th>Terang</th>
<th>Camperdown</th>
<th>Timboon</th>
<th>Cobden</th>
</tr>
</thead>
<tbody>
<tr>
<td>26,053</td>
<td>9,246</td>
<td>1,865</td>
<td>3,154</td>
<td>694</td>
<td>1,413</td>
</tr>
</tbody>
</table>

*Source: MSOAP Costed Service Plan – Barwon South Western Region, 2001*

Organisation of the ‘home’ practice

The Warrnambool practice operates simply as a private practice model. It is known as the Wentworth Women’s Clinic and consists as noted earlier of three, full time specialist practitioners; Dr Beaton, Dr Braniff and Dr Uren. The main practice setting, a very modern set of consulting rooms, is located in the grounds of St John of God Hospital in Warrnambool.

The practice was originally established by Dr Pettigrew (in Hamilton and subsequently moved to Warrnambool). Dr Beaton joined him in 1985 after migrating from England and working initially as a general practitioner in the Portland area. The practice was quickly and successfully established as a partnership. Approximately five years ago the practice capacity was expanded by adding Dr Braniff to the partnership. In more recent times Dr Uren has been added to the specialist workforce at the practice, having been a trainee at the practice for 6 months during her specialist training program. Dr Pettigrew, with whom initial contact was made as part of the service site selection process, has left the practice in the last 12 months to take up an academic appointment in rural medicine (he is now located at Mildura).

A significant proportion of the specialists’ work, as would be expected, is performed at the consulting rooms at Warrnambool. Depending on the patient, most of the consultation work is privately billed. In addition, all three specialists have visiting medical officer (VMO) status at the base hospital and weekly complete the equivalent of five ‘sessions’ where procedures and rounds are conducted. These sessions are paid on a fee for service basis. The bulk of patients seen are public, however a small number of patients are privately admitted. As well, the practice between the specialists covers two sessions a week at the St John of God private hospital.

Outreach points of service and their features

The outreach service from Warrnambool delivers services to six towns, as detailed in Table 5.2.

Table 5.2: Characteristics of towns receiving outreach treatment

<table>
<thead>
<tr>
<th>Town</th>
<th>Mode of travel</th>
<th>Travel from Warrnambool</th>
<th>Time of travel (one way)</th>
<th>Type of setting for service delivery</th>
<th>Hospital procedures (per visit)</th>
<th>Consultations (per visit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamilton</td>
<td>Car</td>
<td>Warrnambool</td>
<td>1.5 hours</td>
<td>Hospital / specialist consulting rooms</td>
<td>4 - 5</td>
<td>7 - 8</td>
</tr>
<tr>
<td>Timboon</td>
<td>Car</td>
<td>Warrnambool</td>
<td>40 mins</td>
<td>Hospital / GP rooms</td>
<td>0 - 2</td>
<td>4 - 5</td>
</tr>
</tbody>
</table>

In Hamilton, procedures are performed in the morning of the visit to the hospital. These patients are mostly public and procedures are arranged by the hospital. A small number are privately admitted.

Consulting services are delivered in the afternoon in the consulting rooms of the public hospital. The latter is a simple set of rooms slightly to the side of the main campus and shared by a range of visiting consultants (dermatologist, ENT surgeon, neurological surgeon). On the day that the O&G specialist visits there are no other visiting specialists. The rooms are serviced by a hospital employee in the afternoon (receptionist function only, since bookings are through the Warrnambool practice). The practice pays for rent of the rooms (including cost of receptionist service). At Hamilton the cost is approximately only $20 per session (which seems to suggest a level of subsidisation by the hospital). Patients are privately billed for consultations in Hamilton, this being a long established practice (see notes on ‘history’).

In the other locations, services are delivered in the rooms located at local general practices, and appointments are scheduled through those practices. Some procedures performed at the local hospitals in those towns that have a facility (Timboon, Camperdown, and Terang). Visits are scheduled to accommodate two towns per day, one in the morning and one in the afternoon. The Monday rotation includes Terang and Cobden, and the Wednesday rotation Timboon and Camperdown. Both consulting and minor procedures are performed in the GP rooms, often the procedures in particular form the function of ‘opportunistic’ competency development for the GPs.

The arrangements for services in Timboon are instructive for the other eastern outreach sites. The Warrnambool office organises the bookings for the consulting in the rooms of the local GP. The general practice receptionist provides support (mainly directing traffic). Neither the room nor the receptionist costs are demanded of the specialists (possible testimony to the value the GP places on the O&G service). Patients are bulk billed through Medicare. In respect to procedures, the hospital theatre does its own paper work and books in the patients. Procedures are billed through the Warrnambool practice and are charged direct to the hospital.

**Referral mechanisms**

The primary source of referral to the outreach service is local general practitioners. A strong and amicable relationship has been fostered between the specialist practice and the local general practices based on mutual respect. Dr Beaton described on a number of occasions his general practice antecedents, and professed that amongst specialists he was somewhat unusual in his understanding of how hard the GP role is, and his willingness to recognise their skill. The outreach service attempts to walk a fine line between taking some work from GPs but not so much as to make their service non-viable. There is a recognition that retention of GP obstetricians is important to the sustainability of the specialist outreach practice, otherwise the task of the specialist becomes too onerous. In Warrnambool alone the O&G practice has seen the number of GP obstetricians reduce from 17 in 1985 to 4 in the current environment, potentially applying great pressure on the specialists’ to cover emergency on call rosters.


**Alternative services**

Currently the Director of Medical Services at Western District Health Service (Hamilton Hospital) is intent on securing a resident O&G service. The Director is confident of bringing a specialist from overseas under area of need position provisions in the next few months. This latest recruitment effort follows a history of past attempts to establish a resident O&G specialist service.

The economics of a resident O&G specialist service are interesting. The Director at Hamilton hospital estimates that the cost of recruitment and settlement is close to $100,000, and that it will take nearly five years of resident service to eventually break even on the investment cost. An important aspect in obtaining a return on investment is the fact that O&G procedural throughput ‘is good for the budget’, since most procedures are day only and are comparatively well compensated under the casemix funding arrangements prevailing in Victoria.

Interesting also is the projected effect anticipated by the Director on the outreach service. The Director would possibly see a supervision role for the outreach service providers, particularly if supervision was demanded as a condition of placement by the registration board to the area of need position.

**Outreach service workloads**

There has been a growing contribution to outreach sites provided by the Warrnambool practice over the last three years. This is shown in the Table below.

<table>
<thead>
<tr>
<th>Table 5.3: Specialist services attributable to the outreach service</th>
<th>1999/2000</th>
<th>2000/2001</th>
<th>2001/2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of specialist / patient contact hours (all sites)</td>
<td>96</td>
<td>192</td>
<td>270</td>
</tr>
<tr>
<td>Number of patients seen (procedures and consultations)</td>
<td>929</td>
<td>1826</td>
<td>2382</td>
</tr>
<tr>
<td>Number of hospital procedures</td>
<td>96</td>
<td>192</td>
<td>192</td>
</tr>
<tr>
<td>Number of visits to outreach sites</td>
<td>24</td>
<td>48</td>
<td>74</td>
</tr>
</tbody>
</table>

This growth in service delivery reflects the increased capacity within the practice to provide a consistent service to both the eastern and northern sites as the number of specialists has expanded to three. If statistics were collected back further years however, they might reflect a trend of rise and fall in outreach service workload rather than the linear growth suggested in the Table above.

This rise and fall in outreach services tends to coincide with the availability of substitute labour to deliver O&G services. The main two alternatives are general practitioners with obstetrics training, supported to varying degrees by general surgeons, and resident specialists. By way of illustration, since its inception the outreach service from Warrnambool to Hamilton has very flexibly self-adjusted its service delivery output in response to differing levels of available substitute labour (and in so doing earned the praise of most stakeholders). Thus three distinctly different service supply scenarios have emerged, each one of which has prevailed in the last decade (and might pertain again in the future) as follows:
This scenario was the case at the time of the initiation of the outreach service (1985). At that time, most of the town GPs could provide varying levels of obstetric services, and the specialists provided a service for the more difficult referrals and procedures. Today, only three GPs in Hamilton practice obstetrics.

In the past decade, three separate attempts have been made to sustain a resident obstetrics and gynaecology specialist in Hamilton. When in residence, naturally the work flows to that resource, potentially to the detriment of (willing) GP labour (who can no longer for instance attend enough births to remain competent). Indeed the GP stakeholders in Hamilton argued that the marginal nature of the Hamilton population base (approximately 12,000\(^{11}\)) requires the specialist to ‘cannibalise’ the GPs’ obstetrics practices. The outreach service should theoretically cease altogether, although experience has shown that some particularly difficult cases tend to still be referred to the outreach specialists.

\(^{11}\) This population figure was disputed by the public sector health administration, they argued that the catchment area for the Hamilton hospital was really closer to 25,000.
No resident specialist - relatively high outreach provision

After the departure of a resident specialist, as has happened in the last three years in Hamilton, the workload of the outreach specialists paradoxically expands to a level greater than pre- the existence of the resident specialist. This is the result of the depressant effect on GP obstetric activity. In Hamilton, the introduction of general surgeons to supplement GP labour has contained the demand for specialist O&G labour, since they have increasingly performed emergency procedures (eg caesarean sections).

Overall, it might be fair to say the outreach service is complementary in nature in the way it fashions its service provision effort. For instance, at times when there has been a resident service in Hamilton the outreach service has simply scaled back (to fewer hours) or concentrated on areas that the resident was not strong or interested in (for instance family planning).

Training and outreach

Training effort is mostly directed towards GPs. As noted elsewhere, the Warrnambool O&G specialist practice is concerned to preserve an active GP presence, not the least of the reasons being to maintain sufficiently competent personnel to fill on call rosters.

The Warrnambool specialists participate in structured CME programs for GPs organised by both the local division of general practice and the RACGP that can last whole days. They also contribute to other less structured and formal training programs.

What is most appreciated by GPs however is the propensity of the Warrnambool specialists to respond to requests for consultant advice on difficult (usually gynaecological) cases. GPs consulted praised the willingness of the specialists to respond in ‘real time’ (that is while a patient was still in rooms) to telephone requests for advice and practical knowledge to deal with the patient’s problem. This they confirmed was comparatively uncommon practice from specialists consulted, and a powerful form of learning which enhanced their standing with the patients and their self-confidence.

Public sector health administrators for the region supported the opinion of GPs that the specialist practice clearly supported a philosophy of capacity building.

Current motivations and objectives

The outreach service currently claims it responds to the absence of specialist services in the areas visited, the need to provide back-up and support to GPs, and to eliminate travel time for patients (some of whom may not access the service otherwise32).

32 Dr Beaton described several patients who hardly travelled outside their local townships, for whom a trip to Warrnambool would be a challenge and a transfer to Melbourne out of the question.
Currently the specialists ascribe a low importance to the outreach service as an income stream. In times past the viability of the main practice has clearly been dependent on the business generated from the outreach centres, especially as each of the additional practitioners has been brought into the partnership. Warrnambool and surrounds is now arguably a sufficiently large catchment area to sustain a practice of three full time specialists but the population is marginal. It was noted earlier that billing at outreach centres accounts for 17% of the total practice income, but it should also be noted that significant additional billing is generated at the Warrnambool practice from patients referred from outreach service areas. At least one of the specialists voiced the concern that without the outreach service visits referrals might ‘dry up’. At the very least, the outreach services are possibly maintained as a financial safety net.

It is fair to say though that the burden of maintaining the outreach service is not great. One of the specialists offered that he enjoys getting “out of office as much as possible”, and driving up to Hamilton, although it can be a bit tiring. Another consultant also indicated that delivering the outreach service was “actually a nice break, good to get out on the road”. The informal contact with GPs, especially in the eastern towns, is also appreciated.

**Consumers**

GP’s and hospital and regional health administrators highlight a number of benefits for consumers from the outreach service such as:

- Less travel involved, especially for the initial assessment and non urgent medical requirements,
- Strong back-up service, especially through GPs themselves,
- Contribution, through the conduct of procedures, to the continued viability of local hospitals (especially those of Timboon and Terang).

**Conclusion**

The largest question surrounding the Warrnambool O&G outreach service is whether it is a genuine outreach service, or simply a collection of sites forming multiple delivery points to a single practice.

The question hinges on the potential of the Warrnambool practice to survive as a ‘stand alone’ practice. If it is indeed viable and sustainable without the caseload generated from the outreach centres, then one could argue that the outreach service is a genuine ‘add-on’ contribution. The Warrnambool specialists believe that this is the case.

There may be an opportunity cost associated with delivery of the outreach service (for instance income foregone while travelling and presumably lowered productivity inherent in outreach service delivery), but this seems to be balanced by intrinsic benefits for the specialists.

The obstetric outreach service from Warrnambool, funded through Medicare, is providing access to specialist care in the outlying communities which would not otherwise be offered. An appropriate balance is being maintained with the care provided by local GPs. It is likely that the number of GPs practising obstetrics will continue to decline given current indemnity costs thereby increasing the dependency of small towns on specialist care.

Should the area health service succeed in appointing a staff specialist to the hospital the current delicate balance would be upset and there is no guarantee of greater sustainability in this option. Furthermore it is unlikely that the outreach service and the shared on call rosters so important to
an obstetric service would continue in the same way. GPs and consumers alike have expressed considerable satisfaction with the current service.
Chapter 6: Specialist outreach support in mental health, Victoria

Background

The North West Mental Health Program, through the activities of a Senior Consultant Psychiatrist at the Royal Melbourne Hospital, delivers outreach support services to assist rural mental health services in Victoria to maintain high quality care.

The outreach activities hence represent an intermediate service and are not in themselves directly associated with delivery of routine care to patients—although the service may occasionally offer second opinions and patient reviews. Beneficiaries of the outreach support are community mental health services in Warrnambool (South West Healthcare, Psychiatric Services Division), Shepparton (Goulburn Valley Area Mental Health Service) and Ballarat (Ballarat Health Service – Grampians Psychiatric Service).

Recruiting overseas-trained psychiatrists

Each of these services has experienced severe problems in adequately staffing their facilities with specialist psychiatrists (South West Health Care, Psychiatric Services Division, 2001). Nevertheless, their recruitment problems are symptomatic of the overall shortage of psychiatrists in Australia, particularly in rural areas and in the public sector. 13  Around 90% of Australian psychiatrists practise privately in metropolitan areas. Many public sector rural health services have sought to remedy local shortages by recruiting overseas-trained psychiatrists (OTPs). More than 43% of rural public sector psychiatrists in Victoria are now OTPs, mainly from India 14.

To work in a rural mental health service, OTPs enter Australia on occupational training visas. These are generally available for periods of up to four years to doctors who have obtained specialist qualifications in their home country and who are seeking to undergo training to gain an Australian Fellowship by completing College exams, in lieu of AMEC Certification. Applicants need to show evidence of financial independence and that they are taking up a training position. Once Australian employment has been offered, OTPs gain registration with the relevant State Medical Board to practise for at least a year. They are then restricted to practising in public sector psychiatry and are denied a Medicare provider number.

Training and support needs of overseas-trained psychiatrists

The consultant was told that psychiatry is a discipline that is significantly influenced by culture. Although OTPs have a sound basic knowledge of medicine and a good academic understanding of psychiatry, there are significant cultural and technical differences between the way that psychiatrists practise in Australia and, for example, India.

When OTPs first arrive from India, they understandably possess very little idea of Australian institutions: Pharmaceutical Benefits Scheme, Centrelink, etc. Mental illness concepts differ markedly between India and Australia. Anorexia, for instance, is never diagnosed in India and incest and sexual

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13 AMWAC, 1999
14 Barton et al, 2003
abuse remain hidden from recognition. There is little in the way of a medico legal system in India and little appreciation of risk benefit trade offs and risk management.

Although use of medications by psychiatrists in treating mental illness in India is growing, the medications are often used in a different manner to Australian practice. Moreover, because of difficulty in obtaining psychotherapies in rural areas—due to lack of appropriately trained staff—drugs are more important than ‘talking therapies’ in rural public settings. Optimal therapeutics that recognises the effectiveness of calibrating minimum dose forms are hence of special consequence. To make OTPs functional in an Australian community setting thus requires their acculturation and familiarisation.

Rural health services need professional assistance to give newly arrived OTPs the skill to practise effectively and appropriately in Australia. During the late 1990s, this need was recognised by members of the Department of Psychiatry at the University of Melbourne. They saw themselves as the centre of a deal of intellectual capital and having a responsibility for supporting rural services. This gave momentum for a Senior Fellow in Psychiatry to embark on an informal market needs analysis and to begin to think about a role as an Outreach Program Psychiatrist (OPP)\(^{15}\). The challenge was to develop an educational and training outreach Program that could respond to rural needs as well as to the professional training that OTPs themselves required to gain an Australian Fellowship.

The intention was not to replace what rural services provided, but rather to enhance what they were already themselves doing and to facilitate access a standard of care equivalent to metropolitan care.

**Training and support philosophy**

The OPP has successfully established links with various rural services that culminated in the establishment of a training outreach Program in Warrnambool in 1999, followed by Shepparton in 2000 and Ballarat in 2002. Parallel discussions with the service at Mildura, on the other hand, have failed to materialise into a program.

The OPP defines his work as delivering a “support, quality improvement and augmentation model” to these rural services, which is targeted at their OTPs. Services delivered consist of the following elements:

- clinical supervision
- quality improvement
- preparation for the Australian Fellowship examination
- a continuing medical education program, post Fellowship—referred to in psychiatry as Maintenance of Professional Standards (MOPS)

**The Outreach Program Psychiatrist**

The OPP does not have a formal job specification. The OPP works within the Department of Psychiatry at the University of Melbourne. His outreach role is a mirror image of his service development / program role in the university, where instead of a direct primary caseload he concentrates on:

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\(^{15}\) No official job title attaches to his role and the term “Outreach Program Psychiatrist” is a notional designation adopted here to summarise his activities.
• quality assurance though second opinions and supervision of various ECT sites
• mental health research
• GP liaison and administration of GP / psychiatrist Share Care arrangements
• registrar training
• a half day per week private caseload

Whilst he works within the Department of Psychiatry at the University of Melbourne, the North Western Mental Health Network underwrites his salary, as there is a significant intersection between his university research and his other work and the practical needs of the Network.

The incumbent spends the equivalent of about a day of his working week working in his OPP role. In consideration of this, rural fundholders in Warrnambool, Shepparton and Ballarat, have elected to ‘purchase’ his services through the Network at an hourly rate based upon Medicare Schedule Fees. These payments assist in amortising the OPP’s salary cost.

**Funding**

In Victoria, there is a high level of administrative and financial devolution to individual health services. These arrangements are the product of sweeping reforms introduced between 1992 and 1999. The reforms introduced the so-called purchaser-provider split, whereby decision-making is vested in the principal as purchaser of services, whereas responsibility for implementation is delegated to the agent as provider.

The Department of Human Services (DHS) funds each of Victoria’s 22 Mental Health Service Areas by allocating them an annual per capita budget and according them high levels of discretion and flexibility in expending their budgets. Services such as South West at Warrnambool may expend their budgets locally or purchase services not locally available. Rural mental health services buy a spectrum of services from metropolitan providers. In the case of Warrnambool, the OPP is merely one element of a complex set of services including a range of sub specialist disciplines in psychiatry as well as allied health. In this way, mental health services have assumed high levels of strategic control over service delivery, with tactical responsibility for delivery residing with the provider.

Conferring fundholder status on rural services means that the character of services they attract can relate specifically to local priorities and perceptions of need rather than to a rigid, procrustean and centrally determined philosophy. In the case of psychiatry, for instance, rural services have adopted the view that their health consumers obtain better value from having resident psychiatrists than from visiting psychiatrists—even if, because of problems in attracting Australian graduates, it means hosting OTPs from India and providing them with a visiting coaching service.

**Extent and content of Outreach Program**

At the time of writing, the outreach Program supported 13 OTPs, distributed between three Victorian rural health services as set out in Table 6.1.

<table>
<thead>
<tr>
<th>Point of service</th>
<th>Distance, ex Melbourne</th>
<th>No of OTPs</th>
<th>No OTPs in training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warrnambool</td>
<td>261 KM / 3.5 hrs</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Shepparton</td>
<td>181 KM / 2 hrs</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Ballarat</td>
<td>112 KM / 1.5 hrs</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td>13</td>
<td>7</td>
</tr>
</tbody>
</table>
All OTPs listed in Table 6.1 are from India, except one in training at Ballarat (who is a European Zimbabwean).

The OPP typically delivers the outreach Program to each of the sites by way of monthly personal visits—for which he charges $100 per hour—supplemented by hosting an intensive curriculum of tele-educational health through videoconferencing.

During site visits the OPP provides an hour of face-to-face supervision to each OTP; he also accompanies them on ward rounds and observes their clinic work. This enables the OPP to monitor OTPs with their patients, to evaluate, and to provide comment and advice on their management and treatment plans. The disposition of the content of the training that OTPs receive is roughly as follows:

- 50% biological—drugs and therapeutics
- 30% systemic—the Australian family, environment, etc
- 20% psychological—mental health

Rural fundholders also use the OPP to arrange or broker the provision of visiting training services to outreach sites by other mental health professionals—such as psychologists, social workers and Aboriginal mental health specialists, to support local allied health personnel working with OTPs.

During the early phase of the service provided to Warrnambool (1999), the OPP complemented his work with the OTPs by supporting local GPs through their GP Liaison Committee. The objective was to enhance local GP competencies to facilitate and illuminate the evolution of an effective Shared Care environment for mental health. This assisted in creating effective working relationships between local GPs and the OTPs. The Shared Care model is now working well and the OPP’s outreach support in this area has accordingly diminished. GPs now handle most of the prescribing and ongoing management of stabilised mental health clients.

Video-conferencing occurs in real time and is interactive between host and outreach sites. The video-conferencing unit is located in a conference room adjacent to the OPP’s office at the Royal Melbourne Hospital. The running charge for the video-conference is $110.00 per hour, plus the cost of professional time (up to $165.00 per hour). North Western Mental Health Program has underwritten the capital cost of the unit.

**Table 6.2: Tele-conferencing, location by service type, January 1999 – May 2001**

<table>
<thead>
<tr>
<th>Location / Service type</th>
<th>Psychiatry, OPP</th>
<th>Psychiatry, Other</th>
<th>Psychology</th>
<th>Social Work</th>
<th>Other</th>
<th>Total</th>
<th>Services per operational week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warrnambool Training</td>
<td>73</td>
<td>50</td>
<td>62</td>
<td>9</td>
<td>27</td>
<td>150</td>
<td>1.28</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>62</td>
<td>9</td>
<td>39</td>
<td></td>
<td>235</td>
<td></td>
</tr>
<tr>
<td>Sub Total</td>
<td>73</td>
<td>52</td>
<td>62</td>
<td>9</td>
<td>39</td>
<td>235</td>
<td></td>
</tr>
<tr>
<td>Shepparton Training</td>
<td>40</td>
<td>1</td>
<td></td>
<td></td>
<td>41</td>
<td>41</td>
<td>0.35</td>
</tr>
<tr>
<td>Mood disorders</td>
<td>8</td>
<td>2</td>
<td></td>
<td></td>
<td>8</td>
<td>8</td>
<td>0.07</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
<td>3</td>
<td>3</td>
<td>0.03</td>
</tr>
<tr>
<td>Sub Total</td>
<td>48</td>
<td>2</td>
<td>3</td>
<td></td>
<td>52</td>
<td>52</td>
<td>0.44</td>
</tr>
<tr>
<td>Ballarat Other</td>
<td>1</td>
<td>1</td>
<td></td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>0.03</td>
</tr>
</tbody>
</table>

Chapter 6 64
Sessions are delivered predominantly by the OPP, but are also done by allied health workers, sub specialists such as child psychiatrists or neuropsychiatrists, or visiting luminaries. Table 6.2 shows the pattern of videoconferencing by service type and provider and by outreach location over 117 operational weeks between January 1999 and May 2001.

During this period, there was an average of 2.71 video conferences per week, of one to two hours duration. Some 74% of them were provided to Warrnambool—most of which in turn consisted of OTP training (64%) delivered by the OPP (49%). OTP training is the predominant use for videoconferencing across all sites (60%), followed by allied mental health support (22%). Other videoconferencing relates to miscellaneous activities, including administration, peer support and ongoing education (MOP) and sponsored presentations by international authorities on mental health.

The OPP retains two Coordinator / Research Assistants, who maintain an inventory of speakers from various disciplines and specialisms to ascertain the type of support that rural services want, and to match their wants with skills availabilities. Their appointments are funded through a combination of outreach revenues and research grants (for projects not necessarily related to outreach work).

The distribution of services by site between January 1999 and May 2001 reflects a stage in the evolution of the Program when most services were concentrated in Warrnambool. Although Warrnambool remains the ‘flagship’ site, there has since been considerable development at Shepparton and more recently at Ballarat. Whilst the composition of services has remained roughly constant, there has been a growth in the relative importance of the newer outreach sites.

**Outcome**

**Impact on training, retention and practice style**

There are four possible dimensions to assessing the impact of specialist outreach support.

The first, and one of the most direct measures, is the effectiveness of the OPP as a coaching service for the Australian Fellowship examination. There has been an intake of six OTPs into the outreach Program, four of whom were inherited at the time the Program commenced in 1999, and two have since been recruited. Five have now gained Fellowships.

The second concerns the capacity of outreach sites to retain OTPs that gain Australian Fellowships. OTPs are relatively easy to recruit, but once they possess an Australian Fellowship they can secure permanent residence in Australia. They are then at liberty to practise where they wish with a Medicare number. There is an instinctive tendency for psychiatrists to move from rural to metropolitan practice and from public to private practice. Of the five erstwhile OTPs who have passed their examinations, at the time writing all had continued in public practice and four have remained in rural practice. One psychiatrist departed Warrnambool to take up a public sector appointment in an outer metropolitan area of need and the imminent departure of another to metropolitan public practice is possible.

A third test of outcome has to do with the capacity of the outreach Program to engender changes in OTP practice technique that accord with contemporary Australian standards for quality care in
mental health. Evidence of specific change is manifest by changes in 28 key performance indicators (KPIs) of in-patient clinical practice, as revealed by an external reviewer’s systematic comparison of OTP case notes in Warrnambool some 12 months after the Program had been initiated (late 1999) with case notes before commencement of the Program (1998)16. The reviewer found that there had been significant changes in KPIs, including:

- near elimination of the use of seclusions
- significant reductions in the discharge of patients on multiple psychotropic therapies
- significant reductions in unplanned readmissions
- a small increase in inpatients discharged with discharge summaries
- a small increase diagnoses within 24 hours of admission
- an increase in differential diagnoses at separation
- elimination of doses of chlorpromazine (major tranquiliser) exceeding 1 GM

**Customer excellence and customer satisfaction**

A fourth and more fundamental general test of outcome is attitude of client sites to the outreach Program. Their continued willingness to utilise the outreach program and to pay for the various services delivered or brokered by the OPP may be taken as an indication that the Program has benefited their activities.

As the proving ground for the outreach Program, Warrnambool initially faced significant challenges. There are indications that work of the OPP has assisted in the transformation of the South West Service into a model, demonstration site. This must have undoubtedly recommended decision makers in Shepparton and Ballarat in favour using the services of the OPP.

In the early 1990s, the Director of the service at Warrnambool inherited an institutional model of custodial care, offering few community services with a hierarchically management structure and a culture of mediocrity. His quest was to reform the service serving 100,000 persons in south-western Victoria, in accordance with evidence-based psycho-social practice. What grew out of his initiatives was a community-based model of integrated health care, with clinical treatment provided in the client’s own environment. Outreach services were established in Hamilton, Portland and Camperdown.

The key feature of the service is the psychiatrist at the apex of the clinical team, flanked by a primary care network to handle on-going medical and psycho-social management, with GP support. To deliver best practice care, the model requires high levels of clinical competence and, as a corollary, both generic and discipline-specific supervision are mandatory for all clinicians.

The consultant was told that a full complement of resident psychiatrists was axiomatic to this clinical philosophy. However, because Warrnambool cannot recruit Australian trained psychiatrists,

> “the involvement with the Royal Melbourne—and more specifically [the OPP] who is clearly the driving force in the outreach program—it absolutely essential to ensure the [overseas trained] psychiatrists employed are competent in their area and continue to develop their clinical skills. … Effective use of video-conferencing is a major component in the success of the program, but in a form where it is used to ‘continually skill-up’ the resources all the

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16 Documentation supplied by Dr David Barton, Department of Psychiatry, University of Melbourne, 6th May, 2003.
time available in our own geographical area—as opposed to those [providers] who fly in and fly out and leave the area short in financial resources—with clinicians no better off for the skill levels available to its community.”17

By the late 1990s, the Warrnambool OTP model was consistently ranking first (out of all 22 Victorian Area Mental Health Services) in Consumer and Carer Satisfaction Surveys conducted on behalf of the DHS.

In 2002, the Australian Council of Healthcare Standards rated Warrnambool as

“one of the leading mental health services in Australia …and ...a service of exceptional quality to the citizens of the SWH catchment area.”

Other accolades include an assessment of the Warrnambool service in May 2001 by Sir David Goldberg, doyen of British psychiatrists, as

“…one of the best mental health services in the world …” and as “… the face of the future of community psychiatry around the world.”

In an earlier review, after some unflattering comments about mental health in Australia, Goldberg had written:

“…..the honourable exception to these dismal observations was the service in Warrnambool: there are training modules for staff in 12 basic skills needed by all workers, in addition to the specific skills of the various professions. Staff must attain proficiency in each skill, and all staff are supervised……. It is hardly surprising that this service comes top in the State in the key performance indicators.” (Goldberg, 2000)

The consultant was told that the Warrnambool site itself now delivers consultancy services and hosts site visits and training programs to mental health services in all States of Australia as well as other countries including, the US, Britain, New Zealand and Italy18.

In so far as the Warrnambool service employs a multi-disciplinary team with psychologists dominating staff numbers, the results it has achieved are likely owed to more than one professional group. Neither is Royal Melbourne the sole sourcing of support services it out sources. Even so, psychiatry supported by the OPP constitutes a necessary, if insufficient, ingredient to the performance of the service.

Conclusion

The OPP’s service is a quasi market-driven service whose survival depends solely on the willingness of rural customers to pay for its use. The willingness of a highly successful demonstration site such as Warrnambool to acknowledge its significance and to continue to use it to support its training arrangements for OTPs is likely to assist in the duplication of similar outreach training roles from other metropolitan teaching hospitals and universities.

The experience with the OPP service also demonstrates that OTPs—a necessary but neglected element of the Australian workforce— have important potential to add value to mental health services in Australia (Barton et al, 2003). There may be, however, ethical problems in attempting to

17 It is paradoxical that there are two Australian-trained psychiatrists practising privately in Warrnambool and who are listed VMOs at Warrnambool Base Hospital. The consultant was told that these doctors have little to do with the OTPs or their clinic work.
18 Area Mental Health Services from metropolitan Victoria, however, have not visited the Warrnambool site.
mitigate rural workforce shortages by attracting highly trained professionals to areas of need in Australia from countries such as India, who are themselves desperately short of psychiatrists (Goldberg, 2000).

References


Barton D, Hawthorne L., Singh, B and Little, J (2003) “Victoria’s dependence on overseas trained doctors in psychiatry” People and Place, 2:1:54-64


Chapter 7: Paediatric outreach, South Australia

Background

Specialist outreach is conventionally thought of in terms of the ebb and flow of specialists between city and rural and remote settings. The distinguishing feature of Port Augusta’s specialist paediatric service—The Northern Regional Paediatric Unit (NRPU)—is that it is a regional specialist outreach service hub in its own right. It provides services to many communities within a 500 - 600 KM radius of Port Augusta that are situated within South Australia’s Northern and Far Western, Mid North and Eyre Peninsula Health Service Regions. Over half the Unit’s clients are seen at points of service outside Port Augusta. Presence of the Service where remote populations live and work brings it into relative proximity to its hinterland. This maximises opportunities for patient contact and service continuity in surroundings that are familiar and congenial to clients.

The mission of the Unit is to:

- deliver services as close to clients’ homes as possible
- work in partnership with parent / professional organisations
- be ‘the best little children’s service in Australia’

The NRPU was originally set up as a Specialist Practice Pilot Project jointly by the Women’s and Children’s Hospital in Adelaide and the Port Augusta Hospital and Regional Health Services—at first with a resident paediatrician, and subsequently with a visiting paediatrician providing the service. Although it was a partnership with the Women’s and Children’s, it also had strong local roots, based upon the Port Augusta community’s interest in, and sponsorship of agencies associated with child health and development.

Service base and infrastructure

The Unit’s service base is the Department of Paediatrics at Port Augusta Hospital, an 82-acute bed, Level 2-3 Hospital, which is the administrative base for the Northern and Far Western Regional Health Service. Paediatrics is the only specialist service resident in Port Augusta and is under the clinical direction of a resident Senior Staff Specialist. The current incumbent took up his appointment in 1993, replacing a visiting paediatrician. An important watershed in the development of the Unit came when, following evaluation of the Unit (Bradley and Williams, 1998), funding was secured for the appointment of a second resident paediatrician. An appointment was made to this position in 2000. The Unit also supports a GP or Paediatric Registrar on a six-monthly rotation from the Women’s and Children’s. This is a training position that the RACP accredits for advanced trainees. In addition, sixteen undergraduate medical students each year rotate through the Unit on two-week placements.

In Port Augusta, the NRPU’s activities are centred on the management of inpatients in the 24-bed Maternity, Neonatal and Paediatric Ward and its Level 2 Neonatal Nursery (Casuarina Ward), as well as provision of ambulatory services from a clinic (separately situated in the “Old Hospital” building, adjacent to the main Hospital). Activities harmonise with a variety of community services including the Child Health Team (attached to the Port Augusta Hospital and Community Health Service) and the Miriam High Special Needs Centre. The Unit also has working arrangements with, and supports indigenous agencies such as the Aboriginal Health Unit, attached to Port Augusta Hospital, Pika...
Wiya Health Service, an Aboriginal health service based in Port Augusta (but which also undertakes its own outreach work) and various Aboriginal outreach clinics.

The Child Health Team has a mixture of seven FTE therapists and is responsible for coordinating multi-agency management of children with high needs—both acute and chronic—in Port Augusta and surrounding outreach communities. Its team members work closely with the paediatricians. The Miriam High Centre is a unique, early intervention centre supported by local government and fund raising. It offers a range of therapy-based programs, respite care and home visits and is a point of coordination for referral to GPs and specialised agencies such as Autism and Downs Associations. Paediatricians play an important role in the training and support of Miriam High workers.

The NRPU’s outreach catchment is augmented by virtue of Port Augusta being the South Australian base for the Royal Flying Doctor Service (RFDS), which is staffed by four RFDS GPs. RFDS aircraft provide critical logistical support for the Unit and its associated team outreach activities (see below).

Much of the work of Unit is devoted to triaging an undifferentiated caseload. For this reason, the resident paediatricians are supported in Port Augusta and Whyalla by a variety of visiting sub specialist services. A child psychiatrist provides a two-day clinic once a month, as well as delivering a training program to local GPs. Other visiting paediatric sub specialties include an endocrinologist (two days, twice a year with a diabetes nurse educator), a geneticist (two days, twice a year with a genetic counsellor), a gastroenterologist (two days, twice a year) and a respiratory physician (one day, once a year). In Port Augusta, the Unit underwrites the cost of visiting paediatric sub specialists.

Other specialist services visiting Port Augusta Hospital (unrelated to paediatrics) include various surgical sub specialties, obstetrics and gynaecology, anaesthetics, renal medicine and ophthalmology.

**Demography and geography**

Although the three health Regions comprising the Unit’s patient catchment cover some 80% of South Australia’s land mass, it is one of the most sparsely populated areas of Australia. The most populous area of the catchment comprises the arc of towns spanning Spencer Gulf, consisting of Port Augusta, Port Pirie, Port Lincoln and Whyalla, with a combined population of some 70,000.

Work of the Unit also extends inland, taking in a swathe of small inland remote towns as well as many remote indigenous communities, stretching from the WA border to lands adjacent to, and across the NT border. Although the latter communities come technically within the jurisdiction of Alice Springs services, many of them, such as the Pitjinjara, have close family connections as far south as Yalata, and are hence accustomed to using Port Augusta outreach services. Because of its uniqueness, moreover, the Yalata clinic may often treat children from communities as far away as Leonora and Kalgoorlie. The total population covered by the Unit is about 110,000, some 25% of which are aged 0 – 14 years.

**Pattern of outreach activity**

The tabulation on Page 4 provides an indication of the scope and frequency of the NRPU’s outreach work, distributed across 13 towns in the Northern and Far Western, Mid North and Eyre Peninsula Health Service Regions.
Logistical issues of travel

Most work done by paediatricians is ‘intellectual medicine’ in the form of non-procedural consultations. These consist of assessment and treatment. The consultant was told that although Australia’s specialist practice is nowadays dominated by procedures, “bringing a difference at community levels” could only be accomplished “by making a difference before you get to the procedures”. For this reason, outreach paediatric work does not pose the same logistical issues as, for example, outreach surgery (see chapters 4 & 8). The work requires minimal equipment that can be readily transported in small bag.

Paediatricians’ outreach work may be undertaken either independently or in planned team settings, concurrently with other disciplines—especially if air travel is involved. The SA Department of Human Services (DHS) charters RFDS aircraft out of Port Augusta and is keen to make the most effective use of all available seating. On these occasions, paediatricians usually travel on a familiar monthly circuit with members of a Child Health Team. This is likely to include an occupational therapist, a physiotherapist and a speech pathologist. Sometimes it is the fortuitousness of travel arrangements, rather than design for joint activity, that creates an amalgam of skills in outreach work.

<table>
<thead>
<tr>
<th>Point of service</th>
<th>Region</th>
<th>Mode of travel</th>
<th>Distance ex Port Aug, KM</th>
<th>Frequency</th>
<th>Service base</th>
<th>Clinic type</th>
<th>Local facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Booleroo</td>
<td>MNR</td>
<td>Drive</td>
<td>89</td>
<td>1 x month</td>
<td>General</td>
<td>General</td>
<td>10-bed hospital</td>
</tr>
<tr>
<td>Ceduna R</td>
<td>EP</td>
<td>Fly'</td>
<td>465</td>
<td>1 x p/m</td>
<td>1 day with private GP + 1 day with Ceduna-Koonibba Aboriginal Health Service</td>
<td>General &amp; Aboriginal</td>
<td>10-bed hospital</td>
</tr>
<tr>
<td>Coober Pedy</td>
<td>F&amp;FN R</td>
<td>Fly'</td>
<td>562</td>
<td>1 x p/m</td>
<td>Community Health Centre + Umoona Tjutagku Aboriginal Health Service</td>
<td>General &amp; Aboriginal</td>
<td>20-bed hospital</td>
</tr>
<tr>
<td>Jamestown</td>
<td>MNR</td>
<td>Drive</td>
<td>191</td>
<td>1 x month</td>
<td>GP private rooms leased from hospital</td>
<td>General</td>
<td>32-bed hospital</td>
</tr>
<tr>
<td>Oodnadatta</td>
<td>F&amp;FN R</td>
<td>Drive</td>
<td>776</td>
<td>1 x 3 months</td>
<td>Community Health Service</td>
<td>Aboriginal</td>
<td>Small hospital, run from Port Augusta</td>
</tr>
<tr>
<td>Orroroo</td>
<td>MNR</td>
<td>Drive</td>
<td>96</td>
<td>1 x month</td>
<td>GP private rooms leased from hospital</td>
<td>General</td>
<td>20-bed hospital</td>
</tr>
<tr>
<td>Peterborough</td>
<td>MNR</td>
<td>Drive</td>
<td>147</td>
<td>1 x month</td>
<td>Hospital O/P</td>
<td>General</td>
<td>20-bed hospital</td>
</tr>
<tr>
<td>Port Augusta (Outreach service hub)</td>
<td>F&amp;FN R</td>
<td>Drive</td>
<td>3 - 4 clinics per week + continuous emergency services + a variety ancillary services</td>
<td>Hospital inpatients &amp; O/P + Pika Wiya Aboriginal Health Service</td>
<td>General &amp; Aboriginal</td>
<td>86-bed hospital</td>
<td></td>
</tr>
<tr>
<td>Port Pirie</td>
<td>MNR</td>
<td>Drive</td>
<td>93</td>
<td>2 x p/w</td>
<td>Hospital O/P</td>
<td>General</td>
<td>80-bed hospital</td>
</tr>
<tr>
<td>Roxby</td>
<td>F&amp;FN R</td>
<td>Drive</td>
<td>249</td>
<td>1 x p/m</td>
<td>GP private rooms</td>
<td>General</td>
<td>10-bed hospital</td>
</tr>
</tbody>
</table>

Table 7.1: NRPU outreach activity
Human Capital Alliance – Evaluation of Outreach Models of Medical Specialist Service Delivery

<table>
<thead>
<tr>
<th>Tumby Bay / Port Lincolna</th>
<th>EP</th>
<th>Fly*</th>
<th>284 / 342</th>
<th>1 x p/m</th>
<th>GP private rooms in Tumby Bay / Hospital O/P in Port Lincoln + Port Lincoln Aboriginal Health Service</th>
<th>General &amp; Aboriginal</th>
<th>90-bed hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whyalla</td>
<td>EP</td>
<td>Drive</td>
<td>74</td>
<td>1 x p/w</td>
<td>Hospital O/P</td>
<td>General</td>
<td>90-bed hospital</td>
</tr>
<tr>
<td>Yalata</td>
<td>EP</td>
<td>Fly*</td>
<td>617</td>
<td>1 x 3 months</td>
<td>Yalata Maralinga Health Service</td>
<td>Aboriginal</td>
<td></td>
</tr>
</tbody>
</table>

*a Air travel by RFDS plane, chartered to the South Australian DHS

† MSOP supplemental funding assistance with travel

**Caseload**

There are essentially two broad dimensions to the paediatric caseload:

- general community child developmental health—involving work through agencies such as the Miriam High Centre and behavioural management teams at local schools—not typically dealt with by urban paediatricians; and

- acute and chronic clinical management, including premature infants, asthma, pneumonia, kidney problems, seizures, diabetes, epilepsy—essentially any child health problems, apart from those where surgery is indicated. In the case of the latter, children are stabilised and referred on.

The NRPU tries to concentrate on secondary level paediatric care and to leave minor problems to GPs. Good working relationships with GPs are essential to ensure that secondary level paediatric problems are properly recognised and appropriately referred.

**Is paediatrics the right fit?**

One stakeholder remarked that ‘classical’ thinking might not have favoured a resident paediatric service as a specialism of first choice for a remote outreach hub—notwithstanding the very real need for and benefit from the service. For example, a premature birth without a resident paediatrician could substantially reduce the risk of survival; older children too, can be exposed to life threatening situations, such as anaphylactic reactions that require specialised knowledge and interventions; there is also a relatively large Aboriginal population with children with chronic infections and special needs. (Although Aboriginal children between 0 - 14 represent some 10% of the catchment population, they represent some 30% of children admitted to as inpatients).

There was nevertheless a general feeling that a hospital of the size and with the physical appointments of Port Augusta, justifies more than one resident specialist service. The immediate priorities for additional resident specialist disciplines to supplement paediatrics were stated to be:

- A renal physician
- A surgeon on 24-hour call
- Anaesthetists on 24hour call
- An O&G on 24-hour call

Chapter 7 72
**Referral and GPs**

The NRPU maintains close communication with local GPs, in both Port Augusta and the surrounding patient catchment. Local GPs interviewed spoke highly of the service, of the standard it provided and of its value to the local community.

At the time of writing there were 17 private GPs resident in Port Augusta, distributed across five practices, three of whom were sole practitioners and two were group practices—with one predominant, long established practice of 10 doctors. In addition to the four RFDS GPs, four GPs work at the Pika Wiya Health Service. Most GPs work on the Casuarina Ward at Port Augusta Hospital and some would be competent to manage confinements up to the level of sections (for ectopics, GPs would need to call on specialist assistance).

The Unit maintains a high level of professional and educational contact with GPs, both individually and through the Flinders and Far North Division of General Practice (whose administrative offices are colocated with the Unit in the “Old Hospital” building). It also conducts regular educational sessions with GPs via teleconference to include GPs outside Port Augusta.

All non-inpatient paediatric clinical treatment is by way of GP referral. Hence, GP referrals may originate from GPs in private rooms, from Aboriginal Medical Services or from hospital outpatients—as Port Augusta Hospital does not employ hospital doctors, hospital outpatients is staffed by a GP roster.

There is minimal waiting time between patient referral to a specialist paediatrician and obtaining treatment—generally a matter of a few days. It was claimed that urgent matters are always fitted in on the same day, even if the paediatricians are heavily committed on that day. Paediatricians are also on 24-hour emergency call via their mobile phones to support outreach nursing staff and GPs for hospital emergencies.

**Funding issues**

The fixed component of the NRPU’s annual budget at Port Augusta Hospital is of the order of $360,000. This provides a “baseline” fixed retainer to cover paediatricians’ non-clinical time, their private motor vehicle expenses, their travel time, their community work and their teaching. The bulk of hospital remuneration to specialists is met from fee for service payments for treating hospital inpatients—with a consequence that the hospital itself is at risk for any shortfall. Arrangements for ‘country’ specialist remuneration are peculiar to rural SA. Metropolitan specialists working in public hospitals tend to be either salary or sessionally remunerated.

Each year the Region has to justify the Unit’s activity to establish a case for its funding. ‘Justification’ involves advancing an acceptable ‘business case’ based mainly on obtaining recognition that there is a pay off from early intervention. The consultant was told that the DHS’s budget commences each year on 1st July, but that the budget is not generally confirmed until September.

**Specialist remuneration**

Specialist paediatric remuneration has developed into a de facto public / private partnership. The DHS thus meets what it regards as minimal infrastructure costs, with marginal costs either charged as fee for service payments to the Port Augusta Hospital for inpatients (or, in the course of outreach, to other hospitals for their inpatients treated) or to Medicare bulk billing for clinic patients.
The specialists interpret their fee for service work as exposing them to a risk situation, in that if they fail to make a success of their practice, it compromises their remuneration. It is also, however, a motivational model in that it encourages output and productivity. Indeed, by dint of their untiring appetite for work, the paediatricians allowed that their gross practice incomes were considerably higher than what a metropolitan paediatrician might expect to earn.

A small amount of work is billed at AMA rates. This relates to assessment and treatment of children at Port Augusta’s Baxter Detention Centre. For this work, specialists privately bill Australian Correctional Management (ACM), who meet the cost of care provided to these children. Until it recently relocated, the specialists had also billed in this way for treatment of locally based members of the US air force.

**Business processes for private practice**

Patient records are paper based and centrally located in Port Augusta. Bookings for outreach clinics, however, are made remotely at outreach points of service by local staff, who in turn send clinic lists to Port Augusta. Patient records are then retrieved to ensure that referrals are current. If these are not current, it affects capacity to bulk bill at the referred rate. When embarking on outreach work, paediatricians then take all the files with them. Medicare care cards are swipe locally, but processed back in Port Augusta. All patient letters and reports to GP referrers—in both Port Augusta and outreach—are typed in the Port Augusta office, with a letter being generated for each consultation.

There is an office staffing of four in Port Augusta to administer these arrangements. These personnel are employed by the hospital, but the paediatricians meet a proportion of their costs to support their private practice work. Effectively this means that the two paediatricians each pay for one FTE secretary (about $2,000 per month per practitioner, representing the notional costs of their private practice). None of the staff is, however, “permanent”. Their jobs ultimately depend not only on DHS funding to the Unit but also on the performance of the paediatricians’ private practice work.

**Workload**

Data on the activity and workload of the specialists and registrar were available only for clinic work undertaken at the main sites covered by the NPRU (Table 7.2). It thus excludes community work, education and training activity, private contract services delivered to Aboriginal Health Services (eg Pika Wiya in Port Augusta) and ACM and services delivered to hospital inpatients. Hospital data proved impossible to retrieve because of systems variation and change across different sites.

Table 7.2 shows over the period 1999/00 – 2000/02 that for eight major NPRU sites, the two specialists and the registrar delivered some 3,300 clinic consultations per year, involving about 2,400 contact hours. Between 40 – 50% of this work is concentrated in Port Augusta and more than 80% is concentrated in the three Spencer Gulf towns of Port Augusta, Port Pirie and Whyalla within a 90 KM radius. Port Lincoln is a new site (initiated during 2000/01, as a result of MSOAP travel funding) and is yet to reach its potential.

The convergence of work in Spencer Gulf towns in part reflects their significance as centres of population and in part, their importance as natural points of patient ‘drainage’ from their remote hinterland. Under SA’s Patient Assistance Transport Scheme (PATS), patients residing more than 100 KM from their nearest specialist may claim for assistance with transport and accommodation expenses.
Table 7.2: NPRU clinic activity statistics

<table>
<thead>
<tr>
<th>Work site / Characteristics</th>
<th>1999/00</th>
<th>2000/01</th>
<th>2001/02</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NRPU / Port Augusta</strong> (Snr Staff Specialist, Specialist, Registrar)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No of specialist / patient contact hours</td>
<td>943</td>
<td>912</td>
<td>1,104</td>
</tr>
<tr>
<td>No of clinic consultations</td>
<td>1,415</td>
<td>1,368</td>
<td>1,656</td>
</tr>
<tr>
<td>No of clinics</td>
<td>290</td>
<td>230</td>
<td>224</td>
</tr>
<tr>
<td>No admin hours, involving specialist time (eg report writing)</td>
<td>435.0</td>
<td>345.0</td>
<td>336.0</td>
</tr>
<tr>
<td><strong>NRPU / Port Pirie</strong> (Specialist, Registrar)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No of specialist / patient contact hours</td>
<td>575</td>
<td>568</td>
<td>584</td>
</tr>
<tr>
<td>No of clinic consultations</td>
<td>863</td>
<td>852</td>
<td>876</td>
</tr>
<tr>
<td>No of clinics</td>
<td>87</td>
<td>81</td>
<td>75</td>
</tr>
<tr>
<td>No admin hours, involving specialist time (eg report writing)</td>
<td>130.5</td>
<td>121.5</td>
<td>112.5</td>
</tr>
<tr>
<td><strong>NRPU / Whyalla</strong> (Senior Staff Specialist, Registrar)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No of specialist / patient contact hours</td>
<td>475</td>
<td>463</td>
<td>451</td>
</tr>
<tr>
<td>No of clinic consultations</td>
<td>713</td>
<td>695</td>
<td>677</td>
</tr>
<tr>
<td>No of clinics</td>
<td>68</td>
<td>53</td>
<td>41</td>
</tr>
<tr>
<td>No admin hours, involving specialist time (eg report writing)</td>
<td>102.0</td>
<td>79.5</td>
<td>61.5</td>
</tr>
<tr>
<td><strong>NRPU / Yalata</strong> (Senior Staff Specialist, Registrar)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No of specialist / patient contact hours</td>
<td>28</td>
<td>25</td>
<td>14</td>
</tr>
<tr>
<td>No of clinic consultations</td>
<td>43</td>
<td>38</td>
<td>21</td>
</tr>
<tr>
<td>No of clinics</td>
<td>5</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>No admin hours, involving specialist time (eg report writing)</td>
<td>7.5</td>
<td>3.0</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>NRPU / Coober Pedy</strong> (Senior Staff Specialist, Registrar)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No of specialist / patient contact hours</td>
<td>89</td>
<td>72</td>
<td>94</td>
</tr>
<tr>
<td>No of clinic consultations</td>
<td>134</td>
<td>109</td>
<td>142</td>
</tr>
<tr>
<td>No of clinics</td>
<td>9</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>No admin hours, involving specialist time (eg report writing)</td>
<td>13.5</td>
<td>10.5</td>
<td>13.5</td>
</tr>
<tr>
<td><strong>NRPU / Roxby</strong> (Senior Staff Specialist, Registrar)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No of specialist / patient contact hours</td>
<td>162</td>
<td>177</td>
<td>122</td>
</tr>
<tr>
<td>No of clinic consultations</td>
<td>243</td>
<td>266</td>
<td>184</td>
</tr>
<tr>
<td>No of clinics</td>
<td>20</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>No admin hours, involving specialist time (eg report writing)</td>
<td>30.0</td>
<td>27.0</td>
<td>27.0</td>
</tr>
<tr>
<td><strong>NRPU / Ceduna</strong> (Senior Staff Specialist, Registrar)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No of specialist / patient contact hours</td>
<td>102</td>
<td>132</td>
<td>130</td>
</tr>
<tr>
<td>No of clinic consultations</td>
<td>153</td>
<td>199</td>
<td>195</td>
</tr>
<tr>
<td>No of clinics</td>
<td>21</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>No admin hours, involving specialist time (eg report writing)</td>
<td>31.5</td>
<td>28.5</td>
<td>27.0</td>
</tr>
<tr>
<td><strong>NRPU / Port Lincoln</strong> (Specialist, Registrar)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No of specialist / patient contact hours</td>
<td>-</td>
<td>11</td>
<td>26</td>
</tr>
<tr>
<td>No of clinic consultations</td>
<td>-</td>
<td>17</td>
<td>39</td>
</tr>
<tr>
<td>No of clinics</td>
<td>-</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>No admin hours, involving specialist time (eg report writing)</td>
<td>-</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td><strong>NRPU / TOTAL</strong> (Specialist, Registrar)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total specialist / patient contact hours</td>
<td>2,374</td>
<td>2,360</td>
<td>2,525</td>
</tr>
<tr>
<td>Total clinic consultations</td>
<td>3,564</td>
<td>3,544</td>
<td>3,790</td>
</tr>
<tr>
<td>Total clinics</td>
<td>500</td>
<td>414</td>
<td>396</td>
</tr>
<tr>
<td>Total admin hours, involving specialist time (eg report writing)</td>
<td>750</td>
<td>621</td>
<td>594</td>
</tr>
</tbody>
</table>

An analysis of NPRU clinic activity (Table 7.3) suggest that more than half a doctor's working day is devoted to clinic work consisting of patient contact hours and follow up report writing\(^9\). For every

\(^9\) A registrar's contribution to the overall paediatric workload is assumed to represent 0.5 of an FTE specialist.
hour of patient contact time, doctors spend 25 – 30 minutes writing reports. Although NPRU clinics are a major component of specialists’ workload, in view of the extensive range of their other clinical and community activities as well as outreach travelling, the data are indicative of an extremely busy working day.

Whilst the number of patient consultations between 1999/00 and 2001/02 slightly increased, the number of clinics fell. In so far as the length of time per consultation remained constant (about 40 minutes), this may be an indicator of more effective use of clinic time.

<table>
<thead>
<tr>
<th>Table 7.3: Analysis of NPRU clinic statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ave working day contact hours</td>
</tr>
<tr>
<td>Ave working day admin hours</td>
</tr>
<tr>
<td>Total NRPU working day hours</td>
</tr>
<tr>
<td>Contact hours per day per doctor</td>
</tr>
<tr>
<td>Admin hours per day per doctor</td>
</tr>
<tr>
<td>Total NRPU hours per day doctor</td>
</tr>
<tr>
<td>Hours per consultation</td>
</tr>
<tr>
<td>Hours per clinic</td>
</tr>
<tr>
<td>Consultations per clinic</td>
</tr>
</tbody>
</table>

**Consumers**

The consultant met with a group of six mothers whose children regularly attend the NRPU clinic at Port Augusta. In addition, NRPU office staff encouraged consumers to complete the standard project evaluation pro forma. Six completed pro formas were received.

Several themes were common to both the focus group and the written responses, which may be broadly summarised as follows:

- service was always readily accessible, with minimal waiting times for appointments
- mothers were grateful for the presence of the Unit in Port Augusta, and not having to make a round trip to Adelaide
- mothers whose children had been treated by specialists in Adelaide not only thought that it was much easier to gain an appointment at an NRPU clinic, but that it also offered a superior standard of care
- mothers were impressed by the range of behavioural therapies and school support services available in conjunction with paediatric care, and supervised by the paediatricians
- without exception, consumers praised the high quality care given by the paediatricians and their agreeable disposition

Examples of remarks made at the focus group are set out below as illustrations of the esteem in which the service is held.
“We have been coming here for about four years now. Robert20 was diagnosed with cystic fibrosis. The doctors and staff have helped me through it before he was diagnosed and they didn’t stop until they found out what was wrong with him. We have a lot of dealings with Adelaide Hospital and this area is better than Adelaide. In Adelaide they treat you like a number and not a person.”

“My sister in Adelaide is quite jealous of the service here. I talked with some mothers (in Adelaide) and they are shocked that we can get this service. Waited 14 hours to be seen (in Adelaide). We are only 10 minutes by car here and they are waiting for our daughter. We are very lucky.”

“We are originally from Port Pirie. There was no service there at all. We were bringing Shelley up here to see Nigel (paediatrician). Because of employment, we are living here now. We cannot complain about him at all. He seems to know the next step with us: what to do, whom to contact, and makes us aware of what we are entitled to; disability allowances, etc. He is really busy and we cannot get in straight away. He has been good to us.”

“I can usually get an appointment within a week. They will always fit Jessica in if she’s not well. They can ring Nigel (paediatrician) in Whyalla who can arrange for her to be admitted and get everything happening.”

“Well, once I had established good contacts in Adelaide I wanted to stick with it. My GP demanded I come here to the service; I had no choice. My daughter was in hospital (in Port Augusta) and Tom (paediatrician) walked in and introduced himself … he won me over; he was wonderful. I can ring at any time. They talk to you on a normal level. When you go into Adelaide, you go into meetings with medical language and try to understand what they have been saying. Here if you don’t understand they will explain.”

“I have been coming to Nigel about 9½ -10 years. My daughter has epilepsy and developmental delays. I have found the service really great. I don’t know where he would be by now if the service had not been here. I can call at any time and they come in and give help that is needed.”

A support Team Leader told the consultant that many families choose to reside in Port Augusta because of its unique paediatric / child support system. Some families even commute to Port Augusta from as far as Roxby and Leigh Creek. With the residential paediatrician support, very rarely do families ever need go to Adelaide. Indeed, by creating of new layer of regional service, the associated increase in the usage of PATS for inward travel to Port Augusta appears to have caused a net overall increase in patent transport costs (Bradley and Williams, 1998). This seems to contradict a conventional wisdom that a successful outreach program will yield savings in transport costs21.

The Port Augusta experience with paediatrics goes against ‘the natural order of things’ in the sense that according to the conventional wisdom, rural populations suffer high levels of health service deprivation relative to metropolitan populations. The consultant was told that Port Augusta and surrounding communities are still deprived in many senses, but what the NRPU has done is to ameliorate some of their deprivation in terms of health access and quality of health care.

The community partnership model in paediatrics that has developed in Port Augusta could well represent one that urban and rural localities alike might do well to emulate.

20 In the interests of confidentiality, names have been changed.
21 There may still nevertheless be net economic benefits through savings in the burden of disease avoided that exceed the direct cost of transport.
The irony is that although the model is readily reproducible in an urban environment, this has not happened—mainly because metropolitan paediatrics tends to be highly specialised. What has stimulated the model in Port Augusta is that the paediatric team possesses generalist rather than subspecialist skills. There is a very small number of practitioners in Australia that possess a combination of general paediatric, behavioural, developmental and community skills. Both paediatricians in Port Augusta have this combination and this is highly conducive to a ‘can do’ philosophy. Hence, the type and scope of work done in PA fills a number of gaps in community child health at a working level that would not normally be addressed in a conventional Australian paediatric practice setting. The inspiration for the NRPU is the British approach to paediatrics, which places a high priority on comprehensive, accessible, available service.

**Outcome**

No hard data were tabled on outcome. The consultant was nevertheless told that since the NRPU has been established, the number of children requiring intensive care, outreach rescue, etc has substantially reduced—indicating sound preventive medicine.

The consultant was also told that there is some indication of a reduction in inpatient treatment of children as well as a reduction of the severity of the type of Aboriginal cases presenting at outpatients for treatment. The NPRU is now intercepting children from birth; 10 years ago, the first age of contact was more generally four to five years. There has also been a remarkable reduction in the number of newborn babies with breathing problems being evacuated as emergencies to Adelaide. Evacuations are currently occurring at the rate of one every two months compared with two to three per month back in 1993. There are savings of $4,000 per evacuation22.

Greater awareness as result of working through word of mouth has had a profound effect on the willingness of Aboriginals in particular to make use of the NRPU’s service.

Many Aboriginals are reluctant to present for treatment at the Hospital. The NPRU, however, operates its outpatient clinic from the “Old Hospital” building, which is separate from the hospital. Aboriginals feel more comfortable with this arrangement; the Hospital has a past reputation for being less sympathetic to Aboriginal problems than the NRPU. It makes extensive use of agency nurses who may lack the cultural perspectives of those working in the Unit.

**Sustainability**

The proponents of the Unit claim that the model is established and operational and that if the Senior Specialist were to leave, it would not be difficult to obtain a replacement to step into his shoes. His job specification is on file and all systems are in place. It was also claimed that the model is reproducible. Although the NPRU has attracted a deal of interest, few professionals had nevertheless actually visited, as “it is a long way”.

The challenge would be to recruit and retain a specialist of the type likely to be most useful to rural communities. The consultant was told that a specialist “in the middle years of their career”, with say, five years experience behind them is likely to be most valuable to a unit such as the NRPU. It might be reasonable to expect to obtain say, five years of service from an incumbent of this calibre. If, however, the person recruited had a family, at the time their children were ready to attend secondary school, there would then be a good chance that a rural town such as Port Augusta would lose them.

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22 No data were available to test these claims since Port Augusta’s PATS office does not collect data that can be meaningfully analysed.
The other challenge is the underlying task of recruiting and retaining therapist support staff and indeed resident specialists from complementary disciplines. One therapist told the consultant that there are “huge” problems of therapist recruitment and retention:

“Port Augusta is not a ‘desirable’ place in which to reside … it is often easier to recruit overseas people who do not have a preconceived idea of the town, than to try in Adelaide …Once here, people feel well supported. They support professional development quite generously. Some people who come to Port Augusta struggle with the social side of life, especially if they do not have a partner. The service works hard at providing them with social networks; free accommodation; accelerated pay increments … but there are still reasons why people choose to leave ...usually because the social network breaks down. Younger people want to move around more. Some therapists are locals and this assists in stability, but this is not necessarily a solution. The majority of people will not want to return to Port Augusta. This contrasts with Mount Gambier, which is attractive because it’s beside the sea and people want to come back. Port Augusta is not by the sea (although there is water) …and it’s socio-economic gradient is decidedly blue collar … I happen to have stayed here because my partner has a job here …”

Parallel difficulties in attracting resident specialists in key disciplines such as general surgery, anaesthetics and obstetrics and gynaecology underline the challenges of a remote centre centre’s recruitment dilemma. The last resident Port Augusta general surgeon departed in 1995 and it has not since been possible to replace him.

The lack of resident specialist services in small remote centres may be self-reinforcing. In the sense that they can sustain only limited workloads, a dependence on city-based outreach specialists may actually inhibit the germination and sustainability of outreach service hubs such as Port Augusta.

**Epilogue**

The service has now reached stable continuum. Rapid and continuing growth in services to rural communities is almost impossible to sustain. The consultant was told that the Unit has concentrated on consolidating the position of the second specialist, the registrar and the intake of undergraduate medical students—in this sense, it is a “balanced unit”.

The consultant was told that the unit is also concentrating on adding value to what it is already doing. Examples include:

- undertaking more undergraduate student teaching “in a different style”, with a more formal partnership with the University
- strengthening the nursing role that was just beginning at the outset of the project
- development of new clinical sites such as at Port Lincoln; strengthening sites such as Orroroo and Booleroo and working more closely with Aboriginal communities—all of which is being done with the same resources as they had two years ago

The next stage of development could be to move into a research capability. This will represent an important transition because research skills do not currently exist in the Unit. Research activities could include:

- clinical audit
- opportunities for improved local practice
- local teaching
• rural service provision

The Northern Regional Paediatric Unit is successfully providing an essential service, previously unavailable locally to a vast area of South Australia. It is involved in clinical work, training of paediatric specialists and support staff and upskilling of the local primary care services. It is highly valued both by the local general practitioners and consumers. The strength of the model lies in its local regional nature with resident specialists in which Port Augusta serves as the hub.

The chief problem it faces is the lack of guaranteed continuous funding from the DHS and the consequent dependence on fee for service billing to sustain the service. A guaranteed funding base would assist the unit to expand its activities without financial penalty.

A second problem is that of long term sustainability given that the service exists because of the vision and determination of one man, the senior paediatrician, who will not be in Port Augusta indefinitely. He is attempting to train young paediatricians who will hopefully be attracted to working in the service long term, but recruitment is likely to be difficult.
Chapter 8: Surgical outreach, Queensland

General context of outreach services from Cairns

Cairns Base Hospital (CBH) is the major referral hospital for Far North Queensland. It represents the hub of a family of public outreach services that caters for the Cairns Sub-zone within the Northern Zone of Queensland Health. The Cairns Sub-zone is the most northerly of four Sub-zones that comprise the Northern Zone—the others being Townsville, Mt Isa and Mackay (with referrals respectively, to Townsville, Mt Isa and Mackay Base Hospitals).

The Cairns Sub-zone in turn comprises five District Health Services. These are Cairns, Cape York, Innisfail, Tablelands and Torres. CBH outreach services are distributed across all of these Districts between ‘level 3 district hospitals’, smaller rural hospitals and multi-purpose services. The specialist services, which are the particular focus of this evaluation, are general surgery, including vascular surgery. Other parallel specialist outreach activities radiating from CBH include a range specialist physician services, orthopaedics, mental health, O&G, paediatrics and anaesthetics.

There appear to be highly specific funding arrangements for each of the various specialist outreach activities that do not necessarily reveal any common patterns. Few of the services derive any funding from MSOAP sources. Travel arrangements too, exhibit considerable variation, depending in some cases on distance and the practicability of using a hospital car, as against airline or charter air travel to more remote locations, such as Weipa and Thursday Island. In the case of one of the services, the main provider is a licensed pilot, so that chartering a plane is the most practical option.

Demography of catchment

As shown in Table 8.1, the Cairns Sub-zone comprises a population of about 220,000 persons, some 60% of which are concentrated in the Cairns District, a further 30% reside in Innisfail and the Tablelands and 10% reside in the remote Districts of Torres and Cape York.

| Table 8.1: Population: District Health Services within Cairns Sub-zone |
|---------------------------------|-------|-------|-------|-------|-------|-------|
| Cairns             | Cape York | Innisfail | Tablelands | Torres | Total Sub-zone |
| 136,772           | 7,554    | 33,433   | 36,510    | 10,002 | 224,721 |

Source: ABS, 2001 Census

Most of the population growth in recent years has occurred within the Cairns District, with inland areas, such as Tablelands, declining. Inpatient modelling has suggested that population growth is the main driver behind the demand for public health services in the Northern Zone as a whole.

The Cairns Sub-zone, with its relatively large concentration of indigenous persons, has index scores of socio-economic status (SEIFA) somewhat below the overall Northern Zone median of 979.6 (Table 8.2). Its standardised mortality ratios too, are relatively high. The Cairns Sub-zone is subject to striking contrasts. Mortality rates from all causes amongst the predominately Indigenous people for both males and females across all age groups in Cape York, for instance, are significantly higher than for the Sub-zone as a whole (Queensland Government, 2002).

| Table 8.2: Population indicators by Sub-zone |
|---------------------------------|-------|-------|-------|-------|-------|
| Area   | SEIFA index | Indigenous population % | SMR male | SMR female | Relative public utilisation |

Chapter 8 81
## Organisation of general surgery at CBH

The Division of Surgery at CBH comprises four Units as set out in Table 8.3.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Type of work</th>
<th>Specialist personnel</th>
<th>PTEs</th>
<th>Total scheduled activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 1</td>
<td>General &amp; vascular</td>
<td>2 × surgeons</td>
<td>1 × Full time staff specialist</td>
<td>2 days per week surgery plus clinic assessments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 × accredited trainee</td>
<td>1 × VMO</td>
<td></td>
</tr>
<tr>
<td>Unit 2</td>
<td>Breast &amp; endocrine</td>
<td>3 × surgeons</td>
<td>1 × Full time staff specialist</td>
<td>3 days per week surgery plus clinic assessments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 × accredited trainee</td>
<td>1 × VMO</td>
<td></td>
</tr>
<tr>
<td>Unit 3</td>
<td>GI &amp; colorectal</td>
<td>4 × surgeons</td>
<td>0.6 × Staff specialist</td>
<td>2 days per week surgery plus clinic assessments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 × accredited trainee</td>
<td>1 × VMO</td>
<td></td>
</tr>
<tr>
<td>Unit 4</td>
<td>Urology, maxillofacial &amp; ENT</td>
<td>2 × surgeons</td>
<td>2 × VMOs</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 × unaccredited trainee</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 8.3 “activity” does not take into consideration surgical outreach work. External outreach specialist surgeon services hence represent additional layers of activity. They consist of outreach assessments as well as surgical lists at outreach sites. Each of Units 1, 2 and 3 undertakes outreach work, although their outreach surgical lists consist of relatively uncomplicated general surgical work. The level of surgery performed varies from centre to centre. For most centres, this is would be up to surgical repair of hernia, removal of varicose veins and excision of skin lesions. At Mareeba, open cholecystectomy is done. At Innisfail, where equipment has recently been upgraded, laparoscopic cholecystectomy is performed.

More complicated surgical work is referred for a list at CBH, although in most cases, such referrals represent no more than 1% of total outreach cases. A small number of cases are referred to Cairns Private Hospital by VMOs and staff specialists with private practice rights.

The total outreach specialist surgical workload represents one full time equivalent staff specialist, although this is delivered by way of the fractional contributions of four different doctors. The outreach work is wholly funded from the CBH budget. This arrangement commenced in 1994, when the then Health Region made a discrete budgetary allocation of $194,000 that was explicitly earmarked for the development of surgical outreach activities. Since then, the Health District has formally incorporated this funding into the Division of Surgery’s budget, with provision for appropriate year-to-year growth to continue to support an equivalent full time staff specialist.
Funding support for non-surgical outreach services from CBH is often different. For some disciplines, such as medicine, the medical component of services, wherever possible is bulk billed to Medicare and assigned back to CBH, to supplement the hospital funds.

**Outreach points of service and their features**

The surgery outreach service from CBH delivers services to six hospitals, as detailed in Table 8.4.

<table>
<thead>
<tr>
<th>Hospital</th>
<th>District</th>
<th>Mode of travel</th>
<th>Distance from Cairns</th>
<th>Type of Hospital</th>
<th>Acute beds</th>
<th>Op. theatres</th>
<th>Out-patients</th>
<th>Long stay beds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atherton</td>
<td>Cairns</td>
<td>Car</td>
<td>110 KM</td>
<td>Rural</td>
<td>64</td>
<td>2</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Cooktown</td>
<td>Cairns</td>
<td>Fly</td>
<td>328 KM</td>
<td>MPS</td>
<td>6</td>
<td>1</td>
<td>Yes</td>
<td>10</td>
</tr>
<tr>
<td>Innisfail</td>
<td>Innisfail</td>
<td>Car</td>
<td>86 KM</td>
<td>Lev 3, district</td>
<td>110</td>
<td>2</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Mareeba</td>
<td>Tablelands</td>
<td>Car</td>
<td>70 KM</td>
<td>Rural</td>
<td>59</td>
<td>1</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Mossman</td>
<td>Cairns</td>
<td>Car</td>
<td>78 KM</td>
<td>MPS</td>
<td>18</td>
<td>1</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Weipa</td>
<td>Cape York</td>
<td>Fly</td>
<td>900 KM</td>
<td>Rural</td>
<td>16</td>
<td>1</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

\* Hospital subject to re-development as a 50-bed acute facility with long stay beds

Each of the hospitals supported by the CBH surgery hub represents a unique outreach set, involving different combinations of resources and surgeons, supplemented by different local infrastructures. Four of the six outreach points of service are within 100 KM or thereabouts of CBH. Travel to these points of service involves no more than an hours car travel in either direction. Cooktown and Weipa, on the other hand, are remote from CBH and involve travel by air. The distribution and extent of work undertaken at these hospitals by the four outreach surgeons is given in Table 8.5.

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Doctor</th>
<th>Service delivered</th>
<th>Duration of travel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atherton</td>
<td>A</td>
<td>One day each month; equally divided between operations and consulting</td>
<td>Day trip</td>
</tr>
<tr>
<td>Cooktown</td>
<td>B</td>
<td>One day each six weeks; divided between operations and consulting</td>
<td>Day trip</td>
</tr>
<tr>
<td>Innisfail</td>
<td>A</td>
<td>One day each fortnight, alternating between operations and consulting</td>
<td>Day trip</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>Half a day a week: 4 hours operations; 2 hours consulting</td>
<td></td>
</tr>
<tr>
<td>Mareeba</td>
<td>B</td>
<td>One day each fortnight; equally divided between operations and consulting (3 hours each)</td>
<td>Day trip</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>Half a day a week: 4 hours operations; 2 hours consulting</td>
<td></td>
</tr>
<tr>
<td>Mossman</td>
<td>D</td>
<td>One day a week, alternating between operations and consulting</td>
<td>Day trip</td>
</tr>
<tr>
<td>Weipa</td>
<td>B</td>
<td>Half a day consulting and one day of operations</td>
<td>Two days</td>
</tr>
</tbody>
</table>

The effectiveness of outreach activities in many respects depends upon the effectiveness of local administrative support. Effective appointment and reminder systems are essential to ensure that patients do not themselves fail the system.
Many of the outreach operations performed involve a general anaesthetic. Where an outreach point of service cannot supply an appropriate anaesthetic service, surgeons are accompanied by a specialist anaesthetist. If a specialist anaesthetist is not available, it may cause an operation to be deferred (or if urgent, referred to CBH). In some cases, local medical superintendents are able to provide anaesthetics. Some surgeons insist on bringing their own anaesthetists, in which case local medical superintendents may assist them. The severity or load of cases treated on a particular day or both, may determine the allocation of work. In general terms, however, there is considerable flexibility in the delivery of anaesthetics.

In the case of the three hospitals within the Cairns District Health Service, each surgical list is supported by instrument sets, sterilised, packed and despatched from CBH. Hospitals outside the Cairns District supply their own instruments. Queensland Health’s new, stringent standards of sterility have meant that theatres at many outreach points of service have hitherto been unable to comply with them. To do so would require major upgrading of sterilising facilities and the capital required for these purposes is not currently available to the Cairns Sub-zone. In the meantime, the ebbs and flow of clean and dirty of instruments between CBH and outreach hospitals has confronted outreach activities with additional logistical challenges and probably added thereby to their costs.

In some of the smaller hospitals, especially the two MPSs, for instance, apart from an occasional dental list and perhaps the occasional reduction of a fracture, outreach surgery appears to provide the major justification for keeping their theatres functional. Outreach services are thus extremely important to the esteem and purposefulness of smaller rural hospitals. Medical superintendents are able to exercise their skills by providing surgical aftercare. These hospitals, moreover, frequently represent one of the largest sources of employment and local business activity in small rural communities.\(^{23}\)

**Referral mechanisms**

There are varied sources of referral into outreach services. More often than not, referral is through a local general practitioner. The four towns within 100 KM or so of CBH appear to be well served by local doctors. In Mossman (including Port Douglas), for example, there are seven general practitioners in addition to the local medical superintendent. Atherton has its own resident general surgeon. Aboriginal Medical Services are also an important source of referral. Mossman has a large diabetics clientele that is largely referred from this source. Hospital outpatient / emergency departments are also a significant source of referral.

**Training and outreach**

There are various dimensions to the training associated with outreach services. In so far as one of the outreach surgeons is a clinical lecturer at James Cook University, some outreach services provide outpatient and operative experience for undergraduate medical students.

The Division of Surgery at CBH supports three accredited advanced trainees in general surgery who frequently accompany surgeons on their outreach activities. This increases trainees’ experience and exposure to rural practice. When surgeons are accompanied by anaesthetists (often with a registrar), there are significant spin-offs to local medical superintendents in learning anaesthetic and general resuscitation techniques.

\(^{23}\) From an efficiency perspective, however, one may question whether supporting a hospital was the most efficient mode of delivering rural income support.
Although general practitioners are a major source of referral into outreach services, all of the outreach surgeons report little face-to-face contact with them. From time to time, however, there may be conventional telephone or letter contact to discuss or report upon a particular case. Even though general practitioners rarely see the outreach surgeons, a Mossman general practitioner reported that he and his colleagues were extremely appreciative of their visiting surgical service. This appeared to be a source of considerable professional satisfaction to the outreach surgeon.

Transmission of skills in surgery is highly specific to techniques that can only be effectively appreciated by a presence at the time a procedure is performed. Unless a general partitioner assists with anaesthetics or with an operation, possibilities for training are limited. Professional indemnity issues also inhibit general practitioners from providing much more than aftercare where it is required.

Consumers

Arrangements are in hand to administer the project consumer questionnaire to patients attending outreach clinics at Atherton, Cooktown and Mossman. It will not, however, be systematically administered in a controlled setting. The data it will yield cannot therefore purport to represent an ‘accurate’ poll of consumer views with any degree of precision. It may add depth, however, to the anecdotal information thus far collected.

A ward round of six patients on a surgical list at Mossman was conducted immediately before their surgery. All were public patients and had incurred no charge for their specialist care. The surgeon member of the evaluation team asked patients about their case history. At the same time, they were individually interviewed about their views and perceptions of having their surgery performed at Mossman, rather travelling to Cairns to have it performed at the Base Hospital. From the opinions that were expressed, it was the unequivocal view that patients value the outreach service highly. Some patients spoke both from their current and past experience of the outreach service. All patients reported a minimal wait for an assessment after referral by a local general practitioner and an interval not exceeding two months from initial assessment to surgery.

Three clear outreach advantages were articulated by Mossman patients:

- They were impressed by the care and friendly disposition of the visiting surgeon. Indeed, a local general practitioner expressed the view that the visiting surgeon had won considerable local admiration simply because she was interested and motivated to practise away from CBH.

- All of the patients were local residents and disliked the idea of being treated “away from home in unfamiliar surroundings” by people with whom they had not before had dealings.24

- Patients reported that they had been told that public treatment at Mossman would be considerably sooner than at CBH, where they understood there were lengthy waits for assessment and treatment. The prospect of early treatment was especially appreciated. It is nevertheless the view of the surgeon member of the evaluation team that at least three of the conditions, for which operations were being performed at Mossman, would have remained

24 Expectations and attitudes of rural patients may differ from those in larger cities. Mossman, for instance, is about an hours drive north from Cairns. This is comparable with ‘local’ travelling times to and from specialist treatment in some capital cities.
on the public list for several years (and conceivably indefinitely) had they presented in at a major metropolitan hospital.

There are clearly very considerable variations in the casemix that is captured in the course of surgical outreach from Cairns.

One VMO told the consultant that she intercepted cases during the course of her outreach work at Mareeba and Innisfail that would “never have been treated”, but for the existence of her outreach work. Aborigines at Kuranda especially, seem willing to attend a clinic at a local hospital, but perceive a large hospital, such as CBH, to be impersonal and “intimidating”. Some of these patients were reported to exhibit “gross pathologies”, which if left untreated, would almost certainly have resulted in premature death. For these consumers, the health gain through interception associated with surgical outreach is clearly very significant.

One general surgeon, on the other hand, who visits Weipa, told the consultant that when he started travelling there he did “a large number of sebaceous cysts” but he now reported doing other things, including “at least one or two vasectomies per visit”.

**Outcome**

In 1995, under the leadership of the Chair of the Division, CBH hospital started to develop a High Risk Foot model of care. This combined management of a range of conditions associated with diabetic complications, such as peripheral neuropathy, peripheral vascular disease or combinations of these. The emphasis was on the delivery of special pre-emptive clinics for foot care, education programs, protocols and workshops.

Figure 8.1 shows that since the establishment of the clinic, there have been declines in the ratio of diabetes amputations to total amputations and Figure 8.2 shows similarly, that there was a significant decline in the ratio of indigenous to non-indigenous amputations. These trends were evident in conjunction with significant reductions in average length stay for amputations between 1995 and 2002 (from 42 to 14 days).

Data on major amputations in diabetics for Cairns Base Hospital, covering the period 1995-2002, are of interest because they provide evidence of reductions in limb loss and advances in preventive care associated with effective outreach work to rural remote indigenous communities.
Examples of other outreach services from CBH

As we have remarked above, general surgical outreach at CBH is one element amongst a considerably broader set of outreach services. Examples of parallel outreach activities in O&G, medicine and orthopaedics offer some perspective on the overall outreach culture at CBH.

Staff specialists deliver O&G to at least 13 outreach points of service, including several remote Aboriginal settlements in the Cape York Area such as Lockhart River, Aurukun and Pompanau. In the case of remote sites, all the equipment such as ultrasound and colposcopes is transported. Most remote O&G outreach is to conduct assessments. Complicated pregnancies are brought to CBH within 36 weeks. Travel to remote sites is usually by single engine charter aircraft.

Orthopaedic outreach work is limited to visits to Thursday Island, where a team of three staff surgeons (including a registrar) runs a three-day clinic every three months. The team spends 1½ days
conducting assessments on some 80 – 130 patients and a further day operating on “some quite complex cases” which the surgeons find “interesting”. The orthopaedic team hopes soon to be able to extend its outreach work to Weipa. Here it is intended only to do assessments.

Physician outreach services started in 1990 as result of the initiative of an individual staff specialist physician who had a particular interest in flying. Today there is a team of 17 specialists, containing a mix of staff specialists and VMOs. Disciplines include internal medicine, cardiology, paediatrics, respiratory medicine and gastroenterology. The service visits 15 remote locations, usually for two days at a time. The cardiology / internal medicine service flies in with a team of persons consisting of a physician, a paediatrician, a registrar and paediatric and endoscopy nurses. The team brings all its own equipment—some of which is especially suited to remote area medicine. It uses an ultrasound unit, for instance, that weighs just 8 kilos. All services delivered are bulk billed to Medicare and CBH has been willing to support the service “on the strength of its capacity to bring in additional revenue”.

**Preliminary conclusions**

The immediate natural catchment of Cairns Base Hospital centres on the Cairns District and the proximate localities of the neighbouring Districts of Innisfail and the Tablelands. The outer catchment is the Cape York Peninsular. The clientele within these localities exhibits striking contrasts. Many aspects of outreach services to Caucasian patients seem to suggest an important component of “consumer driven medicine”. On the other hand, another dimension of outreach care seeks to address third world-type needs within Indigenous communities who would have otherwise failed to access necessary and vital services. It was not possible consider the relative service weighting ascribed by surgical outreach to these very different types of needs.

It is paradoxical, moreover, that outreach care for surgical assessment and scheduled minor surgery appears to be more readily accessible from rural and remote points of service than from CBH itself. It is unclear whether this represents a long term structural phenomenon or a short term response to the fact that CBH is currently running at full capacity and has significantly exhausted its internal budget. It was put to the consultant, ‘tongue in cheek’, that budget overruns within CBH could be driving services out of Cairns. If this is indeed the case, there could be doubt as to the long term sustainability of the outreach activities in their present form.

It is, nevertheless, clear that outreach services are providing significant encouragement to small rural hospitals whose rationale as ‘surgical’ facilities might otherwise have been called into question. Surgeons take pride in their outreach work and local consumers and general practitioners alike warmly appreciate it. In addition, support for involvement in outreach work appears to be a significant professional attraction for specialists to work in Cairns.
Chapter 9: Physicians (Internal medicine) outreach service, Victoria

Background

The outreach service is a private practice model serviced by three private internal medicine practitioners based in Wangaratta. The relationship between the three practitioners is characterised by a number of formal and informal links, although ostensibly they are separate entities. The complex nature of the practice relationships will be explored later.

The physician who particularly took part in this evaluation provides the outreach service to Myrtleford and Yarrawonga / Rutherglen. His two colleagues cover the towns of Benalla, and Beechworth, Bright and Mansfield, respectively. The broad service (base and outreach) offering can be summarised as follows:

<table>
<thead>
<tr>
<th>Table 9.1: Provision of outreach services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wanga-ratta</td>
</tr>
<tr>
<td>Monday</td>
</tr>
<tr>
<td>Tuesday</td>
</tr>
<tr>
<td>Wednesday</td>
</tr>
<tr>
<td>Thursday</td>
</tr>
<tr>
<td>Friday</td>
</tr>
</tbody>
</table>

The physician’s income from the outreach services accounts for only a small proportion of the total incomes from all sources. It is suspected that this might be the same for his colleagues, given that all three share ownership in the Wangaratta Cardiology and Respiratory Centre, a source of income with the potential to greatly exceed other sources.

Travel to the outreach centres is by the specialists’ own car, and in all cases would not normally exceed one and a half hours each way.

History of the outreach service

The specialist went to Wangaratta in 1981 as a Registrar and was offered a locum position in 1983 while a local physician took time away. As the latter did not return to the practice, he agreed to stay on with the private practice.

Since then demand for his clinical and Outreach services has grown every year. Currently, he has approximately 2,500 to 3,000 patient contacts per year, or approximately 60 patient contacts per week. He has been providing outreach services to contiguous townships since February 1983.

Demography of catchment

The Hume Region comprises a population of approximately 250,000 persons. In the catchment area within the Region covered by the Wangaratta specialist practices and its outreach centres, some 6-7% of the population is concentrated in Wangaratta.
Table 9.2: Population: Wangaratta and surrounding outreach towns in Hume Region

<table>
<thead>
<tr>
<th>Towns</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wangaratta</td>
<td>16342</td>
</tr>
<tr>
<td>Myrtleford</td>
<td>2515</td>
</tr>
<tr>
<td>Beechworth</td>
<td>2791</td>
</tr>
<tr>
<td>Bright</td>
<td>2099</td>
</tr>
<tr>
<td>Yarrawonga</td>
<td>4025</td>
</tr>
<tr>
<td>Benalla</td>
<td>8614</td>
</tr>
<tr>
<td>Mansfield</td>
<td>2667</td>
</tr>
<tr>
<td>Rutherglen</td>
<td>1846</td>
</tr>
</tbody>
</table>

There are significant differences in the composition and culture of the different outreach towns serviced. For instance, Yarrawonga is predominantly Australian and anglo-celtic in origin. By contrast, Myrtleford is a mixture of Australian and first, second and even third generation Italian, Greek, Yugoslav, Eastern European, Turkish, Asian and Filipino migrants.

These cultural mixes have an effect on the acceptance of the Outreach service offered, so the service is specifically tailored to these different customer groups.

Outreach service model

The specialist internal medicine outreach service from Wangaratta is provided by three independent practitioners, although as will be described later, they are linked by a complex array of private, public and education arrangements. The towns serviced by the outreach services are located in all directions from Wangaratta (north east, east, south east, south west, north west). Details of the places visited are provided below.

Table 9.3: Characteristics of towns receiving outreach treatment

<table>
<thead>
<tr>
<th>Town</th>
<th>Mode of travel</th>
<th>Travel from</th>
<th>Visit frequency</th>
<th>Time of travel (one way)</th>
<th>Type of setting for service delivery</th>
<th>Approx. Hospital procedures (per visit)</th>
<th>Approx. Consultations (per visit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myrtleford</td>
<td>Car</td>
<td>Wangaratta</td>
<td>Every Monday</td>
<td>One hour</td>
<td>Hospital / specialist consulting rooms</td>
<td>1-2</td>
<td>12</td>
</tr>
<tr>
<td>Yarrawonga</td>
<td>Car</td>
<td>Wangaratta</td>
<td>Every Wednesday</td>
<td>One hour</td>
<td>Hospital / GP rooms</td>
<td>0-2</td>
<td>5-8</td>
</tr>
<tr>
<td>Rutherglen</td>
<td>Car</td>
<td>Yarrawonga</td>
<td>Monthly</td>
<td>One hour</td>
<td>GP rooms</td>
<td>-</td>
<td>4-6</td>
</tr>
<tr>
<td>Benalla</td>
<td>Car</td>
<td>Wangaratta</td>
<td>Every Thursday</td>
<td>1.5 hours</td>
<td>Hospital / specialist consulting rooms</td>
<td>4-5</td>
<td>7-8</td>
</tr>
<tr>
<td>Beechworth</td>
<td>Car</td>
<td>Wangaratta</td>
<td>1st Wednesday each month</td>
<td>45 mins</td>
<td>Hospital rooms</td>
<td>0-2</td>
<td>4-5</td>
</tr>
<tr>
<td>Bright</td>
<td>Car</td>
<td>Wangaratta</td>
<td>Monthly</td>
<td>1 hour</td>
<td>GP rooms</td>
<td>0-2</td>
<td>6</td>
</tr>
<tr>
<td>Mansfield</td>
<td>Car</td>
<td>Wangaratta</td>
<td>Fortnightly</td>
<td>1.25 hours</td>
<td>Hospital rooms</td>
<td>4-6</td>
<td>4-6</td>
</tr>
</tbody>
</table>
Some idea of how the outreach services are fitted into the practices of the three specialists is afforded by reviewing the weekly work schedule of the physician in detail:

- **Monday** – Commences day with inpatient consultation rounds at Wangaratta Private Hospital and Wangaratta District Base Hospital. Then travels to Myrtleford town, arrives in rooms by 10:30 a.m. Sees patients until 6p.m., and then drives back to Wangaratta. Evening ward rounds at Base if on-call or patients seriously ill, e.g. CCU, and admissions to Private Hospital.

- **Tuesday** – Inpatient ward rounds. Exercise stress tests and the consults on patients at the Wangaratta Cardiology and Respiratory Centre (WCRC). In the afternoon in Wangaratta at private consulting rooms. Evening meetings, e.g. Cardiology, etc.

- **Wednesday** – Inpatient ward rounds. Drives to Yarrawonga, arrives in rooms by 10:30a.m., sees patients until 6p.m. then drives back to Wangaratta. Evening ward rounds at Base if on-call or patients seriously ill, e.g. CCU, and admissions to Private Hospital.

  Each third Wednesday of the month does an afternoon clinic in Rutherglen from 1pm-6pm (driving from initial consult period at Yarrawonga), then drives back to Wangaratta.

- **Thursday and Friday** – Inpatient ward rounds, endoscopy sessions (very few now, mostly performed by other specialists or surgeons), medical student teaching, and Medical Unit Clinical meeting, consults on patients in Wangaratta private consulting rooms until 7pm. Teleconferences, etc.

- **Saturday** – 1 week in 3 on-call, provides 24 hr. call for Wangaratta District Base Hospital (from 8am Friday until the following Friday 8am  –i.e. for 7 days). Also cover Private Hospital when on-call.

- **Sunday** - does a Wangaratta District Base Hospital ward round of his patients if on call. Also covers Wangaratta Private Hospital when on-call.

Services provided in the Outreach clinics are generally non-procedural, consultative and physical examination type. Approximately 60% of the work of the consulting practice is concerned with cardio-pulmonary conditions while the remaining 40% is concerned with all other internal medicine conditions combined. Procedural services are organised to be performed at the nearest specialist centre designed for endoscopy or cardio-pulmonary investigation.

Reported diseases and syndromes for male and female patients for 2000-2001 are represented in the graph below.

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25 Although one of the specialists does perform endoscopies.
Figure 9.1: Reported diseases and syndromes for male and female patient in 2000-2001

The outreach services provided by the first specialist are, as noted above, to Myrtleford, Yarrawonga and Rutherglen:

Myrtleford hospital provides rooms for the outreach clinic that are located in a separate ‘cottage’ slightly separate from the hospital facility (really a multi-purpose service) but still on the same campus. The hospital charges no rent, and also covers the costs associated with the room such as lighting, electricity, furniture, telephone etc., but do not provide any reception or secretarial services. The Wangaratta office has to perform all patient administration (bookings, patient record keeping) at a cost to the Wangaratta surgery. All comestible expenses are borne by the specialist.

Yarrawonga Hospital has a new casualty area with rooms that the outreach clinic can use. The clinic is charged $50 per week to use the rooms but is provided a lunch meal. Facilities consist of one consulting room, one examination room, and shared use of the waiting room (part of casualty). No services are included such as administrative/office staff for bookings, accounts etc. Again, the Wangaratta office has to perform all administration at their own cost.

At Rutherglen the outreach service is housed in private consulting rooms supplied by a local Corowa GP for no rent. A reception service for patients is provided but bookings, accounts etc. are also administered from the Wangaratta surgery.

Service data for Myrtleford and Yarrawonga is presented in the Table below. Data for Rutherglen was not available at the time of the evaluation.
Table 9.4: Specialist services attributable to the outreach service for Myrtleford and Yarrawonga for 2000-2001

<table>
<thead>
<tr>
<th></th>
<th>Myrtleford</th>
<th>Yarrawonga</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of specialist / patient contact hours (all sites)</td>
<td>220</td>
<td>265</td>
</tr>
<tr>
<td>Number of patients seen (procedures and consultations)</td>
<td>349</td>
<td>415</td>
</tr>
<tr>
<td>Number of office attendances</td>
<td>33</td>
<td>44</td>
</tr>
</tbody>
</table>

The patient administration at each of the above outreach services is managed by the administrative staff at the Wangaratta consulting rooms largely in the following way:

They book patients either on the basis of direct contact or via the referring GP between 6-8 weeks in advance of the actual consultation\(^{26}\). Patients generally go to the next available appointment unless the GP pleads a case of earlier consultation.

Just prior to the appointment, the Wangaratta staff check to ensure the patient is still coming. About once per fortnight a patient booking is not fulfilled as the patient does not arrive as expected, usually due to a re-scheduling of the appointment time in the Wangaratta office. Specialists take all patient files along with a raised invoice and a completed Medicare form.

Patients are presented the bill on completion of the consultation and asked to sign the Medicare form. Patients are invoiced only for the ‘gap’ between the Medicare rebate and the private billing fee.

Bulk billing is employed for only a small proportion of patients. It includes malignancy and dialysis patients and high-risk (won’t/can’t pay) patients. Repatriation patients are subsidised by the Repatriation medical reimbursement scheme.

There is often significant delay in cost recovery due to delays in Medicare refunding patient accounts. This is of significant concern due to high short term outstanding accounts, although long-term ‘bad-debt’ rate is low. Particularly slow payment occurs in December - January, and May - June each year. Due to the current 2002 rise in costs of medical indemnity\(^{27}\), the practice has introduced a levy on all patients of $8-10 to assist with that expense.

**Organisation of the Wangaratta services**

The three specialists operate within a complex set of organisational arrangements that cannot easily be characterised as ‘private’ or ‘public’. Just how complex and intertwined these arrangements are is currently being exposed through the process of interviewing for a replacement for one retiring specialist, which entails potential negotiations on a range of ‘package’ options. Both the specialists and the public sector employer component of the ‘package’ believe the role is probably not viable if broken up into components.

The full package arrangement, currently undertaken by all three internal medicine specialists, is shown below.

\(^{26}\) There is a significant waiting time to gain access to each of the outreach services, which GPs would like to see reduced to under one month. Ironically though, the waiting time for the outreach services is shorter in all cases than that prevailing at the ‘home’ consulting service at Wangaratta, which is approximately 4-6 weeks longer in duration.

\(^{27}\) Over the past 8 years the annual medical indemnity insurance cost has steadily risen from $800 to $20,000.
Figure 9.2: Package arrangement for Wangaratta services

*The specialists also have VMO rights at the hospitals where they provide outreach services. For instance, one specialist has VMO rights to Myrtleford District War Memorial Hospital (Alpine Health), and Yarrawonga District Hospital (Moira Health).

The specialists argue that the services they provide, including the outreach services, are self-funded. However, the above diagram shows that at least two components of the ‘package’ are funded by a regional or state health authority. Other components are funded essentially by third party contributors, (e.g. Medicare) and some patient co-payment. It is true, though, that the outreach component of the package receives no (additional) external funding from any source.
The components of the above package, that are the more complex from a ‘recruitment’ perspective, are the VMO appointment at Wangaratta Base Hospital, the Wangaratta Cardiology and Respiratory Centre (WCRC), and the outreach services.

- The VMO appointment at Wangaratta Base Hospital component, which covers approximately four ‘sessions’ each week\(^{29}\), is complex first because the three physicians form part of a three week on-call rotation. This requires the specialist to be on-call after hours for a whole week. Second, the VMO appointment/s is not without history of some conflict between the specialists and the base hospital. Several years ago the specialists (including surgeons) were temporarily ‘locked out’ during contract negotiations.

Ideally, a replacement physician would ‘slot in’ to the three way on-call rotation (otherwise, the workload could become intolerable for the other physicians).

The specialists argue this component of the ‘package’ would be less problematic if they were offered sessional staff appointments rather than the fee for service type payment they currently receive. The Base Hospital, while originally arguing for the same position some years ago, subsequently believed this was a more costly pathway for them. Hence they have broken the appointment up on the basis of fee for service + ward rounds + provision of emergency cover + teaching.

- The WCRC is a privately-run business, with the 3 physicians being principals and business partners with equal equity. This Centre provides non-invasive cardiology and respiratory investigation services to Wangaratta and to all the surrounding regional centres. One specialist claimed it was one of few in rural Victoria and, as such, is a service in high demand. WCRC employs 7 trained nursing staff members, with expertise and further training in their disciplines, and 1 secretary. This venture receives no external funding and needs to be self – funding and financially independent.

- The outreach service is also shared (almost equally) between the three physicians as shown in an earlier table. If the replacement specialist was not keen to do the outreach work, then again the workload could mount on the remaining specialists, or else a town or two would be dropped from the outreach service.

Interestingly, in spite of all the complex social, professional and financial links between the three specialists, they still maintain separate private consulting rooms at considerable cost. For instance, one specialist employs in his private Wangaratta practice rooms 3 audio-typists and 1 full time secretary. This also adds some complexity to the recruitment process since a new physician would have to probably take on the financial burden of the retiring specialist’s consulting rooms. There would no doubt be some delicate negotiations around this purchase, particularly the ‘goodwill’ component.

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\(^{29}\) The VMOS, at the insistence of the hospital, are actually paid on a fee for service basis which they argue in fact is a worse financially for the hospital.
Referral mechanisms and other links

Most GPs in the outreach service areas refer the bulk of their patients to the visiting specialists. Not only do they believe that this is better for the patient (no need to travel) but also makes it possible for the GP to communicate more directly with the specialist (“… over a cup of coffee.”).

The main problem perceived by GPs in referring is the long waiting list for specialist appointments, which ranges from 8-12 weeks (but is still apparently less than in the base service at Wangaratta). The long waiting list, though, can sometimes encourage GPs to hold on to patients a bit longer and not refer. It is difficult to determine if this acts to the detriment of patients.

The physician argued that the waiting lists are made up mostly of routine assessment cases. If GPs could better prepare specialists for these assessments, then the lists could be worked through far quicker. This could be facilitated by GPs taking more advantage of EPC and case conferencing Medicare item numbers, and providing a good report rather than simply “…patient is sick, please do the needful.” He wondered what incentives there were for GPs to follow this path, and what training would help.

The three specialists encourage linkages with ancillary services to provide better service their patients. This includes:

- local/regional radiology,
- pathology,
- social work services,
- diabetes nurse educators,
- dieticians

Some of these service providers wondered whether it might not be better for them to accompany the specialists on their outreach visits. This could add significant value to the outreach service offering, and save further patient referrals.

The Outreach service works/liaises with other specialists or resident doctors on a referral basis when patients are referred to the Outreach service for treatment. In particular though, the internal medicine specialists seem to have developed complementary outreach ‘footprints’ at most of the same surrounding towns with the general surgeons. At some of the towns there are also paediatric and obstetrics/gynaecology services, however, the internal medicine specialists have limited contact or cross referral.

In addition, the internal medicine specialists have:

- established and run the Cardiac and Pulmonary Rehabilitation Program in Wangaratta for the region;
- organised and support the Diabetes Education and referral program
- Participate in the Youth Suicide Prevention Program

The specialist values his connections to Universities/Medical Schools and the College. For instance, he has:

- a clinical relationship with the Rural Clinical School in Wangaratta;
• clinical teacher and examiner status with the University of Melbourne, Royal Melbourne Hospital;
• a Senior Lecturer post with the University of Melbourne;
• a Cardiology Associate role with the Royal Melbourne Hospital
• a Supervisor and examiner function with the Royal Australasian College of Physicians
• a Fellowship with the Australian College of Rural and Remote Medicine.

Training and outreach

The service the physician provides includes updates and professional development support to local GPs so they may better manage patients, from initial referral through surgery and into the rehabilitation phases. He maintains contact with the North East Division of General Practitioners, and on-line with the GPCG (General Practitioner’s Computing Group). There is no equivalent Consultant Physician organisation to keep up to date with computing and electronic medical records information.

There was doubt expressed from a number of quarters (including the GPs) that they are universally able to optimise the opportunity of a visiting specialist to gain knowledge and skills. Partly this is due to the GPs’ respect for the specialist’s time and partly due to the GPs’ own busy schedule.

GPs volunteered that they most value good responses from specialists to inquiries about specific problem patients – the ability to offer advice ‘on the spot’ in response to a specific patient-centred inquiry. Given the above, some suggestions from GPs to enhance knowledge transfer included:

Organise group learning sessions. Specialists might be asked to contribute monthly at a seminar type forum to discussion and analysis of specific, difficult cases.
Provide advice on management over the phone, wherever possible, using referral as a last resort.
Increased contact between specialists and GP, perhaps by running the consultations out of GP rooms instead of the hospital. Difficult in some outreach service towns since there is more than one practice (poor economics in itself), and specialists could not choose between them (would certainly affect referrals).

Given the GPs’ preference for training on-demand (that is, when a difficult case actually presents), some GPs raised the prospect of a remote specialist telephone advisory service. This would serve the same function of ringing the visiting specialist, but would ensure greater accessibility, a strong commitment to ‘talk through’ cases on line, and be attended by less motivation on the part of the specialist to advise on a referral. Of course, the disadvantage is that the specialist would have no in-depth knowledge of the patient, the context, the GP’s skills, or the local facilities.

Specialist physicians are frequently unwilling to advise on management without seeing or knowing the patient—perhaps some of them have had their fingers burnt. This dynamic applies in some degree more to the relationship between GP and physician particularly as the activities intersect to a greater extent than with specialists who offer procedural skills which the GP does not possess.

The question of instant access to specialist advice is a vexed one, as it is particularly time consuming; a fact recently recognised by the federal government by partial.

There are currently no university undergraduates or postgraduate medical persons available to work with the Outreach service to the rural and remote areas.
Stakeholder perspectives

Patients

The great majority of patients reported that having a local service was very important and that the service was high quality and suited to their needs.

Although happy with the care provided at the outreach service, almost half the respondents had concerns about their care in the specialist’s absence. Accessibility, was also a matter of concern, with the majority of respondents indicating difficulty in making appointments (reporting waiting times of up to 3 months) and “unreasonable” travelling distances (up to 60 kms), particularly in the case of emergencies and for the elderly.

The issue of costliness drew a mixed response, with most patients reporting some out of pocket and/or indirect expenses. Few considered expenses incurred reasonable though the majority reported benefit entitlements in addition to Medicare. Elderly patients reported that it was difficult to bear these costs on the pension.

Public health services

At least one of the ‘hosts’ for the specialist outreach services was ambivalent about the service.

On the one hand, they sincerely appreciated the improved use of services afforded by local access, and that this almost certainly resulted in earlier presentations for some illnesses (that could be very resource intensive if unattended until emerging as a crisis presentation). Also, some patients with significant co-morbidity issues would find travel, even to Wangaratta, quite taxing. Moreover, the specialists’ visiting status at outreach services (e.g. Myrtleford Hospital) makes their ‘remote’ consultations by phone on difficult inpatient or emergency cases more meaningful, since they are aware of the institution’s capabilities.

On the other hand, they felt that the service exposed them to criticism, when they had little control over the level and nature of the service delivery. For instance, the relationships for the service are all with the local GPs, and they effectively determine the type of patient and conditions being given care. Similarly, the service could be withdrawn by the physicians, without any consultation with the host health service, yet ironically the public health service provider would be the butt of local consumer criticism. Concerns about the service being withdrawn, scaled down or just temporarily reduced are not without basis; it has happened many times in the past to visiting or even resident services.

Another issue public sector ‘consumers’ ponder is patient safety. Some observers note that surgical outreach services pose more problems than physician services, since surgical services demand minimum levels of equipment and plant, sufficiently competent non surgeon human resources (anaesthetist, nurses), and adequate GP follow up. Physicians, on the other hand, generally consult, conduct few or no procedures, and need little or no equipment or specialised plant, and are therefore potentially more sustainable.
Financial considerations

Costs, benefits & alternatives

Several public sector service planners/administrators have thought at length about the delivery of outreach services. The costs are generally easy to see, even if most of the costs for private sector outreach models are shifted to the Commonwealth.

The benefits are less easy to measure and appreciate. The benefits listed by most planners of outreach services were:

Early presentation of illness, with consequent better prognosis and less costly treatment requirements

Improved social outcomes, because patients not transferred to distant location and therefore not removed from family and friends

Reduced loss of time of carers and other helpers for transport and other support services = increased productivity

Increased capacity for GPs to maintain their skills, both through direct contact with specialists and because services in which they can participate are retained locally.

It is difficult to find a balance between the easily perceived costs and the less tangible benefits.

The above concerns have led some public health services to consider the scenario of the specialist outreach services being withdrawn. Would they be replaced, or some other alternative pursued? At least one service provider would be inclined to focus on improving patient transport and communications technology. The latter equates to upgraded telemedicine-type technology which, through the introduction of broadband and enhanced video-conferencing technology, is now more feasible and affordable:

“...[we] can video-conference from any functional room in any hospital to any functional room in another site.”

Moreover, advocates of telemedicine approaches suggest that most outreach work (80-90%) is consultation and not procedures, which should be easier to perform remotely.

Specialists consulted on these options were sceptical about broad application. They noted:

Patient transport schemes currently do not cover much of the real costs of travel. For instance, travel for the first 65 kilometres is not reimbursed. In the case of patients accessing the Wangaratta outreach service, this would mean most would not be eligible for compensation. Similarly, the cost of carers/supports is generally not taken into account.

Difficult to identify those specialist tasks that are truly amenable to video-conferencing as opposed to face-to-face, even consulting which often (in theory always) requires a physical examination.

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29 On another site visit, to Esperance in WA, local health service stakeholders pointed out that each of the procedures rooms and theatre had installed technology to video operations ... but the technology had never been used and never connected up with the communications technology. It would not be hard to put the existing hardware to good use.
On another level of thinking, some public sector ‘consumers’ of outreach services wondered if the investment in such services (through Medicare) was appropriate. They felt that if planning was centralised and co-ordinated properly between state & commonwealth governments, a more efficient use of those resources might be found.

*Finances and funding*

Some public sector host services for the outreach service are of the opinion that the specialists are well-recompensed by the Commonwealth through Medicare “… otherwise they would not be doing it.” A number of GPs have also offered the opinion that the outreach service is not motivated only by altruism; rather, there is a tacit acknowledgement that the vast bulk of referrals will be directed to a local specialist service. These referrals, in the absence of an available local outreach service, could be directed in several directions, thus fragmenting the referral yield to a particular specialist.

On the other hand, in the case of the physician in particular (and his colleagues), it is felt by many (public health service and GP informants alike) that there is an opportunity cost associated with delivery of the outreach service. Most believe a full day of consultations in Wangaratta could easily be organised (supporting evidence for which would be the 3 month waiting list), and this should net a larger revenue than would be the case in providing an outreach service (where consultation time is ‘lost’ at the beginning and end of the day). The concerned specialists themselves believe they are providing a service at some personal cost, and would like to see innovative funding support ideas from both the Commonwealth and State governments.

*Reviews*

There are no formal reviews available. The service has not had dedicated time or personnel to research and generate reports and other statistics on the Outreach service. There is currently no government/private funding available to support data collection, demographics, surveys, needs analyses, morbidity/mortality statistics related to the Outreach services provided.

Several articles on rural practice experience have been published in RACP News and presentations to RACP and Rural meetings, e.g. VRPN meetings, First World Rural Internal Medicine Specialists (RIMS) Meeting, Shepparton, April 2002, RACP National Rural Summit, Shepparton, April 2002, RACP NSW Orange Rural Forum October 2001, RACP ASM and regional meetings.

*Motivations and objectives*

The physician offers a range of requirements or conditions for successful rural specialist practice (not just outreach). He suggested (in no particular order), you must:

- Have a personal drive, a desire to do this, able to get on with everybody and be able to network.
- be accessible by phone to GP’s, be up-to-date, approachable, flexible and set limits on contacts and workloads.
- be able to send the GST papers to someone else to manage – trusted accountant!!.
- have a big enough computer program and sufficient computer hardware to cope with the service requirements.
- be willing to improvise and cope with “RURALITY FACTOR” – distance, isolation, difficulty with access to tertiary centres, poor communication, IT, telephones, telemedicine, etc
• have business skills in records management, resource management, electronic skills, accounting skills, people management skills.
• find the right staff mix especially the personal secretary – the key person in the success of a private consulting practice.

The FAMILY – spouse and children - are the most important people in deciding if they will encourage a physician to relocate and establish practice in the rural community. This issue cannot be ignored at any phase in the recruitment or retention of medical practitioners in rural Australia. Appropriate employment and educational facilities, and personal development opportunities need to be provided and subsidised if necessary. The family unit needs to be considered as an essential element of rural integration within the community.

More females are entering medicine and the ‘feminisation’ of the medical workforce – both GPs and specialists - will have a profound effect on the future profile, activities and distribution of the medical workforce. This, in turn, will influence the ability of regional centres to provide Outreach services.

**Conclusion – Sustainability and other considerations**

The outreach service described in this chapter is a classic private sector model. It is clearly appreciated by the patients who access the service, and by most outreach service site stakeholders (eg local general practitioners and health practitioners), although there are some administrators who question the ultimate wisdom of such a service model. It is clear also that delivering the service provides a source of satisfaction to the concerned specialists.

The outreach service fits within a very complex array of other service delivery components (mostly in the ‘base’ location of Wangaratta) that contribute to the total viability of the rural specialist service. This includes:

• Private consulting rooms;
• Wangaratta Cardiology and Respiratory Centre;
• VMO appointment at the base hospital;
• Admission rights at the Wangaratta private hospital;
• Lecturer role at the rural training unit.

These arrangements, which contribute to the viability of the rural specialist practice (and by implication the sustainability of the outreach services), have been built up over many years. Replacing one of the specialist physicians in this complex arrangement would be challenging, indeed one that is facing the group now with the imminent retirement of one of the physicians.

It may be appropriate therefore to look more innovatively at how to develop a sustainable rural consultant physician practice. The current outreach service physician indicated he would be willing and enthusiastic to be a Staff physician at the base hospital for 0.5 EFT – and continue his private and regional outreach practice in the remaining practice hours. The staff position would provide much needed continuity and security of income, and provide part secretarial and administration assistance, allow holiday leave, and study and continuing education leave, and provide opportunities for salary sacrifice schemes. This would assist in covering some of the expenses of his current involvement with duties at the Royal Australasian College of Physicians – especially with Rural
Taskforce – both Victorian and Australian, and General Internal Medicine\textsuperscript{30}. The Staff position would also allow him additional time to be involved with clinical and epidemiological research and more time for teaching medical students, interns and registrars.

\textsuperscript{30} He is currently President, Internal Medicine Society of Australia and New Zealand for 2 years – May 2001-May 2003. This requires significant organisational work and interstate and NZ meetings.
Chapter 10: Dermatology outreach, NSW

Background

The outreach service is a private practice model serviced by a single dermatologist, operating from a group practice in Chatswood, Sydney. The service delivers a range of dermatology consultation and procedural services to the townships of Port Macquarie and Taree on alternate weeks.

The income from the outreach services contributes significantly to the viability of the dermatologist’s total practice income. In discussions with some stakeholders, it was considered that this differentiated his service from a true model of outreach, to something approaching a multi-site private practice.

Travel to the outreach centres is at the dermatologist’s own expense, and involves delicately timed airplane transfers. The travel arrangements could be the most important variable in the sustainability of the service in its current form.

History of the outreach service

The current outreach service has, in some respects, replaced that of another dermatologist who provided an outreach service to Taree for approximately 19 years every Friday and Saturday morning.

Prior to specialising, the current outreach service provider was a resident general practitioner in Taree for 10 years, while the original dermatologist was providing an outreach service. During this time, he made a commitment to the town to practice there after undertaking dermatology training.

However, after moving to Sydney for training, his family became settled and didn’t want to return to Taree. Hence upon becoming a Fellow of the College, the dermatologist began 2 days per week outreach to Taree (and later Port Macquarie) whilst working a locum position in a Sydney suburb. At that time, there were no other dermatologists working between Newcastle and Coffs Harbour. Thus, as a compromise, the specialist remains based in Sydney with his family but has been able to keep some faith with his original commitment to Taree by providing a regular outreach service to the Mid-North Coast region of NSW.

Later, he took up a principal position that became available at a well established group practice in the Northern Sydney suburb of Chatswood and ceased his locum work. Although the practice had an established referral and patient base, additional patient-catchment areas, where patient demand for services exceeded dermatologist supply, were needed to obtain sufficient patient throughput to achieve a viable practice income.

Over time, the broad contour of the outreach service has changed little. The dermatologist’s purchase of premises in Port Macquarie has established a more profitable base, especially following extensive investment in phototherapy facilities. The Taree service has also changed with the creation of phototherapy facilities, and more time being allocated to the visits.

Current arrangements have been in place since the beginning of 1998.
Demography of catchment

The two outreach services fall within one Area Health Service *viz.* the Mid North Coast Area, (although he also services some patients from the Macleay and Nambucca valleys) which comprises a population of about 125,861 persons. In the catchment area within the areas covered by the two outreach practices, some 75% of the population is concentrated in Port Macquarie and Taree.

<table>
<thead>
<tr>
<th>Outreach practice</th>
<th>Postcode</th>
<th>Main towns</th>
<th>Approximate Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Macquarie</td>
<td>2444</td>
<td>Port Macquarie and surrounding towns</td>
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<tr>
<td></td>
<td>2446</td>
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<td>Taree</td>
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</table>

Financial considerations

There are a number of factors that need to be assessed jointly to determine the financial viability of a private practice ‘outreach’ service model. The dermatologist of the North Coast outreach service has given significant thought to these and has identified the following main factors:

- The number of dermatologists practising in the Sydney (or other ‘home’ practice) area who have chosen to establish and maintain a specialist practice.

Unless there is associated ‘first mover’ advantage, generally a greater concentration of specialists in an area equates to a lower number of visiting patients. This, in turn, promotes under utilisation of the costly specialist resource and sub-optimal revenue generation. It can be a driving factor to look for ‘outreach’ practice opportunities.31

- The size and nature of the population in the selected outreach area - allied with the existence, or otherwise, of resident dermatologists.

31 An interesting consideration in respect to this factor is why a specialist would choose to outreach into a rural area. For instance, it is a legitimate question to pose as to why a multi-site practice with its ‘home’ base in Chatswood would not construct its satellite practices in under-serviced areas of say western Sydney, where the potentially higher costs of practice would be seemingly compensated by the lower costs and significantly reduced uncertainty of travel. Given a feasible strategy to increase rural outreach service delivery by private specialist practitioners might be to target practitioners in over-serviced urban areas, the above question needs to be explored and the advantages of rural practice vis-à-vis outer urban areas (for the specialist) established. Of course this raises a broader question of access to services of competing populations; who is more deserving; the disadvantaged rural or urban consumer?
• The selected area for delivery of outreach services must be under-serviced to ensure a high throughput of patients at a time of the practitioner’s convenience.

• The travelling time required to and from the outreach service, which crucially affects the consulting time the dermatologist spends in the outreach site.

Where travel is by air, the financial viability of the outreach service can be at the mercy of the airlines’ scheduling. For example, flights into Port Macquarie used to be at 7:30 a.m., facilitating a potential 8:30 a.m. consulting start time. However, the demise of Ansett Airlines left far less flights into both Port Macquarie and Taree - with a resultant 10:00 a.m. consulting start time - making both services only marginally financially viable.

• The costs of establishing infrastructure for the outreach sites.

The infrastructure investment comprises clerical and nursing staff, facilities, medical equipment, communications hardware and software. Clearly, it is best to leverage as much marginal benefit from the ‘primary’ and the outreach practice as possible. Hence, some private practitioners manage patient arrangements in outreach services from their primary practice. This is not practical in the case of the dermatologist’s service.

Of these four factors, the dermatologist considers the travel to be of most concern. He estimates that further flight changes, such as changes in schedule or reduced service reliability, could effectively reduce the consulting time in either Port Macquarie or Taree, threaten the balance, and thus endanger the continued viability of one or both of the outreach sites.

It is likely that the fixed asset investment in Port Macquarie, i.e. the self-owned consulting rooms, might make that less vulnerable to a change in circumstances. There is the alternative argument that the asset may be more profitable by being rented out. Without additional and better data, there is a level of complexity in this decision-making process that is difficult to penetrate, including the cost of re-establishing in another under-serviced area, along with re-developing general practitioner referral networks, should that be considered the best alternative.

**Outreach service model**

**Outreach Services**

This is a classic private practice outreach service by a single dermatologist from Sydney to:

• Taree (2 days per fortnight; previously 3 days)
• Port Macquarie (3 days per fortnight) – the dermatologist has purchased a property and renovated it so he can stay there and run his practice.

As noted earlier, the outreach service is provided from a primary practice in Chatswood, a well resourced, high socio-economic district of Northern Sydney. A summary of the primary practice is provided in the diagram below.

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32 By way of illustration, the specialist reported that the Sydney - Taree leg had changed airlines four times since 1998, the outbound departure times changing from 8:30 to 7:00, 8:45 and back to 8:30 a.m., and inbound departure times varying from 4:00 to 6:45 to the current 5:45 p.m.. Due to this situation the dermatologist drove to Taree for almost a twelve month period.
The outreach service to the North Coast is characterised by precisely planned travel and operational actions, the key variables of which are summarised in Table 10.2 below.

<table>
<thead>
<tr>
<th>Town</th>
<th>Mode of travel</th>
<th>Travel from</th>
<th>Visit frequency</th>
<th>Time of travel (one way)</th>
<th>Type of setting for service delivery</th>
<th>Hospital procedures (per visit)</th>
<th>Consultations (per visit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Macquarie</td>
<td>Air</td>
<td>Sydney</td>
<td>Every second Tuesday to Thursday&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3 hours</td>
<td>Specialist consulting rooms</td>
<td>rare</td>
<td>150</td>
</tr>
<tr>
<td>Taree</td>
<td>Air</td>
<td>Sydney</td>
<td>Every second Wednesday and Thursday&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3 hours</td>
<td>Hospital consulting rooms</td>
<td>rare</td>
<td>90-100</td>
</tr>
</tbody>
</table>

<sup>1</sup> Staff at both consulting rooms indicated some fortnightly visits are missed (holidays, conferences, unavailable flights, etc.) reducing the number of actual visits per year from a possible 28 to approximately 22.

The dermatologist flies into both Taree and Port Macquarie, catching the earliest flight possible, currently 8:15 and 8:30 a.m. respectively, although an earlier flight would be preferable. Provided the flights are on-time, he begins work at 10 a.m. On his last day at the outreach he finishes at 4 p.m.
(Taree) or 5 p.m. (Port Macquarie). He works very long, full days when in the outreach services, with packed patient lists, approximately 50 occasions of service daily, as against approximately 32 at his base service.

The facilities in each of the service locations are as follows:

**Taree:**
Services are delivered from rented rooms at the Mayo Private Hospital. The facilities include a consulting room, a small contiguous procedures room, a phototherapy treatment area with a UV light box, and a spacious waiting room. All these are located not far from the front desk of the hospital and designated the “Dermatology Department”. The area taken up by the dermatologist is also located close to the theatres, which he uses for more complex procedures. A local receptionist/clerical officer/administrator works 3 days a week as well as several part-time nurses. The clerical person virtually runs the rooms, ensuring all the bookings for both consultations and phototherapy (which alone has approximately 170 active patients) are well-managed so that there are no gaps in consultation times when the dermatologist arrives each fortnight.

The dermatologist has a sessional VMO contract at Manning Base Hospital, the local public sector acute care facility. However, the administration there indicated that there was “very little use of the privilege, amounting to maybe one visit per year and the occasional opinion being sought.”

When in Taree, the dermatologist finds overnight accommodation with an old neighbour.

**Port Macquarie:**
Services are delivered from a purchased house located not far from the private hospital. The service site is located within a normal residential area and there were some interesting battles with the local Council when the DA was first proposed. The desperate need for a dermatology service at the time outweighed any other concerns and the DA was accordingly approved.

The house serves as a practice and a place of accommodation. The facilities include two consulting rooms, a reasonable-sized procedures room, a separate phototherapy treatment area purpose-built as an extension to the house, and a waiting room. Like the Taree rooms, these rooms are maintained by a clerical person working 55 hours per fortnight and several qualified nurses working a combined 72 hours per fortnight. The latter mostly run the phototherapy treatment area and offer support for procedures.

More complex procedures are performed at Hastings Day Surgery, rooms owned by a local gastroenterologist, and performs consultations at the Base Hospital.

When in Port Macquarie, the dermatologist uses a room in the house for overnight accommodation.

Services provided in the Outreach clinics are procedural and consultative. Procedural services account for approximately 45% of total occasions of service. Details of items of service provided at

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33 The dermatologist clarified that he does see patients upon request, however most are seen in his rooms “I usually forget to charge the hospital”.
both Port Macquarie and Taree for the calendar year January 1 2002 to January 1 2003 are provided in the table below

Table 10.3: Proportion of total services provided by Medicare Item Number (2002 calendar year)

<table>
<thead>
<tr>
<th>Medicare Item #</th>
<th>Item description</th>
<th>Proportion of total OOS (%)</th>
<th>Port Macquarie</th>
<th>Taree</th>
</tr>
</thead>
<tbody>
<tr>
<td>104</td>
<td>Initial specialist consultation</td>
<td>7.3</td>
<td>12.7</td>
<td></td>
</tr>
<tr>
<td>105</td>
<td>Subsequent specialist consultation</td>
<td>8.3</td>
<td>15.2</td>
<td></td>
</tr>
<tr>
<td>105/195/106/12015/12018</td>
<td></td>
<td>-</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>30071</td>
<td>Biopsy skin/mucous membrane</td>
<td>2.9</td>
<td>5.3</td>
<td></td>
</tr>
<tr>
<td>30192</td>
<td>Cryotherapy Premalignant Skin Lesions</td>
<td>2.0</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>14050</td>
<td>PUVA or UVB whole body, hand/feet</td>
<td>17.9</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>14053</td>
<td>PUVA or UVB hands and/or feet</td>
<td>3.8</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>30195</td>
<td>Neoplastic Skin Lesion-Electrocautery</td>
<td>0.3</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>30196/97</td>
<td>Cancer of skin-removal-by serial curettage</td>
<td>4.6</td>
<td>7.3</td>
<td></td>
</tr>
<tr>
<td>30202</td>
<td>Ca Skin-Cryotherapy</td>
<td>0.2</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>30207</td>
<td>Skin Lesion-Hydrocortisone Injection</td>
<td>0.2</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>31205/10/30/35</td>
<td>Tumour/Cyst/Ulcer, removal by surgical excision &amp; suture from nose, eyelid, lip, ear, digit, genitalia, hand, foot, lower leg, head, neck &lt; 10mm excision and suture</td>
<td>0.0</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>31255/60</td>
<td>BCC/SCC removal from nose, eyelid, ear, cup to 10mm and &lt;10mm</td>
<td>0.5</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>31265</td>
<td>BCC/SCC/KA removal from hand, lower leg, foot &lt;10mm</td>
<td>0.7</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>31270/75</td>
<td>BCC/SCC/KA removal from hand, lower leg, foot or areas of head &amp; neck not covered in 30134/31255 &gt;10mm&lt;20mm and &gt;20mm</td>
<td>0.2</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>31280/85/90</td>
<td>BCC/SCC/KA removal from hand, lower leg, foot, areas of head, neck not covered by 30135/138 &lt;10mm and &gt;10mm&lt;20mm</td>
<td>0.2</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>31295</td>
<td>Excision BCC/SCC residual and recurrent</td>
<td>0.1</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>31300/05</td>
<td></td>
<td>0.0</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>31320/25/30/35</td>
<td>Malignant Melanoma &gt;20mm, &gt;10mm, appendage carcinoma &gt;10mm&lt;20mm</td>
<td>0.1</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>45200/03/06/400/39/42</td>
<td></td>
<td>0.2</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>45451</td>
<td>Full thickness skin graft</td>
<td>0.1</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>Misc/105</td>
<td>Phototherapy solution/subsequent specialist consultations (Surgery)</td>
<td>28.5</td>
<td>50.4</td>
<td></td>
</tr>
<tr>
<td>Misc phototherapy</td>
<td>Phototherapy solution (IH2)</td>
<td>21.9</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>12015/30213</td>
<td>Epicutaneous patch testing</td>
<td>0.1</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Misc</td>
<td></td>
<td>-</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>Total number of services provided</td>
<td></td>
<td>15415</td>
<td>9018</td>
<td></td>
</tr>
</tbody>
</table>

Patient Population

The patient population is predominantly female (57%). 62% of the 1709 patients who went to the Port Macquarie surgery in 2002 were over 50 years old. There are no statistics available for Taree, but the patient profile is assumed to be similar. This reflects the general population of the two catchment

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34 These figures do not include phototherapy services, which account for approximately 43% of total occasions of service and 34% of total billing.
areas; both are fast-growing areas fuelled by retirement movements. The age distribution of the patient population is illustrated in the graph below.

**Figure 10.2: Age distribution of the service’s Port Macquarie patients**

![Age distribution graph]

**Billing**

Both the outreach practices predominantly private-bill (approximately 80%). The proportion of total billing in each of the outreach practices by type of billing is shown in the table below. The difference between private and bulk billing varies between item numbers, but the difference can be as high as 64% (Item number 105 “Subsequent specialist consultation”) and as low as 22% (Item number 30195 “Electrocautery – skin lesion”).

<table>
<thead>
<tr>
<th>Practice</th>
<th>Private patients</th>
<th>Bulk Billing</th>
<th>Veterans Affairs</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taree</td>
<td>84.2</td>
<td>3.5</td>
<td>11.6</td>
<td>0.7</td>
</tr>
<tr>
<td>Port Macquarie</td>
<td>83.4</td>
<td>4.0</td>
<td>12.6</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Patient visits throughout the year seem to follow no particular pattern (ranging from 183 to 370 per month), and appear to reflect more the visiting pattern of the doctor - that is, months with lower visits are generally when the dermatologist is absent because of holiday, conference, etc.

**Referral mechanisms**

Most GPs in the outreach service areas refer their patients to the visiting specialist, in preference to referral to Sydney or Newcastle. Between October 2001 and March 2003 just over 1800 new patients were referred to the dermatology outreach service from surrounding general practitioners. This number of referrals was made by 230 doctors, a remarkably high number.

Another interesting aspect of the general practitioner / dermatologist relationship is the clear potential for substitution. This occurs most conspicuously in the form of the emerging ‘skin cancer clinics’, surgeries established by general practitioners who then ‘specialise’ in the provision of minor procedures to remove or excise skin lesions. One such clinic has been established in Port Macquarie and is reportedly managing a high patient demand offering a bulk billed service. Such clinics are not well thought of by the Australian College of Dermatologists.
Less obvious substitution of general practitioner labour occurs when the general practitioner ‘holds on’ to cases, believing they can treat the problem personally or delay referral and maintain under observation. The preponderance of general practitioners referring dermatology cases only occasionally to the specialist outreach service could be evidence that many more cases are retained within the general practice setting.

This is also a form of substitution that is considered a potential risk to standards of care by dermatologists. In Port Macquarie, the visiting dermatologist highlighted several cases where treatment of skin problems within the general practice setting had either exacerbated the disease condition, making it subsequently more difficult to resolve, or had contributed to unnecessary pain and suffering on the part of the patient due to continued misdiagnosis. The local division of general practice agreed that some general practitioners might retain some cases inappropriately. However, they claimed that the under-supply of dermatologists, with a consequent long waiting list for the outreach service, made many general practitioners think carefully about referral.

The outreach service has few other links apart from the traditional referral relationships with general practitioners. The specialist performs a lot of work within the NSW Faculty of the College of Dermatologists in the special interest area of rural health issues, and is a member of the NSW MSOAP Advisory Committee.

**Training and outreach**

The outreach service provides updates and professional development support to local GPs so they may better manage patients and make more appropriate referrals. Selected general practitioners often ‘sit-in’ on procedures performed in the outreach service and in this way improve their skills.

The local division of general practice and selected GPs feel that the dermatologist’s time can be more fruitfully utilised through structured and planned professional development interventions.35 However, a more significant contribution to professional development may be difficult to manage given the tight schedule of the visiting specialist and the already critical margins around the perceived financial viability of the service - probably not allowing any further reduction in revenue earnings. Use of available dermatologist’s time in the night, possibly as late as 8:00 p.m., and observation of work at the surgery may be the only options unless some payment was negotiated for the dermatologist’s time. The GPs’ prefer training ‘on demand’, i.e. when a difficult case actually presents, raising the prospect of a telephone advisory service.

The practice also takes registrars from the Dermatology training program and medical students from University of NSW.

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35 The specialist indicated that in the last 12 months he had given two 4 hour seminars/workshops on skin cancer and an evening talk in Port Macquarie. He has also conducted one Grand Round and an evening talk in Taree, and two evening talks in Forster.
**Consumer views**

Most of the public sector ‘hosts’ for the specialist outreach services are ambivalent about the service. First, they contest whether the service offered is indeed an ‘outreach’ service, or simply a site within a multi-site private practice. The distinction may mostly be one of semantics, and driven largely by public sector practitioners’ perspectives on what constitutes an outreach service. As one informant put it, they believed outreach services by definition “should be providing services where they are not normally viable”.

Public sector informants in the Area argue that the Port Macquarie / Taree region has a sufficient population size to support a resident specialist service. Indeed, if the AMWAC estimates of population catchment size required for a resident dermatology service are adopted (between 60,000 and 85,000 per specialist; see AMWAC, 1998), then the number of resident dermatologists in the Area should be at least two. Hence, the public sector informants believe that an outreach service offering to such a population catchment is merely a function of the shortage of dermatologists; in the words of one informant the Area should be a “goldmine” for a resident specialist practitioner.

On the other hand, the public sector informants appreciate the improved use of services afforded by local access to a visiting specialist. The benefits listed by most planners of outreach services are:

- Early presentation of illness, with consequent better prognosis and less costly treatment requirements (that could be very different if unattended until emerging as a crisis presentation);
- Improved social outcomes, because patients are not transferred to a distant location and therefore removed from family and friends;
- Reduced loss of time of carers and other helpers for transport and other support services = increased productivity.

They noted, though, that many patients still had to travel some distance from surrounding towns to attend a consultation in either Port Macquarie or Taree.

According to one health service administrator, their ideal would be for two private sector dermatologists to set up a residential service in the Area, acting in partnership. They would have VMO rights at the three major acute care centres in the Area and be available through on-call mechanisms to do emergency work and phone advice for general practitioners and others. They can also provide a ‘hub and spoke’ type outreach service to some of the surrounding towns. The local division of general practice also think that a ‘real’ outreach service is provided from, not to, major regional centres like Taree and Port Macquarie.

**Reviews**

There are no formal reviews available. The service has not had dedicated time or personnel to research and generate reports and other statistics on the Outreach service. There is currently no government/private funding available to support data collection, demographics, surveys, needs analyses, morbidity/mortality statistics related to the Outreach services provided.
Motivations
The primary motivations for offering the outreach service have been canvassed in an earlier section. They are principally a mixture of:

- Financial attractiveness;
- Professional and personal allegiances established in the area through prior general practice experience;
- A feeling of being wanted by the local community;
- A list of patients who are more grateful; and
- Being a ‘big fish in a small pond’.

Another important factor raised by the dermatologist concerns the different case-mix of the patient population in the outreach service. The population suffers much more diverse types and levels of skin disease morbidity, and hence represents a more interesting and satisfying job scenario. For the outreach dermatologist, there is a lot of professional variety in it:

“…you see the most urgent interesting cases and not the more run of the mill cases you see in the city”.

Sustainability of service
The dermatologist advises that people need to get something back personally from doing outreach for it to continue. This generally equates to obtaining adequate financial return on capital and time investment. He thinks that even the most altruistic person will not continue to provide a service if the barriers are too high, e.g. an air service that does not provide flights to facilitate a full days’ work or when providing the service becomes cost-prohibitive.

Critical success factors are made up from a combination of elements including:

- community service,
- profitability,
- great patients,
- costs of running it in the country not dissimilar to city practice.

He concludes that the FAMILY – spouse and children - are the most important people in deciding if they will encourage a specialist to provide a service to a rural community.

Conclusion
The outreach service is a private practice model serviced by a single dermatologist, operating from a group practice in Chatswood, Sydney. The service delivers a range of dermatology consultation and procedural services to the townships of Port Macquarie and Taree on alternate weeks. The income from the outreach services contributes significantly to the viability of the dermatologist’s total practice income.

Dermatology practice, with its inherently greater control over the way services are demanded and can be supplied, is potentially suitable to outreach service delivery. This is true of both private and public sector models of service delivery. For a private practice model to be viable though requires congenial conditions to apply in respect to:
• The size and nature of the population in the selected outreach area - allied with the existence, or otherwise, of a resident dermatologists. The selected area for delivery of outreach services must be under-serviced to ensure a high throughput of patients at a time of the practitioner’s convenience.
• The travelling time required to and from the outreach service, which crucially affects the consulting time the dermatologist spends in the outreach site.
• The costs of establishing infrastructure for the outreach site.

Of the above three conditions, the most crucial is travel time (with the current shortage of dermatologists finding under-supplied localities is not likely to be a limiting factor). Travel time of more than two hours begins to place a private outreach service into a marginal revenue-earning prospect. Where travel is by air, the financial viability of the outreach service can be at the mercy of the airlines’ scheduling or the reliability of service quality and timeliness.
Chapter 11: Review of stakeholder consultations

Introduction

The methodology for consultation with stakeholders who were not specifically associated with the services evaluated was described in Chapter 1. These stakeholders provided thoughtful contributions which interpreted the objectives, decision criteria and practicalities that motivate and shape specialist outreach. They also offered a broader vision for what specialist outreach “should be” and “could be”.

These views are summarised in the following sections under various themes. They may not necessarily correlate with the questions asked of stakeholders, as they are synthesised from a general analysis of responses. These themes are further developed in regard to our findings and recommendations in Chapter 12.

Outreach policy / approach

Only four organisations—three Colleges and a Department of Health—reported a policy on outreach service provision, three of which were documented. The policy documents offered a commentary on the expectations of outreach services, emphasising equity and quality. For example, in relation to equity, one stressed the importance of:

“… equality of access to affordable high standard [specialist] care for all Australians, regardless of their location” – (Specialist College).

In relation to quality (in terms minimum standards and infrastructure) another remarked that:

“… the key to the provision of safe, appropriate, outreach surgery in Australia is a team approach with a considerate, cooperative, ethical and close liaison between the visiting surgeon and the resident surgeon and/or general practitioner.

Only surgery appropriate to the facilities, personnel and geographic location should be considered.” – (RACS Guidelines for outreach surgery in regional, rural and remote Australia; October 1996, revised October 1999)

With or without their own specific outreach policies, stakeholders without exception supported the principle of outreach service delivery. Relatively small communities, separated by large distances with poor transport facilities seemed to lend weight to outreach as a natural strategy to address health needs. Health authorities in Western Australia, Queensland and the Northern Territory in particular, reinforced this view:

“…. W/A covers 2.5 million square kilometres; we have a total population of 1.9 million of which only 500,000 live in rural/remote areas. We have 90 rural/remote resident specialists of which over half live in one town – Bunbury (less than 2 hrs drive from Perth).”

“[Service provision is] a substantial challenge to the Queensland government because of Queensland’s distributed population and a large number of extremely remote communities.”
“Servicing the small and dispersed population in the vast geographic area of the Territory… are among the greatest challenges.” (DHCS, NT)

**Importance and benefit of outreach**

Stakeholders stressed the general importance of specialist outreach services. NT Health, for instance, remarked that specialist outreach was:

“… essential to the Territory in order to get specialist services to people and people to specialist services where distances are great, population is dispersed, pathology is prolific, and cross cultural understanding challenges effective service provision.”

The view of the RACS was that:

“… outreach surgery has played important role in giving smaller/isolated communities access to services which would otherwise be unavailable”.

In some cases the importance attached to outreach relied in particular on the adoption of a ‘hub and spoke’ model (see below).

In general terms, stakeholder responses indicated that outreach services were considered beneficial to patients, general practitioners and specialists alike, *viz.*

**A. Benefits for individual patients**

In providing access to services that cannot be locally obtained, specialist outreach is essential to improving personal health and well being.

Outreach services facilitate access to effective care for patients who might delay or be unable to travel to a metropolitan or regional centre.

Travel can be daunting and disruptive to patients and families. Moreover, the cost of patient travel is often not fully recovered from travel assistance schemes. Travel may be complicated if a carer is required to accompany a patient. In the words of a WA specialist:

"I hadn’t realised the extent of the lengths to which country people will go to avoid having to visit Perth"

From a clinical perspective, it was felt that regular outreach facilitates improved follow-up and continuity of care. It is likely to be of greatest patient benefit to the extent that it covers localities of greatest need.

**B. Benefits for rural / remote communities**

Outreach services are critical to the health and sustainability of rural communities.

Several stakeholders also thought that if sufficient patients were seen at one location, specialist outreach was likely to be cost effective—both in terms of personal cost and cost to the system. Other stakeholders, however, felt that outreach could inflate costs by addressing previously unidentified and unmet health needs. Cost effectiveness is explored further in Chapter 12.
C. Benefits to local GPs and other health professionals

Outreach support is considered important to the recruitment and retention of local host site health professionals. It may also improve local morale, reduce local staff turnover and improve thereby the continuity of care—whilst at the same time providing a vehicle for an educational process\textsuperscript{36}.

D. Benefits to specialists

Some stakeholders thought that involvement in outreach offered specialists’ development of effective communication skills, enhanced practise, and an alternative and enriching experience.

Outreach models

Although not requested to nominate an ‘ideal’ model, stakeholders generally responded to questions about desirable specialist outreach attributes, by referring to two broad types of model:

Outreach from a region, outside a metropolitan area—generally termed a ‘hub and spoke’ model (see for example Chapters 3 and 7). Specialist services radiate from a regional hub, where specialists are resident. A variation could be where visiting specialist services are offered in cooperation with resident specialists and general practitioners. The hub and spoke model seems to be the preferred vehicle in the absence of resident specialists, however stakeholder definitions of a ‘hub’ differ: NSW and WA stakeholders, for instance, thought of ‘hubs’ as non-capital cities, whereas a NT stakeholder identified Darwin as one of its ‘hubs’ for outreach to district and remote areas\textsuperscript{37}.

Outreach delivered by metropolitan-based specialists—often referred to as ‘fly-in, fly-out’ (see for example Chapters 4 and 7). Several stakeholders spoke of the necessity into the foreseeable future of fly-in, fly-out vehicles remaining the staple outreach model—in conjunction with patient assisted travel.

Notwithstanding the current importance of the fly-in, fly-out model, five stakeholders specifically identified a preference for services to be planned, resourced and supported from the region, based upon a hub and spoke philosophy.

Hub and spoke initiatives nevertheless have the disadvantage of being considerably more demanding of critical minimum local mass than fly-in, fly-out models (Chapter 12). Their feasibility may also be constrained airline routes (Chapter 3). The WA Department of Health, for instance, reported that:

“… nearly all major commercial air services use Perth as the hub—there are very few commercial air services that fly between regional centres or to smaller surrounding district centres.”

Within parameters of models described above, stakeholders reported specific examples as follows:

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\textsuperscript{36} Outreach services can also be a perceived or real threat to the sustainability of resident rural specialists and to the competence of local general practitioners (see chapter 12).

\textsuperscript{37} For a different perspective on potential service hubs in the NT and the outreach role of Royal Darwin Hospital see Chapter 3.
1. Compulsory Rural / Remote Registrar Service—if there were a minimum, compulsory six months registrar rural / remote service rotation, a sole resident specialist could have continuous backup. Problems with this model include assuring the ability and willingness of the resident specialist to supervise a registrar.

2. Coordinated Team Outreach—based on the General Surgery model in WA (Chapter 4) and the SOS service in the NT (Chapter 3), whereby a coordinated and funded team of specialists and allied health professionals are permanently employed to continuously provide a specialised rotational outreach service to several regions.

3. Broken Hill Base Hospital (consultant ‘buy-in’) variant—seven specialists make four to six trips a year to the hospital, providing Monday to Wednesday care for three weeks every month. This consists of a surgical list on one day and two days of outpatient sessional work. Consultants are paid by the hour, with accommodation and travel expenses met by the NSW Department of Health.

4. Far North Queensland (consultant ‘buy-in’) variant—three times per year remote communities are visited and assessed by a consultant ophthalmologist. Surgery is carried out annually at Weipa Hospital. Remuneration is via Medicare billing, while travel and accommodation is paid by Queensland Health.

**Whether to outreach?**

Stakeholders explained that outreach is not the only mode of delivering specialist services to rural and remote communities. As Queensland Health remarked:

“… sustainable outreach is but one of a number of methods of specialist service which may be used to maintain a sustainable system of specialist services to rural and remote communities”

Another health authority highlighted the need for:

“… (an) integrated and co-ordinated approach which gives direction and focus to outreach activities so that the funds available are targeted to achieve better individual and population health gains”

Stakeholders identified alternative strategies for satisfying remote area specialist needs that included:

- resident specialists
- up-skilled rural general practitioners
- telemedicine, and
- patient transfer to regional and metropolitan areas.

The following remarks from one stakeholder illustrate the dilemmas that make the planning of outreach services complex:

“The relative merits of building capacity within [the state] by employing more specialists in hospitals and including outreach as a key component of their responsibilities, versus the alternative of buying-in visiting specialists from other States to provide outreach services requires consideration and evaluation. On the one hand, there may be less burn-out, improved opportunities for up-skilling and remaining in touch with ‘mainstream’ best practice, and efficiency in buying-in service. In the alternative, there may be greater benefits in continuity of care, general recruitment and retention of specialists and more efficient use of local workforce by
developing (the state) capacity through increasing the number of resident specialists. At other times, specific issues such as gender (female Obstetricians & Gynaecologists), inadequate caseload or infrastructure to support a resident sub-specialist will be the determining factor."

**Key criteria in making decisions to establish outreach services**

Most stakeholder organisations gave views (occasionally conflicting) on decision criteria relevant to establishing specialist outreach services. Their views, incorporated into a service planning checklist, are itemised below.

1. **Is demand sufficient to warrant a specialist outreach service?**

   1.1. Is the case for outreach supported by a needs analysis?

      1.1.1. Are these needs congruent with state / region needs, based on population, distances, transport, health support services and their potential impact on reported patient needs and local health professional requirements?

      1.1.2. Is the target area a priority area for addressing population health needs?

      1.1.3. Does the prospective service address gaps in existing service provision?

   1.2. Does the target area possess the capacity to justify an outreach service?

      1.2.1. Could the local caseload justify an outreach service without adverse repercussions to any resident specialist within reasonable proximity?

      1.2.2. In the case of private services (or private service derivatives), could outreach revenue (in conjunction with any assistance in cash or kind) amortise service costs and allow a reasonable return to the outreach specialist?

2. **Are host site conditions favourable to outreach?**

   2.1. Is there support from local primary health care providers (eg resident GPs and Aboriginal Health Services)?

   2.2. Are local specialists supportive?

3. **Would the prospective outreach service bring together an appropriate mix of human resources?**

   3.1. In the case of outreach specialist(s):

      3.1.1. would they be “prepared to provide the best service they can in less than ideal medical and personal conditions (which includes the stress and tiredness caused by long distance travel, public country accommodation, lack of familiar administrative routines and support, and frequent absence from family).”?

      3.1.2. would they be willing to provide continuity of service?

      3.1.3. would back up be sufficient to an outreach specialist to support work at their usual place of practice?

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38 For an example of backfill problems in this regard in Darwin, see Chapter 3.
3.2. Would the local host site critical mass of medical and other health professionals be sufficient to support the specialist (e.g. GPs, DMOs, remote area nurses, allied health practitioners, Aboriginal Health Workers)?

3.3. Would adequate service coordination be available? (Each remote area needs a motivated and dedicated liaison officer / health worker to liaise with the local community and to organise outreach logistics, including visit times, appointments, travel arrangements, accommodation, availability and preparation of facilities and equipment and management of patient appointments and records on the day of visit).

3.4. Would outreach satisfy a specialist’s continuing professional development needs?

3.5. Would there be an adequate overall management strategy (including a capacity to support and manage the logistics of an outreach service)?

4. Are there sufficient other resources?

4.1. Is there adequate capital infrastructure, including outreach facilities for consulting, minor procedures, laboratory investigations and effective communication? (Effective IT and reporting systems are regarded as “essential for managing the tangled web of travel schedules, cancellations, rescheduling, specialist availability, waiting lists and recalls”).

Is outreach cost effective?

The cost effectiveness of outreach services was raised by several stakeholders, but with no satisfactory suggestions as to how this might be determined. We take this matter up in Chapter 12.

Sustainability factors

Several stakeholders specifically referred to the necessary conditions for an outreach service to be sustainable. These included the requirement for:

- stable funding with good accounting systems and support
- ongoing evaluation—ideally this should be a continuous feedback loop, embodying a cycle of feasibility, design, implementation, evaluation and re-design. One stakeholder thought “evaluation” should incorporate an analysis of the appropriateness, effectiveness and efficiency of outreach service provision, with public return on investment measured in health gain (see Chapter 12).
- outreach operations calibration against best practice criteria (work should be benchmarked against norms predicted from demographic data).
- complementary relationships with other specialist service categories
- an intrinsically rewarding service—implying:
- appreciation of specialists and their team members by host site health providers and consumers and
- visible results (e.g. improved local health)
**Threats to sustainable outreach services**

Despite the best of intentions, specialist outreach services have frequently been established and subsequently atrophied. Stakeholders were aware of the fragility of many outreach services. Threats to outreach were identified as:

- changing demographics and preferences (in life-style in particular) of the medical profession
- transport constraints and changing airline schedules
- specialist and local support staff fatigue and ‘burn out’
- outreach operations becoming ‘person dependent’ and endangered when key players, and departed or lost interest (See Chapter 12).

**Outreach services to ATSI communities**

Whilst one stakeholder believed that services which particularly targeted ATSI communities faced the same challenges as other rural and remote communities, a number of other stakeholders identified specific risks confronting ATSI services including:

Lack of cultural sensitivity leading to:

- culturally inappropriate behaviour at work
- unworkable case management plans
- language problems
- culture shock, and
- misdiagnosis.

A requirement for longer visits necessary to accommodate:

- long distances and fatigue
- ‘outback-time’ (associated with forgetfulness about watching clocks),
- community priorities (funerals come first, doctors last)
- development of community trusting relationships with outreach specialists, and
- repetitive coordination to avoid patient “no shows”.

Reluctance in remote Aboriginal communities for women to be treated by male O&G specialists for problems regarded as “women’s business”

The effect of sub standard local community conditions and attitudes (eg lack of patient compliance) in thwarting good health outcomes, despite specialist service provision

Conversely, factors that stakeholders associated most closely with successful ATSI service outcomes were:

- knowledge and appreciation of Indigenous culture, ‘country’ living conditions, remoteness, and an understanding of the sociology of chronic disease
- willingness to work in ‘Aboriginal time’ and around customary obligations
- use of Aboriginal mentors and cultural brokers
• providing services as close to home as appropriate
• adopting a developmental approach to health—for individuals and communities
• developing relationships and trust through the provision of long term, culturally appropriate
  and reliable services that are valued by the local people
• continuity of care / case management between outreach visits, and
• ensuring safe treatment environments for clients and safe practice conditions for service
  providers.
Chapter 12: Findings – Critical success factors for sustainable medical specialist outreach

Service evolution

During the course of this project, eight specialist services that delivered varying degrees of support to rural and remote communities across all States and the Northern Territory were reviewed. The project Steering Committee selected the services from a panel of 17 outreach models identified for the DoHA, which had service histories dating before the first round of MSOP funding. Candidates for review were not chosen in any sense as ‘representative’ services. They owed their selection simply to their potential as demonstration outreach projects that were willing to be reviewed and whose experience might offer rules of thumb for the most effective medical specialist outreach service provision.

The eight services reviewed accordingly covered adult and child physician services, general surgery, psychiatry, dermatology and O&G. Two of the services were wholly private (supported through Medicare, but relying upon a private practice for their service base); two were wholly public (entirely based in a public hospital without fee for service support); and four were public / private amalgams (relying on public system infrastructures but covering operating cost at the margin with fee for service payments supported through Medicare). The public / private models retained a significant public flavour and could fittingly be considered as vehicles for minimising State or Territory financial exposures. At least three of the services could be characterised as a hub and spoke model, using a regional base to deliver outreach support; the remainder represented derivatives of ‘travel in and out’ specialist services, ranging from same day delivery to a specialist presence for up to a few days (see below).

Apart from the disciplines of general surgery and physician services being common to more than a single service there were few, if any, similarities between services. Each had developed in part as a discrete response to specific local exigencies and in part, and usually primarily, because public or private sponsors possessed skills and resources that they were willing to deploy in outreach activities. As a consequence, the evolution and character of services has been fashioned by the imprimatur of the provider. It is thus difficult to recognise a systematic pattern or theory to explain the germination of services or their subsequent performance and growth.

Broad expectations

Although specialist outreach development has occurred largely as an essentially spontaneous and sporadic phenomenon—occasioned in the first instance by lack of access to resident medical services—many authorities speak of specialist outreach in terms of broad theoretical maxims that could reasonably be expected to flow from systematic service planning associated with satisfying broad political equity criteria. Hence, outreach services may be construed to play a role in satisfying overarching expectations, epitomised by the view put by one specialist medical College, which interpreted outreach in terms of:

“Equality of access to affordable high standard [medical specialist] care for all Australians, regardless of their location”
The universality of rural and remote specialist outreach is imaginatively exploited by one of the goals of the Medical Specialist Outreach Assistance Program, which interprets its purpose as a ‘top down’ phenomenon directed towards:

“… improving access to specialist medical services for rural communities.”

Of course, these maxims can be delivered through a range of mechanisms (for instance patient transfer, alternative labour competency development, telemedicine) of which outreach services are but one modality. In a section below, we consider the criteria for when it might be appropriate to establish or maintain outreach as a preferred pathway.

**Definition of outreach**

Genuine outreach activities can technically be distinguished from some private sector models that are little more than geographically dispersed multi-site practices. Indeed some public sector planners argue that an outreach service, by definition, is to populations that it would not be feasible to service through privately funded models.

Private claims about outreach activities are partly, if not wholly inspired by the past behaviour of some specialists pursuing short term outreach service delivery as a way of cultivating and possibly harvesting a rural referral base for an urban practice. Private practice models reviewed in this study, however, substantially exceed such narrow motivations. For a multiplicity of reasons, these practitioners have concentrated their work from a ‘home’ practice or an institutional service base that has not only targeted rural consumers who would otherwise have travelled to the specialist service, but has done so long since lapse of the initial contact period normally associated with new client list development. They may hence justifiably be regarded as ‘outreach’ services.

In this study we are inclined to accept all forms of service delivery as ‘outreach’ where a discernable operations base targets a defined rural and remote population—the type of financial support notwithstanding. From the local consumer perspective, the distinction is irrelevant, provided that the service is sustained. When this occurs it is tantamount to a short term ‘resident’ service. The dermatology ‘outreach’ service to Port Macquarie (chapter 10), for instance, is essentially a resident service of 0.3 full-time equivalents.

**The decision to outreach**

Decisions affecting the evolution of outreach activities typically seem unlikely to be precipitated by systematic evaluation of needs and priorities or to take into consideration the burden and location of rural disease. There is no ‘theory’ of outreach. Most outreach services appear to remain as much supply-driven as was reported in the mid-1990s (see Gadiel and Ridoutt, 1995). In an ideal world, one might reasonably expect outreach activities to bear some relationship to national or state strategies to estimate, by casemix and location, the overall burden of disease for rural and remote populations without access to resident specialist services. Not only could this guide the dimensions of budgetary allocations required for outreach service development; it could also provide a series of beacons, having regard to budgetary constraints, for systematically targeting the most deserving populations capable of benefiting from outreach activities.

In the absence of master planning for coordinating specialist outreach, decision-making becomes subordinated to *ad hoc* local imperatives, whereby site-by-site considerations can predominate, contributing to sub optimal service provision as well as service duplication and overlap.
As an avenue to a more systematic, public health approach to outreach service planning, it would be worthwhile considering:

- compiling an inventory and costing of all types of current outreach activities—this could be coordinated at the Federal level, with assistance from Colleges, States and the Northern Territory, and build on data already available through MSOAP and RwAs. The Victorian RWA for instance appears to have constructed a fairly comprehensive inventory of services in that state.
- the location and scope of outreach services could then be mapped against the prevalence of the major sources of morbidity in areas without access to resident specialist services

Factors that might be weighed for and against initiating a new public sector specialist outreach service in ‘greenfield’ locations that met deserving needs criteria, and where it was clearly inappropriate to establish a resident service, may be summarised as in Figure 12.1 below.

**Figure 12.1: Typology of issues for and against establishing a specialist outreach service**

<table>
<thead>
<tr>
<th>Favourable to an outreach service ...</th>
<th>Unfavourable to an outreach service ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Patient considerations:</td>
<td>• Patient considerations:</td>
</tr>
<tr>
<td>o Lower out-of-pocket expenses</td>
<td>o Greater consumer choice in larger centres</td>
</tr>
<tr>
<td>o Convenience &amp; accessibility</td>
<td>o Safety/quality concerns</td>
</tr>
<tr>
<td>o Confidence &amp; reassurance of familiar environment</td>
<td></td>
</tr>
<tr>
<td>• Facility considerations:</td>
<td>• Facility considerations:</td>
</tr>
<tr>
<td>o Justification for maintaining host site facilities/equipment</td>
<td>o Cost of upgrading &amp;/or maintaining host site facilities</td>
</tr>
<tr>
<td>o Utilisation of local facilities</td>
<td>o Insufficient net benefit on local investment</td>
</tr>
<tr>
<td>• Maintenance of GP skills, especially procedural, and the competence of nurses &amp; other staff</td>
<td>• High cost of host site infrastructure maintenance (equipment, staff, etc)</td>
</tr>
<tr>
<td>• Retention of emergency/crisis management competence in health services</td>
<td>• Cost of outreach team, travel, accommodation <em>versus</em> travel by patients</td>
</tr>
</tbody>
</table>
There will be some overlap between criteria affecting the feasibility of public and wholly private outreach services, although in the case of the latter there will understandably be a greater focus on professional and financial outcomes for outreach specialists themselves as opposed to patients, general practitioners and other host site professionals.

Because of the importance of maintaining and effectively utilising infrastructures such as operating theatres and the associated staffing overhead, hurdles for procedural outreach services are likely to prove considerably more challenging than for services such as psychiatry, physician services and consulting based services.

Argument concerning the feasibility of outreach is sometimes couched in terms of cost benefit criteria, but more generally in terms of cost effectiveness considerations. The former would seek to address whether a service were self-amortising, taking into account both direct and indirect costs. Intuitively, it seems doubtful whether, if tested in a formal cost benefit model, that any outreach service would be intrinsically capable of yielding a net social benefit (nor should one necessarily expect this). Some studies have attempted to show, given the moral and social imperatives of delivering specialist care to disadvantaged rural and remote communities, that the least cost method of delivering such care would be by way of outreach services (bringing specialists to patients), rather than bringing patients to specialists (Grunen and Baille, 2000). These studies concentrate on comparative direct costs and offer a cost effectiveness justification for specialist outreach. Even here the evidence is doubtful. In Chapter 3, for example, it was noted that Top End outreach travel costs regularly exceed available PATS funding (which is applied to the outreach travel budget), with NT Health being obliged to contribute to the shortfall.

We believe it is relevant to count both direct and indirect costs. For example, in so far as there are significant queues and waiting times to secure specialist appointments in service hubs such as Darwin (Chapter 3), consumers there incur significant costs, regardless of outreach. The effect of added layers of outreach activities in bidding scarce specialist skills into rural and remote commitments will be to aggravate these problems. Hence if the opportunity costs of specialist services are properly valued, it seems unlikely that the arithmetic could necessarily lend credence, as a general proposition, to the cost effectiveness of outreach in relation to patient travel models. Indeed, there is evidence that some outreach activities can result in speedier access to specialist services or superior quality services or both, than is available in the service bases that are responsible for generating the outreach (Chapters 7 and 8). If this were to encourage consumers in service centres to join outreach services queues (Chapter 3), it could create inefficiencies. Depending upon how they are structured, cost effectiveness studies thus have the potential to harm the case for outreach.

A more fruitful application of cost effectiveness to decision criteria, in situations where resident specialist services cannot be justified, may be simply to accept the outreach service modality as a political imperative. This allows discussion to concentrate on:

- the type of basic conditions likely to be most propitious to the successful launch of an outreach service; this takes us into the lap of the factors discussed in Figure 12.1, which can be further related to specific decision criteria. We deal further with these below in this section; and
- assessing the range of models that attempt to address outreach needs and which, indeed if any, are likely to be most effective. We deal with these in the next section.

Concentrating on conditions that are likely to be conducive to outreach and isolating the most appropriate models is likely to provide the key to understanding the chemistry behind successful
outreach models. This in turn may provide markers for the targeting and allocation of future outreach service provision.

A comprehensive list of decision criteria was canvassed in Chapter 11. These are summarised in Figure 12.2 below. The implication is that there are certain critical minimum conditions that will need to be satisfied in order to justify a specialist outreach service. These relate to minimum workloads to be supported and minimum human and physical infrastructures necessary to make the work of visiting specialists safe and effective.

**Figure 12.2: Key decision criteria for specialist outreach**

1. Is there “sufficient” unmet demand to set up a specialist outreach service?

2. Are conditions favourable to outreach?
   2.1. Support from local health providers
   2.2. Existing specialists
   2.3. Cooperation of resident general practitioners

3. Are the right number and mix of human resources available?
   3.1. Outreach Specialist(s) –
   3.2. Critical mass of medical and other health professionals required to support the specialist
   3.3. Administrative
   3.4. Overall management

4. Are there sufficient complementary resources?
   4.1. Capital Infrastructure
      4.1.1. Consulting facilities
      4.1.2. Treatment facilities
      4.1.3. Diagnostic/procedural equipment
      4.1.4. IT and reporting systems and data bases
   4.2. Public infrastructure
      4.2.1. Availability and disposition eg transport, telecommunications, etc
   4.3. Other infrastructure
      4.3.1. Access to pathology and pharmacy services

The decision criteria in Figure 12.2 may hence be considered as a set of diagnostic tools to assess either the likely worth of new services or the credentials of existing services and their capacity to absorb further investment and support.

**Models of outreach service delivery**

Specialist outreach can be formally distinguished in terms of three broad classes of outreach vehicle as follows:

- the so-called ‘fly-in, fly-out’ model—likely to be based in a large urban hospital or practice. Specialists oscillate (often sporadically) between their service base and host sites in a series of discrete, short term visits. Examples are usually found in the public sector.
• the multi-site practice—likely to encourage outreach visits of greater duration and regularity than ‘fly-in, fly-out’ models. The model is generally initiated by way of private investment and supported by fee for service Medicare payments; it would nevertheless be amenable to public funding to support and augment the participation of specialists.

• the ‘hub and spoke’ model—usually based in a larger regional or provincial centre, from which excursions are made to visit nearby smaller and more remote towns; may be either private or public sector funded.

Figure 12.3 schematically represents the main characteristics of these models.

![Figure 12.3: Summary of outreach models and key features](image)

Each of the eight services explored in Chapters 3 to 10 of this study, and summarised in Table 12.1, may be assigned to one or other of the models described above. In some cases the services do not
lend themselves to rigid classification, rather to a ‘hybrid’ classification form. For instance, the residential private internal medicine practice at Wangaratta could be interpreted either as a hub for outreach ‘spokes’ into surrounding towns, or as a private multi-site practice delivering an outreach service to satellite locations. The psychiatry service in Victoria could be considered either as a multi-hub and spoke treatment service or as a fly-in, fly-out training service.

<table>
<thead>
<tr>
<th>Service</th>
<th>Main service characteristic</th>
<th>Main source of funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermatology, North Coast, NSW</td>
<td>Multi-site practice</td>
<td>Private</td>
</tr>
<tr>
<td>Endocrinology and other physician services, NT</td>
<td>Fly-in, fly-out</td>
<td>Public</td>
</tr>
<tr>
<td>Obstetrics &amp; Gynaecology, Warmambool, VIC</td>
<td>Multi-site practice</td>
<td>Private</td>
</tr>
<tr>
<td>Internal Medicine &amp; Endoscopy, Wangaratta, VIC</td>
<td>Hub and spoke</td>
<td>Private</td>
</tr>
<tr>
<td>Paediatrics, Port Augusta, SA</td>
<td>Hub and spoke</td>
<td>Private</td>
</tr>
<tr>
<td>Psychiatry, VIC</td>
<td>Fly-in, fly-out</td>
<td>Public</td>
</tr>
<tr>
<td>Surgery, WA</td>
<td>Fly-in, fly-out</td>
<td>Public</td>
</tr>
<tr>
<td>Surgery, Cairns, QLD</td>
<td>Hub and spoke</td>
<td>Public</td>
</tr>
</tbody>
</table>

Each type of model usually depends upon a subtle interplay between outreach providers and host site general practitioners and public sector health services. For GPs, there is a delicate balance between the benefit of access to dependable specialist outreach support and training and the risk of simply becoming dependent on specialist support as an end in itself—with the attendant risk of their effectively becoming de-skilled. This can expose host site patients to hazards if a specialist service ceases or even during intervals between specialist visits. If, on the other hand, a sufficient workload is sustained and integrated with structured time for training, specialist outreach can maintain and enrich general practitioner competence.

If outreach services operate within proximity of one another, there is potential for them to conflict both financially and operationally. For instance, in leaching the demand for services at the margin, a fly-in, fly-out outreach service—by design or accident—may impair the viability of an established residential or hub and spoke model. In the case of the private obstetrics and gynaecology outreach service from Warmambool, the effect of locating a resident obstetrician at Hamilton Base Hospital could thus clearly jeopardise the viability of the service from Warmambool (Chapter 5). In operational terms, lack of clear demarcation between generalist and sub specialist cultures in outreach work can cause inefficiencies, because this may result in patients being treated by more than one specialist for the same problem (Chapter 3).

Conflicting blanket and indiscriminate interpretations about the ‘best’ or ‘most efficient’ vehicles for outreach services may often drive competitive and uncoordinated provider behaviour. In at least two health jurisdictions, several key stakeholders voiced a clear preference for a hub and spoke over fly-in, fly-out vehicles. _Prima facie_, hub and spoke models could be inherently attractive to host sites, because they are clearly closer substitutes for resident services than fly-in, fly-out services. Beguiling as they may be, sweeping generalisations as to preference without regard to local conditions have the potential to create an ideological ‘push’ for hub and spoke models even when the conditions for sustaining them are clearly extremely fragile. Figure 12.3, for instance, indicates that the hurdle criteria for hub and spoke models are likely to be significantly more stringent in terms of minimum populations to be serviced, necessary regional infrastructures and local leadership requirements.
Hub and spoke proponents, on the other hand, have argued that worthy hubs have failed to gestate because they have been frustrated by long established (and possibly lower cost) fly-in, fly-out services—a case in point being the effect of fly-in, fly-out services from Royal Darwin to Top End communities in thwarting hubs at Katherine and Nhulunbuy (Chapter 3).

Our view is that there are no universal claims to be made about the ‘best’, most effective or workable outreach models. The best models are necessarily the ones that fit local needs and harmonise with local practice.

We accordingly would advise that all rural and remote outreach services should attract a high level of coordination and synergy to:

- maximise opportunities for arrangements that complement and enhance one another; and
- ensure they are consistent and harmonise with local host site constraints.

In this way, it would be possible to throw light on how different models of service delivery can relate to and accommodate local host conditions of service demand rather than ad hoc supplier-led considerations.

The experience of the fly-in, fly-out Rural Surgical Service (RSS) in WA (Chapter 4) offers an example of how this might be put to practical effect. There would be a potential, for example, for the RSS to more purposefully support a network of hub and spoke residential surgical services by:

- filling service gaps to communities where hub services might otherwise be overextended;
- offering a transition between say, an erstwhile GP surgeon service and a prospective ‘spoke’ service; and
- enhancing the viability of hub and spoke services by providing hub providers with a respite / locum service.

**Funding arrangements**

Table 12.2 identifies the “main” source of funding for each of the eight services reviewed as being either “public” or “private”. These labels represent approximate starting points for locating a service’s principal driver and where its ‘ownership’ is likely to reside. Public outreach generally relies upon a hospital service base with public health, locally unmet need and altruism as predominant motivating criteria. Private outreach generally has a practice service base with corporate objectives as a primary motivation. Private outreach is self-funded and substantially governed by revenue derived from services delivered. Public outreach, on the other hand, relies on fixed hospital or regional budgetary allocation, which is independent of the volume of work.

<table>
<thead>
<tr>
<th>Service</th>
<th>“Main” funding</th>
<th>Funding mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermatology, North Coast, NSW</td>
<td>Private</td>
<td>Private / Medicare benefit / patient contributions</td>
</tr>
<tr>
<td>Endocrinology and other services, NT</td>
<td>Public</td>
<td>Public / Medicare benefit</td>
</tr>
<tr>
<td>Obstetrics &amp; Gynaecology, Warrnambool, VIC</td>
<td>Private</td>
<td>Private / Medicare benefit / patient contributions</td>
</tr>
<tr>
<td>Internal Medicine &amp; Endoscopy, Wangaratta, VIC</td>
<td>Private</td>
<td>Private / Medicare benefit / patient contributions</td>
</tr>
<tr>
<td>Paediatrics, Port Augusta, SA</td>
<td>Private</td>
<td>Public / Medicare benefit</td>
</tr>
</tbody>
</table>
### Table 12.2: Main Funding and Funding Mix for Outreach Services

<table>
<thead>
<tr>
<th>Service</th>
<th>“Main” funding</th>
<th>Funding mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychiatry, VIC</td>
<td>Public</td>
<td>Public</td>
</tr>
<tr>
<td>Surgery, WA</td>
<td>Public</td>
<td>Public</td>
</tr>
<tr>
<td>Surgery, Cairns, QLD</td>
<td>Public</td>
<td>Public</td>
</tr>
</tbody>
</table>

Apart from their main source of funding, most public outreach relies on some private funding and all private outreach relies on some public funding—by virtue of a patient’s entitlement (in most cases) to Medicare benefits and, in some cases, local authority / health service support in kind. Table 12.2 more precisely describes the pattern of funding in each of the eight services reviewed.

The funding mix traverses a continuous spectrum of sources that is likely to be broadly representative of the general outreach experience.

In the case of the public models, private funding has proved to be an important means of unlocking outreach activity. It has facilitated deployment of hospital infrastructures to cover fixed costs (rooms, equipment and doctor travel time) with variable costs charged to private fees—in turn covered by Medicare benefit. In most cases, fees are marked at 85% of the Schedule Fee and bulk billed. The contractual arrangements of most publicly employed specialists are structured to allow fees collected to be treated as their private practice income. In a few instances, fees may be assigned back to the public system (eg for academics employed by the Menzies School in Darwin). The public / private mix may well offer an effective set of financial incentives which are material to recruiting specialists into outreach. Outreach specialists working under such arrangements allowed that their workloads and private practice incomes were substantially greater than those of their counterparts in metropolitan practise (Chapter 7). Public / private mixes are also congenial to State and Territory Health Departments because it allows them to shift the marginal cost of outreach onto the Commonwealth.

We do not, however, subscribe to the view that a public / private mix is necessarily an optimal approach. For example, there is usually no financial provision for registrars to undertake hospital based outreach work as part of their training curriculum. There is also no provision for service coordination, both at service bases and on the ground at destination host sites. Inefficiencies and confusions associated with lack of an experienced nurse coordinator were especially apparent in the case of the Northern Territory Top End (Chapter 3). Whilst the current arrangements may have ‘lubricated’ the public system, they appear to have been insinuated into the system, simply because there is no proper provision for outreach work in the Commonwealth Public Hospital Agreements. A superior approach to a fee for service ‘add back’ might be to earmark Commonwealth funding specifically for hospital-based outreach services.

We suggest that Commonwealth State / Territory Hospital Agreements should take into consideration the outreach work undertaken by public hospital systems and include specific provision for funding the co-ordination costs and variable, face to face costs associated with delivery of specialist outreach services in public models.

In private outreach services, specialists directly bill patients at fees set from 20% to 60% above Medicare Schedule Fees. The capacity to sustain charges conspicuously in excess of the Schedule Fees is an indication that patient demand significantly exceeds supply. Cancelled appointments, for instance, can always be backfilled from patients on waiting lists for appointments. The opportunity cost of a specialist’s time on outreach is hence at a premium and significantly higher at the margin than in public / private mix models. This may be understandable because in part it amortises the cost of a private outreach specialist’s travelling time. It also needs to cover the costs of coordination...
which in private models by default tends to fall back on the practice nurse/manager of the base practice (as discussed in Chapter 10).

Although the underlying philosophy of predominantly privately funded models differs markedly from public/private models, private services perform a role in catering for specific types of rural need and are appealing to host site health authorities. Local health services may ‘offer’ or promote private outreach specialist services by providing support in kind by way of local consulting rooms and reception support. This is then construed as a ‘low cost’ form of ‘local ownership’ over a specialist service. It may even be interpreted as a justification by health authorities for relieving themselves of responsibility for developing their own systematic approach to outreach service delivery. In this respect, a predominantly private service has the corollary of cost shifting onto Medicare and patients themselves who directly bear the costs of billing in excess of Schedule Fees.

The business implications of high opportunity cost private outreach activity are that specialists seek to optimise the amount of patient billing time. The impact of this is twofold:

first, it discourages travel where the opportunity cost of time travelling exceeds a satisfactory net practice income return at the destination outreach site. This has the general effect of limiting travel time, whether by motor vehicle or aeroplane, to between one to two hours. In public/private outreach models, on the other hand, travel of three to four hours is common; in public models travel time may be as much as a day. Travel time constraints accordingly limit the geographic distribution of private outreach models to smaller states such Victoria and Tasmania or to areas of relative population density, such as rural NSW, that can support higher patient loads at outreach destinations.

second, it discourages specialists from setting aside time for general practitioner and other health worker competency development. Those specialists who can successfully combine billing work time with opportunities to up-skill others do best in building local capacity.

It might be that MSOAP funding criteria could be reassessed. In so far as they currently favour new specialist outreach services to support travel and training time, these provisions could be extended to newly established services and also include a condition for coordination.

**Quality care**

A key consideration is that in the absence of a specialist outreach service, rural consumers may delay presentation of health problems until they become critical. There hence may be a temptation to trade some reduction in standards against the benefit of at least securing a service in place. All stakeholders argue that this compromises the choice of rural and remote populations and offers them a ‘second rate’ service.

Figure 12.4 below provides a summary checklist, constructed from all stakeholder consultations, against which a service may be assessed for clinical effectiveness and appropriateness.
Figure 12.4: Criteria for assessing clinical effectiveness of a specialist outreach service

<table>
<thead>
<tr>
<th>Delivery personnel professionally appropriate</th>
</tr>
</thead>
<tbody>
<tr>
<td>• qualifications</td>
</tr>
<tr>
<td>• experience</td>
</tr>
<tr>
<td>• style, attitude, motivation, philosophy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Patients appropriately pre-selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>• clinical screening</td>
</tr>
<tr>
<td>• guidelines adopted</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Services delivered supported by appropriate infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>• local professionals</td>
</tr>
<tr>
<td>• physical</td>
</tr>
<tr>
<td>• technical</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Follow-up support adequate</th>
</tr>
</thead>
<tbody>
<tr>
<td>• after care available at host outreach site</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Results assessed and documented</th>
</tr>
</thead>
<tbody>
<tr>
<td>• hard data</td>
</tr>
<tr>
<td>• professional opinion</td>
</tr>
<tr>
<td>• patient opinion</td>
</tr>
</tbody>
</table>

Ideally, to maintain quality standards, an outreach clinical effectiveness tool with appropriate benchmark standards should be constructed, taking into consideration relevant criteria. Further, all publicly funded specialist outreach services should be required to be audited regularly against the benchmark tool.

Outreach services are never systemically audited for quality. In the case of the RSS, for instance, the central office of the health authority funds the service but expects local outreach hosts to monitor service performance and outcomes—for which they do not collect or keep the appropriate records. By default, the outreach service is the only party in a position to monitor its own performance, a circumstance not all that different from other outreach sites. As a first step to providing the foundation for proper evidence as to rural specialist outreach effectiveness, all medical specialist outreach services should be encouraged to keep their records in some accessible and consistent format.

A useful model to emulate might be the Chronic Disease Register which is now being adopted as an on-line tool for physician services in the Top End of the NT (Chapter 3). This has the potential to develop as a “virtual outreach model”, with a capacity for systematic review and audit of activity in the field. The data collected by the RSS in WA and the evaluation methods used might also be worth examining.

**Community ‘ownership’**

There is modest evidence of an emerging community activism in asserting ownership of specialist outreach services. To date, however, the occasional GP or DMO voice represents the highest expression of this activism in articulating a ‘community’ point of view. Apart from community controlled Aboriginal Health Services and Northern Territory Regional Health Boards, no local or
community funded (fundholder) models of specialist outreach have yet emerged—and none along lines suggested by Gadiel and Ridoutt (1995). Division of General Practice ‘ownership’ models have not materialised, and are now in any case out of favour with most specialist College stakeholders.

Local government or other appropriate local ownership models could be be explored to create opportunities for consumers to exert some control over the type, range and quality of specialist outreach services delivered in their community.

**Building service capacity**

There are some singular examples of the painstaking work of outreach specialists at the grass roots level in building up local capacity and competence. The work of a public system vascular surgeon in developing and transferring a pilot preventive strategy for ischaemic foot in Mossman, north of Cairns, is a case in point. As related in Chapter 8, the package consists of special pre-emptive clinics for foot care, in conjunction with patient education programs, protocols and workshops for nurses and Aboriginal health workers. The beneficiary of these arrangements has predominantly been the Aboriginal community. The outcome has been a small, but effective reduction in limb loss and hospital admissions for diabetic patients.

The consultant encountered few such examples of where outreach specialists had devoted themselves to human infrastructure projects outside the immediate scope of their disciplines. Almost all stakeholders canvassed during this study, however, argued for resources and processes to be devoted to building infrastructure capacity of specialist outreach services.

Such arguments generally translate into increases in the quantity and quality of training, principally for general practitioners—but also for others, including operating theatre nurses, specialist nurses (eg in mental health, aged care, etc), allied health workers and others in specialised roles (eg diabetes educators).

The eight outreach case studies reveal little evidence of systematic pursuit of training objectives—at least for general practitioners. At best, GPs seem able to access incidental learning opportunities, by assisting or observing procedures, by discussing particular cases ‘over a cup of coffee’, or by discussing particularly difficult cases over the telephone. One may claim that because these three modes of learning in combination are built around real problems and incidents of everyday practice, they represent ideal platforms on which to build useful role competence. These incidental learning opportunities nevertheless appear to be sparse.

The lost opportunities are in part a product of the piecemeal and default manner in which specialist outreach has evolved. Specialists and GPs alike are captives of the peculiarities of an outreach ‘market’ environment in which they tend to respond to its associated pressures. As we have remarked above, private specialists in particular are obliged to optimise the use of their chargeable time whilst on outreach. There are, too, such heavy demands on the time of all health personnel in rural and remote Australia—whether resident GPs, experienced nurses or allied health workers or any visiting specialists—that formal systems are often placed under exceptional stress. This often means that GPs and specialists alike tend to concentrate on their own informal and ephemeral priorities. Immediate exigencies hence sap and undermine the will to attend to the indisputable axiom that specialist outreach must leave something more behind than a completed surgical or clinic list.

GPs, on the other hand, need willingly to respond to opportunities to acquire skills. They need them to enhance not only the capacity of local resources when a specialist is not available, but also the
efficiency of specialist labour when it is available. (Referrals, for example, require effective ‘work up’ with meaningful case notes).

In so far as GPs and specialists alike may tend to behave the way they are rewarded to behave, we believe that they should be encouraged by financial discipline to cooperate to their mutual benefit and that of outreach communities they serve. This would imply that:

- all publicly funded outreach services, as a condition of funding, should be obliged to develop, maintain and report on the observance of agreed capacity building plans for each outreach site; and
- designated human resource development consultancy support is offered to outreach services to design and implement capacity building plans (including operational training plans that optimise the use of learning resources).

**Sustainability**

By definition, outreach services are found in needy rural and remote settings where resident services cannot be attracted or justified or where—even if they could be attracted—it would be impractical to maintain them. Without outreach policies and intervention, such localities would be as unattractive to outreach services as to resident services.

The key decision criteria that are likely to contribute to influence the germination of a specialist outreach service were summarised earlier in Figure 12.2. These were necessary minimum conditions. They could, for example be introduced, to transform an inimical prospect for specialist services into a serious outreach candidate. Given a societal ‘willingness to pay’ for new services in such candidate sites (either by way of public funding, or a mixture of public and self funding), what is it that differentiates a service that commences and falters, from one that survives over a period of years? Is ‘survival’ equivalent to sustainability?

A theory of sustainability is likely to be associated with notions of *continuity* in conjunction with developing *strength*. Continuity with strength is a significant hurdle. Each of the eight specialist outreach services reviewed in this study, for instance, has at least a five-year experience of uninterrupted operations—some much longer. By any reasonable assessment, these services could claim to have met the longevity test. And yet, doubts as to the sustainability of each service are still being raised.

Table 12.3 summarises the main strengths and weaknesses of the services reviewed.

<table>
<thead>
<tr>
<th>Service</th>
<th>Main strength</th>
<th>Main weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermatology, North Coast, NSW</td>
<td>Specialist a service champion</td>
<td>Lack of succession plan</td>
</tr>
<tr>
<td>Endocrinology and other services, NT</td>
<td>Pervasive altruistic commitment</td>
<td>Funding at service base; specialist burn out; operational difficulties at host sites</td>
</tr>
<tr>
<td>Obstetrics &amp; Gynaecology, Warrnambool, VIC</td>
<td>Specialist a service champion</td>
<td>Competing services could affect viability</td>
</tr>
<tr>
<td>Internal Medicine &amp; Endoscopy, Wangaratta, VIC</td>
<td>Specialist a service champion</td>
<td>Lack of succession plan</td>
</tr>
<tr>
<td>Paediatrics, Port Augusta, SA</td>
<td>Specialist a service champion</td>
<td>Lack of succession plan</td>
</tr>
<tr>
<td>Service</td>
<td>Main strength</td>
<td>Main weaknesses</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Psychiatry, VIC</td>
<td>Specialist a service champion</td>
<td>Lack of succession plan</td>
</tr>
<tr>
<td>Surgery, WA</td>
<td>Specialist a service champion</td>
<td>Funding at service base; lack of succession plan</td>
</tr>
<tr>
<td>Surgery, Cairns, QLD</td>
<td>Pervasive altruistic commitment</td>
<td>Funding at service base; shortcomings in service design</td>
</tr>
</tbody>
</table>

In two predominantly publicly funded sites, the main strength appears to be a collective ideological commitment to altruism; at the six other sites, there is a recurring pattern of dependence on one or two individual specialists who are ardent proponents of the outreach cause. In the case of private services, this may be motivated largely by a business stake in the service. In the case of public system and public / private service mixes, the motivation has more to do with individual ideological advocacy, but in some cases there is a financial motivation. The “X Factor” associated with serendipitous phenomena can also be important (but not necessarily in the subject sites).

The principal influence of a service champion on outreach sustainability is also its main vulnerability: without clear succession plans, outreach services remain fragile. We believe that many health authorities take specialist outreach services for granted and underestimate or choose to ignore the risk associated with a high level of dependence on single key players.

As a general outreach risk management strategy we would suggest that health authorities undertake a search for motivated specialists to develop a Register of possible future ‘succession’ outreach service providers, managers, advocates, etc. They might then provide all outreach services with consultancy support to help develop succession plans. Encouraging succession planning in private models might be more problematic, however measures could include:

- incentives (along the lines of the GP practice amalgamation grants) for establishing satellite ‘outreach’ practices in rural areas
- longevity bonuses, analogous to long service benefits, to reward outreach practices that survive for say, 10 years or more. Bonus entitlements should accumulate within outreach businesses as distinct from accruing to individual specialists. Hence a longevity bonus could be written into goodwill as it accrued, and thereby benefit a new incumbent in the event of a practice sale

In three of the public system outreach services the funding is fragile (Table 12.3). This especially occurs where funded and funding stakeholders bring different organisational cultures and motivations to partnership.

Specialists who are service champions are driven individuals, convinced of the absolute and moral value of the service, and severely vexed when they might need to divert energy from service delivery to justify (or re-justify) the need for funding. On the other hand, the prevailing custom in funding organisations is likely to foster a concern about transparency in the allocation of public money (meaning a significant requirement for relative justification), and in accountability of funds acquittal. This can result in a clash of organisational and personal motivations, expectations and cultures. All too-frequently this can lead to an unnecessary breakdown in communication, with a consequent threat of withdrawal of service funding. This phenomenon is not peculiar to outreach services, but is
possibly accentuated by the high level of personal investment outreach service providers bring to their cause.

To deal with such situations, a broker-type service could be established within a suitable forum (such as RWAs) that could identify and help outreach services whose funding is at risk, to negotiate with their current (or an alternative) funding source to create mutually beneficial outcomes.

**The way forward?**

One of the purposes of the brief of this project was to the distillation of critical success factors from the experience of the eight demonstration sites to provide lessons for the future outreach services.

Other than a requirement for certain basic infrastructure needs to be satisfied (as detailed in the section above describing models of outreach service delivery), we believe that there are no universally optimal pathways to outreach solutions. Every site tells a different story. Hence the design of ‘right’ and cost effective models is likely to be highly site specific. A painstaking stocktake of site characteristics will hence suggest a unique design that is relevant to the needs of that site.

To simply throw money at need, however, can be no panacea. It will unlikely deliver a service to the recipient and may well deny a service to a more worthy candidate.

We accordingly believe that indicators of potential sites for service development should be:

- sites that are neediest in terms of the burden of untreated disease
- sites that do not have resident services, but that either possess, or can be readily equipped with the requisite infrastructure
- sites whose cause is clearly articulated by a motivated service champion—usually a specialist provider—who is at least aware of the importance of developing a succession plan.
Appendix A: Stakeholder organisation consulted

The following organisations provided responses to the stakeholder consultation questions reported in Chapter 11:

- Australian and New Zealand College of Anaesthetists
- Australian Divisions of General Practice
- Australian Rural and Remote Workforce Agencies Group
- Department of Health and Community Services, Northern Territory
- Department of Health, Western Australia
- Department of Human Services, Victoria
- Health Consumers of Rural & Remote Australia Inc.
- National Rural Health Alliance
- NSW Health
- Queensland Health
- Royal Australasian College of Physicians
- Royal Australasian College of Surgeons
- Royal Australian and New Zealand College of Obstetricians and Gynaecologists
- Royal Australian and New Zealand College of Ophthalmologists
- Support Scheme for Rural Specialists
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