



General Practice Hospital Integration Issues in Rural and Remote Australia

Summary of Findings

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ACRONYMS

ABS	Australian Bureau of Statistics
ADGP	Australian Divisions of General Practice
AHW	Aboriginal Health Worker
AIHW	Australian Institute of Health and Welfare
AMS	Aboriginal Medical Service
ATSI	Aboriginal or Torres Strait Islander
DGP	Division of General Practice
DoHA	Australian Government Department of Health and Ageing
EPC	Enhanced Primary Care
GP	General Practitioner or General Practice
GPLO	General Practice Liaison Officer
MPS	Multipurpose Service
NHMD	National Hospital Morbidity Database
PATS	Patient Assistance Transport Scheme
RFDS	Royal Flying Doctor Service
RLO	Rural Liaison Officer
RRMA	Rural, Remote and Metropolitan Areas
SBO	State Based Organisation of the Divisions of General Practice
SLA	Statistical Local Area
WHO	World Health Organization

EXECUTIVE SUMMARY

This is a summary of a project commissioned by the Australian Government Department of Health and Ageing to examine the integration of services for people from small rural and remote communities (RRMA 5-7) who travel away from their community and primary health care provider to a distant regional (RRMA 3) or metropolitan (RRMA 1-2) hospital to receive the acute care that they need.

The aim of this report is to inform the development of an evidence base which will assist in identifying successful and sustainable strategies in the delivery of integrated care to people living in rural and remote areas whose medical treatment requires admission to a hospital in a regional centre or a metropolitan area.

The project involved the preparation of a comprehensive literature review, seven case studies investigating the experience of patients from rural and remote communities who were admitted to a distant regional or metropolitan hospital, an analysis of the Australian Institute of Health and Welfare's National Hospital Morbidity Database for 2002-03, and consultation with stakeholders.

Examining the national database, we found that while almost one half of all hospital admissions for people from small rural and remote communities were to a regional or metropolitan hospital, this actually accounted for only a small proportion (nine per cent) of metropolitan hospitals' patient population. This means that improving policies and processes for this part of the patient population may not be a high priority for metropolitan hospitals and may require external drivers.

Metropolitan and regional hospital staff were aware that hospital systems were not always targeted to the needs of patients from small rural and remote communities. However, they expressed a sense of individual powerlessness to be able to change the situation. This highlights the need to develop a framework for changing the system as a whole, rather than relying on individuals to champion and implement change at a local level.

Health professionals identified some strategies which they felt could reduce transfers of rural and remote patients to regional and metropolitan hospitals. These strategies centred around support for clinical decisions and the provision of services directly to the patient through telehealth. However, a number of barriers were identified to telehealth implementation, particularly amongst hospital staff, which will need to be overcome with the provision of appropriate incentives and infrastructure.

We found that there was general consensus amongst health professionals that regional and metropolitan staff were unaware of the services available in individual rural and remote communities, and that this information was required for effective discharge planning, particularly for rural and remote patients with chronic conditions. It was thought that an understanding of general issues for rural and remote patients would be improved through the compulsory rural training that all medical students undertake in Australia (though overseas trained doctors will not have this experience and may lack any understanding of non metropolitan Australia). Consideration of such issues during discharge planning was facilitated in some hospitals where a rural 'flag' was placed on a patient's file to ensure staff took the patient's rural or remote residency into account in care planning. Some patients were also transferred from the metropolitan hospital to a small rural hospital, close to the patient's home, to ensure that local services were organised for the patient by people who have a good knowledge of the patient's local services.

Communication between the two sectors was recognised one of the most difficult processes in integration, particularly for rural and remote patients and their primary health care providers. However, some jurisdictions had implemented databases of GPs and hospital staff which assisted identifying and contacting other health professionals. Discharge communication proved problematic in many areas with some hospitals still using systems that required handwriting and ordinary postage of discharge summaries. Privacy of patient information was also identified as a barrier to effective communication with the hospital and primary health care sectors governed under state and federal legislation respectively and many health professionals using a 'best guess' of their obligations due to a poor understanding of the requirements of the privacy legislation.

Hospitals at a number of case study sites had invested in personnel to assist with integrating the primary health care and hospital sector's. Liaison officers were present in all case study hospitals. These officers included General Practice Liaison Officers (GPLOs), Rural Liaison Officers (RLOs) and Aboriginal Liaison Officers (ALOs). GPLOs tended to work with systems and polices, while RLOs and ALOs had more direct role in coordinating care for individual patients.

GPLOs, who were based in hospitals, had developed systems and processes to aid integration between their hospital and general practitioners. However, most of their activities around linking the two sectors focussed on *local* general practitioners. This meant that most initiatives did not involve rural primary health care providers.

An issue which was identified by the non general practitioner primary health care providers (such as bush nurses, Aboriginal Health Workers and remote area nurses) was the lack of recognition of their role as primary health care provider. This results

in professional cultures, policies and processes which allow only the exchange of patient information between medical staff. Given the shortage of general practitioners in rural areas and the increasing role for other health professionals in primary health care, changes in cultural and professional processes may need to reflect these non general practitioner primary health care models.

As well as looking at the integration of the rural and remote primary health care and the metropolitan sectors, this study looked at issues that impacted on the transition of care from the patient's point of view.

The cost of transport to hospital (for non emergency procedures) and accommodation before and after the procedures were a significant cost for many patients and their families. Most patients received a state/territory government subsidy which partly covered expenses and both patients and health professionals had a very good understanding of the subsidy schemes provided by state and territory governments. However, an issue raised by rural and remote primary health care providers was around the rules governing travel subsidy schemes that may force a patient to see the geographically closest specialist, though this may compromise the patient's continuity of care and prove difficult due to public transport constraints.

The quality of accommodation for patients and their families was raised by many patients as an issue. Patients felt that most hospital accommodation that they utilised was of poor quality and patients from some case studies reported that they felt unsafe. Some hospitals provided higher quality hotel style accommodation on the hospital grounds (in partnership with private providers) which some hospital staff thought may impact on the length of stays for rural and remote patients, as hospital staff may be more likely to discharge patients in the knowledge that they will be staying near health services

The Aboriginal and Torres Strait Islander patients who participated in this study reported a higher level of assistance and organisation of their transition of care than non Aboriginal participants. A distinct difference in the two groups was that the Aboriginal patients were provided with a lot of information and assistance from the primary health care sector (through the Aboriginal Medical Services). Non Aboriginal patients received very little information from the primary health care sector.

The findings of the study inform a number of general conclusions about critical success factors to improve the integration of the rural and remote primary health and the regional and metropolitan hospital sectors:

- Leadership – the need for a systemic focus on this issue at a more strategic state or national level;

- Incentives – structural changes to ensure that any new policies are implemented and become part of the normal way of working;
- Evidence – ensuring that there is a base to inform the development of best practice guidelines taking into account health outcomes and costs; and
- Infrastructure – ensuring that changes in policies and processes are easily implemented and seen as assisting in health care, rather than as additional red tape for health professionals.

1 INTRODUCTION

This report is a summary of the ‘General Practice / Hospital Integration in Rural and Remote Australia’ project. This report was commissioned by the Australian Government Department of Health and Ageing (DoHA) and is one of a series of studies examining the integration of the primary health care and hospital sectors.

This report is specifically concerned with the issues of integration of services for people from small rural and remote communities¹ who travel away from their primary health care provider to a distant hospital to receive the acute care that they need. This report has taken a patient-centric point of view, to explore the impact of integration on the patient’s experience.

The aim of this report is to inform the development of an evidence base which will assist in identifying successful and sustainable strategies in the delivery of integrated care to people living in rural and remote areas whose medical treatment requires admission to a hospital in a regional centre or a metropolitan area. The project involved the preparation of a comprehensive literature review, seven case studies examining patients from rural and remote communities who were admitted to a distant regional or metropolitan hospital, and consultation with stakeholders.

While the commissioned project is called General Practice/Hospital Integration, the project is equally concerned with integration between hospitals and non General Practitioner (GP) primary health care providers (e.g. Remote Area Nurses, Aboriginal Health Workers and Bush Nurses) as with GPs (General Practitioners).

Various drivers and barriers to integration influence the way health services are provided. For example, health services are funded and organised by various levels of government and across departments. This situation has led to some difficulties in the primary health care and hospital sectors working together to provide the best patient care possible and has produced inefficiency through overlap and gaps.

Integration of services aims to overcome these barriers and aim for the most efficient use of resources to improve health care delivery. The definition of integration used by the World Health Organisation (WHO) is “bringing together common functions

¹ The Rural, Remote and Metropolitan Areas (RRMA) classification is used in this report to describe rurality. The RRMA classification organises Statistical Local Areas (SLA) into seven categories; two metropolitan, three rural and two remote areas (see Table 1). Classification is based on the SLA distance to a centre with a population of 10,000 or more people as well as a measure of the population density in the SLA. In this report, RRMA 1-2 is a metropolitan area, RRMA 3 is a regional area, RRMA 4 is a rural area, RRMA 5 is a small rural area and RRMA 6-7 is a remote area [1].

within and between organisations to solve common problems, developing commitment to a shared vision and goals and using common technologies and resources to achieve these goals”[2].

A number of initiatives have been supported to investigate and facilitate improved General Practice/Hospital integration amongst the Australian population including the National Demonstration Hospitals Program [3] and the General Practice Hospital Integration program [4] with expertise in the area established by the Centre for General Practice Integration Studies at the University of New South Wales and the University of Queensland’s Centre for General Practice and Primary Health Care Integration. In addition, the focus of the National Demonstration Hospitals Program Phase 3 (NDHP 3) was on processes to integrate health services [5].

This report aims to complement this work with a focus on integration for rural health service integration. This is an important element as rural Australians must traverse both these barriers in order to access hospital services which are only available in a distant location to their home.

2 *PROJECT METHOD*

The project involved the preparation of a comprehensive literature review, seven case studies and consultation with stakeholders in the integration and rural health fields.

Case studies were undertaken to provide data on the transition of care from the patient's point of view: that is, the patient's journey from their community and the care of their usual primary health care provider to a distant hospital and back. Each case study consisted of a rural or remote community (RRMA 5-7) and a distant regional or metropolitan hospital. Seven case studies were undertaken and were concerned with people who were admitted to a distant hospital during 2003. The case studies involved:

- interviewing patients who were admitted to a specific hospital distant to their community;
- interviewing the community's primary health care providers;
- interviewing the staff in the distant metropolitan or regional hospital to which the patients were admitted; and
- reviewing the patient's medical records held by their primary health care provider and hospital.

The patients were interviewed using a structured questionnaire designed to gather information about issues including transport, accommodation and coordination of care. It should be noted that the interview process was modified for Aboriginal and Torres Strait Islander patients to ensure it was culturally appropriate such that interviews were conducted in a family group format and with information gathered using a conversational approach rather than using the questionnaire directly.

Primary health care providers from each rural community were interviewed. In addition, hospital staff from the distant large regional or metropolitan hospital were interviewed. Interviews with these health professionals focussed on how they see the system around them working, and what they identify as options for improvement.

The case studies included qualitative and quantitative data collection methods. In this way the project was able to determine specific measures of the patient's experience (eg. time taken to travel to hospital) and also ground those measures in participant's narratives of their experience and the difficulties they might have had in accessing health services.

This study also involved an examination of data from the Australian Institute of Health and Welfare's (AIHW) National Hospital Morbidity Database (NHMD) to determine where people from metropolitan, rural and remote areas were being

admitted to hospital (by RRMA category of hospital) on a national basis². Data was analysed for hospital admissions in the 2002-03 year.

In addition, discussions and consultations were undertaken with a wide variety of stakeholders in both the General Practice/Hospital Integration and the rural health fields.

² Data was not available for hospitals in South Australia and Tasmania.

3 DISCUSSION OF RESULTS

The project literature review showed that there is very little data on the effectiveness of models of General Practice / Hospital Integration and almost none in relation to General Practice / Hospital Integration taking into account the needs of rural patients who need to travel to receive care. This section provides a summary of the project results and a discussion of the implications in a national context.

3.1 CASE STUDY CHARACTERISTICS

The seven rural communities involved in the case studies were spread across five of Australia's states and territories (Northern Territory, South Australia, Tasmania, Victoria and Western Australia) and across RRMA categories (3 small rural communities (RRMA 5); and 4 remote communities (2 RRMA 6 and 2 RRMA 7)). The case studies had populations ranging from 900 people to 10,000 people with an average of 4,980. 71 staff were interviewed from 10 hospitals around Australia, 23 Primary Health Care Providers were interviewed and 89 patients participated in the study.

3.2 FRAMEWORK FOR PRESENTING THE FINDINGS

The findings of the current study will be presented using a derivation of the framework for integration developed by the Centre for General Practice Integration Studies at the University of New South Wales such that integration issues are presented under the following framework³:

- preventing the need to travel to a distant location for hospital care;
- shifting care to the most appropriate setting;
- transitions of care; and
- building better working relationships.

³ Their framework was used for the presentation of data to facilitate comparison of the findings of this report with their previous work on General Practice / Hospital Integration in the mainstream community.

3.3 PREVENTING THE NEED TO TRAVEL TO A DISTANT LOCATION FOR HOSPITAL CARE

Preventing the need for hospitalisation is desirable for all of the Australian community, both from a health outcomes and an economic point of view, given the high cost of providing hospital services.

Primary health care is generally considered as the first point of contact with the health system. Primary health concentrates on prevention, treatment and support with a focus on early detection and illness prevention services. Good primary care can improve their health status and prevent complications by preventing complications that require hospitalisation [6, 7] but chronically ill people frequently have comorbidities and socio-economic problems and require close management. We already know that people from rural and remote communities access primary health care services at a much lower rate than their urban counterparts and that there is a shortage of general practitioners [8].

Initiatives promoting affordable, quality primary health care in rural areas may contribute to an improvement in the health of our rural population and decrease the need for hospitalisations. Notwithstanding a greater investment in quality primary health care and hospital care in rural areas, a number of other initiatives may be able to prevent rural and remote Australians needing to travel to receive acute health care services. This section will specifically discuss findings and implications around preventing rural and remote Australians from having to *travel* to receive hospital care.

An examination of 2002-03 data from the AIHW's NHMD showed that almost half (47 per cent) of all people from small rural and remote communities (RRMA 5-7) who needed hospital care, accessed that care from a hospital located in a large regional or metropolitan area (RRMA 1-3). Of the 47 per cent of Australians who resided in a small rural or remote community who were admitted to a metropolitan or rural hospital, more than one half (58 per cent) were admitted to a metropolitan hospital with the remaining admitted to a large regional hospital. The nature of the RRMA classification means that in all likelihood, a significant distance was involved in many of these 47 per cent of admissions. Indeed, patients from our case studies travelled up to 1,000 km by road with the average reported time taken to get to hospital being six hours.

An examination of the data to determine the percentage of patients from rural areas who were admitted to hospitals, as a percent of all patients, showed that nine per cent of all admissions to regional and metropolitan hospitals were for patients that lived in a small rural or remote community. However, there was a marked difference in the admissions profile between the regional and metropolitan hospitals. More than one

third (34 per cent) of admissions to regional hospitals were patients from a small rural or remote area while only six per cent of all admissions to metropolitan hospitals were for patients from a small rural or remote area.

However, the patient profile of individual hospitals varies. For example, a metropolitan hospital in a state with a very sparse and/or dispersed population and a low level of hospital infrastructure in rural areas, will most likely have a significantly higher proportion of people from the state's small rural and remote areas.

The high proportion of people from small rural and remote communities needing to travel to another area for hospital care may be due to a number of factors including the increasing specialisation of health care (and the concentration of specialists in metropolitan areas) and the reduction of hospital services (eg. obstetrics) that are being provided in rural and remote areas.

There are actually more public hospital beds (per capita) in rural areas than in metropolitan areas [12]. This may be due, at least in part, to shortages of appropriate aged care accommodation in rural areas so that many of these hospital beds may be used to provide aged care services.

It is known that there are differentials in treatment practiced by city and rural hospitals [13]. Consequently, many acute procedures are only undertaken in large urban hospitals [14] making it necessary for people from rural areas to travel large distances away from their primary health care provider to receive the care they require. For example specialist services such as orthopaedics and surgery are being reduced at rural hospitals.

This report will not explore these issues, suffice to say that the reduction in hospital services provided within rural communities has led to a transfer of costs from the public purse to the private rural resident's pocket, given that a significant amount of direct and indirect costs (including transport) are borne by people in rural and remote areas, though somewhat subsidised by State and Territory governments through their travel subsidy schemes (see 3.5.2.1). The impact by the reduction in health services for rural areas on the Australian economy, taking into account productivity lost by rural residents and their families when they leave their communities to seek care is unknown.

In addition to possible economic impacts of rural and remote patients having to travel to a distant hospital to receive care, there is evidence that rural and remote Australians may choose less than best practice treatments because of the difficulties in accessing hospital services [15]. These personal health care decisions have been attributed to a variety of factors including difficulties leaving the family, work and community for

continuous or repetitive treatments [16] and may account for the higher mortality rates seen for some conditions in rural populations [17].

Notwithstanding a greater investment in quality primary health care and hospital care in rural areas, a number of other initiatives may be able to prevent rural and remote Australians needing to travel to receive acute health care services.

3.3.1 Utilising Telehealth to Prevent the Need for Travel

The use of telehealth⁴ may be useful in reducing the costs to health services and patients of transfers of patients out of their community to a distant hospital. Health professionals interviewed for this study reported that they believed telehealth may be able to assist by:

- Preventing inappropriate referrals and transfers by providing specialist advice to the rural primary health care provider;
- Providing real time support to rural primary health care providers to enable them to undertake supervised, complicated procedures; and
- Enabling patients to access specialised services such as psychiatry without having to travel for care.

Our study found that rural primary health care providers who worked in small rural hospitals felt that if they could easily access timely advice from medical specialists, unnecessary transfers (and the accompanying costs) would be reduced. Indeed, this type of intervention has been shown to reduce costs. A Queensland study found a 40 per cent reduction in patient transfers through the use of telepsychiatry for remote communities with financial savings evident within the first 12 months of use [18]. In addition, consultations between a hospital based physician and a remote nurse practitioner reduced the level of referral to hospital when compared to telephone consultations [19].

Therefore, it is likely that communities with small rural hospitals are likely to be the most keen to utilise telehealth if patient transfers can be prevented as they often bear the cost of transferring patients to larger regional or metropolitan hospitals. Patients from small rural communities without hospitals either bear the cost privately or may utilise emergency transport such as the Royal Flying Doctor Service, so there is little *financial* incentive for a local organisation to invest in telehealth in this situation.

As desirable as telehealth may be for comprehensively assessing patients in order to prevent patient transfers, health professionals in the metropolitan hospital sector

⁴ Telehealth, for the purposes of this report, is defined as the use of information and communication technology to provide and support health care when distance separates the participants.

reported that they were concerned that telehealth would add to their workload such that they would be seeing their original cohort of patients, while also having to service another group of patients who were based in rural and remote areas, without an increase in funding and resources. So, while telehealth may be beneficial for rural patients and rural primary health care providers, the impacts on the metropolitan health professionals is an important factor to be considered in any implementation.

Rural primary health care providers interviewed for this study reported that they were keen to take on more of the procedural follow up care for patients who had been discharged from a distant hospital. Some described the benefits of working with the hospital staff to do complex procedures (being supervised by a specialist who talked them through the procedure via telephone) which provided local services to the patients and gave the rural primary health care providers a feeling of being part of a health care team. The sense of team and the networks that can be built between the acute and primary health care sectors, and the metropolitan and rural health professionals can be beneficial to the patient and to the health professionals.

Shifting follow up care from the acute health care to the primary health care sector can also be assisted through telehealth so that a hospital specialist assists a rural primary health care provider to assess and/or treat a patient online. This is particularly useful for patients utilising psychiatric services.

Despite many health professionals identifying the potential usefulness of telehealth in preventing the need for some rural patients having to travel to a distant hospital for care, our study also found that health professionals were fairly sceptical when it came to telehealth and were confused about how telehealth would fit into the way they currently practice health care. There was a perception that health professionals need to be flexible in their time management to enable them to respond to emergency and urgent situations, which are characteristic of their practice and that this is contrary to the organisation needed for telehealth consultations. This was especially the case in remote areas where a primary health care provider may be the sole provider of health services to the community. To enable patients and two sets of health personnel at two locations to come together at the one time was seen as near impossible logistically.

Factors that were seen to be necessary for successful utilisation of telehealth included a change in the usual practice of how patients and two sets of health professionals would come together, given the unpredictable nature of health care (especially timetabling). This requires the trial of some models of how this can be achieved and then a cultural shift amongst health professionals to incorporate any changes.

Another factor that was seen as integral to the success of telehealth initiatives by health professionals in this study was an investment in adequate infrastructure. Such

infrastructure not only includes reliable, easy to use equipment, but also support personnel that would assist health professionals to utilise the equipment. It was seen as imperative that health professionals not be required to become telehealth experts as this would take them away from their valuable clinical care and dissuade them from using the equipment. One case study explained that this had been their experience of telehealth and due to the lack of support and infrastructure, it was no longer being used, as the clinicians did not have time to sort out the equipment.

While this report did not include any case studies where patients crossed state border, it would also appear to be imperative that any consideration of telehealth infrastructure is able to cross jurisdictions. Rural and remote patients who live near state borders have the right to access health services across a state border and many patients do move across state borders to access hospital services (eg. northern New South Wales residents tend to travel to Brisbane for hospital care). The development of telehealth needs to not repeat the ‘railway gauge’ problem such that systems will not be able to ‘talk’ to each other. Therefore, there needs to be a cooperative, national approach to the implementation of telehealth.

Mainstreaming telehealth into the health system could have significant impacts on both the acute and the primary health care sectors but incentives may need to be provided in order to ensure successful implementation. The incentives may need to be external in the first instance as there has not been enough research and evaluation to make the case for savings to be made to local health service budgets. For example, if the case for cost savings and health improvements is able to be established, a regional hospital may be willing to invest in infrastructure and personnel in a metropolitan hospital, in order to save the number of patients that they are required to transfer to that hospital – and the concomitant costs.

3.4 SHIFTING CARE TO THE MOST APPROPRIATE SETTING

This section considers issues around appropriate shifting of the provision of health care from the hospital sector to the primary health care sector. Allowing care to be provided in the rural or remote patient’s community by the patient’s usual primary health care provider may lead to savings for the patient, the health budget and to the Australian economy as a whole.

3.4.1 *Preadmission Testing*

Most patients undergo preadmission tests to either ensure that they are fit for a procedure or to determine information that the hospital staff will require for the

procedure. Generally, large hospitals have preadmission clinics which provide a 'one stop shop' for this testing to occur.

This study asked both rural primary health care providers and regional and metropolitan hospital staff about the possibility of shifting preadmission testing from the hospital sector to the primary health care sector. There was little agreement over where preadmission testing could and should take place. It was thought that some preadmission testing could be done in the patient's community to save patients travelling to a distant hospital and then being unprepared for their procedure. Rural and remote patients in this study very rarely had their hospital admission rescheduled or cancelled, however previous studies have examined the significant impact that cancellation of appointments and admissions can have on rural patients [20].

3.4.2 *Follow Up Care*

Our study found that just under one half of all rural and remote patients who were admitted to a distant hospital reported that they required follow up health care services. Hospitals are required to provide free outpatient services, and these are supplied on a per capita rate at six times as often as inpatient services [14] and so account for a considerable amount of hospital funding. However, accessing the free outpatient services provided by the hospital they were admitted to, requires rural and remote Australians to travel back for those services. In addition, a lower proportion of rural and remote Australians have private health insurance, when compared to their urban counterparts and those who have insurance make fewer claims [21]. This has implications on access to affordable allied health and other services which may be necessary after a visit to hospital.

Of the patients examined in this study who required follow up care, 37 per cent were able to access the services in their local community, the remaining 63 per cent travelled to a neighbouring town or back to the regional or metropolitan hospital.

Rural and remote primary health care providers also reported that their patients were often required to travel back to the distant hospital that they were admitted to for follow up care that they felt could have been provided by them in the patient's community. This seemed to be a source of great frustration to some primary health care providers. Regional and metropolitan hospital staff were aware of this issue and recognised that rural and remote patients were often automatically asked to return to the hospital for follow up care when this was not necessary, given the travel required. Some hospital staff described the development of a system to 'flag' rural patient's files so that rurality was considered in the discharge recommendations. This, combined with knowledge of the needs of rural communities could lead to services being provided in a more appropriate setting for the patient.

Primary health care providers reported that they believed that there may be a perception amongst metropolitan and regional hospital staff that rural primary health care providers do not have the skill level to be able to provide follow up care to patients, failing to recognise the significant procedural skills inherent in rural primary health care. A number of organisations, such as the Rural Doctors Association of Australia are actively working to dispel this perception. In addition, the requirement that all medical students undertake a placement in a rural area may ensure that graduating medical professionals are aware of the complex nature of rural general practice and the high skill level amongst this group.

3.4.2.1 Step Down

Step down health services can be described as a layer in between the hospital sector and the patient's home. In this instance, step down health care is where a rural or remote patient is transferred from the metropolitan or regional hospital to a small rural hospital to receive step down health care, before returning home.

Metropolitan hospital staff interviewed for this study described keeping rural and remote patients in hospital longer than they would if those patients lived locally. Reasons given for this behaviour included the belief that the rural patient may not have follow-up health services in their small rural or remote community (such as physiotherapy) or that they may have an adverse event during their travel. It has previously been established that patients from a rural area have a longer length of stay [22].

Almost all patients in the current study were discharged to their home. A small minority of patients were discharged from a metropolitan hospital to a small rural hospital. These people were predominantly from a RRMA 5 community with a Multipurpose Service. The Multipurpose Service actively promotes itself as a 'step down' service for rural patients and metropolitan hospital staff described how they would discharge a patient to the rural hospital in order to ensure that the patient would be linked in to community services. Therefore, although a patient may not be medically required to be in hospital, they would be transferred to a rural hospital so that follow up care would be put in place. This transfer may be invaluable in releasing resources from a metropolitan hospital and utilising the rural infrastructure to benefit the rural patient, although further investigation may be warranted to examine this as an efficient model of health care.

3.5 TRANSITIONS OF CARE

Issues around the transition of patient care from the primary health care sector to the hospital sector are compounded for the patient whose primary health care is provided in a rural or remote community. These specialised problems require specialised solutions.

3.5.1 *Hospital Based Liaison Officers*

This study found that all participating metropolitan hospitals had dedicated liaison officers who either worked across the whole patient population or focussed on specific population groups.

Most hospitals had General Practice Liaison Officers (GPLO) whose role was focussed on building relationships between the hospital sector and GPs. Their role did not involve directly liaising between GPs and hospital staff on behalf of individual patients.

The GPLOs were funded by hospitals or by Divisions of General Practice (DGP) or a mix of the two. The GPLOs mainly worked at the local level and focused their efforts on integrating the needs of local GPs and their patients into the hospital network (this was particularly the case when the local DGP funded the position). This meant that distant GPs, including rural and remote practitioners, whose patients travelled to attend the hospital, were generally not included in such networking. Given this finding, it may be useful for SBOs to take a more active role in networking and advocating for GPs (and their patients) in the hospital system, so that distant rural and remote GPs and their patients are included. The GPLO network has been an excellent initiative and is good vehicle for implementing many of the ideas discussed in this report. However, it may be beneficial for the approach to be broadened to include rural GPs and their patients.

Aboriginal Hospital Liaison Officers have also become a well established part of the Australian health system and were present in all hospitals involved in this study. The Aboriginal Hospital Liaison Officers described themselves as providing support and assistance to Aboriginal and Torres Strait Islander patients and families to help them feel comfortable and culturally safe during their treatment. They reported that they help patients communicate with health care professionals, government agencies and other services while they are in hospital.

The overall coordination of services reported by Aboriginal and Torres Strait Islander patients involved in this study was comprehensive and was organised mainly through the primary health care sector (through Aboriginal Medical Services). Many patients

had all of their transport and accommodation organised, including transport from the airport to the hospital. This is in contrast to the non Aboriginal primary health care sector which had a minimal role in the transition of care – patients were expected to arrange their own transport and accommodation with some assistance by hospital based support staff such as social workers. It may be that assistance with the transition of care is more efficiently coordinated from the primary health care sector, before the patient leaves their community.

The role of specific Rural Liaison Officers (RLO) was also examined as part of this study. The service has been established in some hospitals to specifically deal with issues for rural primary health care providers and their patients. The RLOs role included assisting with rural patient discharge planning, transport issues and assisting with contacting community services that they will require on discharge. The RLO also acted as a liaison person for country GPs and hospitals who wanted to find out information out about rural patients. This person was supported by having a ‘rural flag’ on the patient’s record so that rural patients were easily identified and could be targeted by the RLO. However, these people generally liaised on behalf of the patient. Their role was not necessarily to liaise between the rural and metropolitan service providers directly although the RLO did establish systems, policies and processes to facilitate an improved transition of care for the rural patient.

3.5.2 *Accessing a Distant Hospital*

An important part of the transition of care for the rural patient is the process of accessing the required health care service.

3.5.2.1 Getting to Hospital

The need to travel is a fact of life for many people living in rural and remote areas. Some rural and remote patients reported that travelling away from their community and family to a distant hospital was a frightening experience. For some patients interviewed, the metropolitan or regional environment was very unfamiliar and family support was not available when the family was not able to travel with the patient. This was particularly the case with the Aboriginal and Torres Strait Islander participants in this study.

Patients described the need to know about funding for transport and accommodation and parking at the hospital. Many patients involved in this study did not receive practical non-clinical information to assist in the transition of care from the rural to the metropolitan environment. While some hospital staff reported that they provided this type of information through leaflets and through websites, a number of hospitals reported that were aware that they did not inform their rural patients enough. Patients

described the stress of not having appropriate information, adding to an already stressful period in their life. This need for more information to prepare for the hospital visit has been found in studies of rural patients previously [20, 23, 24].

The majority of patients involved in the case study used a private vehicle to transport themselves to hospital. Patients from remote areas also flew by either a commercial airline or via the Royal Flying Doctor Service (RFDS). A previous Victorian study also found that private vehicles were the main form of transport [25] to city hospitals for people in rural areas. Household incomes in rural and remote areas are lower than in urban areas and petrol prices are higher [26]. In addition there is a direct association between the level of socio-economic disadvantage and distance from an urban centre [27]. This suggests that those who need to fund their own transport to access health services in the city, are the least able to do so. Indeed studies have reported the substantial financial and emotional stress that getting to hospital places on the patient and their family [20, 25, 28].

Most patients and their families involved in the case studies had significant personal outlays for transport and accommodation costs for getting to hospital. The average cost reported by patients in this study was \$64 for patients from a small rural community, \$194 for remote patients and \$880 for very remote patients⁵, although these estimates did not take into account indirect costs such as loss of income. The significant financial burden for rural patients has also been described elsewhere [29, 30].

Patient assistance transport schemes (PATS) are administered by every state government in Australia and provide financial assistance for travel and accommodation costs for patients required to travel for specialist medical treatment. Financial assistance may also be provided for an escort if the patient is under a predetermined age (usually 16). The demand for PATS funding is increasing [31] due to the increasing numbers of people living in rural areas and because of increased centralisation and specialisation of medical procedures (and the concomitant increase in patients travelling to receive care). There is potential to decrease the escalation in expenditure if more care was able to be provided locally (as discussed in section 3.3).

Although previous studies found that many patients were not aware of the financial assistance available [20, 23, 25, 28, 32], almost all patients in the current study were aware of and received funding under PATS. In addition, knowledge of the scheme across interviewed health professionals in our study was very high. Some patients

⁵ This is the average for only a small number of patients from very remote areas. For cultural sensitivity reasons, Aboriginal and Torres Strait Islander patients from very remote areas were not asked this question and indeed, reported that their travel and accommodation was mainly organised and provided for minimal cost to them.

from the small rural community case studies chose to not access PATS funding and to absorb the cost themselves as they believed the funding was better used by others.

Rural and remote primary health care providers reported that they believed that the criteria and rules of the PATS schemes were not conducive to good patient care. An issue raised consistently by patients and their primary health care providers was around the requirement for a patient to access the *nearest medical specialist* in order to be eligible for PATS. Study participants reported that this criteria caused significant inconvenience to patients, due to a number of reasons including:

- the difficulties of meeting public transport timetables. Some patients had to spend a significant amount of time in a neighbouring regional centre since flights between the case study community and the regional centre were infrequent;
- patients who had their surgical procedures in a capital city hospital who were then referred to see a different medical specialist in the closer regional centre, rather than the original city specialist, which reduced the continuity of care for the patient; and
- the fact that there was a fee differential for specialists in the regional centre as opposed to a specialist in the capital city, but to qualify for PATS, the patient had to choose the more expensive (but nearer) medical specialist.

While PATS was generally administered under a broad framework of centrally administered rules, most jurisdictions appeared to allow for 'special circumstances'. However, there was a broad perception amongst primary health care providers that clinical considerations were not taken into account in the payment of PATS subsidies. Any flexibility of PATS around clinical advice should be adequately explained to rural primary health care providers such that they feel that they are able to advocate for their patients, where they consider it clinically necessary.

The difficulty that rural and remote primary health care provider's patient's face accessing medical specialist services may lead GPs to manage the rural patient's care in an alternative manner to what would usually occur in metropolitan areas. For example GP referral to dermatologists and psychiatrists in rural areas is significantly lower when compared to urban areas. This may be due to the General Practitioner choosing to manage some conditions themselves [33] as some specialist medical services are very difficult to access in rural areas. These models of care provided by rural General Practitioners may be appropriate, but it is not known whether the lack of specialist treatment affects health outcomes.

3.5.2.2 Accommodation Near Hospital

Accommodation was a significant issue for patients and their families from rural and remote areas. Many patients complained about the safety and quality aspects of hospital based accommodation and that non hospital based accommodation was too expensive and not able to be covered by the PATS subsidy. Accommodation was usually utilised by patients before and after their admission (whilst awaiting transport) and in between intermittent treatments such as intensive physiotherapy or cancer treatments.

Hospital staff reported that some of their hospitals had established hotel-like accommodation on the hospital grounds which was available for patients and their families. They reported that they believed it may be more cost effective to have good quality accommodation in the hospital grounds so that the hospital could discharge rural patients earlier in the knowledge that patients would be staying near the hospital in easy reach of health services. In addition, health professionals were aware that the psychosocial support provided by having family and support networks nearby could aid recovery.

Patients from rural and metropolitan areas have similar emotion needs when faced with health care issues [35, 36] which may be exacerbated by distance from family and friends which the cost and time commitment of travel may make unavoidable.

3.5.3 *Triage for Emergency Patients*

An issue raised by the primary health care providers was to do with triage processes for emergency admissions. Primary health care providers complained that when their patient was taken to the local rural hospital and flown out by the Royal Flying Doctor Service to the city hospital, their triage at the city hospital did not take into account that they had already been waiting for treatment up to five or six hours; they were forced to join the end of the queue at the hospital.

It was suggested that people from rural and remote communities could be triaged taking into account the time that they have spent waiting for local services, in recognition of the fact that their care journey starts at their first presentation to a primary health care provider or rural hospital.

3.6 **BUILDING BETTER WORKING RELATIONSHIPS**

This section discusses how health professionals in the primary health care and hospital sectors work together as this is an important element in the integration of

services across the two sectors. This includes such elements as the way that health professionals communicate with together to provide patients with seamless care.

When interviewing health professionals about whose responsibility it was to ensure continuity of care for rural patients as they moved between the primary health and hospital sectors, we found that there was general agreement amongst health professionals that there is a transfer of responsibility for the patient and that the primary health care providers no longer have responsibility for the patient when they are in hospital. While many health professionals demonstrated their awareness that the two sectors were not integrated, they also expressed a sense of powerlessness in that they felt that they were not in a position to influence change.

Many projects have attempted to build relationships between GPs and hospitals [3, 37]. These projects have focussed around building relationships utilising the local DGP network. This local relationship building occurs in the context that most patients, and their GPs, in metropolitan and regional hospitals live near the hospital. However, as discussed in section 3.3, it also needs to be recognised that patients from rural and remote communities are also admitted to these metropolitan and regional hospitals. The stress on ‘local solutions for local problems’ has meant that most projects and programs that have been trialled and evaluated have not included rural patients or their primary health care providers. This has led to integration projects and systems which improve care for only a subset of patients. Whilst it may be important that projects have a local flavour, a more strategic approach involving national and state governments is desirable in order to ensure that there is a framework for integration which can be adapted at the local level, but which retains the concept of equity in the health system.

The difficulty of networking into the hospital system was reported by many rural and remote primary health care providers involved in this study as they spend very little, if any, time in large regional or metropolitan areas. Traditional networking arrangements (eg. shared social occasions and joint meetings) which have been tried in other General Practice / Hospital Integration programs were seen as unfeasible for rural health professionals due to the significant geographical distances involved.

3.6.1 *Health Professional Databases*

Previous mainstream General Practice/Hospital Integration projects have developed local databases of contact details for primary health care providers to assist communication between the acute and primary health care sectors. Indeed, a number of state jurisdictions, Divisions of General Practice and hospitals involved in this study had active databases, of varying reliability. However, there were some case study areas that did not have any such databases and relied on patients for the rural

primary health care provider's contact details. This led to difficulties in contacting primary health care providers in order to obtain information about the patient or to provide discharge plans to the primary health care provider.

As well as actually having up-to-date databases, it was also seen as critical that hospital staff knew that they existed. There were some hospitals in this study that had databases but the majority of their staff were unaware of this and therefore did not utilise them. Indeed, a couple of hospitals even had more than one database (and resources committed to their upkeep) as they were unaware of the duplication in their own organisation.

In addition, a number of primary health care providers involved in this study described the difficulty of contacting staff in the hospital to either get advice or to find out about their patient who may have been admitted there. Some hospitals reported that they were working with DGP to circulate information about hospitals to local primary health care providers and to ensure that local primary health care providers were represented on the hospital board. However, the interests of distant rural and remote practitioners will not necessarily be represented by metropolitan DGP (as they may be unaware of rural and remote issues). The hospital's relationship with General Practice could be more relevant to their client base by ensuring that hospital's liaison with the SBO rather than the local DGP in recognition of the rural patients who access the hospital and the need to also develop relationships with their rural primary health care providers.

3.6.2 *Outreach Programs*

Primary health care providers reported that specialist outreach programs such as the Rural Specialist Support Program (which provides funding for medical specialists to cover some of the costs associated with delivering outreach) had been of great benefit in giving primary health care providers a network into metropolitan specialist networks. However, it was seen as imperative by the primary health care providers that they were involved in the care provided by the specialists in order to reach this objective. For example, respondents reported that subsequent to a specialist providing a consultation to a patient, it was preferable for the specialist to hand back care to the primary health care provider with advice and support to enable the primary health care provider to provide ongoing management of the patient.

Another outreach networking activity reported was around encouraging hospital staff to provide lectures in regional hospitals and rural and remote communities. This not only allowed the rural primary health care provider to establish a network into the metropolitan hospital, but the hospital specialist also gained insights into rural medical practice, which proved useful in the management of their rural patients.

3.6.3 Patient Privacy – Impact on Health Professionals Exchanging Patient Information

Health professionals in both the metropolitan hospital and the rural primary health sectors described themselves as having a poor knowledge of their responsibilities under privacy legislation. Indeed, health professionals described a certain amount of anxiety around what was expected of them.

In this study, health professionals reported two different approaches to working with the privacy legislation provisions. When considering the requirements of the privacy legislation and their responsibility for care of the patient, one group used their own values to determine whether sharing information was for the patient's good and that was their main concern. The other group would not release information, even if for the patient's good, without explicit patient consent. As an overall finding, it appeared that nursing personnel were much more likely to belong to the second group. They often described refusing to provide information out of the hospital unless they were specifically instructed to by a medical staff member.

Both the Royal Australian College of General Practitioners and the Australian Medical Association have developed handbooks on privacy provisions for the use of the medical profession. However, it appears that there is still much confusion across the medical and other health professions which needs to be addressed as the confusion may be compromising patient care.

3.6.4 Non GPs as Primary Health Care Providers

Most people in Australia, including rural Australians, regard their General Practitioner as their primary health care provider [38]. However, many small rural and remote communities do not have access to a GP or individuals may choose another health professional as their usual primary health care provider. Almost one third of participants in this study identified an Aboriginal Health Worker as their usual primary health care provider and other participants nominated Bush Nurses or Remote Area Nurses as their usual primary health care provider. Therefore, this issue of the recognition and inclusion of non GPs as a patient's chosen and usual primary health care providers will be important in the consideration of policies which improve the integration of the metropolitan hospital and rural primary health care sectors.

Our study found that medical professionals reported that they were much more likely to exchange information with each other, rather than with other health professionals such as nurses or Aboriginal Health Workers. Indeed, some case study hospitals had policies of exchanging patient information only with medical primary health care providers. This was a source of frustration for non medical primary health care

providers who described the difficulties in obtaining information on their patients from hospitals. This kind of exclusion of non medical health professionals is particularly difficult for small rural and remote communities and Aboriginal and Torres Strait Islander communities who may have non medical primary health care providers such as Remote Area Nurses or Aboriginal Health Workers.

3.6.5 Discharge Planning

Discharge planning occurs before a patient is discharged from hospital and in this context is a consideration of rural and remote primary health care provider's role in planning for the discharge of their patients from a distant metropolitan hospital.

Hospitals sometimes assume that their patients are from the immediate area and believe that their patients live within one hour or 100 km of the hospital [39]. Hospital staff may fail to realise that a large number of hospital users come a significant distance and that this presents special needs for the patient which need to be taken into account when planning care for the patient.

Involving rural primary health care providers in discharge planning was a contentious issue amongst the health professionals interviewed in this study with a perception that it was too onerous to implement. However, some of the hospitals that dealt with Aboriginal and Torres Strait Islander patients from remote areas actively involved remote primary health care providers in discharge planning. It seemed that the hospital staff are well aware of the differences in culture and services in the remote community and therefore value the input of the remote primary health care provider.

This issue is being addressed for the long term as medical training in Australia now includes mandatory rural placements so that medical students can become more aware of the problems facing people from rural areas. Nevertheless, the current medical workforce may not have spent any time with rural people and in rural areas. In addition, nonmedical students do not have a requirement to receive training in a rural environment.

The lack of knowledge of the special requirements of rural Australians may impact on almost all the care provided by a distant hospital. The discharge planners need to understand the services that may or may not be available to the patient (including pharmacy, allied health and General Practitioner services) in order to prepare an achievable plan.

Some of the same reasons that health professionals were wary of telehealth (see section 3.3.1) also applied to their opinions on undertaking joint discharge planning across the rural primary health and metropolitan hospital sectors. There was a

reticence by rural primary health care providers and metropolitan hospital staff to become involved in teleconferences or videoconferences due to the unpredictability of rural practice and the difficulties in making time to discuss the patient.

The fact that it is possible for rural primary health care providers to be involved in discharge planning via email using the Enhanced Primary Care (EPC) items was not raised by any of the participants. EPC items allow remuneration for primary health care providers who work with other health professionals to provide integrated care for people with chronic conditions and complex care needs. It appears that this type of working together needs to be adequately promoted so that both rural primary health care providers and hospital staff are aware that they do not have to meet at the same time and that the paperwork will not be onerous (which is currently the perception). It should be noted that there are, as yet no incentives provided to regional and metropolitan hospitals to involve the rural primary health care providers.

3.6.6 Discharge Communication

Poor discharge communication is a characteristic of the whole Australian health system, not just an issue for rural communities. Both the rural primary health care providers and the metropolitan hospital staff involved in this study were aware that discharge notifications were of poor quality in terms of legibility and timeliness. In a number of case studies' hospital staff reported that there was no automated system for producing discharge summaries in their hospitals. This was evident given that many discharge summaries present in the case study patients' hospital files were handwritten. Rural primary health care providers complained of handwritten discharge summaries due to difficulties in reading the information therein. Health professionals involved in this case study reported that nursing summaries (discharge summaries prepared by the nursing staff, rather than medical staff) were provided by some hospitals and these tended to be more timely and comprehensive than medical summaries.

A number of mainstream General Practice/Hospital Integration projects have made an effort to address this discharge communication at a local level [37, 40], but as discussed previously, unless this issue is addressed at a national level, rural communities will continue to be unaffected by local projects which tend to be concerned with patients who live in a distinct geographical area, close to the hospital involved.

A specific issue raised by the rural primary health sector was the failure of the acute care sector to inform them when a patient is transferred between hospitals. They reported that it seems the systems have not been put in place to ensure that the patient's Primary Health Care Provider is informed about a patient who has been

admitted to a second hospital, rather the second hospital provides information back to the referral hospital.

3.6.7 Knowledge of Rural Issues amongst Health Care Professionals

This project found that regional and metropolitan hospital staff were aware that they did not have enough knowledge of the areas from which their rural and remote patients came. However, it would be difficult for any health service provider to be aware of the situation around all of the rural communities which their patients come from, and this was understood by rural and remote primary health care providers. This would provide an indication of the likely compliance of a patient to a pharmacotherapy regime or a rehabilitative regime, considering the support services that the patient has access to in their community.

This information and training will assist medical personnel, even if they do not continue to practice in a rural area, to increase their understanding of issues facing rural communities. Many medical students complete the rural part of their training in a RRMA 3 area, which means that while they will not be exposed to the issues facing health professionals working in rural and remote areas (RRMA 5 – 7), they will be exposed to issues facing patients from these areas (see 3.3) who may travel to a regional centre or a metropolitan centre for hospital care.

It may be beneficial for rural training to be made compulsory for other health professions such as nursing and allied health so that this understanding of rural issues is shared, particularly because the nursing profession has such an important role in the transition of care, particularly around the preadmission and discharge planning of rural and remote patients.

Some metropolitan and regional hospital staff reported that their facilities had training and orientation programs which included an explanation of issues for rural and remote patients, delivered to staff. These kinds of initiatives were mainly in place in hospitals that had a high proportion of their patients from a rural or remote area. This type of training was seen to be particularly important for overseas trained personnel who were thought to have likely not been exposed to issues around rural and remote Australian communities.

4 *IMPLICATIONS*

The findings of the study inform a number of general conclusions about critical success factors to improve the integration of the rural and remote primary health and the regional and metropolitan hospital sectors.

4.1 LEADERSHIP

The many good ideas which can be implemented to improve the care for rural patients travelling from their rural community to a distant hospital are underscored by a general need for the health sector to be aware that this is an important issue for the health system and to have the will to make change. Leverage for these changes can most effectively come from the funders of health services.

Local approaches to integration are important, and take into account the needs of the local community. However, national leadership is needed to ensure that health services are geared towards the needs of all patients and health care providers (no matter where their reside) and that policies and processes reflect the diversity of patients and their providers.

4.2 INCENTIVES

In general, attempts to improve the integration of the rural primary health care sector and the regional and metropolitan acute health care sector will need to be implemented using incentives in order to ensure that policies and processes become part of the normal culture and way of working. Opportunities for influencing health care change are provided through the Australian Health Care Agreements process (for change in hospitals) and through the Medicare Benefits Schedule (for change in the primary health care sector).

4.3 EVIDENCE

There is a need to establish the efficacy of policies and processes which will improve integration. There are a number of centres, regions and hospitals which have a focus on improving integration. Encouraging these areas to undertake research incorporating rural and remote primary health care providers would build an evidence base on specific strategies and their effectiveness. Undertaking research on this issue would also assist in bringing the issue to the attention of stakeholders.

Evaluation, particularly economic evaluation, of the effectiveness of such initiatives will be vital if the findings are to be effectively taken up by policy makers into the wider community. The evidence base is imperative in order to be able to make the argument for systematic change.

4.4 INFRASTRUCTURE

A critical success factor in encouraging integration between the rural primary health care sector and distant hospitals is the imperative to make processes easy in order to encourage people to change their way of practice. If collaboration between the acute health care sector and the rural primary health care sector is to be encouraged, it is imperative that it is made easy for health professionals to interact with each other as part of their normal work. If the interaction takes too much time or effort, then it will never become a normal part of practice.

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