Reviewing a rural health service redesign proposal using the health impact assessment process

Bob Neumayer, Janet Chapman, Robin Haberecht, Greater Southern Area Health Service

Introduction

This paper demonstrates how undertaking a health impact assessment (HIA) assists in considering the likely impacts of a proposed reconfiguration in the model of health service delivery to a small rural community. The proposed service changes are being considered in response to the ongoing issues of sustainability and access to health services in small rural communities, especially with regard to addressing the challenges of recruitment and retention of health staff and identifying the needs of ageing and decreasing populations. Redesign of health service delivery and the consequent impacts on service quality, ability to access services, availability of services and workforce all need to be considered.

The local health service in this proposal is experiencing difficulties in continuing to meet the changing needs of the community, especially in maintaining a 24hr/365 day emergency and acute care service due to the lack of clinical staff, especially registered nurses (RNs).

The proposed service changes would re-orientate the local health care services by adopting a broader primary health care model and thus placing greater emphasis on primary health care and service integration. Services at the local health site would include residential aged care, respite care, palliative care, an outpatient service operating during business hours and a wider range of primary health care services. The proposed service re-design would mean that acute inpatient medical services and 24 hour accident and emergency services would no longer be provided at the site, but would be available from a nearby, larger health service. This could potentially take away the need for a registered nurse to be present on all shifts and for a general practitioner to be on-call.

This HIA has assessed the expected health impacts of this proposed service re-design on the members of the community using the standard HIA steps including screening, scoping, identification, assessment and decision making and final report, including recommendations. The outcomes of the HIA will be able to be used to both inform the further development of the project and provide important background information to support any further roll-out of this type of service re-design at similar type services across rural Australia.

Using the HIA process

Doing an HIA is a systematic method of collecting information that assists to inform planning, decision making and project proposals, based on the gathered evidence. The intent of the HIA process is to evaluate the potential impacts, both positive and negative, before proceeding with any proposal or project. The process of completing an HIA involves five main steps. Each is listed below with a brief description:

- screening—deciding whether an HIA is necessary
- scoping—determining the focus, methods and work plan
- identification of impacts—determining impacts through gathering of evidence and data collection
- assessment of impacts—the process of analysing and prioritising established impacts
- decision making and recommendations—developing recommendations and suggested actions.
Goals, aims and objectives of the HIA

This HIA worked to achieve the following aims and goals:

- to assess the feasibility of proceeding forward with the actual implementation of the rural health service redesign proposal
- to assist in developing the proposed redesign of a rural health service and identify areas of the proposal that require modification (outlined in the recommendations section of the HIA)
- to assist in identifying and addressing any potential health inequities associated with the proposal
- to assess the potential negative and positive health impacts on the populations (health staff and community) that may be affected by the proposal
- to contribute to principals and planning guidelines for future rural health service redesigns across the Greater Southern Area Health Service (GSAHS) and other rural Area Health Services (AHS).

Methodology

The methods and tasks that needed to be undertaken in order to complete this HIA and determine the potential impacts on reconfiguring the targeted small rural health service included:

- establish an HIA steering committee to oversee all processes and decisions related to the project proposal (The terms of reference for this committee included membership consisting of three community representatives, the MPS site manager and cluster general manager, health service planners and health development officers, and HIA expert counsel)
- develop a community profile, outlining trends likely to impact on current and future health service use (eg: workforce, ageing population etc)
- collect data to understand current service usage and develop a baseline profile
- complete a literature review covering rural health service redesign projects
- develop a scenario approach to identifying the potential impacts (impacts of a no change to services scenario or a reconfigured service model scenario)
- create a cost benefit analysis for both scenarios
- identify differential health impacts based on information gathered
- assess the nature of the impacts, equity considerations of the impacts and the potential for creating challenges or problems
- develop a prioritised list of recommendations in order to maximise positive impacts and to minimise potential negative impacts identified as a result of the health service redesign
- evaluate the process of the HIA and the impact the recommendations have on decision making and implementation.

The HIA primarily examined the potential positive and negative health impacts/implications of the proposal in terms of:

- changes to health service delivery and consequent impacts, including:
- service quality (ability to delivery best health services possible)
- ability to access services (including transport implications and information
• availability of services (range of services)
• health outcomes (for the community)
• health service workforce (changes to staff work roles and staffing)
• cost benefit analysis (service unchanged and service changed).

The HIA considered potential impacts that may arise within 5 years of the implementation of the proposal. The HIA looked at the impacts on the people living within the rural design local government area. The HIA also considered the impacts on the staff that would be involved in any potential changes from the redesign project. The impacts were assessed by the committee creating a scenario approach. Two scenarios were analysed. Scenario 1 was considering impacts with no change to the existing health service model. Scenario 2 was considering the impacts with a redesign of the current service model being the closure of the ED services and the acute care services of this small rural health facility.

Findings

• Profile—The community profile demonstrated that it is an ageing population and declining marginally.

• Data—Health Service data demonstrated a high percentage (42% after hours and 52% daytime operating hours) were determined to be consultations that may have not been necessary. During the 2004/05 period there were a total of 379 ED presentations with 221 being after hours. During the 2005/06 period there were a total of 670 ED presentations with 216 being after hours. The majority of these ED presentations, however, were for minor issues and did not need to see a general practitioner. The percentages provided above thereby questions the need for ongoing ED services.

• Scenario approach—The scenario approach was most useful in establishing positive and negative impacts on either changing the current model of health service delivery or making no change at all. The outcomes of the scenario approach clearly indicated a preference for recommending proceeding with a redesign of the current health services.

• Cost Benefit Analysis—This analysis reviewed the cost benefits associated with three different models of rostering. Two models measured against the current minimal staffing level used in a small rural hospital. The outcome of this identified that there was minimal cost benefit in changing to alternative staffing/skill mix but there were significant recruitment and retention opportunities for local employment and professional development pathways for people who otherwise would not have that opportunity. This could result in less pressure on rural health services trying to source registered nurses to small rural areas and being reliant on the use of agency staff.

• Impacts—After considering all of the information provided above and engaging the scenario approach a list of impacts was determined in consideration of two scenarios—the no changes to existing health services and the reconfiguring of the health services. A list of both potential positive and negative impacts for the two scenarios was developed and is provided below.

• Literature Review—The following literature review showed little evidence of prior work being done in this area. What restructuring of small rural health services that has been documented shows a shift to primary health care service delivery, but also the need to assist the community in understanding and supporting such shifts in health care.

Related literature

Adequate access to health care is a determinant of health¹ and there are a range of factors that affect access to health care including distance to health care services, disability, geography, transport, poverty, age of residents and weather. When modifying any of the determinants of health the direct
and indirect impacts on health inequalities need to be addressed as there are links between access to care, appropriate utilisation of care and positive health outcomes.2,3

Residents of rural towns consider the doctor and the hospital as the two most important services.4 These services can serve as an attractive feature to prospective residents5 as well as being seen as a community icon with far more reaching benefits than just providing health care services.6

With regards to emergency closure in a rural area, one study, reported that the treatment and benefits available “in large centres may be outweighed by loss of life in the pre hospital phase, most of which occurs before the arrival of the ambulance”. The very ill and those suffering severe trauma should be assessed and stabilised in the most appropriate local facility and that “routine by passing of local emergency medical services should be avoided”7 Urgent care services are seen as an important component of core services in towns, particularly where these towns face rural decline8, and the expectation in some communities is that there should be access to 24 hour medical care.9

In a study conducted with 23 rural communities in South Australia, accessing after hours urgent care was commonly reported ‘as a major concern in all the towns’ but there was little understanding of how and when residents should access the different after-hours emergency services available. It was also revealed that all towns relied heavily on their ambulance service, as access to public and private transport was limited.10

For those who are less affluent and less able to travel for health care, the local hospital has to adjust its internal structures and processes based on its capabilities to meet community needs.11 Those rural communities without these services should try to provide resources such as sharing arrangements, patient referrals and transfers and networking.12 However, the uneven distribution of health care workers as well as the ageing health workforce, impacts negatively on access to care.13 Support for nurses, both in overcoming barriers to continuing professional education, and organisational support is needed when models of practice change to a primary health care model14,15,16 and nurses are required to undertake new tasks such as triage.17

Due to the ageing population and reduced socio-economic base, health care needs in rural communities now require a diverse range of promotive, preventive, chronic and social care.18,19 Primary care programs, for example, contribute to managing demand for acute services and improving health outcomes especially in relation to preventable disease. They may, however, not reduce the demand for acute intervention as our population ages and becomes more informed about what is socially and medically possible.20 In the past, where health service reform has focused on reducing cost, the need to base these decisions on a theory of health and to monitor equity in health has been overlooked.21,22

In rural areas, service delivery models are representing a potential shift towards a social model of health. Multi-functional and integrated services could provide the infrastructure and capacity to better address the social as well as biophysical determinants of health. These services are now including more primary care, home care and community based programs, moving away from the focus on acute care23. This HIA project will therefore assess the expected health impacts of this proposed service re-design on the members of the community with consideration for a service reconfiguration to potentially increase its focus primary health care services (the social model of health) and the closure of after hours ED services and acute care services.

Potential impacts from no changes being made to the existing services

The positive potential impacts from no change to services identified by the committee were:

- the psychological wellness of community is maintained
- local GP maintains current income stream
- continuation of the provision of high care services
- acute care patients support networks remain close by
• maintaining current ED and acute services.

The negative potential impacts from no change to services identified by the committee were:

• lack of staff expertise to treat triage 1 and 2 patients
• mismatch between staff skills and ability to treat needs
• low activity means staff and GP cannot maintain skills
• risk of not being able to recruit necessary staff
• community based services remain under utilised
• risk of closing of health service
• a high dependency on agency staff including:
  – high costs
  – skills not matching needs
  – not recognising EN skills in agency staff
  – lack community confidence.

Potential impacts from reconfiguring the existing services

The positive potential impacts from reconfiguring the current services identified by the committee were:

• provide ongoing access and sustainability to the local health service
• match the needs of the existing population to the types of services made available
• potential to provide additional aged care beds
• clarify the role of the hospital for emergency care treatment
• up-skill existing staff in allied health and aged care
• reduce the need to hire agency staff (this includes reducing costs, unmatched skills of agency staff, and having unfamiliar staff working in the facility)
• potential to increase attractiveness for maintaining or recruiting GP services
• opportunity to reinvest in needed services.

The negative potential impacts from reconfiguring the current services identified by the committee were:

• transport (visits) for acute patients
• resistance to change by staff and community
• potential to lose current staff skills (ie. Emergency care)
• risk of loss of High Care Services
• community perception of loss of services
• risk of reducing attractiveness for GP services
• community perception of loss of safety, viability of town, etc.

**Recommendations from HIA committee based upon assessment of the above information**

The HIA committee reviewed the identifiable impacts for both scenarios being Scenario 1—no change to the current service model and Scenario 2—reconfiguring the existing service model. After considering both scenarios the committee unanimously chose scenario 2—to support the proposal for reconfiguration of the existing services.

The following recommendations are made in support of progressing reconfiguration of existing services. It should be noted that the proposal should progress only if all of these recommendations can be implemented.

• There will be no loss of high care beds within the facility.
• The local GP should be consulted with during the progress of this proposal ensuring the service remains attractive for a GP to continue working with on an ongoing basis.
• There needs to be extensive community consultation to ensure they do not view this reconfiguration as a loss of services. The public needs to be actively involved in the marketing redesign of the health service and be able to participate in decisions regarding reinvestment of services.
• The community also needs to be reassured that there will be no loss of a sense of safety in the delivery of health services; no loss of viability to the town, and other such factors considered in the reconfiguration of these services.
• For acute patients being taken to other nearby hospitals, transport needs for visiting family members and friends must be addressed. This discussion needs to take place in conjunction with the local council.
• The opportunity must exist to reinvest resources into the needed health services of the community, especially in the areas of primary health care, aged care, respite and palliative care services.

If all of the above recommendations can be achieved during the process of reconfiguring the existing services of this small rural health service, then the committee fully supports the progression of changing the service as suggested.

Issues outside the scope of this HIA that would have to be fully addressed before the implementation of any reconfiguration of these services include:

• Commonwealth agreements around the provision of residential aged care and the need for an RN during all shifts
• support for changes of staffing from the NSW Nursing Association allowing ENs to be responsible for the health facility during certain hours
• arrangements agreed to involving VMO payments
• working with the GSAHS to agree to reinvestment in delivery of health service changes as suggested.
Conclusion

Completing this HIA was found to be a successful process in determining the important impacts (both positive and negative) of the proposal to reconfigure the health service located in a small rural community. The process of engaging in the HIA assisted in bringing various key representatives and stakeholders together to form the HIA steering committee. This committee then assessed potential impacts using a scenario approach to having no changes within the current health service or reconfiguring the health service to meet future needs of the community. The HIA process assisted the committee in putting forward key recommendations and strategies to be in place for the proposal to proceed with a redesign of the small rural health service assessed in this HIA.

References

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**Presenter**

**Bob Neumayer** is the Senior Service Planner for the Greater Southern Area Health Service (GSAHS). In this role, Bob is part of a team responsible for planning delivery of health services across GSAHS and he assists in the development and evaluation of many new health project initiatives. Prior to his current role he was Head of the School of Community Health at Charles Sturt University. While at Charles Sturt University his research interests involved evaluation of a variety of health programs but especially so around health development and lifestyle programs. He hopes to continue to transfer these skills and interests to his current role with GSAHS.