Health workforce planning for rural Australia: starting with the end in mind


School of Medicine and Dentistry, JCU, School of Nursing, JCU, Queensland Health, Allied Health, Cairns Hospital and Health Service District

Background

The recent Health Workforce Australian workforce reports highlight that there are issues in sustainability of the health workforce that must be addressed with a degree of urgency. These issues with sustainability are particularly acute in regional, rural and remote areas, and for the nursing workforce. Health workforce planning is often done reactively, assuming continuation of current patterns of health care utilisation into the future and adjusting for demographic projections. In this way, inefficiencies in workforce configuration and service models are perpetuated and gaps in services maintained.

Population level supply and demand modelling is not without problems—whilst it is usually possible to work out predicted supply of health care workers, demand is much more difficult to model, and in practice often health service utilisation is used as a proxy marker, occasionally combined with markers of health need. Alternatively, small local community needs assessments are used to drive reform, whilst omitting consideration of the broader factors driving health workforce supply, service models and training. This small project attempts to combine these approaches—starting with real health service needs of the community at local level, then considering the health services required, the skill-sets to deliver those services, novel ways to configure the workforce and the education and training implications.

This research (funded by Health Workforce Australia) involves partnerships in a geographically bounded area including a regional centre (Cairns) and two small rural communities in north Queensland (Mareeba and Yarrabah) to develop a demonstration model of health workforce planning. The focus is on creating a flexible and sustainable rural health workforce plan that responds to community needs. We are considering all health professions and the intersection between primary care services and secondary and tertiary referral services. We aim to build on successful existing models of care at local level, and lessons learnt from other regions, and incorporate ways in which technological innovations in health service delivery can be used in a rural and remote context. This work builds on the existing partnerships between Cairns and Hinterland Hospital and Health Service Board (CHHHS), James Cook University (JCU), Queensland Aboriginal and Islander Health Council (QAIHC), Medicare Locals, private health care providers and community organisations.

In rural, regional and remote Australia, health service and workforce innovation is often more advanced when compared with more urban areas, as workforce shortages mandate flexibility and a productive approach. In north Queensland a combination of progressive health service management and workforce shortages have led to a number of factors that facilitate the conduct of such a project in the area. Cairns and Hinterland Hospital and Health Service (CHHHS; previously Cairns and Hinterland Health Service District) has been engaged in processes of regional needs assessments and health service planning in strong partnership with local rural communities and health care providers for some years. Health care reform processes have been incorporated in a very tangible way into this plan, with strong recognition of the importance of Queensland Health services collaborating with both general practitioners (and other private providers) and the Aboriginal and Islander Community Controlled Health sector in planning and service delivery. This work and collaborative approach to service planning and delivery is reflected in the CHHHS Health Services Plan 2012-2026 and accompanying workforce and training plans. Furthermore, at local level in each of the two participating rural communities, significant efforts had been made to improve integration between different service provider sectors.
Methods
This project has been conducted with multidisciplinary clinical reference groups at each of the key locations. An action research methodology involves key stakeholders in four cyclical stages of health workforce planning, with continuous process evaluation.

Stage 1: Using rapid appraisal techniques to collate baseline health and community profiles for each of the communities including current health service utilisation and health status and workforce and population projections. Data triangulated for this process includes reference group meetings and individual interviews, service mapping, workforce mapping and existing workforce plans, service utilisation data, health status indicators, demographic projections and existing community consultation reports. Using this rapid appraisal, we have developed an essential health services plan (basket-of services) for each of the planning areas.

Stage 2: Remodel and plan appropriate health service models which deliver the agreed upon priority health services. To do this we draw on the World Health Organization systems thinking framework in terms of jointly brainstorming the effects of changes, conceptualising the effects and then adapting the system. Steps involved include: present and discuss current and proposed health service models (developed based on information from Stage 1); brainstorm the effects of change; revise models based on stakeholder views; prioritise a number of elements that will help move the system towards the revised proposed/ideal model.

Stage 3: Analysis of the skills-sets required and configure the desired workforce needed to appropriately deliver these health service models.

This involves a process of mapping existing health workforce skill-sets against what is required to deliver revised model. General discussions are held with stakeholders about overall health workforce needs, and more detailed calculations performed around a couple of key areas that have been identified as priorities. For example the workforce needed to deliver recommended services for people with Type 2 Diabetes will be considered using existing frameworks, modified to take into account rural settings. Consideration is also given to ways in which the required workforce can be delivered and/or supported using telehealth or task substitution. The focus for this workforce planning is on ensuring that available health workers have a wide range of general skills, in line with evidence showing that health professionals with more “generalist” skills provide better outcomes at lower cost in rural areas.

Stage 4: Develop a workforce and training plan which details and costs the training of an appropriate health workforce to serve rural population needs. Through presenting findings from Stage 3 at an additional clinical reference group meeting we can identify workforce and training needs. This involves consideration of: additional sources of revenue to fund positions (through strategic use of Medicare system), building links with current training pathways (undergraduate and postgraduate) and strategies for training/career development for Aboriginal Health Workers. This considers adequate support mechanisms (including professional development) for the rural health workforce, local training and providing alternative pathways that allow similar progression and development to urban counterparts.

Brief results (presented by location)
Common and agreed key principles of the “basket-of-services” to meet the health needs of each of the communities included:

- provision of whole person, continuing, comprehensive primary health care (through a “medical home”)
- services are accessible, culturally appropriate, high quality and affordable
- cradle to grave service provision, as close to home as possible
- responsiveness to changing community needs
• access to after hours emergency care (including transfers)
• access to specialist advice and services in a timely fashion when needed
• multidisciplinary teams involved in service provision, using available skills most efficiently
• optimising communication and integration between services
• teaching and learning health system.

Mareeba
This is a rural community on the Atherton tablelands—the catchment area is around 22,000 people (7,000 in the town itself) and approximately 15% of the population consists of Aboriginal or Torres Strait Islander people. The main economic focus is farming and mining, but it has an older population demographic, with overall high levels of socio-economic disadvantage, and is home to a large correctional facility. The main service providers are Queensland Health (through a 20 bed hospital), 2 private general practices and a large Aboriginal and Islander Community Controlled Health Service. There is an existing agreement between QH, private GPs and the Chamber of Commerce for private GPs to provide services at QH facilities (including sharing after hour services) under a COAG Section 19.2 exemption around improving access to PHC in rural areas.

Population projections indicate a growing and ageing population, with an increasing burden of chronic disease, particularly Type 2 Diabetes.

Service providers identified many issues in terms of current services and workforce, including: high dependence by some residents on QH as source of primary care, the need for more nurses (theatre underused due to lack of staff), and gaps in after hours emergency mental health care (amongst a range of others). These resulted in a system reliant on inter-hospital transfers and relieving staff, with large numbers of ambulatory care sensitive admissions.

The proposed health service model will be explained in more detail, but includes the following features:

• all residents have an identified “primary health care home” in one of the private general practices or at the AICCHS
• better communication and integration between primary care providers (including community allied health and NGO sector) and secondary care services
• greater range of services provided through Mareeba Hospital and primary care through skilled rural generalists and nurses with particular extended skills (eg. Nurse endoscopists) all supported by telehealth by Cairns-based specialists.
• reduced requirements for acute and after hours transfers.
• specific services increased where needed. E.g. Community cancer care coordinator role
• expanded role of Medicare Local in health promotion and filling PHC gaps.

The implications of this model in terms of required workforce and training will be outlined.

Yarrabah
Yarrabah is a discrete Aboriginal community with a population of around 3,000. The vast majority of the population are Aborigines. It is an extremely disadvantaged community in terms of all health and socioeconomic indicators, and there are high rates of overcrowding and unemployment. Currently there are two main providers of primary health care services: Gurriny Yealamucka (local Aboriginal Community Controlled Health Service) and Queensland Health, which provides primary health care and emergency services. There are no inpatient beds in Yarrabah, with patients requiring admission
needing transport to Cairns. The health centre is in the process of a staged transition of all health services to community control.

The population is predominantly young but there are extremely high rates of chronic disease, projected to increase over the next 10 years.

Gaps identified based on the rapid appraisal and meetings with clinical reference group included: huge need for increased and systematised systems for chronic disease management to keep pace with demand; expanded and integrated child and youth health programs; growing need for dialysis at Yarrabah; staff shortages, particularly of Aboriginal Health Workers; need for high level aged care and disability services; and ongoing uncertainty about the process and timeframe of the transition process.

The proposed health service model to respond to this will be outlined: but will include full transition to community control, systematised chronic disease and child health care; strategies for recruiting, training and supporting Aboriginal Health Workers, well integrated support from regional QH hubs and "home-style" haemodialysis at Gurriny.

Importantly, the motivation to engage in this process is common between all partners, and there is a desire to improve the health of rural populations through a strong, flexible, responsive and integrated health care system. Rigid silos of tasks within professions inhibit innovation, thus this project is considering required skillsets and then configuring the health care workforce to deliver those combinations of skills. In addition, involvement from medical, nursing and allied health workers and strong mutually supportive links between primary care services and regional referral centres are vital.

Conclusions

This demonstration model of regional health workforce planning will provide important lessons, and a description of a process of participatory health service and health workforce planning for local health care providers in conjunction with their regional referral centre. In an ideal world, a more explicit participatory process from non health worker community members would be facilitated. This will allow replication in other jurisdictions, with appropriate adjustments for local needs. The focus of the research on how significant Indigenous health services within the chosen communities can successfully interact with other local service providers will produce evidence based best-practice service models for other similar rural communities where the imminent integration of health services is high on the agenda. It is of great interest to Medicare Locals as part of their core business to engage in community based health needs assessment to inform population health planning. This project builds on Australian primary health care reform and US work about medical homes and general appreciation of need to move towards a more generalist-focused approach to providing health services, with an approach based on skills-sets rather than occupational silos, and we believe that it complements the large scale aggregate workforce projection models currently used by HWA.

This project demonstrates that participatory health workforce planning is possible, based on strong and respectful partnerships between stakeholders. Although complications often arise due to differences in funding models, employment conditions and inflexible information technology systems between service providers, these can be overcome where there is a shared vision to innovate and a commitment to that process from all stakeholders.

References
