The road travelled and road ahead for allied health rural generalist pathways

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Introduction

Generalismas the basis of training, workforce and service models in rural and remote areas has demonstrated benefits in medicine (Ernst & Young Australia, 2013; Pashen et al., 2007) and is developing a profile in nursing(Health Education and Training Institute, 2017). Implementing structured and supported rural generalist training pathways for the allied health professions is anticipated to provide similar benefits in terms of improved recruitment and retention, enhanced service capacity through the use of professionals' full scope and into extended scope of practice. In turn this will support greater access for rural and remote consumers to high quality multi-disciplinary healthcare. Although discussed in the literature for many years(Heaney, Tolhurst, & Baines, 2004; Mills & Millsteed, 2002; Sheppard, 2001; Williams, D'Amore, & McMeeken, 2007), rural generalist practice has remained incompletely described and a "persistent training gap" in the allied health professions (Wakerman & Humphreys, 2013, p. 15). A cross-jurisdictional collaboration formed in 2013 to progress an Allied Health Rural Generalist Pathway (AHRGP) strategy.

Aim and objectives

The overarching goal of the AHRGP strategy is to improve health outcomes for rural and remote consumers through increasing access to a highly skilled allied health workforce and enhancing opportunities for multi-disciplinary care in rural healthcare teams.

The aims of the strategy are to:

- improve the recruitment and retention of allied health professionals in rural and remote services with a particular focus on supporting the development from graduate to full scope generalist practitioner,
- enhance the skills and capabilities of the allied health workforce to meet the challenges of delivering services in rural and remote areas and to improve client outcomes, and
- support the growth of allied health service models that meet the needs of rural and remote communities.

The objective of the strategy is to scope, develop, trial and embed rural generalist service, workforce/employment and education models for allied health professions.

Key concepts and assumptions

The term "rural generalist" in relation to the allied health professions refers to a service, or the position or health professional delivering the service, that meets the broad range of healthcare needs of a rural or remote community. Not all allied health professionals working in rural areas need to be generalists,

particularly in larger rural centres that can support a narrower scope and a more urban service model. Rural generalists are understood to be a sub-set of allied health professionals that have common qualities in their practice. This includes the ability to deliver services to a wide breadth of clinical presentations and clients across the age spectrum, and usually in a variety of healthcare settings e.g. inpatient, ambulatory care, community. Rural generalists aim to deliver high quality, safe, effective and efficient services as close to the client's community as possible using service models that enable local access. Rural generalism is common in rural or remote teams with small establishments, often with a single member of each profession represented in the team.

"Allied health" is a collective term for a group of independent professions that have distinct practice standards and scopes, and different professional bodies, accreditation and regulating authorities and training programs. In Australia the allied health group is a mix of nationally registered and self-regulating professions. Rural generalist allied health professionals should not be confused with the concept of "generic (allied) health workers" that do not have a primary health professional qualification. There is no such worker in Australia and this concept is completely distinct from the development of rural generalist service and workforce models in allied health professions.

Methods and activities

The development of rural generalist workforce and service models for seven allied health professions commenced in 2013 and has progressed through six project stages. Three key projects will be the focus of this paper. Projects have used different approaches and methods, and involved a collaborative of health sector stakeholders, primarily in Northern Australia. Healthcare providers from other areas of Australia and education sector partners joined the initiative from 2016.

To address the aims and objective of the AHRGP strategy, projects have been undertaken to define and develop:

- a **formal education program** that supports the development of the clinical and non-clinical rural generalist practice requirements selected allied health professions,
- **workforce policy and employment structures** that align to development requirements and facilitate progression from entry-level competency to proficient rural generalist in the relevant allied health profession, and into extended scope roles where this is required by the service, and
- **rural generalist service models** that support and engage allied health professionals to implement innovative and effective solutions to the challenges of delivering care across geographically dispersed and culturally diverse populations.

Rural generalist training positions and service development strategies

Queensland Health funded and managed the development and trial of eleven supernumerary Allied Health Rural Generalist Training Positions (AHRG Training Positions) in 2014. The trial was funded by the reallocation of funds from rural pre-entry scholarship programs. The trial tested the:

- employment structures required to support graduate / early career recruitment and development in a rural or remote service, and
- rural generalist service models through a mandatory requirement of host sites to develop, implement and evaluate new service strategies.

The structure of the positions was developed through examining the literature on early career workforce strategies (Devine & Williams, 2011; Devine, Williams, & Nielsen, 2013). The core components of the positions were:

- designated development and supervision time of 0.2 full-time equivalent (FTE),
- a development plan and funding to support training activities,
- a profession-specific supervisor that is co-located or "highly accessible" (available onsite more than 50% of work hours plus telehealth communication as required), and
- participation in the development and use of rural generalist service models.

The one-year trial was evaluated through an external research study conducted by Southern Cross University (SCU), and a Queensland Health internal review of outputs from each site. The SCU evaluation focussed on the experience of the graduate, local supervisors and managers, including their learnings and recommendations from the trial. The Queensland Health review collated and presented summary outcomes from service development projects undertaken by implementation sites and examined short-term retention and onward employment destination of the training position incumbents. The methods for the SCU evaluation project and Queensland Health review have been published elsewhere (Nancarrow, Roots, Grace, Young, & Barlow, 2015; Queensland Government Department of Health, 2015).

Mapping clinical requirements (profession-specific and trans-professional/skill sharing)

The two-stage Rural and Remote Generalist: Allied Health project was led by the Greater Northern Australia Regional Training Network (GNARTN)(GNARTN, 2013, 2014b). The project sought to address the dearth of information available on the clinical scope of rural generalist practitioners in six allied health professions: occupational therapy, physiotherapy, dietetics and nutrition, speech pathology, social work and podiatry. Limited description of the clinical requirements was recognised as a barrier to progressing the development of rural generalist service models and training program. A specific focus for the project was to investigate the extent and nature of skill sharing or trans-professional practice in allied health teams. "Skill sharing" is the delivery by a health practitioner of a clinical task (e.g. assessment or intervention) that is not generally performed by that profession. The individual health practitioner will acquire the capacity to deliver the skill shared task through undertaking training, and being supervised and competency assessed by a practitioner with expertise in the task. Skill sharing can only be implemented when clinical governance, including clinical supervision and credentialing, is embedded in the work unit and when the team includes a practitioner with expertise in the task to support training and supervision and to address complex cases that are beyond the capabilities of the skill share-trained practitioner.

Stage one of the project recruited five multi-disciplinary allied heath teams from northern Australia to undertake a comprehensive clinical task mapping process using the Calderdale Framework(Effective Workforce Solutions, 2017). Three Northern Territory government services, one Western Australia government service and a community controlled health service from Queensland participated. Teams mapped all clinical tasks undertaken by each profession and analysed each task using a risk-based decision tool for the potential to skill share the task. The task lists were aggregated and synthesised. Four additional teams, one government service from northern Western Australia and three Medicare Local (primary care) services from Queensland, vetted the preliminary task list in a secondary task mapping process. The output was a comprehensive profession-specific task list for each of the six

professions and a group of tasks identified as potentially appropriate for skill sharing between two or more professions.

The skill sharing output data from the project was further refined in the second stage through a two-step stakeholder review process(GNARTN, 2014a). A modified nominal group technique was used in two separate stakeholder forums. The first forum was conducted at four sites that were link by videoconference; one each in Queensland, the Northern Territory, Western Australia and South Australia. It included participants with current or previous rural or remote practice experience in one of the six relevant professions. All proposed skill sharing-applicable tasks were examined by relevant multidisciplinary groups that included the profession with task expertise and probable skill sharing profession/s. The potential value of skill sharing each task was ranked using a five criteria scale: quality, safety, health outcomes, access and efficiency. The skill sharing task list was refined based on feedback of the groups. The same method was used for a second forum that was held face-to-face at the Services for Australian Rural and Remote Allied Health Conference in 2014. This included an opportunistically recruited group of 28 experienced rural and remote allied health clinicians, researchers and managers from across Australia.

Rural generalist education and training requirements

To progress the development of a formal rural generalist education program, Queensland Health developed an education framework that presented profession-specific and inter-professional requirements for rural generalists in seven professions: physiotherapy, occupational therapy, pharmacy, podiatry, nutrition and dietetics, medical imaging and speech pathology. The framework described the clinical and non-clinical requirements of practitioners from early career through to proficient rural generalists from the perspective of the health service. It also proposed a structure for the education program, including articulation between curriculum components.

The methodology used for the education framework design project was:

- collation and review of previous work on clinical task mapping (GNARTN, 2013, 2014a) and profession-specific practice standards, post-entry training courses and published literature (Burge & Adams, 2016), and non-clinical practice requirements (Beattie, Lin, Spitz, & Kilmurray, 2008; Western Australia Country Health Service, 2008)of rural generalist allied health professionals,
- further development of the draft frameworks through consultation with the relevant profession leadsin Queensland Health,
- stakeholder testing using experienced practitioners from relevant professionals working in Queensland Hospital and Health Services and a limited number of inter-state clinicians or those from other agencies. Stakeholders were recruited through a snowballing approach using the advice of profession leads. Stakeholders provided written or oral feedback which was integrated into the draft framework,
- the advanced draft of the framework was circulated to profession leads and to allied health leaders in the Northern Territory, Western Australia and South Australia.

The GNARTN managed a review of the frameworks by profession-specific panels of two to four members of each profession that possessed expertise and experience in curriculum design, accreditation and/or professional standards. Most “expert reviewers” were senior academics from Australia or New Zealand. The feedback from the expert review process further refined the

framework. The frameworks now form the basis of a formal two-level post-graduate education program in development by James Cook University and QUT.

Findings and outcomes

Rural generalist training positions and service development strategies

The 2014 Queensland Health trial of designated rural generalist training positions included four physiotherapy, one occupational therapy, three radiography, two nutrition/dietetics, and one pharmacy role. Detailed findings are presented in Queensland Health (Queensland Government Department of Health, 2015) and external evaluator reports(Nancarrow et al., 2015). Summary workforce outcomes and findings were:

Nine of 11 positions were successfully recruited with incumbents remaining in the roles for the full employment term, generally one year. Two radiography positions were not filled or were filled by short-term secondments only. Recruitment may have been impacted by confusion in relation to position titling and delayed advertising of the positions.

Six months after the conclusion of the temporary training positions seven(78%) allied health professionals were working in regional, rural or remote areas, one (11%) in a metropolitan area, and one was not employed by Queensland Health. At December 2016, the work locations of the 2014 cohort were: one in metropolitan and eight (89%) in regional, rural or remote areas, including the individual who had temporarily left the organisation after exiting the training role.

The components of the workforce model including allocated development time, a development plan, co-located supervisor and mandatory engagement in rural generalist service models and service development strategies were strongly supported by training position incumbents, local supervisors, managers and other health service stakeholders. The employment model was identified as safe and appropriate for early career practitioners in rural and remote areas.

Stakeholders proposed a two-year employment term would allow greater development time for the incumbent and increased opportunity for them to contribute to the service outputs of the team. A two-year term was implemented from 2015.

The lack of a formal education program was a barrier to progressing the development of an early career training pathway for the allied health professions.

The SCU evaluation identified the rural generalist training position as a “system disruptor”, stimulating and supporting changes to the local service delivery model. This finding underscored the value of building service development into the team’s responsibilities when implementing a rural generalist training position. The service changes enabled by the rural generalist training position varied between sites as each one implemented changes that were relevant to their community and organisational needs. Examples of outcomes from service development projects included:

- a 140% increase in telehealth clinical service hours in a rural occupational therapy service,
- an increase in dietetics service access in “spoke” facilities from a rural hub, moving from infrequent outreach (monthly to quarterly) to fortnightly telehealth clinics,
- budget savings associated with the development of an in-house medication packing process in a rural pharmacy service,

- a 64% increase in total physiotherapy inpatient occasions of service in a rural sub-acute service through the development and implementation of remote supervision of allied health assistants, and
- implementation of weekly teleheath-supported, allied health assistant coordinated group physiotherapy services in rural centres that previously had limited outreach services.

The outcomes from the 2014 trial and subsequent implementation cycles confirmed that the primary rural generalist service strategies selected by teams relate to bringing care closer to clients and addressing the challenges of practicing over a large geographical area. The key strategies are:

- telehealth,
- delegation and better use of support worker such as allied health assistants,
- extended scope of practice including skill sharing, and
- partnerships that facilitate a generalist scope of clinical services, particularly for low frequency or high complexity cases (e.g. inter-agency partnerships, shared care models with metropolitan services).

Mapping clinical requirements (profession-specific and trans-professional/skill sharing)

The profession-specific and skill shared clinical taskmapping project identified 337 tasks undertaken by rural and remote occupational therapists, podiatrists, physiotherapists, social workers, dietitians and/or speech pathologists. The full report on the Rural and Remote Generalist: Allied Health Project has been published online by the GNARTN, including the detailed task data (GNARTN, 2013). Forty-five per cent(45%) of tasks were delivered at least partly by more than one profession as part of current practice. This included tasks that are within the usual scope of practice of more than one profession, and also tasks that were “informally” skill shared in a local context. Teams identified that 127 tasks were potentially appropriate for formalising current multi-professional delivery or expanding skill sharing to other professions for non-complex clinical cases, assuming competencies, training, supervision and other governance processes were implemented. Occupational therapy and physiotherapy were identified in 84 (66%) of the tasks regarded as appropriate for skill sharing. Potential training in skill shared tasks for the other professions included speech pathology (40 tasks, 31%), dietetics (28 tasks, 22%), social work (15 tasks, 11%), and podiatry (8 tasks, 6%).

Skill sharing opportunities selected as appropriate by rural and remote teams in the project were generally a marginal expansion of a profession’s existing scope. That is, skill sharing was most commonly identified in discrete clusters of tasks where professions shared some common underpinning knowledge such as movement analysis skills and functional performance concepts for physiotherapy and occupational therapy. Except for highly standardised or low complexity tasks, skill sharing was generally not proposed for broad implementation across a multi-disciplinary team as safety, effectiveness or training load (efficiency) did not support this level of task substitution. Although not a primary aim of the project, the methodology used also generated findings in relation potentially delegatable tasks. Of the 337 total tasks, 47 (14%) were identified as already delegated and 100 (30%) as potentially appropriate for delegation in rural or remote settings.

Rural generalist education program

The rural generalist education framework demonstrates substantial consistency of non-clinical requirements between a range of disparate professions including pharmacy, physiotherapy, nutrition

and dietetics, podiatry, speech pathology, occupational therapy, and medical imaging. Non-clinical elements of the framework included service delivery skills that were highly relevant though not exclusive to rural generalist roles, and rural and remote health topics. The majority of clinical topics were profession-specific and reflected the broad practice requirements of rural generalists. The profession-specific topics were separated in the framework from "service-specific" clinical requirements. The latter included skill sharing and extended scope practices. These are highly dependent on the service model in the rural generalist practitioner's team and must be implemented with a robust clinical governance process in place. The framework topics are listed in Table 1.

Table 1 Allied Health Rural Generalist Education Framework

Domain 1: Service Delivery	**Domain 2: Rural and Remote Health Context**
Service development and planning Quality improvement and clinical risk management Project management and leading change Evidence-based decision-making Management skills (including financial, resource, operational risk and people management skills) Education and supervision Applied research in rural and remote contexts	Healthcare systems and rural and remote service models Primary health care Cultural competence Community engagement Ethical practice Telehealth Delegation to clinical support workers Extended scope of practice including skill sharing Rural generalist service delivery models using partnerships
Domain 3: Profession-specific skills	**Domain 4: Service-specific skills**
Clinical capability development for rural generalist occupational therapy, nutrition and dietetics, physiotherapy, podiatry, pharmacy, speech pathology, and medical imaging.	Extended scope exposure (early career) and implementation (more experienced) Skill sharing tasks in one or more of the following clinical areas: activities of daily living and function; mobility and transfers, cognition, perception and memory; developmental and child health; diet and nutrition; musculoskeletal; foot care; pressure care, scars and wounds; social and psycho-social; swallowing and communication.

Conclusion and recommendations

Successive projects have built the concept of rural generalist services, workforce and employment models and education and training requirements for the allied health professions. Integrating these concepts can produce a rural generalist pathway from graduate through to proficient rural generalist practice, and into extended scope if this is required by the local service. A structured pathway has the potential to enhance recruitment and address attrition challenges including access to professional development and support. Early indications from Queensland show promising retention in regional, rural and remote practice over three years for early career rural generalist training position holders. This is despite the Queensland model's use of temporary appointments and the absence of designated positions beyond the rural generalist trainee's second year. Further evaluation of rural generalist workforce and service strategies is required to test the concepts in different settings, to identify impacts and value derived from investment, and changes required to better meet the aims of the initiative.

Collaboration between health services across Australia is necessary to deliver sector-level implementation of an allied health rural generalist pathway. Health services in four states and territories have committed to trial rural generalist training positions in 2017 and 2018, with

opportunities for more healthcare providers to become involved. Trial positions will be primarily early career two-year roles, similar to the Allied Health Rural Generalist Training Positions implemented in Queensland, though generally not supernumerary. Positions will undertake a formal rural generalist education program delivered by James Cook University and QUT. An evaluated trial will examine the employment model in different organisations and contexts, as well as the outcomes of the education program for the trainee and the team. If successful, extension of the employment structure through to senior rural generalist roles will be required to realise a more complete workforce pipeline. Challenges to healthcare organisations of progressing this strategy include integrating the pathway into industrial instruments, employment policy and health service business models, building local supervision and training capacity in small workforces, and growing the expectations of rural generalist service capacity that utilises the full scope of practice of allied health professionals. Embedding the rural generalist pathway will require the development of accreditation standards and systems using the learnings from previous projects and the current three-year trial (2017-19). This is currently hampered by an absence of resourcing for a coordinated national approach to rural generalism for the allied health professions. Investment is required to capitalise on the substantial work completed by individual organisations and collaboratives to date in order to formalise the rural generalist pathway as a central component of Australia's ongoing rural and remote health workforce strategy.

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Presenters

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