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REVIEW ARTICLE

Learning from those who have gone before: strengthening the rural allied health workforce in Aotearoa New Zealand

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ABSTRACT:

Context and issues: The pipeline for the allied health, scientific and technical workforce of Aotearoa New Zealand is under growing pressure, with many health providers finding recruitment and retention increasingly difficult. For health providers in rural settings, the challenges are even greater, with fewer applicants and shorter tenures. As the health needs of rural communities increase, along with expectations of uptake of technologies and the Ministry of Health's strategy to ensure care is provided closer to home, being able to retain and upskill the diminishing workforce requires new ways of thinking.

Lessons learned: Understanding the activity that has been undertaken by medical and nursing workforces in New Zealand and abroad, as well as the work of the Australian allied health workforce provides context and opportunities for New Zealand. The challenge is for educators, professional bodies, the Ministry of Health and health providers to develop new ways of thinking about developing a rural workforce for the allied health scientific and technical professions.

Keywords:

allied health, health workforce, health systems, New Zealand, recruitment, retention.

FULL ARTICLE:

Context and issues

Introduction

Healthcare delivery in rural and remote areas is challenging. It is challenging because the people who live in rural and remote areas are few and far between, providing limited opportunities for efficiencies in service delivery. It is challenging because there are perceptions about rural communities having less: less to offer, less quality, less access. And it is challenging because rural and remote health care looks different than urban health care, and that makes it difficult for urban trained health professionals to imagine themselves working rurally, to understand how they will get access to ongoing professional development, how they could contribute to research and innovation. Because of these types of challenges, it can be difficult to attract health professionals to work in rural areas.

Additionally, patient care has become more complex, due to an increasing ageing population and increasing comorbidities[1]. This has resulted in the increased specialisation of all healthcare professions, and in-depth exploration of issues by each specific profession[2]. Yet in rural settings, this increased specialisation is often unattainable, particularly for allied health professionals, due to constrained resources, recruitment challenges and small numbers of patients requiring input from any given speciality. It can also be unhelpful, with expectations from professional bodies, communities and educators that all clinicians should have the opportunity to specialise – expectations that cannot be met in communities with small populations.

The medical and nursing workforces in Aotearoa New Zealand have also needed to respond to these challenges and take advantage of the opportunities available in rural settings. Working in partnership with professional associations, unions, health boards and training institutions, they have developed pathways and programs that aim to strengthen their workforces within the rural and remote settings[3]. Engagement with the New Zealand Ministry of Health (MoH) and other governance systems, lobbying and influencing legislative processes and working in partnership with internationally renowned think tanks such as the Kings Fund[4] have also given weight to their efforts.

Medical, nursing and allied health professions (AHPs) in Australia have worked to influence and develop a robust network of health professions to serve the vastly distributed rural and remote communities requiring health services[5]. Understanding the activities and impact of these groups provides a lens for developing the AHP rural workforce in New Zealand, in ways that are flexible enough to respond to the different needs of each rural area. As such this article aims to provide an overview of health workforce development in New Zealand, highlighting opportunities and lessons for future workforce development, and look abroad to what our AHP colleagues have already learnt that could be of benefit to New Zealand rural AHP workforce development.

Context

The West Coast District Health Board (DHB) serves the communities of the West Coast of the South Island[6]. This DHB is the most rural of all DHBs as it does not have any urban communities. The West Coast DHB covers over 23 000km^2 and has a population of 32 600 people (about 1% of the New Zealand population), equating to about 1.4 km^2 per person[7]. The West Coast population differs from the national average, being slightly older, with fewer Māori, a very low number of Pacific people, and a higher proportion of population in the lower decile[8].

The West Coast economy has historically relied on the export of raw materials such as gold, coal, timber and dairy products to provide employment within the district. In recent years tourism has increased; however, most overseas visitors spend an average of only one night in the district[9]. The health sector also provides a considerable number of jobs, with the West Coast DHB considered one of the largest employers of the district, with more than 950 staff working across the 13 facilities, and wider community settings, in full- and part-time roles[10].

This district, as with other areas of New Zealand where mining operations have been key contributors to the national economy, has a long history of being supported to recruit and retain health professionals, acknowledging both the risks associated with mining and the contribution made to the national economy. Support has been in the form of additional bonded financial incentives, which were provided to local health services via the various models of statutory health provision[11]. One of the most recent incentive models is the three-year Voluntary Bonding Scheme[8]. This scheme, open to doctors, nurses and a small number of midwives, sonographers and dentists, supports 350 health professionals each year, to work in hard-to-staff areas of the country. This scheme provides student loan repayments or cash payments where no loan is held, set at around $10,000 for doctors, and on average $3000 for other professions each year[12]. The scheme is overseen by Health Workforce New Zealand[13], a unit of the MoH.

New Zealand health workforce development

The establishment of Health Workforce New Zealand[13] in 2009 was the result of a growing need for a coordinated response to the pressures on the New Zealand health and disability workforce[14], across rural and urban settings. Health Workforce New Zealand is the primary provider of funding for post-entry clinical training in New Zealand[14]. Honouring the work of their predecessor, the Clinical Training Agency[15], key priorities remained focused on raising the number of New Zealand trained doctors and lowering the average age of the nursing workforce through support for

entry to practice for nursing graduates[16].

New Zealand has a significantly lower number of people entering medical training than the OECD[17] average: 33.7 New Zealand graduates per 1000 health practitioners compared to 37.5 across the OECD[12]. Of these, only about 1% of medical students indicate a desire to work rurally once qualified[18]. Accordingly, much effort has been focused on supporting the training of the medical profession in New Zealand, increasing overall funded training places as well as specific programs of rural focus[19].

The two medical schools in New Zealand, at University of Otago and University of Auckland, are situated at either end of the country. Both offer pathways to support growth in rural and remote workforce. To date, the strategies employed by medical training programs have been twofold. First is working to identify those students who come from rural areas who meet the academic requirements for medical training and offering them preferential entry into university. The basis for this is that research, both in New Zealand and abroad, has demonstrated that those students from rural areas are much more likely to practise medicine in rural and remote locations than those from urban settings[18,20,21]. Second, programs aim to immerse medical students in rural practice; research has shown that medical students who complete a portion of their training in a rural or remote setting are more likely to return to rural areas to practise medicine[21,22]. Arguably, combining these features should increase the likelihood that students will become rural medical practitioners once qualified[22]. However, despite these efforts, concerns remain that the supply of medical practitioners for rural areas remains weak[23,24].

For the nursing profession, the last decade of the 20th century brought increasing difficulties for the nursing workforce regarding recruitment and retention, alongside a growing realisation that the workforce was rapidly ageing. It was also recognised that, for those seeking to employ new graduates, the workforce shortages created a highly competitive environment between health providers[25,26]. Rural health systems and communities were being hit hardest, with low numbers of graduates taking up rural employment opportunities.

In response to this, in 2006 the Clinical Training Agency commissioned a Nurse Entry to Practice program to provide a sustainable workforce into the future[26]. The program was designed to support graduate nurses to develop into competent nurses, within a safe team nursing environment. This program provides funding to DHBs to supplement the salary for each graduate nurse during their first year of practice, and the bidding process for applicants and potential employees ensures a fair distribution of graduates across the country[16]. Bidding requires new graduates to express their preferences regarding employment placements and employers to register their requirements regarding number and skill mix of graduates[16].

Working alongside the medical and nursing workforces, the professions that make up the allied health, scientific and technical workforce; known as allied health, are many and varied[27]. Most common are the therapy professions of physiotherapy, occupational therapy, dietetics, speech-language therapy and social work; and the medical imaging technologists and those who work in the dental, pharmacy and laboratory settings. For the New Zealand public health system, these professional groups are pivotal to the patient journey as they contribute to the multidisciplinary make-up of healthcare teams[28]. This collective of professions is equivalent to around a quarter of the nursing workforce and is slightly smaller than the medical profession, who are equivalent to one-third of the nursing workforce[29].

In 2009 the Ministerial Review Group was set up to make recommendations to the Minister of Health on the future direction of health and disability services in New Zealand. They identified AHPs amongst the key workforces experiencing consistent and significant gaps in rural and provincial areas[30]. Despite that review, the primary focus of Health Workforce New Zealand activity has remained on the medical and nursing workforce, with no additional funding for AHPs.

There is limited research seeking to understand the social and political factors relevant to the current distribution of funding by Health Workforce New Zealand, and in particular the lack of targeted provision of AHPs inherent in these existing systems. Those who have reviewed the development of the various New Zealand medical associations, and to a lesser degree the New Zealand Nurses Organisation, capture a narrative of collective bargaining power and political influence[25,31], which may at least in part contribute to the medical and nursing professions having more visibility in workforce strategy development.

Specialism and extension of scope

The nursing profession have worked hard to demonstrate their professionalism and capability across the scope of nursing practice, and are now making significant contributions as primary care practice nurses, clinical nurse specialists and nurse practitioners within the general practice and emergency medicine environments[32]. This increased professionalisation by nurses has created opportunities for the substitution of doctors with nurses, and pharmacists in some settings, and supplementation to the medical workforce[33]. In contrast, opportunities to work to a wider scope by other health professional groups are yet to be robustly explored[34-36].

There are many examples of the specialist areas of nursing and medical practice. For doctors, being vocationally registered means having developed a specialist area such as obstetrics, anaesthetics or more than 30 other vocations within New Zealand. This specialist registration allows doctors to work independently, after completing an accredited postgraduate program[37]. Clinical nurse specialists have developed expert knowledge in the medical speciality they are allied to, strengthened by their postgraduate study[38]. These speciality areas include cancer, stroke, gerontology and orthopaedics[39]. Further study can also qualify them to become nurse prescribers in their area of clinical practice; however, both clinical nurse specialists and nurse prescribers require a level of medical oversight and supervision that nurse practitioners are not required to have.

In 2003 New Zealand adopted the *Health Practitioners Competence Assurance Act 2003* in order to have one legislative framework across the health professions that provided protections to the public in relation to health, safety and competency of health professions[40]. This opened the dialogue for many health professions previously without these policy protections and requirements. However, for some professions this was a missed opportunity to create a partnership both across those professions that are allied to each other[27] and with nursing and medicine. This was attributed in part to the inter- and intra-professional rivalries that exist across individual allied health professions as well as between nursing, medicine and allied health, as well as across professions working within and beyond the scope of health. These rivalries are accentuated by each profession's use of different practice languages and jargon, clinical frameworks and views[41]. For each, seeing themselves as autonomous professional groups, with a commitment to demonstrating their profession's unique contribution to the patient journey, appears to have overridden AHPs' desire to exercise more collective power within the health workforce[42].

These rivalries and the desire to be recognised as autonomous professions has also driven an increasing focus on advanced and extended scopes of practice, and the specialisation of professionals within the various professional groups, registration boards and professional bodies[42]. For some AHPs the very nature of their professional training marks them out as specialists: anaesthetic technicians, paramedics, orthoptists for example. For others, such as physiotherapists occupational therapists and dietitians, the path to specialist practice may not commence until after the initial 'core' years of clinical practice. Examples of specialist practice include neurodevelopmental physiotherapy, orthopaedic physiotherapy, paediatric diabetic dietetics, speech pathology and hand therapy[43-51].

Each area of specialisation offers benefit to both the patient journey and to the efficacy of the medical or surgical intervention, such as with musculoskeletal physiotherapy led orthopaedic assessment and treatment programs which identify and offer intervention to those patients who may otherwise require surgical intervention. Certainly, McKimm et al describe these specialised or advanced practitioners as professionals working at the interface between medicine and their own profession[33]. However, the expectations of the specialised or advanced practitioners, special interest groups, registering bodies and the other disciplines they work with are that the specialism and advanced practice is maintained through an exclusive focus of continuing professional development into that specialist area. Yet this level of activity and focus is often out of reach for rurally based practitioners.

Lessons learned

Generalism and delivering health care to rural populations

For rural practitioners, who work within small and vastly spread populations, and who are expected to work across the range of needs and patient types that present to the health service, maintaining competency and specialism in multiple advanced fields of practice is time consuming and costly. Additionally, it is very difficult for practitioners to maintain multiple specialist areas of practice when their opportunities to put their knowledge into practice are far fewer than their urban counterparts.

This suggests that generalism, specifically rural generalist[52], is a better focus for AHPs in rural areas who need to work across a diversity of people. How then do these practitioners achieve the same recognition and standing with their peers that are afforded to their specialist colleagues? Perhaps the tension here is just that: finding a way to recognise rural generalism as an advanced scope in its own right.

Frameworks to support generalist practice

The creation of HealthPathways by the Canterbury District Health Board and wider adoption of localised versions across many health systems in New Zealand, Australia and, more recently, the UK and Canada have provided a framework that can support rural practitioners to maintain their competence in navigating multiple speciality areas[53]. HealthPathways are locally agreed guidelines that are organised as an online manual, and they describe how particular health conditions are managed within the local context to which they are applied[54]. While initially designed for general practices, to aid community management of patients, and activation of specialist advice and intervention, these online manuals have also been designed for pathways within hospital settings[55].

A number of articles have been written about the ability of HealthPathways to create the conditions to guide 'best practice, best use' of the right clinical resource, which can assist in the rural setting[53,56,57]. In contrast Leggat et al[58] raise the debate that HealthPathways is at odds with professions who are trained to employ critical thinking, and see themselves as self-regulating. Regardless, the current development of pathways for AHPs would indicate more support than dissent.

Skill sharing and delegation offer another avenue for guiding the best use of the right clinical resource. The Calderdale Framework[59] is a workforce development tool that has been adopted by the Directors of Allied Health, Scientific and Technical within New Zealand. The framework ensures safe and effective patient-centred care and provides a clear and systematic method for reviewing skill mix, developing new roles, identifying new ways of working and facilitating service redesign[60]. Initially designed in the UK to safely develop the skills of the non-regulated allied health assistant workforce, its success in providing a competency framework with clear clinical task instructions for delegation or skill sharing across the allied health workforce has seen its applicability extend into the regulated and non-regulated nursing workforce in the UK[59].

What can Australia teach us?

Australia, in parts much more rural and remote than the West Coast of New Zealand, has also needed to address the challenges of AHP service delivery. They too have adopted the Calderdale Framework[59] with the state of Queensland having been most

enthusiastic in its implementation, and supportive to other states, and to New Zealand services adopting this model[61]. A considerable amount of quality research and activity occurring across rural and remote Australia can guide the New Zealand AHPs[27,62-71].

One way that the Australian AHP workforce has adapted to meet the needs of those rural and remote communities is through the expansion and extension of scopes of practice. This has been achieved through interprofessional practice, skill sharing and delegation[72]. McKimm et al[33] have described the benefits of expanded/extended scope to include increased productivity, reduced wait and reduced cost. Australia has also been able to implement a number of AHP-led models of care, such as in Queensland, where various professions work as first contact practitioners, in settings such as emergency departments, and ear nose and throat outpatient, orthopaedic and neurosurgical specialist outpatient clinics[73].

Partnering with education providers has also been a key success factor for strengthening the health professions working within rural and remote Australia. Recognising the need for a better connection between education and health, Health Workforce Australia led a nationwide discussion to shift the 'business as usual' approach towards a sustainable integrated program[74]. This resulted in nationally coordinated action between government, industry and education, alongside the various professional bodies that would better meet community need. In turn, universities such as James Cook University and Queensland University of Technology have developed collaborative programs aimed to fill both current and projected future workforce challenges[75].

The Greater Northern Australia Regional Training Network has developed a rural and remote generalist allied health project to 'support the development of clinical training models for allied health professionals'[67] as it recognises that the lack of understanding of the tasks required by these professionals in rural and remote areas was limiting the ability of educators and organisations to provide training and resources, or design effective models of care[67]. The postgraduate program designed for early career AHPs that emerged from this work has created a pathway to develop practical, work-integrated skills that support the needs of rural and remote communities[75].

The future of health workforce education in New Zealand

A not dissimilar theme appears within the MoH literature, where there are references to Health Workforce New Zealand proposing the creation of more generic roles such as rehabilitation practitioners, who would be 'more effective'[30] than specific roles such as in physiotherapy or occupational therapy, particularly in harder-to-staff and smaller workforce areas. The literature proposes streamlining learning across AHPs to allow for members of the allied health, scientific and technical workforce to 'gain new skills or switch disciplines without having to start from scratch'[13,30]. The literature proposes development of a health sciences degree with elective papers for specific therapeutic interventions – something not currently available in the New Zealand education environment – in a form that is within the scope of the *Health Practitioners Competence Assurance Act*.

Taking what has been learnt, from the examples above, and leveraging this learning within the context of the current MoH New Zealand Health Strategy[76], has potential. Certainly, the strategy appears to have some strong preventative and population health aspects, which could be interpreted as advantageous to the advancement of AHPs. Action 24 of the strategy specifically states that we must 'identify ways to best use the skills and expertise of the allied health workforce'[76] as well as work in partnership with other ministries, including education, to ensure that workforce development enhances diversity, capacity, capability, flexibility and sustainability through succession planning[76].

This health strategy is not markedly different from the last, nor from the activity occurring elsewhere in the health system[76]. Given this, and given we have not necessarily seen a parallel shift in allied health roles, some consideration needs to be given to the role of the MoH in bringing this to fruition and strengthening and optimising use of the allied health, scientific and technical workforce. At a recent Health Informatics New Zealand Conference, the Accident Compensation Corporation (ACC)[77] CEO Scott Pickering[78] spoke about the ways that ACC is transforming, including their commitment to working in partnership with physiotherapy education providers, to ensure they are preparing graduates for ACC's activity. While partnerships are key, preparing a workforce for a narrow specialist scope such as that of physiotherapy within the ACC-funded accident and injury space will continue to silo and restrict professions and add to the challenges for rural recruitment.

Conversations with education providers suggest they are also commited to a broadening of professional practice rather than just further specialisation. The University of Otago, for example, is committed to extending and enhancing their Rural Health Plan[79] to reflect the necessity for interprofessionalism, generalism and a breadth of scope, and fluidity within professional partnerships for rural healthcare workers who 'work closely together and often share caseloads'[79]. Together with the Auckland University of Technology and the University of Auckland, they aim to find ways to 'do things differently and better'[80], including exploring the potential to further extend the scopes of practice of nursing and other health professions.

Where to next?

An examination of the strategies that have been utilised by the medical and nursing workforces within New Zealand is useful in helping AHPs to understand the politics and areas of leverage available when strengthening the voice of AHPs at national and district levels. So too does an examination of the development of rural allied health practice in Australia, where rural generalist postgraduate training is creating opportunities for a variety of AHPs[67,75].

The traditional, hierarchical models that continue to exist within health systems have been disrupted, in part, where the necessity of

rural service delivery has required it. Rural medical generalists, rural nurse specialists and rurally focused urban specialists delivering care remotely via telehealth are a testament to how the power is starting to shift[81]. Realising ways for AHPs to meet the needs of rural populations is key to the survival of allied health within the public and private health settings, and indeed the survival of locally based health services. These rural populations, usually small, present limited opportunities for the development of specialist practice and limited funding to provide the higher staffing levels needed to travel significant distances, to see small numbers of patients. Working collaboratively and in interprofessional ways leads to better health outcomes[82], creates efficiencies and enhances the professional development and enjoyment of the clinicians involved[83].

However, unless the various and markedly separate AHPs are willing and able to live within the duality of professional clinical autonomy and collective professional identity, the opportunity to develop cross-disciplinary partnerships, embrace interprofessionalism and build workforce capabilities seems largely unachievable. How then do other professions; whether as a collective, such as the allied health, scientific and technical workforce, or individually, such as physiotherapists developing a rural generalist scope overseen by their registering body, create further shift? What questions do we need to ask next, as a workforce? And who do we need to engage with and work in partnership with to ensure that the allied health workforce of the future will have the skills and knowledge required to support the health and wellbeing of rural and remote communities? And lastly, for now, should this work be for AHPs collectively, or should our focus be on ways that AHPs, nursing and medical staff can share the power, share the clinical activity and truly place ourselves around our patient, who is at the centre of what we do?

With workforce shortages, changing community expectations and new ways of working developing rapidly, AHPs in Aotearoa New Zealand have an opportunity to lead the change required for rural health care. Partnering with our nursing and medical colleagues, and learning from our colleagues in other countries who are working to solve these issues for allied health as well, offers an opportunity to positively influence national strategy as well as targeted development of the rural AHP workforce.

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