



# Establishing the nurse practitioner workforce in rural New Zealand: barriers and facilitators

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J PRIM HEALTH CARE

2019;11(2):152–158

doi:10.1071/HC18089

Received 20 November 2018

Accepted 02 April 2019

Published 14 June 2019

## ABSTRACT

**INTRODUCTION:** The health sector is facing considerable challenges to meet the health needs of rural communities. Nurse practitioners (NPs) deliver primary health care (PHC) services similar to general practitioner (GP) services, within a health equity and social justice paradigm. Despite GP workforce deficits, New Zealand has been slow to effectively utilise NPs.

**AIM:** From a larger study exploring the establishment of NP services, this paper reports on the barriers and facilitators to becoming a NP in rural PHC.

**METHODS:** Overall, 13 NPs and 4 NP candidates participated in individual or group interviews. Participants were employed in a variety of PHC settings from six district health boards across New Zealand. Using a scaffold map constructed to show the stages of the pathway from nurse to NP, data were analysed to identify experiences and events that facilitated or were barriers to progress.

**RESULTS:** Experiences varied considerably between participants. Commitment to the development of the NP role in their local areas, including support, advanced clinical opportunities, supervision, funding and NP job opportunities, were critical to progression and success. Existing GP shortages and the desire to improve health outcomes for communities drove nurses to become NPs.

**DISCUSSION:** Implementation of the NP workforce across New Zealand remains *ad hoc* and inconsistent. While there are pockets of great progress, overall, the health sector has failed to embrace the contribution that NPs can make to PHC service delivery. A national approach is required to develop the NP workforce as a mainstream PHC provider.

**KEYWORDS:** Rural health; primary health care; nursing roles; workforce; equity

## Introduction

Overall progress to establish nurse practitioner (NP) services with any consistency across the health sector has been relatively slow. By February 2019, 350 NPs were registered with the Nursing Council of New Zealand (NCNZ),<sup>1</sup> with

40–50% estimated to work in primary health care (PHC). The pockets of growth in NP service provision have generally been spear-headed by individual registered nurses (RNs) and innovative service leaders rather than strategic workforce planning. Globally, NP numbers have grown substantially in recent years. Key drivers

have been the global shortage of general practitioners (GPs), burgeoning health-care costs, ageing populations and the increasing prevalence of long-term conditions. Internationally, NPs have successfully established services in localities that are underserved, Indigenous, marginalised or rural.<sup>2,3</sup> Both the Institute of Medicine Report<sup>4</sup> and Bodenheimer and Bauer<sup>5</sup> have argued the necessity of developing the NP workforce to meet future health needs. With ongoing concern that the current biomedical model of health care is not adequately addressing PHC needs or health inequalities, a new model of care that embraces the principles of PHC and promotes social justice and health equity is required.<sup>6–10</sup>

Systematic reviews of research undertaken to compare health care provided by GPs with NPs finds that the levels of satisfaction are superior for NP care, that prescribing practice is similar and that NP care generates similar or better health outcomes for patients across a broad range of conditions.<sup>11–13</sup> With this substantial body of evidence, it is concerning that NZ has failed to embrace the NP workforce as a provider of mainstream primary health-care services. Previously, we have argued that NPs are a solution to NZ's primary health-care challenges, bridging biomedicine with nursing to focus on health equity and promote social justice.<sup>14</sup> Workforce development, however, continues to be dominated by the drive to increase the recruitment and retention of GPs, despite little evidence of the success of such schemes<sup>15,16</sup> and overlooking the commitment of NPs to work in disadvantaged and rural communities. At the time of writing, predictions for sustaining the GP workforce are concerning,<sup>17</sup> with many rural areas and small towns already experiencing very poor health-care access.

New Zealand can claim to have an extremely robust legislative, educational and registration framework for NPs that compares favourably to the United States, Canada and Australia. All NPs are educated with a clinical Master's degree in Nursing that includes requirements to complete pathophysiology, assessment and diagnosis, pharmacology and prescribing papers (see NP scope of practice).<sup>18</sup> Since 2014, all registered NPs have been authorised prescribers, and multiple changes to NZ legislation have occurred to

## WHAT GAP THIS FILLS

**What is already known:** The health sector's ability to deliver primary health-care (PHC) services rurally is stretched with general practitioner (GP) workforce deficits frequently articulated. Health inequalities persist and long-term conditions are prevalent. Nurse practitioners (NPs) are authorised prescribers and provide a full range of PHC services, with similar health outcomes to GP care. New Zealand (NZ) has had a robust framework for registering NPs for nearly 18 years, yet the development of the NP workforce in NZ has been slow to materialise.

**What this study adds:** There is considerable variation across NZ regarding the development and implementation of the NP workforce. Experiences of NPs and NP candidates revealed a wide range of both barriers and facilitators to becoming registered to deliver services as NPs. This study informs the need for, and direction of, a consistent approach to rural NP workforce development in PHC.

ensure that functions previously restricted to medical practitioners can now be undertaken by NPs, including the recent Health Practitioners (Replacement of Statutory References to Medical Practitioners) Bill.<sup>19</sup> Access to funding, such as through capitation and general medical services (GMS) budgets, means that NPs can now independently generate a viable income in a general practice.

Given the opportunities that an NP workforce offers to the health sector and population of NZ, research was conducted to explore the establishment of NPs and their services in rural PHC.<sup>20</sup> This paper presents an aspect of this wider doctoral study, reporting on the barriers and facilitators described by rural NPs and NP candidates in their journey to become registered as NPs and deliver NP services. The purpose of this paper is to inform the discussion on instituting a mainstream NP workforce in PHC in NZ.

## Methods

Institutional ethnography<sup>21</sup> was used as the approach to inquiry to enable the exploration of how the RNs' and NPs' experiences and activities were being coordinated institutionally by texts (such as policies, contracts, professional literature and media) and historical discourses.

Data were collected between 2013 and 2016. Individual interviews were undertaken with eight NPs, four NP candidates and an additional five NPs through group interviews. Participants were recruited through networks and snowballing. All were female and five identified as Māori. The NPs had been registered between 12 months and 8 years and were all authorised prescribers. The NP candidates had either completed or were close to completing their clinical Master's degree. They worked in a variety of PHC provider settings including general practices, primary health organisations (PHOs), district health board (DHB) or trust-owned general practices and Māori health providers across six different DHBs in both North and South Islands. Data for this paper identifying barriers and facilitators draw only on interviews with these participants.

The purpose of institutional ethnography is not to identify common themes, but to piece together institutional processes, beginning with front-line interviews.<sup>22</sup> To support the interviewing process, a scaffold map was constructed showing the stages of the pathway from RN to NP using information publicly available on websites, including the NCNZ, Health Workforce NZ (HWNZ), DHBs, the Ministry of Health (MoH) and tertiary education providers of clinical Master's programmes. This scaffold map (Fig. 1) provided the baseline for analysing participants' experiences. Interviews were mapped to identify sequences of actions, how key events occurred, and common connections between participants.

The study underwent a full ethics review and approval was given by the Massey University Human Ethics Committee (Reference: MUHECN 12/062). Pseudonyms have been used.

## Results

The participants' experiences varied considerably between locations, identifying a range of barriers and facilitators along the journey to become a NP and deliver NP services. It was evident that the pathway, as shown in Figure 1, was neither linear nor straightforward, taking participants 7–15 years to become a registered NP. Each stage of the journey required participants to undertake considerable work and effort in negotiating with

individuals from a range of organisations (local, district and national) and to complete various institutional processes. They frequently used terms such as '*confusing*', '*misleading*', and '*frustrating*' to describe some of the difficulties faced.

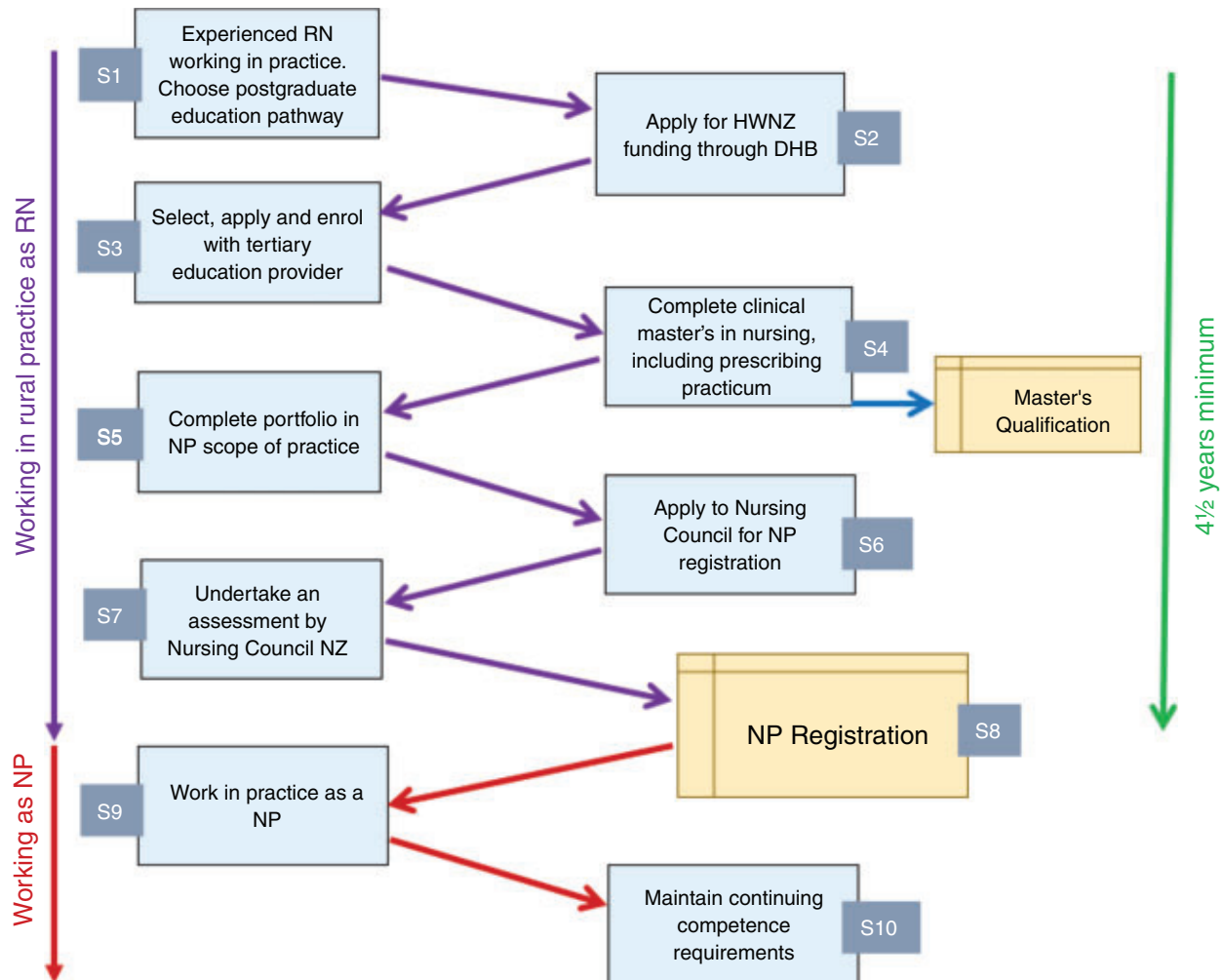
Table 1 shows facilitators and barriers identified by the participants through to the stage at which they were registered as a NP with the NCNZ and seeking employment as a NP. The NZ shortage of GPs in rural areas had facilitated RNs to advance their nursing practice and consider becoming NPs. After-hours schemes in several DHBs had allowed for RNs to provide cover in clinics and on home visits with telephone support from a GP. Standing orders used in many rural areas enabled RNs to use their advanced nursing skills to make clinical decisions and inform discussions with doctors when further advice was required. Being Primary Response in Medical Emergencies (PRIME) trained gave the RNs experience in medical emergencies and accidents, where they were often the first to attend the emergency. One NP described how, through these service requirements, her advanced practice was 'consolidated' and that it 'made us work ... at a good level, at a safe level, and understand prescribing' [Ellie]. Another described how working at this advanced level encouraged her to use her assessment and diagnostic skills [Leanne]. For both, these experiences facilitated their progress to become a NP.

The high utilisation of often inexperienced locum doctors in rural practices meant the RNs were taking the lead in clinical situations, including medical emergencies and managing long-term conditions. Shona described how she had worked with 16 locum doctors over a period of 2 years. Her concern over her situation prompted her to become a NP. She stated:

'I was being asked to do what was outside the scope of practice for a RN ... I felt that I didn't have enough knowledge, and I didn't have the authorisation of my professional body to be making the decisions that were expected of me in that role, in that remote community. And so that is what pushed me on [to be an NP].' [Shona]

After Shona gained her registration as a NP, the Director of Nursing in the DHB would not

Fig. 1. Scaffold Map: Stages (S1S10) from registered nurses (RN) working in practice to maintaining competence as a nurse practitioner (NP).



employ her as a NP, but continued her previous contract as a rural RN. After many months, she moved to another DHB to work as a NP in a general practice. Two other participants reported similar experiences.

It was evident from all interviews that commitment from the employing organisation, whether general practice, Trust, PHO or DHB, was central to success in becoming a NP, beginning from support to undertake postgraduate study through to employment as a NP. Previous experience of GPs having worked with NPs was also important. At one general practice in a highly deprived rural area, change to GP employment and consultation

structure was undertaken to promote teamwork and enable the RNs to work to their full scope of practice.

'I think we [the practice] had an expectation of trying to get all our nurses to work at the top of their scope ... not just with NPs. It's through the whole organisation that we're expecting our nurses to be growing and becoming more independent.' [Jane]

While Jane was the first to achieve NP registration at that practice, a further two RNs were being supported and supervised on their postgraduate pathway.

Table 1. Facilitators and barriers to becoming a registered nurse practitioner (NP)

Facilitators	Barriers
Strategic commitment to NP development from employing organisation (e.g. general practice, health clinic), PHO or DHB with practical support for postgraduate education, professional development and clinical experience. Employers cognisant of the value and appropriateness of the NP role.	Lack of nursing leadership from PHO and DHB. Tensions between PHC providers, PHOs and DHBs. Lack of engagement between Directors of Nursing of DHBs and PHC nurses. Ignorance of the role of NPs by GP practice owners and other employers and managers.
GP commitment to training and supervision of NP candidate. Local collegial and managerial support.	Ignorance of income generation capacity of a NP. Reluctance to consider NPs as an alternative workforce to GPs.
Breadth of rural practice work and requirement to work to full RN scope of practice, including standing orders, PRIME, after-hours cover and nurse locum work. Use of advanced clinical assessment and decision-making skills.	Inconsistent information available for the planning and completion of a clinical nursing Masters programme, and difficulties negotiating time and supervision particularly for the prescribing practicum.
Mentoring from nurse leader, another NP or lecturer from tertiary education institute for career development.	Reduced access to HWNZ postgraduate funding for PHC nurses in some areas, and at times, application refused as not linked to clear NP position availability.
Completion of previous RN portfolio as part of a Professional Recognition and Development Programme.	Portfolio completion and application process to NCNZ seen as arduous and costly without guaranteed employment.
Community support for nursing workforce development.	Personal costs to completing NP pathway and securing employment.

PHO, primary health organisation DHB, district health board PHC, primary health care GP, general practitioner PRIME, primary response in medical emergencies HWNZ, Health Workforce New Zealand RN, registered nurse NCNZ, Nursing Council New Zealand

Others, though, had different experiences. One NP candidate (ready to submit her NP portfolio to the NCNZ) had been encouraged and supported by the previous GP owners, but a change in ownership prevented her progress:

‘The [new] GP owner is not willing to take me on.... But that’s GP owners. That’s the paradigm. That’s what we’re up against.’ [Natalie]

Several participants described how they had expected to become a NP in a particular general practice, but once registered, the practice ‘changed their mind’. For example, Elaine described how she worked as a practice nurse following registration as a NP for ‘six months until it became apparent that it [NP employment] was going nowhere’. A GP from a different practice phoned her and offered her a ‘different way of working’ in a collegial relationship with the GP.

Some PHOs had driven local strategy to train and recruit NPs, either supporting NPs into a local practice or by directly employing the NP to deliver outreach services. For example, a Northland PHO leadership team had committed to ensuring a supportive environment for RNs to

become NPs, including mentoring for NP candidates, support for business case development for local practices, and funding for professional development, portfolio completion and NCNZ assessment processes.

A difficulty for many NPs and NP candidates was securing funding for their postgraduate education through HWNZ, including for travel and accommodation. Funding allocation is managed by DHBs’ Directors of Nursing. While some participants described good relationships and support from their Director of Nursing, others described a lack of engagement between PHC nurses and the DHB, describing that in some districts, PHC nurses ‘wouldn’t have a clue’ where to begin.

Tensions between primary health-care providers, PHOs and DHBs limited the progression of several participants. One NP candidate changed employment on three occasions, each with the promise of becoming a NP, from DHB, to PHO and back to DHB again. The result was ultimately that there was no opportunity to be a NP in her locality, despite GP shortages and the need for rural outreach services to deprived Māori communities. She described the consolidation



of PHOs, changes to the management structure (and individuals) of PHOs, and lack of clarity and direction by the DHB as preventing the development of the NP role:

'I could see when we had [named] PHO in control of a lot of our practices, that NPs ... would have come quickly in the practices, because we had someone innovative controlling the funding.... Now that we've got such a disparate group of PHOs, the GPs have actually built up a kind of wall of resistance to anything new.... I feel like I did blame [the CEO of the DHB] for the NP slow-down ... but [they are] still trying to work on building relationships between primary and secondary care.' [Liz]

A NP candidate described how the annual planning and contracting cycle, along with quarterly reporting, distracted considerably from developing rural health services. Another NP described how the health provider who employed her was continuously competing for and seeking new contracts. She worked tirelessly to develop and implement services that reflected the key directions of NZ's Primary Health Care Strategy, focusing on community development and reducing health inequalities. She established a rural clinic in a Māori community, but:

'They have funding for Māori medical officer support and they didn't want to let that funding go, so they've chosen to continue with the funding and get doctors in, and that's eaten away at the potential for the NP role to develop.' [Carol]

Carol gave another example of a vitally needed women's drop-in centre that she established with support from a family planning NP. Carol described how a change of (general) manager at the health provider resulted in this project being 'completely quashed'.

Individual commitment to the journey to become a NP was extraordinary. The overarching sentiment was the knowledge that they could improve health services for their local communities as a NP. One Māori NP stated 'I was going to be an NP, and I was going to make a difference for my community. End of story'.

## Discussion

Findings from this study have shown the journey from RN to NP employment in rural areas remains an *ad hoc* process<sup>23</sup> with enormous variability across service providers and locations. This analysis also reveals that RNs undertaking the journey are invariably responding to visible unmet need in their communities and that they invest considerable time and effort in the process. Participants describe inadequate or uncertain funding support for their development. Conversely, they also describe having received funding and attained NP registration, but not being utilised in the role. It is also revealed that despite nearly 18 years of the implementation process of NPs, there are considerable pockets of ignorance or lack of awareness of the NP role and its contribution to service delivery and the health and wellbeing of local communities. In summary, this analysis shows considerable wastage of time and energy in a sector that has little to spare.

Difficulties in establishing NP services have occurred within a context of repeated announcements about the ageing population, the tide of chronicity and growing health workforce deficits.<sup>17,24,25</sup> The international evidence informs us that the health care provided by NPs is as effective as GPs and maybe more appropriate for PHC need.<sup>5,9,11-14</sup> There is little systematic research internationally on the added value that NPs bring to reducing health inequities, which is the subject of planned future research by the authors. The requirement for new ways of working and the use of 'top of scope' approaches has been consistently articulated alongside a growing concern for lack of health-care access by rural and vulnerable populations. NCNZ data reveal that only ~10% of nurses who hold a completed Master's qualification progress to NP registration,<sup>26</sup> thus adding to the pool of wasted energy and funding. The experiences of NPs and NP candidates in this study on their career pathway to become registered NPs and deliver PHC services to local rural communities were divergent and varied. A nation-wide consistent approach informed by existing policy is required to develop the NP workforce as a mainstream provider of PHC.

## Competing Interests

The authors declare no conflicts of interests.

## Acknowledgments

The authors wish to thank the NPs and NP candidates for their participation in this study. This research did not receive any specific funding.

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