Proposals for registered nurse prescribing:

perceptions and intentions of nurses working in primary health care settings

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ABSTRACT

INTRODUCTION: In 2013, the Nursing Council of New Zealand consulted on a proposal for introduction of registered nurse (RN) prescribing at two levels (specialist and community) within the designated class of prescriber. The proposal builds on the success of the diabetes nurse specialist prescribing project and the experience of other countries where RN prescribing is well established.

AIM: To describe the views and intentions of nurses who work in primary health care (PHC) settings about the two levels of RN prescribing proposed.

METHODS: The study involved a self-reported survey using a non-probability sample of RNs working in PHC settings (N=305). Quantitative and qualitative data were analysed descriptively.

RESULTS: The respondents were experienced nurses. Overall, 82.3% expressed interest in becoming a community nurse prescriber, and 62.6% expressed interest in the specialist prescriber level. RN prescribing was expected to improve efficiency and access to medicines for high-needs populations, clarify accountability and improve nurses' autonomy. The education requirements for the specialist level were viewed as appropriate but too onerous for many. Requirements were viewed as inadequate for the community level. Concerns were raised about funding for education and support for RN prescribing roles.

DISCUSSION: Nurses were positive about the proposals and see a potential to meet significant unmet health need. Nurses are already engaged in the provision of medicines to patients and prescribing authority would ensure they are suitably qualified to engage in these tasks. A clear policy platform will be needed if the proposed levels of RN prescribing are to be successfully implemented.

KEYWORDS: New Zealand; prescribing; primary health care; registered nurses

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Introduction

Registered nurses (RNs) work in a wide range of primary health care (PHC) settings throughout New Zealand, with many providing medicines to patients without a prescription, under standing orders. Standing orders are written instructions provided by a medical practitioner that outline the circumstances under which patients can receive medicines in the absence of a doctor. Standing orders are used extensively for a wide range of conditions; they require annual assessment of each nurse's competence to administer the order, and sign-off or monthly audit by the issuer of the order.

Recent changes to the Medicines Act³ in New Zealand have moved nurse practitioners (NPs) from the designated class of prescriber to the authorised class. The change means that NPs are no longer limited to a Schedule of prescription medicines, but can now prescribe any medicine that is within their area of practice. NPs may also prescribe controlled drugs for the maximum period of supply under an amendment made in 2014 to the Misuse of Drugs Regulations 1975.⁴ In anticipation of these changes to the medicines legislation, and due to the positive evaluation of the diabetes nurse specialist (DNS) prescribing project in 2011,⁵ the Minister of Health invited the Nursing Council of New Zealand (Nursing

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Council) to make a broader application to extend prescribing rights for suitably qualified RNs. Two levels of nurse prescribing within the designated class of prescriber were proposed ('specialist' and 'community'). Both levels use an independent nurse prescribing model, albeit within a collaborative and team-based environment. Specialist nurse prescribing is the more advanced of the two levels and is intended for nurses with advanced skills and knowledge who work in specialty services (e.g. respiratory or heart failure) or in general practice. Community nurse prescribing is intended for nurses working in schools, general practice, public health, for Māori and Pacific Health providers, youth services, family planning and in other outpatient settings, and would enable nurses to prescribe for minor ailments and illnesses.6 Under the Medicines Act, designated prescribers must prescribe from an approved list of medicines published by the New Zealand Government in the New Zealand Gazette.

As recommended in the evaluation of the DNS prescribing project, the Nursing Council consultation document⁶ proposed that for RNs to prescribe at a 'specialist' level, the required education will be a postgraduate diploma comprised of papers in pathophysiology, clinical pharmacology, advanced health assessment, and with a prescribing practicum. Competencies for prescribing are also outlined in the document. The education requirements for the community level of prescriber in the proposal were for a short course only, comprising clinical assessment and decision making, interactions and adverse reactions, legal and ethical considerations, patient teaching, and three days of supervised practice with an authorised prescriber.

Submissions received by the Nursing Council from the consultation process were supportive of the specialist level of prescriber. The Nursing Council subsequently applied in October 2014 to Health Workforce New Zealand for designated prescribing rights for RNs practising in PHC and specialist teams. This application is at the specialist level of prescriber and is intended for nurses who work with patients with long-term and common conditions. The application draws heavily on the evaluation of the DNS prescribing project, and on an extensive range of evidence

about independent prescribing by nurses and pharmacists in the UK and Europe, where it has been evaluated as safe and clinically effective. 8-11 The Nursing Council submitted an application for the community level of nurse prescriber in July 2015. It is not known how long it may take for the proposals to be considered and regulations drafted, if approved.

A driver to introduce prescribing for nurses working in diabetes health was to improve efficiency by reducing the administrative burden associated with the use of standing orders. RN prescribing under the Nursing Council's current proposal may reduce the use of standing orders in other areas of practice also. A small study in 2012 surveyed non-prescribing DNS about their views of nurse prescribing in diabetes,9 but little is known about the interest of nurses in PHC settings becoming prescribers. The study reported in this paper aimed to describe the views and intentions of nurses who work in PHC settings about the two levels of RN prescribing proposed. This was part of a larger survey of nurses' use of standing orders in PHC settings.2

Methods

The study design utilised a descriptive, crosssectional, self-administered survey for a nonprobability sample of registered nurses working in any type of PHC setting in New Zealand. The full survey instrument contained 37 items designed for the study: 18 concerned the use of standing orders, and 10 described the demographic characteristics of the sample (geographical location, practice setting, age, ethnicity, education and year of registration); nine items focused specifically on nurses' views and intentions about RN prescribing. The questions generated 'yes', 'no', or 'maybe' responses, and three questions provided an opportunity for more detailed free-text elaboration of the respondents' views. The wording used in the questions was consistent with the terminology of 'specialist' and 'community' level prescribers used in the Nursing Council consultation document. The questions were assessed and piloted by academic nursing colleagues and senior nurses who work in PHC settings, and confirmed as suitable for measuring and exploring the area of interest.

The recruitment approach for the study was to invite nurses who work in PHC settings in New Zealand to participate in the study using established email distribution lists, such as the Wellington region Primary Health Care Reference group and the College of Nurses Aotearoa. Using a 'snowballing by email' approach, nurses were asked to forward the invitation to other nursing colleagues. Nurses participated in the research by clicking on a hyperlink to the online survey instrument (hosted by the SurveyMonkey platform). A total of 305 nurses working in PHC settings responded to the survey during October 2013. It was not possible to calculate a response rate using this method of recruitment; Nursing Council workforce data¹¹ suggest that there are at least 17 000 registered nurses who work in the variety of PHC settings indicated in Table 1.

The data were analysed using SPSS version 22 (IBM SPSS Statistics for Windows, Armonk, NY, USA). Descriptions of the sample and categorical variables are presented using summary statistics (counts, percentages and mean) or using the Chisquare test for independence to explore relationships between categorical variables. Free-text

WHAT GAP THIS FILLS

What we already know: Registered nurse prescribing is well established in other countries and, in keeping with the findings of the diabetes nurse specialist prescribing project in New Zealand, has been evaluated as safe, of high quality and appropriate. The Nursing Council of New Zealand has recently consulted on extending prescribing rights to other suitably qualified nurses.

What this study adds: Registered nurses who work in primary health care settings are enthusiastic about prescribing roles for nurses and see its potential to meet significant unmet health need. Support at all levels of the health sector and a clear policy platform will have a bearing on the likelihood of nurses proceeding towards prescribing roles.

responses were grouped manually into recurring patterns, then organised into themes. Responses are reported here as summaries and quotes. Respondents are not personally identified in the data or presentation of the results.

The ethical aspects of the study design were evaluated by a peer-review process, judged to be low-risk and therefore exempt from formal review requirements. Notification about the study was made to the Massey University Human Ethics Committee.

Table 1. Characteristics of sample

Geographical location	n	Area of practice	n	Age	n	Ethnicity	n
Wellington	72	General practice 87 <25		13	NZ European	241	
Auckland	42	Accident and medical	accident and medical 25 25–29 12		12	Other European	27
Manawatu	31	Public health	28	30-34	15	NZ Māori	18
Canterbury	24	Corrections service	31	35-39	19	Other	16
Hawkes Bay	23	Aged residential care	25	40-44	36	Pacific	3
Otago	21	Primary health organisation	21	45-49	53	TOTAL	305
West Coast	16	Māori/iwi service provider	14	50-54	73		
Bay of Plenty	16	Family planning/sexual health	14	55-59	48	Role categories	n
Waikato	13	Rural nursing	12	60-64	26	Clinician	272
Tairawhiti	11	Youth health	12	>65	9	Nurse leader	72
Whanganui	9	School health	9			Nurse manager	38
Northland	8	Other*	9			Staff education	14
Southland	8	Child health	7			Quality advisor	9
Nelson-Marlborough	8	Palliative care	6			Policy advisor	8
Taranaki	2	Home care	5				
TOTAL	304		305		304		413 ⁺

^{*} Other nurses included district nursing, intellectually disabled, mental health (community), occupational health, and Pacific service provider.

[†] More than one role category could be selected

Results

Description of respondent group

Table 1 describes the characteristics of the sample. The majority are from urban areas (62.6%, n=191), followed by rural (21.3%, n=65) and semirural areas (16.1%, n=49). The largest group work in general practice (n=87), although a wide range of other PHC settings is represented. Age and ethnicity are similar in distribution to descriptions of the wider nursing workforce. The mean number of years since registration is 23.8 years (SD 12, range 1–52 years). Tables 2 and 3 show the respondents' postgraduate qualifications, and completion of the specific papers that comprise the postgraduate diploma required for RN specialist prescribers. 6

Not all respondents work only as clinicians; some are also managers, leaders, policy or quality advisors, or are involved in staff education (Table 1). The majority are engaged in some clinical work (89.2%, n=272).

Interest in becoming a prescriber or nurse practitioner

Table 4 shows that the majority of respondents (82.3%, n=251) indicated their interest in becoming a community nurse prescriber as either 'yes' or 'maybe'. Interest was also high for those

Table 2. Highest postgraduate nursing qualification

Postgraduate qualification	Com	oleted	Currently enrolled		
N=305	n	%	n	%	
Postgraduate certificate	63	20.7	13	4.3	
Postgraduate diploma	51	16.7	15	4.9	
Master's degree	58	19.0	22	7.2	
TOTAL	172	56.4	50	16.4	

Table 3. Postgraduate papers for registered nurse specialist prescribers completed by respondents

Postgraduate papers	Completed or currently enrolled			
N=305	n	%		
Pathophysiology	85	27.9		
Clinical pharmacology	71	23.3		
Advanced clinical assessment	97	31.8		
Prescribing practicum	29	9.5		

interested in specialist nurse prescribing (62.6%, n=191). Tests of association using the Chi-square test for independence showed significant relationships between enrolment or completion of papers required for prescribing and interest in specialist nurse prescribing or NP registration, but not community nurse prescribing (Table 5). Completed or enrolled qualifications of postgraduate certificate or postgraduate diploma showed no association of statistical significance. Interest in becoming an NP was significantly associated with nurses' enrolment or completion of a postgraduate diploma (*p*<0.001), and approached significance for nurses' enrolment or completion of a master's degree (*p*=0.057; see Table 5).

Views about registered nurse prescribing

The following section presents the analysis of the free-text responses from the survey about the views of nurses on the two levels of RN prescribers proposed by the Nursing Council. Five written responses stated that they did not see the need for nurses to prescribe medicines. All other responses to both proposed levels of prescriber were positive and extensive, with 189 comments about community nurse prescribing, 150 about specialist nurse prescribing, and 66 general comments about the RN prescribing proposals. Five interrelated themes that emerged are presented in the following sections of the paper: efficiency and access; education; autonomy and accountability; funding; and support for RN prescribing roles. Clarification is provided where comments apply to only one level of prescriber.

Efficiency and access

The majority of respondents wrote about the need to improve access to medicines. They highlighted problems of timely and affordable 'basic health care' that they attributed to factors such as poor availability of doctors, the cost of doctor visits, and transport difficulties. These problems were often noted, particularly in rural areas and for people with disabilities, and other 'poorer socioeconomic areas, [such as] schools, health clinics and rest homes'. Children were identified as particularly vulnerable because of their reliance on an adult to take them to a general practitioner (GP). For example, one respondent commented:

Public Health Nurses are mobile, so can assess and treat people in their homes... currently we are too constrained and spend too much of our time persuading people to go to their GP, or helping to access funding for the GP visit.

Gains were anticipated in efficiency for PHC services as a result of both levels of nurse prescribing, as nurses would be able to autonomously manage the full episode of care with a patient, freeing doctors to deal with more complex or urgent patients. Prescribing authority was expected to be an extension of everyday work. Respondents commented that nurses are 'essentially doing the same thing already under standing orders'; or 'titrating drugs that their patients use (e.g. insulin, morphine, warfarin)'; or are prescribing by proxy, that is:

We now already write out the scripts and it is just a process for a doctor to sign them.

Another stated:

It makes sense that if nurses are running clinics then they should be able to prescribe instead of spending time chasing after a doctor or specialist.

Table 4. Interest in prescribing or nurse practitioner roles (N=305)

Interest in specific prescribing or nurse practitioner role	Yes	Maybe	No	Missing data
or nurse practitioner role	n (%)	n (%)	n (%)	n
Community nurse prescriber	176 (57.7)	75 (24.6)	51 (16.7)	3
Specialist nurse prescriber	104 (34.1)	87 (28.5)	111 (36.4)	3
Nurse practitioner	61 (20)	74 (24.3)	161 (52.8)	9

Nurses were optimistic about the potential of the specialist level of nurse prescribing to improve access to medicines, particularly in diabetes and respiratory conditions which have existing knowledge and skills frameworks. ¹⁴ Furthermore, the view was expressed by a respondent that this level could be implemented as part of the NP pathway, while another suggested it had value for clinical nurses who have specialist knowledge in their area but who do not want to take the NP pathway. A possible limitation of the specialist nurse prescribing model was expressed:

They [specialist nurses] are usually only looking after one comorbidity of the patient's care and may not see the 'big picture', as patients generally have more than one comorbidity.

Table 5. Interest in becoming a prescriber or nurse practitioner and postgraduate qualification and papers required for prescribing education

Interest in prescriber or nurse practitioner role	Enrolled or completed qualification	Chi-square	Enrolled or completed postgraduate paper	Chi-square
Community	Postgraduate certificate	$\chi^2(2,n=75)=3.803, p=0.145$	Pathophysiology	$\chi^2(2,n=241)=4.796, p=0.088$
prescribing	Postgraduate diploma	$\chi^2(2,n=65)=1.514, p=0.450$	Applied pharmacology	$\chi^2(2,n=237)=7.165, p=0.028*$
	Master's degree	$\chi^2(2,n=80)=0.265, p=0.954$	Advanced clinical assessment	$\chi^2(2,n=246)=4.714, p=0.099$
			Prescribing practicum	$\chi^2(2,n=211)=2.630, p=0.265$
Specialist prescribing	Postgraduate certificate	$\chi^2(2,n=75)=0.702, p=0.742$	Pathophysiology	$\chi^2(2,n=241)=18.803, p<0.001*$
	Postgraduate diploma	$\chi^2(2,n=66)=4.032, p=0.120$	Applied pharmacology	$\chi^2(2,n=237)=21.612, p<0.001*$
	Master's degree	$\chi^2(2,n=79)=1.241, p=0.945$	Advanced clinical assessment	$\chi^2(2,n=245)=11.695, p=0.003*$
			Prescribing practicum	$\chi^2(2,n=211)=7.920, p=0.017*$
Nurse practitioner registration	Postgraduate certificate	$\chi^2(2,n=74)=2.932, p=0.196$	Pathophysiology	$\chi^2(2,n=238)=25.463, p<0.001*$
	Postgraduate diploma	χ ² (2,n=65)=14.329, p<0.001*	Applied pharmacology	$\chi^2(2,n=234)=35.217, p<0.001*$
	Master's degree	$\chi^2(2,n=78)=5.574, p=0.057$	Advanced clinical assessment	$\chi^2(2,n=243)=25.873, p<0.001*$
			Prescribing practicum	$\chi^2(2,n=208)=34.668, p<0.001*$

Indicates statistical significance

Education

Although there was enthusiasm about the advantages to patients if nurses could prescribe medicines, caution was expressed about the education proposed for nurses to prescribe at the community level. There was no explicit link made between educational preparation and safe prescribing, but it was implied. Nurses who had already engaged in postgraduate study seemed more aware of their limitations and expressed concern about the 'overconfidence of the under informed'. One nurse wrote:

Most RNs that I have spoken to feel completely ready to prescribe based on their undergraduate qualification. I felt the same before undertaking a lot of further study and finding out how much there was that I didn't know!'

A postgraduate certificate with content in applied pharmacology and advanced health assessment was seen as a minimum requirement for community nurse prescribers, and the suggestion of only a short course, although attractive and do-able, was seen by some as 'far from appropriate'. There was more confidence expressed about the proposal for postgraduate diploma qualifications for specialist nurse prescribing, but the requirements were viewed by some as too onerous and some thought this would limit the number of nurses able to take up this role. Some nurses reported experience of postgraduate study while working was of their health and family 'suffering', while others indicated that they felt they were too close to retirement to embark on this level of study.

Autonomy and accountability

In contrast to the use of standing orders, prescribing authority for nurses was seen as requiring 'individual accountability', and the view was expressed that this may be a much safer option:

[Being] totally responsible [means that] mistakes are less likely to occur.

Prescribing was seen as extending nurses' knowledge and skills, giving nurses greater autonomy and the ability to treat a wider range of conditions.

Standing orders were thought by some to be largely effective and well supported, such that there was little to be gained by having prescribing authority. Others were frustrated by GPs who were reluctant to sign off on standing orders, or who made poor assessments of the competence and knowledge of the nurses to whom the order applies. These nurses wanted to be fully accountable for their treatment decisions as prescribers and stated that they would find the experience more satisfying, giving them a sense of confidence, interest and experience in the work they do.

Funding

The cost of a consultation in PHC settings is currently seen as a barrier to patients receiving timely health care. There were questions raised about whether or not the cost to patients for consultations with nurses would remain less expensive if the nurse could prescribe. The viability of the business model in general practice is generally reliant on higher patient fees being paid for consultations with doctors rather than with nurses. New Zealand's centrally funded capitation payments have also been tagged to patient enrolment with a doctor:

When all else boils down it is the doctor who attracts the funding—not the nurse.

Nurses wrote that GPs as business owners may act as 'gatekeepers' out of concern about nurses who are community or specialist prescribers 'taking away business'. The consultation co-payment, however, is only one cost to the patient, and pharmacy prescription charges are also required irrespective of who supplies the prescription. Patients do not pay prescription charges on medicines supplied or administered under a standing order and nurses pointed out that provision of a prescription rather than supply of the medicine (under a standing order) could lead to reduced access in some cases.

In relation to funding, doubts were also expressed about the availability of release time and funding for the required education, the cost of initial and ongoing mentoring, and likely increases in remuneration expected with more responsibility. One nurse commented:

[There is] nil support from my employer to complete a clinical master's [degree] and no point [in being a NP] if RNs are going to be able to prescribe.

Support for prescribing roles

A theme that is closely linked to funding and misconceptions about the scope of NP practice is that of support for RN prescribing roles. Notwithstanding the reservations expressed about funding, workplace support was thought by most nurses to more likely come from employers and nursing colleagues than from doctors or patients. A significant 'culture change' was considered necessary for RN prescribing to be viable. Not only would the proposals rely on GP support, but also the wider team of nurses, practice managers and pharmacists, who would together 'ensure we deliver safe prescribing practice'.

Indeed, the key to patient safety was described by one as:

...the collaborative context of practice with clear systems and platforms for information sharing.

Audit and review of prescribing practice were also cited as important safety features.

It was noted that patients too would need to see the advantage of nurses providing prescriptions, in terms of a quality of consultation that amounts to more than improved convenience and reduced cost. The provision of a prescription is only one aspect of a patient encounter. Nursing expertise involves a holistic approach that goes beyond the immediate presenting problem and often incorporates detailed medicines management support. For example, one nurse stated:

My experience is that nurses will look at best practice for prescribing and are proactive with reducing polypharmacy in the elderly.

Another potential advantage cited was that patients sometimes report that they find a nurse more approachable and accessible to the short visits a GP tends to offer.

Discussion

There is a high level of interest from the nurses who responded to this survey for both levels of RN prescribing proposals. These nurses are from a wide range of PHC settings in rural and urban areas, and have considerable practice experience (mean 23.8 years). The nurses associated appropriate educational preparation with prescribing competence. Many thought the proposed education requirements of a short course for community nurse prescribing were insufficient, and the requirements for specialist nurse prescribing too onerous or not feasible if nearing retirement. The education requirements for independent nurse prescribing in the UK where nurses have full access to the British National Formulary, although at bachelor's degree rather than master's degree level,15 are similar to the Nursing Council-proposed requirements for specialist nurse prescribers.

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Almost a third of the survey respondents would currently meet the Nursing Council requirements for postgraduate papers at the specialist nurse prescriber level, but only 10% have completed a prescribing practicum. Postgraduate nursing education is funded by Health Workforce New Zealand and allocated via district health boards. The prescribing practicum is often funded only when there is an NP position planned for the nurse on completion of a clinical master's degree, due to the expense related to release time and the requirement for a specified number of supervised hours by an authorised prescriber (usually 150-200 hours). It is not currently known how many nurses might already meet the education requirements for prescribing, as not all postgraduate qualifications contain the necessary content for prescribing. Nursing Council data¹¹ report only the percentage of the RN workforce who possess a post-registration qualification (43.7%), but without detail as to the level or content. Clearly,

there would be ongoing workforce development implications for the specialist level of nurse prescriber in terms of funding and resourcing the necessary supervision. These factors will have a bearing on the likelihood of nurses proceeding towards prescribing roles.

Previously published results about this group of nurses' use of standing orders show that nurses are already actively involved in providing access to medicines, but the process is dependent on the cooperation and availability of a doctor to issue the orders and audit their use.² Independent prescribing authority for nurses would allow treatment for a wider range of conditions and potentially improve efficiency by allowing nurses to take full responsibility for complete episodes of care. As well as offering increased choice of provider for patients, another potential benefit could be an improvement in patient safety when doctors are not signing prescriptions for patients they have not assessed.¹⁶

Age, lack of support and lack of financial incentives have been reported as barriers to practice nurses becoming prescribers in the UK.¹⁷ Similarly, nurses in this survey were unsure about the support they would receive from their GP employers, due to the costs associated with education and the initial supervision that would be required. Nurses were also mindful of the usual business model in general practice and the funding structures that support ongoing profitability. These barriers were cited as of concern for some nurses who observed insufficient health care provision in areas of socioeconomic deprivation.

Nurses were also unsure if patients would support prescribing roles for nurses. However, the literature consistently reports that in countries where nurses prescribe, they are highly regarded and accepted.¹⁸⁻¹⁹ The results of a discrete choice experiment using hypothetical scenarios suggested that when patients became accustomed to receiving care from nurses who could prescribe, they tended to prefer a nurse consultation over what was perceived to be 'a poorer quality service provided by doctors'.²⁰ That is, the nurses offered consultation styles that the patients valued, specifically the attention paid to their

views and the extent of help offered. Other studies report that patients who have seen a nurse who prescribes are more satisfied with the medication-related information they receive and are more motivated to adhere to treatment regimens. ²¹⁻²⁴ These findings are supported by a recent systematic review about nurse prescribing which reported few differences between nurses and doctors in terms of clinical outcomes, quality of care and patient satisfaction. ²⁵

Nurses in this study identified audit and review of prescribing practice to be key supports for maintaining prescriber competence. Patients too expect that appropriate monitoring systems will be in place to ensure nurses' prescribing practice is safe; indeed, they expect these systems will be in place for doctors as well.¹⁸ Clinical governance systems are needed to address continuing education, facilitate peer review, and promote effective use of data and evidence to support safe prescribing.²⁶ Where these structures are in place, nurses who prescribe experience increased levels of satisfaction, are more autonomous in their practice, and provide more holistic care. Conversely, work-related stress is connected to lack of support, recognition and reward.²⁷

The international literature about RN prescribing reports the need for whole-of-system support for nurses who prescribe. ^{15,28} That is, support for nurse prescribing roles is broader than issues of patient care or workplace and operational support, and extends to the wider policy and infrastructure context of the health sector. For example, in New Zealand, support will be needed from:

- 1. the Ministry of Health to fund first-contact services provided by nurses;
- Health Workforce New Zealand to fund postgraduate education and mentoring of new prescribers;
- 3. PHARMAC for the approval of subsidies for medicines prescribed by nurses;
- 4. District health boards and primary health organisations to facilitate RN positions that incorporate prescribing responsibilities; and
- community and hospital pharmacies to recognise and accept prescriptions written by nurses.

Extensive 'behind the scenes' work in each of these areas took place to support the introduction of the DNS prescribing project⁵ and should serve to facilitate 'roll-out' to other nurse prescribers.

In many respects, the success of the DNS project (and indeed prescribing by NPs) has begun to normalise the idea of nurses as prescribers in New Zealand and will likely contribute to acceptance among doctors and nurses, and also the New Zealand public. Future research in this area should focus on how practitioners can best be prepared and supported for prescribing competence rather than dwell on well-established patterns of research about nurse 'equivalence to' or 'substitution for' doctors.²⁹

Limitations

The study used a non-probability sample, which limits the generalisability of the findings. These types of samples are useful for exploratory research, such as this study. Where associations of categorical variables have been tested, statistically conservative non-parametric Chisquare tests have been used.³⁰ It is not possible to know if the size of a non-probability sample is adequate; however, the sample can be broadly described as similar in characteristics to the wider nursing workforce.

Final comments

The Nursing Council proposals for RN prescribing are an opportunity to enhance collaboration between health practitioners and improve outcomes for patients. This study found that nurses are enthusiastic about prescribing roles for nurses in PHC settings and see its potential to meet significant unmet health need more effectively and efficiently. Nurses are already engaged in the provision of medicines to patients through standing orders or by prescribing by proxy. Prescribing authority would ensure nurses are suitably qualified to engage in these tasks and to be fully accountable for each episode of care. Support at all levels of the health sector and a clear policy platform will be needed if both proposed levels of RN prescribing are to be successful in the New Zealand setting.

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COMPETING INTERESTS

None declared.