

# Integrating dietitians into primary health care: benefits for patients, dietitians and the general practice team

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## ABSTRACT

**INTRODUCTION:** Dietetic service delivery in primary health care is an emerging area of dietetic practice in New Zealand.

**AIM:** This paper aims to describe the dietetic services being delivered in this setting and dietitians' perceptions of the factors that have an effect on their ability to deliver an optimal service.

**METHODS:** Individual, qualitative, semi-structured, face-to-face interviews were conducted with 12 primary healthcare dietitians from a range of age, ethnicity and professional backgrounds. Interviews were audio-recorded, transcribed verbatim and analysed using inductive thematic analysis.

**RESULTS:** Participants were delivering a range of services including: providing nutrition care directly to patients, helping to upskill other primary health care professionals in nutrition, and delivering health promotion initiatives to their local community. Three key factors were identified that participants perceived as having an effect on their ability to deliver effective dietetic services in primary health care: being part of a multidisciplinary general practice team, having flexible service delivery contracts appropriate for the setting and that supported integration, and having an adequate level of dietetic experience.

**DISCUSSION:** Dietitians working in primary health care recognise the importance of being well integrated into a multidisciplinary general practice team. This enables them to deliver more collaborative and coordinated nutrition care alongside their colleagues, to benefit patient care. Establishing flexible dietetic service delivery contracts, which support integration and take into account funding and workforce capacity requirements, may help ensure that the unique skill set of a dietitian is utilised to best effect.

**KEYWORDS:** Dietetic service delivery; dietitians; healthcare management; integration; nutrition; nutrition care; primary health care; general practice

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## Introduction

Food and nutrition play an important role in the prevention and management of many chronic diseases.<sup>1</sup> As the number of people living with chronic diseases continue to increase, particularly among Māori, Pacific peoples and those from deprived neighbourhoods, greater emphasis is being placed on primary health care (PHC) to support

these communities in an accessible, timely and appropriate way.<sup>2–5</sup> The general practice team is at the heart of New Zealand (NZ) PHC and there is international evidence showing that PHC professionals have the potential to improve patients' dietary behaviours.<sup>6,7</sup> While general practitioners (GPs) and PHC nurses believe they have an important role to play in providing nutrition

care to patients, a lack of nutrition knowledge, lack of time, and lack of belief in the efficacy of interventions results in inconsistent nutrition care being provided.<sup>8-11</sup> Dietitians' expertise in nutrition, specific skills in counselling for eliciting behaviour change, and competency in health promotion mean they are well-placed to provide an important skill set to complement NZ PHC.<sup>12,13</sup>

Current national health policy supports the development of a PHC system with greater integration of services and enhanced collaboration between PHC teams, the wider multidisciplinary team and secondary health care services; however, it fails to specify the contribution dietitians could make to the sector.<sup>4,5,14</sup>

Dietitians in NZ have historically provided nutrition care to people with chronic disease, from secondary health care via hospital outpatient clinics or hospital-to-home visits. Following the release of *Better, Sooner, More Convenient PHC*,<sup>5</sup> there has been a small increase in dietitians working in PHC. However, a recent Dietitians NZ (the professional body for NZ dietitians) position paper and systematic review concluded that compared to other international dietetic workforces, NZ has the lowest proportion of dietitians working in this sector.<sup>15</sup> Furthermore, some other NZ clinicians (GPs and nurses) believe there are inadequate dietetic services available to support their patients with, or at risk of, chronic disease.<sup>8,9</sup>

Little is known about the services NZ dietitians are providing in PHC and the challenges they face. This paper therefore aims to describe the dietetic services being delivered and dietitians' perceptions of the factors that have an effect on their ability to deliver an optimal service.

## Methods

This qualitative study involved individual semi-structured, face-to-face interviews with dietitians who were delivering dietetic services in PHC.

The study used maximum variation sampling to ensure that a diverse range of participants from the sample population were included.<sup>16</sup> Participant and employment characteristics likely to have an effect on the findings were considered.

### WHAT GAP THIS FILLS

**What is already known:** Delivering effective nutrition care to patients with, or those at risk of developing, chronic disease is an essential role of the general practice team. However, lack of nutrition knowledge, lack of time, and lack of belief in the efficacy of nutrition interventions have been cited by many primary health care practitioners as barriers to them providing nutrition care to patients.

**What this study adds:** For the first time, this study describes the range of dietetic services being delivered in New Zealand primary health care, and identifies the factors that dietitians perceive help them to deliver their services more effectively. It demonstrates the importance of dietitians having flexible service delivery contracts that account for the needs of the local general practice population, addresses funding and workforce capacity requirements, and supports the integration of dietitians into a multidisciplinary general practice team.

These were translated into key demographic variables, collected from participants and continuously monitored during recruitment, to ensure a broad range of subjects were included (see Box 1).

Dietitians NZ circulated the research recruitment material using an unfocused invitation technique (Table 1). A form of snowball sampling was also used whereby the research recruitment email encouraged recipients to forward the email to other dietetic colleagues delivering dietetic services in PHC.<sup>17</sup> The precise number of eligible dietitians who received the research invitation is unknown. However, ~85% of dietitians registered with the Dietitians Board of NZ (and thus legally able to practise) were members of Dietitians NZ in 2013 (470/550).<sup>18,19</sup>

Dietitians interested in participating were asked to contact LB by email or telephone to register their interest. Thirteen dietitians responded to

Table 1. Promotion of the research by Dietitians New Zealand (DNZ)

<b>Targeted email</b>
<ul style="list-style-type: none"> <li>To DNZ Primary Health Care Special Interest Group members and DNZ Wellington, Mid-Central and Auckland regional branch members</li> </ul>
<b>General advertisement</b>
<ul style="list-style-type: none"> <li>In the DNZ weekly electronic professional update and the DNZ bi-monthly electronic professional publication</li> </ul>

*Box 1. Variables relating to the demographics of participants and their employment*

- Gender.
- Ethnicity.
- Age.
- Years of experience as a dietitian.
- Years of experience delivering dietetic services in primary health care.
- Geographic location of employment (rural or urban).
- Demographic characteristics of the population to whom participants deliver dietetic services.

*Box 2. Inclusion criteria*

- Currently delivers a dietetic service, part time or full time, in the primary health care (PHC) sector, or has delivered a dietetic service in the PHC sector within the last 6 months.
- Currently based in the Greater Wellington, Mid Central or Auckland regions.
- Holds an annual practising certificate with the Dietitians Board of New Zealand.
- Has worked in the PHC sector for longer than 6 months.

this invitation and were asked to supply the demographic information shown in Box 1. This enabled the researchers to monitor the diversity within the sample during recruitment and ensure all participants met the study's inclusion criteria (see Box 2). Twelve eligible dietitians from a variety of demographic backgrounds were then sent an information sheet and consent form. One dietitian did not respond to the request for demographic information and was sent one follow-up reminder.

A semi-structured interview schedule was developed to guide the interview. It was pilot tested on one PHC dietitian employed outside the study recruitment area. The interviews took place between April and October 2013 and lasted an average of 59 min. All interviews were undertaken by LB and took place in the participant's workplace or home. They were digitally audio-recorded, with permission, and transcribed verbatim. Audiofiles and transcripts were assigned a numerical code to maintain participants' confidentiality and preserve participants' anonymity. All participants were invited to review their transcripts; nine of the 12 responded, with no alterations to the substantive content.<sup>20</sup>

Inductive thematic analysis was used so that individuals' experiences could be combined and compared.<sup>21</sup> NVivo (Version 10) was used to organise and retrieve the data,<sup>22</sup> and a step-by-step process to optimise the quality of the analysis and resulting findings was also used.<sup>21</sup> LB read, re-read and

coded all transcripts, and identified preliminary themes and subthemes. A reflexive approach was undertaken throughout the analysis; this included referring to the participant's demographic information and the contextual field notes made at the end of each interview.<sup>20</sup> CM read all of the transcripts and independently coded six randomly selected transcripts. The final thematic framework was discussed and agreed by all three authors. Participants were subsequently invited to review and comment on the themes. Four responded and they felt that the themes identified accurately reflected their personal views.

University of Otago ethical approval was granted for this study (Ref: D12/416) and research consultation with Māori took place using standard University of Otago processes.

## Results

All participants were female, representing a range of ages (25–54 years) and ethnicity, including Māori and Pacific peoples. Participants had varying degrees of experience both as a dietitian and of working in the PHC sector. Half of the participants ( $n = 6$ ) were in their first role as a dietitian, whereas four had qualified as a dietitian over 20 years ago. Only three participants had been working in the sector for longer than 5 years. Participants were employed by a range of organisations: eight by a Primary Health Organisation (PHO), two by a District Health Board (DHB), one by a Regional Sports Trust and one by a general practice. The majority of the PHO roles and the general practice role were funded directly by the PHO or the practice. The relevant DHB funded one of the PHO roles and the Regional Sports Trust role.

Three key factors were identified that the participants perceived as having an effect on their ability to deliver effective dietetic services in PHC. These included: being well integrated into a multidisciplinary general practice team; having flexible service delivery contracts appropriate to the PHC setting and that support integration; having an adequate level of dietetic experience. The dietetic services delivered and the three key factors are described below, together with illustrative quote(s) from the interview transcripts.

### Dietetic service delivery in NZ PHC

Participants described how their service was established and subsequently developed. All services were relatively early in their development; all were less than 10 years old and most less than five years old. The majority of participants were in newly established roles and were involved in developing new services; in some cases, services specifications were determined by funders and in others, very little guidance about service delivery was provided.

Participants were delivering a range of dietetic services in PHC and expressed that the variety in their roles was something they particularly enjoyed. All participants were providing some form of nutrition care directly to patients, either via group-based care or one-on-one appointments. Over half provided some or all of this service from a general practice. Most participants also helped to upskill other PHC professionals in nutrition. The majority also described a role in the delivery of health promotion initiatives to their local community. Most provided dietetic services to more than 20 general practices, with one participant providing services to 140 practices. The anomaly was the dietitian employed by a single practice and working solely in that practice.

*'The mix of the role. I really enjoy [that]... the flexibility of doing the community work... clinics... health promotion, health events...workforce development...'* [P11]

### Being part of a multidisciplinary general practice team

All participants were asked to talk about the teams they were part of and how these teams affected the dietetic services they delivered. All participants were part of a team within the organisation they were employed. However, only a few described themselves as being part of a multidisciplinary general practice team. Being employed by, or physically located within, the practice to deliver nutrition care to individual patients and having access to patients' electronic health records were factors that contributed to feeling part of a general practice team.

Participants who were part of a multidisciplinary general practice team described a range of advantages including: improved relationships and communication with the general practice team, receiving an increased number of appropriate referrals, receiving support for areas outside their scope of practice, working more collaboratively with other members of the practice team, and an ability to upskill the whole practice team to provide nutrition care.

The potential benefit of working collaboratively with others to provide nutrition care is described by this dietitian:

*'This way of working interprofessionally with the practice team, not only the medical staff but with Pacific navigators [Pacific community health worker], community health workers, has a lot of advantage in upskilling them as well to do the role.'* [P1]

The small number of dietitians who did have access to patients' electronic health records felt this reduced administration time and allowed them to provide a more professional service:

*'So that was part of the reason I'd really like to go into the GP practice... you can see when they've had a blood test, you can see... what else is going on [clinically] whereas here [at the Primary Health Organisation (PHO) office] we have such limited [clinical information] on the patient.'* [P10]

A few dietitians also delivered nutrition education to the general practice team in the practice. They felt this was an effective way to help upskill the whole team to provide consistent nutrition messages, and was more convenient for busy clinicians.

However, being physically located in the practice and having access to the patients' electronic health records did not automatically mean that the dietitian felt part of the team, as revealed by this new graduate dietitian:

*'I have a good relationship with the nurses, some of the doctors and the reception staff, but I kind of just come and go, they know who I am, they're*

*very friendly, but I would never go to their team meetings or anything like that.'* [P6]

It appeared that being involved in team meetings and team planning, sharing lunch breaks and being invited to social events such as the Christmas party helped the dietitians to feel part of the practice team. This dietitian who delivers services in two practices describes her involvement:

*'So I attend MDTs [multidisciplinary team meetings], I attend them monthly for both practices... I also attend clinical updates.... and any other things they have going on... for example, some of the practices are involved with community programmes so I get involved as well.'* [P4]

### Having flexible contracts that are appropriate for PHC and support integration into the general practice

The more experienced participants discussed the establishment and development of services. A few participants felt there was a lack of consultation with PHC, which resulted in the development of a service delivery model that was not appropriate for PHC and their priority populations. The following comment was made by a dietitian whose contract was very specific in terms of the health conditions she could provide support to, which she felt affected her ability to provide a service that was responsive to the needs of the general practice she worked within:

*'I think one of the real challenges is that I'm contracted for high-risk cardiovascular disease and diabetes, which are disease states and people come to primary care as people... so working by disease is difficult because ...the whole package isn't there.'* [P1]

In contrast, some participants felt there was enough flexibility in their contracts to deliver a range of services, including being involved in community health promotion initiatives. This was seen as an effective way to develop relationships with the community.

A small number of participants felt there was inadequate funding allocated to the general practice. This either prevented them from delivering

nutrition care from the practice or limited the resources available to deliver effective nutrition care clinics:

*'One of the practices asked for a hirage [fee] for the room that I'm using...there is a cost [to the practice] for the room, the [patient] transport and [other patient] services and if people aren't going to turn up then that's a lot of money that goes to this service.'* [P4]

Other participants described an agreement between the PHO and the general practice for the dietitian to deliver nutrition care from the practice and this was seen as mutually beneficial.

Dietitians affiliated with a large number of general practices found it more difficult to develop and maintain good relationships with all of their practices. This participant compared her ability to develop relationships with the 26 practices she provided services for with her colleague, who was only working in two practices:

*'...how different the experience is for the other dietitian who has clinics at the GP practice... because she runs her clinics totally out of the practice. She has lunch with the doctors and nurses and can just chat freely about cases and she is known in the community because it is quite a small community and how wonderful that would be to... know everybody... but with 26 practices, it's just not practical.'* [P2]

Limited workforce capacity was also given as a reason for delivering their service in a way that might not always be the most appropriate or effective for their priority patient group. This included offering nutrition care clinics despite poor attendance, limiting home visits and not working collaboratively with other PHC professionals. The following quotes illustrate this:

*'I think for me the clinic is quite efficient and well run, but for clients I think being able to source their own appointment time and come to a place that's not their GP practice [would be more appropriate].'* [P10]

*'I'd love to do it [working interprofessionally] but... I wouldn't want to do it all the time,*

*that's the thing, [because] it's time consuming.* [P11]

Furthermore, limited capacity was also identified as a barrier by the majority of participants to delivering nutrition education to general practice-based clinicians, despite acknowledging that this approach might be more effective and efficient in the longer term.

### Having an adequate level of dietetic experience

A small number of new graduate dietitians expressed a lack of confidence working in general practice, and also placed less value on their role in comparison to dietetic roles in secondary health care:

*'I would feel uncomfortable going into their [practice] meeting because I'm only there once a week... and they've got plenty of other things to talk about. But in saying that... [it] would be beneficial if I attended to know what's going on within the practice.'* [P10]

*'...because you're a step back from that [being a hospital dietitian]... you're only dealing with the really simple stuff... like only diabetes and CVD and gout, as opposed to like, end-stage renal failure.'* [P6]

The importance of being confident and making oneself visible was expressed by a few of the more experienced dietitians. This was important for developing relationships and respect for their expertise and services:

*'I make a point of going and just sitting in the morning tea room [at the practice] probably once a week... I might be there an hour... people come in and have a bit of a chat, that's probably where I get a lot of my referrals and answer a lot of questions, just by being seen.'* [P1]

Furthermore, participants who had more experience and had been in their role for a longer time felt these factors enhanced their ability to deliver an effective service. They described their well-developed dietetic professional support networks

and enhanced relationships with their PHC colleagues as follows:

*'...it [having experience of PHC] has really helped and actually that was something that I added to my job description...because I think in a role like this where it's... not easy to work... [it can be] really difficult and you need to know what to expect.'* [P5]

*'That's really [the] key... the GP practice team... they have to know you and to like you...and that one takes a long time.'* [P11]

### Discussion

This paper describes the dietetic services being delivered in NZ PHC and dietitians' perceptions of the factors affecting service delivery. It has provided valuable insights and understanding of the potential factors affecting a dietitian's ability to deliver an effective PHC service, from those working in PHC.

The key finding is that to work most effectively in PHC, the dietitian needs to be recognised as being part of the general practice team. Dietitians in this study identified that being part of a multidisciplinary general practice team, being physically located within the practice and having access to patients' electronic health records, enabled them to work in a more collaborative and coordinated manner with other practice team members. These factors are described in the international dietetic literature as being 'integrated' into the general practice.<sup>23</sup>

However, only a few study participants could be described as being 'integrated' into a practice team. Factors inhibiting integration appear to be:

- Having service delivery contracts that do not support or facilitate integration due to inappropriate funding and lack of consideration given to workforce capacity requirements.
- The dietitian's level of professional experience.

These factors are interrelated, and could potentially have an effect on each other; for example, a contract with limited funding is likely to result

in less experienced dietitians being recruited to these roles.

NZ dietitians are not alone in recognising the importance of being integrated into the general practice team, or in experiencing barriers to this occurring. Dietitians internationally are experiencing similar challenges. The value of integration into the practice team is well supported in the international dietetic literature.<sup>23–27</sup> Canadian authors support the importance of face-to-face communication, both formal and informal, with other members of the practice team.<sup>23,24</sup> Intuitively, this allows relationships to develop, leading to more collaborative working and more efficient use of the dietitians' unique skill set.

The advantage of flexible service delivery contracts that consider funding and workforce capacity requirements have also previously been reported in the international dietetic literature. Australian authors suggested that there was inadequate consultation before the implementation of dietetic services in Australian PHC, resulting in services that do not support collaborative care.<sup>26,28,29</sup> In contrast, Canadian authors report several consultative processes during the establishment of dietetic services in Canadian PHC that involved the wider PHC team.<sup>23,24</sup> These authors identified this as a major contributor to the successful integration of dietitians. Furthermore, other Canadian research has determined funding and workforce capacity requirements for dietetic services in PHC, and these are incorporated into national guidelines.<sup>30,31</sup>

Professional support is particularly valuable for dietitians to work effectively when new services are being established or when the role is professionally isolated (eg when they are the sole dietitian employed in an organisation).<sup>32</sup> While this has not been described extensively in the international dietetic literature, Australian authors noted the high number of new graduate dietitians working in private practice and recommended the need for university courses to equip graduates with the necessary skills to work in this setting.<sup>33</sup>

Not surprisingly, many of the factors affecting dietetic service delivery in NZ PHC are consistent

among other allied health professionals delivering services in PHC nationally and internationally.<sup>34–39</sup> The benefits and challenges of integration into the general practice team have been described in the counselling and pharmacy literature.<sup>34–36</sup> Those pharmacists with greater professional experience, particularly in terms of working in a collaborative team, integrated more easily into the practice team.<sup>34,35</sup> In a NZ-based viewpoint paper, Scahill describes similar challenges for community pharmacists wanting to work more collaboratively with the general practice team.<sup>37</sup> A professional perspective paper for NZ physiotherapists has also highlighted the importance of physiotherapists developing relationships within general practice teams.<sup>38</sup> Furthermore, the importance of ensuring NZ physiotherapists are equipped with the skills necessary to work effectively in PHC has also led to the development of a self-check tool, which potentially could be applied to other professional groups working in this setting.<sup>39</sup> Integrated care remains a key goal in national health care policy;<sup>14</sup> however, the challenges faced at service delivery level need to be acknowledged and addressed.

### Strengths and limitations

Many methodological processes were used to optimise the quality and trustworthiness of this research. A diverse range of participants, including those from different ethnic backgrounds, were recruited; formal piloting of all research instruments took place; three researchers were involved in the data analysis process; all participants were offered an opportunity to: (i) review their transcripts; and (ii) comment on the draft themes; and a reflexive process was adopted in an attempt to reduce sources of error or bias. For logistical reasons, participants were recruited from a restricted geographical area. No male dietitians or dietitians working solely in rural areas were recruited. This may reflect the fact that there are very few male dietitians and few dietitians working in rural PHC in NZ.

### Conclusion

The dietitians participating in this research recognise the value of being well integrated into a

multidisciplinary general practice team, allowing them to deliver more collaborative and coordinated services that utilise their unique skill set. However, it is evident there are several contractual constraints that may affect their ability to be well integrated into PHC at the general practice level. Ensuring that service delivery contracts are developed in partnership with general practices, and that consideration is given to appropriate funding and workforce capacity requirements, may go some way to supporting the integration of dietitians into general practice. While this research was conducted with NZ dietitians, these findings are likely to be relevant to other allied health professionals establishing services in NZ PHC, and may also apply to dietitians working in PHC internationally. Further research is required to assess the effect of dietitians being well integrated into multidisciplinary general practice teams on PHC outcomes. It is possible that integration would support dietitians to deliver a more effective and efficient dietetic service, as well as produce a more coordinated approach to nutrition care being provided by all members of the PHC team. This should ultimately help to improve the health of communities disproportionately affected by chronic disease in NZ, and support the implementation of current health policy.

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#### COMPETING INTERESTS

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