The Royal New Zealand
College of General Practitioners
Te Whare Tohu Rata o Aotearoa

Health Care Home implementation in Otago and Southland: a qualitative evaluation

Gagan Gurung[A,B] BPH, MPH, MA, PhD, Stuart Barson[C] MA, Marc Haughey[C] BSc, MRes and Tim Stokes[A,B,*] MA, MPhil, MBChB, MPH, PhD, FRNZCGP

For full list of author affiliations and declarations see end of paper

*Correspondence to:
Tim Stokes
Department of General Practice and Rural Health, Dunedin School of Medicine, University of Otago, PO Box 56, Dunedin 9054, New Zealand
Email: tim.stokes@otago.ac.nz

Handling Editor:
Goodyear-Smith Felicity

ABSTRACT

Introduction. Health systems internationally have developed new models of primary care to address health-care challenges. One such model is the Health Care Home (HCH),which has been widely adopted across New Zealand. **Aim.** To explore the facilitators and barriers to implementation of the HCH in the southern health district (Otago and Southland). **Methods.** Interviews with staff ($n = 15$) from seven general practices were undertaken. A rapid thematic analysis informed by the Consolidated Framework for Implementation Research (CFIR) was conducted using the framework method. **Results.** A number of implementation facilitators and barriers across three CFIR domains were identified: intervention characteristics, inner setting and implementation process. The intervention – the HCH – has well-designed core components (eg clinician triage, patient portals), but the adaptable periphery also needs addressing to ensure the core components fit the local context. In the inner setting, a positive implementation climate and readiness for change (a strong need for the change, compatibility, strong leadership, availability of resources, and a clear understanding of the HCH and timely practical support) were key for successful implementation. Although the HCH practices had detailed planning and performance monitoring systems in place, a successful implementation process required having a change management plan and ensuring whole-of-practice engagement. **Discussion.** This evaluation has identified facilitators and barriers to implementing the HCH in one health district using implementation science theory (CFIR). It is imperative to tailor the HCH model to local needs and individual general practices for successful implementation.

Keywords: CFIR, evaluation, health care, Health Care Home (HCH), implementation or implementation science, model of care, primary care, qualitative research.

Introduction

Health systems internationally[1,2] have developed new models of primary care to address a range of health-care challenges, including increasing patient complexity, increasing demand, workforce shortages and financial constraints.[3] The Health Care Home (HCH) is one such model. It was first developed in the United States (US) in the 2000s as the patient-centred medical home (PCMH).[4,5] The PCMH is a patient-centred approach, which aims to combine the traditional core values of primary care – comprehensive, coordinated, integrated, quality care that is accessible and based on an ongoing relationship between patients and their primary health-care practitioners[6] – with building the capacity and capability of primary care through the development of new roles, skills, and ways of working. The US PCMH has been shown to improve outcomes in terms of quality, cost and utilisation.[7] Canada implemented elements of the PCMH in its early 2000s primary care reforms,[8] developing the Patient's Medical Home (PMH) model, which also has an explicit focus on community adapativeness and social accountability.[9] Variations of the PCMH have been implemented in Australia[10,11] and the UK.[12]

In New Zealand (NZ), the HCH (Table 1)[13] was developed by Pinnacle Midlands Health Network (a Primary Health Organisation (PHO)) in 2011.[3,14,15] There has subsequently

WHAT GAP THIS FILLS

What is already known: The Health Care Home (HCH) has been widely adopted across New Zealand. Successful implementation of the HCH at practice level requires external facilitation and an incremental approach.

What this study adds: The use of an implementation science framework (Consolidated Framework for Implementation Research) has furthered our understanding of the factors needed for the successful implementation of the HCH. Successful implementation requires the HCH to be tailored for local needs and individual general practices.

been roll out of the HCH model across NZ[14] and, to date, over 200 general practices across NZ have or are implementing the HCH.[16] Uptake of the HCH has been voluntary, with general practices being supported since 2016 by the Health Care Home Collaborative (a membership network of PHOs and District Health Boards (DHBs)).[3] Despite this uptake, there has been limited evaluation of the NZ HCH both in terms of its effectiveness[14] in improving health outcomes and whether the model can be successfully replicated in different health-care settings to those in which it was initially developed.[14,17]

In NZ's Southern Health District (Otago and Southland), the Southern DHB and the WellSouth Primary Health Network (PHO) are working together to implement the Southern Primary and Community Care Strategy (PCCS), which seeks to ensure all 'live well, stay well, get well'.[18,19] The PCCS aims to develop a sustainable Southern health system for the future. In 2019, Southern DHB and WellSouth PHO partnered with the University of Otago's Centre for Health Systems and Technology (CHeST) to set up an academic–service

partnership to evaluate the implementation of PCCS and to build evaluation capacity within the Southern Health System.

One PCCS key initiative is the HCH. HCH implementation started in the Southern district in 2018, and by July 2019, it had been rolled out in 15 practices (first wave). Implementation support to practices was provided by the PHO HCH implementation team for 3 years and included regular visits to participating practices. Our evaluation aim was to explore the facilitators and barriers to HCH implementation in the Southern district using a commonly used implementation science theory: the Consolidated Framework for Implementation Research (CFIR)[20–22] (Box 1).

Methods

Design, study setting and sampling

Semi-structured interviews were conducted between July 2020 and March 2021 with key informants from first wave

---

Box 1.   CFIR domains and constructs

The Consolidated Framework for Implementation Research (CFIR) is a 'meta-theoretical' framework that provides an over-arching typology of implementation.[20] It offers a comprehensive, standardised list of constructs that allow researchers to identify variables that are most relevant to a particular intervention. It addresses intervention delivery through 26 constructs organised into five domains: intervention characteristics (eight constructs), outer setting (four constructs), inner setting (five constructs), characteristics of the individuals involved (five constructs) and the process of implementation (four constructs). The CFIR has been widely used to inform qualitative and mixed methods process evaluations across a range of complex interventions, including health-care redesign, in health-care systems.[21,22,28]

Table 1.   The HCH model of care.[13]

Domain	Characteristics
Urgent and unplanned care	• Systematic process to ensure appointment availability matches demand.
	• Access to the practice is available through multiple channels.
	• Patients' needs are assessed via systematic triage by a clinician who can diagnose and prescribe.
Proactive care for those with complex needs	• Practice identifies patients with complex needs in a systematic way.
	• Care plans are developed collaboratively with the patient.
	• A multi-disciplinary team approach is taken for those patients with the highest need.
Routine and preventative care	• Team-based continuity of care is prioritised.
	• Pre-work is routinely utilised to make best use of patient and clinician time.
	• Fully functional patient portal is available to all patients.
Business efficiency	• Continuous quality improvement is embedded into the practice culture.
	• LEAN principles (continuous quality improvement) are understood and used by all practice staff.
	• Workforce planning ensures all staff work at the top of their scope.

HCH practices in the Southern district (Otago and Southland). To maximise variation, practices were sampled purposively to include a wide range of populations and profiles. The key informants comprised general practitioners (GPs), nurses and administrative staff. Interviews were conducted either by video conferencing (Zoom) or face-to-face. Interviews varied in length from 30 min to 1 h 45 min.

Data collection

The interviews used a semi-structured topic guide (Supplementary material File 1) based on a literature review and discussion within the research team. The topic guide covered the implementation of key HCH components, including barriers and facilitators to implementation. The interview guide was used flexibly to allow participants to construct their accounts in their own terms and was revised and refined as the interview progressed.

Data analysis

All interviews (undertaken by GG) were audio and video recorded. Field notes for all interviews were taken, which was expanded and completed by reading automatic transcripts generated by Zoom and listening to the audio recording.[23,24] A rapid thematic analysis using a framework method[25,26] was conducted by GG and TS. This was informed by the CFIR.[20,21] First, a summary template was developed in Microsoft Word (Microsoft Corporation) from the recorded responses guided by study research questions and topic guide questions.[27] Through an iterative process, this template was used to code the rest of the field notes.[24,27,28] Then, the CFIR domains and constructs were applied to the responses to categorise implementation issues. Next, a data display matrix in an Microsoft Excel spreadsheet was prepared to chart and summarise the interview responses in a matrix using the completed summary templates.[25]

In addition, key HCH practice documentation (reports and implementation plans) were reviewed to supplement the interview data. The data were analysed using a qualitative content analysis approach.[29] The coding framework (summary template and data display matrix) used in interview transcripts was applied to the content of the document.

Ethics approval was obtained from the University of Otago's Human Ethics Committee (D19/295).

Results

We interviewed 15 participants (13 individual and two group interviews) from seven HCH practices (two GPs, six nurses, and seven administrative staff). Of the 15 participants, 13 were female and two were male. Follow-up interviews were conducted with six participants (one individual and two group interviews) from two practices (practice C and F) after 7 months to capture changes over time. The practices varied by geographic location, population characteristics and practice size[30] (Table 2).

Barriers and facilitators to HCH implementation were identified across three CFIR domains (Box 1). Illustrative participant quotes are presented.

Domain 1: intervention characteristics

Core components and adaptable periphery

This domain emphasises the importance of the need to adapt interventions to enhance their fit with the context. The CFIR conceptualises an intervention has core components (the essential elements of the intervention) and adaptable periphery (adaptable elements, structure and systems related to the intervention and the organisation into which it is being implemented).

Although the intervention – the HCH model – had well-designed core components, participants viewed the need to consider the adaptable periphery while implementing core elements such as GP triage and patient portals. Participants observed that modification (adaptation) was needed for when and how to use GP triage according to practice needs and contexts (eg practice size, enrolled population, staff). Practices with a reasonable clinical capacity to manage urgent demand did not need to implement GP triage daily. It was found that these issues were addressed as the

Table 2. Participating southern region HCH practices.

Practice	Setting	Practice size[A]	High-needs population (%)	Māori and Pacific peoples (%)
A	Urban (Dunedin)	Medium	<10	<10
B	Urban (Dunedin)	Large	10–20	10–20
C	Rural (Otago)	Large	10–20	10–20
D	Rural (Southland)	Medium	10–20	10–20
E	Rural (Otago)	Small	<10	<10
F	Urban (Provincial centre)	Large	<10	<10
G	Urban (Dunedin)	Large	>30	>30

[A]A as defined in reference[30]: Small practice: <2000 patients; Medium practice: 2000–4999 patients; Large practice: ≥5000 patients.

implementation progressed. Similarly, the existing funding model for general practice was described as a barrier to fully realise the benefits of the HCH, indicating that the current fee-for-service model was not suitable for clinicians to see patients who need longer appointments. The HCH transformation calls for changes in routine operations of practices. Hence, overall emphasis should be given to changes in structure and practice processes (adaptable structure and systems) to fit the HCH elements into practices.

> PHO is very keen for us to do all day GP triage, but because we have quite good [appointment] availability here, we use it only when we're fully booked. And that has worked really well. (P13, Practice Manager)

Evidence strength and quality

Some practices had already introduced a number of changes similar to the HCH concept before formally adopting the HCH model. Such prior implementation experience was a positive implementation factor.

> The team's experience of the patient portal leading to improved efficiency, decreased workload and greater patient satisfaction means they are already seeing the benefits of an HCH approach. (Document review)

Furthermore, evidence from published literature and anecdotal stories regarding the HCH implementation in other regions of NZ was also considered a positive factor for adopting the HCH model in their practices.

Domain 2: inner setting

The 'inner setting' is defined as the structural and cultural contexts through which the implementation process occurs. Implementation climate and readiness for implementation were the major constructs identified in this domain and are reported here.

Implementation climate refers to the collective influence of organisations' policies and practices to promote effective intervention implementation. We identified the key CFIR sub-constructs as tension for change and compatibility.

Tension for change

A perceived need for change in practices was a positive factor in the HCH implementation. Some practices were preparing for the change process to manage acute demand, and they found the introduction of the HCH tools such as GP triage very timely to address this issue.

> We were trying to work through some processes and put in place some systems to help manage that volume [number of patients presenting to practice to be seen on any given day]. And the Health Care Home actually came along at a perfect time… (P1, Nurse Practitioner)

Compatibility

Participants mentioned that the HCH model did not work well if multiple owners shared the business and held differing views. Another compatibility issue was possible tension with commission-based GP remuneration where practices pay GPs commission on the income they generate. Because HCH tries to get people to not be seen in person if they do not have to, there is the chance that GPs may consider they may lose income if they see fewer people.

> You can't do Health Care Home as a practice if you're three different owners sharing a premise. And you cannot do this when you have GPs working for you on a fee for service basis. It's not going to work. (P11, Practice Manager)

Readiness for implementation was discussed in terms of the CFIR sub-constructs of leadership, available resources and access to knowledge and information.

Leadership

Participants noted that strong leadership in practices with organisational commitment was critical in driving change. Here, the leadership team encouraged and engaged with team members to adapt to and accommodate change and to try new things. Furthermore, it was important for the leadership team to find time to meet, work together, and communicate decisions with the rest of the practice staff. An important dimension of organisational commitment is managerial patience, which was essential for implementing changes. The HCH change process needs initial investment costs and time, although it pays off in the long run. For example, when new tools such as GP triage and portal were introduced, these initiatives increased workload on staff, particularly nurses and doctors. Hence, it is necessary for organisational commitment from the leadership until the change process starts to have an effect.

> So making the time for everyone to come together and implement this model of care for us is sometimes a real barrier. It's important to have a GP, a nurse, a practice manager, and admin manager all working on it. However, sometimes that doesn't always work and it falls back on one person to lead it. (P15, Practice Manager)

Available resources

Participants highlighted that funding support from the PHO HCH implementation team was very helpful, which allowed practices some funded time to understand the HCH process and benefits well.

> The Health Care Home funding has allowed us to allocate time to stop being busy to look at other ways [of doing things] … (P1, Nurse Practitioner, Follow-up interview)

Participants also mentioned that practices that managed their available (internal) resources in terms of funds and skills enabled them to implement and manage changes quickly; however, some practices, particularly smaller practices, found it challenging to manage resources (eg human resources, time and structural capabilities).

Access to knowledge and information

Participants highlighted that adequate orientation and training related to HCH tools and change management and timely practical support for implementing different HCH tools were necessary.

So we're all kind of doing the same work which could have been done by WellSouth which would have then been disseminated to potentially every practice in the South Island. (P3, Practice Manager)

Related to this, participants described confusion and resistance from staff, particularly GPs and nurses, during the initial stage of implementation in almost all practices. Patients had little awareness of the changes made to the practice's services as a result of adopting the HCH model. Access to knowledge and information to both patients and staff around changes made in the system was therefore felt to be essential.

… patients didn't really understand what was going on. And I don't think most of them even realise now what Health Care Home really is. (P10, Practice Nurse)

Domain 3: the implementation process

CFIR identifies the process by which the implementation is accomplished as requiring four activities: planning; engaging; executing; and reflecting and evaluating.

Planning

All practices had a detailed implementation plan with clearly developed targets and activities, which meant clarity of purpose on what they were going to do and how they were going to achieve it. However, participants viewed that too many changes in the first year were overwhelming to staff and practices. Hence, doing things in stages was thought to be important. Furthermore, practices need a long-term plan beyond the initial 3 years to sustain the changes.

Participants mentioned that adopting the HCH model required a large number of changes that would take time to realise their benefits. It required a shift from reactive (GP-based) to proactive care (team-based). It was also reported that implementing practical components such as GP triage and the patient portal was straightforward, but the most challenging thing identified was change management:

these transformation efforts needed an effective change management process.

…things like GP triage, patient portal are easy, tangible things that you can do and invest, but the hardest nut to crack is change management… (P1, Nurse Practitioner, Follow-up interview)

Engaging

As the HCH model means a transformation to a new way of service delivery, participants believed that whole-of-practice engagement was crucial. This was, however, felt to be missing in some practices. Engaging team members right from the beginning and educating the entire practice team about the HCH model was important in getting buy-in from the team. Working collaboratively and justifying to the team members why certain changes were important were crucial to getting support from the practice team.

There's a lot of changes happened in the first year. It was quite overwhelming for the team. We realised that we need to slow down and involve people right from the start. (P13, Practice Manager)

Participants considered there was a need for change in the whole system by shifting more resources and care of delivery to primary care to fully realise the HCH vision, and that this required engagement with secondary care (Southern DHB).

A further aspect of engaging identified by participants was the use of external change agents – the PHO's HCH implementation team. Participants highlighted the need for ongoing practical support from this team to address ongoing issues in the HCH practices.

The Health Care Home implementation or continuation team has to still exist to provide practical support to practices to say, well, this practice had this problem, this is how they solved it… (P2, GP, Follow-up interview)

Executing

HCH components that appear to have received more implementation focus by the practices were GP triage, daily huddles, patient portal and LEAN principles. As noted above, it was not realistically achievable to implement all the HCH components in the first 12 months. Coronavirus disease 2019 (COVID-19) generally slowed HCH implementation as the staff and resources were diverted to manage it. Nonetheless, COVID-19 prompted moving forward with other parts of the HCH model, including telephone consults, huddles, and electronic prescriptions.

Reflecting and evaluating

The programme had a clear matrix of performance indicators and a monthly report from practices that allowed

assessment of each practice's HCH progress. Furthermore, the PHO HCH team provided feedback to practices during practice visits. Practices also used a self-assessment maturity matrix to track their progress. Overall, the PHO HCH team emphasised a continuous quality improvement approach to improve the implementation.

Secondly, participants emphasised the importance of sharing knowledge with other practices to learn from each other and avoid reinventing the wheel. Some participants mentioned that they met monthly to share ideas and achievements.

> …with the Health Care Home, it's really good that we meet once a month and practices share information with each other. Everybody's different, but you learn so much more from each other. (P11, Practice Manager)

Finally, participants were pleased with the PHO HCH team's approach to working with practices, which was seen as being collaborative (joint learning and journey together) rather than a compliance activity.

> Total collaboration. That has been awesome. It's probably the first time we've done anything that it hasn't been pushed on you. We've kind of done the journey, learning… (P13, Practice Manager)

Discussion

This study explored the implementation of the HCH model in first-wave HCH practices in Otago and Southland using implementation science theory (CFIR). Implementation facilitators and barriers across three CFIR domains – intervention characteristics, inner setting and implementation process – were identified. The HCH model had well-designed core components, but more attention is needed to the adaptable periphery to tailor the programme elements for the local context. Implementation climate and readiness for implementation were the constructs identified in the inner setting. A successful implementation climate requires a strong need for the change (tension for change) and compatibility. Strong leadership and availability of resources, among others, were important implementation readiness factors. A staged implementation, change management plan, whole-of-practice engagement, and importance of sharing knowledge and information among practices were the most important facilitators of a successful implementation process.

The study has a number of strengths. First, interview data were collected from a diverse range of participants, and was complemented with document review, which helped triangulate the findings. Second, we have identified no other NZ study using an explicit implementation science framework (CFIR) to understand HCH implementation. The CFIR

helped to systematise analysis and organisation of findings, and capture the complexity of the implementation process. Third, this was a university–health sector collaborative research with one of the investigators (SB) holding an active leadership role in supporting practices to roll out the HCH initiatives. The collaborative nature of the research was also helpful to facilitate the sharing of findings and feedback to the Southern health system. A further strength is the use of a rapid analysis approach[24,28,31] to provide prompt feedback to the local health system.

A key limitation was that the recruitment of participants was challenging, as we could not include two practices that we originally planned. COVID-19 also affected the recruitment process for a short period, as the practices were occupied with pandemic work. We did not use detailed transcription and a line-by-line open-coding process, which might risk missing nuances of data. However, we did use automated transcription generated by Zoom and listened to audio/video recordings multiple times to complete field notes and help categorise participant responses across themes.

In terms of comparing our findings against the international HCH implementation literature (US[32] and Australia[10,11]), one important caveat is that the health system context in which the HCH is implemented varies widely and may limit transferability of findings to the NZ context.[3] For example, PCMH development in the US occurred within a health system heavily focused on specialism and hospital-based care,[33] and a key barrier in the US PCMH literature, lack of an integrated electronic health record,[10,32] is not present in NZ. Nonetheless, the international literature also finds that engaged leadership is a facilitator.[10,11,32] Similarly, in line with our findings, difficulties with change management, funding models, insufficient internal resources (a particular problem for small practices) and staff engagement are barriers.[10,11,32]

There is a limited NZ literature on HCH implementation, consisting of grey literature, and none has been published in peer-reviewed journals.[34–37] This literature, though it does not use the CFIR, also highlights organisational readiness for change as an important facilitator, and resistance to change (in the initial implementation phase) as an important barrier.[34] One barrier found in the NZ literature, not identified in this study, was high staff turnover.[34]

The HCH model of care is currently being rolled out to further general practices in the Southern district. Feedback of these context-specific implementation findings would be of benefit to these new HCH adopters, and have been fed back to the PHO HCH implementation team. Of particular note is that practice size matters; smaller practices will likely have a lack of internal resources, necessitating greater external (PHO) implementation support. Our key findings are likely transferable to other NZ health regions. Our identification of factors facilitating and impeding HCH implementation by using CFIR domains should be helpful for planners and managers to better identify the implementation gaps.

Conclusions

This evaluation identified a number of implementation facilitators and barriers across three CFIR domains: intervention (HCH model) characteristics, inner setting and implementation process. Existing and future HCH practices need to consider these factors when implementing changes. It is imperative to tailor the HCH model to local needs and individual general practices for successful implementation.

Supplementary material

Supplementary material is available online.

References

1 Starfield B. Primary care: balancing health needs, services, and technology. New York, NY, USA: Oxford University Press; 1998.

2 Bodenheimer T, Ghorob A, Willard-Grace R, *et al.* The 10 building blocks of high-performing primary care. *Ann Fam Med* 2014; 12(2): 166–71. doi:10.1370/afm.1616

3 Cumming J, Dunn P, Middleton L, *et al.* The health care home in New Zealand: rolling out a new model of primary health care. *J Integr Care* 2018; 26(3): 242–52. doi:10.1108/JICA-04-2018-0031

4 American College of Physicians. The Advanced Medical Home: A Patient-Centered, Physician-Guided Model of Health Care. Philadelphia: American College of Physicians; 2005. Position Paper.

5 Stange KC, Nutting PA, Miller WL, *et al.* Defining and measuring the patient-centered medical home. *J Gen Intern Med* 2010; 25(6): 601–12. doi:10.1007/s11606-010-1291-3

6 Kellerman R. The patient centred medical home-a new model of practice in the USA. *Aust Fam Physician* 2009; 38(5): 279. doi:10.3316/informit.771976352755854

7 Jabbarpour Y, DeMarchis E, Bazemore A, *et al.* The impact of primary care transformation on cost, quality, and utilization: a symematic review of research published in 2016. Washington, DC: Patient-Centered Primary Care Collaborative and the Robert Graham Center; 2017.

8 Carter R, Riverin B, Levesque J-F, *et al.* The impact of primary care reform on health system performance in Canada: a systematic review. *BMC Health Serv Res* 2016; 16(1): 1–11. doi:10.1186/s12913-016-1571-7

9 The College of Family Physicians of Canada. A new vision for Canada: Family Practice—The Patient's Medical Home 2019. Mississauga, ON: College of Family Physicians of Canada; 2019.

10 Metusela C, Usherwood T, Lawson K, *et al.* Patient Centred Medical Home (PCMH) transitions in western Sydney, Australia: a qualitative study. *BMC Health Serv Res* 2020; 20: 1–13. doi:10.1186/s12913-020-05123-7

11 Metusela C, Dijkmans-Hadley B, Mullan J, *et al.* Implementation of a patient centred medical home (PCMH) initiative in general practices in New South Wales, Australia. *BMC Fam Pract* 2021; 22(1): 1–15. doi:10.1186/s12875-021-01485-x

12 Goodwin N, Smith J, Davies A, *et al.* Integrated care for patients and populations: improving outcomes by working together. London: King's Fund; 2012.

13 Health Care Home Collaborative. Enhancing the Health Care Home: Model of Care. HCH Collaborative; 2020. Available at https://www.healthcarehome.org.nz/download/enhanced-hch-moc-october-2020-web-final.pdf?inline

14 Ernst & Young. Evaluation of the New Zealand Health Care Home, 2010-2016. Auckland: New Zealand: Ernst & Young; 2017.

15 Hefford M. From good to great: the potential for the Health Care Home model to improve primary health care quality in New Zealand. *J Prim Health Care* 2017; 9(3): 230–3. doi:10.1071/HC17045

16 Collaborative Aotearoa. What is Health Care Home? Collaborative Aotearoa; 2022. Available at https://healthcarehome.org.nz/

17 Horton T, Illingworth J, Warburton W. The spread challenge: how to support the successful uptake of innovations and improvements in health care. London: The Health Foundation; 2018.

18 Southern District Health Board & WellSouth Primary Health Network. Southern Primary & Community care strategy. Dunedin, New Zealand: Southern District Health Board & WellSouth Primary Health Network; 2018. Available at https://wellsouth.nz/assets/Uploads/aws/Primary-and-Community-Care-Strategy.pdf

19 Southern District Health Board & WellSouth Primary Health Network. Southern Primary & Community Care Action Plan. Dunedin, New Zealand: Southern District Health Board & WellSouth Primary Health Network; 2018. Available at https://www.southernhealth.nz/sites/default/files/2019-08/Southern%20Primary%20and%20Community%20Care%20Action%20Plan.pdf

20 Damschroder LJ, Aron DC, Keith RE, *et al.* Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implement Sci* 2009; 4(1): 50. doi:10.1186/1748-5908-4-50

21 Stokes T, Tumilty E, Doolan-Noble F, *et al.* HealthPathways implementation in a New Zealand health region: a qualitative study using the Consolidated Framework for Implementation Research. *BMJ Open* 2018; 8(12): e025094. doi:10.1136/bmjopen-2018-025094

22 Kirk MA, Kelley C, Yankey N, *et al.* A systematic review of the use of the consolidated framework for implementation research. *Implement Sci* 2015; 11(1): 1–13. doi:10.1186/s13012-016-0437-z

23 Halcomb EJ, Davidson PM. Is verbatim transcription of interview data always necessary? *Appl Nurs Res* 2006; 19(1): 38–42. doi:10.1016/j.apnr.2005.06.001

24 Graham T, Alderson P, Stokes T. Managing conflicts of interest in the UK National Institute for Health and Care Excellence (NICE) clinical guidelines programme: qualitative study. *PLoS One* 2015; 10(3): e0122313.. doi:10.1371/journal.pone.0122313

25 Gale NK, Heath G, Cameron E, *et al.* Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Med Res Methodol* 2013; 13(1): 117. doi:10.1186/1471-2288-13-117

26 Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol* 2006; 3(2): 77–101. doi:10.1191/1478088706qp063oa

27 Hamilton A. Qualitative Methods in Rapid Turn-Around Health Service Research: VA HSR&D National Cyberseminar Series: Spotlight on Women's Health. Washington, DC: US Department of Veterans Affairs; 2013.

28 Gale RC, Wu J, Erhardt T, *et al.* Comparison of rapid vs in-depth qualitative analytic methods from a process evaluation of academic detailing in the Veterans Health Administration. *Implement Sci* 2019; 14(1): 11. doi:10.1186/s13012-019-0853-y

29 Bowen GA. Document analysis as a qualitative research method. *Qual Res J* 2009; 9(2): 27–40. doi:10.3316/QRJ0902027

30 Leitch S, Dovey SM, Samaranayaka A, *et al.* Characteristics of a stratified random sample of New Zealand general practices. *J Prim Health Care* 2018; 10(2): 114–24. doi:10.1071/hc17089

31 Nixon G, Blattner K, Withington S, *et al.* Exploring the response to the COVID-19 pandemic at the rural hospital–base hospital interface: experiences of New Zealand rural hospital doctors. *N Z Med J (Online)* 2021; 134(1545): 11–21.

32 Janamian T, Jackson CL, Glasson N, *et al.* A systematic review of the challenges to implementation of the patient-centred medical home: lessons for Australia. *Med J Aust* 2014; 201: S69–73. doi:10.5694/mja14.00295

33 Institute of Medicine (US) Committee on the Future of Primary Care. Primary Care: America's Health in a New Era. Donaldson MS, Yordy KD, Lohr KN, *et al.*, editors. Washington, DC, USA: National Academies Press (US); 1996.

34 Tenbensel T, Pashkov A, Gasparini J, *et al.* Process Evaluation of Northland Neighbourhood Healthcare Homes–the First Year of Implementation. 2018. Available at http://community.northlanddhb.org.nz/NHH/wp-content/uploads/NHH-Evaluation-Report-Aug-2018.pdf

35 Ehrenberg N, Terris A, Marshall K. A Rapid Review of the Health Care Home Model in Capital and Coast District Health Board: Final Report. 2020. Available at https://www.ccdhb.org.nz/about-us/integrated-care-collaborative-alliance/health-care-home/ccdhb-hch-evaluation-final-report-14-aug-2020.pdf

36 Pinnacle Incorporated. Implementing the Health Care Home model: Experiences from three privately owned general practices in the Pinnacle Network: Pinnacle Incorporated; 2019. Available at https://www.pinnaclepractices.co.nz/assets/Resource-files/Implementing-HCH-model_Experiences_Online-SPP-f_a.pdf

37 WellSouth Primary Health Network. Health Care Home in the Southern district: Implementation experiences and reflections from the early adopter practices. Dunedin: WellSouth Primary Health Network; 2020. Available at https://healthcarehome.org.nz/wp-content/uploads/2021/12/FINAL-HCH-Y1-report.pdf

Author affiliations

[A]Department of General Practice and Rural Health, Dunedin School of Medicine, University of Otago, PO Box 56, Dunedin 9054, New Zealand.

[B]Centre for Health Systems and Technology (CHeST), Dunedin School of Medicine, University of Otago, PO Box 56, Dunedin 9054, New Zealand.

[C]WellSouth Primary Health Network, Level 2, 333 Princes Street, Dunedin 9016, New Zealand.