LONG RESEARCH ARTICLE





Promoting health through housing improvements, education and advocacy: Lessons from staff involved in Wellington's Healthy Housing Initiative

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Abstract

Issue addressed: Improving the conditions of housing through programs that trigger when children are hospitalised has the potential to prevent further ill-health and re-hospitalisations. Exploring the attitudes and beliefs of staff involved in such a program assists in understanding the advantages and challenges of this approach.

Methods: We interviewed 21 people involved in a regional initiative to improve the health outcomes of children through referral to a housing program. Interviews were recorded and transcribed. Transcripts were subsequently subjected to qualitative thematic analysis.

Results: Participants identified a number of factors that were key to the success of the program, such as: visiting the home, having health and energy organisations work together, and an integrated approach that includes interventions as well as education and advocacy. Key challenges to the program's aim of improving health outcomes for children were landlords' reluctance to implement improvements, homeowners' inability to afford improvements, limitations to staff resources, and client stress and income constraints, which meant that some interventions did not necessarily lead to housing improvements. Conclusions: Efforts to improve health outcomes through housing interventions should be supported by funding and regulatory initiatives that encourage property owners to implement recommended interventions.

So what? This program represents an encouraging step towards health promotion through housing interventions and education. However, the initiative cannot fully counter structural challenges such as poor quality housing, and lack of housing and energy affordability. This study highlights the potential for a holistic approach to health promotion in housing, which integrates health initiatives with advocacy for regulatory support.

KEYWORDS

built environment, community-based intervention, environmental health, qualitative methods, social determinants

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1 | INTRODUCTION

The quality of housing, and the space and comfort it affords its occupants, is a major determinant of health. Systematic reviews show that living in cold, damp and mouldy housing contributes to poor cardiovascular and respiratory health outcomes^{1,2}; that living in appropriately sized housing which is affordable to heat is associated with improved health³; and that safer housing reduces the risk of iniury. 4,5 In New Zealand, research has clearly laid out the high burden of disease attributable to housing. About 10% of hospital admissions for infectious disease in New Zealand (1343 hospitalisations per year) are attributable to crowding ⁶ and almost 28 000 hospitalisations per year are for diseases potentially attributable to housing.⁷ Exposure to poor housing conditions is associated with increased risk of rheumatic fever.8 The number of hazards and lack of safety features in the home increase the risk of injury. Low-indoor temperatures impact on the lung function of asthmatic children for up to 14 days after exposure. 10 Mould and mould odour are associated with new-onset childhood wheeze.11

Many of the hospitalisations associated with housing could be avoided if housing conditions were improved. There is strong evidence that improving housing improves health. New Zealand research has shown that moving to social housing reduces crowding and reduces hospitalisations. Providing more efficient and healthy heating, heating vouchers, draught-stopping measures and insulation increase the indoor temperature, and the increasing indoor temperature improves respiratory symptoms. Providing simple measures to improve safety, such as grab-bars and slip-prevention, reduce the risk of injury.

Enabling community and health services to prevent adverse health outcomes is a key focus for health promotion. ¹⁷ In New Zealand, this has been recognised through a number of policies and initiatives to improve housing quality, including Ministry of Health funding for Healthy Housing Initiatives (HHIs). In December 2013, the first HHI began working with families in Auckland. In March 2015, the program was expanded to seven other high-risk district health board areas. The HHI was first introduced as part of a strategy to improve housing quality and reduce crowding in the homes of children at risk of developing rheumatic fever, and subsequently expanded to target other vulnerable populations. As the then-Minister of Health explained when the program was expanded in 2016, "helping families to live in warm, dry homes will reduce their exposure to preventable illness and contribute to improved health." ¹⁸

The research, already summarised, suggests that the interventions that make up HHIs will indeed have this effect. However, existing research often considers interventions that guarantee take-up of key interventions, for example, studies which look at the effects of social housing upgrades on tenant health, ^{19,20} or studies which provide heating, insulation or draught-stopping, and measure the increase in temperature and the effect on health. ¹³⁻¹⁵ Studies on initiatives such as the HHIs, which cover homeowners, as well as social and private tenants, and where take-up in part depends on external factors such as the willingness of property owners to undertake

improvements, or the capacity of occupants to use heating, are rare. Independently funded research is underway to understand the extent to which interventions are implemented in one HHI, and how these affect people's health.^a

This article explores the experiences of staff and referrers involved in implementing the HHI that has operated since 2015 in the district health board areas around Wellington (Capital and Coast and Hutt Valley): Well Homes. The aim of this research was to understand the advantages and challenges of this approach to improving housing and reducing hospitalisations.

1.1 | Well Homes: Wellington's HHI

In the Wellington region, Regional Public Health (RPH) partners with Sustainability Trust and Tū Kotahi Māori Asthma Trust to run Well Homes. RPH is the public health unit for both district health boards covered by Well Homes, and is based at Hutt Hospital. Sustainability Trust is a social enterprise focussed on energy efficient housing, which works in Wellington and Porirua. Tū Kotahi's focus is addressing the long-term respiratory needs of Māori, Pacific and others in the Hutt Valley. Together, the organisations have years of experiences addressing housing needs in the greater Wellington region through education, advocacy and installing improvements. In addition to the funding to run the program provided by the Ministry of Health for HHIs, Well Homes draws on other government and community grant funding to provide an integrated housing assessment and support to families through referrals, interventions and advice. He Kainga Oranga, a multidisciplinary research program at the University of Otago, Wellington, provides advice to Well Homes and is conducting the aforementioned research.

Families are referred to the Well Homes hub at RPH by the hospital, their doctor, and other community and health organisations, or can self-refer. The hub contacts families, and refers interested families to the front-line organisation that can best meet its needs (eg, families with children in severe health need are visited by an RPH nurse). Since 2016, families are eligible for Well Homes (as well as other HHIs) if they are New Zealand residents and on low-incomes and if the household meets one of the following criteria:

- 1. includes a newborn or a pregnant woman;
- 2. includes a child under five that had been hospitalised for a condition that could be related to poor housing;
- **3.** meets criteria that indicate that children are at risk of rheumatic fever;
- **4.** exhibits at least two risk factors (Oranga Tamariki's^b finding of abuse or neglect; caregiver with corrections history; mother has no formal qualifications; and long term benefit receipt).

In a Well Homes visit, the front-line staff member assesses the home and provides advice and information on keeping the house healthy. Where relevant, they supply interventions such as custom-made curtains, heaters, draught-stoppers, bedding and beds, and provide advocacy to landlords regarding making repairs and improvements to the

property. They may refer to an insulation provider, provide assistance to enter the social housing register (wait-list), refer to the Ministry of Social Development to check that families are receiving their correct welfare entitlements, and refer to a range of other services, such as budgeting advice.

2 | METHODS

In order to understand the advantages and challenges of Well Homes, we conducted a qualitative descriptive research project based on indepth interviews with key informants. This choice was informed by pragmatism, a research paradigm whereby methods are determined by what is practical in order to obtain "socially useful knowledge." ²¹ Qualitative descriptive research is appropriate for providing "straight and largely unadorned...answers to questions of special relevance to practitioners and policy makers."22 Interviews were requested with the people who were most knowledgeable about Well Homes, following discussion with the Well Homes coordinator, all staff members and a range of people who refer to the program. Each of the people contacted agreed to participate. Such workers were ideal as key informants as they knew "a great deal about the subject of the research." 23 The interview probes were discussed by all authors and the interviewer (EC) used minimally structured, open-ended interviews to obtain data. These allow researchers to stay focused on the research questions, while allowing for participants to articulate their perspectives freely.²⁴

Fifteen interviews were conducted with 21 people. Thirteen interviews were conducted one-on-one, one interview was conducted with five colleagues and another interview was conducted with two colleagues. They were clinical staff working in the hospital that referred people to the Well Homes service (seven people), staff working at four community health organisations that referred people to the service (four people) and staff at the three organisations responsible for delivering the service (10 people). Participants were informed that the interviews were confidential and that quotes used in subsequent publications would protect their identity. The interviews lasted between 25 minutes and 2 hours 20 minutes (the average interview length was 53 minutes) and were carried out at the participants' workplaces. The interview transcripts were coded inductively using the qualitative software NVivo 10 (www.gsrinternational.com) and subject to low-inference interpretation, with a focus on the who, what and where "of events or experiences, or their basic nature and shape" (22, emphasis in the original). Codes were noted across all interview transcripts, then grouped into larger categories to identify predominant themes.^{25,26} The study design was approved by the University of Otago Human Ethics Committee (reference D17/125).

3 | FINDINGS

Four high-level themes were derived from the data: housing and health conditions for Well Homes clients, critical factors in the program's success, challenges and limitations encountered, and the importance of protecting and respecting clients.

3.1 | Housing and health conditions for Well Homes clients

Well Homes workers visiting homes observe major problems with dampness, cold, mould and a lack of heating. In extreme cases, they observed mushrooms growing inside, and grass visible through cracks in the floor. Participants removed their shoes to enter clients' homes, and could feel the wet carpet through their socks. Often, the air smelt of mould and there was condensation on the windows and walls. One participant vividly recalled one visit:

Water [was] teaming down the windows. You walked through a blanket that was hung in a door frame to go into the lounge and she has a heat pump going above a fireplace but the fireplace wasn't covered so it was a big gaping hole... The wallpaper was ripping off from dampness, it was lifting and rolling down... Mould everywhere, everything was damp.

Participants related the effects of poor housing conditions on health: "I see that it affects people physically, it contributes to asthma, it exacerbates asthma and eczema." One participant observed that clients' experiences had normalised conditions that would be shocking to others:

Some of them think that's a normal life. They get used to coughing and being sick all the time.

In addition to physical health, participants often reflected on the importance of the home for a sense of security and well-being. As one participant summed up, "Everyone needs a foundation and somewhere to call home." Participants noticed that people with poor housing conditions were emotionally affected: "If it's crappy and there's mould on the wall...your motivation level is much lower." Participants saw housing as a fundamental determinant of well-being in all aspects of life:

If people can't have a warm dry house then they can't really function in lots of other aspects of their lives as well... When you see these people first hand when you are in the home, the challenges that they face when they come home from being out and it's colder inside than it is outside, and they can't do anything to improve the housing conditions.

Clients were often forced into low-quality rental housing due to their low incomes and employment status. As there were few properties available in their price range, "choice is limited and they are taking less than ideal situations." Certain tenants are particularly disadvantaged in this situation. As one explained, "there's so many people going for

[the property that the landlord will] pick the one that's got the jobs, both parents work, they won't choose someone that's on a benefit or someone that's a solo mother."

Housing, health and income problems are cumulative and closely related. Not only do income constraints force people into substandard housing, but housing-related health conditions contribute to declines in incomes. This was the case for one client:

There was nothing she could do about the house, it was terrible... She had letters to say that the kids had been away [from school], something like 38 half-day absences just due to being sick and from the move and stuff like that. But this time [the health of] her husband had also been affected, which he is the main breadwinner, so he was done. So it just went from worse to worse to worse.

3.2 | Critical factors for the success of the program

Participants identified a number of factors that contributed to the success of the program: working in partnership with other organisations; taking a multipronged approach to improving housing conditions; and carrying out visits in the home.

Participants spoke unanimously about the advantages of having different organisations working together to provide a holistic and integrated program that encompassed different skill-sets and approaches. Between the three front-line organisations, as one participant explained, "we basically come from all bases, we've got housing expertise, we've got health and cultural expertise." The diversity in experience meant that collectively Well Homes has a great depth of knowledge that all the workers can draw on. To one participant, "everyone is open to learning and everyone knows each other's strengths and we can draw on those for the benefit of whānau." Apart from regularly meeting to share information and ideas, Well Homes workers can call upon staff from partner organisations to attend visits with them, or if they want to talk over an issue and draw from specialist knowledge.

The key advantage to providing interventions – such as heaters, bedding, draught-stoppers, draught-tape and mould-cleaning kits – was making an immediate difference to people's housing environment. The items made a real difference to people, which was reflected in their value of them. As one participant said, "the kids just get so excited when they're getting blankets and things." Providing such items was useful to the program because it enabled families to see an immediate difference in their surroundings. As one participant explained, "a heater is just a basic need to be warm, so it is going to impact them straight away." Participants pointed out that it did not make sense to point out something unhealthy in the home – people sleeping on the floor, the use of an unflued gas heater – knowing that families could not afford to rectify this:

I don't know how successful we would be in going into the homes if we weren't providing things like blankets, curtains. Most of those families can't afford to run a heater, they can't afford blankets, so you would be giving them advice but... they would be powerless to do anything about it.

To another participant, the provision of such items was the *ethical* and *fair* approach to working with families: "You don't want to go talk to whānau about anything that we don't have a solution for." In some cases, referrals to other health agencies and community organisations enabled clients to access additional support outside the scope of Well Homes

Well Homes also advocates to landlords on behalf of tenants. In the case of tenants of Housing New Zealand (the government-owned housing provider which supplies the majority of New Zealand's social housing stock), housing assessment reports are sent to the landlord and, as per an agreement with the Ministry of Health, Housing New Zealand will carry out the major interventions recommended for clients who are risk of rheumatic fever. In the case of private tenants, Well Homes workers will offer to contact the landlord to encourage them to make improvements. Participants reported various instances where their advocacy had resulted in improvements to the home such as insulation. In addition, support to undertake mediation or a tribunal process under tenancy legislation, in some case in conjunction with other community organisations, had resulted in compensation being awarded to tenants.

Participants noted that a positive effect of the visits for clients was to provide the sense that someone was listening to them and pushing their cause. As one participant reflected, "you give them a sense of hope that, yes we will deliver curtains within 6 weeks, I will follow up the insulation referral and see where that's at, we will call the landlord in a couple of days and ask him what is happening to the house."

Besides interventions and advocacy, Well Homes also provides advice, particularly on how to keep homes warm, dry and free of mould. Participants found giving advice particularly rewarding because they found it empowered families: "it's a family helping themselves." Behavioural advice was useful because the families could carry that knowledge with them if they subsequently left that home. As one participant explained, "whatever we do that's ok if the family moved because we have still provided the most important part which is the education for them."

Participants particularly shared information with their clients about the importance of heating, and how to manage heating. This included the danger of using unflued gas heaters, how to run and maintain existing heat pumps, and the cost and efficiency of running different types of heaters. However, participants appreciated that incomes limited how much people could heat homes: "If you're struggling to buy groceries you're not going to be running the heater." Well Homes workers are in a difficult situation, knowing the importance to health of heating, but equally aware of the impossibility for some families to heat to recommended temperatures. As one participant put it:

There's no point in adding burden to that family and saying "well you should be heating your kids' rooms." That's not fair. If they can't afford it... then that's not effective or helpful.

Therefore, advice was practical, adjusted to suit the limitations posed by the conditions of the home and by people's incomes. As one participant explained, "we... advise around heating the most vulnerable person's room if that's the only place you can afford to heat." In addition, Well Homes workers may suggest that clients struggling to pay power bills shift power companies or work with a budget advisor. They may also refer clients to the Ministry of Social Development in order to apply for a grant or a loan to help them with their costs, or to check they are receiving their full benefit entitlement. In some cases, participants reported that clients were unaware of various benefits that they were entitled to.

Finally, going into the home, rare in New Zealand health services, was a fundamental part of the service: "It's a real privilege to be in a person's home and really see exactly how they're living." It helped Well Homes workers to tailor their advice to particular circumstances: for example, how to manage heating in a particular home environment, and how to use the mould-cleaning kits and draughttape. It also helped to build trust and understanding. As one participant said, "The bonus of being able to go into a person's home [is] that you can see them and get a feel for how the family manages the house and the circumstances around that." It might be as simple as surveying an existing space and seeing what could work better. For example, being in the home enabled one participant to observe that a child who was asthmatic, obese and had sleep apnoea, was sleeping on a mattress on the lounge floor. The participant suggested that Well Homes provide a bunk set for the other children, to enable the child to have his own bed, which helped improve his asthma.

3.3 | Challenges to Well Homes achieving improvements to housing and health

Participants identified a number of barriers that could prevent Well Homes clients enjoying all the benefits of the program. One key limitation is that the provision of interventions does not necessarily mean that housing conditions will improve. As already noted, many people cannot afford to heat their home to a healthy temperature. In addition, the provision of healthy housing education does not necessarily mean that clients change their behaviour - such as using the provided draught-stoppers, opening and closing the provided curtains, and ventilating - to achieve a warmer and drier home. Participants pointed out that client stress may challenge efforts to improve housing conditions. Many Well Homes clients have been recently discharged from hospital. Families are often in touch with multiple government services besides health, such as Corrections and Oranga Tamariki. Families have low incomes. Research shows that such families experience stress due to dealing with unstable and expensive housing, insecure incomes, and the high cost of bills and food, on top of health issues and parenting. ²⁷⁻²⁹ As a result of these stressors, one participant noted that they were unwilling to have Well Homes contact their landlord: "There is a tension, a lot on their plate, it's just an extra stress they don't need." Regarding the ability of some clients to incorporate healthy housing behaviours such as ventilating into their daily lives, another participant reflected that "There is a lot going on and they might not have the skills for the other stuff that is going on let alone making changes [for healthy housing];" therefore, "we have to be realistic about how much people...have the capacity to change and what we can hope for that to look like."

Landlords' unwillingness to undertake housing improvements presented another challenge to the program. Despite knowing what it would take to make a house healthy, "we don't have the solutions in our control." Participants saw landlords as viewing their property as a source for capital gain and hence, "they just often don't see the point [of making improvements]." Some landlords did not want to insulate homes even though partial funding at the time was available to subsidise installation costs. 30 Participants blamed this on the lack of standards in the Residential Tenancies Act (RTA):

> I've had landlords say "make me" when I've asked them to do things. And that's the problem. The legislation is quite loose... You can make suggestions but they don't really have to do anything about it.

In many cases, clients preferred that Well Homes workers did not advocate on their behalf to landlords, a problem which participants said was increasingly common due to the decline in the availability of affordable rental housing. As one participant explained, "there is a sense that if they try and rock the boat too much they will jeopardize their tenancy." This was despite protection under the RTA from retaliatory notice, which, participants pointed out, was difficult to prove. In addition, winning compensation was "not going to change the fact that they have got to find another house." Clients were particularly wary of asking for improvements if the tenancy relationship was under stress: "they won't want to address it with the landlord especially if they are in rent arrears or they have asked for things before and they haven't been done and they are worried about rent."

As an alternative to directly contacting the landlord, Well Homes workers will write letters to landlords explaining why improvements are desirable from a health perspective and leave it with tenants, for them to choose whether they will contact the landlord. However, as another participant noted, "more often than not they will ask for a letter that they can pass on and I often get a feeling that they won't."

A second barrier to Well Homes workers achieving success was the limited amount of time and funding they had to spend on families. Participants said that more time with clients would mean they could show them how to install draught-tape, rather than simply explain how to use it. They noted that visiting families twice, rather than once, would help reinforce healthy housing messages. More time available to spend working with landlords may mean that landlords might be more likely to make improvements. Well Homes had limited money to spend on each family; despite the clear need, "we can't provide it all for every family." One participant recalled a family that required bedding for all family members: "You don't begrudge that but you do worry what happens when the next family comes in and we haven't got anything left."

Working with homeowners presented distinct challenges. Participants pointed out that while it was often assumed that homeowners were wealthy, in reality, some homeowners struggled to make mortgage payments, lived with multiple generations in the home, and could not afford to make necessary improvements to the home. While insulation subsidies have been available to low-income homeowners since June 2017 (with the amount of subsidy increasing in July 2018), and funding is available for ground vapour barriers (from July 2018) and heating appliances (from July 2019),³¹ these subsidies will not help the homeowners who struggled with other structural issues, such as leaking roofs. In such a case, for example, installing insulation would not be practical, as the insulation would become damp and ineffective.

If a client's current home does not meet their needs, and they meet social housing criteria and wish to be placed in social housing, Well Homes workers can facilitate this through getting them on the social housing register (waitlist). However, the lack of available social housing meant that families could not always be rehoused. As one participant put it, "a lot of people at private rentals [are] sitting on the social housing waitlist but there is just nothing out there for them." As another participant explained, "we end up managing expectations and saying 'look you're in an overcrowded home and you need another bedroom but the reality is that you can go on the social housing wait list but you're still not going to get anything anytime soon because the wait list is what it is."

3.4 | Respecting and protecting clients

Participants viewed their time in clients' homes as a *privilege*. They were careful to respect participants' ways of living in their home. While it was up to clients how they chose to live in their homes, the role of Well Homes was "just making sure that they have enough knowledge to make those decisions in an informed way." One front-line staff member gave the example of families that shared beds due to cold temperatures, which they would recommend against due to the risk of infectious disease. Clients may continue to bed-share following the visit, but may make other small changes that decrease health risks: "if they choose to continue bed sharing there may be a couple of minor practices that they change. Or they may not but at least they understand why I've given them that information."

It was important to protect clients from potential harm. Due to the fact that advocating to landlords to improve housing can be frightening to tenants, who fear damaging the relationship with their landlord, Well Homes workers will make sure the client supports the idea. As one participant put it, "I work with them, I won't want to do anything without their input." For private tenants who did want Well Homes to advocate to their landlord, front-line staff were careful to manage people's expectations, because "unfortunately we aren't able to work miracles." For example, in the case of requesting private landlords install insulation, "you just have to be honest with them and say that

uptake has been slow but we will certainly do our best." In many cases, people are lived in crowded living situations, which, apart from being dangerous to health, may be a breach in the tenancy agreement, which usually states the maximum number of tenants. In order to protect tenants, Well Homes would not inform landlords of the numbers in the home. Instead, they would offer to place additional residents on the social housing register. Participants noted that in the meantime, the provision of beds and bedding, and advice about heating and sleeping arrangements, can help protect against some of the health impact of crowding associated with infectious disease.

As noted, Well Homes workers were limited in what they could do for homeowners, beyond supplying interventions such as blankets and heaters, making minor repairs and providing education and advice. However, it was important to inform clients of issues in the home, even when Well Homes was unable to assist. As one participant explained, "you want to give them the wherewithal and knowledge, you don't want to make them feel like it's a lost cause." Clients themselves may be able to provide solutions to housing issues. For example, if the family has tradespeople in the family, the Well Homes worker might suggest closing up void spaces or open archways in order to assist with heating the home, or knocking down a carport that blocks off the light.

4 | DISCUSSION

Themes raised by participants in this study together present a useful assessment of an HHI, which may be useful to other HHIs around New Zealand, as well as healthy housing programs internationally.

There were a number of factors which participants saw as critical advantages to the Well Homes approach. Visits in the home enabled workers to tailor their advice and interventions to a family's specific situation. The fact that energy, health and community health organisations work together within Well Homes enabled workers to provide best-practice advice based on their varied skill sets. This underlines the importance of partnerships – including environmental and health organisations – in health promotion.³²

In Well Homes, the multipronged approach, encompassing interventions, advocacy and education, helped address improve different aspects of people's housing experience. Interventions such as heaters, bedding and firewood were greatly appreciated by clients, led to an immediate difference in their surroundings, and were viewed as a fundamental part of the program from an ethical standpoint. Working with landlords sometimes enabled larger improvements to the homes, such as insulation. This is supported by other research showing how the presence of an outsider to advocate for housing repairs or improvements on behalf of tenants can increase the likelihood that improvements will be made.³³

Healthy housing education was valued because it empowered clients and gave them a new skill they could take to future homes. This finding underlines other research which looks at how health literacy, alongside other interventions, plays an important role in health promotion.³⁴ It suggests a more specific idea of the importance

of "housing literacy" 35 in attempting to manage the New Zealand home, which is typically built to low standards and lacks passive or automated heating and ventilation systems. 36,37 Advice on incomes and entitlements were reported as leading in some cases to income increases, which is supported by other research on the effects of welfare advice and advocacy. 38-40

Participants in this study raised a number of issues they thought inhibited the potential of Well Homes to achieve its goals. The provision of interventions does not necessarily guarantee take-up. Income constraints may mean heaters are not used enough to bring the home to a sufficient temperature. Other interventions such as draughtstoppers and curtains may not be used, and clients may not be able to implement some of the healthy housing behaviours. In some cases, this was because the stress that some clients were under made making changes to their lives challenging. In addition, landlords were resistant to making improvements to their homes. Clients in private rental housing were often too afraid of damaging the relationship with their landlord to give permission to advocates to contact landlords to make improvements. Homeowners were also in a difficult position, as they could not afford to make vital repairs to their homes. The interventions provided by Well Homes workers at the time of the visit or soon after - such as draught-stoppers, curtains or heaters - were helpful in improving the housing environment. However, in many occasions the houses required much more work to provide a safe and healthy environment. The unwillingness or inability of property-owners to make larger improvements, including insulation and the lack of funding or permission for Well Homes to make these improvements, meant that many homes remained inadequate.

Faced with these limitations, participants shared that a vital aspect of their work is managing expectations, and prioritising protection and respect for clients. Well Homes workers protect clients from potential harm by only contacting landlords with clients' approval, by offering alternatives to homeowners who could not afford major improvements and by acknowledging that, while they could do their best to advocate for improvements or for transfer to a social home on behalf of clients, they could not guarantee this would occur.

The themes presented in this paper will be of interest to staff working to provide housing support across New Zealand as well as in other countries, as different programs will offer different interventions. The advantages and challenges associated with providing Well Homes services may offer other organisations ideas for how to support their own clients. This is also the case within New Zealand, as HHIs are implemented by different organisations which may have different approaches. This paper, and other recent reports, supports the information sharing between HHIs that takes place via a web portal and quarterly meetings. 41-43

Participants' perspectives on housing conditions experienced by their clients provide a vivid snapshot of an enormous problem. The fact that detailed and personally tailored education is required to assist clients experiencing damp and cold, is an indictment on the innate problems in much of the New Zealand housing stock, and on the high cost of the power required to heat homes, relative to incomes. Participants' observations on the problems with housing quality and

affordability and energy affordability for the clients, as well as high demand for social housing, are backed up by research: nearly two-thirds (63%) of owner-occupiers and 67% of renters, report a need for maintenance and repairs on their home, while 15% of owner-occupiers and 35% of renters, reported that their homes were often or always cold. 44 In a representative sample of New Zealand properties, building assessors reported that 18% of rental properties, and 11% of owneroccupier properties, were damp, 36 and that 24% of rental properties and 17% of owner-occupied dwellings have insufficient ceiling insulation.³⁷ Low-income New Zealanders pay high housing costs relative to income, which impacts on their ability to afford other items such as energy bills. 45,46 Social housing, in which tenants pay income-related rent and experience superior security and quality to the private market, is the logical solution for many private tenants. However, high demand means transfer to social housing is not possible. In September 2017, soon after the interviews were carried out, there were almost 6000 households on the social housing register (wait-list), indicating they met criteria for having high housing need. This was an increase of 72% over the previous 3 years.⁴⁷

Staff of and referrers to Well Homes proved to be useful in gaining insights into the advantages and challenges of the service. However, understanding to what extent Well Homes makes a difference to families, and their own involvement in improving their housing, requires working with Well Homes clients. Recently, reports based on a co-design workshop and interviews with clients of HHIs have shown that families provide useful insights into the service, illustrating the importance of involving families with their own intervention and education programs. 41-43 Interviews with a range of Well Homes clients have been conducted and will be the subject of the future paper.

As we have noted, a key limitation of the program is that the provision of interventions does not necessarily mean that housing will be improved. For this reason, monitoring and feedback loops are important to demonstrate what changes are made as a result of a Well Homes visit. Well Homes staff calls clients about 3 months after a visit to ask a series of questions about the temperature of their home, ability to heat the home, mouldy or musty smells in the home and sleeping arrangements. They also ask whether they found the service beneficial and ask for suggestions for how to improve the service. This monitoring will be supported by a large-scale quantitative evaluation of what interventions were delivered and how health was affected.

CONCLUSION 5

This study's findings demonstrate that a program that combines advocacy, interventions and education for healthy housing can make a difference to housing conditions. The literature suggests that the interventions provided by Well Homes, if implemented effectively, will contribute to improved health. Whether this is the case is the subject of ongoing study. However, as this article has shown, wider problems in the housing market as well as a lack of funding and regulatory support for housing improvements impact on the ability of health workers to do their job and to effectively implement all the interventions that the housing requires. This therefore limits the capability of a government program to fulfil its potential. Staff's work would be more effective if there were funding for additional time with clients, if they were able to provide additional interventions and urgent repairs, and if they were able to provide more support to sustaining tenancies and in advocating to landlords for improvements. This work would be better supported in an environment with sufficient social housing to meet need, a regulatory and funding environment that supported improvements to rental housing, and funding to enable low-income property owners to improve their housing. These perspectives are likely to be useful in interpreting the results of quantitative analysis on the effects of the program on children's readmissions to hospital for housing-related health needs.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

ENDNOTES

- ^a Safe Housing Enabling Long-Term Effective Recovery is a research project funded by the Health Research Council of New Zealand: http://www.healthyhousing.org.nz/research/current-research/safe-housing-enabling-long-term-effective-recovery-shelter/.
- b Oranga Tamariki, or the Ministry for Children, supports children who are at significant risk of harm.

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