Healthy Homes Initiative Evaluation

Final report

27 April 2018

ALLEN+CLARKE

CONTENTS

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EXECUTIVE SUMMARY

This report presents the findings of an evaluation of the Ministry of Health's Healthy Homes Initiative (HHI). The HHI was established as part of the Ministry's Rheumatic Fever Prevention Programme (RFPP). It was launched in the Auckland region in 2013, and subsequently expanded to a further eight DHBs with high incidence of rheumatic fever. In 2016 the HHI was allocated additional funding to expand the eligibility criteria to include children aged 0-5 and to incorporate social risk factors. The Ministry commissioned *Allen + Clarke* to undertake a process evaluation of the HHI, with a focus on the service expansion.

Purpose and methods of the evaluation

The purpose of the evaluation of the HHI is to inform and improve the delivery of the services going forward. The evaluation included:

- assessment of HHI processes, structure, model, management, implementation and delivery;
- identifying what worked well with the HHI at the regional and national levels, and what could be improved; and
- identifying lessons to inform ongoing development and delivery of the extended programme to at-risk children aged 0–5 years.

The evaluation took a formative approach, intending to enhance understanding of the expected process of change for households through their participation in the HHI: what is working, what isn't working, and why.

The evaluation drew strongly on qualitative data from interviews with Ministry officials, HHI leads and staff, landlords, partner agency representatives and referrers; focus groups with front line HHI staff; an e-diary activity during which assessors recorded their experiences and perceptions in their role working face-to-face with whānau; and in-depth interviews with clients of the HHI. This was supported by a review of key documents provided by the Ministry and analysis of statistical data related to HHI service provision.

The collected data was analysed thematically through the use of NVivo software and was assessed against the key evaluation criteria and performance standards to determine the evaluation findings.

Findings and conclusions

Reach and referral pathways

The evaluation found that the HHI is **meeting expectations** in establishing referral pathways to ensure the initiative reaches its priority population.

All HHIs have invested considerable effort to identify and make connections with health and social sector organisations that work with HHI priority populations, such as paediatricians, children's ward nurses, iwi and Pasifika health service staff, and public health nurses. HHIs have focused on ensuring that these potential referrers are aware of the programme and the services it can provide, so that a referral is made when the health professional engages with a family that meets the eligibility criteria. The evaluation found that the HHI has achieved high confidence amongst these referrers in most regions, who demonstrated understanding of the HHI and a willingness to refer. However, HHI

communication with referrers is not regular and systematised in most regions, and few HHIs provide follow up reports to referrers. This can lead to referrer frustration at having to seek feedback on the outcomes of their referrals.

In most HHIs, these referral relationships are backed up by systems to audit hospital discharge lists and the prophylactic bicillin register to ensure all eligible families have been offered an HHI referral. This provides confidence that referrals are being received for all of those eligible under the rheumatic fever (RF) criteria for a child aged 0-14 years hospitalised overnight with an indicator condition, the RF eligibility criteria for people receiving monthly bicillin injections, and the expanded criteria for families with a child aged 0-5 years hospitalised with a housing-related condition. However, none of the HHIs had formalised processes for checking or auditing referral pathways for the other criteria, and rely on potential referrers being aware of the HHI and actively making referrals. It is therefore not certain that referrals are received for all eligible families.

HHIs have capacity to accept additional referrals. Analysis of data shows that none of the HHIs are likely to meet their contracted enrolment numbers for the 2017/18 year, with four out of nine likely to achieve less than 50 percent of the contracted numbers. There is potential to strengthen referral pathways to increase the number of referrals into the HHI, with most HHIs having had limited engagement with lead maternity carers (LMCs), primary care practices, and social workers. As well as ensuring that all DHBs are undertaking regular audits of discharge lists and the bicillin register, it would be beneficial for DHBs and the Ministry to investigate whether formalised systems could be implemented to audit whether referrals are offered to those who experience three or more episodes of Group A Streptococcus (GAS) pharyngitis, families with a child aged 0-5 years with two or more specified social risk factors, and pregnant women or women with a newborn baby.

Innovation

The HHI is **meeting expectations** in using innovation to make the HHI a more efficient and effective service. The evaluation found that HHIs are testing and implementing innovative practices, particularly in sourcing and delivering interventions. Innovative practice is intended to address barriers to a warm, dry and uncrowded home commonly experienced in by HHI clients, and includes initiatives to assist clients to secure private rental housing, increase energy efficiency, and complete minor repairs. Conditions which enhance innovation include having the support of the DHB contract holder, and empowering HHI staff to try new ideas.

The evaluation also found that the Ministry has established effective processes for sharing innovations between HHIs, including the quarterly hui, Te Roopu Wero Hinengaro (the HHI working group) and the QuickR online platform.

Innovation has been successful in increasing HHI efficiency through direct savings to the programme, such as by establishing innovative donor partnerships to save the cost of purchasing items such as floor coverings. It is also creating broader system efficiencies through ensuring that the HHI is not replicating services that are already available within the community.

However, some barriers to effective service delivery have not been addressed, despite the application of innovative practice. HHIs have tested numerous initiatives to reduce the time spent negotiating with private landlords to consent to and/or finance the provision of interventions, but landlords remain challenging to engage and resistant to making housing improvements. Innovative models that use a 'middle man' or liaison service to broker engagement may offer a potential way forward.

Effectiveness

The HHI is **meeting expectations** regarding its effectiveness. The evaluation explored the effectiveness of the HHI from multiple perspectives, including the effectiveness of partnerships with relevant organisations, intervention delivery, the HHI workforce, and effectiveness from the whānau (client) perspective.

We found that partnerships with government agencies have led to some important national successes, such as clients in Housing New Zealand (HNZ) rental homes receiving five evidence-based capital interventions to enhance their home's warmth and dryness. However, the effectiveness of partnerships at the local level was variable. For example, HHI assessors in some regions experienced challenges in receiving feedback on the status of intervention referrals to HNZ and the Ministry of Social Development (MSD), and agreements at the national or region level are not always communicated to front line staff.

The HHI is effective in delivering interventions that are directly within their control, such as key messages on creating a healthy home, beds and bedding, mould kits and heating sources. These are delivered within six months in over 65 percent of cases. However, interventions delivered by third parties, such as relocation to social housing, insulation, ventilation, private/community housing relocation, and minor repairs, are delivered within six months in less than 50 percent of cases. This is creating a barrier to effective service provision.

The evaluation also found that there is some inequity in the supply of interventions between HHI regions, with fewer charitable organisations and philanthropic funds available to HHIs in dispersed and/or isolated geographies, and in areas experiencing higher than average levels of deprivation

HHI effectiveness relies on a competent and engaged workforce that is able to establish positive relationships with clients. We found that most HHI staff felt motivated, engaged and supported to do their job effectively. However, a minority of assessors considered their ability to effectively work with vulnerable whānau was compromised by concerns for their physical and/or emotional safety. The use of formal health and safety policies and procedures is inconsistent across HHIs, and could be strengthened.

The HHI is seen as highly effective by the majority of whānau interviewed for this evaluation. The whānau experience is enhanced by setting clear expectations of what the service can provide, contacting the whānau soon after referral and involving them in co-developing the intervention plan.

Immediate outcomes

The HHI is **exceeding expectations** in how whānau perceive their engagement with the HHI and the achievement of desired outcomes. Most whānau interviewed reported that their involvement with the HHI had been positive, and that this had increased their overall confidence in dealing with other health and social service agencies. This was achieved through the HHI delivering on its promises and through observing and learning from their assessor's interaction with the agencies.

The majority of whānau engaged with considered that their homes were warmer, drier and healthier after their involvement with the HHI. Those that had received insulation and heating sources were mostly likely to report increased warmth and dryness in their home.

The small number of whānau interviewed that had previously experienced structural or functional crowding reported that these issues had been addressed by the HHI, or that processes for housing relocation had commenced. Despite receiving interventions which made the home warmer and drier,

some whānau continued to co-sleep (such as bed and room sharing) as an occasional practice. While HHI assessors are addressing this issue sensitively, some whānau noted that there are inconsistencies in terms of the content, delivery and appropriateness of messages and expectations about co-sleeping between the HHI and partnering government agencies.

Most of the issues that were present at the initial housing assessment had been resolved. Issues that remained problematic were typically those that relied on interventions supplied by third parties (such as insulation, ventilation, private/social housing relocation, and minor repairs), which quantitative data shows frequently remain undelivered six months after referral.

Value for money

The HHI is **meeting expectations** in terms of offering value for money. The evidence shows that the HHI resources are mostly being spent fairly, well, and wisely; and funding invested is likely to have a positive effect on whānau health.

The HHI funding is being fairly spent on those that it is intended to assist. The evidence shows that the eligibility criteria is being accurately applied, and the evaluation did not encounter any situations where the HHI service was being provided to ineligible households.

The HHI is achieving effective service provision in all aspects that are directly delivered by the HHI assessors, and is viewed by whānau as effective in improving their housing conditions. Some important interventions that require delivery by a third party remain undelivered within six months. In particular, interventions to upgrade the thermal envelope, such as insulation, structural repairs and ventilation, have a lower rate of completion.

In order to provide an effective service, vulnerable whānau require ongoing engagement. For example, changes to whanau knowledge and behaviours are most effectively achieved over the course of multiple contact points. This is challenging for HHI providers to deliver within the current per-family funding allocation.

HHIs are actively seeking out ways to deliver the service efficiently by leveraging on existing processes and systems. This includes using existing mechanisms (the bicillin register and hospital discharge lists) to identify eligible families for referral and developing partnerships with charitable and commercial entities to avoid service duplication and save the cost of purchasing needed items. However, some areas of inefficiency are apparent, particularly where HHI staff time needs to be spent on activities such as accompanying clients to appointments with government agencies and negotiating with private landlords.

At a system level, if the HHI is successful in preventing even a small number of RF hospitalisations, there will be substantial cost savings to the health system.

Recommendations

Based on the above findings, the evaluation makes the following recommendations:

1. HHI providers strengthen their reach to priority populations by establishing referral pathways with groups such as LMCs, social workers and primary care practices.

   This should be supported by the Ministry-led engagement with national organisations such as the New Zealand College of Midwives, the Royal New Zealand College of General Practitioners and the College of Nurses Aotearoa, and the Aotearoa New Zealand Association of Social Workers to raise awareness about the HHI. This could be implemented through

mechanisms such as including information on newsletters, through an article in periodic journals or publications, or by presenting or having an information stand at conferences.

We also recommend that the Ministry engage with MSD and HNZ to explore the potential to establish referral pathways from these organisations into the HHI.

2. All DHBs implement formalised systems to audit hospital discharge lists and the prophylaxis register.

   DHBs and the Ministry explore whether formalised systems could be implemented to audit whether referrals are offered to those who experience three or more episodes of GAS pharyngitis, families with a child aged 0-5 years with two or more specified social risk factors, and pregnant women or women with a newborn baby.

3. All HHI providers develop a systematised approach to communication, and develop a communications plan detailing:
   - identification of relevant referrer organisations within the HHI region
   - details about the planned communications approach, including which communication methods will be used (it is recommended that a suite of communication methods be used) and how follow up reports will be provided to referrers
   - allocation of roles and responsibilities for implementing the communications plan.
4. All HHI providers supply follow up reports to referrers as part of their communications approach. This should ideally involve reporting back to referrers on individual cases at set points during the HHI journey.
5. The Ministry continue to host and lead the planning for the quarterly hui and support Te Roopu Wero Hinengaro and the QuickR web platform as important mechanisms for sharing and motivating innovation.
6. The Ministry continue to work closely with its cross-government partners, particularly HNZ, MSD, and EECA to ensure that agreements at the national level are reflected in local service provision and to enhance feedback loops with HHI providers.
7. The Ministry and its cross-agency partners work to address barriers to the delivery of interventions to HHI families, particularly the limited supply of social housing; lack of quality, affordable, private rental housing, and landlord reluctance to supply the required interventions.
8. The Ministry work with DHBs and HHI providers to identify and consider options to address the inequity of intervention supply across the HHI regions.
9. HHI providers review their health and safety policies and practices to ensure that they comply with legislative obligations and provide for sound practices to protect the emotional health, physical health, and physical safety of staff, tailored to their role-related needs.
10. The Ministry and HHI providers work with partner agencies to ensure that consistent messages are provided to HHI whānau and that they are delivered in a culturally appropriate way.
11. The Ministry review the current per-family rate of $610 to better reflect the true cost of coordinating and delivering the service and ensuring its effectiveness.

1. BACKGROUND AND CONTEXT

Whilst rheumatic fever (RF) is rare in most developed countries, New Zealand has a relatively high incidence, largely amongst school-aged children of Māori and/or Pasifika ethnicity. The Rheumatic Fever Prevention Programme (RFPP) was established in 2011 to prevent and treat Group A Streptococcus (GAS) pharyngitis infections, which can lead to rheumatic fever. The programme was expanded significantly from 2012 following the introduction of the five-year rheumatic fever Better Public Services target. The government invested about $65 million to identify and trial new initiatives to reduce the rheumatic fever rates throughout New Zealand. The RFPP was a comprehensive programme with three key strategies:

1. increase awareness of rheumatic fever, what causes it and how to prevent it
2. reduce household crowding and therefore reduce household transmission of GAS pharyngitis bacteria within households
3. improve access to timely and effective treatment for GAS pharyngitis infections in priority communities.

The Health Homes Initiative (HHI) was an initiative within the second component of the RFPP. It was supported by other actions including a cross government action plan to reduce household crowding and the establishment of a social housing 'fast track'.

1.1.1. Implementation of the Auckland-wide Healthy Homes Initiative

The HHI was launched in the Auckland region in 2013 with the establishment of the Auckland-wide Healthy Homes Initiative (AWHI). AWHI delivered the HHI to priority populations across the three DHBs (Auckland, Counties-Manukau, and Waitematā), backed up by Ministry-led cross-agency collaboration.

As it was part of the RFPP, criteria for referral to the HHI focused on identifying households with children at risk of RF (i.e. a child aged 0-14 years hospitalised overnight with specified health conditions[1]; or a person living at the address who is eligible to receive monthly prophylaxis bicillin injections as a result of a past episode of RF; or three or more episodes of GAS pharyngitis within a household within a three month period) as well as conditions based on the household composition, evidence of structural or functional crowding and economic circumstances of the household.

As intended, AWHI was iteratively developed, creating a model that could be adapted and adopted in other regions. AWHI was designed to visit the homes of referred families and work with those households to identify their needs for creating a warm, dry and uncrowded home; and then to work alongside them to bring about the changes they sought.

Initially, no funding was provided to generate referrals as it was assumed that health professionals would refer to the housing improvement service when it became available. It soon became apparent that considerable work was needed to generate referrals, including convincing health professionals about the extent to which housing impacts upon health and the benefits of referring families to the new service. As a result, short term contracts were entered into with the Auckland area DHBs to establish systematic referral pathways.

[1] This included respiratory infections such as pneumonia, acute bronchiolitis, and bronchiectasis; meningitis; and rheumatic fever.

The HHI was intended to act as coordination point between its clients and parties that could address the issues identified through the assessment of household living conditions, including government departments and Crown agencies, landlords, philanthropic organisations and community-based services, such as curtain banks. As such, no funding was provided for interventions. However, it became apparent that there was a gap between the anticipated solution of the required interventions being readily available, and the reality faced by AWHI and its subcontracted service providers.

In 2015 the Ministry contracted the Auckland Council *Southern Initiative* to work with AWHI to identify housing-related interventions and build partnerships to establish sustainable processes and supply, distribution and installation of interventions in the Auckland area.

1.1.2. Roll out to eight further DHB areas

In 2015 the HHI service was rolled out to the remaining eight DHBs with high incidence of rheumatic fever that were part of the RFPP: Northland, Waikato, Bay of Plenty, Lakes, Hauora Tairāwhiti, Hawke's Bay, Capital & Coast and Hutt Valley. Seven further HHIs were established in these DHBs[2]. The contracts with these DHB regions incorporated learnings from AWHI, and built on local healthy housing programmes and initiatives where possible. Providers were contracted to deliver the full HHI process including generating referrals, conducting assessments, coordinating the delivery of interventions and building intervention supply.

1.1.3. Expansion of HHI service eligibility

Through Budget 2016, the HHI was allocated $18m additional funding over four years, which was projected to benefit around 25,000 low-income households with vulnerable 0 to 5-year olds. In parallel with the additional funding, the referral criteria were expanded to include three new circumstances in which households could become eligible to receive support from the HHI: a child aged 0-5 years who has been hospitalised with a specified housing-related condition[3], a child aged 0-5 years with two or more specified social risk factors[4], or a pregnant woman or newborn baby.

1.1.4. HHI funding and contracting arrangements

From 2013-2016 the HHIs were mainly funded through direct contracts for HHI service delivery between the Ministry and the lead service provider in each area. From 2016, the arrangements changed so that the delivery of HHI was included in a broader rheumatic fever prevention contract between the Ministry and DHBs, who then contracted the HHI service providers directly. The only remaining direct contract is between the Ministry and the AWHI service provider within Counties Manukau DHB. This contract was retained by the Ministry at the request of the DHB.

1.1.5. Regional contexts

Manawa Ora (Northland)

Manawa Ora is delivered by Manaia PHO in Whangarei. Manawa Ora uses a 'hub and spoke' model; Manaia PHO hosts the Hub where referrals are triaged before being allocated to one of seven health

[2] One HHI covered both the Capital & Coast and Hutt Valley DHB areas
[3] Infectious respiratory conditions, meningitis or rheumatic fever.
[4] Child Youth and Family finding of abuse or neglect; caregiver with a Corrections history; mother has no formal qualifications; long term benefit receipt.

and social service providers who deliver the service throughout Northland. The large geographical spread of the Northland region, with its clusters of population centres, is a challenge to HHI delivery.

Kainga Ora (Auckland/Waitematā)

Kainga Ora is the newest HHI provider, having been formed in December 2016 to manage delivery of the HHI to the Auckland and Waitematā DHB populations. Kainga Ora uses a hub and spoke service delivery model, working closely with community-based and hospital- based social service providers. Kainga Ora continue to work closely with *The Southern Initiative* – referred to as the Co-design team – to develop processes for improving access to a sustainable supply of housing-related interventions.

Auckland-Wide Healthy Homes Initiative (AWHI) (Counties-Manukau)

The AWHI service was originally delivered by the Ola Coalition, a joint venture between the National Hauora Coalition (NHC) and Alliance Health Plus across the three Auckland DHBs. Since December 2016 it has been delivered solely by National Hauora Coalition to the Counties-Manukau DHB population. It uses a hub and spoke model, with referrals made directly to the Hub, where they are on-referred to a community provider for a housing assessment. The AWHI Hub coordinates most interventions from suppliers, but some providers are procuring interventions directly.

Whare Ora (Waikato)

Whare Ora is delivered by Te Puna Oranga, the Waikato DHB's Māori Health Service. Whare Ora operates as a hub and spoke model. This includes service co-ordination, access to and allocation of products, and working with communities to implement and promote the HHI. The housing assessments are allocated by the Hub to public health nurses or, under the expanded criteria, subcontracted to iwi and Pasifika health providers.

Bay of Plenty

The Bay of Plenty HHI is delivered by two not-for-profit community organisations: Sustainability Options, and Tawanui Community Housing Trust. These organisations deliver the entire service, from referral generation to assessments to interventions. The programme originally split the assessments geographically, with Tawanui Community Housing Trust covering the Western Bay and Sustainability Options covering the Eastern Bay. The programme has now moved to a model whereby assessments are allocated to individual assessors from both organisations based on geography, pre-existing relationships, and convenience (i.e. who is going to be in the area).

Lakes

Lakes DHB has contracts with two service providers, each covering discrete areas within the region. Western Heights has led the initiative in the Rotorua area since 2015; and Tūwharetoa Health has led the initiative in Turangi since the Budget 2016 expansion. The full service (from referral to interventions) is delivered directly by these organsiations.

Tairāwhiti

The Tairāwhiti DHB/Hauora Tairāwhiti has contracted two iwi health providers to deliver the HHI: Tūranga Health and, following the expansion of the service, Ngāti Porou Hauora. These organisations provide the full service. The Tairāwhiti region is geographically large and relatively isolated compared to the other regions delivering the HHI.

Child Healthy Homes Programme (CHHP) (Hawke's Bay)

The Hawke's Bay DHB delivers the full HHI service through its Child Healthy Homes Programme (CHHP). The CHHP team is co-located with other health service providers at the Napier Health Centre, and Flaxmere Community Health.

Well Homes (Capital & Coast and Hutt Valley DHBs)

In the Wellington region, the HHI is provided by Regional Public Health; which subcontracts He Kainga Ora, Tū Kotahi Trust, and Sustainability Trust to collaboratively provide the Well Homes HHI service. Well Homes is managed from within Regional Public Health where referrals and intervention delivery are allocated on a geographical basis.

2. THE EVALUATION

2.1. Evaluation purpose

The purpose of the evaluation of the HHI is to inform and improve the delivery of the services going forward. The evaluation included:

- Assessment of HHI processes, structure, model, management, implementation and delivery;
- identifying what worked well with the HHI at the regional and national levels, and what could be improved; and
- identifying lessons to inform ongoing development and delivery of the extended programme to at-risk children aged 0–5 years.

The evaluation took a formative approach, intending to enhance understanding of the expected process of change for households through their participation in the HHI: what is working, what isn't working, and why.

2.2. Evaluation questions

The evaluation explored the effectiveness of the HHI though five key criteria: effectiveness; reach; innovation; immediate outcomes; and value for money. Key evaluation questions and sub-questions to focus the evaluation were developed under these criteria. The questions have been developed through discussions with the Ministry and input from DHB personnel, HHI leads and staff from an HHI stakeholder workshop held as part of the quarterly hui.

Table 1: Criteria and Key Evaluation Questions

Criteria	Key evaluation question and sub-questions
Reach	To what extent is the HHI reaching its priority population?
Innovation	To what extent is innovation making the HHI a more efficient and effective service? • What innovations are being tried in delivering the HHI? • To what extent are these innovations improving the delivery of HHI to households?
Effectiveness	How effectively is the HHI being delivered?

Criteria	Key evaluation question and sub-questions
	• How streamlined is the engagement with families/whānau/aiga, from referral to follow-up? • Is the suite of interventions appropriate to achieve the intended outcomes of HHI?
Expected Immediate Outcomes	To what extent are the expected immediate outcomes[5] being achieved?
Value for money	To what extent is HHI offering value for money?

2.3. Standards of performance

To answer the key evaluation questions, each criterion was broken down into specific standards of performance. These identify the desired achievements of the HHI, derived from a review of HHI documents, discussion with the Ministry, and the stakeholder workshop held as part of the quarterly hui. The workshop involved a series of interactive discussions designed to identify the 'desired achievements' for the HHI, and what we would expect to see at different levels of performance (for example, what effective reach "looks like"). The information gathered at this workshop was used to develop the desired achievements and specific performance indicators against which the HHI was judged (Appendix 1).

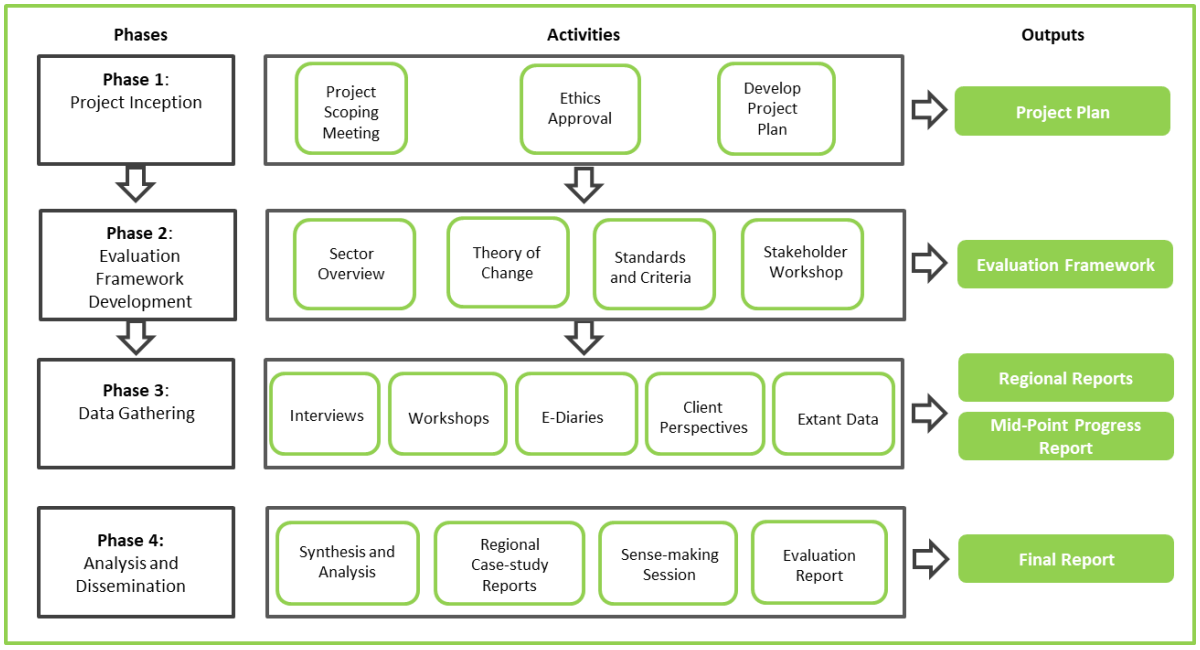
The workshop, document review and discussions with the Ministry also fed into the development of an evaluation rubric (Appendix 2). This established the standards against which the HHIs were evaluated, identifying what is considered to have "exceeded expectations", "met expectations", be "below expectations", or have "no change/detrimental" under each performance criterion. This has formed the basis of our judgements on how the HHI has performed against each criterion.

[5] The outcomes referred to here are those identified in the service specification, Appendix 2, number 8: "Outcomes measured 9 – 12 months following the referral being received". The four outcomes relate to family/whānau/aiga perceptions. They are included in the Standards of Performance table in the following section.

3. EVALUATION METHODOLOGY

The evaluation used an interpretive methodology; interviewing stakeholders with a principal aim of discovering their perceptions about their experiences. An overview of the evaluation methods is provided in Figure 1. Details of key methods are provided below.

Figure 1: Evaluation phases, activities and outputs



3.1. Methods and data sources

3.1.1. Contextual Review

The Ministry provided the evaluation team with 90 documents for the contextual review. Some files were region-specific, and others related to the HHI programme as a whole. The review added context to the evaluation team's understanding of the HHI.

The Ministry also kept the evaluation team abreast with developments in the HHI that paralleled the evaluation. Evaluation team members attended three quarterly hui, at which the Ministry team, HHI staff and representatives from government departments meet for discussion, sharing, collective problem-solving and on-going refinement of the service. The Ministry also gave the evaluators access to the shared space on the Lotus QuickR web platform used by the Ministry to communicate with HHI service providers, and used by providers to share developments.

3.1.2. Key Informant Interviews

We undertook key informant interviews with a range of HHI stakeholders, including Ministry officials, HHI leads and staff, and referrers. These were semi-structured interviews, based on a guide tailored to the various roles of the people to be interviewed. Informed Consent was obtained prior to the start of each interview. An example of the Information Sheet used, which includes the consent process, is attached as Appendix 3.

In total, we interviewed approximately 150 people. A de-identified list of people, by region and organisation, is attached as Appendix 4.

Interviews were recorded (where interviewees consented for us to do so) and transcripts were produced. The transcripts were then checked by interviewees (if requested to do so) and uploaded to NVivo Pro software for thematic analysis within the KEQ-aligned coding framework. A copy of the coding frame is attached as Appendix 5.

Regional Focus Groups

During the first round of site visits, front-line staff were invited to attend a focus group. The focus group was designed to elicit the observations, reflections, insights, and decisions of people working directly with whānau who have been referred to the HHI.

Focus groups were held in six regions, with 33 assessors/caseworkers participating. In the remaining three regions, either the number of frontline staff was too small to use a focus group delivery mode, or the geographical spread made it impractical to bring people together for a focus group, and so small-group interviews were conducted instead. This accounted for a further eleven participants.

E-diaries

Front-line HHI staff were invited to participate in keeping an electronic diary of their experiences and perceptions in their role working face-to-face with whānau. This was taken up by 24 people across the nine regions. The e-diary activity ran from mid-May to the end of September. The e-diary portal included 16 exploratory questions, a subset of which were presented at any one time.[6]

In-depth Interviews with Assessors

Assessors who had participated in the e-dairy activity were offered a face-to-face interview toward the end of the e-dairy activity period. The interview guide was developed following the identification of common themes arising in the e-diary entries. Of the 24 assessors who participated in the e-diary activity, 18 participated in the in-depth interview.

Family/whānau/aiga Interviews

Incorporating the perspectives of eligible families was an important component of this evaluation. Because HHI families can be considered vulnerable, ethics approval was gained from the New Zealand Ethics Committee for this component of the evaluation.

Interviews were held with 25 clients of the HHI, including 15 Māori, 8 Pasifika, and 2 NZ European/Pakeha, distributed across the nine HHI regions. These 25 clients are collectively referred to as 'whānau' throughout the report. Interviews with Māori whānau were carried out by Māori members of the evaluation team, and interviews with Pasifika aiga/fāmili were carried out Pasifika evaluators.

Interviewees were invited to participate by the service provider. A potential limitation of this approach is that, although HHI service providers were asked to identify clients with a range of experiences, there was a chance that service providers might only approach clients with whom they had a positive relationship, and where the outcomes from the HHI services presented a favourable impression. In practice, we found that the HHI service providers arranged for the evaluation team to meet with a varied sample of whānau who reflected a range of experiences of the HHI: we

[6] In the final week of the e-diary activity, all 16 questions were presented, enabling diarists to respond to any or all of the questions that had been addressed throughout the activity.

interviewed whānau who had positive and negative experiences, and some that had not yet received the full complement of interventions identified in their intervention plan.

Quantitative Analysis

The evaluation requested statistical data from HHIs and the Ministry of Health on:

- Referral numbers and pathways
- Enrolment, declines and withdrawals from the programme
- Number of intervention plans developed and closed
- Interventions identified as needed and interventions delivered
- Financial data related to all sources programme funding.

Where quantitative data has been used in the evaluation findings, we have discussed any limitations in the narrative describing the finding.

4. KEY FINDINGS

4.1. Reach and referral pathways

KEQ 1: To what extent is the HHI reaching its priority population?

This section discusses the effectiveness of processes used to reach priority households, exploring whether HHIs have established appropriate referral pathways and communication systems with referrers.

Key findings include:

- Most HHIs have established systems to ensure that all families eligible for the HHI due to hospitalisations or being on the prophylaxis register are offered a referral.
- HHIs are unlikely to meet their contracted enrolment numbers for the 2017/18 year. There is scope to strengthen referral pathways to increase the number of referrals received.
- Referrers in most regions are confident that an HHI referral will get the whānau practical assistance that will improve the quality of their homes in ways that benefit the children's health.
- Communications with referrers could be enhanced by implementing a more systematised approach that incorporates the features of effective communication identified by referrers, and by providing follow up reports on referred cases.

4.1.1. Effectiveness of referral sources and pathways

All nine HHIs have put substantial effort into establishing referral pathways to reach the priority populations. This has included developing relationships with potential referrers in entities that engage with the relevant population groups. HHIs have mainly focused on health sector entities, including hospital staff such as paediatricians and children's ward nurses, iwi and Pasifika health services, and community-based health professionals such as public health nurses and Whānau Ora staff.

HHIs stressed the importance of capitalising on existing health sector structures and relationships. Several HHIs in which the service provider offers other health or social services noted the importance of leveraging other whānau engagements. For example, one HHI service provider also runs sore throat and skin infection rapid response clinics in schools and acute care clinics for eczema, head lice, and scabies in early childhood centres. They use these services to identify eligible whānau and cross-refer them into the HHI.

The evaluation asked DHBs and HHIs what systems they had in place to ensure that all eligible families received a referral to the HHI. Six of the nine HHIs had processes in place to:

1. audit hospital discharge lists to ensure that referrals were offered to families eligible under the RF eligibility criteria for a child aged 0-14 years hospitalised overnight with an indicator condition; and the expanded criteria for families with a child aged 0-5 years hospitalised with a housing-related condition.

2. audit the prophylactic bicillin register to ensure all eligible families have been offered an HHI referral under the RF eligibility criteria for people receiving monthly injections as a result of a past episode of RF.

The other three HHIs were able to describe processes which they undertook to check that eligible families received a referral to the HHI, but these were less formalised and did not include systematic checks or audits. These HHIs described having a staff member allocated to ensuring that eligible families were being referred, for example by checking in with public health nurses who deliver the secondary prophylaxis to ensure that they are asking bicillin clients about their housing and offering a referral where relevant (although this was not a formal audit process).

While most HHIs had established regular communication with those delivering sore throat management services and local health and social service providers, none of the HHIs had formalised processes for checking or auditing the referral pathways for three or more episodes of GAS pharyngitis, families with a child aged 0-5 years with two or more specified social risk factors, or a pregnant woman or newborn baby. One DHB staff member noted that the social risk factors referral pathway is particularly difficult to audit. DHBs are able to access clinical records to audit the prophylaxis register and housing-related hospitalisations, but no such records are available for the social risk factors criteria or for three or more episodes of GAS pharyngitis.

This suggests that referrals resulting from hospitalisations and audits of the prophylaxis register are generally working well. However, referral pathways for the other criteria tend to rely on potential referrers being aware of the HHI and actively referring, and therefore it is not certain that referrals are received for all eligible families.

Analysis of statistical data shows that HHIs are unlikely to meet their contracted enrolment numbers in the 2017/18 year. As displayed in Table 2, HHIs are forecast to achieve between 29 and 79 percent of the contracted enrolment numbers.

Table 2: Forecast HHI enrolments for 2017/18 compared to contracted enrolment numbers

HHI	Total eligible referrals Q1 and Q2 2017/18	Forecast referrals per annum 2017/18*	Contracted numbers per annum (RF and expansion)	Proportion of contracted numbers forecast to enrol 2017/18
Manawa Ora	315	630	800	79%
AWHI	714	1428	2655	54%
Kainga Ora	350	700	1615	43%
Whare Ora	309	618	1385	45%
CHHP	216	432	625	69%
Bay of Plenty	202	404	765	53%
Tairāwhiti	61	122	420	29%
Lakes	161	322	495	65%
Well Homes	228	456	971	47%
TOTAL	**2556**	**5112**	**9731**	**53%**

* Enrolments for each region in Q1 and Q2 2017/18 were pro-rated to the forecast number of enrolments for 2017/18.

The percentages should be treated as an estimate only, as forecasting is likely to produce inexact estimates and does not account for factors such as referral recruitment drives and staffing changes which may result in more or fewer referrals. Nonetheless, the data shows that no HHIs are likely to achieve the contracted numbers in 2017/18, with four out of nine likely to achieve less than 50 percent of the contracted numbers.

The HHI expansion has provided the opportunity to extend referral networks to include a broader set of health and social agencies. As shown in Table 3, from the start of the programme until December 2017 just over 50 percent of referrals came through the rheumatic fever pathway. From July to December 2017 the average proportion of referrals from each pathway was much more even across the four groups.[7]

Table 3: Percentage of referrals received from each referral pathway (national average across HHIs)

	Group 1 (0-5 hospitalis-ations)	Group 2 (0-5 priority populations)	Group 3 (pregnant women and new mothers)	Group 4 (rheumatic fever criteria)
Average proportion of all referrals to December 2017	14%	18%	16%	52%
Average proportion of referrals July to December 2017	18%	29%	23%	30%

The service expansion referral pathways are at varying stages of development across the HHIs. Some HHIs reported that they have established communications and referral pathways with social workers, Plunket/Tamariki Ora staff, and maternity ward nurses; and others stated that these relationships are still being built. As shown in Table 4, there are regional variations in the proportion of referrals coming though each pathway. From July to December 2017, AWHI, Well Homes and Kainga Ora still received a large number of referrals under the rheumatic fever criteria. In contrast, in Manawa Ora and Lakes only around 10 percent of referrals came under rheumatic fever criteria.

Table 4: Percentage of referrals received from each referral pathway by HHI July – December 2017

	Group 1 (0-5 hospitalis-ations)	Group 2 (0-5 priority populations)	Group 3 (pregnant women and new mothers)	Group 4 (rheumatic fever criteria)
Manawa Ora	33%	22%	34%	11%
AWHI	4%	32%	3%	61%
Kainga Ora	22%	14%	29%	36%
Whare Ora	12%	40%	19%	28%
CHHP	21%	32%	22%	25%
Bay of Plenty	29%	25%	17%	29%
Tairāwhiti	10%	28%	34%	28%
Lakes	22%	45%	24%	10%

[7] This was calculated by dividing the number of referrals received under each pathway by the total number of referrals, by HHI. We then averaged these proportions across the regions, to avoid giving undue weight to regions with larger numbers of referrals.

Well Homes	10%	20%	27%	43%

There is potential to strengthen referral pathways to increase the number of referrals into the HHI. HHI staff identified other groups of health and social service professionals that could be further developed as potential referrers to the HHI:

- Lead Maternity Carers (LMCs) have been difficult to engage, due to the nature of their employment (many small private businesses) and the nature of their work (unpredictable hours);
- Social workers could be better engaged to refer whānau under the expanded criteria;
- Primary care was also recognised as an important potential source of referrals for the HHI under the expanded criteria, but few HHIs are targeting engagement with general practices; and
- There is potential to establish referral pathways from partner agencies such as Ministry of Social Development (MSD) and Housing New Zealand (HNZ). As one HHI lead noted, these entities tend to engage with the HHI priority populations, but referrals are "all one way; we refer clients to them but don't get any of theirs sent back to us".

Recommendation 1

HHI providers strengthen their reach to priority populations by establishing referral pathways with groups such as LMCs, social workers and primary care practices.

This should be supported by the Ministry-led engagement with national organisations such as the New Zealand College of Midwives, the Royal New Zealand College of General Practitioners and the College of Nurses Aotearoa, and the Aotearoa New Zealand Association of Social Workers to raise awareness about the HHI. This could be implemented through mechanisms such as including information on newsletters, through an article in periodic journals or publications, or by presenting or having an information stand at conferences.

We also recommend that the Ministry engage with MSD and HNZ to explore the potential to establish referral pathways from these organisations into the HHI.

Recommendation 2

All DHBs implement formalised systems to audit hospital discharge lists and the prophylaxis register.

DHBs and the Ministry explore whether formalised systems could be implemented to audit whether referrals are offered to those who experience three or more episodes of GAS pharyngitis, families with a child aged 0-5 years with two or more specified social risk factors, and pregnant women or women with a newborn baby.

4.1.2. Eligibility of referrals received

Analysis of the statistical data provided by the contracted service providers, as displayed in Table 5, shows that 89 percent of referrals received by HHIs were accepted (i.e. the referral met the eligibility criteria and was accepted by the client). A higher portion of referrals were accepted under the expanded criteria (88-91 percent), compared to referrals through the RF pathway (84 percent). In

comparison, a 2016 evaluation of the Family Start programme, which targets a similar population, found that 78 percent of referrals received were accepted.[8]

Table 5: Proportion of referrals accepted, by referral pathway (data provided by 5/8 regions for pathways, 6/8 regions for totals)

Referral type	Group 1 (0-5 hospitalisations)	Group 2 (0-5 priority populations)	Group 3 (pregnant women and new mothers)	Group 4 (rheumatic fever criteria)	Total
No. of referrals	565	605	586	1629	5190
No. ineligible or declined	67	74	52	255	565
Proportion of accepted referrals	88%	88%	91%	84%	89%

This evidence shows that most referrers demonstrate adequate understanding of the HHI referral criteria and are making appropriate referrals. As shown in **Error! Reference source not found.** almost all referrers who discussed their understanding of the criteria stated that they had at least some understanding; and two thirds stated that they had good understanding.

Figure 2: Referrer-reported understanding of the criteria

Most HHI programmes have developed a referral criteria flow-chart (or similar) that is given to referrers, allowing busy health professionals to see 'at a glance' whether the whānau is eligible. Many also used a referral form designed to lead the referrer through the criteria as part of making the referral. Referrers reported that they appreciated such tools, as it is not necessary to have detailed knowledge of the criteria to make referrals.

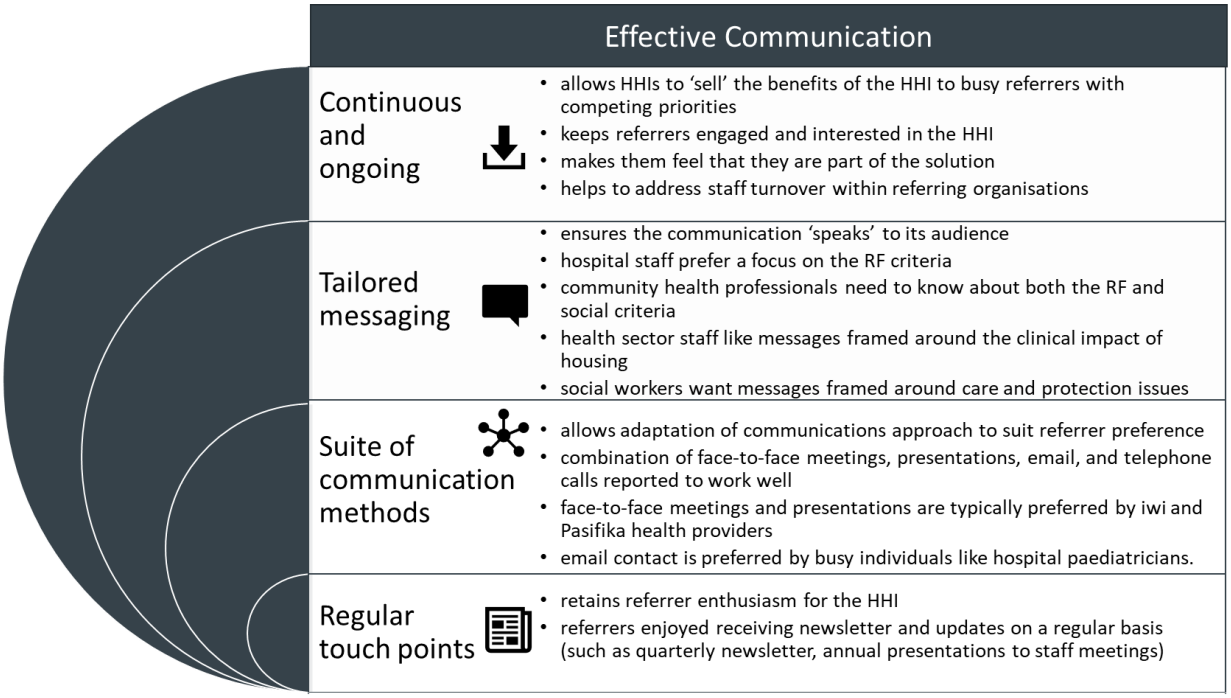
The regionally-specific 'Health Pathways' web portal is another way that one HHI programme uses to ensure health practitioners in the region, especially GPs and nurses, have ready access to the eligibility criteria.

[8] Vaithianathan, R., Wilson, M., Maloney, T. & Baird, S. (2016) *Impact of the Family Start Home Visiting Programme on Outcomes for Mothers and Children: A Quasi-Experimental Study*. Retrieved online 12 January 2019 from https://www.msd.govt.nz/about-msd-and-our-work/publications-resources/evaluation/family-start-outcomes-study/index.html

4.1.3. Communication with referrers

In order to reach the priority population, it is important to keep the HHI 'top of mind' with relevant health and social professionals to generate referrals. It is therefore important to ensure that HHIs are communicating well with practitioners who do/could refer whānau to the HHI. HHI staff and referrers identified several features of effective communication. These are described in Figure 3.

Figure 3: Features of effective HHI communication



Evidence from the evaluation fieldwork suggests that most HHIs are delivering on some, but not all, of these features:

- Continuous and ongoing: All HHIs were aware of the need for continuous communication and emphasised the development of ongoing relationships with relevant organisations and individuals. HHI staff emphasised the value of ongoing communication in making referrers feel like an important part of the solution, such as one HHI lead who commented:

  > *That is the biggest thing: for the light to go on; for people to think, "Oh my gosh, there's something out there that we can refer people to, that will help to improve their well-being"; rather than, "Oh my gosh, this is just another form to fill out, and I really can't be bothered."*

- Tailored messaging: About half of the HHIs used tailored messages for different health professionals, with the remaining HHIs using standard tools and messages. These tended to be smaller HHIs with limited staff capacity to invest in tailoring the messages to different audiences.
- Suite of methods: Similarly, only half of the HHIs reported that they used different techniques to communicate with different types of referrers, using a tailored mix of face-to-face

meetings, presentations, email, and telephone calls. The other HHIs favoured one or two types of communication methods only. For example, two HHIs located in larger urban areas with large numbers of referring organisations favoured seminars and presentations as the primary method of communication.

- Regular touch points: Contact with referrers is mainly 'ad hoc' and opportunistic. Only a few HHIs send out regular newsletters or update emails.

Overall, referrers who received regular, systematised communication appeared to have stronger engagement in the HHI and reported a higher level of buy-in to the programme. For example, strong communication from an HHI programme which employs a process of regular, systematised communication has led to one referrer taking on a self-appointed 'champion' role:

> *I do a lot of advocacy for the … programme with our GPs, particularly with the new zero to five criteria; that the GPs, Plunket nurses, before school nurses – just wherever I'm doing education for rheumatic fever I'm doing education for … [the HHI] really. (Referrer)*

Referrers in regions which took a comparatively ad hoc approach expressed their frustration at having to initiate communication themselves:

> *In the past I have rung and asked for feedback because I want to put the stats up for families and staff to see. It gets annoying having to do that every few months. It would be good if we got that kind of information regularly – because it does motivate staff to push harder. (Referrer)*

Some of these HHIs are moving to more systematised communication. For example, one HHI is developing an online referral and assessment system which will incorporate updates to referrers. Others are now implementing regular newsletters, although other forms of communication remain ad hoc.

Recommendation 3

All HHI providers develop a systematised approach to communication, and develop a communications plan detailing:

- identification of relevant referrer organisations within the HHI region
- details about the planned communications approach, including which communication methods will be used (it is recommended that a suite of communication methods be used) and how follow up reports will be provided to referrers
- allocation of roles and responsibilities for implementing the communications plan.

4.1.4. Feedback loops to referrers

Referrers are motivated to make new referrals by receiving feedback showing that previous referrals have been worthwhile. A senior health practitioner commented on the necessity of a feedback loop: "Unless the team gets feedback, even generally, there is little incentive to carry on making referrals."

The evaluation found variation in the frequency and comprehensiveness of follow-up processes used across the HHIs. Only two HHIs have a formal system of providing written follow up reports on

individual cases to referrers. Both HHIs emphasised the importance of keeping referrers informed about the outcomes of their referral:

> *We were very conscious from the beginning to go back to the referrer to say 'thank you very much we've accepted this family'; and then to go back to the referrer down the track with 'this is what we've done with this family'. (HHI lead)*

These HHIs use a standardised reporting system which includes notifying referrers when the referral is accepted, the outcome of the assessment visit (i.e. the interventions required), and the status of intervention delivery. The referrer is then updated when the case is closed.

Referrers in these regions were happy with the feedback provided, noting that they did not always read the report in detail, but appreciated being informed of the outcome of their referral.

> *[The HHI programme] send out a summary at the end … to say that it's all completed, delivered; and we're happy. (Referrer)*

HHIs that use a hub and spoke model typically reported that they send periodic updates to referrers describing services delivered at the programme level, but these do not appear to always meet referrer needs. Assessors in these regions stated that they frequently had referrers asking them for information on what had happened to families that they had referred. Referrers themselves told us that they do not often hear whether the referral has been accepted, or what the family received.

Other HHIs have a follow up activity planned for when the case is closed. But there is an inherent difficulty with this: many cases remain open due to undelivered interventions – often insulation, social housing allocation, or a major repair – all matters that are beyond the control of the HHI. Because the case remains open, there is no follow up with the referrer. Such situations seem likely to explain the experience of referrers in two regions who commented that they have asked for feedback, but it was not provided.

Several referrers in regions without systematised follow up reporting stated that they would appreciate a more consistent approach to feedback on the outcomes of their referrals, with one noting that referrals seem to go into a "black hole".

As noted above, some HHIs are making improvements to their communication and feedback systems, for example using online templates. However, systematised feedback loops are not yet universal amongst HHIs.

Recommendation 4

All HHI providers supply follow up reports to referrers as part of their communications approach. This should ideally involve reporting back to referrers on individual cases at set points during the HHI journey.

4.1.5. Referrer confidence in the HHI

Referrers expressed their confidence in referring to the HHI in seven of the nine HHIs. This confidence came from discussion with whānau after they had received the HHI interventions, and from observing health benefits in those they had referred. For example, a referrer described the change she had seen for whānau she had referred to the HHI:

> *We've had families that have had like five strep in one year, and referred those families. And we haven't had positive streps for a long time. And I put that down to*

> *them now having better housing; having warmth; curtains; being able to access those different support services. (Referrer)*

In contrast, in two regions referrers had comparatively low confidence in the HHI programme, arising from observed difficulties in the early stages of HHI, particularly prior to the establishment of an intervention pool:

> *People are very hesitant about … identifying a need if they're not confident that there is an intervention that can be offered to that family. … The idea is great. The concept was wonderful; but the actual execution of what was going on was a little vague. (Referrer)*

A referrer noted that families have reported that nothing was supplied to them, questioning why they were referred to a service that was unable to supply interventions. This referrer notes that some such families have experienced re-admission to hospital. Consequently, not only does the family get discouraged, but also the referrer.

However, there are signs that referrer confidence is improving in both regions, with several referrers stating that families that had been referred in the past year reporting a more positive experience.

4.2. Innovation

KEQ 2: To what extent is innovation making the HHI a more efficient service?

This section discusses whether HHI service providers are testing and implementing new ideas that enhance the process of improving housing conditions.

Key findings include:

- HHIs are testing and implementing innovative practices, particularly in sourcing and delivering interventions.
- Innovative practice has resulted in direct savings for the HHIs (for example by saving the cost of purchasing required products) as well as broader system efficiencies (by ensuring that the HHI is not replicating services that are already available within the community).
- HHIs have attempted to use innovative practices to reduce the time associated with negotiating with third parties to deliver interventions, particularly private landlords.
- Despite attempting novel ways to reach landlords (such as through property investment publications) and frame requests for action (such as reminding landlords of legal obligations), landlords remain challenging to engage and resistant to making housing improvements.

4.2.1. Evidence of innovative practice

Use of technology

Innovative use of technology offers an opportunity to streamline the assessor's administrative duties related to the assessments. One HHI is introducing an electronic assessment form. This can be completed on a tablet during the assessment visit, and will then automatically translate to an

intervention plan, substantially reducing the amount of paperwork the assessor needs to complete, allowing them to spend a greater portion of their time engaging with whānau.

> *We tested it with the assessors and made changes based on their feedback. We've been able to develop something that works for the frontline; rather than the people sitting behind the computer. They're telling us it saves time and gives them more time in the field, rather than behind their desks. (HHI lead).*

Some HHIs are testing new ideas that use technology to enhance the process of seeking feedback from clients. Two HHIs are developing electronic feedback forms that can be completed by families on a tablet while the assessors are onsite at the home. This is not intended to be a robust evaluation of the service, but aims to find out whether the family is comfortable with the assessment process and satisfied with what the HHI has delivered. Initial indications are that the electronic form is achieving substantially higher response rates than previously-used paper forms that the assessors left with whānau.

Partnerships with local organisations

HHI personnel are demonstrating innovative practices in working with local charitable organisations to ensure the availability of interventions. This works best when it is of mutual benefit. For example, three HHIs have investigated the development of innovative partnerships with prisons to supply products such as beds, bedding, fire bricks, and draught stoppers. Although the financial cost is not necessarily cheaper than purchasing these products, the initiative is considered valuable for its wider positive social impact. Not only do prisoners learn practical skills, but with many prisoners having young families, their engagement provides a practical means for prisoners to feel good about making a positive contribution to the health and wellbeing of children.

Innovation is evident in some HHI partnerships with local commercial entities. One HHI has an agreement with a laundering company to donate sheets, towels, bathmats, and facecloths to the HHI when these are taken out of circulation. The same HHI has developed a partnership with a carpet retailer, which donates carpet off-cuts that cannot be sold, old stock, end of lines and carpets removed from customer homes. These innovations are being replicated in other HHI regions.

Encouraging energy efficiency

The cost of power was identified by HHIs and whānau as a key difficulty in making homes warmer. HHIs are trialling ways to reduce power costs to enable families to heat their homes. The Auckland Council co-design team, in partnership with AWHI and Mercury Energy, is running a pilot scheme to test whether providing education on electricity use and heating-related costs and the provision of additional funds over the winter months impacts on the ability of a whānau to heat their home. Families that choose to participate complete surveys on behaviour change and its effect on their power bills, after which a monetary amount is credited towards their electricity account. The HHI also provides whānau with appropriate heating sources where there is an identified need. The results from the pilot project will be used to approach philanthropic funders to expand the initiative.

Assisting clients to find suitable rental housing

In one region a 'Ready to Rent' seminar has been implemented by a consortium of local health and social service providers including the HHI, drawing on the capabilities of various government, NGO, and community groups. The four-hour seminar aims to help people prepare for tenancy, including content about tenancy rights and responsibilities, budgeting, and keeping the home warm and dry. Attendees receive a certificate, which they are encouraged to include when they apply to rent a

home. The HHI lead stated that the seminar has received positive feedback from local landlords, who note that the certificate functions as a 'stamp of approval' for potential tenants.

Completing minor repairs

The Auckland Minor Repair Service, developed by the co-design team, has helped to overcome some of the financial barriers associated with carrying out minor repairs in private rental properties and owner-occupied homes. The property owner covers the cost of the materials, but the labour and coordination is covered by the service, which is being trialled through a contract with Habitat for Humanity. It undertakes activities such as repairing window and door frames, security latches and installing curtains. Delivering the programme through Habitat for Humanity means that the HHI does not have to source, negotiate and compete for the time of commercial maintenance personnel.

From its inception in February 2017 to October 2017, the service identified 289 required interventions of which 138 were delivered. The service has seen some early success in increasing insulation installation.

Another HHI has developed a suite of innovative practices to facilitate minor repairs. The DHB has provided funds to employ a fulltime handyperson through Habitat for Humanity, in a similar arrangement to the Minor Repair Service. The HHI also has an informal partnership with a local high school, under which students spend several days per year undertaking maintenance work on an HHI client's home, most recently repairing and painting the home's exterior.

Two HHIs hold 'whānau days' at which the client's extended family attend a working bee to assist in home maintenance and repairs. This is a collaborative effort in which the HHI supplies paint, materials, tools, cleaning products, and mould kits while the whānau supplies the labour. This provides a cost-effective way of undertaking the required maintenance.

Working with private landlords and property managers

Interventions such as installing insulation and undertaking repairs in private rental homes require consent and/or a financial contribution from landlords. Interviewees noted that private landlords and property managers are more likely to respond positively when requests for improvements to their properties when these are framed as providing personal benefit and protecting their assets. For example, one HHI is developing articles for publication in local rental property management companies' client magazines, to publicise the HHI and the benefits it can offer landlords in terms of accessing subsidised insulation and other improvements.

Other HHIs are framing the request as a requirement backed by a legal or health authority. For example, HHIs have worked with landlords and health sector professionals to develop a letter advising that there is a sick child living at the property which may be related to the condition of the house, noting the requested interventions and outlining assistance available to the landlord. The HHI service lead reports that the fact that the letter is signed by a health professional appears to provide additional impetus for the landlord to act.

Other HHIs have formed partnerships with legal entities such as community law clinics to access expert advice and assistance related to landlords' legal obligations. For example, one HHI that referred a case to the community law service discovered that the home was legally uninhabitable. The law service took the case to court and achieved a judgement which saw six months' rent returned to the tenant.

The Auckland Minor Repair Service landlord liaison component, which offers a 'one stop shop' for landlords, liaison with Energy Efficiency and Conservation Authority (EECA) insulation providers and

some assistance with property maintenance, shows good potential. Interviewees in the Auckland region stated that the service has seen some early successes such as increased rate of completed insulation and structural repairs.

Future ideas to enhance the HHI

Interviewees described several innovative ideas that were in development at the time of the fieldwork visits.

Two HHIs are attempting to establish firewood banks. These HHIs are attempting to develop partnerships with commercial wood producers and forestry organisations. The aim is for partner organisations to donate low quality wood to the HHI for distribution to clients in homes with wood burners who cannot afford firewood.

An HHI has successfully applied for philanthropic funding to start a Trade Bank, aiming to get tradespeople to volunteer their time to undertake minor repairs for the HHI. This will involve creating a mobile phone application that will allow the tradesperson to enter the time they have available, and connect with a home in their area that needs assistance. Initial consultation with tradespeople has had a positive response: "We talked to tradies who said, 'I'll happily commit half a day each month, you just tell me where to go'." The HHI is currently recruiting tradespeople to trial the application.

Another HHI is in the early stages of developing a mobile phone application to enable whānau to self-assess the health of their home.

4.2.2. Impact of innovation

Innovation in the HHI is mainly occurring in the latter stages of the service pathway, with strong evidence of innovative practice in sourcing and delivering interventions. As well as being a contractual requirement, innovation is driven by the fact that the HHI funding does not cover the cost of capital items such as insulation, floor coverings, heaters or curtains. One HHI acknowledged that, while the Ministry not providing funding for interventions is challenging in many ways, it does encourage innovation: "if we were too comfortable that might not give you that mind-set to be creative and innovative". This also ensures that the HHI is not replicating services that are already available within the community.

Innovation is leading to efficiencies for the HHI services. For example, HHIs have developed innovative partnerships with commercial entities to receive donations of bedding and linen, saving the cost of purchasing such products directly.

HHIs have also attempted to use innovative practices to reduce the time associated with negotiating with third parties to deliver interventions, particularly private landlords. The success of the tested innovations here has been mixed. Despite attempting novel ways to reach landlords (such as through property investment publications) and frame requests for action (such as reminding landlords of legal obligations), landlords remain challenging to engage. Landlords have proven resistant to making housing improvements, despite the multitude of techniques employed by HHIs.

Achieving traction on this issue is particularly important, as studies show that the greatest health benefits from housing improvements are achieved through providing both interventions to upgrade the thermal envelope (i.e. insulation and repairs), as well as immediate sources of warmth (such as heaters and bedding).

4.2.3. Factors that support innovation

The majority of HHI service providers (seven out of nine) reported that they are empowered to work creatively to deliver the HHI in a way that is innovative, efficient and meets the needs of their communities. HHIs identified several factors as crucial for supporting innovation.

DHB support for innovation

In the eight HHIs in which the DHB is the contract holder, DHB support was described as vital in empowering HHIs to innovate. An HHI lead in an area that has been particularly successful at implementing innovative practices reported that the DHB is supportive of innovation and allows space to test new ideas:

> *[The DHB] was a bit dubious of some of the stuff I wanted to do at first. But now they've seen how we can help whānau, we've created something that they are like 'I trust you, just keep me in the loop as you go'. (HHI lead)*

Some DHB personnel also emphasised the importance of providing the HHI leeway to experiment, noting that this had improved service delivery:

> *We give them a little bit of slack, to sort of tinker with and really look at the design of the programme... it's been amazing really, in the last few months, they're all quite innovative. We've seen great things like the Ready to Rent seminars. I don't think that would have happened if we'd just focused on numbers of referrals and assessments. (DHB staff member)*

Conversely, another HHI reported that the DHB is not supportive of innovation. Staff in this HHI voiced concerns about the constraints this placed on service quality. Staff reported having ideas that they wanted to put into practice but noted that this takes thought and time. Pressures from the DHB to meet the contracted targets (including the service being sent a letter requesting the return of a portion of the funding due to not meeting the target) means that the service provider is being required to focus on delivering outputs, rather than delivering a high quality and innovative service.

HHI staff capacity to deliver innovation

HHIs that demonstrated a high level of innovative practice emphasised the importance of empowering staff at all levels (from management to assessors) to be creative, try new things, and make mistakes. This begins with recruiting team members who think innovatively:

> *We look for people that are quite innovative and not just focussed on doing a housing assessment and a plan; we need people who can raise their eyes and think bigger. (HHI lead)*

Ministry support for innovation

The majority of HHI staff interviewed for this evaluation appreciated the Ministry project team's support for innovation, through encouraging each HHI service provider to implement the programme to best meet local needs:

> *[The Ministry's team] has been amazing in that they've been flexible... they've allowed each area to progress implementation and execution and delivery of the contract as to the way that bests fit that environment. (HHI lead)*

4.2.4. Innovation sharing

There is evidence that HHIs are sharing ideas and innovations between regions. For example, one HHI uses local events such as book fairs to collect donated heaters to be tested and redistributed to HHI clients. When this idea was shared with other regions, five additional HHIs implemented a similar system. The service lead from one of the six HHIs that are participating in this scheme coordinates the electronic testing of heaters, and the additional volume of testing work has enabled the negotiation of a reduced price.

Other HHI personnel described adopting ideas that they had heard about from other HHIs, including making changes to their referral form, setting up a local tool bank, distributing mould kits during the assessment, and using bubble wrap to insulate windows.

Mechanisms that support sharing innovations

The QuickR web portal, an information sharing website for the HHI providers and partners, is being used by HHIs to share ideas and test innovations. For example, one HHI (Kainga Ora) used the site to test their new assessment form:

> *We were able to put the assessment [form] onto QuickR and also get feedback from all the other HHIs across the country. What have they found that worked, what didn't work… we were able to take their feedback on board. (HHI lead)*

The HHI working group, Te Roopu Wero Hinengaro, which includes representatives from most of the HHI providers, also provides an opportunity for sharing ideas and innovations across HHIs. The group has a specific workstream aimed at sharing knowledge and relationships to enhance the supply of interventions. This has seen some success, such as the discussions that have recently commenced with large corporate entities aiming to develop a national agreement to supply discounted products.

The quarterly HHI hui was highlighted by HHIs as an important mechanism to encourage sharing innovations. The hui offers the opportunity to hear formal presentations on innovative practices, collectively brainstorm solutions to shared challenges, and share ideas during informal networking opportunities. HHI personnel described being inspired by the ideas they heard, and motivated to try them in their own programmes:

> *You go to the hui and when you hear what other people are doing, "Oh I could do that." (Assessor)*

Some interviewees suggested that the hui could be enhanced by tailoring the content of the hui to different groups of attendees, for example by running separate sessions directed at those who deliver the HHI (such as service leads and assessors) and those who manage or administer the HHI (such as DHB personnel).

Recommendation 5

The Ministry continue to host and lead the planning for the quarterly hui and support Te Roopu Wero Hinengaro and the QuickR web platform as important mechanisms for sharing and motivating innovation.

4.3. Effectiveness

KEQ 3: How effectively is the HHI being delivered?

This section discusses the effectiveness of the HHI from multiple perspectives, including the effectiveness of: partnerships with relevant organisations; intervention delivery; the HHI workforce; and effectiveness from the whānau (client) perspective.

Key findings include:

- There have been some important successes arising from partnerships with government agencies, such as HNZ's commitment to delivering five agreed capital interventions and the establishment of the HHI reporting process to the Ministry of Business, Innovation and Employment (MBIE) Tenancy Compliance and Investigations Team.
- However, the 'on the ground' experience of HHI staff and clients with MSD and HNZ was variable. Some clients feel belittled or frustrated during their engagement with front line Work and Income staff, and assessors reported ongoing challenges in receiving feedback on the status of intervention referrals to HNZ and MSD.
- Just over 70 percent of intervention plans are closed within six months. However, interventions delivered by third parties, such as relocation to social housing, insulation, ventilation, private/community housing relocation, and minor repairs, frequently remain undelivered six months following referral.
- The supply of interventions is limited for some HHIs due to a lack of charitable services and philanthropic organisations, particularly where HHIs are delivering the programme to relatively small populations in dispersed and/or isolated geographies, and in areas experiencing higher than average levels of deprivation.
- Most HHI staff felt engaged and able to do their job effectively. However, some considered their ability to effectively work with vulnerable whānau was compromised by concerns for their physical and/or emotional safety.
- HHIs are effectively engaging with whānau. The whānau experience is enhanced by setting clear expectations of what the service can provide, contacting the whānau soon after referral and involving them in co-developing the intervention plan.

4.3.1. Effectiveness of partnerships with relevant agencies

The HHI is intended to connect vulnerable whānau with existing services provided by government and non-government agencies, to assist them to achieve a warm, dry and uncrowded home. Forming partnerships with such agencies is therefore crucial to the programme's success.

During the inception stage of the HHI, considerable resource went in to establishing close working relationships between the Ministry of Health, HNZ, MSD, and EECA. A closer relationship with MBIE, particularly the Tenancy Compliance and Investigations Team (TCIT), has been developed more recently.

Ministry of Social Development

MSD is a key partner in the HHI, offering interventions including Full and Correct Entitlement (FACE) assessments, eligibility assessments for social housing, hardship grants and recoverable loans. Of

particular importance is the establishment of the MSD rheumatic fever 'fast track', which has allowed some HHI families to gain quicker access to social housing.

Most HHIs reported regular, constructive engagement with regional management personnel, although one HHI noted a lack of progress despite numerous attempts to engage. The other eight HHIs reported that regional level MSD personnel are aware of the programme, willing to work together, and are available to discuss issues and solve problems. This positive perception was shared by MSD staff:

> *If you're asking how that partnership is going, that's brilliant. We have open and clear communication. They know what I can and can't do. (MSD Manager Regional Services)*

Despite the effectiveness of regional-level partnerships, the 'front line' service delivery experience of HHI staff and clients with MSD was variable. While some clients receive an excellent service from frontline staff, others reported issues such as a requirement to provide information that has already been gathered through HHI assessments, and MSD case managers appearing to be patronising or judgemental of clients. These issues are impacting the effectiveness of the HHI: some whānau reported being reluctant to engage with Work and Income, even though assistance may be available.

HHIs also reported that they are not always receiving timely (or any) feedback on the delivery of interventions. Challenges with establishing functional feedback loops are impacting on HHIs' ability to accurately track and report on cases, as well as provide feedback to referrers.

In some regions (but not all) the assessor attends MSD appointments with clients. There was a widespread perception amongst both whānau and HHI staff that if the HHI advocates on behalf of the client, a better outcome is achieved. As one assessor noted (and as was reiterated by many others):

> *When the worker goes and advocates on behalf of whānau, all of a sudden, it's a totally different experience. Whānau often say to us, "I did that, and I brought that, and I asked those questions." But they get a totally different reaction than if we go across. (Assessor)*

MSD personnel interviewed for this evaluation acknowledged some challenges that their processes were creating for HHI (and other) clients. For example, processes such as verifying client income with Inland Revenue Department can take a long time, leading to a perception of slow service.

MSD's ability to assist is also constrained when case managers do not know important things about their clients. For example, they do not know about health issues unless there is documented evidence (a letter from a doctor) saved within the case file. Unless a client mentions a health issue, and complies with a request to bring in a letter from their doctor confirming that issue, this information will not be acted upon and will remain unknown to subsequent caseworkers working with the client.

Despite these challenges, there are some service arrangements that are working well. One MSD office (Gisborne) has an Integrated Service Case Manager who attends to all MSD work emanating from the HHI. This model may hold potential if adopted by other MSD regions. While not all MSD offices have an Integrated Service Case Manager, it may be possible to allocate all HHI work to a specific case manager.

Housing New Zealand

As New Zealand's main provider of social housing, HNZ has an important role in the HHI, working with services to ensure their tenants are living in warm and dry homes. HNZ operates a centralised service delivery model, whereby 'business as usual' service requests are received and administered via a call centre. HHI referrals for the five agreed capital interventions (curtains, a fixed form of

heating in the living area, insulation, ventilation and floor coverings) are processed via a dedicated team from the national office. HNZ personnel interviewed for this evaluation stated a desire that partnership building focus on the national, rather than regional level.

The HNZ provision of capital interventions was praised by HHI leads and assessors as an effective way of ensuring that houses had the basic requirements for a warm and dry home. Several assessors noted that HNZ generally delivers on these commitments within the agreed 90-day timeframe, which make a significant difference to whānau comfort and health.

On the other hand, HHI leads stated that the centralised model is presenting difficulties in receiving updates on referred cases. HHI personnel reported that they followed the prescribed processes for referral to the HNZ RFPP team, but had difficulties when seeking information on what had happened to the referral after its submission. These frustrations have led some HHI personnel to rely on pre-existing relationships with regional level HNZ personnel, which they report gets faster results.

Responsibility for the HHI within HNZ has been moved around different parts of the organisation, some of which have taken a greater degree of ownership and commitment than others. The HHI now sits within the People and Property business unit, the manager of which emphasised a commitment to forming an effective partnership with HHI providers. There are encouraging signs that the partnership with HNZ is strengthening under the new arrangement. HHI staff reported that they felt HNZ is now listening and responding to their concerns.

Ministry of Business, Innovation and Employment

In mid-2017 MBIE's TCIT established a process which gives prioritisation to HHI email requests related to potential breaches of the Residential Tenancies Act (RTA). HHI staff were very positive about the new processes. At the time of the second HHI evaluation site visits in September 2017, only a few assessors had referred compliance issues to the TCIT, but spoke enthusiastically about its potential to "give some teeth" to the process of engaging with reluctant landlords.

> *I feel more assured that I can influence some landlords to make necessary improvements to their properties using the Residential Tenancies Act, by following the new MBIE acceleration pathway. (Assessor)*

Energy Efficiency and Conservation Authority

Despite efforts from Ministry of Health officials, it has been difficult to get eligible HHI clients' homes insulated through the EECA scheme. HHI personnel providing services in rural regions without a local EECA insulation provider reported that providers from nearby areas were requiring the HHI to coordinate up to ten families to receive insulation at the same time, before they would travel to make the installations. This is extremely challenging for HHIs which serve small populations and may not have the required number of families requiring insulation at once, or where it may be impractical to coordinate all families requiring insulation to be at home on the same day.

Another reported issue occurs when insulation providers have attempted to contact referred families and struggled to make contact and/or secure an appointment. HHI staff reported that insulation providers sometimes cease attempts at contacting families in such situations and do not inform the HHI, who could act as a broker between the family and the provider to ensure delivery.

Recommendation 6

The Ministry continue to work closely with its cross-government partners, particularly HNZ, MSD and EECA to ensure that agreements at the national level are reflected in local service provision and to enhance feedback loops with HHI providers.

4.3.2. Effectiveness of intervention delivery

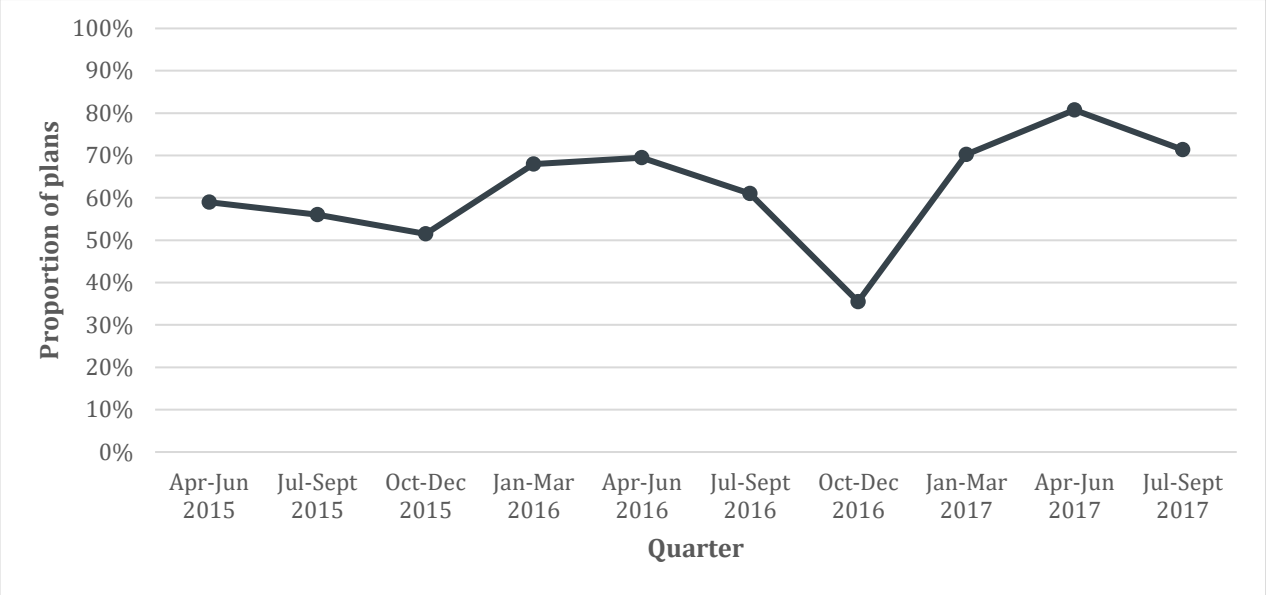
HHIs have developed a suite of interventions that include both items that immediately enhance the warmth and dryness of homes, such as heaters and timers, curtain, draught stoppers and mould kits, as well as interventions to improve the thermal envelope such as insulation and repairs. There is good evidence that the collection of interventions is appropriate to achieve the intended outcomes of HHI. For example, studies have shown improving the energy efficiency of housing through insulation and improved heating leads to health improvements[9,10]

HHIs are mostly delivering the interventions within the expected six-month timeframe. Statistical data on the proportion of intervention plans closed within six months was provided by five of the eight HHIs which responded to our request for data. The results, displayed in Figure 4, show that the proportion of intervention plans closed within six months has generally been increasing over time, with an average of 71 percent of cases being closed within six months in the most recent quarter. The findings are in line with expectations that the proportion of closed intervention plans would rise as HHIs build the supply of available interventions. There was a noticeable decrease in the proportion of cases being closed within six months during October-December 2016 (36 percent), which coincides with the roll out of the expanded criteria.

[9] Howden-Chapman P., Crane, J., Chapman, R. & Fougere, G. (2011). Improving health through community-based housing interventions, *International Journal of Public Health*, 56(6):583-8

[10] Telfar Barnard L., Preval N., Howden-Chapman P., Arnold R., Young C., Grimes A., & Denne T. (2011) *The impact of retrofitted insulation and new heaters on health services utilisation and costs, pharmaceutical costs and mortality; Evaluation of Warm Up New Zealand: Heat Smart*.

Figure 4: Proportion of intervention plans closed within six months



Looking in more detail at the interventions, data shows that the interventions most commonly identified during housing assessments are key messages on creating a healthy home, curtains, beds and bedding, budgeting, mould kits, and heating sources.[11]

We then compared this to the proportion of interventions delivered in six months. The results, displayed in Table 6, show that HHIs are delivering the five most commonly required interventions within six months in over 65 percent of cases. These are mainly interventions that are directly in the control of the HHI provider.

Table 6: Portion of interventions identified as required in intervention plans, and portion of these delivered within six months

Intervention type	Average proportion of intervention plans identifying this intervention as required	Proportion of required interventions delivered within six months
Key messages on creating a warmer, drier and healthier home	73%	98%
Curtains	37%	67%
Mould kit	35%	73%
Beds and bedding	31%	72%
Heating sources	28%	67%
Insulation	26%	38%
Minor repairs	25%	50%

[11] This was calculated by dividing the number of times an intervention was identified by the total number of plans developed, by HHI. We then averaged these proportions across the regions, to avoid giving undue weight to regions with more plans developed.

Social housing relocation	24%	27%
Financial assistance (Work and Income/FACE assessment)	21%	56%
Ventilation	20%	32%
Floor coverings	12%	51%
Private/community housing relocation	8%	39%
Support with power bills	4%	43%
Draught stoppers	2%	100%

On the other hand, less than 50 percent of most interventions relying on third parties were delivered within six months, including relocation to social housing (27 percent delivered within six months), insulation (38 percent), ventilation (32 percent), and private/community housing relocation (39 percent). These interventions are delivered through a referral, and consequently the HHI worker has little to no influence on the timeliness of delivery.

4.3.3. Barriers to timely intervention delivery

Qualitative information from HHI staff suggests that social housing relocation, ventilation, minor repairs and insulation can take a year or more to deliver. The evaluation identified the following barriers to the timely delivery of these interventions:

- limited supply of social housing
- lack of quality, affordable, private rental housing
- landlord reluctance to supply the required interventions.

These barriers are discussed in further detail below.

Limited supply of social housing

A wide range of interviewees, from across all HHI programmes and across all roles described a housing shortage in their region: "There's no stock, so let's not pretend that there is!" HHI staff frequently reported that they need to be able to “find homes for our families” faster. Through the e-diary activity the evaluation team was made aware of real-time instances where assessors were urgently seeking social housing for whānau. Examples include a mother and children living in a garage, a young mother and her infant sleeping in a car, and a family living in a cold, mouldy sleepout.

In some areas, the rheumatic fever fast track for social housing was reported to be making a notable difference, even though there is only a relatively small supply of social housing. For example, in one HHI a household that included a child on the bicillin programme was rehoused to social housing within a fortnight after being placed on the fast track.

However, in other areas the limited supply of social housing meant that whānau often experienced delays despite being eligible for fast-tracking. Assessors gave examples of people frequently waiting for more than six to months to be allocated social housing, and more than a year in some cases. This was confirmed by MSD staff, who also reported that families had been on the social housing register for over a year, even with fast-tracking. This seems to be especially problematic for larger households. Houses with four or more bedrooms seldom come available because tenants tend to stay in those houses for longer.

Lack of quality, affordable private rental housing

The quality of the private rental housing that is available was also raised as a concern. HHI assessors reported attempts to relocate clients to a more appropriate dwelling but being unable to find a warm and dry property at a price the client could afford. Assessors reported numerous instances of people living in derelict homes that have "reached the end of their life as suitable buildings to live in and raise children" because they are unable to afford a property of higher quality. This point was reiterated at focus groups, with one attendee noting that "people have to live in and pay $500 [per week] for something I wouldn't even keep my rats in, if I had them."

Reluctance of private landlords/property managers to supply required interventions

HHI clients residing in social housing typically received the five capital interventions once referred to HNZ. However, convincing private landlords to undertake the required maintenance work on their properties was reported by all nine HHIs as a significant barrier to ensuring supply of interventions such as insulation, ventilation, minor repairs and floor coverings.

Assessors and HHI leads state that a consequence of the housing shortage is that landlords have little incentive to make repairs and/or improvements to their rental properties, because even sub-standard homes attract potential tenants:

> *The high level of demand means that landlords are more reluctant to make changes than they were a year ago. (Assessor)*

HHIs attempt to positively influence landlords and property managers by providing details about subsidy schemes and reiterating that the HHI can and will assist with other aspects of the intervention plan. However, assessors report that some landlords refuse to undertake the required works, despite offering substantial assistance, such as insulation subsidies of up to 90 percent of the total cost:

> *We can get to the point in some areas where we are covering nine tenths of the cost, and the landlord only has to put in a couple of hundred dollars. But they still won't do it. It's very frustrating. (HHI lead)*

There is optimism amongst HHI providers about the newly-established division of MBIE, the Tenancy Compliance and Investigations Team (TCIT). When dealing with a recalcitrant landlord, there is now an agreed process for escalation from HHI to TCIT – a process that keeps the HHI in the loop and includes options designed to protect the tenant.

Recommendation 7

The Ministry work with its cross-agency partners to address barriers to the delivery of interventions to HHI families, particularly the limited supply of social housing; lack of quality, affordable, private rental housing, and landlord reluctance to supply the required interventions.

4.3.4. Equity of intervention supply

Each of the nine HHIs has worked hard to develop a network of interventions to offer their clients. However, the supply of interventions is more limited for some HHIs due to a lack of charitable services and organisations in some of the regions covered by the HHI. This is especially true where HHIs are delivering the programme to relatively small populations in dispersed and/or isolated geographies, and in areas experiencing higher than average levels of deprivation. These areas have

limited access to 'naturally occurring' intervention pools and philanthropic funds that emerge in areas with affluent neighbourhoods.

HHI staff in areas with limited access to charitable organisations and philanthropic funding highlighted the challenges that this presented in terms of creating an adequate supply of interventions. For example, an HHI lead who was reflecting on the success stories shared at quarterly hui, told us:

> *Sometimes when people are sharing their innovations, I think 'it's just because they've got money', so they can buy them or whatever. That's been a tricky thing: if you don't have funding to just purchase housing solutions, it makes it really tricky.*

In two HHIs the DHB has committed additional funding to support the intervention pool. In one area the DHB has established a fund for insulation, which is used to 'top up' EECA and other subsidies; and in the other area the DHB has provided funding to employ someone specifically to develop the interventions pool. However, the HHI is not afforded the same priority by all DHBs for funding and support.

The variations in the availability of interventions across the HHIs is a risk to the success of the initiative. As was discussed in section 4.1.4 , referrer confidence is undermined if referrers are not confident that families will receive the required interventions to make their home warm and dry.

Such variations mean that the whānau experience of the HHI can be inequitable. For example, while the data shows that all HHIs are supplying 'beds and bedding' interventions, interviews with HHI leads found that HHIs with access to philanthropic funding purchase new beds as well as providing linen and blankets, whereas those without such access tend to supply linen and blankets but not beds.

Addressing inequities in accessibility of interventions will assist HHI service providers in such circumstances to provide a more effective service.

Recommendation 8

The Ministry work with DHBs and HHI providers to identify and consider options to address the inequity of intervention supply across the HHI regions.

4.3.5. Effectiveness of the HHI workforce

The effectiveness of the HHI relies on having a competent and engaged workforce that is able to establish positive relationships with clients. In particular, the assessor role is vital to the effectiveness of the HHI. The evaluation found that almost all families, whānau, and aiga had positive experiences of the HHI assessment process and formed good working relationships with the assessors, whom they held in high esteem.

HHI clients' perception of assessor competence

Most whānau interviewed felt respected by their assessor, whom they considered humble and understanding of their situation: "We weren't being judged at all. I felt like she understood."

Several whānau highlighted the strong communication and listening skills of the assessor, with one characterising the HHI staff member they worked with as "easy to talk to and made you feel comfortable". The esteem in which HHI clients held their assessors was evident in the descriptions of how engagement with the assessors had changed their lives:

[The assessor] has been a God-send: she's been like an angel to us. … She was always up-front; she would have your back and help out if she could. I've got nothing but praise for her. … She does really good things for our community. She should be nominated for New Zealander of the Year.

All of the 25 HHI clients interviewed reported that they received a culturally appropriate service from assessors. Māori and Pasifika clients generally prefer working with assessors from their own culture. This is due to having shared cultural backgrounds and understandings which facilitate positive, productive working relationships, putting them at ease and enabling them to feel understood, acknowledged, and respected.

It made a definite difference…. My home at the moment is a bit like a marae – kids sleeping on mattresses on the floor – we've got the big pots on the stove – but I felt comfortable. I felt like we weren't being judged at all. I felt like she understood.

However, HHI clients are also able to form positive, productive working relationships with assessors of different cultures to their own. Key competencies enabling assessors to engage in culturally appropriate ways included the use of culturally appropriate protocols, such as greeting clients in their first language, and the observance of respectful behaviour such as leaving shoes at the door.

He started with a 'kia ora' and then I knew I could deal with him – he just made you very comfortable.

HHI assessors' views about their role

The evaluation explored how assessors feel about their work. The e-diary activity included an open question (which was presented to e-diarists four times over the course of the activity): "How's the job going?" About three quarters of respondents indicated that they love their job, recognise the significance of what they do, and derive personal satisfaction from helping whānau achieve a warm, dry, uncrowded home. For example:

I enjoy advocating for these families and empowering them to do the same. The work is very rewarding, as results can often be noticed very quickly.

However, this was not the case for everyone. About a quarter of the e-diarists used words to tell us 'how the job is going' including: apprehensive, challenged, defeated, disappointed, frustrated, hopeless, isolated, overloaded, overwhelmed, and pressured.

Two assessors, working in different HHI programmes, reported during face-to-face interviews that they had reduced their work-hours to alleviate some of the work-related stress that was taking a toll on their lives. Both assessors worked in areas which had struggled to establish a reliable pool of interventions, and both portrayed a sense of hopelessness as they described their experiences of visiting whānau, assessing their homes, and having little to offer them to improve their housing conditions.

Why would you send somebody out and say, "Oh you guys need a bed and the kids need beds. Putting curtains up will help keep the warmth in; and having some dry firewood." You don't have to be a brain surgeon to know all those things. So, going in there and reminding these people that these are the things they need to have healthy homes; but I can't do anything about it, is just … [trails off]

For people who care passionately about others, such a situation can bring about a sense of futility that can eat away at assessor confidence and esteem.

Assessor safety

While most assessors interviewed reported that they usually felt safe while visiting whānau homes, a small number of assessors described situations where they felt unsafe. For some, the concern is about potential health threats from spending so much time in cold, damp, mouldy homes. For others, the concern is for physical safety whilst visiting homes where vulnerable children are living with people who present a physical threat. For example:

> *I've walked in to a home… with six patched guys drinking beers at 9.30 in the morning, to do an assessment. I had a few things that could go against me.*

It is vital that those working in this role receive on-going support through their workplace. This is emphasised by WorkSafe New Zealand:

> *People working in our health and social services sector have the same right to a healthy and safe work environment as the people using their services. - http://www.worksafe.govt.nz/worksafe/hswa/risks-by-industry/health-services*

About half of the HHIs reported that they have a formal health and safety policy. Those entities with such a policy were typically larger organisations with established histories of providing home visiting services. However, discussions with HHI assessors suggested varying degrees of adherence to written policies. Other organisations used a generic health and safety policy that did not provide for the specific needs of the HHI context. For example, very few assessors stated that their organisation had policies or procedures to protect their physical health, such as supplying face masks for use when working in environments contaminated with black mould.

Similar professions, such as social workers and counsellors, have a culture of continuous clinical supervision, available either in-house or privately. The evaluation found that most HHIs did not have formal supervision processes, although some were having informal debriefing sessions when the need arose. Such a service is one way that HHI programmes could provide regular professional support to all HHI workers who are working directly with whānau in their homes.

Recommendation 9

HHI providers review their health and safety policies and practices to ensure that they comply with legislative obligations and provide for sound practices to protect the emotional health, physical health, and physical safety of staff, tailored to their role-related needs.

4.3.6. Whānau perceptions of HHI effectiveness

Whānau understanding of what the HHI can provide

All the whānau interviewed for this evaluation had an accurate understanding of what the HHI could provide. Whānau stated that they had been given a clear description of the assessment process and the type of interventions that the HHI may be able to offer them.

While some whānau recalled being given this information during the referral process., most received information on the specifics of the service when initial contact was made by the HHI.

Whānau especially appreciated that assessors made no guarantees of what they might receive out of the HHI. Assessors managed expectations by:

- being very clear from the first point of contact about whānau can expect from the HHI

- outlining the process of engagement (such as how many visits to expect and what these would focus on)
- providing an overview of the interventions available in their specific region.

Some whānau had past experiences of disappointment and broken promises from government departments or NGOs. Consequently, they felt the 'no guarantees' approach from assessors, with a commitment to do what they could, was helpful and contributed to the trust they developed in the assessor and the wider HHI programme.

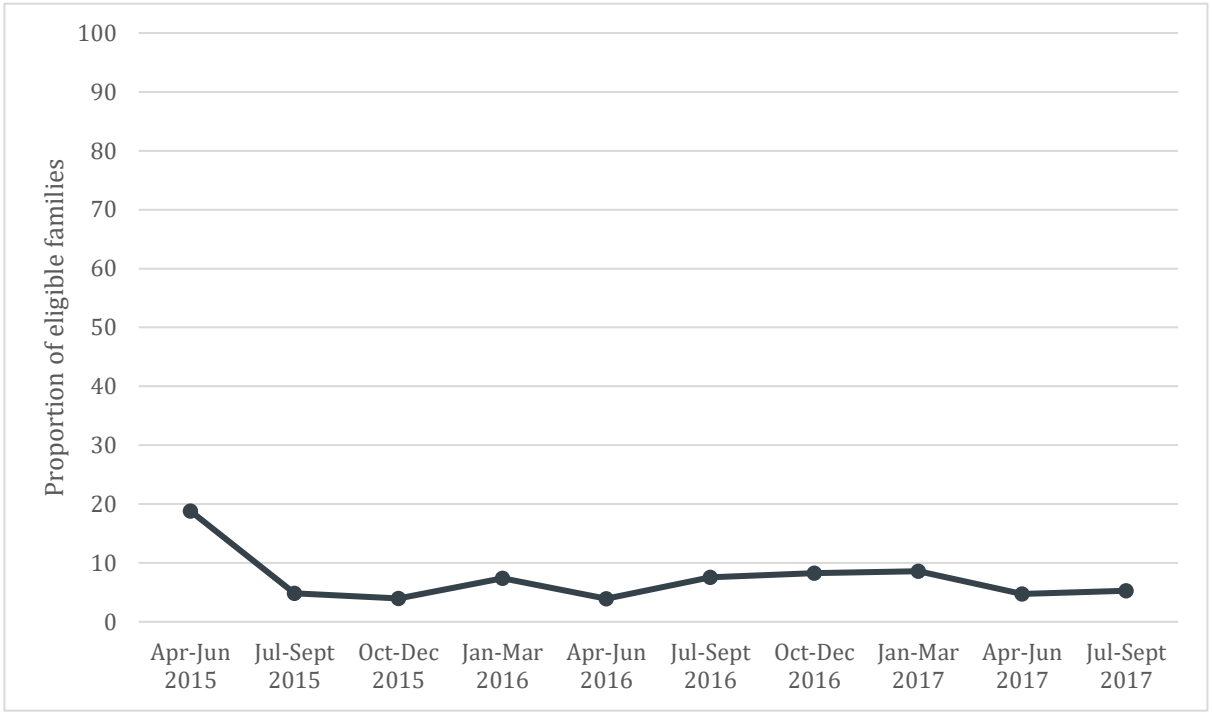
Whānau acceptance of the HHI service

Statistical data shows that most whānau who are offered the HHI accept the service and remain with it until completion. The number of whānau who decline or withdraw from the HHI was provided by

Figure 6: Percentage of eligible whānau who decline enrolment or withdraw from the HHI

five of the eight regions that responded to the request of the evaluation team for specific data. The data from these five regions shows there was a decrease in the proportion of eligible whānau who declined to participate or withdrew from the programme (from 19 percent in the quarter April-June 2015 to 5 percent in July-September 2015). Since this early decrease, the proportion of whānau who decline or withdraw has fluctuated between four and nine percent, as illustrated in Figure 6.

Figure 5: Proportion of eligible whānau who declined to participate or withdrew from the HHI



Whānau 'ownership' of the intervention plan

Whānau engagement in, and ownership of, the intervention plan is important to ensure it is centred around their priorities. This was facilitated by HHIs taking a co-development approach, under which whānau discuss their needs and aspirations with the assessors and work together towards solutions.

All of the 25 clients interviewed for the evaluation had co-developed their intervention plans with their assessor. Intervention plans were typically developed via a two-part process: whānau would show the assessor around their home during which the whānau pointed out issues that were of

concern. The assessor and whānau then discussed how the issues could be addressed. Some whānau took a lead in identifying the specific housing issues they wanted to focus on.

> *I led them the way that they needed to go.*

Other whānau relied more on the knowledge and expertise of the assessors to help identify the issues.

> *The assessor knew so much, and we had an easy conversation.*

Whānau felt listened to throughout the assessment process, and stated that the intervention plans reflected and included what was of most importance to them. Some whānau also pointed out that their assessor had taken particular care to discuss solutions that were workable for them. For example, checking to see whether the electricity costs associated with providing heaters would be affordable. However, for other whānau the interventions provided did not quite meet their needs. For example, being provided heaters and/or heat pumps had resulted in unaffordable power bills with some people no longer using them or using them sparingly as a result.

Many of the whānau interviewed talked of their embarrassment and shame at requiring external help from agencies such as the HHI. However, the co-development process and the respectful, non-judgemental, and thoughtful manner of assessors did much to assist in maintaining the mana of whānau. Such an approach enabled whānau to see the interventions as supportive rather than intrusive or belittling.

Timeliness of the whānau HHI journey

Most whānau experienced a smooth and timely assessment process, reporting that they had been contacted within a month of referral and that an assessment had been arranged soon after.

However, the whānau experience of timely delivery of interventions was variable. About one third of whānau interviewed stated that the intervention delivery process had been quick and efficient with no barriers or delays – some within a matter of weeks and others within a few months. Most of these whānau also said they had received a high-quality service through the assessor and the HHI provider, with regular calls, texts, and visits which meant they felt well-informed throughout the process.

> *At first it took about 3 weeks to get going. The assessor followed up and then [the provider] got involved and everything then started happening – with the first lot of interventions arriving the next day.*

This was facilitated by a comprehensive and ready supply of interventions provided by their respective HHI providers, close communication with and follow-up from their assessors and HHI providers, and where landlords and MSD/HNZ case managers were cooperative. It was also facilitated by advocacy from assessors in dealing with landlords, setting up and sometimes attending appointments with MSD, and helping whānau navigate the processes and paperwork required to access social housing where that was part of their intervention plans.

> *If it wasn't for the assessor, wow. She kept telling me all the things I needed to do [for social housing] …. I didn't know half the things I needed to do, but she knew the process and made me do it.*

On the other hand, some of the whānau interviewed identified barriers to an effective and timely HHI journey. These related to challenges dealing with third-parties such as landlords, as well as the financial capacity of the whānau, and HHI processes. An overview of the barriers identified by whānau is provided in Table 7. Despite these delays, whānau overwhelmingly considered that their journey through the HHI was a positive and worthwhile experience.

The evaluation engaged with a varied sample of whānau who reflected a range of experiences of the HHI, and the reported information relates to the qualitative views and perceptions of these whānau and is not generalisable information.

Table 7: Whānau-reported barriers to an effective and timely whānau journey

Barrier	Description	Example
Dismissive landlords or property managers	Most of the whānau in private rental housing experienced delays or refusals to action insulation and repair work, due to reluctant landlords or property managers.	One whānau experienced ongoing opposition from the landlord to install insulation and undertake necessary repairs, including replacing a broken and leaky hot water cylinder. The landlord showed no inclination to act despite the HHI pointing out the availability of insulation subsidies.
Whānau reluctance to engage with Work and Income	Many whānau told us they had previously found Work and Income difficult and frustrating to deal with and sometimes felt belittled by them. As a result, some whānau avoided dealing with Work and Income wherever possible. This barrier had been mitigated in some HHIs through assessors providing support to whānau in their engagements with Work and Income.	A whānau described feeling apprehensive about attending Work and Income appointments, stating that the language and expectations were often challenging to navigate: *"You always go in there expecting an argument, not from me, from them, from all their negative points – surely they can lower themselves to you, instead of using all those big words to confuse you … into a word that you can understand. So, there is pressure, there are pressures in there."*
Challenges contacting HNZ for 'business as usual' repairs	While the five capital interventions are generally being delivered by HNZ within the agreed 90-day timeframe, whānau in HNZ homes reported lengthy delays in getting issues addressed that had been reported to the 0800 number such as broken window repairs, problems with drainage, and mould infestation.	One woman reported that she had notified HNZ four or five times about black mould, without resolution. Even with the involvement of her assessor, at the time of interview the mould had not yet been addressed. *"I tried so many times to ring HNZ and ask about the mould – but just ended up getting upset much of the time…. I didn't want to have to yell".*
Whānau inability to finance interventions	Barriers for those in whānau-owned homes were generally related to the cost of insulation or repairs. This was despite the availability in some areas of an insulation subsidy and access to no-interest loans.	A whānau wanted to insulate and undertake major repairs in their multiple-whānau owned home as identified through the HHI assessment. However, they were unable to do this due to the cost; even with the help of partnering organisations who provide subsidies in the region. Now that the whānau were aware of the help available to them, they planned to access assistance in the near future. *"Hopefully we can go back into the programme in the future – that option is still there".*

Ineffective handover processes during HHI staff changes	A small number of whānau reported that they had not been advised when their assessor had left the role, and that this had not been immediately picked up by another assessor.	A mother with two small children in a whānau-owned home was referred to the HHI. An assessor came in and took pictures of her house, then all engagement halted and there was no follow-up or explanation. The prolonged breakdown meant considerable reluctance in re-engaging with the HHI, but the client has recently done so at the urging of another local social service provider. She has had her home re-assessed by a new assessor, and reported that communication had now improved. This has re-built trust in the HHI.

4.4. Expected Immediate Outcomes

KEQ 4: To what extent are the expected immediate outcomes being achieved?

This section discusses whānau perceptions of the extent to which the HHI has achieved the expected immediate outcomes, including whether it has made a positive difference to their homes and lives, and whether they consider that issues recorded during the initial assessment have been resolved.

Key findings include:

- Whānau reported increased confidence in dealing with health and social agencies, achieved by the HHI delivering on its promises and through observing and learning from their assessor's interaction with the agencies.
- The majority of whānau engaged with considered that their homes were warmer, drier and healthier after engagement with the HHI. The small number of whānau interviewed that had previously experienced structural or functional crowding reported that these issues had been addressed by the HHI.
- Most of the issues reported at assessment had been resolved. Issues that remained problematic were typically those that relied on interventions supplied by third parties (such as insulation, ventilation, private/social housing relocation, and minor repairs), which quantitative data shows frequently remain undelivered six months after referral.

4.4.1. Whānau confidence in engaging with health and social agencies

The majority of whānau reported that their involvement with the HHI had been positive, and that this had increased their overall confidence in dealing with other health and social service agencies. Increased confidence was attributed to the competency of the HHI assessors, who delivered on their promises.

Five of the 25 whānau interviewed stated that they were already confident in engaging with health and social services prior to interacting with the HHI. For these whānau, positive experiences with the HHI reinforced a positive outlook about health and social agencies.

The other 20 whānau interviewed expressed at least some degree of apprehension or embarrassment in seeking assistance from government and non-government health and social service agencies. This was due to previous negative experiences. For example, one client experienced trauma and poor care during her child's birth, making her wary of engagement with health services. Other whānau described feeling belittled or judged by staff in health and social services. A whānau who had been on the social housing wait list for nine years described feeling discouraged in the ability or willingness of government services to meet their needs:

> *Too many people come in and out of our doors and you never see them again. We were at a place where we were really hurt in our souls, and to be hurt again, would really damage us.*

In regions where the assessor attends meetings at health and social services with the client, whānau reported increased confidence through observing and learning from their assessor's interaction with the agencies. Assessors knew what to ask, what supporting information the whānau would need to provide, and how to navigate the system. Whānau reported that this support had meant they had learned important 'tips' in dealing with agencies, giving them more confidence in future dealings:

> *It's a big thing knowing you are going to walk through the doors and you're going to be asking for something, and you've got to build yourself up, only to be put down... I didn't even know we had entitlements. Now I ask to look at the screen when I'm there.*

This increased confidence had seen some whānau engage with other health and social services that they had been unaware of, or had been reluctant to work with, after encouragement from the HHI. For example, one client had worked with a local social service provider to obtain her driver's licence following support from the HHI.

4.4.2. Whānau knowledge about how to keep their home warm, dry, and healthy

While most whānau had some existing knowledge about how to reduce cold and damp in their homes, this was increased and extended through their involvement in the HHI. They outlined a number of new learnings such as wiping condensation from windows and windowsills, pulling beds away from walls, opening windows and curtains, drying washing outside, and treating mould and mildew when it appears (often using the provided mould kits). Many also talked of having a new understanding of the importance of capturing heat in bedrooms, including through the use of bubble wrap, and the importance of appropriately fitted, double lined curtains.

> *I realised what I need to do to make my home healthy... I do all those things now.*

Some whānau who were interviewed expressed how pleased they were to find that the interventions and tips offered to them came at little to no cost, for example learning that cleaning mould with vinegar solution is cheaper to use than commercially available cleaning products. This was appreciated given many whānau were experiencing financial hardship.

An important, unintended consequence resulting from housing education is how knowledge is transferred to non-HHI clients. One woman described how her brother, who is not involved in the HHI, saw the effectiveness of bubble wrap to insulate windows whilst visiting. She later learnt that he sourced his own bubble wrap and placed it over the windows of his home. Another woman launched a Facebook page to help others address their tenancy and home issues, including which property managers are helpful in her area and who to avoid. This suggests that the programme is reaching an

unintended but vulnerable audience who are willing to use the information without the involvement of the HHI service.

4.4.3. Whānau perceptions of their home's warmth, dryness and health

The majority of whānau (22 out of 25) reported that their home feels warmer, drier and/or healthier because of the interventions and knowledge that was received through the HHI.

Three whānau considered that the HHI had not resulted in their house feeling warm, dry or healthy. These whānau had incomplete intervention plans: one whānau was waiting the installation of a heat pump; one had a landlord that was refusing to complete the required repairs; and the other was in the process of having her home assessed.

Those whānau who had received insulation and heating sources were mostly likely to report increased warmth and dryness in their home. An example is provided in Box 1.

Box 1: Example of whānau-reported increase to warmth of their home

A whānau of three (mother and two tamariki) lived in a rental home. Their main priority was that the house was very cold. While there was a heat pump in the lounge, this did not appear to be working effectively, and did not deliver any heating to the bedrooms.

The whānau was referred through a general practice, due to one of the children's health issues. The HHI assessed the house and suggested some initial things that could help keep the heat in like curtains and draught-stoppers. They also discussed how to best heat the bedroom areas without increasing the power bill.

The assessor visited several times over the course of a month and delivered education, a mould kit, blankets, clothing, curtains, draught-stoppers, and a heater. The assessor also showed the whānau how to use the timer to save on the power bill.

The HHI supported the whānau to engage with their landlord about repairing broken windows, servicing the heat pump, installing insulation and trimming vegetation which was blocking sunlight. The landlord agreed to undertake the requested work, the majority of which had been completed at the time of the evaluation team's visit.

The whānau reported that the house is much warmer, especially the bedroom end of the house, noting that they had never felt warmth in that part of the house before. The whānau also reported improvement in the health condition that had prompted the HHI referral, stating that the child's visits to the doctor had reduced since engagement with the HHI.

Overcrowding

The HHI addressed issues of structural overcrowding by supporting whānau to secure alternative accommodation, either through social housing or in private rental properties. Those who were supported through the HHI to source homes appropriate to the size of whānau felt that their new spacious homes provided healthier conditions than previously experienced.

Functional crowding, such as the whānau sleeping in one room to keep warm, was resolved in varying ways, such as relocation, and/or by supplying heaters to warm bedrooms, curtains and beds and bedding.

Despite receiving interventions which made the home warmer and drier, some whānau continued to co-sleep (such as bed and room sharing) as an occasional practice. This practice was related to tikanga and a desire to comfort children, rather than being necessitated by poor housing conditions.

Evidence from the whānau interviews suggests that individual HHI assessors are addressing this issue sensitively, where the need arises, by being non-judgemental and offering practical recommendations such as that children to 'top and tail' when they co-sleep. However, this culturally sensitive approach is not shared by some social housing case managers.[12] Whānau reported that the co-sleeping messages delivered across agencies are mixed, which is causing anxiety amongst those for whom occasionally co-sleep (for example, two whānau reported a fear that they may lose their home if their social housing case manager were to find out that the children were co-sleeping). Some whānau noted that there are inconsistencies in terms of the content, delivery and appropriateness of messages and expectations about co-sleeping between the HHI and partnering government departments (MSD and HNZ).

Recommendation 10

The Ministry and HHI providers work with partner agencies to ensure that consistent messages are provided to HHI whānau and that they are delivered in a culturally appropriate way.

4.4.4. Whānau perceptions of impact on their children's health

Twenty of the 23 whānau that responded to this question reported that their children were sick less frequently after engaging with the HHI. Whānau stated that they had experienced:

- **fewer visits to the general practitioner**. For example, one whānau reported that during the winter prior to engaging with the HHI they had regularly taken their children to the doctor. The whānau had only been to the GP once following their HHI intervention.
- **reduced hospital admissions**. For example, two whānau whose tamariki were frequently admitted to hospital prior to the HHI involvement reported that their child had been hospitalised only once since the completion of the HHI interventions. An aiga stated that this has been the first year that their child had not been admitted to hospital.
- **reduced severity of illness**. For example, a whānau reported that their son's respiratory infections had been less severe since receiving insulation and heating through the HHI.

For many of the whānau, having warmer, drier homes with enough space and sufficient beds and bedding has also had a significant impact on their wider well-being. For example, several whānau described feeling like "bad parents" due to their children constantly being ill. Learning that this had not been their fault, and seeing the positive changes to their children's health, had enabled them to "get out of that depression mode." Some whānau said that as the health of their children has improved, they have had the time and energy to invest in other wellbeing priorities, including planning for the future and enrolling in tertiary education.

Two whānau reported that no change in child health was apparent. One noted that "the kids' noses are still runny and have been runny most of the winter." The other stated that her child had been recently diagnosed with GAS, and that "people come to stay at my house and get sick straight away." It should be noted that both of these whānau had not yet completed the HHI journey; one had not yet received the agreed HHI interventions and the other was on the waiting list for social housing.

[12] Whānau were unclear whether these were MSD or HNZ staff, and did not always distinguish between the two agencies.

4.4.5. Resolution of issues identified during the HHI assessment

The 25 whānau interviewed were asked whether housing issues that were present at the time of the HHI assessment had been resolved after the application of HHI interventions. The findings show that for most whānau, the issues had been resolved. However, for some whānau the identified issue remained problematic, despite assistance from the HHI.

For example, almost all the whānau reported that their home was too cold prior to their engagement with the HHI. HHIs provide a range of interventions to improve the warmth of homes, and the quantitative data discussed in section 4.3.2 shows that 70 percent of the intervention plans had been completed in six months. This resulted in the majority of whānau we interviewed reporting the home was no longer too cold.

However, some whānau stated that while their home was warmer after engaging with the HHI, they still perceived that overall it was too cold, and therefore did not consider the issue resolved. In most cases the ongoing issues related to interventions which had a lower rate of completion, such as insulation which was resolved within six months in only 38 percent of cases.

Table 8 provides details of the main issues whānau identified as problematic at the assessment, and describes any ongoing barriers to resolution. It should be noted that this information has been gathered from direct reports from whānau, and relates to their views and perceptions only. For context, these perceptions have been crossed-referenced with quantitative data on the extent to which the required interventions have been delivered, which is provided in italics.

Table 8: Issues identified at entry assessment, and whānau perceptions of resolution of issue

Issue	Description	Barriers to resolution of issue
House is too cold	24 of the whānau interviewed stated that their home had been too cold prior to their engagement with the HHI. 15 of these whānau reported that this had been mitigated through HHI intervention, while 9 reported that the home was still cold after their engagement with the HHI.	• In 5 cases insulation had not been installed due to whānau inability to cover the cost, private landlord refusal to carry out the work, or the home being unsuitable for installing insulation. (*Quantitative data shows that insulation was delivered within six months in 38 percent of cases)* • In 4 cases the whānau were on the social housing waiting list or had been allocated a social house but were yet to move in. *(Social housing relocation was delivered within six months in 27 percent of cases)*
Presence of mould	17 whānau reported that there had been issues with mould in their home. This was resolved in 13 cases, with 4 whānau reporting that mould remained an issue.	• In 3 cases the mould appeared resistant to cleaning attempts and always returned shortly after removal *(Mould kits were delivered within six months in 72 percent of cases)* • In 1 case the private landlord had refused to carry out the requested ventilation work *(Ventilation was delivered within six months in 32 percent of cases)*
Structural issues	16 whānau told us that their home had structural problems (such as broken windows or holes in walls)	• In all cases minor repairs had not been completed due to private landlord refusal, whānau inability to finance the

	prior to engagement with the HHI. The required repairs had been carried out in 10 of these cases, while the structural problems remained in 6 cases.	repairs, or the issue had been reported to HNZ the 'business as usual' repairs number but had not been actioned *(Minor repairs were delivered within six months in 50 percent of cases)*
The home is damp	12 whānau stated that their homes were damp, of which 8 reported that the issue has now been resolved. 4 reported that their homes remained damp after HHI intervention.	• In 2 cases the private landlord had refused to carry out the requested repair work such as fixing leaks *(as above)* • In 2 cases the whānau were uncertain as to why dampness remains, despite receiving HHI interventions
Overcrowding	5 whānau told us that they had lived in what they considered crowded conditions prior to involvement with the HHI. This was resolved for 3 whānau and remained an issue for 2 whānau.	• In both cases whānau were on the social housing waiting list but not yet been allocated a new home *(Social housing relocation was delivered within six months in 27 percent of cases)*

The barriers to resolving the identified issues typically relate to non-delivery of interventions related to third parties (for example, houses remaining cold because landlords are unwilling to carry out the requested work). This reinforces the findings described earlier in this report; that HHIs are effective at addressing issues that can be resolved by supplying interventions that are within their direct control, but issues that rely on interventions delivered by third parties frequently remain undelivered six months following referral.

4.5. Value for money

KEQ 5: To what extent is the HHI offering value for money?

This section uses the '4Es' approach to assess the value received through the HHI funding investment.

Key findings include:

- The HHI funding is being fairly spent on those that it is intended to assist.
- The HHI is achieving effective service provision in all aspects of the service that are directly delivered by the HHI assessors. Some important interventions that require delivery by a third party remain undelivered within six months.
- In order to provide an effective service, vulnerable whānau require ongoing engagement. For example, changes to whanau knowledge and behaviours are most effectively achieved over the course of multiple contact points. This is challenging for HHI providers to deliver within the current per-family funding allocation.
- HHIs are seeking out ways to deliver the service efficiently by leveraging on existing processes and systems where possible.

- If the HHI is successful in preventing even a small number of RF hospitalisations, there will be substantial cost savings to the health system.

4.5.1. Equity: Is HHI funding being spent fairly?

Spending 'fairly' is linked with KEQ 1, which considered the extent to which the HHI is helping the priority population groups that it is intended to assist (i.e. a fair distribution of resources).

The evidence considered above, in section 4.1, suggests that the eligibility criteria is being accurately applied with 89 percent of referrals meeting the criteria. Where HHIs receive a referral that is not eligible, service providers will make whatever referrals they can so that the whānau can access available support without enrolling in the HHI. The evaluation did not encounter any situations where the HHI service was being provided to ineligible households. The evaluation therefore concludes that the HHI funding is being spent on those that it is intended to assist.

Several referrers praised the Government for expanding the referral criteria, stating that this has enhanced the potential of the programme to increase health equity amongst the priority populations by enabling intervention prior to the whānau experiencing serious health issues.

4.5.2. Effectiveness: Is HHI funding being used to deliver an effective service?

There is generally effective delivery of all aspects of the HHI service that are directly delivered by the HHI assessors. Whānau interviewed for the evaluation were in agreement that their housing conditions were improved through their engagement with the HHI. For a few whānau the improvement was immense – particularly for whānau who were re-housed; and for some it was comparatively minor. Whānau also reported improved health and wellbeing.

HHI effectiveness relies on achieving a reliable supply of relevant interventions. Quantitative data shows that over 70 percent of intervention plans are closed within six months. The five most commonly identified interventions (key messages on creating a healthy home, curtains, beds and bedding, budgeting, mould kits) are delivered directly by HHI assessors, and all were delivered within six months in over 65 percent of cases. However, effectiveness in delivering interventions to upgrade the thermal envelope, such as insulation, structural repairs and ventilation, have a lower rate of completion. There are also some barriers to effective delivery in HHIs where there is a small pool of interventions available within the community (i.e. in areas with small, geographically dispersed populations and high levels of deprivation). Addressing inequities in accessibility of interventions will assist HHI service providers in such circumstances to provide a more effective service.

Delivering an effective service to vulnerable whānau requires intensive engagement. For example, assessors generally go to great lengths to contact referred households, including calling, text messaging and 'dropping in' up to ten times before contact is established.

In addition, HHI staff stated that vulnerable whānau often require multiple touch points to ensure the programme has the desired impact. Assessors across most HHIs report visiting whānau at least two times after the initial assessment, to ensure that the interventions have been delivered and are being used effectively, and to 'drip feed' key messages to enable whānau to absorb and adopt these new learnings.

Such an ongoing approach to whānau engagement has a higher financial cost in terms of staff time and expenses such as travel than delivering all the interventions at once. Some HHIs that have not met the contracted enrolment rates have, with the agreement of the DHB contract holder, focused on

providing a more comprehensive service to a fewer number of families. Other HHIs expressed a desire to do so, but were constrained by the amount of funding available.

4.5.3. Efficiency: Is HHI funding being spent as efficiently as possible?

The evidence demonstrates that HHIs are actively seeking out ways to deliver the service efficiently. HHIs are leveraging on existing processes and systems where possible. For example, HHIs stressed the importance of capitalising on existing health sector structures and relationships to increase referral rates. Most HHIs and DHBs use existing mechanisms (the bicillin register and hospital discharge lists) to identify eligible families for referral. HHIs in which the service provider offers other health or social services use whānau engagements with these services to identify eligible clients and cross-refer them into the HHI. The fact that the HHI service funding does not cover providing interventions has spurred innovative practices; for example, HHIs have developed partnerships with commercial entities to receive donations of bedding and linen, saving the cost of purchasing such products directly.

The main area of inefficiency is in the use of HHI funds (specifically funding for staff time) spent on ensuring the delivery of interventions that are the responsibility of third party suppliers. For example, assessors report enhanced outcomes from client visits to government agencies if they provide support such as accompanying them to appointments or sitting alongside through the telephone-based social housing application interview. A large number of assessors also reported a lack of progress in achieving the desired outcomes from private landlords, despite spending substantial time in undertaking negotiations.

HHI personnel recognised these activities as a core part of their role, but expressed concern that the amount of time and effort required to effectively ensure intervention supply is not adequately covered by the contracted $610 per family funding allocation.

Recommendation 11

The Ministry review the current per-family rate of $610 to better reflect the true cost of coordinating and delivering the service and ensuring its effectiveness.

4.5.4 Economy: Does HHI funding have a positive effect on the health of households for less cost than treating housing-related disease and illness?

The narrative data collected specifically for the evaluation suggests that whānau are experiencing improved health in the months immediately following their engagement with the HHI. RF prevention is a 'long game', as it is for housing-relating health conditions generally, making it impossible in an evaluation of this nature to determine the extent of any long-term cost/savings implications, such as the extent to which the HHI is likely to reduce future RF hospitalisation costs.

A study published in 2012[13] explored RF treatment at Starship Children's Hospital over a two-year period. 36 children were treated (45 hospitalisations), with an average stay of 23 days, at a cost $1.9m, or approximately $42,220 per hospitalisation. Ministry funding for the HHI service, at $610 per whānau, is less than the cost of hospitalisation for RF: the cost of a single hospitalisation roughly equates to the Ministry funding the HHI service for 70 households. If the HHI is successful in

[13] Gilbert O, Wilson N, Finucane K, Early cardiac morbidity of rheumatic fever in children in New Zealand. *New Zealand Medical Journal.* 2011: 124 (1343): 57-64

preventing even a small number of RF hospitalisations, there will be substantial cost savings to the health system.

Other savings to the health system are likely to be realised through fewer GP visits and fewer hospitalisations for other housing-related health conditions.

5. CONCLUSIONS AND RECOMMENDATIONS

This section sets out our conclusions related to each of the key evaluation questions and provides a summary of the key evidence on which the conclusions are based. The criteria on which the ratings judgements are based are provided in the evaluation rubric in Appendix 2.

KEQ1: To what extent is the HHI reaching its priority population?

Exceeding expectations
Meeting expectations
Below expectations
No change or detrimental

Our evaluative judgement for KEQ 1 is that the HHI is meeting expectations in the extent to which it is reaching its priority population. Evidence shows that the HHI has established effective referral pathways in most regions. The majority of those referred enrol in and complete the programme.

All HHIs have invested substantial time in developing referral pathways to identify and access the priority populations. Service providers are to be commended for their success in identifying relevant referring entities, and developing partnerships that have led to a steady supply of eligible referrals. The evidence shows that the programme is performing well in terms of referrer commitment to, and confidence in, the HHI.

The expansion of the service in 2016 has provided an opportunity to extend the reach of the programme. Most HHIs have been successful in establishing referrals pathways to reach the additional priority populations, with the proportion of referrals almost even across the four pathways in the first half of 2017/18.

However, despite HHIs' success in establishing referral networks, all HHIs are currently operating under the capacity they are funded to provide. None of the HHIs are forecast to meet their contracted enrolment numbers for the 2017/18 financial year, with several unlikely to achieve half of the contacted enrolments. HHIs stated that they have limited resource and many have chosen to provide a more comprehensive service to a smaller number of families, and have not prioritised rolling out all potential referral paths.

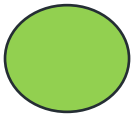
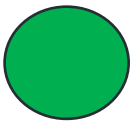
There is scope to strengthen referral pathways to increase the number of referrals received. One way to do this is to ensure that all DHBs audit relevant records including hospital discharge lists and their rheumatic fever prophylaxis registers. While this is happening in most HHI regions, three reported that they do not currently have formal audit systems in place.

The HHI leads and staff have effectively engaged with hospital-based medical professionals and community-based health professionals, but there is potential to broaden the range of referrers to include professionals such as social workers, lead maternity carers and primary care practices.

The referrer relationship is very important to the success of the HHI, and like all relationships, it is an on-going task to maintain and strengthen those relationships. The generally ad-hoc approach to communicating with referrers and providing feedback on the outcomes of the referral has reduced the rating against this KEQ. Systematising communications with referrers will strengthen the programme by increasing the likelihood that eligible whānau are referred to the HHI.

The following table lists the desired achievements and specific indicators for the 'reach and referral pathways' criterion. The evaluation team has collectively considered the evidence and 'traffic lighted' each indictor based on a 4-point scale.[14]

Table 9: Summary of evidence and 'traffic light' ratings for KEQ 1

Desired achievement	Indicators	Findings	'Traffic light' rating
Referrals to the HHI are received for all eligible families	Robust processes are in place to ensure all families that meet the eligibility criteria are offered a referral	Most of the HHIs have systems in place to audit hospital discharge lists and the prophylactic bicillin register.	
Referral pathways are working as intended to identify priority households.	Service providers are communicating well with health practitioners who do/could refer family/whānau/aiga to the HHI	All HHIs have regular communication with referrers, although some HHIs use a relatively ad hoc approach, sometimes resulting in referrer frustration.	
	Referrers demonstrate an accurate understanding of the HHI eligibility criteria	14/15 referrers interviewed reported 'good' or 'general' understanding of the criteria. Statistical data show nearly 90 percent of referrals are eligible.	
	Referrers are confident that their referrals to the HHI will result in improved housing conditions (warmer, drier, uncrowded)	Referrers expressed their confidence in referring to the HHI in most regions, but some noted variability in the service received by whānau.	
	The expected number of eligible families/whānau/ aiga who enrol with HHI is being met	HHIs are unlikely to reach their contracted enrolment rates for the 2017/18 year, with an average forecast of 53 percent.	
	Follow-up reports are provided to referring entities	Only 2/9 HHIs have a formal system of providing written follow up reports to referrers.	

Based on the above conclusions, the evaluation team makes the following recommendations related to KEQ1.

Recommendation 1

HHI providers strengthen their reach to priority populations by establishing referral pathways with groups such as LMCs, social workers and primary care practices.

This should be supported by the Ministry-led engagement with national organisations such as the New Zealand College of Midwives, the Royal New Zealand College of General Practitioners and the College of Nurses Aotearoa, and the Aotearoa New Zealand Association of Social Workers to raise

[14] Dark green indicates excellent performance; light green indicates good performance; orange indicates some concerns and a need for action; and red indicates serious concerns.

awareness about the HHI. This could be implemented through mechanisms such as including information on newsletters, through an article in periodic journals or publications, or by presenting or having an information stand at conferences.

We also recommend that the Ministry engage with MSD and HNZ to explore the potential to establish referral pathways from these organisations into the HHI.

Recommendation 2

All DHBs implement formalised systems to audit hospital discharge lists and the prophylaxis bicillin register.

DHBs and the Ministry explore whether formalised systems could be implemented to audit whether referrals are offered to those who experience three or more episodes of GAS pharyngitis, families with a child aged 0-5 years with two or more specified social risk factors, and pregnant woman or women with a newborn baby.

Recommendation 3

All HHI providers develop a systematised approach to communication with referrers, and develop a communications plan detailing:

- identification of relevant referrer organisations within the HHI region
- details about the planned communications approach, including which communication methods will be used (it is recommended that a suite of communication methods be used) and how follow up reports will be provided to referrers
- allocation of roles and responsibilities for implementing the communications plan.

Recommendation 4

All HHI providers supply follow up reports to referrers as part of their communications approach. This should ideally involve reporting back to referrers on individual cases at set points during the HHI journey.

KEQ2: To what extent is innovation making the HHI a more efficient and effective service?

Exceeding expectations
Meeting expectations
Below expectations
No change or detrimental

Our evaluative judgement for KEQ 2 is that the HHI is meeting expectations in using innovation to make the HHI a more efficient and effective service.

The evaluation found that innovative practice is apparent in most regions. This is particularly apparent in the later stages of the HHI service delivery pathway, with strong evidence of innovative approaches being tested and used by HHIs to build the supply of interventions available to whānau.

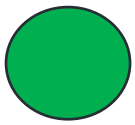
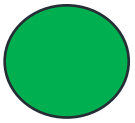
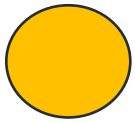
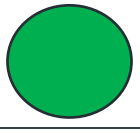
Innovative practice has resulted in programme efficiencies, including both direct savings for HHIs, by saving the cost of purchasing required products, and broader system efficiencies by ensuring that the HHI is not replicating services that are already available within the community.

While HHIs have invested considerable effort in attempting to obtain buy-in from third party intervention providers, innovations have not achieved the desired outcome of influencing the

successful provision of the required interventions. In particular, private landlords remain problematic. There is optimism around the recently trialled Auckland Minor Repairs Service landlord liaison component, which has achieved early success in achieving landlord consent and/or funding of insulation and repairs.

The following table lists the desired achievements and specific indicators for the 'innovation' criterion, and a summary of the findings and 'traffic light' rating against each indicator.

Table 10: Summary of evidence and 'traffic light' ratings for KEQ 2

Desired achievement	Indicators	Findings	Traffic light' rating
HHI service providers are testing and implementing new ideas that enhance the process of improving housing conditions (warm, dry, not crowded).	Service providers are empowered to work creatively to improve and/or streamline processes, to provide timely, appropriate services and interventions to family/whānau/aiga	Most HHIs report that they are empowered to work creatively and innovatively, and consider that they are supported in this by the DHB contract holder and the Ministry. One HHI reported feeling pressured from the DHB to meet the contracted target number, rather than delivering an innovative service.	
	Innovative practices are evident in the family/whānau/aiga journey	HHIs provided examples of how they are innovative at each stage of the whānau journey. However, some of the reported innovations could be more accurately described as following good practice by leveraging existing health sector relationships and structures.	
	Innovative practices are evident in developing and accessing interventions	HHIs provided evidence of how they are using innovation to ensure a steady supply of interventions, typically through leveraging partnerships with local commercial, philanthropic and other organisations.	
	Innovative practices contribute to the desired immediate outcomes	HHIs are using innovation to secure direct interventions such as curtains, beds and bedding, floor coverings, and heaters, which contribute to whānau perceptions of a warmer, drier, healthier home. Despite substantial efforts, HHI innovative practice has not yet been successful in achieving the delivery of interventions that support longer term change, such as insulation and repairs (see recommendation 7).	 
	Successful innovations are being shared with other regions	There is strong evidence that HHIs are sharing and implementing innovations from other regions, that they have learned about through the	

Desired achievement	Indicators	Findings	Traffic light' rating
		quarterly hui, QuickR portal, or visits to other regions.	

Based on the above conclusions, the evaluation team makes the following recommendation related to KEQ2.

Recommendation 5

The Ministry continue to host and lead the planning for the quarterly hui and support Te Roopu Wero Hinengaro and the QuickR web platform as important mechanisms for sharing and motivating innovation.

KEQ3: How effectively is the HHI being delivered?

Exceeding expectations
Meeting expectations
Below expectations
No change or detrimental

Our evaluative judgement for KEQ 3 is that the HHI is meeting expectations for effective delivery in most respects. The HHI has developed effective partnerships with relevant agencies and is largely delivering an effective service from referral to follow up.

The majority of families/whānau/aiga we interviewed for the evaluation reported that the service is effective and meets their needs. Whānau expressed a high level of confidence and gratitude for the HHI service. They considered that clear expectations had been set on entry to the service, importantly with no unrealistic promises being made. Whānau felt a strong sense of ownership of the intervention plan and were provided with interventions that made a difference to their housing situation and health and wellbeing.

The Ministry and HHI service providers have developed effective partnerships with government agencies, which have led to important successes such as HNZ's commitment to delivering five agreed capital interventions and the establishment of the HHI reporting process to the MBIE Tenancy Compliance and Investigations Team. While the evaluation found that there are positive relationships with management personnel in partner agencies, this is not always reflected in the front-line experience of HHI assessors and clients, and commitments made at the national level are not always effectively communicated to front line staff.

The areas of reduced HHI service effectiveness relate to the inadequate of supply and slow delivery of third party interventions. Interventions that are directly supplied by the HHI are available, timely and relevant, with a high proportion delivered within the expected six-month time frame. However, effective service delivery is compromised by wider system barriers, including limited availability of social housing and quality private rentals, and the reliance on private landlords to carry out maintenance work on their properties, many of whom are reluctant to do so.

There are inequities in the availability of interventions and options for additional funding support across the HHI regions. Where HHIs are delivering the programme to relatively small populations in dispersed and/or isolated geographies, and in areas experiencing higher than average levels of deprivation, there is reduced access to charitable services and philanthropic funding. Furthermore,

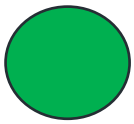
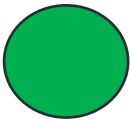
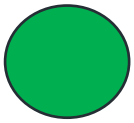
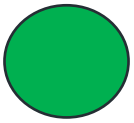
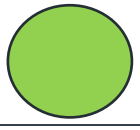
some DHBs have chosen to provide additional funding to support intervention supply while others have not. Such variations mean that the whānau experience of the HHI can be inequitable.

The effectiveness of the HHI relies heavily on an engaged and competent workforce. While the evaluation found that HHI assessors are perceived as competent and knowledgeable, we found there are mixed views on the extent to which HHI assessors' emotional health, physical health, and physical safety are being protected. Further work could be done to ensure HHIs provide a safe work environment.

The following table lists the desired achievements and specific indicators for the 'effectiveness' criterion, and a summary of the findings and 'traffic light' rating against each indicator.

Table 11: Summary of evidence and 'traffic light' ratings for KEQ 3

Desired achievement	Indicators	Findings	'Traffic light' rating
The HHI incorporates partnership and collaboration with key relevant agencies to ensure that activities are aligned and delivered effectively.	The HHI develops partnerships with MSD, HNZ and other relevant agencies at a regional and national level	Partnerships have been formed at the national and regional level with MSD, HNZ, EECA and MBIE. These have resulted in some important successes, such as the HNZ five capital interventions programme. However, some key messages and commitments made at the national and regional levels are not being communicated to the 'on the ground' staff.	
	The HHI aligns its activities and delivery mechanisms with other on-going, related activities and relevant organisations across sectors	HHIs are aligning service provision with other health and social service initiatives such as Whānau Ora, Family Start, and Public Health Nursing.	
There is timely delivery of relevant, quality interventions.	Interventions identified through the HHI assessment process are aligned with those contracted in the service specifications	Qualitative and quantitative evidence shows that interventions that are delivered by the HHI service or through a referral to an external provider are aligned with the aims of the HHI.	
	Interventions identified through the HHI assessment process are delivered within six months of referral	Statistical data show that an average of 71.3% of interventions were delivered within six months in the most recent quarter. However, the six-month delivery rates for important interventions that have been shown to have a strong impact on health (housing relocation, insulation, repairs) are 50% or less.	
Delivery of the HHI is not delayed by inaccessibility of interventions.	There is an adequate supply of appropriate, quality, interventions, enabling timely delivery	All HHIs have been successful in establishing a supply of direct interventions such as healthy homes education knowledge and resources, bedding, draught stoppers, and	

Desired achievement	Indicators	Findings	'Traffic light' rating
		mould kits. However, there is inequity in the supply of interventions available to HHIs in regions with small populations in dispersed and/or isolated geographies, and high deprivation. Significant barriers to the delivery of housing relocation, insulation and minor repairs exist in all regions.	
Families/whānau/aiga perceive the HHI to be an appropriate support for their household health and wellbeing.	The proportion of eligible families/whānau/aiga who decide against enrolment, or who withdraw from the programme is reducing over time	After an initial rapid decrease in the proportion of whānau who declined to participate or withdrew from the programme, the proportion of whānau who decline or withdraw has fluctuated between 4 – 9 percent.	
	Families/whānau/aiga report that the service is culturally appropriate	Almost of all the 25 families, whānau, aiga, and fāmili interviewed perceived the HHI to be a culturally appropriate service with culturally competent assessors.	
The family/whānau/aiga journey, from referral to the HHI to follow-up, is focused and streamlined.	Families/whānau/aiga have an accurate understanding of what the HHI can provide	All the whānau interviewed for this evaluation had an accurate understanding of what the HHI could provide. Whānau stated that they had been given a clear description of the assessment process and the type of interventions that the HHI may be able to offer them.	
	Families/whānau/aiga have a sense of ownership of the co-developed intervention plan	All 25 whānau interviewed for the evaluation reported that they had co-developed the intervention plan with their HHI assessor.	
	Families/whānau/aiga perceive that they have received/are receiving a service that will improve their housing conditions and therefore their health	Almost all whānau interviewed considered they had received a service that had made at least some difference to their housing situation and consequently to the health of their children. The degree of reported impact varied from a slightly warmer home to a transformational change to whānau health and wellbeing.	
	There are no barriers to an effective and timely whānau journey	There were very few barriers identified at the referral and assessment stages of the whānau journey. However, some whānau experienced barriers to the timely delivery of interventions, including	

Desired achievement	Indicators	Findings	'Traffic light' rating
		dismissive landlords or property managers, reluctance to engage with Work and Income, challenges contacting HNZ and inability to finance interventions.	

Based on the above conclusions, the evaluation team makes the following recommendations related to KEQ3.

Recommendation 6

The Ministry continue to work closely with its cross-government partners, particularly HNZ, MSD, and EECA to ensure that agreements at the national level are reflected in local service provision and to enhance feedback loops with HHI providers.

Recommendation 7

The Ministry and its cross-agency partners work to address barriers to the delivery of interventions to HHI families, particularly the limited supply of social housing; lack of quality, affordable, private rental housing, and landlord reluctance to supply the required interventions.

Recommendation 8

The Ministry work with DHBs and HHI providers to identify and consider options to address the inequity of intervention supply across the HHI regions.

Recommendation 9

HHI providers review their health and safety policies and practices to ensure that they comply with legislative obligations and provide for sound practices to protect the emotional health, physical health, and physical safety of staff, tailored to their role-related needs.

KEQ 4: To what extent are the expected immediate outcomes being achieved?

Exceeding expectations
Meeting expectations
Below expectations
No change or detrimental

Our evaluative judgement for KEQ 4 is that, based on whānau self-reporting, the expected immediate outcomes are being met. The HHI has contributed to many whānau perceiving that they are living in warmer, drier and less crowded homes.

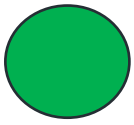
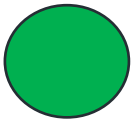
The information for this KEQ was gathered through qualitative engagement with 25 whānau that had been clients of the HHI. The conclusions are therefore based on whānau perceptions and reports of how their engagement with the HHI has impacted on the desired outcomes.

Whānau were positive that their involvement with the HHI and were confident that their health and wellbeing had improved following HHI intervention.

A small number of whānau reported that there are inconsistencies in terms of the content, delivery and appropriateness of messages and expectations about co-sleeping between the HHI and partnering government departments (MSD and HNZ), which was causing anxiety for some families.

The following table lists the desired achievements and specific indicators for the 'immediate outcomes' criterion, and a summary of the findings and 'traffic light' rating against each indicator.

Table 12: Summary of evidence and 'traffic light' ratings for KEQ 4

Desired achievement	Indicators	Findings	'Traffic light' rating
The HHI experience makes a positive difference to the homes and lives of the family/whānau/aiga who enrol with and complete the HHI journey.	Whānau report that they are more confident about engaging with health and social agencies following from their engagement with the HHI	A majority of whānau interviewed expressed some degree of apprehension or embarrassment in seeking assistance from health and social service agencies prior to involvement with the HHI. For most of these whānau, overall confidence in dealing with other health and social service agencies had increased due to their positive experience with the HHI.	
	Whānau report an increased knowledge about how to keep their home warm, dry, and healthy	23/25 whānau interviewed reported that they received and are implementing new knowledge of how to maintain the health of their homes in their daily routines. Some whānau transferred this knowledge to non-HHI clients.	
	Whānau report that their home feels warmer, drier and healthier	Most whānau reported that their home feels warmer, drier or healthier because of the interventions and knowledge that was received through the HHI. For some whānau this was a major change; others reported only a small improvement.	
	Whānau report that their children are sick less frequently	Nearly all whānau that responded to this question reported that they considered their children were sick less frequently after engaging with the HHI, reporting fewer visits to the GP, reduced hospital admissions and reduced severity of illness. Increased whānau wellbeing was also reported.	
Issues recorded during the assessment have been resolved through the application of interventions.	Issues identified in the entry assessment are no longer present after the indicated interventions have been delivered	Issues identified by whānau as being present at entry assessment are resolved in most cases, although some whānau reporting their homes remained cold, damp, overcrowded or with structural damage despite incremental improvements from HHI intervention.	

Based on the above conclusions, the evaluation team makes the following recommendation related to KEQ4.

Recommendation 10

The Ministry and HHI providers work with partner agencies to ensure that consistent messages are provided to HHI whānau.

KEQ 5: To what extent is the HHI offering value for money?

Exceeding expectations
Meeting expectations
Below expectations
No change or detrimental

Our evaluative judgement for KEQ 5 is that the HHI is meeting expectations in terms of offering value for money. The evidence shows that the HHI resources are mostly being spent fairly, well, and wisely; and funding invested is likely to have a positive effect on whānau health.

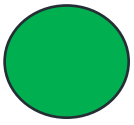
Overall, the HHI offers the value in its ability to reach the priority population of vulnerable whānau living in cold, damp and/or crowded homes. Providers are achieving efficiencies in ensuring that service provision does not waste resources by duplicating already existing services or by spending funds on items that can be sourced through donations or charitable entities

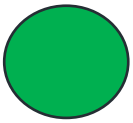
The evidence from whānau shows HHI clients perceive the service as valuable; it has enabled them to make their houses warmer and drier, and has positively impacted the health and wellbeing of their children.

However, evidence shows that delivering an effective HHI service requires a high investment of staff time to contact whānau, negotiate intervention delivery and work intensively alongside whānau to achieve effective uptake and use of interventions. While service providers are attempting to work as efficiently as possible, achieving value from the HHI funding requires providers to spend more time on each whānau than can be reasonably achieved for the current per-family funding allocation. Increasing this allocation would involve a small increase in upfront costs but this is likely to be offset by the returns achieved through a more effective service.

The following table lists the desired achievements and specific indicators for the 'value for money' criterion, and a summary of the findings and 'traffic light' rating against each indicator.

Table 13: Summary of evidence and 'traffic light' ratings for KEQ 5

Desired achievement	Indicators	Findings	'Traffic light' rating
The funding allocation for HHI is being spent equitably, efficiently and effectively; and the benefits described by families/whānau/aiga suggest the funding invested is likely to have a positive effect on the health of the household – at less cost than the expected cost to treat.	HHI funding is being fairly spent on the priority population it is intended to benefit	Evidence shows that the HHI are being spent fairly; nearly 90 percent of referrals are eligible and no situations were encountered where the HHI service was being provided to ineligible households.	
	HHI funding is being fairly spent efficiently	HHIs are demonstrating efficient practices in not replicating or providing services and interventions that are already available in the community. Some inefficiencies are inherent in providing an effective service, such as requiring substantial staff time to initiate contact and deliver the service over multiple touch points.	

Desired achievement	Indicators	Findings	'Traffic light' rating
	HHI funding is being used to deliver an effective service	The HHI is effective in its delivery of all aspects of the service that are directly delivered by the HHI assessors. Whānau interviewed for this evaluation reported a perception that they received an effective and appropriate service. However, the HHIs reported challenges in delivering an effective and impactful service within the current per-family funding allocation.	
	The average direct cost of the HHI per household is less than the average cost of expected hospitalisations for rheumatic fever per eligible household	Ministry funding for the HHI service, at $610 per whānau, is less than the cost of hospitalisation for RF: the cost of a single hospitalisation roughly equates to the Ministry funding the HHI service for 70 households. If the HHI is successful in preventing even a small number of RF hospitalisations, there will be substantial cost savings to the health system.	

Based on the above conclusions, the evaluation team makes the following recommendation related to KEQ5.

Recommendation 11

The Ministry review the current per-family rate of $610 to better reflect the true cost of coordinating and delivering the service and ensuring its effectiveness.

APPENDIX 1: KEY EVALUATION QUESTIONS, DESIRED ACHIEVEMENTS AND PERFORMANCE INDICATORS

Criteria	Desired achievements	Performance indicators
KEQ 1: To what extent is the HHI reaching it priority population?		
1.Reach	1.Referral pathways are working as intended to identify priority households.	1.Service Providers are communicating well with health practitioners who do/could refer family/whānau/aiga to the HHI
		2.Referrers demonstrate an accurate understanding of the HHI eligibility criteria
		3.Referrers are confident that their referrals to the HHI will result in improved housing conditions (warmer, drier, uncrowded)
		4.The expected number of eligible families/whānau/aiga who enrol with HHI is being met
		5.Follow-up reports are provided to referring entities
	2.Families/whānau/aiga perceive the HHI to be an appropriate support for their household health and wellbeing.	1.The proportion of eligible families/whānau/aiga who decide against enrolment, or who withdraw from the programme is reducing over time
		2.Families/whānau/aiga report that the service is culturally appropriate
	3. Referrals to the HHI are received for everyone hospitalised with an indicator condition who is eligible for referral.	1.Everyone aged 0 – 14 years who has been hospitalised with an indicator condition is referred to the HHI
		2.Everyone eligible for monthly penicillin injections because they have contracted Rheumatic Fever in the past has been referred to the HHI

Criteria	Desired achievements	Performance indicators
KEQ 2: To what extent is innovation making the HHI a more efficient and effective service?		
2.Innovation	1.HHI service providers are testing and implementing new ideas that enhance the process of improving housing conditions (warm, dry, not crowded).	1. Service providers are empowered to work creatively to improve and/or streamline processes, to provide timely, appropriate services and interventions to family/whānau/aiga
		2. Innovative practices are evident in the family/whānau/aiga journey
		3. Innovate practices are evident in developing and accessing interventions
		4. Innovative practices contribute to the desired immediate outcomes
		5. Successful innovations are being shared with other regions
KEQ 3: How effectively is the HHI being delivered?		
3.Effectiveness	1.The family/whānau/aiga journey, from referral to the HHI to follow-up, is focused and streamlined.	1. Family/whānau/aiga have an accurate understanding of what the HHI can provide
		2. Family/whānau/aiga have a sense of ownership of the co-developed intervention plan
		3. Family/whānau/aiga perceive that they have received/are receiving a service that will improve their housing conditions and therefore their health (as per the RFPP)
		4. There are no barriers to an effective and timely whānau journey
	2.There is timely delivery of relevant, quality interventions.	1. Interventions identified through the HHI assessment process are aligned with those contracted in the service specifications
		2. Interventions identified through the HHI assessment process are delivered within six months of referral
	3.Delivery of the HHI is not delayed by inaccessibility of interventions.	1. There is an adequate supply of appropriate, quality, interventions, enabling timely delivery
	4.The HHI incorporates partnership and collaboration with key relevant agencies to	1. The HHI develops partnerships with MSD, HNZ and other relevant agencies at the regional and national level

	ensure that activities are aligned and delivered effectively.	2. The HHI aligns its activities and delivery mechanisms with other on-going, related activities and relevant organisations across sectors

Criteria	Desired achievements	Performance indicators
KEQ 4: To what extent are the expected immediate outcomes being achieved?		
4. Expected Immediate Outcomes	1. The HHI experience makes a positive difference to the homes and lives of the family/whānau/aiga who enrol with and complete the HHI journey.	1. Family/whānau/aiga report that they are more confident about engaging with health and social agencies following from their engagement with the HHI
		2. Family/whānau/aiga report an increased knowledge about how to keep their home warm, dry, and healthy
		3. Family/whānau/aiga report that their home feels warmer, drier and healthy
		4. Family/whānau/aiga report that their children are sick less frequently
	2. Issues recorded during the assessment have been resolved through the application of interventions.	1. Issues identified in the entry assessment are no longer present after the indicated interventions have been delivered
KEQ 5: To what extent is the HHI offering value for money?		
5. Value for Money	1. The funding allocation for HHI is being spent well, fairly, and wisely; and the benefits described by families/whānau/aiga suggest the funding invested is likely to have a positive effect on the health of the household – at less cost than the expected cost to treat.	1. The evaluative judgement for KEQ 1, above, suggests the HHI funding is being fairly spent: the priority population is being reached
		2. The evaluative judgement for KEQ 2, above, suggests the HHI funding is being well spent: innovation is a hallmark of delivery
		3. The evaluative judgement for KEQ 3, above, suggests the HHI funding is being wisely spent: the HHI is effective at providing priority populations with warmer, drier, uncrowded homes
		4. The evaluative judgement for KEQ 4, above, suggests the HHI funding is resulting in houses that are warmer and drier than prior to assessment

		5. The average direct cost of the HHI per household is less than the average cost of expected hospitalisations for rheumatic fever per eligible household

APPENDIX 2: EVALUATION RUBRIC

The rubric below establishes the standards against which HHI was evaluated. This identifies what is considered to have "exceeded expectations", "met expectations", be "below expectations", or "no charge/detrimental" under each performance criterion.

All criteria additionally include a category "unable to be determined", which is used when inadequate evidence is available to make a robust evaluative judgement.

Criteria	Exceeding expectations	Meeting expectations	Below expectations (with some positive achievements)	No change or detrimental
Generic performance standards	Excellent performance against all indicators and no substantive weaknesses. Clear examples of exemplary performance.	Reasonably good performance overall; may have a few slight weaknesses but nothing serious.	Fair performance, some serious, but non-fatal weaknesses on a few aspects.	Clear evidence of unsatisfactory functioning; serious weaknesses on crucial aspects.
Reach	The HHI is reaching the priority population through well-functioning referral pathways. Nearly all of those referred enrol in and complete the programme.	The HHI is mostly reaching the priority population, with effective referral pathways in most regions. Most of those referred enrol in and complete the programme.	The HHI is reaching some of the priority population, but there are weaknesses in referral pathways, and/or lower than expected rates of enrolment and completion.	Referral pathways are not functioning effectively, resulting in low rates of referral to the HHI. Of those that are referred, many do not enrol or complete the programme.
Innovation	There are numerous examples of innovative practice at the regional and national level. The innovations are resulting in the efficient and effective delivery of HHI services.	Innovative practice is apparent in some regions and there is evidence that this is resulting in improved service efficiency and effectiveness.	Some innovations have been tried but with mixed success. Attempted innovation has not resulted in improved service.	Any attempted innovation has not resulted in improved service and may have been detrimental, and/or has had financial or resource costs.
Effectiveness	The HHI is delivering an effective service at all stages, from referral to follow up. Families/whānau/	The HHI is largely delivering effective service at most stages from referral to follow up. Most families/	The HHI's effectiveness is mixed, with some weaknesses evident. Some families/ whānau/aiga report	There are weaknesses in key aspects of the HHI service delivery stages. Few families/ whānau/aiga report

Criteria	Exceeding expectations	Meeting expectations	Below expectations (with some positive achievements)	No change or detrimental
	aiga report that the service is effective and meets their needs. Interventions are available, timely and relevant. No improvements are needed.	whānau/aiga report that the service is effective and meets their needs. Interventions are available, timely and relevant. The programme could be improved with minor amendments.	that the service is effective and meets their needs. There are some barriers to delivering timely and relevant interventions. The programme requires change in key areas.	that the service is effective and meets their needs. There are substantial barriers to delivering timely and relevant interventions. Major changes are required.
Expected Immediate Outcomes	There is strong evidence that the HHI is contributing to families/ whānau/aiga living in warmer, drier and less crowded homes,	The HHI has contributed to many families/ whānau/aiga living in warmer, drier and less crowded homes, with some variability of achievement of outcomes.	The HHI is making progress towards achieving the expected immediate outcomes, but progress is variable and/or slower than intended.	The HHI is making little or no progress towards the expected immediate outcomes. Very few, if any, families/ whānau/aiga are living in warmer, drier and less crowded homes.
Value for money	HHI resources are being used effectively, economically, efficiently and equitably to achieve the intended immediate outcomes, resulting in substantial benefits for families/whānau/ aiga.	The HHI is mostly using resources effectively, economically, efficiently and equitably. Some minor recommendations to improve distribution of resources to achieve the intended outcomes.	The HHI is achieving some value from its resource use but improvements are required to achieve the intended outcomes. There are weaknesses related to the HHI's effectiveness, economy, efficiency and/or equity.	HHI resource distribution is inefficient, has not achieved the intended outcomes and/or there are serious weaknesses related to its effectiveness, economy, efficiency and/or equity.

APPENDIX 3: INFORMATION SHEET WITH INFORMED CONSENT

Information Sheets were prepared for each evaluation activity, adapted to the activity, the team members involved, and the participation expectations of various activities and participant interests in the evaluation. The example below was used for interviews with family/whānau/aiga, which was provided to the New Zealand Ethics Committee as part of their consideration of that aspect of the evaluation. Information Sheets were presented on letterhead paper.

AN EVALUATION OF THE HEALTHY HOMES INITIATIVE
INFORMATION ABOUT THE PROJECT, AND INFORMED CONSENT

You are invited to be in a research study about the Healthy Homes Initiative (HHI). This study is being carried out by *Allen + Clarke* for the Ministry of Health. *Allen + Clarke* is a research company with experience in evaluating health programmes.

You have been invited to take part because the HHI service provider has told us that they worked with you to help make your home a healthier place to live. You can choose not to take part, and if you choose to take part and then change your mind later, you can pull out of the study by contacting us (there is contact information below). Please read this form and ask any questions you have before deciding whether to be in the study.

What is the research about?

The purpose of this study is to check how the programme is impacting on the health of its clients – people such as you. The findings from this study are expected to be reported to the Ministry of Health in February 2018, after which time the Ministry may make the report public.

What is involved for those taking part?

If you agree to be in this study, we would ask you to do the following:

- To meet with two of our researchers (Nicole Waru and Helen Potter) for no longer than two hours, to talk about your experience with the HHI programme. We could meet with you at your home, at the service provider, or at another place such as a café or a library, which ever suits you best. If you give permission for us to contact you, we'll be in touch with you soon to find out if you would like to be involved, and which day and what time works best for you. Or you could contact us if you wish: Nicole's phone number is 021614453. Helen's phone number is 063686020.
- If you give us permission, we would like to audio record the interview. We will use the recording to ensure that we accurately capture the information that you tell us. This is completely voluntary.

Do I have to take part in the study?

You do not have to take part in this research. You may stop taking part at any time. If you stop taking part, the information you have contributed to the study that has not entered the analysis process will be removed from the study. Your decision whether to take part will not affect your current or future relations with the Ministry of Health, Well Home, or *Allen + Clarke.* The Healthy Homes programme provider will not be told if you choose to participate in the research or not.

How will my privacy be protected?

Reports and presentations about this study will not use any information that could identify you. Instead of using your real name, we will create a different name for you or we will use a code based on things about you that are related to the study.

Only *Allen + Clarke* staff will have access to the records and audio files.

You can request a summary of all the information we collect from you and about you. There is a section at the end of this form for you to complete if you wish to receive this information. Research records will be kept secure at *Allen + Clarke* for five years, and then they will be destroyed.

In any reports or public presentations, we will not include information that would make it possible for someone to identify you.

We are ethically obliged to advise our client (the Ministry of Health) if we discover evidence of potential criminal activity or other serious wrong-doing, such as allegations of fraud or someone's safety being at significant risk.

Are there any risks and benefits of taking part?

This study has no known risks.

There is no risk of personal injury through the activities planned for this research.

The evaluation will benefit future clients of the Healthy Homes programmes by helping to inform and improve the delivery of the healthy homes service.

Who can answer my questions about the project?

If you agree to take part in the research, you will be talking with Helen Potter and Nicole Waru. You can ask them any questions you have about the research. You can also contact the Project Manager, Marnie Carter, on (04) 550 5773 or 021 442 641, or Bronwyn Petrie on (09) 580 9035. She works for the Ministry of Health. Any of these people will be happy to answer questions about the project. You will be given a copy of this form to keep.

Standards

Allen + Clarke is a corporate member of the Aotearoa New Zealand Evaluation Association (ANZEA); and our Evaluation + Research Practice staff all belong to the Australasian Evaluation Society (AES). Through these organisations *Allen + Clarke* is expected to follow high standards. If you would like more information about these standards, the booklet *Guidelines for the Ethical Conduct of Evaluations* is available at www.aes.asn.au.

Allen + Clarke requested the New Zealand Ethics Committee to review the planned family/whānau/aiga perspectives aspect of the evaluation (application reference NZEC Application 2017_11). The Committee (www.nzethics.com) has agreed that the planned work meets the appropriate ethical standards for social research.

Statement of consent: I agree to take part in the research

I have read the above information and I understand that:
a) I may choose not to take part in this research project if I do not wish to.
b) I may decline to answer any particular questions in the discussion with researchers if I want to.
c) I will not be identified in any reports or presentations that arise from this research.
d) My details and any information collected from me will be stored in secure facilities.
e) I may withdraw from the research up until four weeks after my interview with no disadvantage to myself and, if I withdraw, my participation in Healthy Homes will not be affected in any way.

Questions I had about the research have been answered. I consent to take part in the research.

☐ I agree to the audio recording of the interview.

Signature _____ Date _____
Printed name _____
Witness Signature _____ Date _____
Printed name _____

Request for copy of information

To receive a copy of the transcript from your interview, please provide either a postal or email address.

Postal address _____
_____
_____
Email address _____

APPENDIX 4: KEY INFORMANTS LIST

The table below lists the 150 people interviewed, by region and organisation, for the evaluation of the Healthy Homes Initiative.[15,16]

Table 14: Key Informants (de-identified) by region and organisation

Region	Organisation	People interviewed
Northland	*Site Visit One:*	
	DHB	3
	Hospital-based health practitioners	3
	HHI Service Provider personnel	3
	Auxiliary Services	3
	Site Visit Two:	
	Assessors	3
	Property Manager	1
	Family/Whānau/Aiga	3
Auckland-Waitematā	*Site Visit One:*	
	DHB-based HHI service: Kainga Ora	3
	Hospital-based specialists	2
	HealthWest (front-line service provider)	2
	Auckland Council Co-design personnel[17]	2
	Ministry of Social Development[18]	1
	Site Visit Two:	
	Assessors	2
	Family/Whānau/Aiga	3
Counties-Manukau	*Site Visit One:*	
	DHB	2
	AWHI/NHC	2
	Front-line service providers:	
	• South Seas Healthcare,	2
	• Tongan Health Society,	2
	• Turuki Healthcare	4
	Site Visit Two:	
	• Otara Health	1
	Assessors	3
	Family/Whānau/Aiga	3

[15] Landlord/Property Manager interviews were not sought in the wider Auckland region because a parallel activity that sought to engage with same informants was occurring through the Co-design initiative.
[16] The evaluation team was advised by MSD to engage with regional managers in each of the regions, rather than at the national office level
[17] The Co-design initiative works with both the Auckland-Waitematā, and the Counties-Manukau regions.
[18] Provides services to both the Auckland-Waitematā and the Counties Manukau regions.

Region	Organisation	People interviewed
Waikato	*Site Visit 1:*	
	DHB Portfolio Manager	1
	Whare Ora (front-line service provider)	1
	Ministry of Social Development	1
	Referring clinicians	2
	Habitat for Humanity (auxiliary services provider)	1
	Site Visit 2:	
	DHB	1
	Assessors	2
	Family/Whānau/Aiga	4
Bay of Plenty	*Site Visit 1:*	
	DHB	1
	Front-line service providers:	
	• Sustainability Options	2
	• Tawanui Community Housing Trust	1
	Referring clinicians	4
	Ministry of Social Development	1
	Site Visit 2:	
	Assessors	2
	Landlord	1
	Family/Whānau/Aiga	4
Lakes	*Site Visit 1:*	
	DHB	2
	Front-line service providers:	
	• Tūwharetoa Health Charitable Trust	2
	• Western Heights Health Centre	3
	Site Visit 2:	
	Assessors	1
	Landlord	1
	Family/Whānau/Aiga	2
Tairāwhiti	*Site Visit 1:*	
	DHB	4
	Front-line service providers:	
	• Tūranga Health	3
	• Ngati Porou Hauora	1
	Referring clinician	1
	Auxiliary Service	1
	Community researchers	4
	Ministry of Social Development	2
	Site Visit 2:	
	Assessors	1

Region	Organisation	People interviewed
	Family/Whānau/Aiga	1
Hawke's Bay	*Site Visit 1:* DHB Child Healthy Housing Programme Referring agency Housing New Zealand Ministry of Social Development *Site Visit 2:* Assessors Landlord Family/Whānau/Aiga	 3 1 1 1 1 3 1 2
Wellington	*Site Visit 1:* DHB Wellington Regional Public Health Front-line service providers: • Tu Kotahi Māori Asthma Trust • Sustainability Trust *Site Visit 2:* Landlord Assessors Family/Whānau/Aiga	 2 1 3 2 1 3 3
National	Ministry of Health Housing New Zealand MBIE	4 2 1

APPENDIX 5: CODING FRAME

Figure 7: High-level view of the coding frame developed in NVivo Pro for thematic analysis