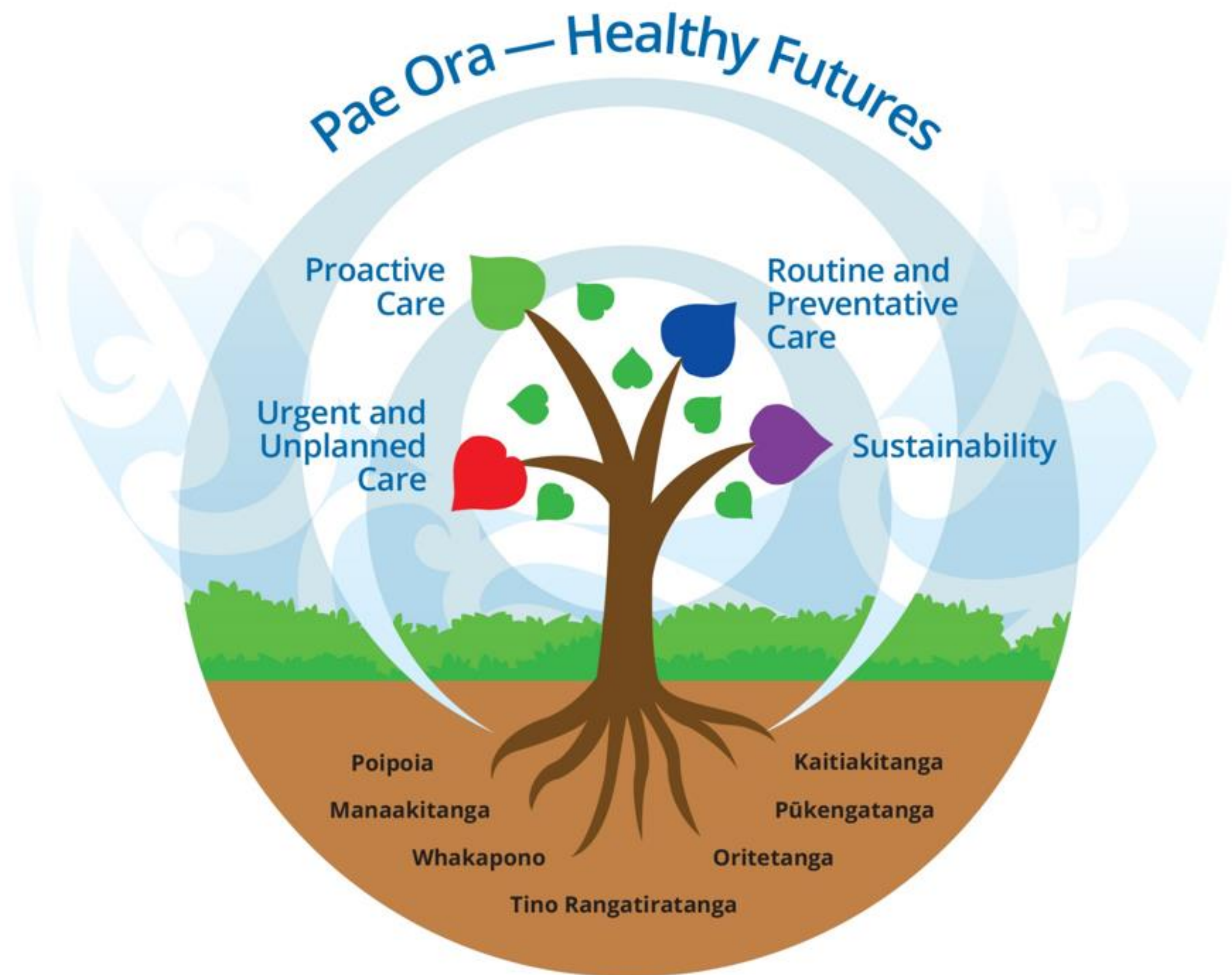
Neighbourhood Healthcare Homes Evaluation Report Third Year: Achievements & Reflections August 2020



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NORTHLAND DISTRICT HEALTH BOARD
Te Poari Hauora A Rohe O Te Tai Tokerau

Mahitahi Hauora

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This evaluation report would have not been possible without collaboration from many people including:

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Lastly, to the most important partners of NHH - whānau/patients of Te Tai Tokerau. You are the core reason why we do this mahi. Thank you for sharing your insights and experiences of primary care in Northland. We know we have long road to go with these changes and that just talking about reducing inequities is not enough and we now need to be put our words into actions. Let's support healthcare providers to learn the 'how' to improve equity and may NHH be strengthened further to allow this model of care to be truly whānau/patient led.

He aha te mea nui o te ao?

He tangata! He tangata! He tangata!

Section 1.0: Executive Summary

1.1 Project purpose

This evaluation explored the Neighbourhood Healthcare Home (NHH) model of care, (Northland adaption of Health Care Homes), to determine progress achieved during the first three years of the programme and identify enablers and barriers of implementing NHH. Based on findings from this evaluation, recommendations will be made about the future look of the NHH model of care along with a review of funding streams.

1.2 Evaluation approach

The evaluation itself consisted of the following components:

- A meta-analysis of previous evaluations
- Quantitative data analysis for all NHH practices Tranches 1-3
- Quantitative data analysis of secondary care activity
- Whānau/patient experience online survey
- General practice experience online survey
- Financial analysis and funding models

1.3 Key findings and discussion

The Health Care Home (HCH) model was developed in response to the resource and demand challenges in New Zealand primary care. An increasing shortage of GPs, ageing population and workforce alongside increasing hospital demand were the main drivers to implementing this transformational change. The HCH model has grown since its initial conception in 2010 and now, in 2020 this new way of operating for general practices is quickly being recognised nationally as a suitable alternative to the traditional general practice model of care.

NHH, the local adaption of HCH model, has demonstrated achievements which are not necessarily seen in non-NHH practices. These include comprehensive Clinical Phone Triage systems and processes, increased patient portal uptake and improved business efficiencies. NHH improvements such as visual boards and daily huddles were reported to lead to greater achievement of health targets and team communication. Of importance is that the work required to implement the NHH model is complex, required significant change management and time commitment.

After three years, there have been various gains achieved across the model. The change is incremental and does take time to demonstrate effect. Urgent unplanned care or acute demand needs to be managed firstly before clinicians have the released capacity to commence work on Proactive Care.

This evaluation provides insight to progress achieved with fundamental components of the NHH model, namely Clinical Phone Triage, Shared Care Plans, Patient Portal, Call Management and Extended Hours. Some components are considered to work better than others such as Clinical Phone Triage, LEAN methodology, Virtual Consults and Patient Portal. For example, Clinical Phone Triage provided over the last three years has been provided to 186,360 whānau/patients. This has saved both whānau/patients and general practices approximately 46,590 hours or 1,164 working weeks. In addition, the approximate distance travelled saved for whānau/patients was over 315,000 kms.

While great results have been achieved with phone triage, and this was strongly demonstrated during the COVID-19 response, certain components prove difficult for both general practice and whānau/patients to adapt. Kia Ora Vision and Whānau Tahi Shared Care Planning was rated as one of the more difficult components to implement.

Reducing inequities being the main aim of NHH is predominantly at the forefront of DHB and PHE stakeholders, however, is an area that requires significant review on how general practices actually apply an equity lens in a practical sense. This was an area also identified in a previous NHH process evaluation during 2018.

Limitations of the NHH model are stated throughout this report when discussing key measures, and recommendations are put forward around how some of these issues can be addressed.

Furthermore, funding for NHH practices is currently only provided for a three-year period. Tranche 1 practices are now nearing the end of this contract period, and consideration is required around ongoing funding for Years 4 & 5 to ensure the NHH model is further embedded and sustained. Financial analysis has been completed independently by Sapere to inform this decision.

1.4 Summary of recommendations

The following recommendations have been identified from the findings in this evaluation:

1. **Review of NHH Model of Care**

   Engagement with NHH practices has found that the current NHH model of care (15 components of care) is not easy to understand and segregates the model. It is therefore recommended that the NHH MoC is reviewed, better aligning with the HCH MoC Enhancement and incorporate feedback from key stakeholders both whānau and general practice. Solutions and recommendations noted through this report in the key contract measure sections should be incorporated into the NHH model of care review process.

2. **Review of NHH Contract Measures**

   The current NHH contract measures should be reviewed and realigned with the HCH MoC Enhancement project. Contract measures should be more focused on improved whānau/patient outcomes with a deliberate equity lens for whānau Māori, versus inputs/outputs at a general practice level.

3. **NHH for all General Practices & Māori Health Providers**

   The Health and Disability System Review highlights that in the formation of localities (as in the reviews definition), there should be guaranteed services available to all patients. To eradicate this structural inequity, all general practices and Māori Health Providers should be supported to operate under the NHH model, irrespective of size or capacity to engage in a competitive or evaluated process. This would mean the introduction of additional resources to support innovation and change management provided by the funding providers such as the DHB or PHO.

4. **Equity – Practical Application & Funding Alignment**

   The Health and Disability System Review highlights that the immediate priority for coverage of Tier One services should be applied to areas with the highest need. In the context of NHH, the development of kaupapa Māori models will need to be cognisant of the very different models that exist between traditional general practice and Māori Health Providers. Significant consideration and engagement with Māori Health Providers and Iwi should explore the ability for the medical GP workforce to be accessed as specialist generalists that are available to Māori Health Providers to provide clinical oversight and access to Māori in need of healthcare, rather than the current access offered by traditional general practice.

5. **Ongoing funding for Years 4 & 5**

   It is recommended that ongoing funding is provided for practices entering Year 4 & 5 of NHH to ensure the NHH model of care is sustained in current NHH practices however at a reduced capitation rate and with greater emphasis on Proactive Care Planning with a deliberate equity lens.

1.5 Conclusion

The implementation of the NHH model is ambitious and based on a driving need to alter the way general practice is provided. There has been a substantial investment over three years to achieve the changes shown by the NHH model. Perspectives from both whānau/patients and general practice is that there have been some positive changes that have occurred through implementation of NHH. A greater focus is required to embed equity more practically throughout the model, and to also enable fundamentals of NHH to be made available to all general practices and Māori Health Providers.

Section 2.0: Background

2.1 Health Care Home (New Zealand)

The Health Care Home (HCH) model is based on a model developed by Group Health, a co-operative of 450 doctors who provide care to over 580,000 residents of Washington State and Northern Idaho[1]. During 2010, the Pinnacle Midland Health Network (PMHN) visited Seattle to explore the Medical Home model which was being implemented by Group Health. The model, which is patient centred, significantly changed the way in which general practice was provided. It is based around traditional core values of family medicine, while providing comprehensive and coordinated care. `

The need to transform the current system was in response to resource and demand challenges which were similar to those in New Zealand [2]. These challenges comprised of:

- An increasing shortage of GPs
- An ageing population
- An ageing workforce
- Increasing hospital demand

The New Zealand HCH model was developed by the Pinnacle Group in 2010 by incorporating elements from the Medical Home model, other global evidence of what works and composing a model suitable for the New Zealand health care system. The Pinnacle HCH model of care began in three practices in 2010 and was originally called the Integrated Family Health Centre (IFHC) model. Since then, the roll out has continued and was initially led by the "Network 4" (N4) PHOs – ProCare, Compass Health, Pegasus and PMHN.

The HCH model of care is a whānau/patient centric approach which facilitates primary care to deliver a better whānau/patient and staff experience, improved quality of care, and greater efficiency[3]. With incorporated LEAN methodologies, the model seeks to improve access to primary care services in order to reduce use of hospital services.

The model of care is grouped into four core domains (figure 1):

- Ready access to **urgent and unplanned care** (When I'm unwell)
- **Proactive care** for those with more complex need (To help me stay well)
- Better **routine and preventative care** (To keep me healthy)
- Improved **business efficiency** & sustainability (When I visit the practice)

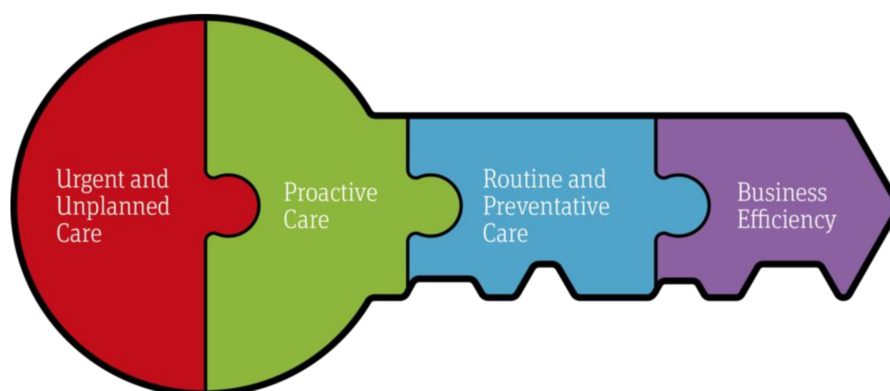

Figure 1. HCH model of care four domains

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[1] Ernst & Young (2017). Evaluation of the New Zealand Health Care Home, 2010-2016. Auckland, New Zealand.

[2] Hefford, M. (2017). "From good to great: the potential for the Health Care Home model to improve primary health quality in New Zealand." Journal of Primary Health Care **9**: 230-233.

[3] Health Care Home Collaborative (2020). "*Health Care Home Collaborative - About us.*" Retrieved July 8, 2020, from https://www.healthcarehome.org.nz/health-care-delivery-system-nz.

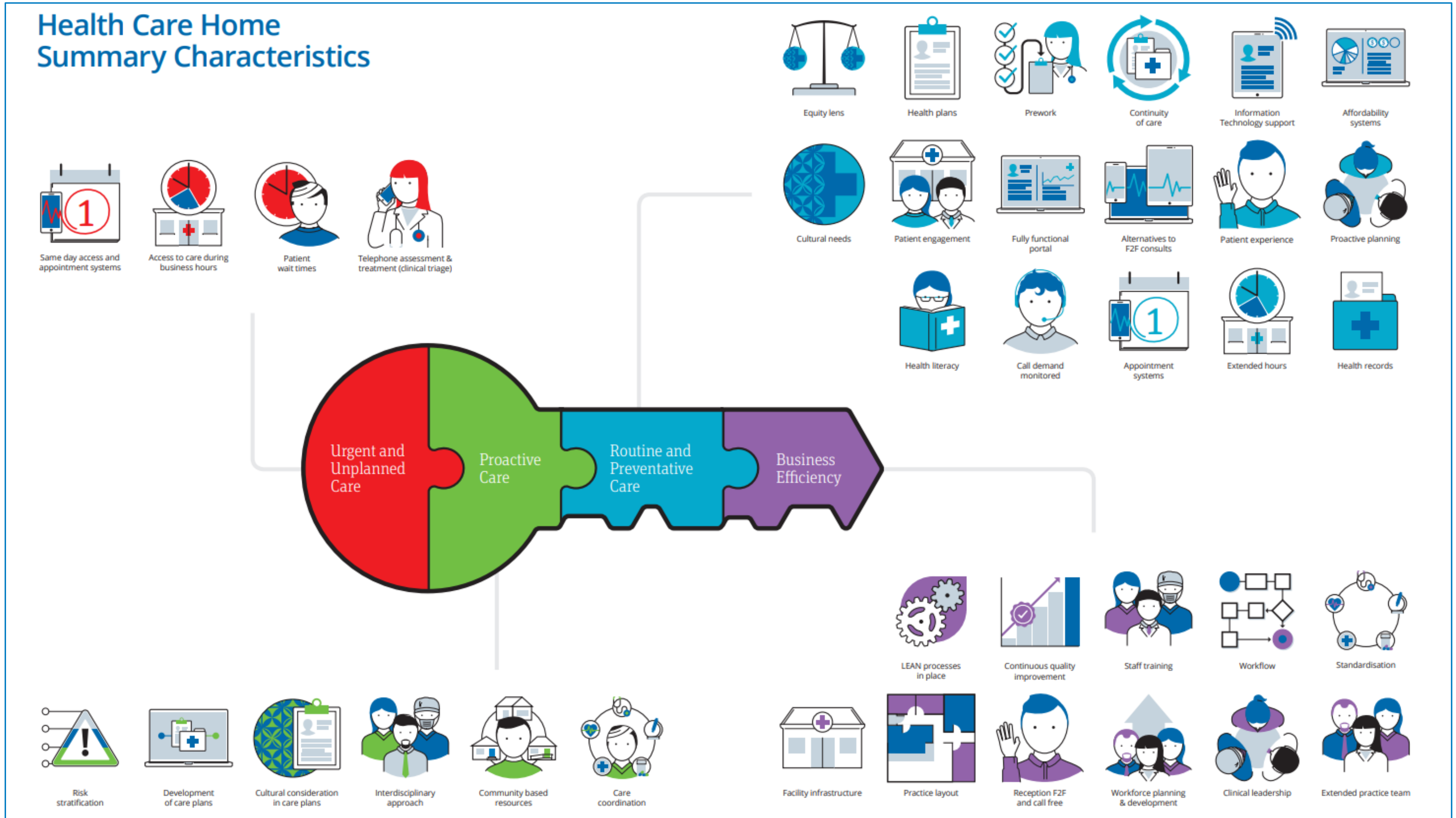
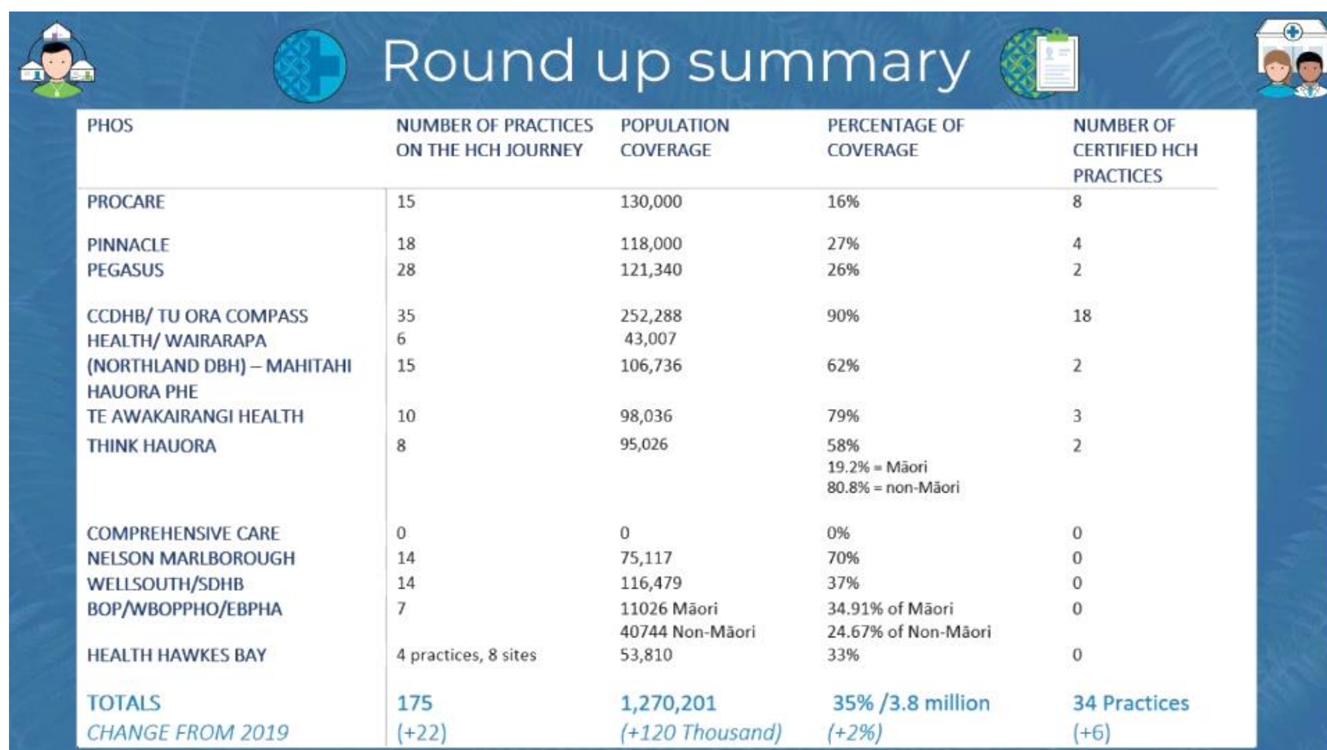


Figure 2. HCH Model of care characteristics

The HCH National Collaborative was formed in 2016 and supports over 170 practices in New Zealand across 17 PHOs and 1.2 million enrolled patients. The HCH Collaborative provides support and ongoing development of the model of care ensuring consistency in its adoption.



Round up summary

PHOS	NUMBER OF PRACTICES ON THE HCH JOURNEY	POPULATION COVERAGE	PERCENTAGE OF COVERAGE	NUMBER OF CERTIFIED HCH PRACTICES
PROCARE	15	130,000	16%	8
PINNACLE	18	118,000	27%	4
PEGASUS	28	121,340	26%	2
CCDHB/ TU ORA COMPASS HEALTH/ WAIRARAPA	35 6	252,288 43,007	90%	18
(NORTHLAND DBH) – MAHITAHI HAUORA PHE	15	106,736	62%	2
TE AWAKAIRANGI HEALTH	10	98,036	79%	3
THINK HAUORA	8	95,026	58% 19.2% = Māori 80.8% = non-Māori	2
COMPREHENSIVE CARE	0	0	0%	0
NELSON MARLBOROUGH	14	75,117	70%	0
WELLSOUTH/SDHB	14	116,479	37%	0
BOP/WBOPPHO/EBPHA	7	11026 Māori 40744 Non-Māori	34.91% of Māori 24.67% of Non-Māori	0
HEALTH HAWKES BAY	4 practices, 8 sites	53,810	33%	0
TOTALS	175	1,270,201	35% /3.8 million	34 Practices
CHANGE FROM 2019	(+22)	*(+120 Thousand)*	*(+2%)*	(+6)

Figure 3. HCH National Collaborative general practice demographics

The Collaborative provides the following benefits to its members:

- **Support network of others on the same journey** – bi-monthly HCH lead meetings to share learning and support model development
- **Health Care Home Open Days** – an overview of the Health Care Home Model of Care, its implementation and outcomes plus visits to an HCH practice
- **Health Care Home Bootcamp** – an in-depth two day walk through of all aspects of supporting practices to make the change
- **Health Care Home Mentor** – an experienced Health Care Home Lead to provide advice in getting started on your Health Care Home journey
- **Access to Health Care Home Resources** – getting started on the Health Care Home journey is made easier through access to tools and templates via an online secure website
- **Health Care Home credentialing and certification** – a means of formally benchmarking a practice's progress (Health Care Home Collaborative 2020).

The HCH Collaborative is continually striving to improve outcomes for primary care through enhancements of the model of care and additional resources (figure 4). Several resources are available online via the members portal and the third iteration of the HCH Model of Care is currently in progress (refer to section 2.3).

What has been developed to date?

We are continuously striving to improve outcomes for primary care through collaborative development of the Model of Care and additional resources. A few highlights of what has been developed and what we are currently working on are shared below.

WHATS BEEN DEVELOPED

- Two iterations of the HCH Model of Care
- Resources including:
  - Clinical triage, Portal, Telehealth
- Consumer pamphlet
- Patient stories
- Website development
- HCH MoC video
- Patient journey
- HCH Symposium presentations

WHAT WE ARE WORKING ON

- Third iteration of the HCH MoC which focuses on equity, consumer input and Te Tiriti o Waitangi
- Resources to support the roll out of the enhanced HCH MoC - included strengths based glossary and practical telehealth tools
- Performance benchmarking metrics to drive continuous improvement

HEALTH CARE HOME COLLABORATIVE

Figure 4. HCH resources

HCH Model of Care during COVID-19

During the COVID-19 response, it was demonstrated that HCH practices readily made the transition during COVID-19 because of the systems, skills and flexibility already embedded as part of their HCH implementation [4].

The HCH Collaborative were able to share online resources with all primary care providers during the COVID-19 response which included:

- Clinical Phone Triage toolkit (developed by Northland);
- Video Consultations toolkit;
- Patient Portal guide;
- Uploading of the Phone Triage Advanced Form to all providers patient management systems.

[4] Health Care Home Collaborative (2020). Health Care Home Collaborative Council - Te Tumu Waiora Collaborative 30 July 2020. Wellington, New Zealand.

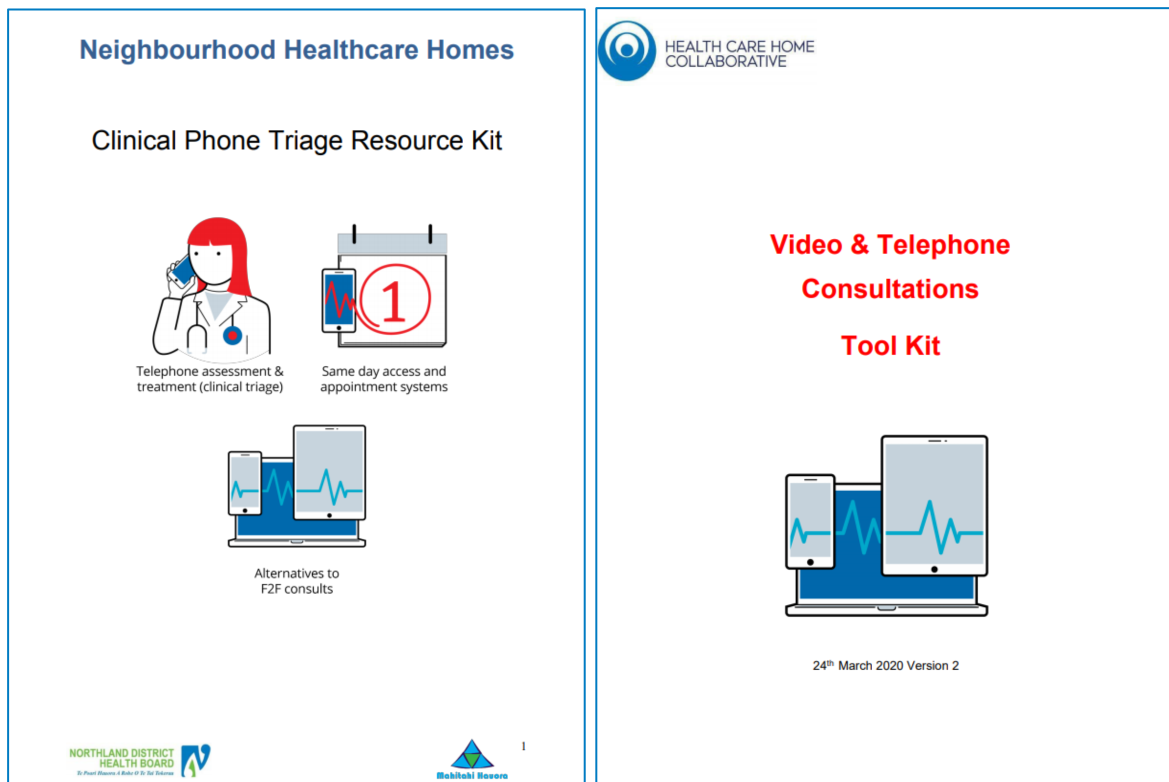


Figure 5. HCH COVID-19 toolkits

A number of regular webinars were also provided for all Primary Care providers which covered the following topics:

- Clinical Triage and Telehealth Resources (featuring Dr Andrew Miller)
- Supporting General Practice Business Sustainability
- What's Next for Community Based Assessment Centres
- Why Health Care Home? (featuring Dr Nick Chamberlain and Dr Andrew Miller)
- Change Management in General Practice
- Consumer Research in General Practice

The profile of HCH was greatly promoted during the COVID-19 response and demonstrated how advanced HCH practices were in comparison to the traditional operating general practice.

2.2 Neighbourhood Healthcare Homes (Northland)

Neighbourhood Healthcare Homes (NHH) is a local revision of the HCH model of care. Northland adopted the model during 2016 and is an inaugural member of the HCH National Collaborative [5],[6]. The Northland revised model of care is part of a range of initiatives in Northland which aim to address health service challenges. The central aim of NHH is articulated as follows:

> *'That Northland primary care becomes an exemplar of a patient-centred, equity-based, connected model of care that improves population health outcomes and attracts a passionate primary care workforce [6]'*

NHH was developed as a major strategic change project of the Northland Health Services Plan (NHSP), a five-year strategic plan for the Northland health sector, with a 20-year horizon. The NHSP called for new models of integrated primary healthcare in order to meet the triple aim goals of:

- Improving the health of Northlanders and reducing health inequities
- Patients and whānau experiencing clinically and culturally safe, good quality, effective efficient and timely care
- The Northland Health system living within available funding by improving productivity and prioritising resources to their most effective uses.

Northland District Health Board (NDHB) initially managed the NHH Programme rolling out six practices in Tranche 1 during 2017 and four practices in Tranche 2. The programme was then transitioned to Manaia and Te Tai Tokerau PHOs, now Mahitahi Hauora PHE, during mid-2018. A further five practices were implemented in Tranche 3 during 2019/20.

Tranche 1	Enrolled Population	Māori/Pacific	Quintile 5	High Needs
The Doctors Kerikeri	8063	16%	11%	27%
Bush Road Medical	10854	20%	14%	34%
The Doctors Kamo	3075	14%	16%	30%
The Doctors Tikipunga	7892	37%	17%	54%
West End Medical	3966	23%	19%	42%
Te Hiku Hauora *(Māori Provider)*	13249	53%	21%	74%
Tranche 2				
Dargaville Medical Centre	12026	34%	21%	55%
Te Whareora o Tikipunga	3782	66%	11%	77%
Raumanga Medical Centre	8705	50%	16%	67%
Broadway Medical Centre	15307	64%	12%	76%
Tranche 3				
Bream Bay Medical Centre	6925	21%	11%	32%
Paihia Medical	1915	40%	5%	45%
Bayview Medical	2796	26%	7%	33%
Kensington Health	3971	19%	20%	39%
Rust Ave Medical	4210	40%	18%	58%
Total enrolled NHH population	**106736**	**38%**	**16%**	**54%**

Table 1. Summary of NHH Tranches and enrolled population [7]

[5] Northland District Health Board (2016). Neighbourhood Healthcare Homes - Programme Business Case. Whangārei, New Zealand.

[6] Tenbensel, T., et al. (2018). Process Evaluation of Northland Neighbourhood Healthcare Homes - the First Year of Implementation. Auckland, New Zealand, University of Auckland.

[7] Mahitahi Hauora PHE (2020). Karo Practice Register Report - May 2020. Whangārei, New Zealand.

The NHH model of care is based around the HCH four core domains and 15 components of care (figure 6):

1. Equity Management
2. Call Management
3. Clinical Phone Triage
4. New Model of Nursing Care
5. Kia Ora Vision & Whānau Tahi
6. Extended Hours
7. Patient & Whānau Directed Appointments
8. Clinical & Administrative Pre-Work
9. Expanded use of Roles & New Roles
10. LEAN/Continuous Improvement
11. Virtual Consults
12. Patient Portal
13. Consumer & Community Engagement
14. Health & Social Care Integration
15. Quality & Safety

Figure 6. NHH 15 components of care

The NHH programme comprises of two core phases – Establishment Phase and Capitation Phase.

Establishment Phase

The establishment phase is carried out over a 3-4 month period. The NHH practice is required to complete a series of milestones over this period which include:

- Initiation Meeting
- Scoping the Gap Analysis
- Financial Modelling
- Planning Workshop
- Visioning (build awareness and desire)

- Nursing Workforce Workshop (if required)
- LEAN Training
- GO-LOVE Preparation
- Change Plan Approval

The Mahitahi Hauora NHH Team work closely with the Practice Change Team, which is normally comprised of a GP Lead, Practice Manager, Nurse Lead & Admin Lead, to drive the foundational changes required during this phase. The Practice Change Team meet with all staff and communicate about the proposed NHH model of care and provide a high-level view of NHH through creating awareness and desire on the 'why' for change. ADKAR is a Prosci methodology which is used to facilitate these discussions (figure 7) [8].

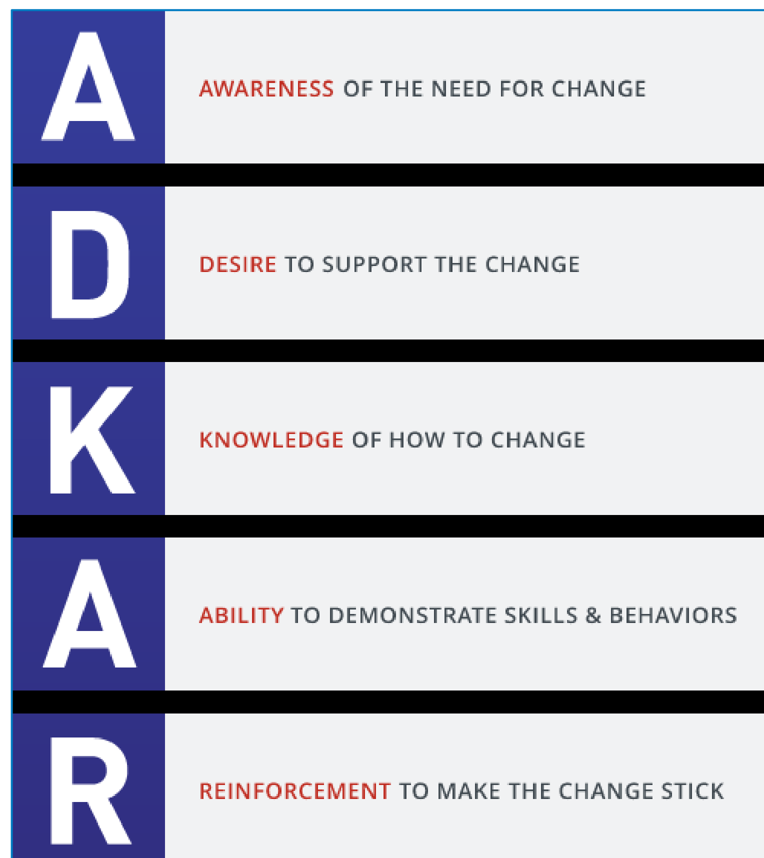


Figure 7. Prosci change management model ADKAR

The Scoping the Gap Analysis allows the NHH Team to spend time with practice staff observing them in their roles. This helps to develop a practice profile, identity current processes and areas for improvement. Simultaneously, financial modelling is completed by an independent financial analyst to ensure that that the proposed NHH model of care is financially feasible for the practice. Dependent on the financial modelling outcome, the practice has an opportunity to progress with Establishment Phase or withdraw.

Following Scoping the Gap, a Planning Workshop and Visioning Meeting is held with all practice staff to discuss current state and a brief overview of changes that will be observed in the practice over the coming months. These include LEAN methodology application (5S exercise, visual boards and daily huddles), moving of phones off front desks and Clinical Phone Triage. Depending on the size of the practice, a separate Nurse Workforce Workshop is held with all nurses to look at the nurse specific needs and areas for improvement.

After completion of the LEAN activities, a communication strategy is developed for the community to explain the proposed changes at the practice, mainly around Clinical Phone Triage. A 'GO-LIVE'

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[8] Prosci (2020). "What is the ADKAR Model?". from https://www.prosci.com/adkar/adkar-model.

date is set and NHH Change Plan is developed detailing actions around how each component of care will be achieved over the next 3 years. The Change Plan is reviewed annually and amended to meet the needs of the enrolled population and practice.

Capitation Phase

Once the Establishment Phase is completed, the NHH practice enters the Capitation Phase which lasts for a 3-year period. The first 12 months focuses on continuous improvement of newly implemented processes such as Clinical Phone Triage, LEAN and booked appointment analysis. Additionally, implementation of other NHH components of care begin for:

- Clinical & Administrative Pre-work
- Consumer Engagement (whānau focus groups and HCH Experience Survey)
- Call Management
- Virtual Consults
- Proactive Planned Care (Kia Ora Vision/Whānau Tahi Shared Care Plans/Risk Stratification)
- Patient Portal
- Extended Hours analysis
- Multi-disciplinary team (MDT) meetings
- Workforce Review (expanded and new roles)

An equity lens is promoted across all components of NHH along with a quality and safety approach. Year 2 & Year 3 continue to focus on all components of the model with a strong emphasis on continuous improvement and structured problem-solving. Towards Year 3, fundamentals of NHH should be well established with capacity created and an ability to proactively manage planned care for patients.

The NHH version of HCH has many similarities to the model implemented by the “N4” PHOs, however holds two key points that should be highlighted [9].

1. In other NZ locations the HCH initiative was led and funded by PHOs, with variable steps of support from local DHBs. In Northland, NHH is jointly sponsored and funded by the DHB and PHE.

2. The second key point of difference is that NHH in Northland is clear with its aim to address inequities of access to health services and resultingly health outcomes. This is demonstrated in the overall statement of aims, and in the first named of the 15 components of care.

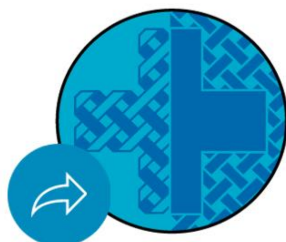
2.3 HCH Model of Care Review

The HCH Collaborative has been working to enhance the HCH Model of Care (MoC) to ensure that it achieves equity for all, Māori engagement and strong consumer representation. The focus is also aligned with the outcomes of Wai 2575 and honouring the articles of Te Tiriti o Waitangi.

The Collaborative is aware that the model needs ongoing refinement and should be a model that embraces a cycle of continuous improvement as it grows, develops and matures ensuring it is fit for purpose. Furthermore, the model needs to constantly challenge its contribution to improvement in equity of access and outcomes for Māori. If the model delivers for Māori, it will deliver for most of our priority communities and, ultimately, for all New Zealanders. These principles, including incorporation of the recommendations of Wai 2575, form the basis of the enhancements in version three of the MoC requirements. The draft HCH MoC will be due for release in during July 2020 for consultation.
The revised MoC requirements developed from a project that began March 2019. This has included sector engagement, consumer focus groups and more recently a reconsideration of core parts of the model due to COVID-19 as well as the potential impact of the Health and Disability Review.

[9] Tenbensel, T., et al. (2018). Process Evaluation of Northland Neighbourhood Healthcare Homes - the First Year of Implementation. Auckland, New Zealand, University of Auckland.

Lets focus on equity



The vision of the Health Care Home model should be explicit and align with an outcome that supports Māori individual and whānau wellbeing.

In the implementation of the Health Care Home Model in practices, prioritise the introduction of elements that have most chance of achieving equity for Māori.

Wai 2575 considerations

Structural Reform – An Independent Māori Health Authority

Agree process to assess underfunding

Figure 8. HCH MoC focus on equity

The MoC through this revision process will ensure that:

- There is focus on equity for Māori and other priority populations as well as honouring Te Tiriti o Waitangi
- Consumer input is more explicit, and the Collaborative has a clear framework in place
- The urgent care domain 'When I am unwell' reflects experience of care and improving access for acute care through a variety of modalities, utilising technology, without compromising continuity of care
- Proactive care domain 'To help me stay well' reflects population health and the care for complex and high priority whānau/patients, with a focus on equity and a culturally appropriate approach while encouraging patient autonomy
- Routine and preventative care domain 'To keep me healthy' reflects all aspects of daily care in relation to the practice population and understanding of their needs and experience
- Business efficiency – Sustainability 'When I visit the practice' reflects improvements in provider and patient experience using change management techniques to be used in practice

The timeline in figure 9, highlights the HCH Collaborative journey since the start of this project. There have been valuable shared learnings across networks as well building a stronger understanding of equity and what it means to honour Te Tiriti o Waitangi.

Figure 9. HCH Collaborative MoC Enhancement journey

Comprehensive engagement with consumers, PHO teams and clinicians both locally and nationally has been directed by an expert steering group led by Dr Bryan Betty (GP & RNZCGP Medical Director) and Lance Norman (ProCare Head of Equity and Māori Health Outcomes). It was made clear by this leadership group that whakawhanaungatanga is vital to achieving equity strong and connected relationships will lead to more positive outcomes for our whānau.Additional support has also been gained from general practitioners', Dr Dougal Thorburn and Dr Kirsty Lennon who hold significant experience in implementing the HCH MoC. Whaea Merle Samuels has provided invaluable consumer representation. Our Māori designer, Piri Hira has listened to the whakaaro for this mahi and brought her own inspiration to bring to life the importance of wellbeing.

Delivering improved access and outcomes means ensuring that all communities can connect with the model and feel a sense of ownership of the services they engage with. To identify local issues, needs and opportunities, PHO members gathered the views of consumers, iwi and other relevant groups and completed a review of local population demographics, relationships, representation and governance and decision-making processes in relation to Māori, Pasifika and people from other cultural backgrounds.

Consumer/Whānau voice

Consumer/whānau focus groups have been and the key themes were equity, Te Tiriti o Waitangi, Wai2575, whakawhanaungatanga and cultural competency. This level of engagement allowed greater connection and understanding, especially in addressing equity and the desire to create a clear vision and values for the HCH MoC.

Equity lens

The MoC must support and enhance Māori individual and whānau wellbeing. Wai 2575 makes it clear that equity of outcomes needs to be prioritised (Oritetanga) and these outcomes need to be determined by Māori (Kawanatanga and Tino Rangatiratanga) and based on a clear vision of Māori health. This can be as fundamental as ensuring that practice information resonates with people in terms of language and visual presentation or enhancing the cultural skills and competencies of staff, including understanding the unconscious bias inherent in many services.

The Health and Disability System Review has highlighted the particular significance of community of 'Tier One' services for Māori. Tier One services are those that act as the first entry point into the health and disability system. Tier One services must be oriented to emphasise prevention, address the multiple determinants of health and focus on health equity. The review has identified that healthcare home models are improving service delivery in some places when compared to traditional general practice models, but at a system level they do little to change the paradigm[10].

A key output of the project is the confirmation of alignment to Pae Ora (figure 10) as a vision and a new set of values (figure 11) grounded in equity. This was developed as part of the Working Group led by Dr Dougal Thorburn – this mahi was tested at our network hui in February 2020 with clear recommendations that have been endorsed by the Health Care Home Collaborative Governance Group.

[10] Health and Disability System Review, March 2020. Tier One Services.

Figure 10. HCH Vision - Pae Ora

Pae Ora is a holistic concept and includes three interconnected elements:

• Mauri ora – healthy individuals

• Whānau ora – healthy families

• Wai ora – healthy environments

Pae ora encourages everyone in the health and disability sector to work collaboratively, to think beyond narrow definitions of health, and to provide high-quality and effective services. All three elements are interconnected and mutually reinforcing, and further strengthen the strategic direction for Māori health for the future. A set of values have also been proposed and these are shown below in figure 11.

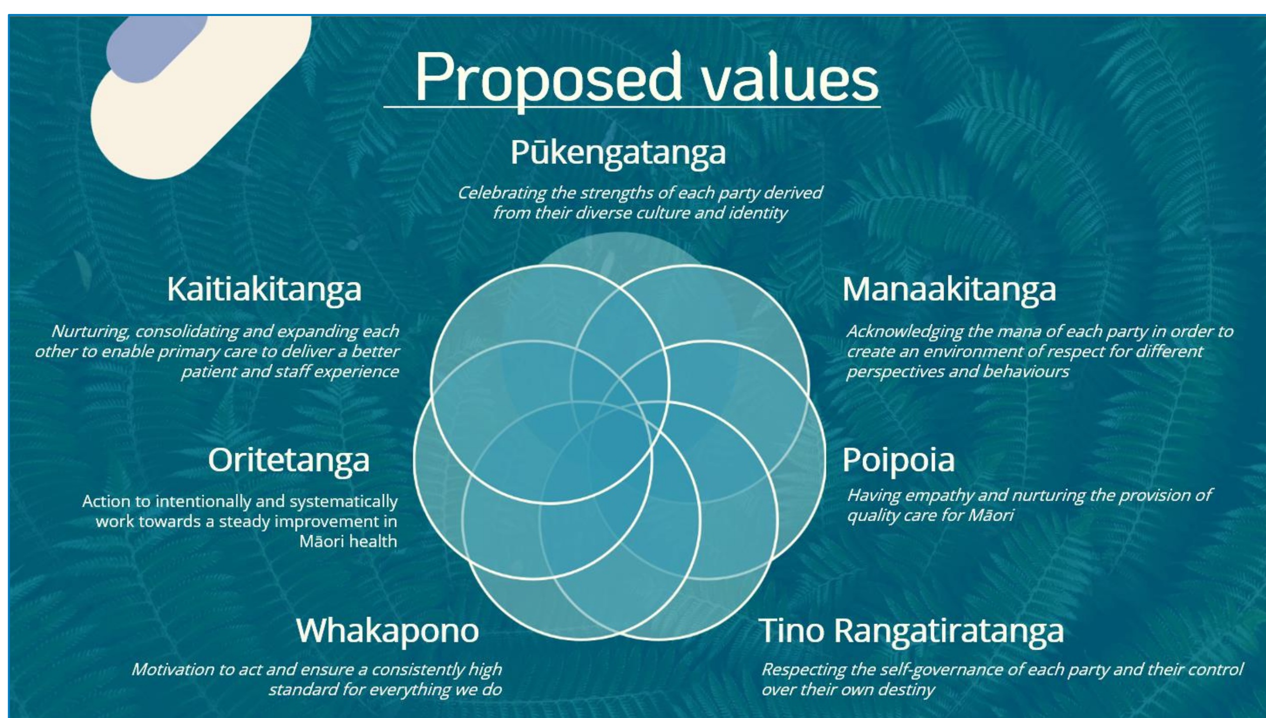


Figure 11. Proposed HCH Values

Background on design of new HCH logo

Piri-Hira Tukapua - Designer

"We know the native plants in Aotearoa have many healing properties and attributes. I chose to focus on the Kawakawa for this tohu because of its wide-ranging benefits and heart shaped leaf."

- There are four branches that make up this small Kawakawa tree which depict the 4 domains of the Health Care Home model.
- The four colours represent diversity of people and also link to the 4-domain icon sets.
- The seven roots of the tree represent the seven core values that are foundational and vital to the success of the Health Care Home model.
- The HCH logo glows in the background as an arch of community wide support and to reinforce the Health Care Home brand.
- The Māori design that descends from above is symbolic of Karakia which is essential in the practice of Rongoa and healing.
- Karakia connects the spiritual and physical realms together for effectiveness and completes the Kawakawa concept.

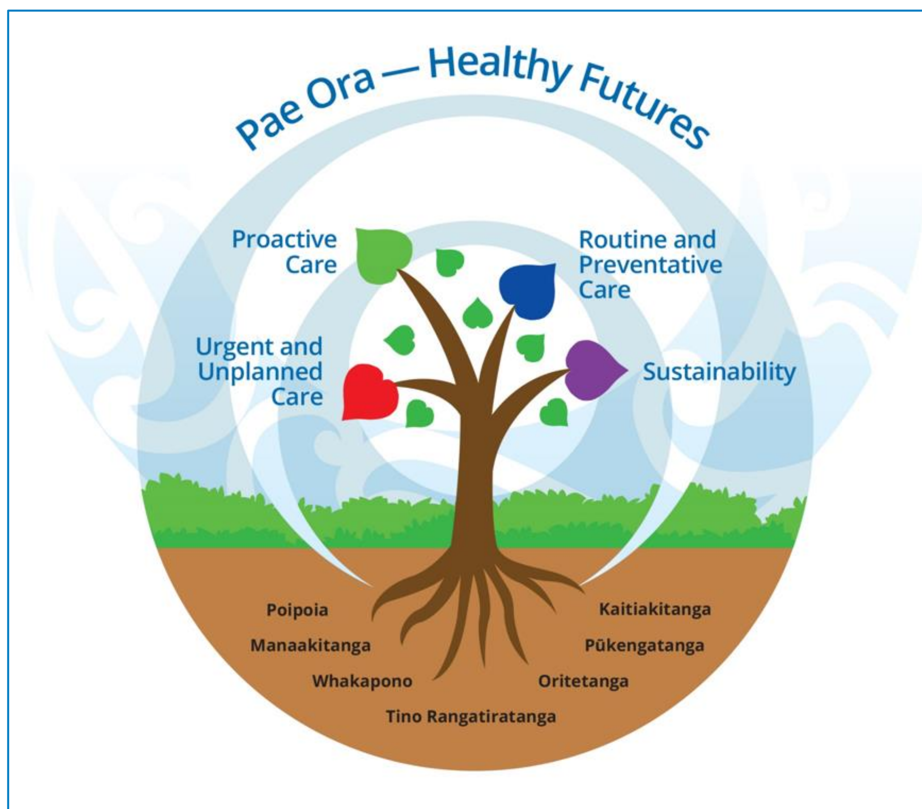


Figure 12. New HCH logo

What's next – publication of the HCH MoC

The HCH MoC Requirements will be published late July / early August 2020. A thorough consultation process will be undertaken to seek feedback and input to further refine the MoC. When the MoC is finalised and published, work will commence around training and providing implementation support

2.4 Previous HCH evaluations

A number of evaluations of the HCH model of care have been completed in New Zealand across various PHOs. This section provides a snapshot of some of these reports.

Ernst & Young - HCH Review Pinnacle Midlands Health Network 2016/17

In 2016/17, EY completed an evaluation of the Pinnacle Midlands Health Network (PMHN) HCH model[1]. Key findings focused on the following areas:

- Changes in primary care service utilisation
- Patient experience
- Impact for providers
- Changes in secondary care utilisation
- Efficiencies

Changes in primary care services utilisation

- Quantitative data noted from previous evaluations, that uptake of key elements of the model occurred over time, including patient portal and use of other consultation methods. The HCH model of care appeared to be achieving most of the aims stated, however there were questions around some elements which required some review.

- Practices that had been implementing HCH for longer appeared to be achieving the 'threshold' score on the self-assessment, however elements within each domain required specific focus and this depended on the practice patient demographics. Local context and patient portal can shape which areas of HCH are implemented quicker than others. For example, a practice that already holds strong relationships with other agencies within the community may find it easier to achieve some of the elements of social care coordination and integration.

- It takes time for the HCH model to have changes within a practice. Early in the HCH journey, changes to business efficiencies, models and infrastructure require additional time and investment that some other domains. Practices must be allowed adequate time and expectations should be realistic during this time while also expecting measurable change.

- Practices both owned by PMHN and privately owned noted operational funding remained similar before and after implementation. Two practices noted an increase in patient consultations, and this was more notable in virtual consultations.

Patient experience

- Improvements to patient experience focused on time saved for patients from phone triage, reduced face-to-face (F2F) visits, improving telephone access and standardising coordinated proactive care. Over 12 months, one practice estimated that 44.45 weeks were saved of patient time through using phone triage and providing alternatives to F2F visits in practice.

- It was highlighted that patients need to receive communication about the HCH changes and why they were occurring. This education needed to be sustained to ensure the HCH was embedded into the practice way of being.

Impact for providers

- Changes required to implement the HCH model were significant and had a large impact on practice staff. Time to adjust to the change was required and for benefits to be realised. Mature HCH practices settled into the model rated it higher than the traditional model of general practice.

- There were some reports that the HCH model improved sustainability for overworked GPs with one GP in particular who intended to retire choosing to remain in the practice. The model also allowed staff to work top of scope and this created a positive experience for clinical staff.

Staff would require ongoing education and support to maximise use of the key enablers for the HCH model of care.

Changes in secondary care utilisation

- PMHN reported minimal significant differences in activity between HCH practices and control practices from 2011 through to 2015. When reviewing secondary care data PMHN note that Proactive Care Management for long term conditions, one of the four domains of the HCH model, drives the expectation of improvements in ED, hospitalisation and ASH rates. However, this takes time to occur and is occurs late in the implementation pathway of the HCH model (only once capacity is created from acute demand management).

- There was minimal difference in secondary care utilisation with HCH practices compared to control practices group. Non-admitted ED attendances for HCH practices showed a non-significant rise compared to control practices who showed a significant rise. There was a consistent rise across all groups for all acute admissions and ASH in 15-74 year olds. ASH in children control practices had a marginal significant increase compared to non-significant increase in HCH practices. Outpatient non-attendance (DNA) rates decreased across both groups.

- Overall, for secondary care utilisation impacts there was a lower increase in non-admitted ED attendances and ASH 0-14 years compared with control practices. Increases in 15-74 year old ASH, bed days and all medical-surgical admissions were similar to control practices despite the significant process changes implemented by HCH practices.

- Another potential reason for the lack of impact on the majority of hospital events is adjustment time costs that may be associated with both the healthcare service users (and providers) in adapting to the new features of HCH

Efficiencies

- All HCH sites within PMHN maintained or slightly improved their financial performance under the new model. Individual practices experienced staff changes, movement in patient numbers or other locally driven issues that have had an impact on financial performance, but this has not been related to the HCH.
- The HCH funding flows require practices to change their management of cash flows. Lower overall income from GP co-payments are generated under the HCH as virtual care and extended consults are implemented. Additional costs are introduced in the practice including the telephony service, new staff roles and staff ratios. These costs are, however, largely offset through increased flexible funding, and some increase in co-payments from virtual care and increased nursing co-payment income.
- Within PMHN, the HCH as a phase 1 redesigned how general practice operates within the existing funding which was first level funding plus use of flexible funding to top up monthly capitation payments. It did require some disinvestment in some services that have been funded through flexible funding in the past, often where DHBs have underfunded services (e.g. high needs podiatry care).
- Establishment costs beyond the first few HCH sites was funded by PMHN from reserves and income produced through other activity. In some areas DHBs are now contributing towards the establishment costs which will allow a broader and more effective model to develop.

When does change occur?

PMHN note that in 2015, the 4-year mark, key elements of the HCH model were well established and impacting favourable on the views of staff and patients. A key message has been that this kind of transformative change takes time, a lot of pre-work and ongoing monitoring and support. Practices indicated that after 3-5 years of implementation of the HCH model, benefits were only starting to be recognised.

The HCH model is multidimensional and requires significant change management to occur which takes time. Overall, found improved outcomes achieve in the several areas such as:

- time saved for patients by offering alternative to F2F consults such as email and telephone methods
- additional capacity created and
- positive changes reported by patients and practices.

It was recognised that this transformational model has long term and ambitious goals in order for sustainable and systemic change to be entrenched. Lots of time and effort is required and this is important to acknowledge with further rollout of HCH in New Zealand general practice. The HCH model has a strong strategic vision, with a proven change management process for building, developing and sustaining the future of primary care.

HEALTH CARE HOME COLLABORATIVE

How do we know its working?

Research and evidence to date suggests that the outcomes from the roll out of the HCH model are very positive. This is demonstrated in findings from the Ernst Young 2016/17 survey of the Pinnacle HCH network, and the Tu Ora Compass qualitative research in 2018.

ERNST YOUNG: SUMMARY OF KEY POINTS

- Maori 25% less likely to attend ED
- People over 65 years have a 32% less likelihood of hospitalisation
- Via clinical triage, 25-45% of patients seeking same day care were managed without the need to visit the practice
- Both lower ASH and ED rates were particularly pronounced for people living in areas of the highest quintile of socioeconomic deprivation
- Significant proportion of acute need being successfully dealt with out of hospital
- The associations for Maori, highly deprived and elderly populations suggest the model is pro-equity, and has its greatest effects on populations with the greatest needs
- Saved patient time through alternatives to face-to-face consults
- Added capacity created
- Positive changes reported by patients and practices

TU ORA COMPASS:

QUALITATIVE STUDY KEY POINTS

- Overall higher satisfaction
- Improved overall efficiency
- Better management under pressure
- Role expansion & development
- Enhanced workplace relationship
- Better care for patients.

We are in the process of gathering more up to date evidence of outcomes/ benefits

Figure 13. Summary of HCH programme research and evidence

Northland - NHH Process Evaluation 2018

During 2018, a process evaluation was completed of the NHH model of care implementation in Northland [9]. Researchers held 25 semi-structured interviews between November 2017 and February 2018. Four interviews were conducted with key stakeholders and 21 with practice staff from four NHH practices in Tranche 1.

There were noted differences between district stakeholders and general practice staff in regard to the equity aims of NHH. Stakeholders stated that reducing inequities for Māori was the main priority of NHH. In contrast, general practice staff felt that efficiency and quality were the key drivers of NHH.

The evaluation set out to identify how practices and patients were responding to NHH, were these changes consistent with expectations of the model of care and what were the enablers and barriers to adopting NHH.

Overall, the effects of NHH on Tranche 1 practices were positive. Implementation was occurring as intended, and it was acknowledged that not all components of the programme could be addressed in the first 12 months. Staff were able to progress during the early months despite some challenges due to persistence and willingness. NHH had improved communication within the practice overall, especially a result of the daily huddles. Overall job satisfaction had improved, and stress levels reduced. Greater engagement with administration staff during the implementation was required as they are crucial to successful implementation.

The impact of NHH on patients was not examined during the evaluation process, however some observations-based interviews with practice staff provided some insight. Patients response to NHH overall was positive. Some patients that lived rurally or in isolated areas may not adapt so well to NHH, especially those requiring telephone or internet access. It was also unclear how NHH would lead to reductions in inequities between Māori and non-Māori, therefore this initiative requires more work.

The key findings were that NHH had many positive aspects towards reconfiguring primary care practices in order to meet increasing demand and workforce shortages. The staged approach to implementation made the process more manageable and improvements with practice communication was recognised.

The collaborative support from the DHB and PHOs was well received by practices, however if equity was the main aim of NHH, then both of these key stakeholders needed to develop more practical and detailed strategies and clear processes of support for practices.

Pinnacle Midlands Health Network - Implementing HCH model experiences 2019

PMHN interviewed three privately owned HCH practices during July and August 2019 [11]. A number of clear themes came which through from the implementation experience of the three practices included in this review were:

- The HCH mode succeeds in supporting future sustainability of practices and their workforces.
- The workforce experience of practice staff is significantly improved as a result of the model.
- Staff strongly believe the model allows them to offer improved quality of care.
- Strong and focused leadership is vital to successful implementation and buy-in to planned changes is needed from all members of the team.
- Practices need to have the capacity and the ability for change management and business development.
- Having a necessary underpinning infrastructure is a key ingredient.

In depth interviews with practice staff also supported these key themes. Application of the model varied, and flexibility allowed practices to implement elements in a way that suits individual circumstances.

HCH Collaborative & Tū Ora Compass PHO Second & Third Year Reflections 2018-19

The HCH Collaborative presented findings of second and third year experiences of the HCH model at Tū Ora Compass PHO during 2018 and 2019 [12]. Both of these reports offered insights and stories from 42 local HCH practices which covers an enrolled population of 270,000 patients across two DHBs in Capital and Coast and Wairarapa. Key successes noted has been the sustained funding, people resource and leadership by all involved organisations.

Overall, the HCH model has provided positive impacts for both patients and practices, and this is supported through the narrative approach in this rep [13]ort. The model requires further establishment across the region, development of measures on improving patient outcomes and long-term sustainability.

[11] Pinnacle Incorporated (2019). Implementing the Health Care Home model - Experiences from three privately owned general practices in the Pinnacle Network. Hamilton, New Zealand.

[12] Health Care Home Collaborative and Tū Ora Compass PHO (2018). HCH Second Year Relfections. Wellington, New Zealand.

[13] Health Care Home Collaborative and Tū Ora Compass PHO (2019). HCH Third Year Reflections. Wellington, New Zealand.

Section 3.0: Evaluation Approach

The evaluation itself consisted of the following components:

- A meta-analysis of previous evaluations
- Analysis of quantitative data for Tranches 1, 2 & 3
- Quantitative analysis of secondary care activity data
- Whānau/patient experiences online survey
- General practice experience online survey
- Financial analysis to determine true cost of NHH

  - A meta-analysis was completed on key HCH evaluation publications between 2010 – 2020.

  - Quantitative data was obtained for all three NHH Tranches focusing on the key contract measures of Clinical Phone Triage, Shared Care Plans, Call Management, Patient Portal and ASH rates.

  - Whānau/patient experiences of NHH were summarised from the HCH Patient Experience Surveys completed by practices between 2018-2020.

  - A General Practice Experience Survey was run over two weeks during July 2020 to gain on insights on strengths and weaknesses of the current model.

  - Financial analysis was completed by Sapere based on two Tranche 1 practices

Figure 14. Tranche 2 Te Whareora o Tikipunga- consumer engagement planning

Section 4.0: NHH 15 Components of Care

The NHH model of care was initially developed around ten key themes:

1. Equity
2. Timely unplanned care
3. Proactive care
4. Routine and preventative care
5. Business efficiency
6. Continuity of care
7. Accessibility
8. Coordination
9. Consumer and community engagement
10. Social and health service integration

The ten key themes were then linked to 15 components of care. Equity is included in many sections as the change model of care is intended and expected to release capacity within general practice to better serve the Māori population and other vulnerable populations. There is also an expectation across all components that consumers are engaged in and influence the changes. The below summary of components of care were taken from the original business case presented in 2016.

4.1 Equity Management

Theme: *Equity*

- The NHH will know what inequities exist for the Māori enrolled population in relation to primary care utilisation, first specialist assessment, ED presentations, hospitalisations, enrolment in and completion of 'year of care', for example through reviewing their GP information report, and monitoring care plan completions.
- They will have engaged with iwi, hapu, Māori whānau about the experience of being a patient with the practice, for example by inviting a sample of Māori patients to a focus group/feedback session, preferably with a Māori facilitator, asking about their experience in engaging with the service and taking action based on findings.
- Work on quality improvement initiatives which directly address inequities and Māori patient and whānau experience, for example there may be a subgroup which plans initiatives focus on improving equity and Māori consumer experience. Prioritise three initiatives to be working at a time. Utilising local Māori input would be essential.
- When vacancies arise in the practice, due consideration should be given to employing Māori workforce.

4.2 Call Management

Theme: *Timely unplanned care, Proactive care, Routine & Preventative care, Accessibility, Consumer and community engagement, Equity and Business efficiency.*

- The NHH will have an enhanced call management approach to respond to and proactively contact patients. The call management approach also supports and better manages clinical recalls, service coordination and business processes. Capacity and hours of operation will be configured to ensure that times and volume of calls will achieve measurable high standards of access. (e.g. less than 5% dropped call rate). Practice reception areas will be structured to have all call and administrative activity removed from open front of house areas so that patients presenting (and calling) are ensured privacy and interruption free experiences. Practices will

also have processes to accommodate consumers with specific needs such as those with disabilities or specific language requirements.

4.3 Clinical Phone Triage

Theme: ***Timely unplanned care, Business efficiency, Accessibility, Equity and Continuity of care.***

- The NHH utilises phone triage by a Doctor to proactively manage acute demand at the first contact. Many patients are able to have their concerns managed over the phone (including prescriptions, self-care advice, and referral for diagnostics) without the need for a face-to-face appointment. The capacity this creates is redirected to those who require same day access or patients with complex needs who require longer face-to-face appointments. Continuity of care for the patient must be factored into the design of doctor triaging.

4.4 Planned Year of Care (Kia Ora Vision & Whānau Tahi)

Theme: ***Proactive planned care, Coordination, Accessibility and Routine & Preventative***

- The year of care will focus on individuals with high needs or at-risk patients. The year of care will involve extended consults with patients, a consistent care pathway, a wider multidisciplinary team using shared electronic health plans and patient portals. The wider multidisciplinary team will include workers from iwi providers where appropriate, ensuring any integrated health and social care needs are provided for.

4.5 Extended Hours

Theme: ***Accessibility and Equity***

- NHH provides these services in a way that ensures the access to care is increased to reflect the needs of the practice population. This can be achieved by extended hours of direct or remote access to the range of services provided.

4.6 New Model of Nursing Care

Theme: ***Proactive planned care, Coordination, Accessibility, Routine and preventative care.***

- The NHH works with a named team of primary and community nursing services in a coordinated way, utilising a central referral system for transition of nursing care, identifying a lead coordinator, and utilises shared care planning (see appendix 1 for details of the developing primary and community nursing model of care.

4.7 Patient & Whānau Centric Appointments

Theme: ***Timely unplanned care, Proactive planned care, Accessibility, Equity, Continuity of care. Social and health service integration.***

- Using the Timeliness of Access to Primary Care Packages, the practice will assess whether the current booking system is meeting the needs of the enrolled population, and revise the system as required using the resources supplied.

- Practice appointment schedules will offer a range of appointment lengths to ensure the duration of consult is appropriate to individual requirements. This will include longer consults for complex patients.

- The provision of triage/phone-based treatment services aims to release capacity to allow a guarantee that face to face same day appointments are available to all who need them.

4.8 Clinical & Administrative Prework

Theme: ***Proactive planned care, Routine and preventative care and Equity.***

- NHH utilises clinical pre-work to ensure that any preliminary tests, screening or other work has been done and any comorbidities that can be addressed at the same time are identified, so that

optimum use is made of patient and clinician time. This requires trained telephonists who enquire as appropriate about the reason for an appointment, so that pre-work can be flagged.

4.9 Expanded use of Roles and New Roles

Theme: ***Proactive planned care, Accessibility, Equity, Coordination and Continuity of care***

- Inclusion of GPs, Nurse Practitioner, Practice Nurses, Practice Team Assistants, Physician Assistants, Clinical Pharmacists, Navigators, as members of the core General Practice team. The NHH model aims to support GPs, Nurses and other clinicians to consistently work at the top of their scope.

- Administrative staff handle non-clinical aspects of consultations and complementary specialist roles (e.g. clinical pharmacist) improve the quality and effectiveness of consultations.

4.10 LEAN Continuous Improvement

Theme: ***Access, Business efficiency and Coordination***

- The NHH standardise consulting rooms and communal spaces to reduce waste. Clinicians are then able to use any available room for consults, which improves the utilisation of space. Clinicians and other staff have access to separate private spaces to take phone calls, work on their computers, process paperwork and consult with each other and other staff in the practice – heling make the NHH to take a team approach to care.

- Calm and distraction free reception areas allow patients a more private and calmer environment.

- The practice uses LEAN methods to continually improve services and reduce waste through standard work, visual management, 5S, process redesign, team boards, stand up meeting huddles, etc.

4.11 Virtual Consults (Phone & Video)

Theme: ***Access, Business efficiency, Timely unplanned care and Equity***

- Provision of a range of clinical consults over the phone and via a secure email. Dedicated clinical time is set aside for these activities as part of a virtual consultation as required.

4.12 Patient Portals

Theme: ***Access, Equity, Business efficiency, Timely unplanned care and Consumer and community engagement.***

- Provision of a web and smart phone-based patient portal to allow patients to manage and own their medical information including medication and test results. Also provides a secure place for patients to communicate with their NHH team. NHH practices will offer as minimum eConsult; repeat prescription requests, results checking, self-scheduling and summary level access to patient information.

4.13 Consumer & Community Engagement

Theme: ***Equity, Timely unplanned care, Proactive care, Routine and preventative care, Business efficiency, Continuity of care, Accessibly, Coordination, Consumer and community engagement and Social and health service integration.***

- Establishment of a mechanism for regular engagement with consumers. Annual practice/consumer engagement to inform practice quality improvement. Practices will utilise national primary patient experience data to inform quality improvement.

4.14 Health & Social Care Coordination

Theme: ***Equity, Proactive care, Routine and preventative care, Continuity of care, Accessibility, Coordination, Consumer and community engagement and Social and health service integration.***

- Patients exist within a social context and linkages with social and community services may be beneficial to their wellbeing. Some examples of activity could be:
  - Examine options for social worker involvement
  - Broker a cross sector discussion 6 monthly to determine if there are any areas that could be coordinated more usefully for the patients. It may be possible to host visiting social services on site, e.g. Citizens Advice Bureau and WINS have both offered to provide 'suitable clinics' in general practice settings.

- The practice may be able to collaborate with other services to support collective alleviation of social issues in a community. Consider working towards sharing some high need patient information with social and education services to foster improved linkages.

4.15 Quality & Safety

Theme: ***Equity, Timely unplanned care, Proactive care, Routine and preventative care, Business efficiency, Continuity of care, Accessibility, Coordination, Consumer and community engagement and Social and health service integration.***

- Practices will address quality and safety issues through an accreditation process using sector standards. Currently this is predominantly Cornerstone, but it is likely that there will be national Health Care Home accreditation in the future, which may be a pathway for enhanced funding.

Figure 15. Tranche 3 Bream Bay Medical Centre planning workshop with PMHN HCH Tem

Section 5.0 Impact on Māori patients and Māori providers

The below describes the impact analysis which was completed by the NHH project team in the 2016 business case. The analysis highlights what the expected impact of NHH would have on Maori and Maori Providers in Northland. A Health Equity Assessment was also run on the proposed NHH model. This is presented in appendix 1.

Stakeholders	The Neighbourhood Healthcare Home
Patients	Will be provided with a wider range of standardised options to access broader and more comprehensive care, advice and interventions closer to home and out of hospitals to manage their health needs. This will ultimately include social services.
Māori patients	Equity management will drive strategies to ensure the wider range of standardised options to access care and support are targeted to Māori needs and preferences
Patients	Will access a broad range of face to face and virtual care via traditional appointments, phone and telehealth technologies and secure emails. Will have access to their health records electronically and these will safely and more proactively be shared between all providers supporting their healthcare needs. Will have access to new tools to support with medication adherence. Home monitoring and navigation of the broader health system will be standardised across community settings.
Māori patients	New technologies to support the broader range of options for care will improve access for Māori. New tools for patient access to and sharing of an electronic record will benefit Māori in particular who suffer a greater burden of long term conditions and may use a broader range of services.
Patients seeking acute same day care	Will be offered the chance to communicate directly with their clinical team before accessing a face to face appointment to provide the best care options and proactively undertake diagnostics if required to reduce wasted time and effort downstream.
Māori patients	Equity management will drive strategies to ensure communication around pre appointment and best care options works effectively for Māori who currently experience poorer access to acute same day care.
Patients at risk socially, clinically, or those having to manage complex conditions	Will have proactive extended consults with multi -disciplinary team members to jointly agree and schedule care in advance. This will include relapse plans should things go wrong so that changes can be quickly and safely dealt with.
Māori patients	Experience a greater burden of complex, long term conditions as well as social and economic deprivation. Proactive extended consults with MDTs and relapse planning will be planned to particularly benefit Māori in Northland. This may involve working more closely with Māori Providers.
Primary and community providers	Will be provided with more effective electronic tools to support joint work and ensure that patient pathways are consistent and fair right across New Zealand. These will better enable direct access to a broad range of services and diagnostics including scheduling for hospital based specialist services.
Māori Providers	More effective electronic tools to support joint work will remove previous barriers to sharing of information between providers for the benefit of patients.
Providers	Will be funded differently to break the current reliance on patient co-payments to partially fund primary care services.
Māori General Practice Providers	Will be enabled to further reduce patient co-payment burden for Māori patients.
Providers	Schedule and templates will be changed to enable more flexibility to support a wide range of care approaches and step back from the general one-size-fits-all 15 minute consult.
Māori General Practice Providers	More schedule flexibility will support different approaches to meet the particular needs of high need Māori patients
Māori Providers	Internal and external integration opportunities will arise for the benefit of shared care of high need patients.
All providers	Will be better supported to operate at the top of their scope in the various settings, ensuring more services can be offered closer to home and in more cost effective settings. Physical resources will be used differently to better meet patient needs but also ensure more effective use of community settings.
Specialists and hospital services	Will have direct access to a shared care plan, reducing rework and saving resources.
The broader health care system	Will be able to better rely on NHH services as they will be more consistent and accessible, meaning more care can be provided closer to home.
Providers	Will work directly with inpatient services to transfer care back into the community more quickly and effectively, seeking to reduce rehospitalisation.
Providers	Will meet the core components of the NHH. This will introduce a new approach to setting and monitoring standards, including health outcomes, and will ensure that the public investment in community care is more effective and results in greater consistency and credibility of services.

Table 2. Impact on NHH for Māori patients and Māori Providers

NHH progress with equity

Changes have started to occur more rapidly in this space for New Zealand health care with the recent release of Wai 2575 and also growing development of the Māori health workforce. Some NHH practices were able to easily adopt a stronger equity lens having been a Māori health provider or being already strongly connected within their communities.

As highlighted in the NHH Process Evaluation Report 2018, there were noted differences between district stakeholders and those working in primary care practices in regard to the equity aims of NHH [9]. While some progress has been made with equity management in NHH practices, this is still an area that requires greater focus by general practice and additional support from the NHH team. Similarly, the same evaluation report noted that more practical and detailed strategies and clear processes were required to support practices more with applying an equity lens.

Recognition must be made of the Māori Health Providers who currently provide many components of the NHH model of care such as Clinical Phone Triage, shared care plans, virtual consults and patient/whānau led appointments. Is there an ability to develop an NHH Kaupapa Māori model of care with a stronger focus on te ao Māori and matauranga Māori? Moreover, how can we provide a real equity approach by enabling Māori Health Providers to receive equitable support via the NHH model of care? These are all questions that need to be taken into consideration when reviewing the future of the NHH model of care.

We do know that multidisciplinary team (MDT) meetings are starting to occur more frequently with the development of localities at Mahitahi Hauora, and that NHH practices have been pivotal in enabling these with their released capacity. We need to ensure that whānau Māori are prioritised when planning MDTs and also make allowances to flex the MDT framework to ensure it is more culturally fit for purpose for whānau Maori

Limitations & Recommendations

Issue/Limitation	Solutions/Recommendations
Lack of data Challenges obtaining Risk Stratification reports which enable practices to identify Māori patients. (Risk Stratification reports were unavailable from the PHO/PHE between Oct 2018 – Mar 2020 due to changes in reporting systems)	Providing practices with data allows them the ability to be aware of the issues and act accordingly. This links in with the ADKAR change framework. Awareness and desire must be created through easy access to accurate current whānau/patient data. Once practices are made aware of the issues, then knowledge can be provided to support practices on how to address these issues. Action can be taken in a methodical approach and reviewing of these processes are ongoing. Easy access to accurate data is crucial to enabling general practice to provide solutions fit for their enrolled patient's needs.
Practical application Many practices noted that they required more support with how to practically apply equity. For example, how do they apply equity when doing Clinical Phone Triage and book same day appointments?	The NHH team have been more recently sharing practical ideas such as, when adding patients to the triage appointment book, add in the comments that patient is Māori and all these patients are called back first. Same day appointment slots are held aside for Māori to allow them priority access to F2F appointment and Māori patients are to be called first when contacting patients for recalls and more attempts to contact them is made than one phone call. Practices have found having practical tips like this has helped them apply a stronger equity lens.
	Greater promotion and application of resources/tools such as 'What Matters to

	Whānau' (figure 16) and Te Hononga Equity Toolkit - Connect-Action-Share (figure 17) are required within general practice. Such tools can enable practice staff to practically apply a stronger equity lens with whānau/patients. We need to build on strengthening the whānau voice in NHH through using the 'What Matters to Whānau' (WMTW) kaupapa [14].
Barriers to accessing virtual care	Developing access for whānau Māori to technologies such as virtual consults in the form of phone or video, requires support for both the provider of the service and whānau Māori themselves. Challenges exist with cost and mobile reception, so NHH needs to develop strategies that support everyone to make these options accessible in a more equitable way. Learnings and insights should be gained from Māori Health Providers around what works best for whānau Māori and how general practice can work more collaboratively to provide better solutions.
Strengthen practice and Māori Health Provider working relationships	More support needs to be provided for general practice to be confident in growing and strengthening their relationships with local iwi hapu and Māori Health Providers. This is crucial to ensure whānau Māori who are not enrolled with a general practice have the ability to link in with all available services.

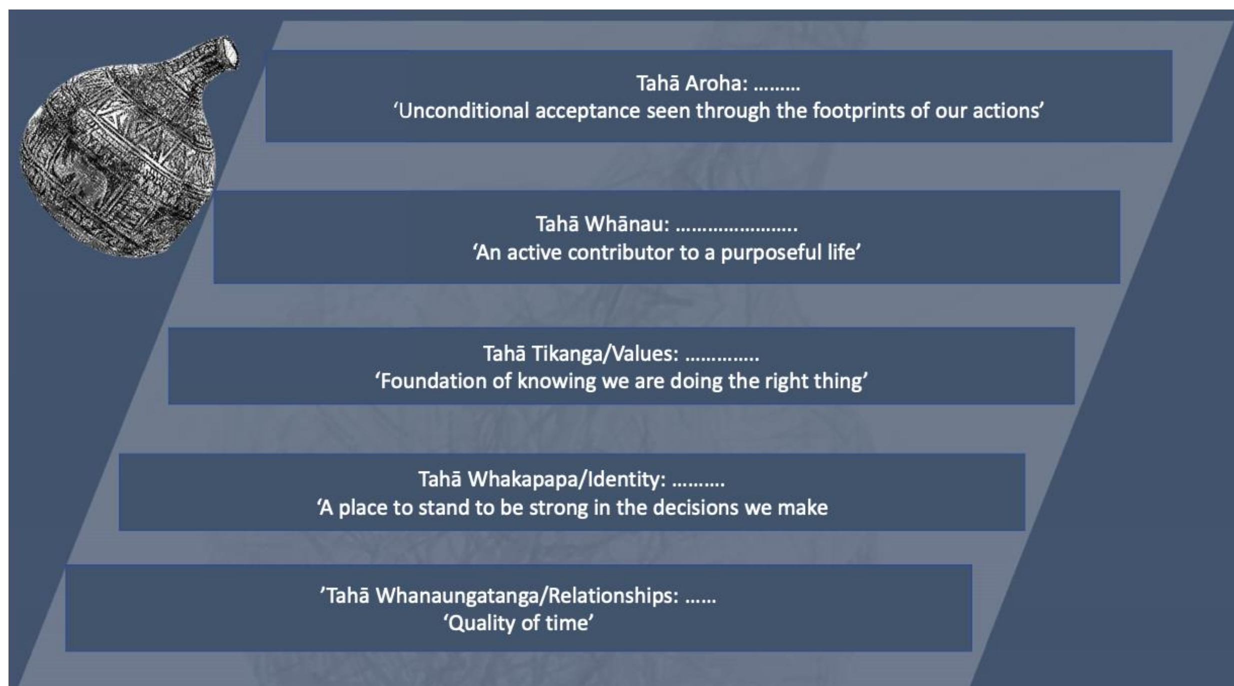


Figure 16. What Matters to Whānau [15]

[14] Mahitahi Hauora PHE (2019). What Matters to Whānau Papa Tikanga. Whangārei, New Zealand.

[15] Terenga Parāoa Limited and Manaia Health PHO (2018). What Matters to Whānau. Whangārei, New Zealand.

WMTW is a kaupapa built around giving voice to whānau and Māori communities in Te Tai Tokerau. Whānau and Māori are located at the centre of decision-making in primary healthcare and provide a deeper understanding of what is needed by their communities. WMTW findings are expressed as five tahā:

1. Tahā Aroha – unconditional acceptance seen through the footprints of our actions
2. Tahā Whānau – an active contributor to a purposeful life
3. Tahā Tikanga (Valued) – foundation of knowing we are doing the right thing
4. Tahā Whakapapa (Identity) – a place to be strong in the decisions we make
5. Tahā Whānaungatanga (Relationships) – quality of time

Whānau insights must be gained on what works best for them and how we can improve NHH outcomes by truly adopting the whānau voice. NHH should shift from being 'whānau/patient centred' to 'whānau/patient led'.

In addition, Te Hononga is an equity Resource Toolkit which supports primary health care services to consider implementation and change in systems support, proactive care in the service delivery space and improved engagement by health professionals, to work positively with those impacted by health inequities.

The toolkit (available on the NHH website [16]) presents firstly the PHE's commitment to focusing on Equity in the delivery of all health services, by:

- Demonstrating an understanding of the health issues and health service delivery for the population of those living in Northland with a focus on Maori for whom inequity of health outcomes impacts the most.
- Evidencing a commitment to apply the principles of Te Tiriti o Waitangi in clinical practice
- Providing a suite of tools under the banner of Te Hononga to raise awareness of personal practice and organisation systems towards equitable solutions; provide tools and training to improve engagement; lift and maintain practices to sustain cultural competency.

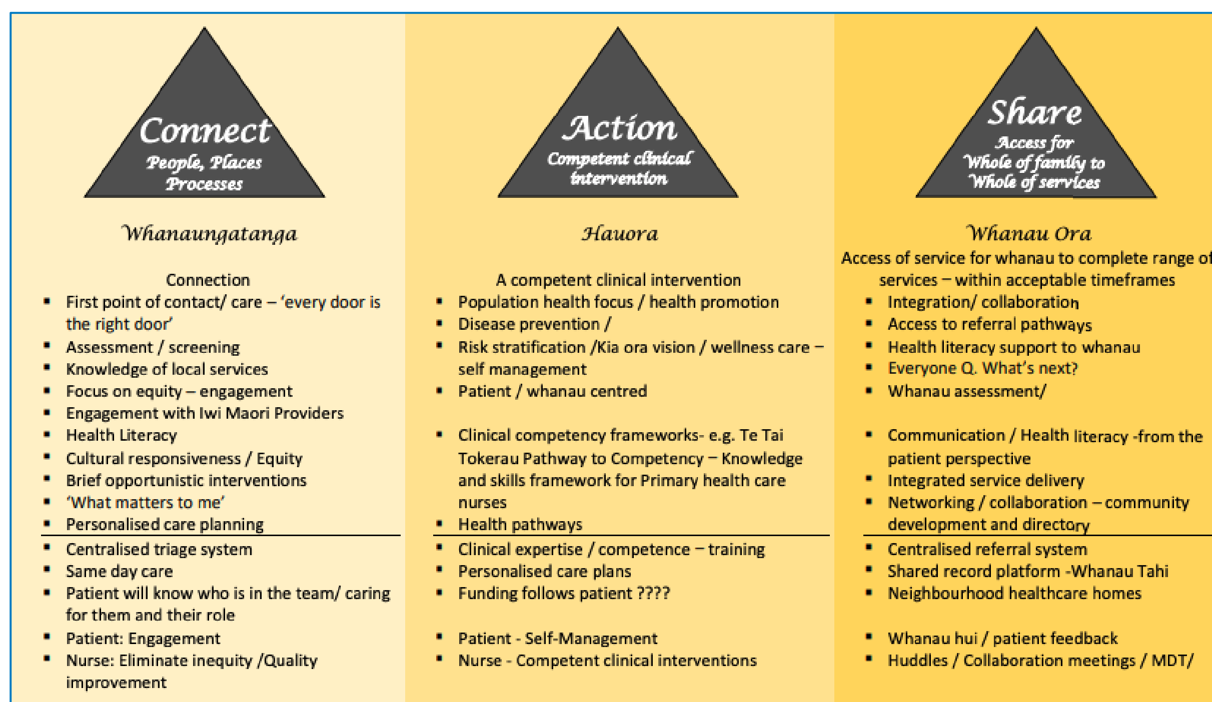


Figure 17. Te Hononga Equity Framework – Connect-Action-Share

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[16] Northland District Health Board and Mahitahi Hauora PHE (2020). "Neighbourhood Healthcare Homes - Equity Management." from https://community.northlanddhb.org.nz/NHH/?page_id=32.

Section 6.0: NHH Contract Measures progress

**It is important to note that when reading the following quantitative data that all three NHH tranches are in different maturity phases of the journey and this impacts progress achieved to date.*

6.1 Urgent & Unplanned Care: Clinical Phone Triage

Contract Measure: # patients triaged and seen F2F, booked for a future appointment or other by ethnicity. # patients triaged and resolved in triage by ethnicity. # patients triaged and no contact made by ethnicity.

One of the key components of NHH is Clinical Phone Triage of patients that call for a same day appointment. The aspirational measure is 40% of GP triaged calls are resolved during the time of the call. This means that patients are able to have their concerns managed over the phone (including prescriptions, self-care advice and referral for diagnostics) without the need for a F2F appointment. The capacity created from providing Clinical Phone Triage should be redirected to those patients who require same day access or with complex needs and may require an extended F2F appointment.

Tranche 1 averaged 39.6% of triaged calls resolved in triage along with Tranche 2 averaging 39.3% and Tranche 3 at 37.1%.

The total number of patients that have received the Clinical Phone Triage service from an NHH practice (combined GP & Nurse triage) between 2017-2020 was 186,360. Based on calls that resolved in triage, time saved for patients and GPs equated to 46,590 hours or 1,164 weeks.

The peak in volume of Clinical Phone Triage during Q3 & Q4 2019/20 represents the COVID-19 response period. During this time, all general practices in Northland were provided support and tools from NHH resources to support rapid implementation of this service. NHH practices responded positively to the rapid change from reduced F2F to a virtual consultation approach.

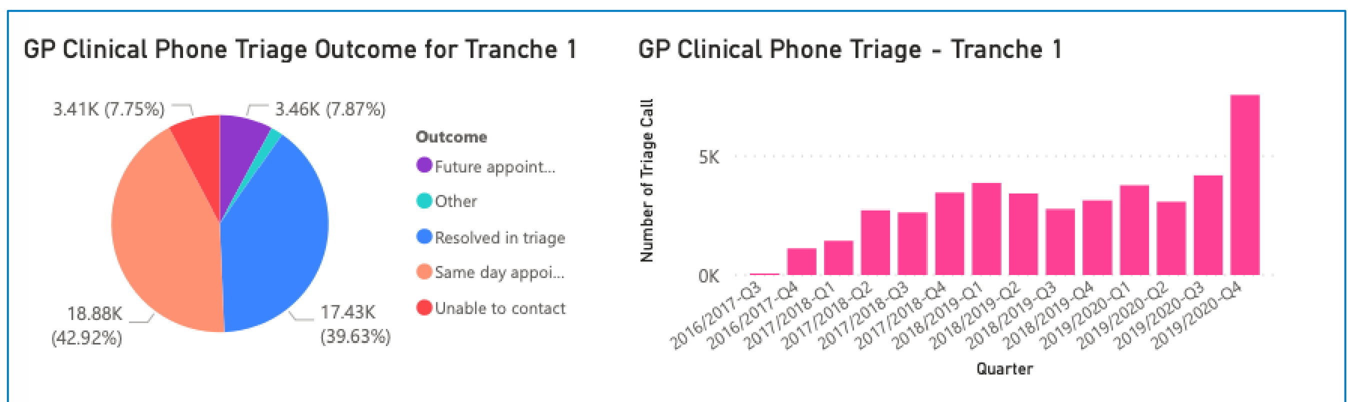

Figure 18. GP Triage – Tranche 1

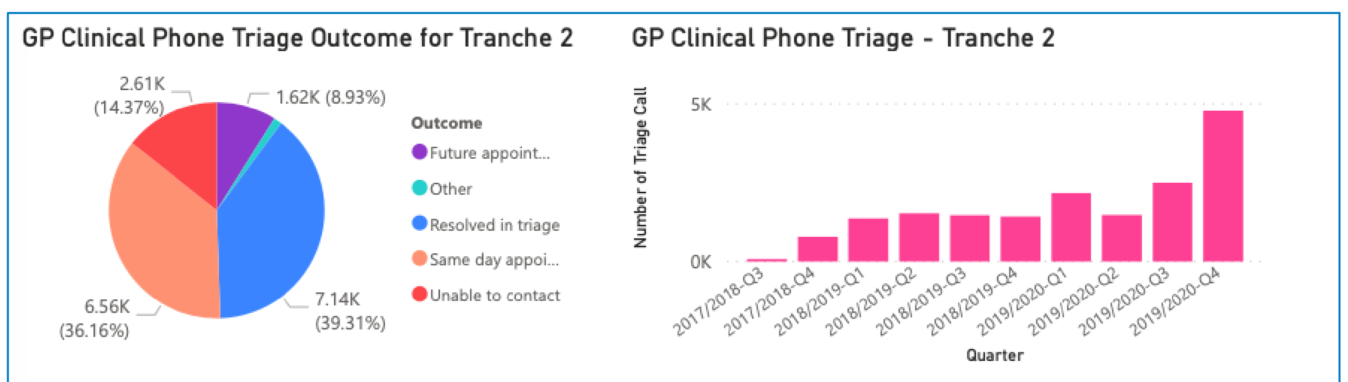

Figure 19. GP Triage – Tranche 2

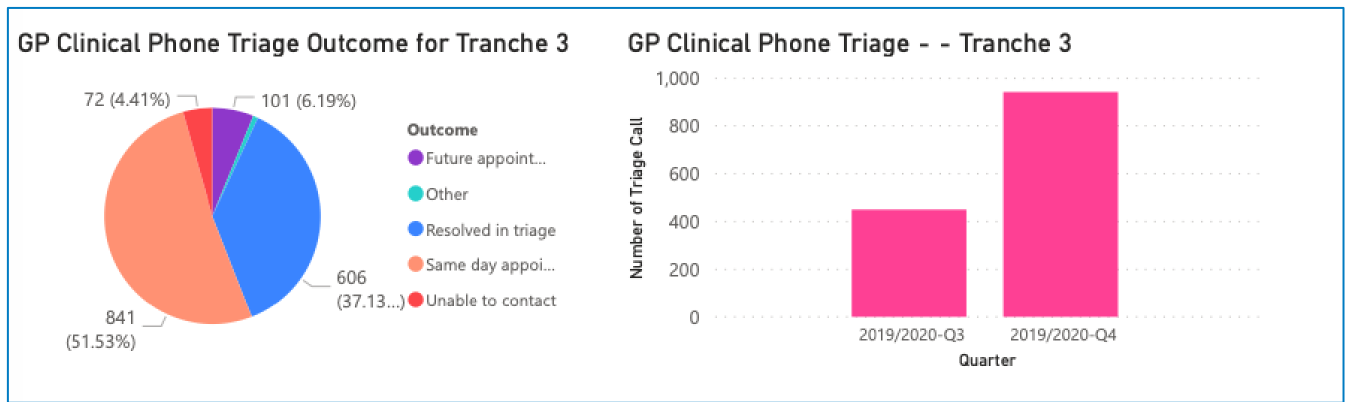

Figure 20. GP Triage – Tranche 3

Nurses also play an important role with Clinical Phone Triage, by being able to pick up the overflow of calls during off-peak periods. Resolution rates are lower for nurses, however the ability to have the phone triage service provided throughout the day ensures patients receive continuity of care. Total patients phone triaged by nurses was 123,630.

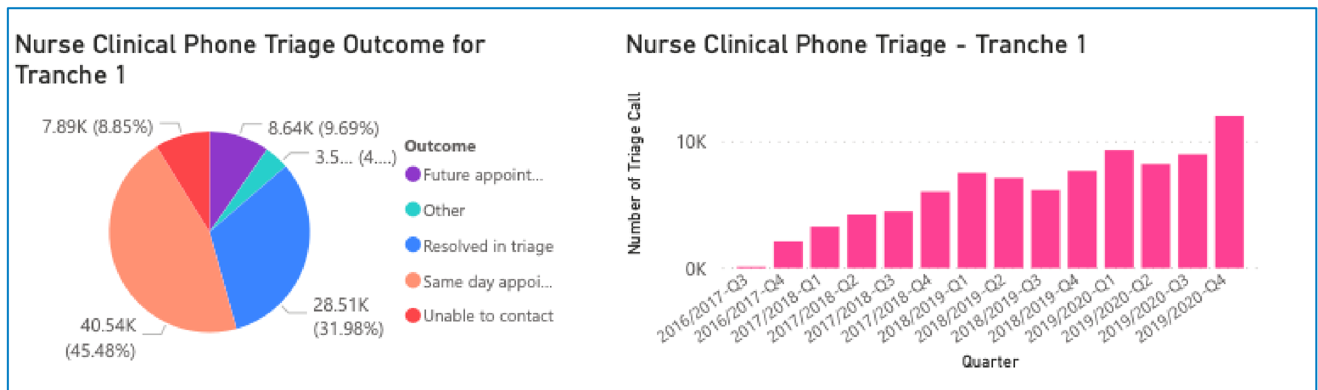

Figure 21. Nurse Triage – Tranche 1

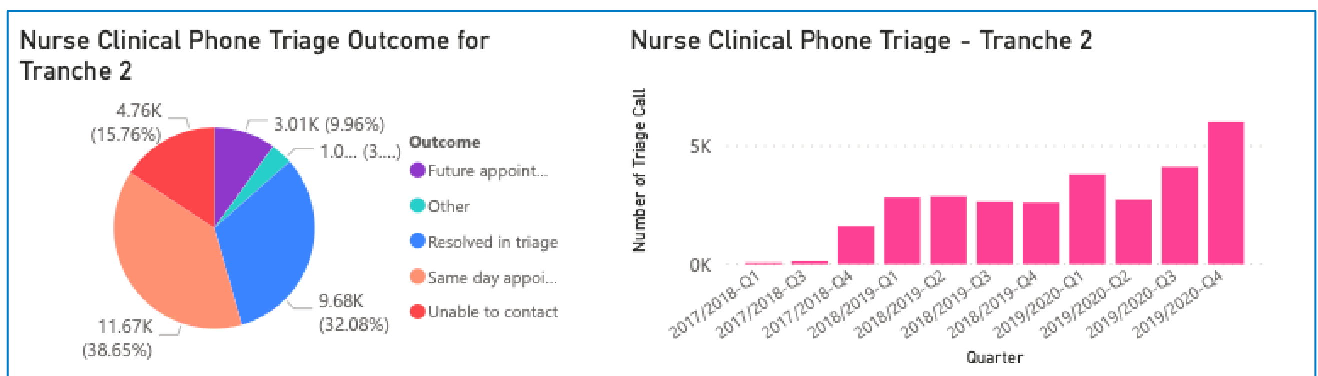

Figure 22. Nurse Triage – Tranche 2

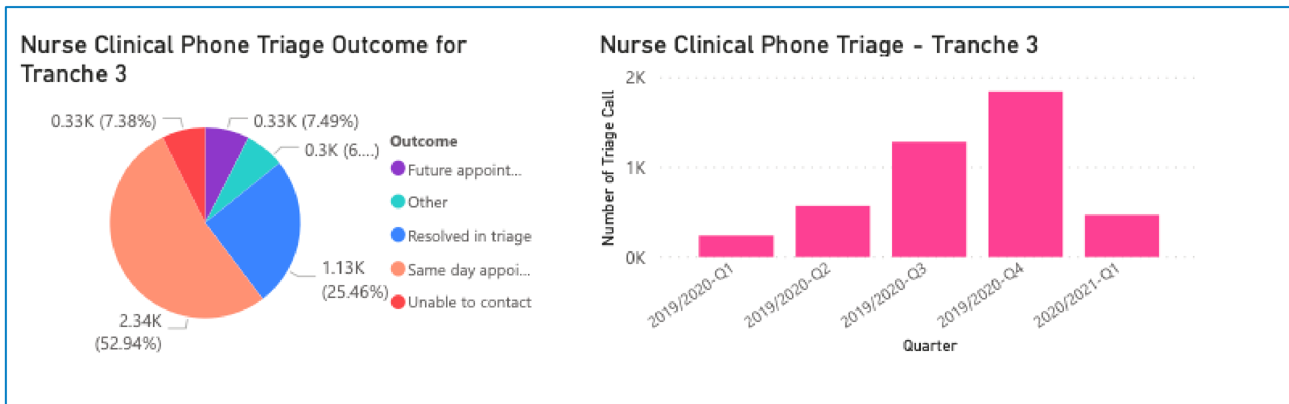

Figure 23. Nurse Triage – Tranche 3

Figure 24 represents whānau/patients home addresses (orange dots) in relation to their general practice who received a Clinical Phone Triage service and had their matter resolved on the phone by their GP. The practice used in the below example is Bush Road Medical Centre. This shows how much time and distance travelled is saved for whānau/patient when calling for a same day appointment and being able to have their concerns addressed by phone triage.

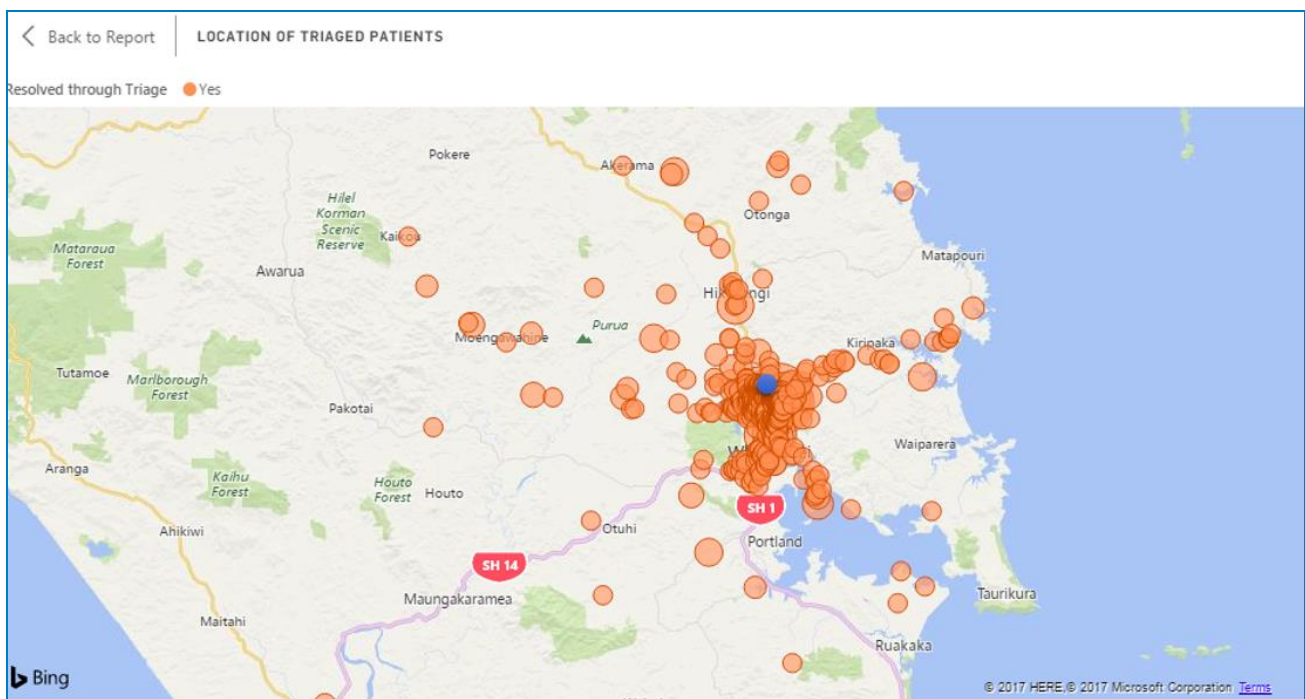

Figure 24. Sample of patients' residential locations which received Clinical Phone Triage

Overall, for NHH practices between 2017-2020, approximately 315,000 kms was saved in distance travelled for whānau/patients who had their matter resolved in Clinical Phone Triage.

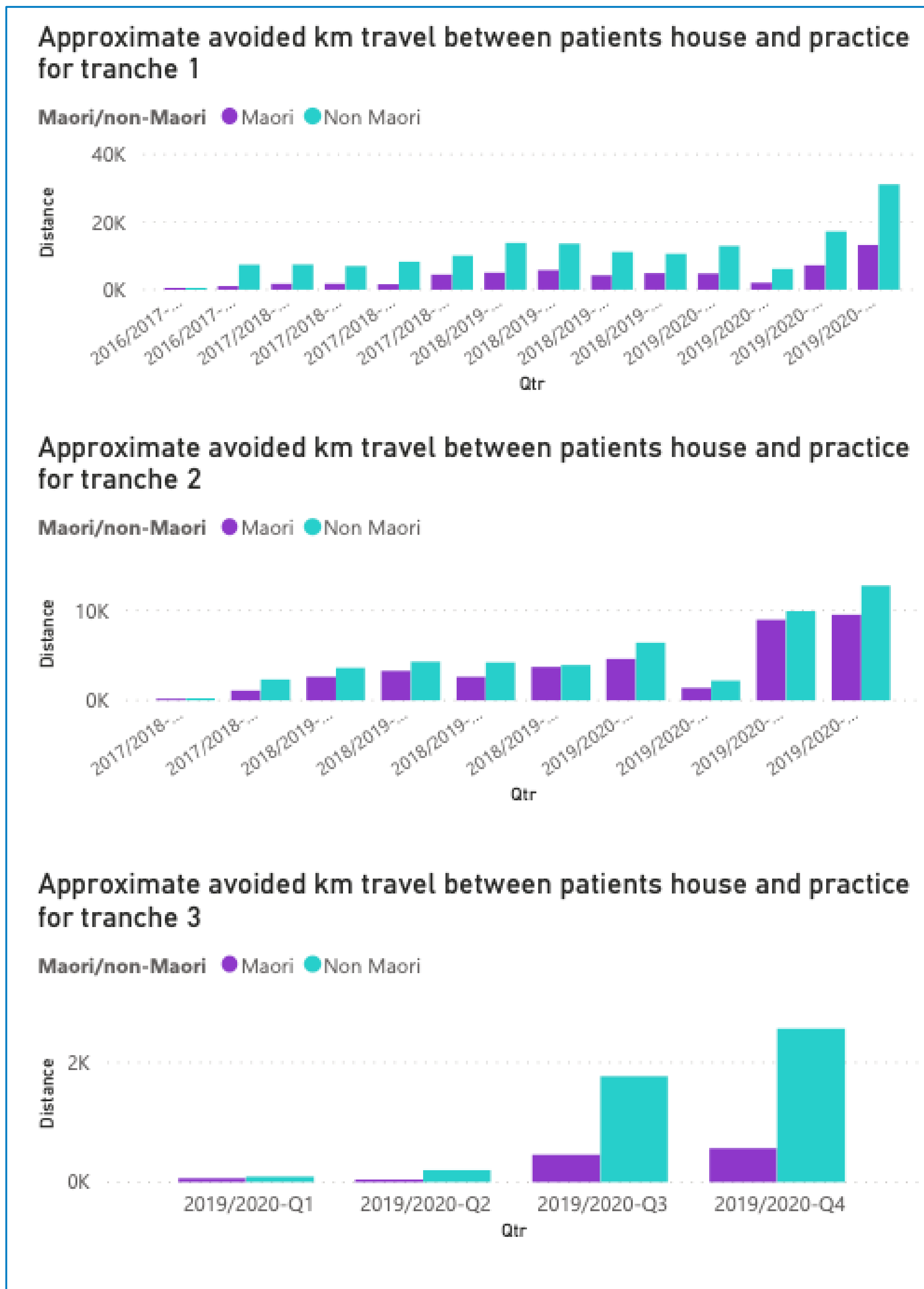

Figure 25. Distance/km avoided for patients using Clinical Phone Triage

An equity gap is shown between all outcomes of the Clinical Phone Triage service mainly in the resolved in triage outcome. Tranche 2 have a larger equity gap with 'Unable to contact' and this could be correlated to the higher rates of Māori and high needs enrolled patients within these NHH practices.

Feedback from NHH practices around why some patients are unable to be contacted is that some patients borrow mobile phones from friends and families, and by the time the GP or Nurse calls back, the patient is not available on this phone number. Similarly, patients in areas where there is minimal mobile phone reception have left the area from where they called and therefore are no longer contactable. These are areas that need to be considered when reviewing the NHH model of care, so that Māori and high needs patients are prioritised to be called back first to ensure continuity of care is provided.

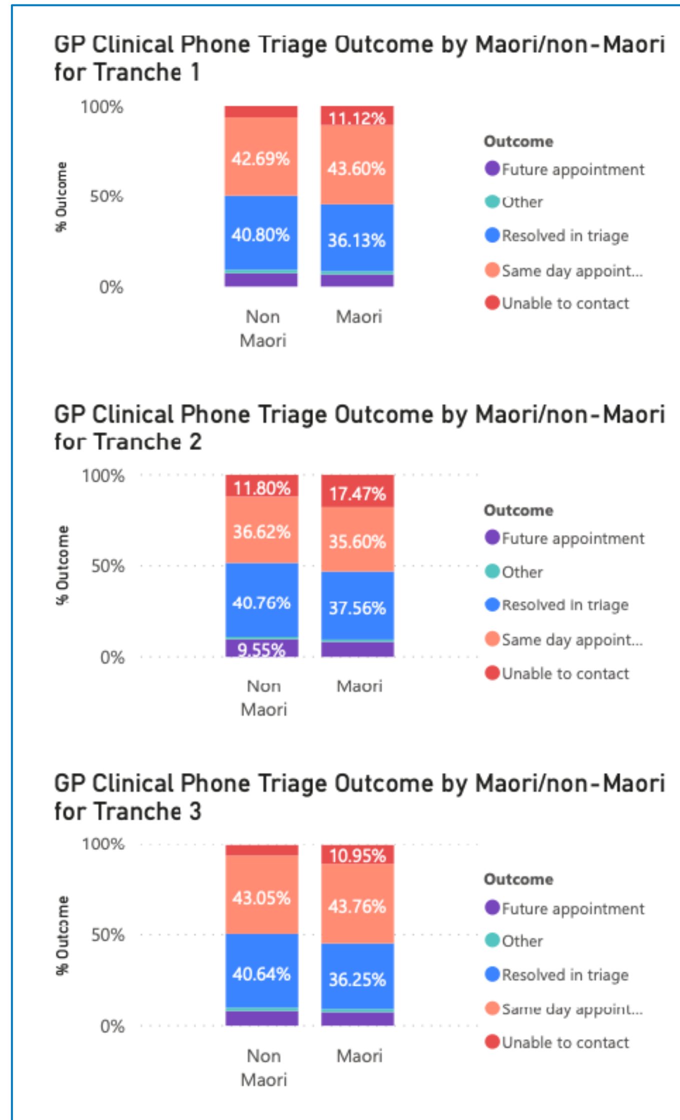

Figure 26. Māori vs Non-Māori Clinical Phone Triage for GPs

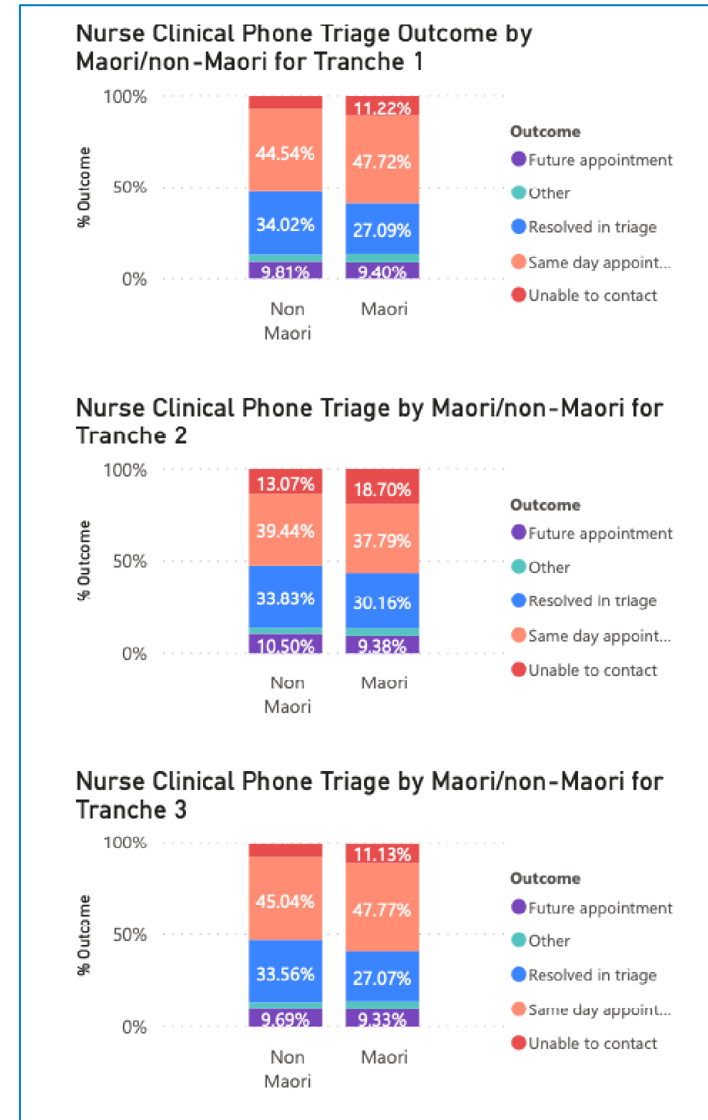

Figure 27. Māori vs Non-Māori Clinical Phone Triage for Nurses

Limitations & Recommendations

Issue/Limitation	Solutions/Recommendations
Differences between practices Provision of Clinical Phone Triage varies across all practices. High use of locum GPs is linked with reduced Clinical Phone Triage due to confidence and experience of providing such a service. In addition, some practices have greater uptake from nurses, and some have lower uptake.	Ensure standards are embedded within the practice for Clinical Phone Triage and new/locum staff are provided with fast and easy training on orientation to the practice. Nurses need to be given the ability to provide Clinical Phone Triage to support GPs during off-peak times and also pick up overflow from morning rush.
Equity Gap An equity gap is shown between all outcomes of the Clinical Phone Triage service mainly in the resolved in triage outcome.	Māori and high needs patients are prioritised to be called back first to ensure continuity of care is provided.
Patients unable to be contacted Some patients are unable to be contacted is that some patients borrow mobile phones from friends and families, and by the time the GP or Nurse calls back, the patient is not available on this phone number. Similarly, patients in areas where there is minimal mobile phone reception have left the area from where they called and therefore are no longer contactable.	Māori and high needs patients are prioritised to be called back first to ensure continuity of care is provided.

6.2 Proactive Care: Shared Care Plans

Contract Measure: *# KOV enrolled, # Whānau Tahi (WT) shared care plans and proportion of KOV patients with a shared care plan by ethnicity. Year 1 – at least 50% KOV patients to have a WT shared care plan, Year 2 – 75% and Year 3 – 90%. Ethnicity data will be collected from the Care Plus (KOV) summaries tab on the practices quarterly Register Analysis report.*

The graph below reflects the overall % of Kia Ora Vision enrolled patients with an active Whānau Tahi shared care plan. The definition of an active shared care plan is one that has been created or modified in the last 12-month period.

Between 2017-2019 there has been a steady uptake of Kia Ora Vision and Whānau Tahi across all practices. There has been a downward trend in the data, and this is due to bulk KOV enrolments completed in 2017 expiring in 2020. Practices are actively working through these expired patients to re-enrol them to the KOV programme and also update their WT shared care plans.

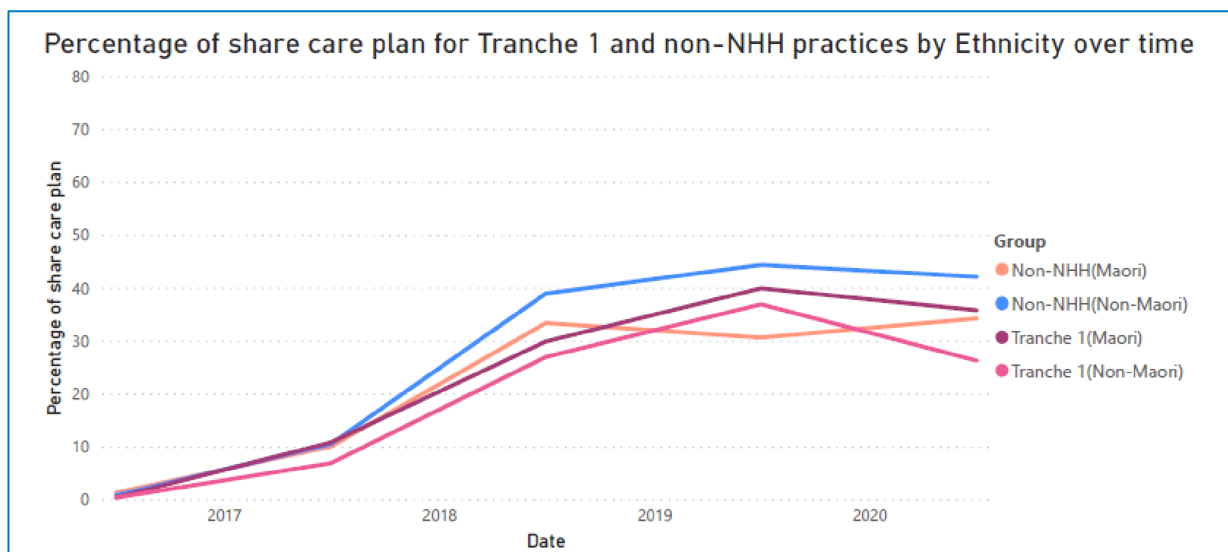

Figure 28. % Shared care plans to KOV enrolled patients (NHH and Non-NHH practices) – Tranche 1

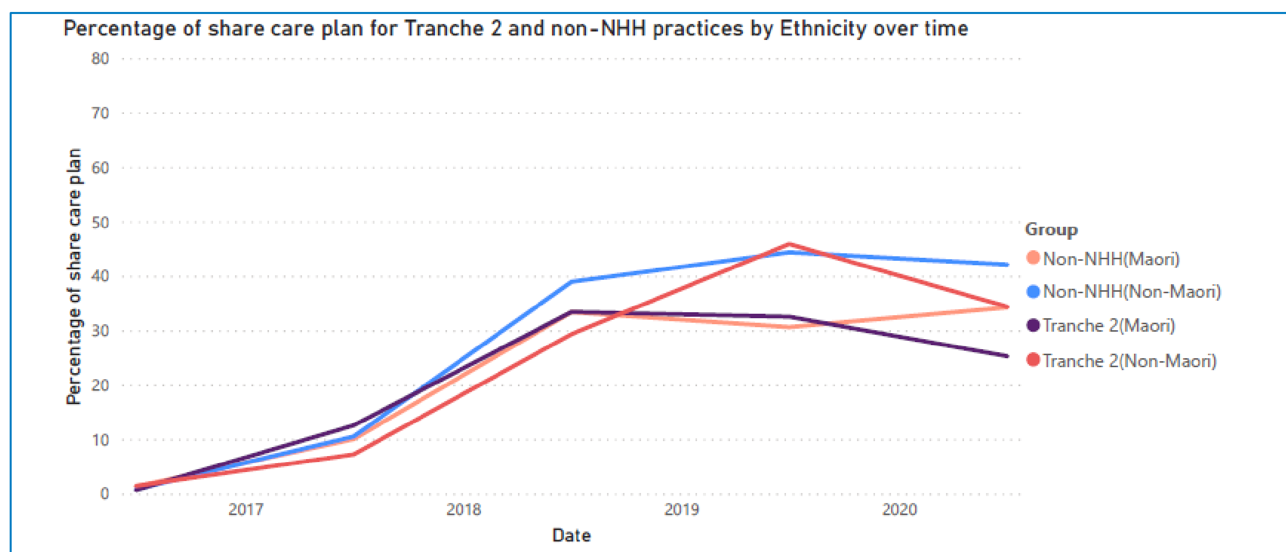

Figure 29. % Shared care plans to KOV enrolled patients (NHH and Non-NHH practices) – Tranche 2

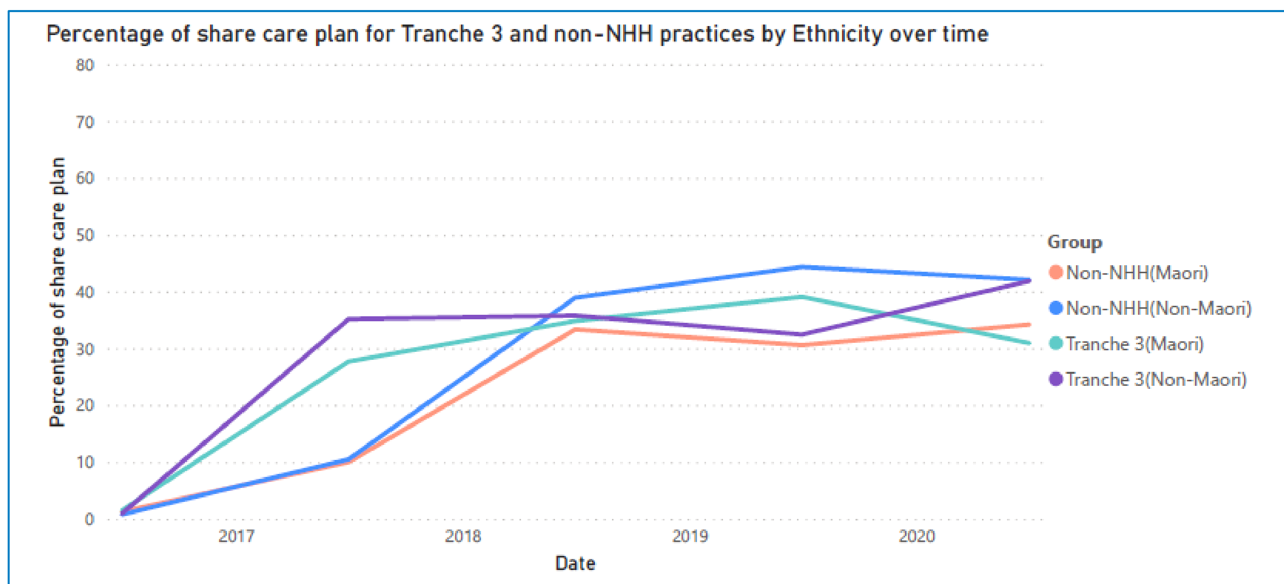

Figure 30. % Shared care plans to KOV enrolled patients (NHH and Non-NHH practices) – Tranche 3

Limitations & Recommendations

Issue/Limitation	Solutions/Recommendations
Single sign on [17] Each time a patient's WT shared care plan needs to be accessed via MedTech the GP/nurse needs to input their login credentials for each patient. This can take up to 15 seconds and adds up considerably over the day.	This has been an ongoing issue since 2017 for NHH practices. This has been raised as an issue with healthAlliance and funding has been allocated to able an SSO process.
Lack of Kia Ora Vision data/monitoring There was a period for over 12 months between 2019-2020 in which Care Plus Summary data was not available for practices Quarterly Register Analysis reports due to change in NES reporting systems. KOV originally had an allocated programme lead in the PHO, however this role has been reviewed since the transition to PHE and general practice have received minimal support with education and training.	This has now been rectified, and NHH Facilitators have also provided practices with query builds so they can obtain KOV enrolment data timelier from their patient management systems (PMS). KOV Programme Lead required to actively monitor progress and identity practices requiring additional support. Would also monitor WT auditing reports from general practice.
Poor uptake from general practice Cost in staff time to maintain shared care plans. Getting the messaging format consistent so that there is uptake by general practice. Speed issues when using Whānau Tahi.	Recommended that shared care planning is reviewed and relaunched collaboratively between the DHB and PHE. Dedicated resource needs to be allocated to support/coordinate further embedding of shared care plans in primary care. This could be in the form of a coordinator role which support primary care providers with MDT functions and shared care planning within the Whānau Tahi platform both. General practice and Māori Health Providers need to be provided the ability to understand the

[17] Northland District Health Board (2019). Whānau Tahi Shared Care Project - Completion Report. Whangārei, New Zealand.

	value-add of shared care planning both from a provider and whānau/patient view. For example, a whānau/patient story could be shared around how a patient managed to receive improved care by reducing multiple GP visits through better care coordination using shared care plans. Most importantly, shared care plans enable whānau/patients to have the ability to lead their own care (self-determined/tino rangatiratanga) if they choose to do so. We know that not all whānau/patients wish to lead their own care, so this must not be assumed for all patients.
Resource constraints Recent transition of the WT project from NDHB to PHE as BAU.	The Whanau Tahi Shared Care and MDT (Multidisciplinary Team Meetings) projects were transitioned to BAU (Business as Usual) and moved from a responsibility/oversight from the Northland District Health Board (NDHB) to Mahitahi Hauora (MTH) by the 31st December 2019. A 3-month support process was developed to provide a degree of ongoing support to Mahitahi Hauora from the NDHB initially and this has now been completed. Allocated resource is being considered within the PHE to support this work ongoing.
Minimal co-design or whānau/patient led input	A stronger focus needs to be placed on what works for whānau/patients around shared care planning whether it be in the form of a hard copy or online version of the care plan.

To be effective, the WT shared care plan tool needs to be used by both primary and secondary care. There is some reluctance to use it in primary care because it is not being used extensively in secondary care, while there is some reluctance in secondary care because it is not being used extensively in primary care.

It is vital that we create value for whānau/patients and primary care providers to utilise the WT platform to further grow engagement with WT for the purposes of Advanced Care Planning, MDTs and Diabetic Annual Review data. As stated in the WT Completion Report, when organisations were able to realise the benefits of WT for their organisation, there was a greater willingness to engage.

6.3 Routine & Preventative Care: Patient Portal

Contract Measure: *Eligible patients vs. activated patients by ethnicity (aspirational measure of 40% activated on patient portal). NHH practices will offer and actively promote patient portal access that allows ability for patients to manage and own their medical information including medication and test results. Evidence suggest that there is a notable capacity released when 40% of enrolled patients are activated on the patient portal.*

Patient portal activation is a better predictor of health outcomes than known socio-demographic factors such as ethnicity and age [18]. Patients activated on the patient portal are significantly more likely to adopt positive lifestyle behaviours and manage long-term conditions more effectively; attend screenings, check-ups and immunisations; have clinical indicators in the normal range and understand their role in the care process.

Tranche 1 NHH practices have made good progress with patient portal activations sitting around 50% for non-Māori and 30% for Māori. Tranche 2 are similar in progress achieved and Tranche 3 are well advanced considering their short time in the NHH programme. A large equity gap exists for all NHH practices.

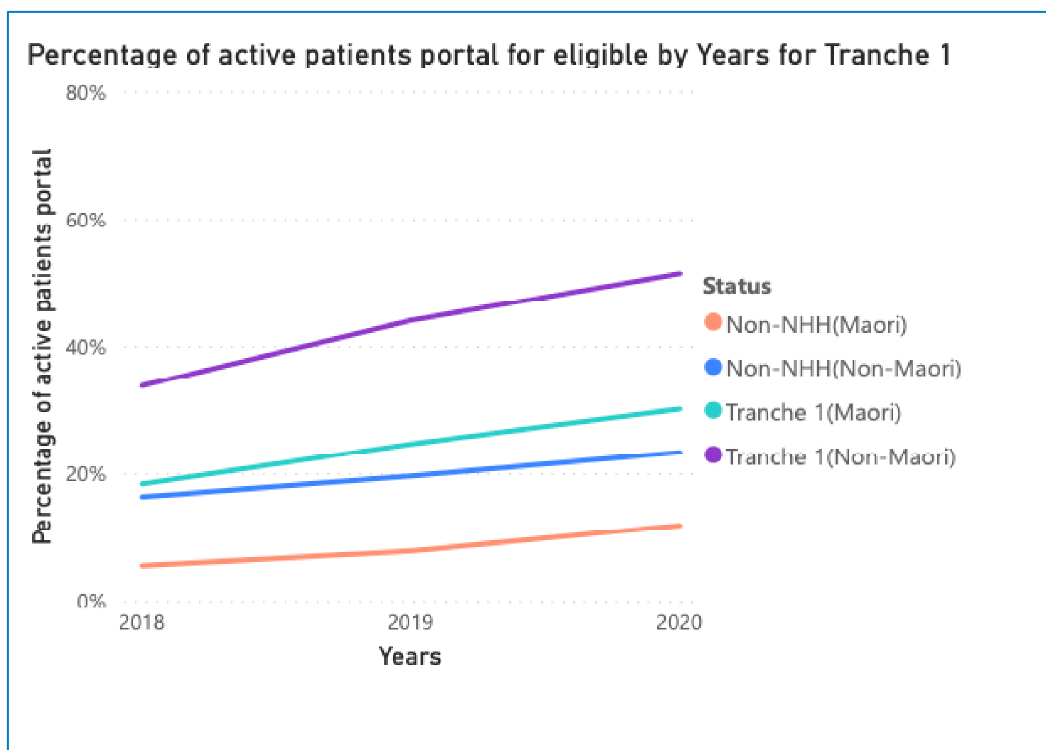

Figure 31. Tranche1 Patient Portal active patients

[18] Miller, A. (2020). Hit the target but miss the mark. Whangārei, New Zealand, Northland District Health Board.

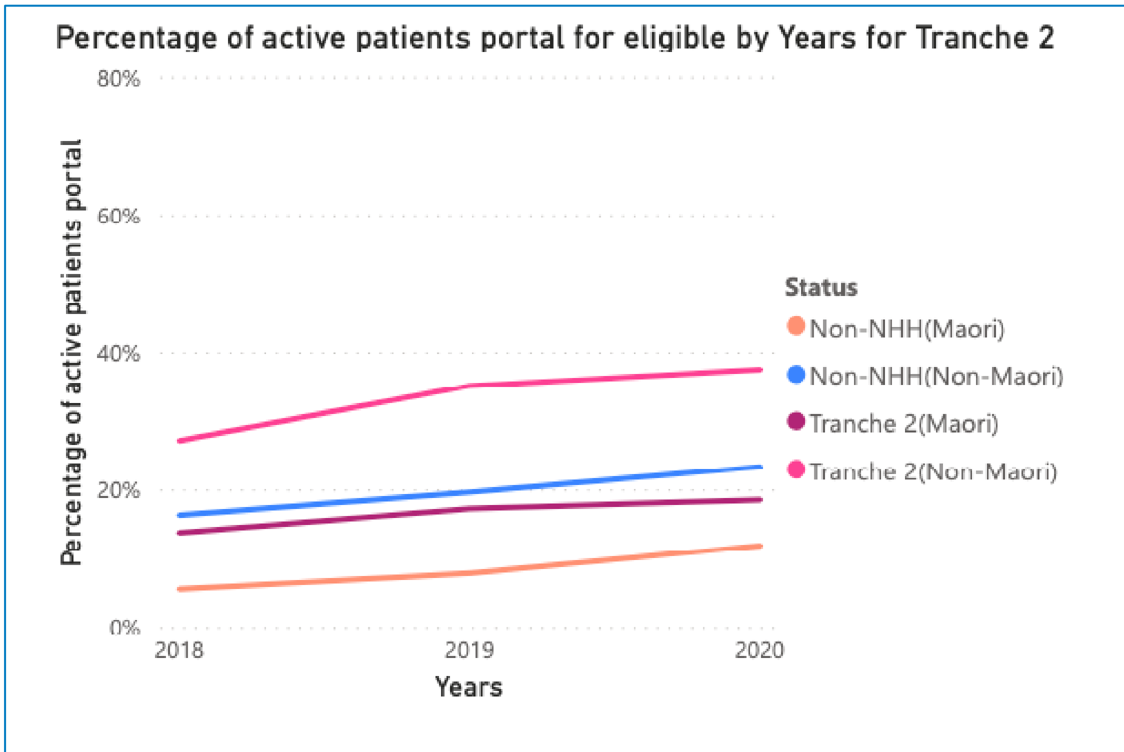

Figure 32. Tranche2 Patient Portal active patients

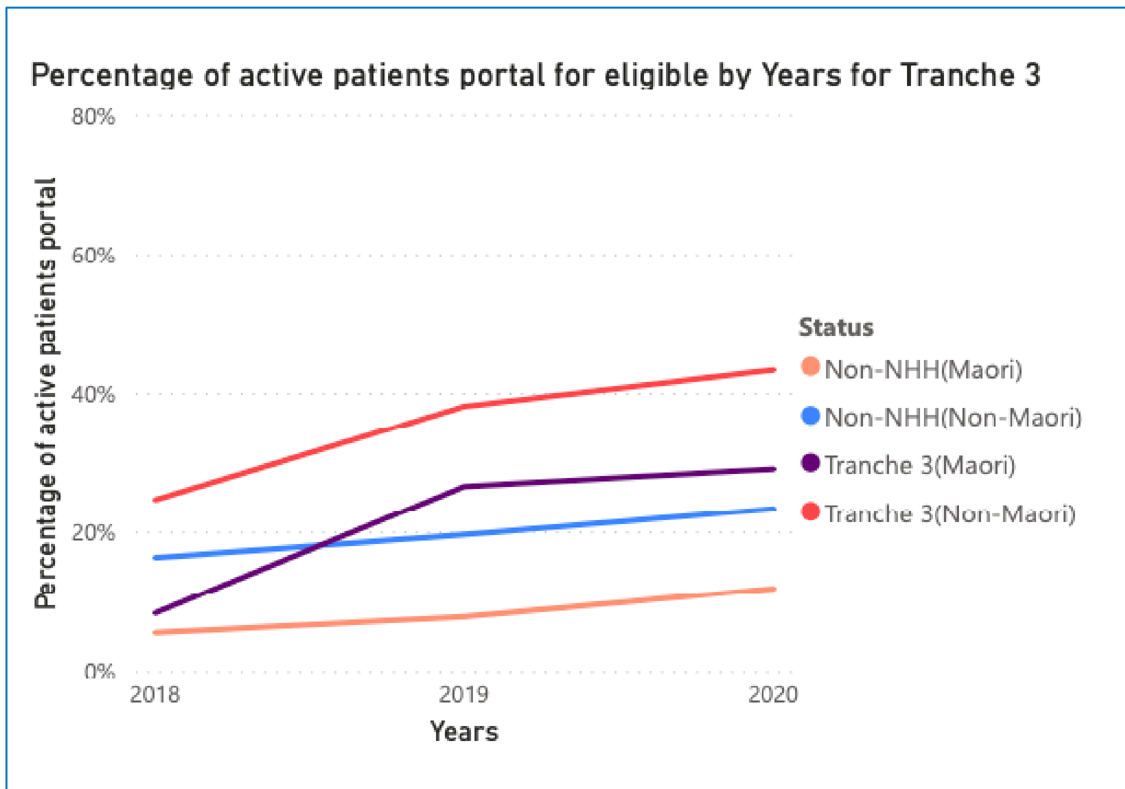

Figure 33. Tranche 3 Patient Portal active patients

Limitations & Recommendations

Issue/Limitation	Solutions/Recommendations
Barrier to access Patient portal uptake can be challenging for patients who are unfamiliar with technology and also for patients living rurally with reduced WIFI or cellular data signal. In addition, cost is a barrier to accessing online services.	Ministry of Health recently released Sponsored Data to key health websites which includes patient portals such as ManageMyHealth.
Equity Gap	Cost is a barrier for whānau Māori when accessing forms of virtual care such as patient portals. Initiatives like the Ministry of Health Sponsored Data will help reduce these barriers, however, does not reduce the challenges that present for Māori that live rurally and remotely with limited internet or cell phone reception. Whānau engagement should be undertaken utilising the Whāt Matters to Whānau kaupapa to gain insight on what works for whānau Māori and what doesn't when using patient portals, and allow solutions to be delivered by them.
Increased messaging not always linked with revenue With more patients using the patient portal as a means of communication with their general practice, this has reduced face to face consults which are linked with co-payment. Therefore, revenue can decrease with the increased uptake of the patient portal. With the current funding model being driven by co-payment, this does impact general practices significantly.	The overall general practice funding model requires review in order to acknowledge the change in ways general practice businesses are now operating which is more outside the traditional model of face to face care. As noted by the Sapere (2015) report on impact of portals for general practice, considerable disparity in the net monetary gains between large and small practices is observed with increased uptake of portals [19]. Resources are available via the Ministry of Health for general practice to assess the financial impact of increased patient portal uptake [20].

[19] Sapere Research Group (2015). Resource impacts of ePortals for general practice. Wellington, New Zealand.

[20] Ministry of Health and Sapere Research Group (2015). "Patient portal modelling summary." from https://www.health.govt.nz/system/files/documents/pages/patient_portal_modelling_scenarios.pdf.

6.4 Business Efficiency: Call Management

Contract Measure: % of calls answered in ≤30 seconds (aspirational measure of 85%), % of calls ≥30 seconds and % of calls abandoned (aspirational measure of 5%).

Call management has been implemented in all six Tranche 1 practices and three Tranche 2 practices. The practices are measured on how many calls are answered ≤30sec, >30sec and number of calls that are abandoned.

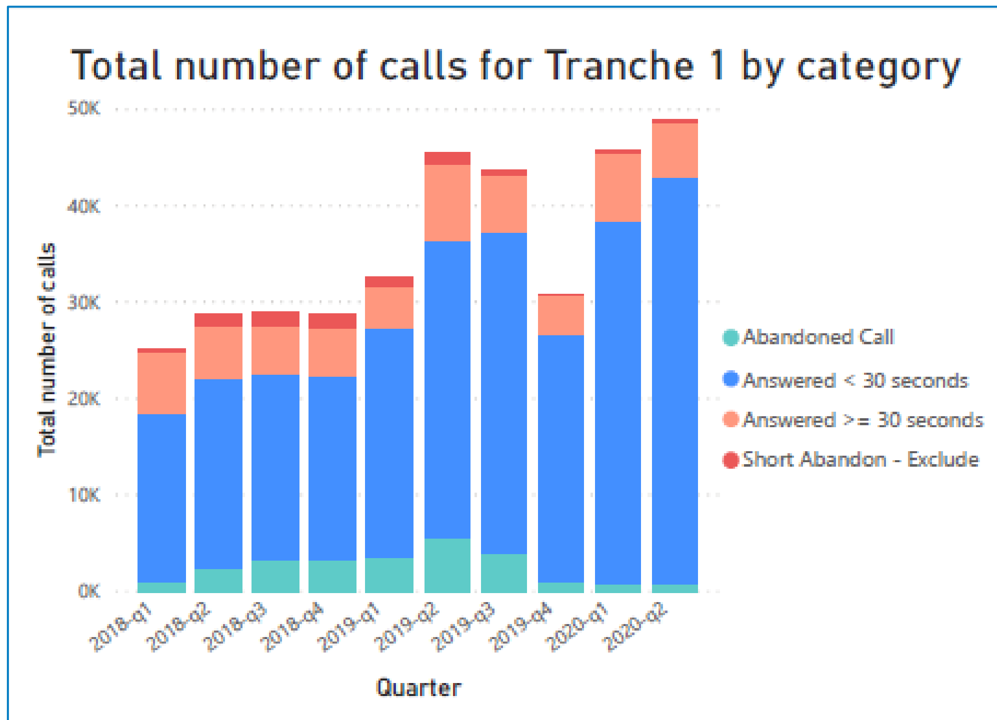

Figure 34. Total phone calls received – Tranche 1

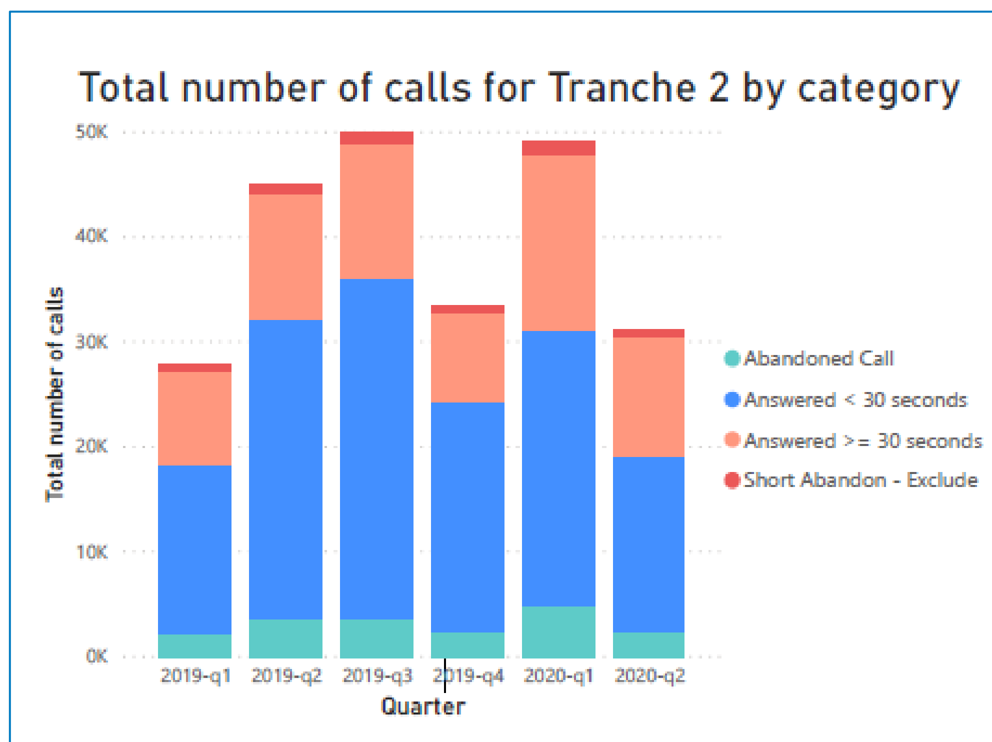

Figure 35. Total phone calls received – Tranche 2

Limitations & Recommendations

Issue/Limitation	Solutions/Recommendations
Inconsistent call reporting Challenges with collating data from call providers to report on call management contract measure. Different call providers among NHH practices which creates issues with PHE automating of data analysis. Labour intensive process to analyse data and create monthly reports for practices with practices saying they find little value in the PHE generated reports, as they can access the same data themselves on their call provider portals.	Recommended that the requirement for call management data to be provided to PHE for data analysis is removed and practices are encouraged to review their own call management data via portal. Practices can generate quarterly reports from their portals and submit these to PHE for monitoring purposes to ensure efforts are being made to ensure ≥85% calls are answered within 30secs and <%5 are abandoned. Practices must demonstrate that if call volumes are increasing along with waiting times to be answered, that processes are being reviewed with a view of additional FTE if required to meet demand.
Nil visibility of ethnicity split Inability to collect ethnicity data on call management.	Reporting system would need to have the ability to match phone numbers with patient records and ethnicity data could be collected. This would require advanced reporting systems. No immediate solution.

Figure 36. LEAN Workshop for Mid & Far North practices

6.5 Routine & Preventative Care: Extended Hours

Contract Measure: The change plan for extended hours is based on practice demand analysis. Has there been an analysis completed? Are you offering extended hours?

Analysis of the practice population enables a better understanding of the needs of the population. Extended hours if required, promote improved access and convenience for the patient, as well as offering routine bookable appointments at standard fees.

Extended hours analysis is completed via the annual HCH Patient Experience Survey (appendix 2).

Using the data from the recent surveys completed by four NHH practices in the last six months, 86.52% of patients felt the current open times were convenient with 9.25% disagreeing and 3.36% unsure (figure 37. When asked what additional opening times would be suitable, Saturday mornings was the most preferred option (30.31%).

	TOTALS	%
Q13. Is your GP surgery currently open at times that are convenient for you?		
Yes (Go to Q15)	1881	86.52%
No	201	9.25%
Don't know	73	3.36%
Q14. What additional opening times would make it easier for you to see or speak to someone?		
Before 8am	340	15.64%
After 5pm	575	26.45%
Saturday mornings	659	30.31%
None of these	634	29.16%

Figure 37. Extended hours analysis

Limitations & Recommendations

Issue/Limitation	Solution/Recommendation
Cost barriers for general practice All practices wished they could have the ability to provide additional hours, however many practices both locally and nationally struggle to extend hours due to workforce constraints. Furthermore, the costs of providing the extended hours adds financial constraints to the practice.	Remove as a contract measure, however, keep as an area of focus within the model. Could be linked with Patient/Whānau centric appointments component of care. The provision of Extended Hours needs to be managed on a case by case scenario for each practice. For smaller practices, it may be difficult to open additional hours due to only have one GP or nurse based at the practice.

Section 7.0: Other NHH Measures

7.1 ASH Rates

ASH rates for NHH practices are lower than non-NHH practices for Tranche 1 and this reflects how the impact of NHH on ASH rates does take 3-5 years to be realised. It is expected that a downward trend should continue for NHH Tranche 1 practices should they continue the NHH model of care throughout Year 4 & 5.

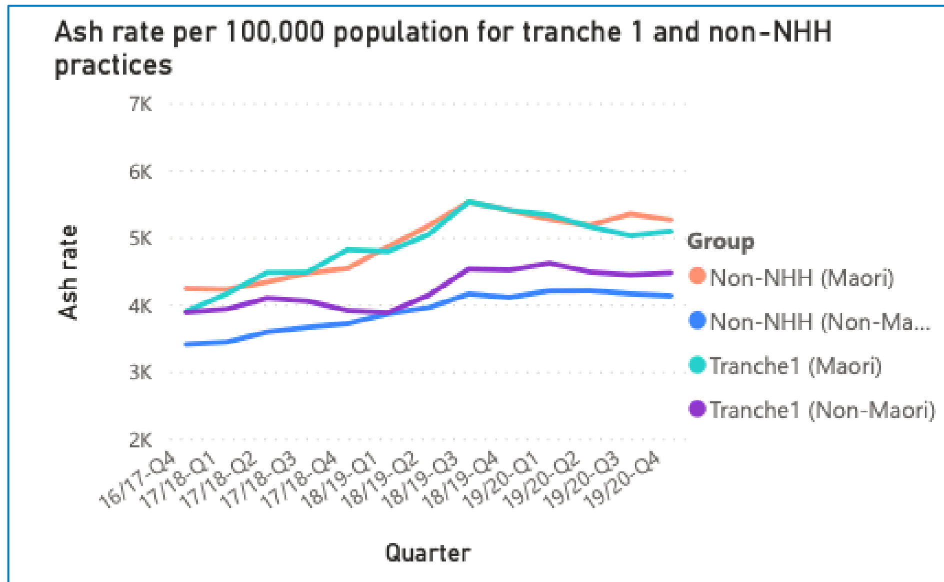

Figure 38. Summary of ASH rates by NHH status (0-4 and 45-64 years) – Tranche 1

Results differ for Tranche 2 who have just entered Year 2 of NHH Tranche 2 Māori patients have only recently started to trend downwards over the past 12 months. Tranche 2 Non-Māori patients have higher ASH rates compared to NHH Non-Māori patients. It should be acknowledged that Tranche 2 have a significantly higher rate of Māori and high needs patients within their cohort, and results observed in Tranche 1 may not be achieved as quickly for Tranche 2.

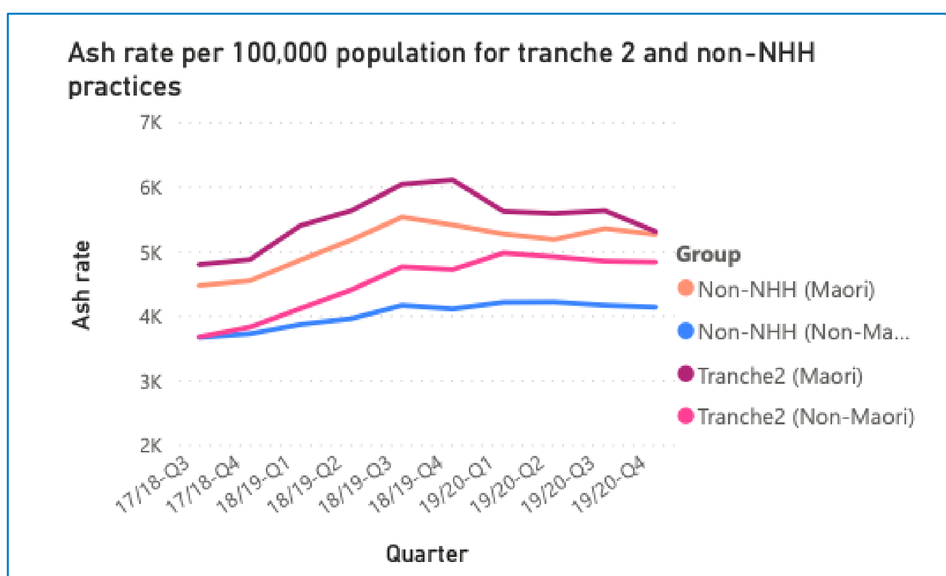

Figure 39. Summary of ASH rates by NHH status (0-4 and 45-64 years) – Tranche 2

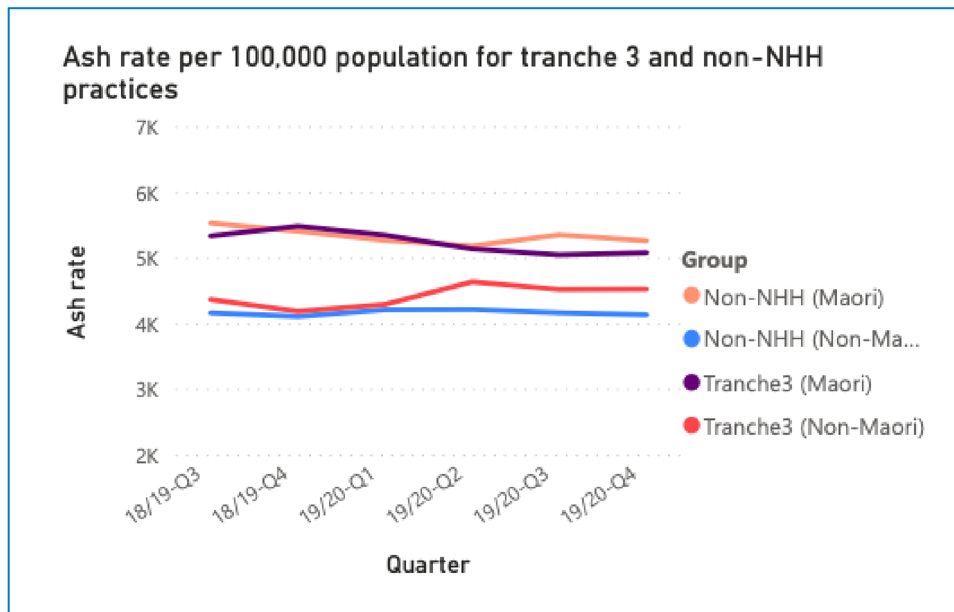

Figure 40. Summary of ASH rates by NHH status (0-4 and 45-64 years) – Tranche 3

Note: Nil data available from Mahitahi Hauora PHE Data Intelligence Team at time of writing report for Whangārei practices - ED Presentation per 1000 population and White Cross admissions per 1000 population (Whangārei practices).

7.2 HCH patient experience survey

Two Tranche 1 practices and two Tranche 2 practices completed the NZ HCH Patient Experience survey in the last six months (appendix 2). A total of 2174 patients participated in the survey. There is a contractual requirement in which NHH practices complete this survey annually with a sample of their enrolled population.

A sample calculator is provided for practices which requires data entered based on total enrolled population, total Māori patients, total CSC holders and total patients who have received a consult in the last 12 months. The sample calculator then determines the percentage of patients in each of these key groups, in which the survey invite should be sent to. A query build is created by the practice to collect the survey participants based on required variables and an invite is emailed to all eligible patients.

The questions used in the survey are standardised across all HCH practices in NZ.

42% of participants were aged between 45-64yrs and 40.10% aged 65yrs+. NZ European represented 76.68% of participants with only 19.87% Māori.

Key responses are shown as follows:

- 89.97% agreed that their GP surgery met their cultural needs;
- 88.87% stated that it was either fairly easy – very easy to get through to their GP surgery on the phone;
- 83.53% said they normally book appointments by phone;
- 24.84% booked appointments and 25.67% ordered repeat prescriptions via the online portal;
- 46.73% accessed their medical records and 49.95% viewed test results via the online portal;
- 22.45% stated they sent or received online messages via the online portal;
- 32.20% wanted to speak to someone the same day;
- 80.13% of patients were able to book an appointment on the day they contacted the practice.

Further questions are centred around opening times and written care plans. These have been commented on in previous sections of this report.

We are mindful that the majority of participants identified as NZ European, and this should be taken consideration when reviewing the results on cultural needs being met.

Limitations & Recommendations

Issue/Limitation	Solution/Recommendation
Online survey limits sample If a patient does not have an email address, then they will not receive the survey link.	More options need to be explored around sending the link via SMS text messaging. In addition, alternative options to gain insight to patient experience should be made available for whānau. An invite to a small focus group using the What Matters to Whānau kaupapa should be applied to gain richer insights in a kanohi ki te kanohi (face to face) setting.
Survey fatigue Patients are sent a number of surveys to complete.	Feedback from NHH practices has been based around the possibility of incorporating the HCH Patient Experience Survey with the Ministry of Health quarterly National Enrolment Service Patient Experience Survey to reduce the number of surveys required by practices and whānau/patients.
Co-design whānau experience surveys	Co-design process is currently underway at one of the NHH practices in which the HCH Patient Experience Survey questions are being reviewed by whānau using the 'What Matters to Whānau' methodology. This will ensure the right questions are being asked and also supports the concept of whānau/patient led care.

7.3 General practice experience survey

An online survey invite was sent to all NHH practices during July 2020 seeking feedback on general practice experience of NHH. A total of 11 general practices took part in the survey comprising of GPs (13), Practice Managers (5), Nurse Manager (3), Practice Nurse (3), Administrator (1) and Social Worker (1).

When asked what general practice felt were the main aims of NHH, the following were some of the main responses (figure 41):

- patient-centred
- improved patient access
- improved patient outcomes
- reduced inequities
- business efficiencies
- improved patient experience
- sustainable health systems
- staff wellbeing and workplace satisfaction
- top of scope practice

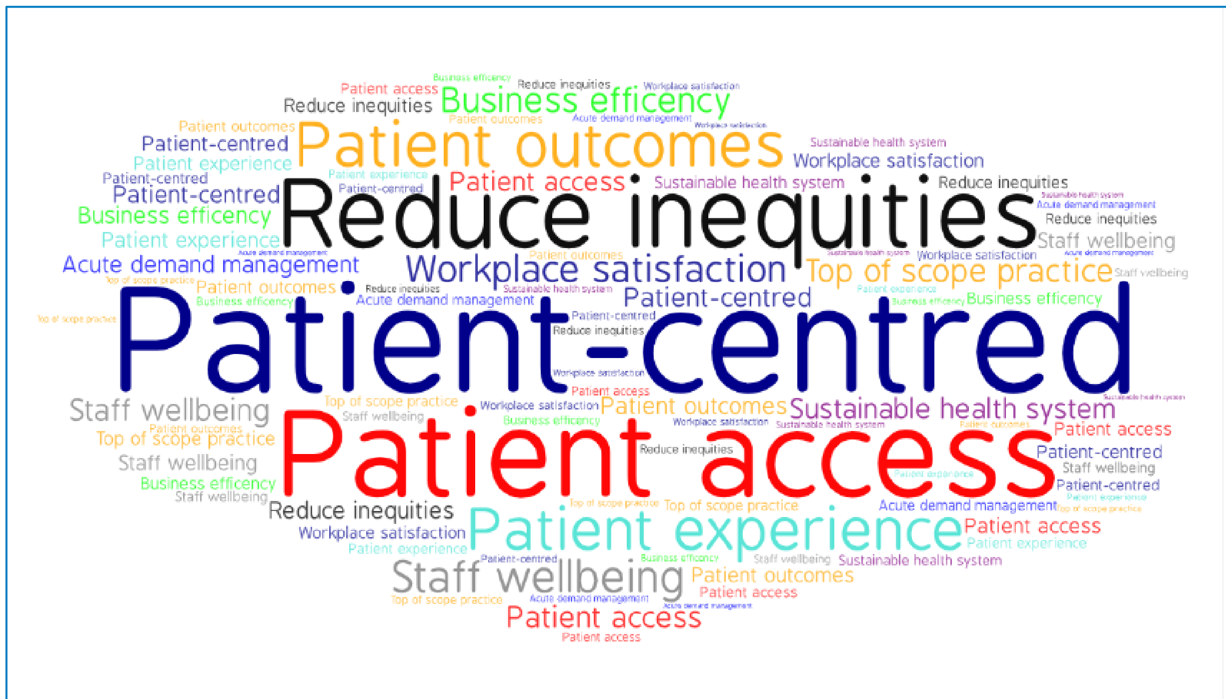

Figure 41. General practice understanding of NHH aims

General practice felt the key enablers to implementing NHH were (figure 42):

- Funding
- Staff buy-in
- Education/training
- Continuous improvement processes
- Strong leadership
- PHE support
- Good implementation

Figure 42. Enablers to good implementation of NHH

Practice staff were asked what components of NHH worked well (figure 43) and a strong response was shown for Clinical Phone Triage. Other components that also worked well were LEAN, Virtual Consults and Patient Portal. When asked what components of the model did not work well, Kia Ora Vision and Whānau Tahi scored the highest. As mentioned in section 6.2 (figure 44).

Aspects that could be improved for the NHH programme from a general practice view were:

- Better data from PHE/access to data dashboard;
- More PHE facilitator support in-practice;
- More community education for whānau/patient;
- More peer group support.

A personal account from Bush Road Medical GP - Dr Andrew Miller, is also provided as appendix 3. Dr Miller

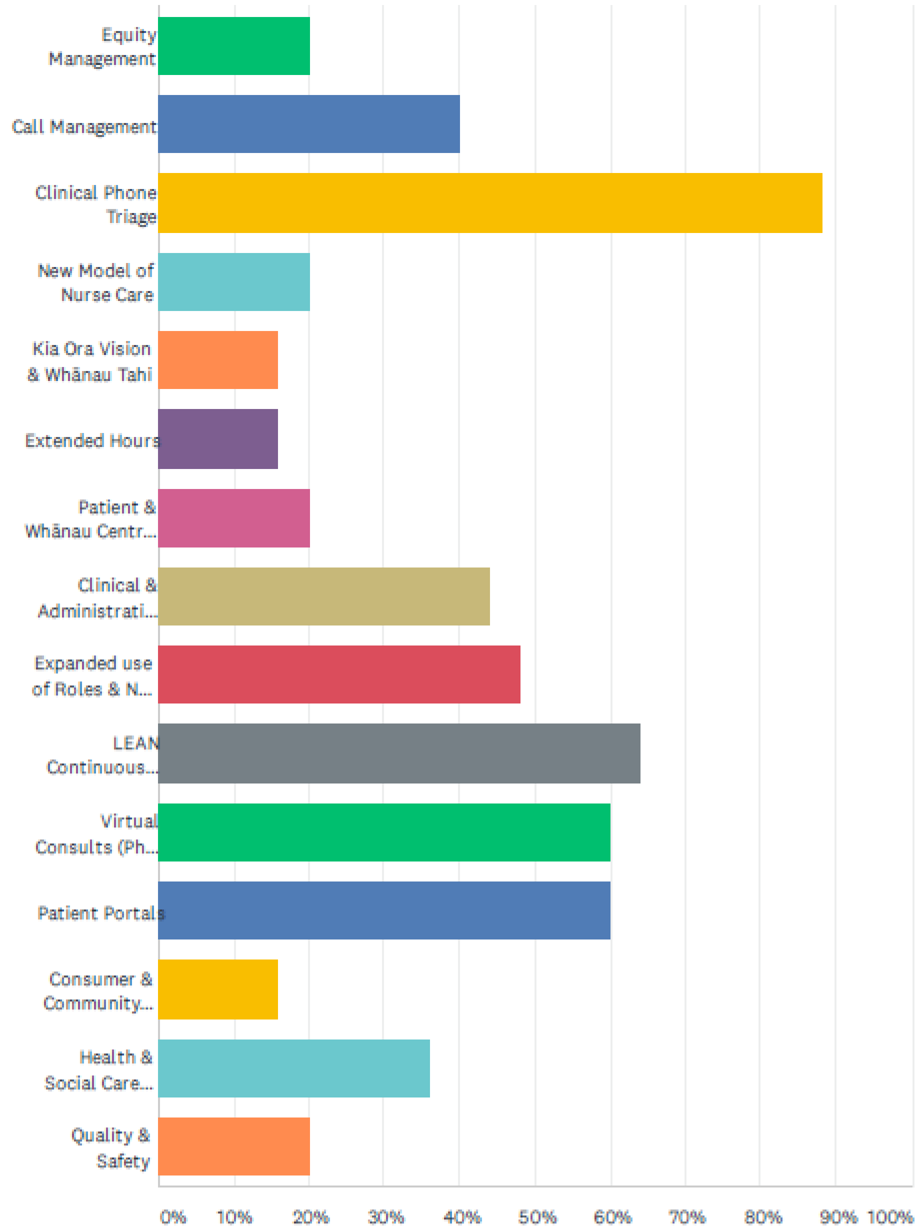

Figure 43. NHH components of care that work well in general practice

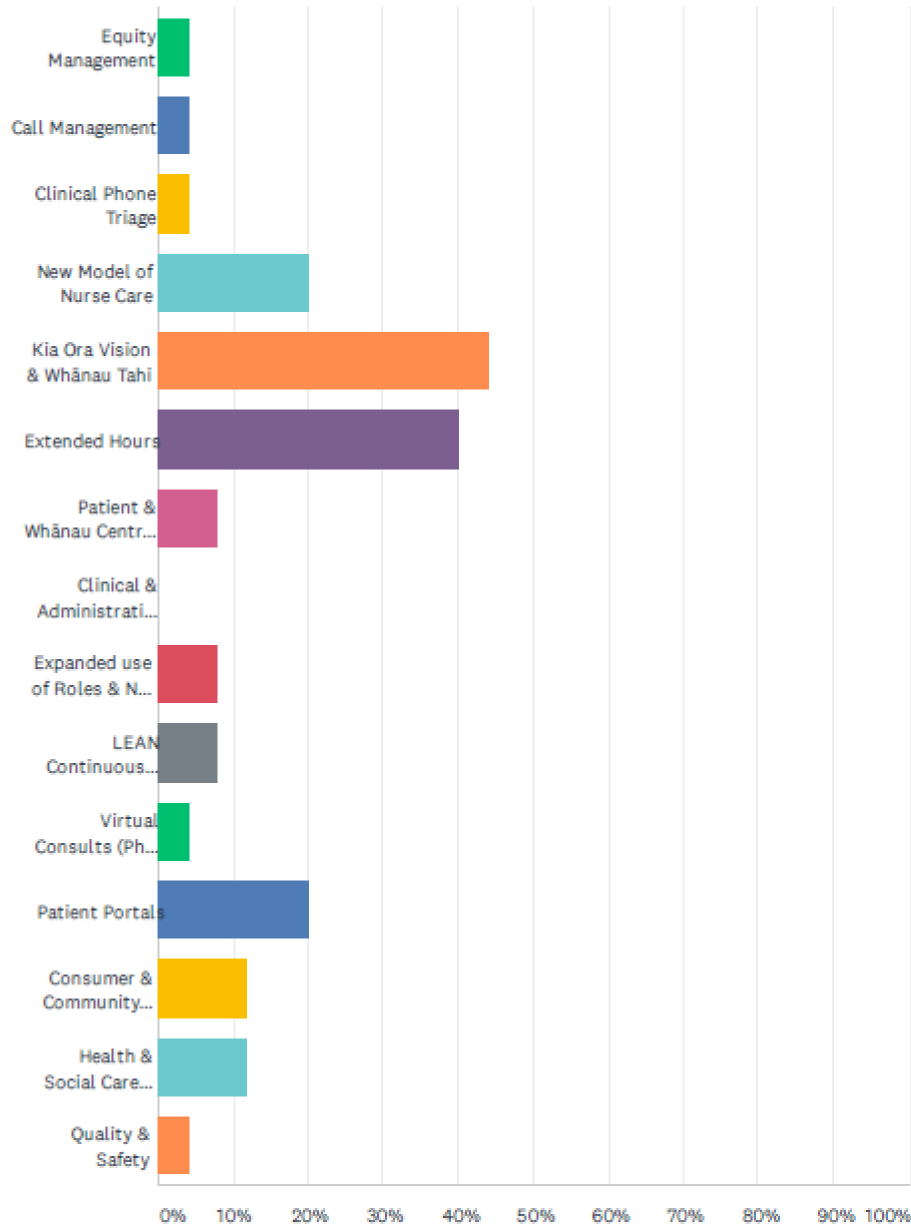

Figure 44. NHH components of care that do not work well in general practice

Section 8.0: Funding & Financial Modelling

This section provides an overview of:

- Current NHH funding model
- Other PHO funding models
- Independent financial analysis from Sapere

1. Neighbourhood Healthcare Homes funding

NHH is jointly funded by NDHB and Mahitahi Hauora PHE. Funding occurs in two phases – Establishment and Capitation.

Establishment Phase funding: The process to establishing an NHH practice requires a collaborative approach between the practice(s) owners, staff, enrolled service users, Mahitahi Hauora and Northland DHB. It is recognised that to enable a fully informed decision, practices will be required to participate fully in the establishment. To reduce financial barriers, a set level of funding is provided for the establishment activity that is necessary within each practice to enable conversion to an NHH practice.

The current funding formula for the Establishment Phase is:

$8,000 (Small Practice ≤10 staff)

$11,000 (Medium Practice 10-20 staff)

$11,000 (Large Practice ≥20 staff)

Capitation Phase funding: During the Capitation Phase, NHH practices receive a total of $19.00 per enrolled patient. $16.00 is provided by the DHB and $3.00 from Mahitahi Hauora SIA funding. Payments are paid monthly to the NHH practice.

Other PHOs

2. Pinnacle Midlands Health Network

PMHN has self-funded the development and roll out of HCH, using its own reserves, a small contribution from the Ministry of Health and some flexible funding from the national PHO agreement.

Engagement phase:

- Workshops – contribution to attendance at a minimum of 4 different workshops as described. $18,500 for practice >10,000 patients $10000 for practice <10,000 patients.
- Contribution to the cost of infrastructure changes and kiosk – to be paid by reimbursement against copies of receipts of costs incurred by the practice or payments made directly to a third party. A maximum of $23,500
- Contribution towards the costs of practice specific communication - to be paid by reimbursement against copies of receipts of costs incurred - A maximum of $5,000

Go live date: Contribution to the dedicated time required by a practice lead on HCH change management including the participation for up to 1 HCH Lead session per week at a unit rate of $500 for a maximum of 12-month period. A maximum of $22,000.

Implementation funding: Variation on back to back contract. Flexible funding is bundled up (SIA, LTC, Palliative Care, Minor Surgery etc) and then top up to equivalent of $15 in quarterly payments. Contract has claw back clause if practice was not meeting implementation plan.

Majority of practices join a Patient Access Centre (call centre) which practices pay $9.00 per enrolled patient (true cost $18.00).

3. Tū Ora Compass PHO

CCDHB: Joint funding between PHO and DHB.
Establishment Funding: $3500 for engagement, staff time release etc. $3500 scoping the gap. $3000 when implementation plan signed off by steering group.

Implementation funding: one off commencement funding 3k-13k dependant on size of practice for commencing implementation. DHB $11 pp/pa paid monthly if achieve national targets: smoking and immunisation; $5 at risk DHB funding paid at end of year if achieved annual objectives in implementation plan.
Approx. $14 PHO LTC payment (annual amount paid monthly).

WRDHB: Joint funding between PHO and DHB for 3 years
Establishment Funding: $1800 for engagement

Implementation funding: $7 pp/pa paid in 2 instalments (1st and 12th month)

4. Pegasus PHO
Funding only for Integrated Family Health Service Team within Pegasus. Programme is available to all three PHOs as a DHB funded whole of system programme. Canterbury also has Enhanced Capitation available to GP teams to support programme implementation.

5. ProCare PHO
Development funding only through PHO project team.
No incentive funding for HCH. Counties had some funding under Enhanced Primary Care 'Learning Collaborative' $15k per practice.

Financial Case Study – Pinnacle Midlands Health Network

PMHN internal stakeholders reported that all their HCH practices had maintained or slightly improved their financial performance under the new model. Some individual practices experienced staff changes, fluctuations in enrolled patient numbers or other locally driven issues which had an impact on financial performance, but this was not related to HCH.

The table below describes the financial changes occurring in a single practice which had implemented HCH. The practice commenced HCH in 2017, following a year of consolidation and adjustment where practices merged, a building change, a retired GP and loss of 500 patients.

Net income/deficit based on management accounts FY ending June	2011	2012	2013	2014	2015	2016
Total Income	2,313,151	2,928,283	2,915,601	3,316,554	3,178,505	3,210,682
Total Operating Expenses	1,901,404	2,738,306	2,928,002	3,288,243	3,104,890	2,906,796
Net Income before Non-cash expenses	**411,747**	**189,977**	**-12,401**	**28,311**	**73,615**	**303,886**
Total Non-Cash Expenses:	56,169	76,904	83,269	109,982	184,410	26,491
Total Net Income	**355,578**	**113,073**	**-95,670**	**-81,671**	**-110,795**	**277,395**

Table 3. Six-year Financial Report - one PMHN practice

There was a significant downward trend prior to 2013 and deficits in 2014 and 2015. This was then followed by an upward trend in 2016. The data demonstrate the vulnerability of practice viability to the impact of change.

Independent financial analysis (Sapere)

Introduction
We have been asked to review the costs to practices of implementing the HCH model of care.

Summary of key findings
1. The cost to practices (without taking into account funding) is around $9 per patient per annum. This number differs significantly across practices.
2. Patient enrolments have increased in the HCH practices without causing proportionate increases in GP and nurse face-to-face consultations.
3. Practices have taken on additional healthcare assistants and administration personnel to complete certain tasks.

4. Notwithstanding the common themes outlined above, the net effect of these impacts varies significantly: one practice would be better off even if no HCH funding were available; another practice has increased its resourcing of staff from a low baseline.

Suggested outcomes/hypotheses
To carry out this financial analysis we outlined some observations that we would expect to see based on the stated objectives of the HCH model of care including:
1. Growth in enrolled population as capacity is created
2. Less use of GPs and nurses on a per patient basis
3. More use of administration staff and health care assistants on a per patient basis
4. Fewer standard and ACC consultations on a per patient basis
5. More discretionary activity (such as smoking cessation initiatives)

Method – development an expected baseline and comparison with actual results
To evaluate the financial effects on practices we first calculated the baseline movements in costs and revenue that we would have seen in the normal course of events based on observed prices and volumes.

Baseline price movements were estimated by taking the calculations of changes that are used to determine the estimates of reasonable GP fee increases.[21] These price changes observed in general practice take into account general business operations, staff, and capital.

Baseline volume changes – i.e. number of patient contacts – are a more complicated. In healthcare, the age of the enrolled population can have a significant effect (e.g. in general, the older the population the more patient contacts there are). We age-standardised the enrolled population to develop estimates of the number of patient contacts that we would have expected to see in a business-as-usual operation.

Cost movements of activity-based categories are estimated by combining the expected price and volume changes and applying those changes to the financial result before the introduction of HCH.

Revenue movements of activity-based categories are estimated in a similar way to the cost movements. However, for patient consultations, where there are zero fees (i.e. for under 14s), only the volume movements relating to age groups 14 years and above are taken into account.

Actual results were obtained from practice financials and compared with the calculated baseline results (based on volumes and prices above). Where the actual and baseline results differ, we are able to infer that the cause is the HCH initiative when those movements match our hypotheses.

Results

The results are in line with our hypothesised expected results, when the consolidated results of the Tranche 1 practices for which data is available are analysed.

The table below shows expected compared to actual results:

Expected result	Actual result
ACC and patient revenue lower than business as usual result	Patient fees 8% below baseline ACC revenue 22% below baseline
Higher revenue from selected items (immunisations, smears, smoking cessation, CVD and diabetes)	Revenue 8% above baseline
Spending up on reception and health care assistants	Reception 24% above baseline HCAs 29% above baseline
Lower spending on medical supplies, nurses, and GP remuneration (includes locums, salaries and wages)	Medical supplies 14% below baseline Nurses 11% below baseline GPs 5% below baseline

[21] Annual statement of reasonable GP fee increases - 2019/20 update – May 2019 – Preston Davies https://tas.health.nz/assets/Primary-Care/GP-Fee-Increase-Statement-2019-20-Final.pdf

When looking at the total effect of these movements we found that total revenue is about 11% below what it would have been in the normal course of events for an enrolled population of the same size. Expense items affected by the HCH initiative are about 2% below the baseline. The net effect, on a per patient basis, is for gross profit to be $9.16 lower per patient.

The results for the consolidated practices by year are as follows:

Year	Foregone revenue per patient	Increased costs per patient	Net effect on gross profit per patient
2017/18 (partial year of HCH)	$2.73	$6.36	($9.10)
2018/19	$4.53	$1.91	($6.43)
2019/20	$14.01	($4.85)	($9.16)

We also note that, since the introduction of HCH, there has been a 5% increase in the combined practice population. The figure below shows the growth in the practice population and compares it with an age standardised population. The age standardised population has grown marginally (5%) more than the actual population as a result of slightly higher growth in the 65+ age group.

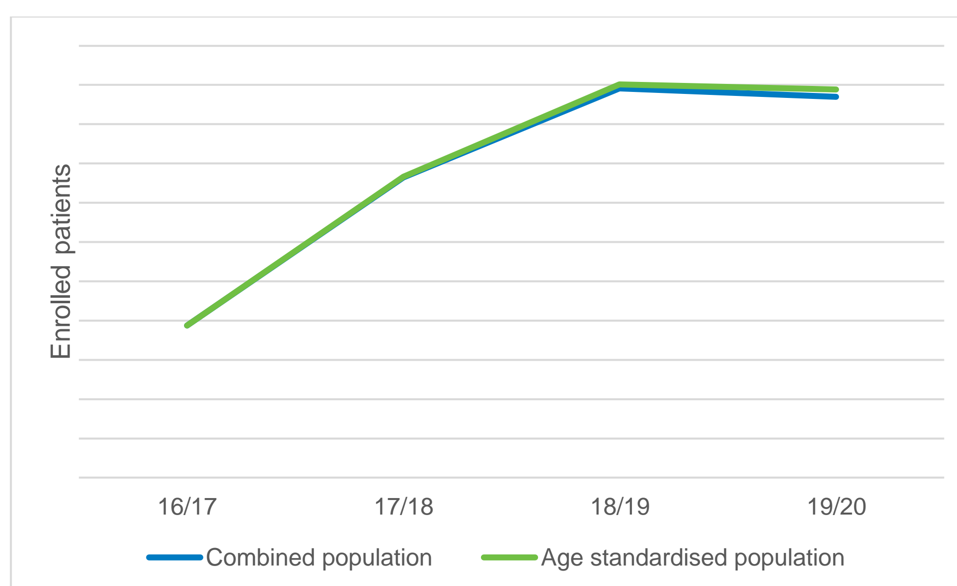

Figure 45. total enrolled population of subject practices – 2016-2020

In a business-as-usual context we would have expected that the growth in enrolled patients to result in more face-to-face contact. The next chart shows the actual numbers of face-to-face GP consultations and also notes the numbers of calls that were resolved through triage.

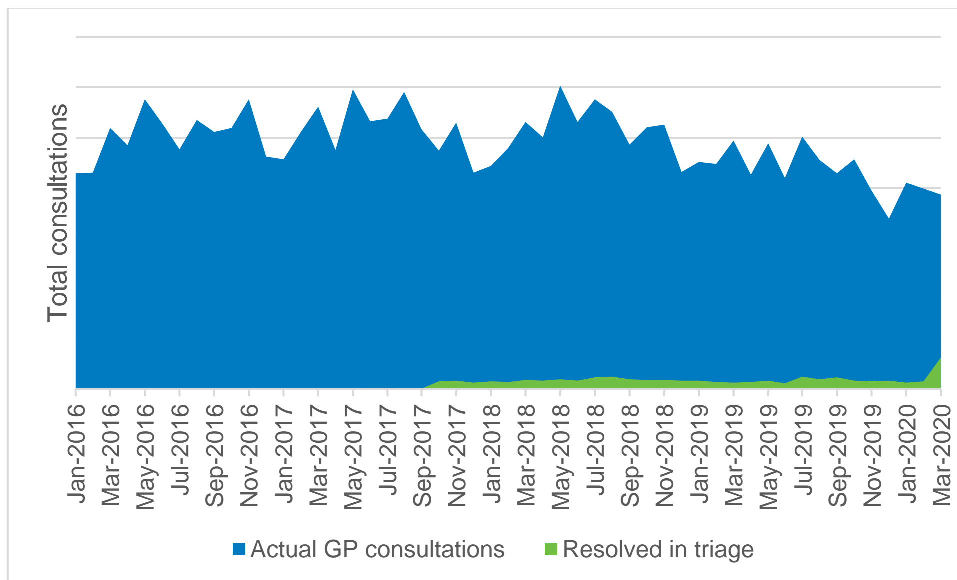

Figure 46. total GP consultations by month, and those resolved by triage of subject practices January 2016-March2020

We can show that the rate of growth has been constrained compared to the growth track that we would have expected in the normal course of events. In the next chart we add a trendline to the actual consultation numbers and compare this trendline to the age standardised baseline.

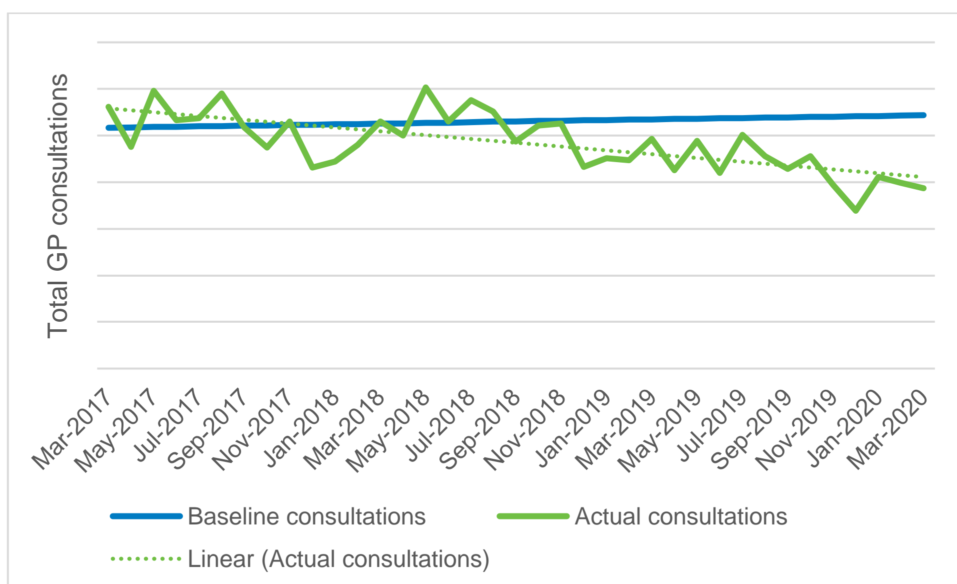

Figure 47. expected GP consultations versus baseline – March 2017-March 2020

Finally, we show that the number of annual GP consultations per person per year has decreased from over three consultations to around two consultations.

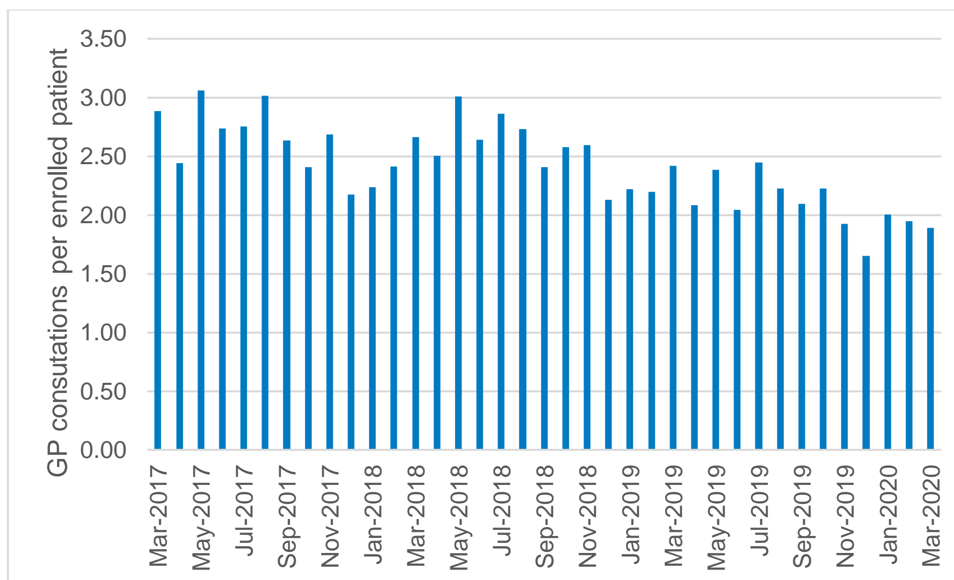

Figure 48. GP consultations per enrolled patients – March 2017 to March 2020

Some words of caution:

1. The results are not uniform across practices. Overall, the expected movements were in line with our hypotheses, with the exception of ACC revenue, which increased in one practice, and revenue from selected items, which decreased at one practice. There was also some variation in the magnitudes of changes. For example, for one practice, lower spending on nurses and GPs was enough to offset falls in revenue. This meant that this practice was financially better off overall before HCH funding.
2. The baseline may have been too low to begin with. For example, if a practice had been short of sufficient staff and was able to use the additional funding to plug staffing gaps then the results will show a large increase in expenditure attributable more to previous underspend than to HCH.
3. There are also hidden costs relating to unpaid administration. GPs, for example, need to respond to messages from patients. This work will often take place out of hours and is not specifically remunerated.
4. If there are capacity constraints remaining in the system which account for fewer face-to-face GP consultations, then this could account for lower than expected growth in consultations.
5. The impacts of Covid-19 appear to have affected consultation volumes and revenue towards the last week in March 2020. We have not accounted for this in our analysis, but the impact is immaterial when analysed over 3 years.

Section 9.0: Other Constraints/Limitations

1. Primary Care Workforce Shortages

The primary care sector is currently experiencing GP shortages with several GPs retiring or leaving the area. There has been difficulty in recruiting for these roles, which has led to a workforce shortage across all Northland general practices. NHH is able to alleviate some of these pressures from GPs by diversifying the primary care workforce and allowing nurses, clinical pharmacists, health coaches and health improvement practitioners (HIPs) to work top of scope. Patients don't need to just see a GP with the NHH model of care. Practices are redesigned to provide services to their community in a more innovative manner.

2. PHE Organisational Restructure & Workforce

In July 2019, Manaia PHO and Te Tai Tokerau PHOs merged into one primary health entity (PHE) known as Mahitahi Hauora. This caused some uncertainty and an inability to recruit into roles which were vacant prior to the merge. NHH business as usual work slowed throughout this transition period. Resource constraints have occurred over the last 12 months particularly with NHH Practice Facilitator role, and the NHH Programme Lead role has recently being made vacant. Recruitment is underway (2 NHH Practice Facilitators & 1 NHH Programme Lead); however, it will take at least 3-6 months to induct new staff to the NHH programme. In the interim, the NHH programme will be overseen by the PHE Whānau & Consumer Experience Lead and Non-NHH Practice Facilitators.

3. Data Issues

NHH states that practices will be provided with current up to date population data to support them in identifying patients requiring additional support. Practices still do not have access to a live data dashboard and readily access to risk stratification reports. Risk Stratication reports were unavailable fro the PHO & PHE from Oct 2018 until Mar 2020. This has impacted visibility for practices to easily identify patients requiring adduitioanl support or complex care.

A live data dashboard is in development by the PHE and should be released to practices for testing by the end of Q1 2020/21.

4. HCH Certification Process on Hold

The process of HCH National certification has been placed on hold for NHH practices due to lack of staffing capacity within the NHH team and the extra workload this adds for practices who have to meet RNZCGP Accreditation requirements.

5. Possible Introduction of Structural Inequities

The identification process of general practices that were accepted to transform from a traditional model of practice to the Neighbourhood Healthcare Home model may be contributing to a new structural inequity within primary care. The Expression of Interest process is in itself a barrier to practices that do not have the resources to commit to such processes, which has resulted in a two tier funding model and support model: practices that are in receipt of additional funding and change facilitation, and those that are not. In many cases, the practices not transforming are smaller, with less number of enrolled patients and subsequently smaller care teams. However, given the significant demographic of Northland, their patients are likely to have significant additional needs that could benefit from the healthcare home model.

6. **Review of NHH Model of Care**

   Engagement with NHH practices has found that the current NHH model of care (15 components of care) is not easy to understand and segregates the model. It is therefore recommended that the NHH MoC is reviewed, better aligning with the HCH MoC Enhancement and incorporate feedback from key stakeholders both whānau and general practice. Solutions and recommendations noted through this report in the key contract measure sections should be incorporated into the NHH model of care review process.

   Equity was already a strong focus in the current NHH model, however, was set as an individual component. Equity should be weaved through the entirety of the NHH model with stronger focus on practical ways for general practices to apply equity. Funding should be aligned to incentivise improved health outcomes for patients/whānau with a strong equity focus. Additionally, funding provided should take into consideration time for clinicians to be released to attend activities such as MDTs.

7. **Review of NHH Contract Measures**

   The current NHH contract measures should be reviewed and realigned with the HCH MoC Enhancement project. Some of the current contract measures, such as Kia Ora Vision and Whānau Tahi shared care plans, are already measured as independent contracts. Suggested measures could be for example:

   Proactive Planned Care > Effective use of KOV and shared care plans leads to improved HbA1c for whānau/patients or reduced frequency of visits to GP and/or ED/hospital for tamariki with respiratory related illnesses. Greater focus should be placed on equity by prioritising these improved outcomes for whānau Māori.

8. **Everyday Model of General Practice.**

   The Health and Disability System Review highlights that in the formation of localities (as in the reviews definition), there should be guaranteed services available to all patients. To eradicate this structural inequity, all general practices and Māori Health Providers should be supported to operate under the NHH model, irrespective of size or capacity to engage in a competitive or evaluated process. This would mean the introduction of additional resources to support innovation and change management provided by the funding providers such as the DHB or PHO.

9. **Equity – Practical Application & Funding Alignment**

   The Health and Disability System Review highlights that the immediate priority for coverage of Tier One services should be applied to areas with the highest need. Specific investment is required to support the growth of kaupapa Māori services. It proposes that funding of services in Tier One needs to be radically different to achieve equity and reduce the burden of chronic disease which disproportionately affect Māori.

   In the context of NHH, the development of kaupapa Māori models will need to be cognisant of the very different models that exist between traditional general practice and Māori Health Providers. Significant consideration and engagement with Māori Health Providers and Iwi should explore the ability for the medical GP workforce to be accessed as specialist generalists that are available to Māori Health Providers to provide clinical oversight and access to Māori in need of healthcare, rather than the current access offered by traditional general practice. These models should be designed and implemented by Māori and funded appropriately within the new opportunities posed by the Review.

10. **Ongoing funding for Years 4 & 5**
    It is recommended that ongoing funding is provided for practices entering Year 4 & 5 of NHH. Funding may not necessary remain at $19 per patient, however, should be continued with a view the model needs to be sustained. The majority of fundamental changes have been implemented in Years 1-3, and greater focus should be placed on Proactive Care. The amount of funding required ongoing should take into consideration the financial analysis completed by Sapere Research Group.

Section 11.0: Conclusion

The Health Care Home (HCH) model was developed in response to the resource and demand challenges in New Zealand primary care. An increasing shortage of GPs, ageing population and workforce alongside increasing hospital demand were the main drivers to implementing this transformational change. The HCH model has grown since its initial conception in 2010 and now, in 2020 this new way of operating for general practices is quickly being recognised nationally is a suitable alternative to the traditional general practice model of care.

NHH, the local adaption of HCH model, has demonstrated achievements which are not necessarily seen in non-NHH practices. These include comprehensive Clinical Phone Triage systems and processes, increased patient portal uptake and improved business efficiencies. NHH improvements such as visual boards and daily huddles were reported to lead to greater achievement of health targets and team communication. Of importance is that the work required to implement the NHH model is complex, required significant change management and time commitment.

After three years, there have been various gains achieved across the model. The change is incremental and does take time to demonstrate effect. Urgent unplanned care or acute demand needs to be managed firstly before clinicians have the released capacity to commence work on Proactive Care.

This evaluation provides insight to progress achieved with fundamental components of the NHH model, namely Clinical Phone Triage, Shared Care Plans, Patient Portal, Call Management and Extended Hours. Some components are considered to work better than others such as Clinical Phone Triage, LEAN methodology, Virtual Consults and Patient Portal. For example, Clinical Phone Triage provided over the last three years has been provided to 186,360 whānau/patients. This has saved both whānau/patients and general practices approximately 46,590 hours or 1,164 working weeks. In addition, the approximate distance travelled saved for whānau/patients was over 315,000 kms.

While great results have been achieved with phone triage, and this was strongly demonstrated during the COVID-19 response, certain components prove difficult for both general practice and whānau/patients to adapt. Kia Ora Vision and Whānau Tahi Shared Care Planning was rated as one of the more difficult components to implement.

Reducing inequities being the main aim of NHH is predominantly at the forefront of DHB and PHE stakeholders, however, is an area that requires significant review on how general practices actually apply an equity lens in a practical sense. This was an area also identified in a previous NHH process evaluation during 2018.

Limitations of the NHH model are stated throughout this report when discussing key measures, and recommendations are put forward around how some of these issues can be addressed.

Furthermore, funding for NHH practices is currently only provided for a three-year period. Tranche 1 practices are now nearing the end of this contract period, and consideration is required around ongoing funding for Years 4 & 5 to ensure the NHH model is further embedded and sustained. Financial analysis has been completed independently by Sapere to determine the true cost of NHH.

The implementation of the NHH model is ambitious and based on a driving need to alter the way general practice is provided. There has been a substantial investment over three years to achieve the changes shown by the NHH model. Perspectives from both whānau/patients and general practice is that there have been some positive changes that have occurred through implementation of NHH. A greater focus is required to embed equity more practically throughout the model, and to also enable fundamentals of NHH to be made available to all general practices and Māori Health Providers.

Section 12.0: Appendices

Appendix 1. Health Equity Assessment for NHH

Primary and community nursing around a NHH network
Engagement with a new model of nursing care is one of the components of the NHH. The following section describes in more detail, the features of a new model of primary and community nursing care developed for Whangarei, which will be extended over time.

The primary and community nursing component of NHH involves linking up, coordinating, and where possible co-locating a range of nursing services around a network of NHH practices. Building collective capability and expertise in the care of people with long term conditions is an important component of both the nursing model and the NHH. The proposed nursing model of care is an integrated, consumer focussed model designed to engage the consumer in partnership with their healthcare provider which, in many cases, is their nursing team.

During 2015 a comprehensive consultation process with nurses and consumers identified the following principles:

- Integrated nursing care in the Whangarei community will promote meaningful connections
- Nursing care in the community will be affordable and accessible to our people to ensure equity
- Proactive and preventative care with a population health approach will underpin our nursing model of care in the community
- There will be a strong nursing workforce functioning at the top of their professional scope

The key features of the new model are:

- General practice is the patients' healthcare home which means that wherever possible patient care is located in, or explicitly linked to, general practice
- The nursing team is part of the broader multidisciplinary team
- An equity focus will necessitate linkages with iwi nursing services
- Nursing leadership and coordination, will drive the change process
  - for the project overall
  - within general practices
  - between primary and secondary services
  - between primary and community nursing services
- A coordination mechanism and function will be established that supports care transitions and will be a partnership between primary and secondary services (known as Community Central) The purpose of Community Central is to:
  - Engage the most appropriate provider of care in consultation with the patient and nurses
  - Maintain relationships with and knowledge about the range of nursing services available including accessibility criteria and process
  - Ensure that the transition is seamless
  - Support quality improvement initiatives for a successful transition pathway
- The first contact following referral, or when the person's needs change, will include a comprehensive nursing assessment

- For timely, unplanned care (acute, short term) follow up is planned and agreed with the patient, taking into account holistic health needs including social circumstances

- Long term care will be proactive, with nurses actively telephoning patients in advance of visits, post discharge and when key interventions are required. In line with the objective of the NHH a 'year of care' will be planned with the patient. The patient will have an electronic shared care plan which the patient can access, and into which nurses from different organisations can write. A Lead Coordinator of care will be identified and be known to the patient as their 'go to person'. Through the Lead Coordinator patients can be referred to specialist nursing services if the care is complex, requiring a higher level of care. The care team, their names and roles, will be clearly identified for the consumer. If required, the Lead Coordinator will arrange a multidisciplinary case coordination meeting to ensure the patient receives the most appropriate care from the right person.

- Nurses will work in named teams centred, and where possible co-located within NHH general practices and networks. All primary and community nurses will be allocated to the network. Systematic updating and maintenance of this system will support collaborative care and better flows of information, both of which will benefit the consumer through avoiding delays and enabling early care. Initiatives to reduce cost barriers to changed care provision will be developed and tested.
- A workforce development programme will engage nurses from across the sector to build teamwork and to support the change process across primary and community nursing services
- A continuous quality improvement approach will utilise PDSA cycles to test and refine the model and support the changes.

Old Model	New Model
Individually focussed	Patient and whānau focussed
Inequitable referral of Māori to specialist services including iwi services	Focus on equity and engagement with iwi services
Service centred	Patient / whānau centred
Referrals may not be made in a timely manner at assessment or when care needs change	Centralised triage and referral system through Community Central to maximise efficiency and appropriate referrals. Current secondary focused referrals system will be enhanced with primary care nursing input at point of referral
Various pathways on hospital discharge depending on • judgement about ability to pay • perceived skill level of nurses, • compliance with department wishes • knowledge of and relationships with range of services	Explicit criteria and pathway articulated with primary healthcare input
People with long term needs do not routinely have a comprehensive coordinated care plan developed and agreed with the patient and communicated to all those involved with care	Shared care planning tool for high need and high risk patients with an identified Lead Coordinator overseeing the plan of care
Relationship between the wider primary and community nursing services and general practice is variable	A named team of nurses around NHH general practices and networks, and where possible co-location. Shared learning will build relationships and team work
Lack of primary secondary interface mechanism to address system failure	Joint approach to quality improvement
Piece meal approach to workforce development	Planned approach to competency based clinical practice and upskilling to support the NHH development.
Piece meal approach to workforce development	Planned approach to competency based clinical practice and upskilling to support the NHH development.

Appendix 2. HCH Patient Experience Survey Results Nov 2019 - Mar 2020

Health Care Home Patient Experience Survey
Nov 2019 - Mar 2020

	Doctors Kerikeri	%	Te Hiku Hauora	%	Broadway Health	%	Raumanga Medical	%	TOTALS	%
Total Participants	744	34.22%	622	28.61%	485	22.31%	323	14.86%	2174	100.00%
Age range										
0-14yrs	1	0.13%	1	0.16%	0	0.00%	1	0.31%	3	0.14%
15-24yrs	11	1.48%	13	2.09%	12	2.47%	21	6.50%	57	2.62%
25-44yrs	80	10.75%	82	13.18%	80	16.49%	87	26.93%	329	15.13%
45-64yrs	261	35.08%	288	46.30%	241	49.69%	123	38.08%	913	42.00%
65+yrs	391	52.55%	238	38.26%	152	31.34%	91	28.17%	872	40.11%
Ethnicity										
Māori	38	5.11%	183	29.42%	146	30.10%	65	20.12%	432	19.87%
NZ European	634	85.22%	466	74.92%	348	71.75%	219	67.80%	1667	76.68%
Samoan	1	0.13%	4	0.64%	5	1.03%	2	0.62%	12	0.55%
Cook Island Māori	2	0.27%	2	0.32%	3	0.62%	2	0.62%	9	0.41%
Tongan	0	0.00%	3	0.48%	1	0.21%	1	0.31%	5	0.23%
Niuean	0	0.00%	2	0.32%	0	0.00%	0	0.00%	2	0.09%
Chinese	1	0.13%	5	0.80%	2	0.41%	3	0.93%	11	0.51%
Indian	5	0.67%	7	1.13%	8	1.65%	7	2.17%	27	1.24%
Other	61	8.20%	0	0.00%	0	0.00%	0	0.00%	61	2.81%
Q3. Does the GP surgery meet your cultural needs										
Yes	689	92.61%	557	89.55%	433	89.28%	277	85.76%	1956	89.97%
No	8	1.08%	18	2.89%	15	3.09%	8	2.48%	49	2.25%
Don't know	44	5.91%	46	7.40%	0	0.00%	37	11.46%	127	5.84%
Q4. Do you have, or are you eligible for a CSC card?										
Yes	163	21.91%	221	35.53%	152	31.34%	93	28.79%	629	28.93%
No	471	63.31%	340	54.66%	274	56.49%	184	56.97%	1269	58.37%
Don't know	110	14.78%	60	9.65%	58	11.96%	43	13.31%	271	12.47%
Q5. Generally, how easy is it to get through to someone at your GP surgery on the phone?										
Very easy	344	46.24%	280	45.02%	182	37.53%	138	42.72%	944	43.42%
Fairly easy	319	42.88%	275	44.21%	236	48.66%	158	48.92%	988	45.45%
Not very easy	32	4.30%	31	4.98%	36	7.42%	10	3.10%	109	5.01%
Not at all easy	10	1.34%	12	1.93%	15	3.09%	3	0.93%	40	1.84%
Haven't tried	35	4.70%	25	4.02%	15	3.09%	14	4.33%	89	4.09%
Q6. How do you normally book appointments to see a GP or nurse at your GP surgery?										
In person	130	17.47%	115	18.49%	128	26.39%	11	3.41%	384	17.66%

By phone	629	84.54%	528	84.89%	438	90.31%	221	68.42%	1816	83.53%
Online/patient portal	211	28.36%	119	19.13%	37	7.63%	130	40.25%	497	22.86%
Other	3	0.40%	2	0.32%	2	0.41%	0	0.00%	7	
Q7. In the past 6mths which of the following online services have you used at your GP surergy (website or smartphone)?										
Booking appointments online	230	30.91%	138	22.19%	37	7.63%	135	41.80%	540	24.84%
Ordering repeat prescriptions online	224	30.11%	138	22.19%	87	17.94%	109	33.75%	558	25.67%
Accessing my medical records online	399	53.63%	256	41.16%	192	39.59%	169	52.32%	1016	46.73%
View test results	404	54.30%	285	45.82%	209	43.09%	188	58.20%	1086	49.95%
Send/receive online messaging/consultation	188	25.27%	112	18.01%	93	19.18%	95	29.41%	488	22.45%
Don't know	54	7.26%	92	14.79%	46	9.48%	36	11.15%	228	10.49%
Other	81	10.89%	50	8.04%	64	13.20%	0	0.00%	195	8.97%
Q8. Last time you wanted to see or speak to a GP or nurse from your GP surgery, what did you want to do?										
To see a GP at my surgery	570	76.61%	416	66.88%	350	72.16%	226	69.97%	1562	71.85%
To see a nurse at my surgery	96	12.90%	138	22.19%	72	14.85%	38	11.76%	344	15.82%
To speak to a GP on the phone	18	2.42%	15	2.41%	13	2.68%	8	2.48%	54	2.48%
To speak to a nurse on the phone	31	4.17%	30	4.82%	21	4.33%	28	8.67%	110	5.06%
To see a GP or nurse at another surgery	5	0.67%	7	1.13%	4	0.82%	1	0.31%	17	0.78%
To speak to a GP or nurse online via email	12	1.61%	6	0.96%	13	2.68%	14	4.33%	45	2.07%
To speak to a GP or nurse online via Skye or another form of video consultation	1	0.13%	2	0.32%	0	0.00%	0	0.00%	3	0.14%
For someone to visit me at home	1	0.13%	1	0.16%	1	0.21%	1	0.31%	4	0.18%
Q9. And when did you want to see or speak to them?										
On the same day	187	25.13%	216	34.73%	157	32.37%	140	43.34%	700	32.20%
On the next working day	89	11.96%	70	11.25%	72	14.85%	49	15.17%	280	12.88%
A few days later	273	36.69%	226	36.33%	161	33.20%	95	29.41%	755	34.73%
A week or more later	155	20.83%	78	12.54%	58	11.96%	14	4.33%	305	14.03%
Can't remember	28	3.76%	26	4.18%	24	4.95%	14	4.33%	92	4.23%
Q10. Were you able to get an appointment to see or speak with someone?										
Yes	603	81.05%	498	80.06%	377	77.73%	264	81.73%	1742	80.13%
Yes but I had to call back closer to the day or on the day of the apppointment	19	2.55%	28	4.50%	37	7.63%	30	9.29%	114	5.24%
No	106	14.25%	83	13.34%	55	11.34%	14	4.33%	258	11.87%
Can't remember	7	0.94%	10	1.61%	8	1.65%	10	3.10%	35	1.61%
Q11. Thinking about the last time you had a visit to the surgery, what type of appointment did you get?										
To see a GP at my surgery	621	83.47%	384	61.74%	365	75.26%	267	82.66%	1637	75.30%

To see a nurse at my surgery	105	14.11%	207	33.28%	90	18.56%	50	15.48%	452	20.79%
To speak to a GP on the phone	4	0.54%	6	0.96%	4	0.82%	8	2.48%	22	1.01%
To speak to a nurse on the phone	5	0.67%	14	2.25%	6	1.24%	5	1.55%	30	1.38%
To see a GP or nurse at another surgery	1	0.13%	3	0.48%	8	1.65%	0	0.00%	12	0.55%
To speak to a GP or nurse online via email	3	0.40%	3	0.48%	4	0.82%	2	0.62%	12	0.55%
To speak to a GP or nurse online via Skye or another form of video consultation	0	0.00%	1	0.16%	0	0.00%	0	0.00%	1	0.05%
For someone to visit me at home	1	0.13%	1	0.16%	0	0.00%	1	0.31%	3	0.14%
Q12. How long after initially contacting the surgery did you actually see or speak to them?										
On the same day	137	18.41%	169	27.17%	136	28.04%	117	36.22%	559	25.71%
On the next working day	57	7.66%	57	9.16%	63	12.99%	63	19.50%	240	11.04%
A few days later	227	30.51%	182	29.26%	154	31.75%	100	30.96%	663	30.50%
A week or more later	281	37.77%	184	29.58%	97	20.00%	16	4.95%	578	26.59%
Can't remember	27	3.63%	28	4.50%	25	5.15%	19	5.88%	99	4.55%
Q13. Is your GP surgery currently open at times that are convenient for you?										
Yes (Go to Q15)	641	86.16%	555	89.23%	404	83.30%	281	87.00%	1881	86.52%
No	73	9.81%	44	7.07%	60	12.37%	24	7.43%	201	9.25%
Don't know	21	2.82%	22	3.54%	18	3.71%	12	3.72%	73	3.36%
Q14. What additional opening times would make it easier for you to see or speak to someone?										
Before 8am	123	16.53%	110	17.68%	102	21.03%	5	1.55%	340	15.64%
After 5pm	220	29.57%	174	27.97%	150	30.93%	31	9.60%	575	26.45%
Saturday mornings	237	31.85%	211	33.92%	201	41.44%	10	3.10%	659	30.31%
None of these	250	33.60%	244	39.23%	140	28.87%	0	0.00%	634	29.16%
Q15. Do you have a written care plan?										
Yes	47	6.32%	38	6.11%	29	5.98%	14	4.33%	128	5.89%
No	622	83.60%	469	75.40%	386	79.59%	268	82.97%	1745	80.27%
Don't know (Go to Q19)	68	9.14%	109	17.52%	65	13.40%	35	10.84%	277	12.74%
Q16. Did you help put your written care plan together? (set goals and choose how to manage your health)										
Yes	46	6.18%	41	6.59%	35	7.22%	15	4.64%	137	6.30%
No	129	17.34%	263	42.28%	58	11.96%	146	45.20%	596	27.41%
Q17. Do you use your written/online care plan to help manage your health day-to-day?										
Yes	26	3.49%	31	4.98%	17	3.51%	5	1.55%	79	3.63%
No	152	20.43%	271	43.57%	73	15.05%	139	43.03%	635	29.21%
Don't know	0	0.00%	0	0.00%	0	0.00%	21	6.50%	21	0.97%

Q18. Do you have a named Care Plan Coordinator (for example nurse, doctor or pharmacist) to help keep your care plan up-do-date and organises help from other healthcare providers involved in your care?										
Yes	20	2.69%	47	7.56%	23	4.74%	10	3.10%	100	4.60%
No	131	17.61%	438	70.42%	60	12.37%	138	42.72%	767	35.28%
Don't know	47	6.32%	88	14.15%	22	4.54%	27	8.36%	184	8.46%
Q19. If you do not have a care plan already would you like to have one to help you manage your health day-to-day?										
Yes	112	15.05%	125	20.10%	104	21.44%	76	23.53%	417	19.18%
No	544	73.12%	486	78.14%	344	70.93%	230	71.21%	1604	73.78%
Q20. Overall, how would you describe your experience of your GP surgery?										
Very good	396	53.23%	357	57.40%	281	57.94%	203	62.85%	1237	56.90%
Fairly good	255	34.27%	183	29.42%	139	28.66%	90	27.86%	667	30.68%
Neither good nor poor	55	7.39%	50	8.04%	41	8.45%	20	6.19%	166	7.64%
Fairly poor	25	3.36%	19	3.05%	16	3.30%	3	0.93%	63	2.90%
Very poor	10	1.34%	14	2.25%	4	0.82%	0	0.00%	28	1.29%

Appendix 3. GP experience of NHH

03/08/20

I have been your NDHB Clinical Lead for the Northland Neighbourhood Healthcare Homes program since inception and have a Clinical Lead role for the NZ Health Care Home Collaborative. I am therefore able to give you some perspectives both locally and nationally, both positive and negative, of what has been achieved to date and what ambitions we have for the future.

Northland DHB's NHH work is viewed nationally with great respect. We are pioneers and champions at the HCH Collaborative. Along with Procare, Midlands, Compass and Pegasus PHOs we formed the NZ Health Care Home Collaborative back in 2016 and this organisation has been one of the great success stories in primary care. The foresight and courage of the NDHB to fund the NHH process in a time of financial restraint may well halt the exodus of GPs who were considering early retirement due the increasing stress of caring for our Northland population. Our care team satisfaction surveys with NHH practices show our care teams have a new confidence in their ability to adapt to change and deal with workload demands. None of them would ever consider going back to how they were doing things pre-NHH.

Without a doubt for me the NHH role has been the most rewarding and exciting thing I've done in my 30-year medical career. Our NHH program has proven to be much more complex and ambitious than we every anticipated but has created a platform for innovation and change readiness in our NHH general practices that will be able to launch any strategic changes thrown at them. We have managed to halt the tsunami of dealing with acute demand that was drowning general practices.

Having personally ended up, boots and all, on the receiving end of the health system it has hardened my resolve to not accept that general practice BAU services are acceptable to our enrolled population. You will note that I will not use the word "patient". The people we serve most of the time want to be **owners** of their health information and when they need our help, they become active **participants.** The only time you become a patient is in an operating theatre or ICU, once awake you start participating again.

Ownership of information for our population has grown rapidly with portal uptake and Northland has the rare distinction that every Northland practice offering a portal has "Open Notes" allowing people to read their medical notes. Our participation rates with shared care planning are high in Northland both in NHH and non-NHH practices compared to other parts of NZ.

The NHH practices have almost doubled the number of contacts they have with their enrolled populations. My own practice did 35,000 in-person consultations last year but also did 25,000 incoming/outgoing portal messages and 6,000 clinical triage calls. During the COVID-19 lockdown our clinical triage numbers went up 90% and our portal traffic went up 50%. Our NHH practices adapted to the lockdown changes overnight and our NHH team were able to get our non-NHH practices up to speed within days.

Nationally the Northland's clinical triage process is seen as the "gold standard" at the NZ Health Care Home Collaborative. Northland developed the software form that walks clinicians through the triage process, tracks the triage outcomes and allows practices to fine tune their supply/demand volumes to deal with same day acute demand.

In my NZ HCH Clinical Lead role, I carry out moderation for the NZ HCH practices who are seeking credentialing/certification. Due to staff capacity restraints Northland has not been putting our practices forward for this voluntary process but also don't think we need to because I can confidently say that our NHH practices are performing at a higher standard than most HCH certified practices in terms of portal uptake, triage process/resolution and shared care planning volumes.

However, we have much to still do. We have bent the demand curve for acute/urgent care with clinical triage and portal services, which was necessary to stop our practices imploding, but need to accept that services in general practice remain inequitable and to the most part non-collaborative.

Northland has been instrumental in a recent piece of work done by the NZ HCH Collaborative to shift the focus of the Collaborative's upcoming work to focus on issues of equity and community engagement. For our Triage One and Two NHH practices this is something they've been wanting to do but were needing support to proceed. We have newly available PHE data and business intelligence dashboards which will give our NHH practice real-time progress across all they are doing with an overt desire to remedy equity gaps. My view is that if further NHH funding for mature practices is extended we should be targeting equity, collaboration and focus on "what matters to whanau" so our care teams deal with the social determinants that are impeding whanau well-being.

We are obstructed by a primary care funding system that is dependent on capitation and co-payments to keep practices sustainable. The NHH funding has allowed us to implement and embed processes that have greatly improved same day urgent access problems, through clinical triage and given ownership of information to our populations, through portals. The well-being of our care teams and the experiences of care for populations has considerable improved.

However until we are able to create a model of care that gives people the right length appointment, at the right time, with the right care team members using the best access mode to care for the task at hand, then people and providers will remain frustrated. However in light of the recommendations of the recent Health and Disability review Northland has a huge opportunity to cast off the limitations of the current archaic and unfit funding formula and embrace the report's recommendations around salaried general practice, locality/community care which is focussed on "what matters to whanau" and allows providers to confidently and competently tackle issues around social determinants that are impacting on the well-being of whanau.

The NDHB's has set a strong and stable platform for change in your NHH practices. They are ready and capable to move in whatever strategic direction the board decides is most likely to improve the well-being of Northlanders. I thank the board for its courage and foresight in investing in NHH and believe the future well-being of Northlanders will be great if we continue to exercise our imaginations and take responsibility for the well-being of those we serve. Northland could become the most attractive place in NZ to live and work as a health professional and the best place to have your well-being truly cared for.

Dr Andrew Miller

Clinical Lead for NHH, NDHB

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