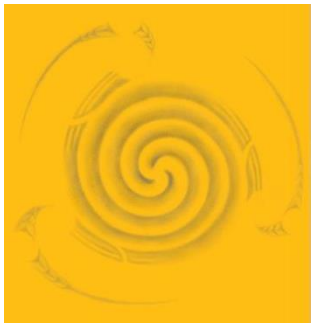
Kaupapa Māori evaluation of the CCDHB Health Care Home Programme

June 2020

Shirley Simmonds
Helen Potter
(Tīaho Limited)



Tīaho Limited is a kaupapa Māori research and evaluation consultancy with experience in qualitative and quantitative approaches and in community engagement, workshop delivery, pūrākau and report writing, strategic planning services and project management. We are Dr Jessica Hutchings, Ms Shirley Simmonds and Dr Helen Potter. Our logo was designed by tōhunga ta moko, Christine Harvey, and symbolises our aim to contribute to building knowledge and the kaupapa of rangatiratanga, mana motuhake, kaitiakitanga, pūkengatanga and reo that guide our work. http://jessicahutchings.org.nz/tiaho/

Ngā mihi | Acknowledgements

Tīaho Limited would like to thank those who so generously gave of their time to contribute to this evaluation. This included: Dorothy Clendon, Jim Wiki, Arawhetu Gray and Astuti Balram from the CCDHB; Jo Henson and Mel Simpson from Tū Ora Compass PHO; kaimahi from Ora Toa, Hora Te Pai and Newlands Medical Centre; data analysts Sam McLean and Tom Dunn from CCDHB; and most importantly, the whānau who shared kōrero and insights about their experiences of the Health Care Home programme in practice.

Tirohanga Whānui | Executive Summary

The Health Care Home programme implemented in CCDHB has provided increased access to more comprehensive and coordinated primary health care for whānau through enhanced connections with their provider, an increased array of services available and provision of a variety in modes of communication. Whānau experience geater empowerment in health decision-making through improved support and strengthened relationships.

Although Shared Medical Appointments were time-consuming to organise, they provided a shift in power dynamic between health professionals and patients, strengthened relationships, increased self-management and improved health literacy for whānau. Year of Care and Advanced Care Plans provided a greater sense of security and control, but require adaptation to better suit whānau and providers. Urgent health needs were more readily met through triage, and consultations through virtual connection was appreciated. While use of the Manage My Health portal varied, it afforded whānau improved convenience of access and a tool to monitor their progress over time.

Providers found visual management boards useful for aligning HCH with their existing model of care, tracking progress and for allowing collective staff input and engagement in the implementation process. Improved business efficiency and better targetting of services was provided through the employment of Primary Care Practice Assistants, patient use of self-check in, reconfiguration of reception areas and morning briefings. The briefing also improved cohesiveness, identified opportunistic care and provided a regular space for reo and tikanga through karakia and waiata. Undertaking the Lean or Kaizer streamlining process was a difficult but beneficial process.

Whānau prefer face to face connection, personal contact and continuity of care with health professionals they know, although they accepted alternatives in order to meet their health needs. Many determinants of optimal health sit outside the biomedical model and existing health service delivery. Whānau spoke of the importance of appropriate and accurate inclusion of reo, both in the health service and in the community, access to rongoā and traditional healing practices, the need to acknowledge the history and beginnings of their health service and the importance of health service provision being in iwi hands.

In order to monitor for equitable outcomes, data must first be gathered and analysed by ethnicity, including health workforce information. However, available data was insufficient to provide a thorough analysis of equity of outcomes. Data for CCDHB ambulatory sensitive hospitalisations (ASH), as a measure of access to primary care, showed that whānau enrolled in an HCH provider had consistently lower rates than those who were not. Non-Māori experienced ASH at half the rate of Māori, whether enrolled with an HCH provider or not, and this ratio was also consistent over time, indicating no evidence of a reduction in inequity. In CCDHB, the utilisation of triage service by Māori has increased. However, a higher proportion of non-Māori are being triaged by General Practitioners, whereas Māori are more often triaged by a nurse, and these proportions are increasing. Although the numbers are small, a higher proportion of Māori are seen by a nurse practitioner, than that for non-Māori. When following up triage events, contact is unable to be made with a higher proportion of Māori compared to the proportion of non-Māori triage events.

The best-pratice evidence review showed that core elements of kaupapa Māori models of care, service, and service delivery are tino rangatiratanga or self-determination and autonomy, equity,

and a solid foundation in kaupapa Māori principles and practices. A holistic perspective is represented in Māori models of health, with the aspirational aim of optimal wellbeing for all. These are underpinned by te ao Māori values that include, but are not limited to manaakitanga, whanaungatanga, wairuatanga, hinengaro, reo, tikanga and pae ora. Models place whānau at the centre. A successful model is one that has been created or co-created by those that will deliver the model and by those that will ultimately receive care. Models may also include appropriate processes of engagement with whānau Māori, strengthening the health workforce and Māori health workforce, the maintenance of a culturally safe environment and a wider perspective of the impacts of systemic racism and how this presents in a clinical environment.

A variety of frameworks developed through extensive consultation with tangata whenua are available to serve as tools for critiquing programmes and interventions before their application to Māori communities. Programmes can then be altered (or rejected) to ensure that obligations to Te Tiriti o Waitangi are met, a strong focus on equity is maintained, whānau and community are kept at the centre and to maintain provider and whānau autonomy. The provision of high quality, timely, appropriate ethnicity data is essential.

International evidence affirms the indigenous right to health and demonstrates consistency with Māori models. Centrality is placed on relationships and self-determination, and an ecological approach is taken that acknowledges the impacts of colonisation and systemic failures.

When implementing the HCH programme in CCDHB, providers found that it was more work than anticipated, there were logistical challenges and misalignment with existing systems, and a lack of flexibility meant the programme didn't adapt well to the specific circumstances of each provider. This lack of flexibility and the restrictions placed on the autonomy of Māori providers compromised alignment with kaupapa Māori.

There was also limited accountability to communities and the programme was generally considered to be model-centred by those involved in implementation. The funding configuration didn't work for Very Low Cost Access providers, some targets were unrealistic and funding was inadequate to cover the changes required as part of HCH. The implementation process also highlighted a history of Māori provider underfunding.

While the HCH model holds promise, changes are needed. A summary of changes and guidance for the change process are provided at the end of this report. A model of care must be considered within the wider context of which it is intended to operate. This requires close consideration of systemic structures and funding configurations that may serve to either enable or restrict provider delivery of the model, the strengthening of respectful relationships, high quality, timely and appropriate ethnicity data, a strong commitment to equity and to Te Tiriti o Waitangi and close and authentic involvement of the community served so that tangata whenua are empowered to thrive.

"Tino rangatiratanga model. That's a given."
(Key informant, CCDHB)

Contents

List of Figures

List of tables

Abbreviations

ACP	Advanced Care Plan
ASH	Ambulatory Sensitive Hospitalisations
COPD	Chronic Obstructive Pulmonary Disease
FTE	Full Time Equivalent
MDT	Multidisciplinary Team (meeting)
MMH	Manage My Health
PCPA	Primary Care Practice Assistant
SMA	Shared Medical Appointment
TNAA	(time to) Third Next Available Appointment
VLCA	Very Low Cost Access (practice)
YOC	Year of Care

Whakataki | Introduction

The Health Care Home (HCH) model was first introduced in the CCDHB region in July 2016. This kaupapa Māori evaluation report assesses what has worked well from the HCH model for whānau Māori, what the facilitators and barriers have been to its successful implementation and it also identifies areas for improvement. In addition, an analysis of the HCH model's impact on equity has been undertaken. The third component of the report is a desktop evidence review of best-practice features of kaupapa Māori models of care and what they might offer to improve the HCH model into the future.

The Health Care Home model

The HCH model of care seeks to embed the four key characteristics of strong primary healthcare: person-centred; continuous care; coordinated access to services; and comprehensive service provision.

The HCH model aims to shift from:

- A system- or provider-driven model to a patient-driven model of care;
- Face to face to virtual care where appropriate;
- Reactive care to as much planned care as possible;
- A universal model of care to one that is personalised to patient need and context, using a team approach across sectors;
- A siloed, fragmented provider environment to one that is a well co-ordinated, shared care environment;
- Providers surviving the working day to providers enjoying the day; and
- Vulnerable practices to practices that are viable in the longer term.

It is implemented over four domains, with progress measured through a maturity matrix:[1]

1. Urgent and unplanned care;
2. Proactive care for those with complex needs;
3. Routine and preventative care; and
4. Business efficiency.

The overall aim of this evaluation is to assess whether the CCDHB HCH programme has met the needs of whānau Māori in the region, using a kaupapa Māori evaluation framework.

Kaupapa | Methodology

The framework developed for this evaluation assesses the HCH programme against six kaupapa-based evaluation criteria:

- **Manaakitanga** – appropriate, timely care and support, and mana-enhancing practices
- **Whanaungatanga** – maintaining respectful and healthy relationships
- **Rangatiratanga** – self-determination, autonomy, self-management and empowerment in health decision-making
- **Pae Ora** – achieving optimal wellbeing

[1] https://www.healthcarehome.org.nz/download/health-care-home-model-of-care.pdf?inline

- **Ōritetanga** – equitable outcomes for Māori
- **Pukengatanga** – excellence in skills, knowledge, information and expertise

Tikanga | Methods

Methods – Kaupapa Māori evaluation framework

Table 1 outlines the kaupapa Māori evaluation framework. It details the kaupapa-based evaluation criteria, the research questions they give rise to and the ways in which data will be gathered to address them. The evaluation framework also provides the structure for this report.

Table 1: Kaupapa Māori Evaluiation Framework

Mātāpono	Research Questions	Data collection method
Manaakitanga: providers, kaimahi and whānau receive appropriate, timely care and support, through mana-enhancing practices **Whanaungatanga:** providers, kaimahi and whānau maintain respectful and healthy relationships **Rangatiratanga:** providers, kaimahi and whānau are self-determining, self-managing and empowered in health decision-making **Pae ora:** providers, kaimahi and whānau achieve optimal wellbeing	Q1. What were the critical success factors of HCH for providers, kaimahi and whānau Māori? Q2. What were the key components of the HCH model and team that supported improved outcomes for whānau Maōri? Q3. What were the unintended benefits and consequences that the HCH model created for whānau Māori? Q4. What were the barriers and challenges to implementing the HCH model of care and how were these addressed?	Key informant interviews with change management staff at Tū Ora Compass PHO Key informant interviews with those involved in the HCH programme in CCDHB Primary care provider case studies that include: • interviews with practice leaders and managers • interviews or focus groups with kaimahi • interviews or focus groups with whānau Quantitative data from CCDHB
Ōritetanga: outcomes for Māori and non-Māori are equitable	Q5. How do health outcomes for Māori compare to non-Māori for selected health indicators?	Kaupapa Māori equity analysis of quantitative data collected by HCH providers
Pūkengatanga: service delivery for whānau Māori is underpinned by excellence in skills, knowledge, information and expertise	Q6. What are the key features of other kaupapa Māori models of care?	Desk top review of kaupapa Māori models of care, service, and health care delivery
	Q7. Does the CCDHB HCH programme provide a platform for further developments that are fit for purpose for Māori?	Summary of evaluative learnings
	Q8. What are the opportunities to modify the existing CCDHB HCH programme to best suit Māori?	Identification of opportunities to modify existing CCDHB HCH programme to best suit Māori

Methods – Process evaluation

Key informant interviews

A number of key informant interviews were undertaken with staff from Tū Ora Compass PHO and CCDHB for the evaluation.

Primary care provider case studies

Three primary care providers were selected as case study sites for the evaluation. These were:

Ora Toa, Porirua (HCH start date: 1 October 2016)

Ora Toa is a Maōri health provider based in Porirua and with services also in Wellington city. It is owned and operated by Te Rūnanga o Toa Rangatira and is also a PHO – the only Māori owned and run PHO in the Wellington region. Ora Toa has five VLCA primary care services which operate in a hub and spoke model, and three have implemented the HCH model of care. These are the Takapūwāhia Medical Centre, Cannons Creek Medical Centre and the Mungavin Medical Centre. All are located in the Porirua area and have a combined population of 10,554 of which 42 per cent or 4,392 identify as Māori.[2] Ora Toa offers a comprehensive range of services.

Hora Te Pai, Paraparaumu (HCH start date: 1 October 2016)

Hora Te Pai Health Services is the only kaupapa Māori health service on the Kapiti coast. It is situated in the rohe of Te Atiawa ki Whakarongotai rohe, based in Paraparaumu, and serves 2,602 patients of which 55 per cent or 1,438 identify as Māori.[3] Hora Te Pai aims to provide culturally appropriate, affordable and accessible services and operates according to ten key kaupapa.

Newlands Medical Centre, Newlands (HCH start date: 1 July 2016)

This provider is based in the Wellington suburb of Newlands, and serves approximately 9,566 patients. Of these patients, 12 per cent or 1,137 identify as Māori.[4] Newlands has a strong focus on family health and providing affordable and comprehensive primary health care in the community.

Table 2 details the populations of the three case study providers, and shows the wide variation in the number and ratio of Māori enrolled in the three Porirua-based medical centres of Ora Toa.

[2] Data supplied by CCDHB, May 2020.
[3] Ibid.
[4] Ibid.

Table 2: Enrolled population by provider and ethnicity, May 2020

	Māori	Non-Māori	Total	% Māori	nM:m ratio
Ora Toa Takapūwāhia Medical Centre	2,061	1,124	3,185	65%	0.55
Ora Toa Mungavin Medical Centre	833	1,659	2,492	33%	1.99
Ora Toa Medical Centre Cannons Creek	1,498	3,379	4,877	31%	2.26
Hora Te Pai Health Services	1,438	1,164	2,602	55%	0.81
Newlands Medical Centre	1,137	8,429	9,566	12%	7.41

Data supplied by CCDHB, June 2020

Table 3 shows the staff FTEs for Hora Te Pai and Newlands. No FTE data was provided for the staff of Ora Toa.

With an enrolled population of 2,602 as at May 2020, Hora Te Pai has a total of 1.8 GP FTEs. This equates to approximately 1,446 patients per GP FTE. It has a total of 3.0 nurse FTEs which equates to 867 patients per nurse FTE. There is also 2.5 FTE for administrative staff, 0.4 FTE for management and 1.0 FTE for a mental health professional. Hora Te Pai has a health coach but the FTE is unknown.

With an enrolled population of 9,566 as at May 2020, Newlands has a total of 4.8 GP FTEs. This equates to approximately 1,993 patients per GP FTE. It has a total of 6.5 nurse FTEs which equates to 1,472 patients per nurse FTE. There is also 4.3 FTEs for administrative staff, 1.0 FTE for a full time practice manager, 1.4 FTEs for primary care practice assistants, 0.2 FTE for a clinical pharmacist and 0.2 FTE for a mental health professional.

Data was unavailable by ethnicity, and no data was provided on FTEs for Whānau Ora workers or nurse practitioners.

Table 3: Staff FTEs by practice, June 2020

	Enrolled popn	GPs	Nurses	Admin	Manager	PCPA	Clinical Pharmacist	Health Coach	Mental Health
Hora Te Pai	2,602	1.8	3	2.5	0.4	0	0	*	1
Newlands	9,566	4.8	6.5	4.3	1.0	1.4	0.2	0	0.2

*FTE unknown. PCPA = Primary Care Practice Assistant. Data supplied by CCDHB, June 2020

Data colletion

Key informant interviews were held with:

- Melissa Simpson and Jo Henson from the Change Management Team, Tū Ora Compass PHO;
- Arawhetu Gray, Executive Director Māori Health, CCDHB;
- Astuti Balram, former General Manager Integrated Care in the Strategy, Innovation and Performance Team, CCDHB (Astuti moved out of this role in February 2020); and
- Jim Wiki, Strategy Action Planning for Māori Health and Contracts Manager for the Māori health portfolio (which includes Ora Toa and Hora Te Pai), CCDHB.

The interviews were conducted kanohi ki te kanohi or by phone, depending on the availability of the participants.

At each of the case study sites, interviews or small focus groups were held with managers and kaimahi including GPs, nurses, administrative staff and Whānau Ora support workers. Interviews or focus groups were also held with patients and whānau of Newlands Medical Centre and Hora Te Pai, who identified as Māori. All interviews were conducted kanohi ki te kanohi and were shaped around generating kōrero on evaluation questions 1-4 in Table 1.

Patients of Ora Toa were not interviewed for this evaluation. There were two reasons for this. Firstly, as Ora Toa had 'paused' implementation of the HCH model, it was felt that interviewing whānau may not reveal experiences of the model in practice. Secondly, the national Alert Level 4 lockdown in March 2020, left no time to meet with whānau kanohi ki te kanohi.

Overall, a total of 34 people were interviewed including: seven key informants; four managers; three General Practitioners; three nurses; four administrative staff; two Whānau Ora workers; and 11 whānau.

Quantitative data by provider and by ethnicity to support the development of responses to evaluation questions 1-4 was supplied by CCDHB.

Methods – Equity analysis

Quantitative data was obtained from PHO records and supplied by CCDHB. To enable an equity analysis, data was provided for Māori and non-Māori and rates were age-standardised to the Census Māori 2001 population. Ratios were calculated comparing the non-Māori group to Māori (rather than the more typically reported comparison of Māori to non-Māori).

Methods – Evidence review

A desktop literature review was undertaken using the following search terms: kaupapa Māori; Māori; indigenous; frameworks; tools; models of care; primary care models; models of service; models of health; interventions; and programmes. The review focused largely on the New Zealand context but included some international evidence of indigenous models in primary care.

Ngā Hua | Results

Q1. What were the critical success factors of HCH for providers, kaimahi, and whānau Māori?

This section reports on those key features of the HCH model itself that were successful and beneficial for providers, kaimahi and whānau Māori. It also reports on the positive impacts HCH has had on primary care for providers, kaimahi and whānau.

Interwoven throughout this section are whānau perspectives of their own health and service features that whānau Māori appreciated and valued, as it was sometimes difficult to separate out those experiences that related specifically to elements of the HCH model from those that were features of the providers themselves. They have been included here as they show what is important to whanau in terms of optimal health.

Manaakitanga

Key features of the HCH model

The morning briefing, karakia, or 'huddle'contributes to cohesiveness, opportunistic care and staff involvement

This mostly takes the form of a 10 minute stand-up morning meeting. It was seen as beneficial by the practices, giving clarity to the day and cohesiveness. One key example was that it gave staff an overview of the 'high needs' and 'high risk' patients due to come in that day which enables them to arrange opportunistic care such as screenings or immunisations. It's seen as a helpful way to keep the team involved and inter-connected. These are held in the staffroom at one practice where there is privacy and a large TV screen to display Medtech and view templates.

"You can get a lot of information from that 10 minutes."

(Provider staff member)

Multidisciplinary team meetings are important for providing coordinated support for whānau

As part of proactive care, Multidisciplinary Team meetings (MDTs) were undertaken every two months in one practice, attended by secondary services, with a list of patients sent out in advance. Another practice holds these weekly with staff, and once a month will include others outside the clinic such as district nurses and hospice staff. This system was in place before implementing HCH. MDTs are useful for discussing support systems for the patient, and staff can draw on those who also have connections with the whānau. It was commented that MDTs aligned with kaupapa Māori by having multiple expertise focused on one person's wellbeing.

Approximately one third of Multidisciplinary Team Meetings (MDTs) in CCDHB are for Māori

Between October 2014 and December 2019, there were a total of 2,877 MDTs undertaken by HCH providers in CCDHB.[5] An estimated 34 per cent (969) of these were for Māori patients and this

[5] Data is for CCDHB Tū Ora Compass HCH practices (excludes Ora Toa and Karori)

proportion of approximately one third Māori MDTs was fairly consistent over time (this dataset started before the first tranche of providers began implementing the HCH programme in July 2016).[6]

Virtual consultations have worked well for Māori and there is a desire for more

Virtual consultations in the form of Skype GP consults ensure there is no need to take time off work to come into the clinic or find transport or childcare, reducing barriers to access. There was a desire for these to be expanded and utilised more. Both virtual consults and GP triage have meant providers are able to do more remotely, while at the same time drawing more Māori into the clinic.

Phone triage has been beneficial for prioritising acute appointments, although many whānau still prefer face to face appointments

For urgent and unplanned care, phone triage was largely undertaken by GPs, but was also done by nurses and nurse practitioners, strongly supported by a GP and enabled the prioritisation of acute appointments. It was felt that the triage system was good for Māori and others with high needs, ensuring that those who are most in need are receiving timely care. Many patients leave their conditions until it's really urgent. It was noted that, in the beginning, it took patients "a bit of getting used to" the idea of a GP doing a consultation on the phone, and many still prefer face to face consults with some patients preferring to go through their Whānau Ora and community health workers. In one practice, there was a lot of kōrero as staff took some convincing of the benefits of phone triage.

"Before that, they just turned up – phones going, people waiting."

"Our people love it when the doctor rings them up."

(Provider staff member)

The number of phone triage events for Māori has increased over time and make up 18 per cent of all HCH phone triage events in CCDHB

For the CCDHB PHO enrolled Māori population, the total number of triage events increased from 11 events in the July 2016 quarter to a cumulative total of 4,108 events in the April 2019 quarter, reflecting the expansion in triage service as the HCH model was implemented with each tranche. In total, Māori triage events made up 18 per cent (14,631 events) of the total triage events in CCDHB (83,349) during this time period.[7]

Most triage events for Māori are completed by a nurse

Of all Māori triage events in CCDHB between July 2016 and July 2019, the majority were completed by a nurse (70 per cent or 10,644 events). GPs completed approximately 27 per cent (4,160) of all Māori triages and nurse practitioners 1.4 per cent (206 events).[8] The proportion of triage events completed by a GP decreased over this time period and the proportion attended to by a nurse increased.

Most triage events for Maōri resulted in a same day consultation, or are classified as 'other'

Between July 2016 and April 2019, the majority of triage events for Māori resulted in same day face to face consultations, and were either classified as urgent (23 per cent) or not urgent (22 per cent).

---

[6] See Table 4: Māori MDTs and total CCDHB Oct 2014 -Dec 2019. **Error! Reference source not found.Error! Reference source not found.**

[7] Data includes Ora Toa and Karori (excludes Wairarapa)

[8] See Table 5: HCH Māori triage events by provider role, July 2016-April 2019.

However, in the same time period, nearly the same proportion of triage events (43.5 per cent) were classified as 'other'.[9] No further information was provided on the 'other' category.

Lean/Kaizer model project improvement was a difficult process but has improved business efficiency

Improving business efficiency to better serve patients included ensuring the right people were in the right roles, amalgamating some roles and job-sharing, reducing duplication, organising and labelling equipment and improving documentation. Described as "hard but good", the decluttering process was greatly appreciated, and the removal of the phones from the front desk meant that the focus was placed more on the patients coming through the door. However, it was noted that this placed a lot of responsibility on the one person left at reception. All practices found that implementing lean thinking was a vast improvement and that the process itself has been embedded.

"It's become so habitual now the team has almost got a lens on, and everything they do they're thinking, 'are we doing this the best way we possibly can?'"

(Practice manager)

Primary Care Practice Assistants (PCPAs) and extended clinic hours contribute to efficiencies

PCPA tasks vary from practice to practice, but may include doing recalls for immunisations, ordering consumables and infection control, running the daily briefing, organising appointments and other administrative tasks. One practice has had difficulties in keeping staff in these roles. Reconfiguring provider services also included extending clinic hours, which were seen as an advantage for those who are in paid work and who are busy. Saturday clinics have been well utilised. One practice had assumed that extended hours were not needed but a patient survey found there was a demand.

Use of self check-in improved patient flow, yet presented logistical challenges for staff, and its use varied across patients and practice

Self check-in allows patients to check in electronically and update their contact details without the need to inform reception in person and helps keep people moving through the system quicker. Some people prefer it to coming up to the counter, especially if they are very unwell and don't want to talk to people. It was generally felt that Māori patients and older patients were less likely to use the self check-in as they preferred the front desk, with some whānau stating that they use it, some not and some only if staff were busy. It was also felt that it was more likely to be used by the younger generation or by those accustomed to technology. It was noted that as the self check-in doesn't give a paper slip, this "saved trees".

"I prefer the counter, I prefer to talk to someone."

(Whānau participant)

While the use of self check-in varied across and within practices, it was noted that if even a small proportion of patients used it, this still freed up the time of front desk staff to monitor phones. For reception staff, however, the self check-in means less interaction and so less awareness of who's in the waiting room. An ongoing issue in one practice was that it doesn't produce an encounter slip for the GP to complete with their fee which led to post-visit hold-ups at the front desk. There has been no negative feedback on the self check-in from Newlands patients, which also has a te reo option for self check-in.

[9] See Table 6: Outcomes of triage events for Māori, CCDHB, July 2016-April 2019. Total number, and percentage of all events per quarter.

Positive impacts of the HCH model on primary care

Coordination of services is appreciated by whānau, and virtual specialist consultations welcomed

The coordination and strong relationship between one GP service and specialists was noted, with appropriate information sharing between them. Patients received reminders from their service about upcoming specialist appointments.

"Now I get calls from the nurses saying – you've got this and this coming up, can we make an appointment? And now when we get our prescriptions, down the bottom there's always a note about what we have coming up in terms of tests. I've noticed that change too."

(Whānau participant)

When asked if they would like appointments with specialists held on a screen, whānau were very open to this. The idea sharing the consultation with two or three others in the same room was also welcomed (as a form of Shared Medical Appointment).

Whānau feel they can more easily get appointments, consultation time is adequate and urgent care is attended to despite the practice being busy

In terms of access, patients felt that there was enough time during consultations to meet their needs and noted that waiting times in the surgery were minimal, with the doctor usually being "on time". Some arrived a bit earlier to get used to their surroundings, view the notice board or go and have a cup of tea. Patients didn't feel rushed during their appointments. Whānau from Hora Te Pai commented that the main building of their practice needs to be bigger so that everything can be in one place, rather than having two separate sites at a distance from each other.

Participants of both services had noticed a change in their ability to get appointments, particularly compared to four years ago when they couldn't always get in.

"I'm very aware that our interaction has been greater, absolutely."

(Whānau participant)

One service had had a recent increase in patient numbers which impacted on existing patients' ability to get an appointment. In light of this, the patients acknowledged the extra lengths that staff took to ensure they were seen, triaging patients, and seeking care for them outside of the service if needed and sometimes calling for an ambulance or transporting the patient to the nearby emergency clinic. Whānau themselves had also found ways to ensure their health needs were met, particularly for urgent matters.

"If we can't get an appointment straight away, we ring 111."

(Whānau participant)

Dropped call rates and calls answered rates met and exceeded the target rates at one provider

The dropped call rate measures the proportion (percentage) of calls that were dropped before a connection was made with the provider. The target is to keep this rate below 5.0 per cent. For most months in 2019, Newlands' dropped call rate remained below 5 per cent, and the average over the year was 3.4 per cent. For Hora Te Pai, the average rate of dropped calls in 2019 was 7.9 per cent.[10]

[10] See Table 7: Dropped call rate, and calls answered in under 30 seconds, 2019.

The target for calls answered within 30 seconds of ringing is over 85 per cent. The rate for Newlands appeared to increase over the course of 2019, with an overall average of 86.3%. There was limited data available for Hora Te Pai.[11]

Māori enrolment in HCH providers appears to reduce overall Māori ASH rates over time

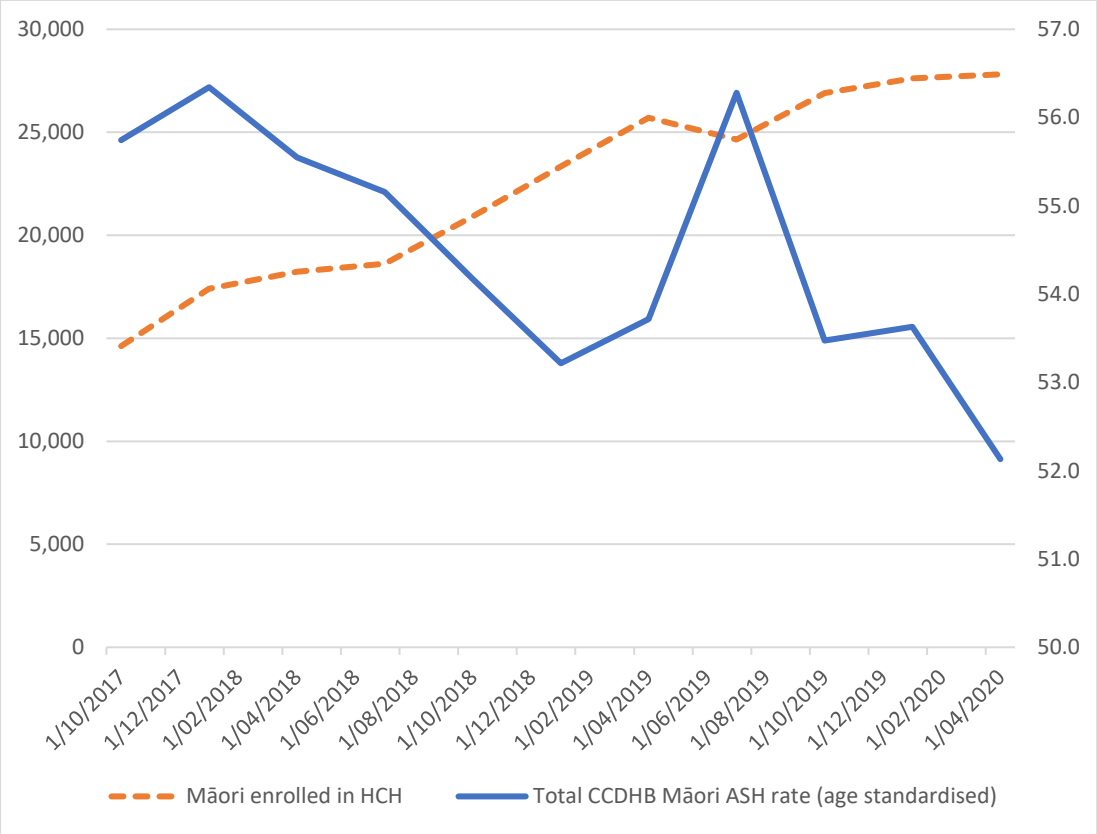
Ambulatory sensitive hospital (ASH) admissions are those that are mostly acute and considered preventable or reducible through interventions in primary care settings. High ASH admission rates can indicate difficulty in accessing timely care, poor coordination or care continuity, barriers to primary care, or other structural constraints such as provider capacity and the availability of primary care workers. ASH rates are also impacted by emergency department admission policies, patient health literacy, public health policy and interventions and by the overall determinants of health. Consequently, ASH rates are often considered a proxy marker for primary care access and quality and lower ASH rates are associated with factors such as self-rated better access, physician supply, number of visits and shorter travel time to primary care services.

Māori experience high levels of ASH rates compared to non-Māori in the CCDHB region,[12] and research has shown that barriers to primary care contribute to high ASH rates for Māori in general.[13]

[11] Ibid.
[12] https://www.ccdhb.org.nz/news-publications/publications-and-consultation-documents/taurite-ora-maori-health-strategy-2019-2030/taurite-ora-data-profile-2019.pdf
[13] https://search.proquest.com/docview/1839404045?fromopenview=true&pq-origsite=gscholar

Figure 1 shows age-standardised ASH rates for all Māori enrolled with a PHO in CCDHB, compared to Māori enrolments in HCH over the time period of October 2017 to April 2020. Note that implementation of HCH commenced with tranche one in July 2016, and had a focus on communities with high Māori populations and areas of high deprivation.[14] Between October 2017 to April 2020, Māori enrolments in HCH providers grew from 14,619 to 27,814. This was an increase from 48 per cent of the CCDHB Māori population to 80 per cent. During this time period, the age-standardised ASH rates for Māori decreased overall, from 55.7 to 52.1 per 1,000 – for both those enrolled in HCH providers, and those who were not. The graph appears to show a steady overall decrease in rates in line with increase in HCH enrolment, albeit with some fluctuation. This suggests that enrolment in HCH providers increases access to primary care, and contributes to decreased ASH rates for Māori in the CCDHB region.

Figure 1: Age-standardised ASH rates for total CCDHB Māori (HCH and non-HCH) vs CCDHB Māori enrolments in HCH



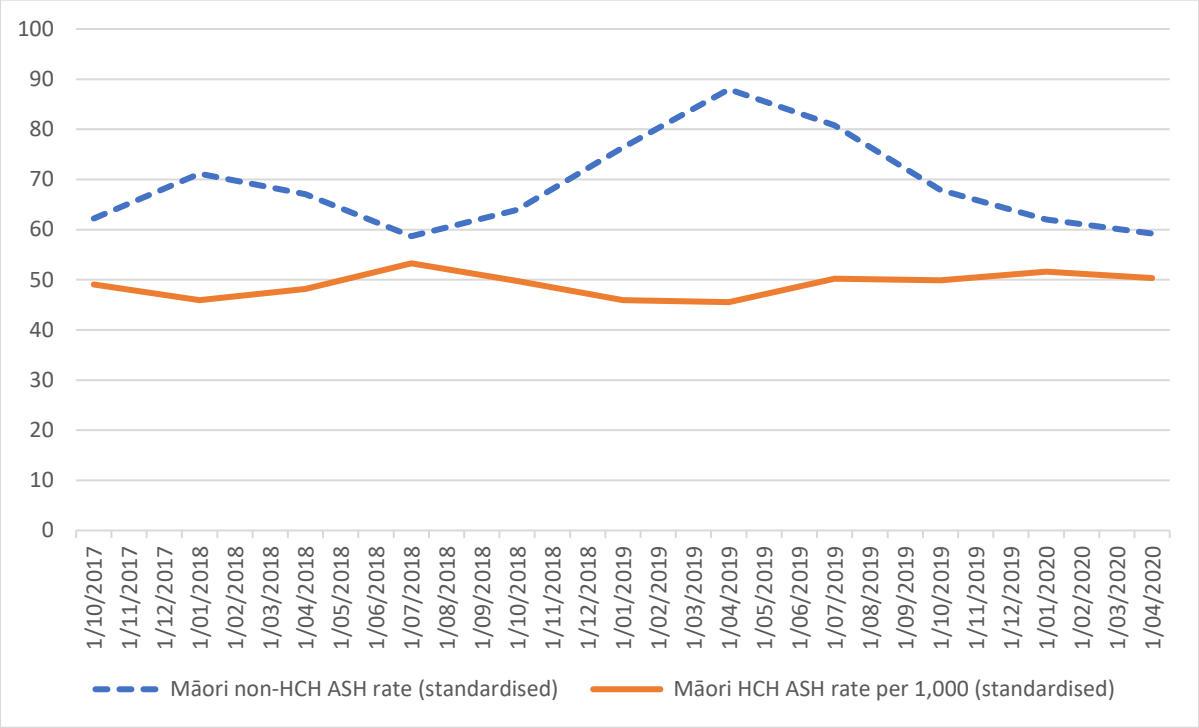
Rates are age-standardised to the Māori 2001 standard population. Data supplied by CCDHB, June 2020

[14] Data includes Ora Toa and Karori

Māori enrolled with HCH providers experience consistently lower ASH rates than Māori not enrolled with HCH

As shown in figure 4, for the CCDHB Māori population during the time period of 1 October 2017 to 1 June 2020, those enrolled in HCH providers experience lower age-standardised ASH rates, ranging from 46 per to 53 per 1,000 compared to CCDHB Māori not enrolled in HCH providers, which range from 59 to 88 admissions per 1,000.

Figure 2: Māori HCH ASH rates compared to Māori non-HCH ASH rates



Rates are age-standardised to the Māori 2001 standard population. Data supplied by CCDHB, June 2020

Time to third next available appointment measures improved at one provider

This is a measure of the average length of time (days) between the day a patient makes a request for an appointment, and the third available appointment for either a new patient appointment, a routine physical or a return visit. It is considered a measure of access opportunity.

While there were fluctuations in TNAA over time for Newlands Medical Centre (ranging from 1 to 3.2 days), it has remained relatively consistent, with no increase or decrease evident.[15] For Hora Te Pai, TNAA measures were relatively high over the time period of October 2017 to July 2018, ranging between 5.6 and 11 days. However, there was a distinct improvement in the next time period of August 2019 to November 2019, where the numbers of days until the third next appointment decreased to between zero and 2 days[16].

Prompt, effective communication through a variety of modes is important for whānau

It was generally found that staff are responsive, open and approachable. The mode of communication preferred differed amongst the whānau interviewed, however it seemed that

[15] See Appendix 2, Figure 3: Time to third next appointment (days), Newlands Medical Centre
[16] See Appendix 2, Figure 4: Time to third next appointment (days), Hora Te Pai

providers were utilising a variety of techniques for reaching their population, and persisting in contacting them to ensure their messages were transmitted `` and health plans were being followed. Whānau said they appreciated the phone call and text reminders they received.

"I feel like if I need anything, I can ask."

"We get constant reminders all the time. Most impressed."

"After one appointment, the doctor called me three times the following week to make sure I was doing what had been put in place .... they follow up."

(Whānau participants)

Whānau prefer to see their usual doctor but recognise this isn't always possible

Some of the whānau interviewed had been attending their practice for many decades, up to 45 or even 50 years, with most of their whānau enrolled there including their children and mokopuna. With regards to continuity, whānau generally preferred to see their usual doctor and appreciated the feeling of familiarity, mutual trust and consistency. However, if their usual GP was not available they accepted the need to make an appointment with another GP in order to get seen. They were thankful that other GPs can access their information on the computer so that they didn't have to repeat their medical history. They spoke of the amount of trust required to attend a consultation with a doctor they weren't familiar with.

"Its nice to get the one you know."

"You leave yourself in their hands, ay – even though they're not the one who normally treats me."

"They're a doctor, you just have to accept that they know."

(Whānau participants)

Providing comprehensive health care is important for whānau with most or all of their needs being met at their provider

Care provision can involve drawing on specialist services outside the provider, and some whānau spoke of the need to travel to Wellington or Kenepuru to see specialists and the burden this placed on them. For some, all health needs were now being met at their service, and for others, most of their health needs were being met. More comprehensive care removed access barriers and provided continuous individualised care. Whānau appreciated the additional services that were available at their primary care provider, and their flexibility in meeting additional needs at times.

"Sometimes I don't get time to get to the lab for my blood tests so they'll do it at the clinic for me."

"That's what I like about here - they've got everything. What I need is all here."

(Whānau participants)

Whanaungatanga

Whānau value relationships based on authentic personal connection and trust

Whānau of both practices were unanimous in their appreciation of the way they are treated at their clinic. They spoke of the friendly, personal connection with staff and of how they are made to feel comfortable, valued, heard and properly cared for. Positive feedback on staff extended from those at the front desk, to nurses and care workers, to GPs and management.

"We all feel comfortable here."

"There's always a smiling face at reception."

"They've been marvellous... they treat you like a human being!"

"I've always felt I'm on the top of the list – whatever care I've needed, I've got."

(Whānau participants)

Whānau of both practices also said that their personal connections with staff enabled them to build relationships of trust in the staff and the care they provide.

"We wouldn't go anywhere else. It's the trust thing."
"Very empathetic – I can talk to them about anything."
(Whānau participants)

All of those interviewed feel they have a good relationship with both their doctor and the nurses, and find them all really pleasant. One mentioned her mokopuna went to school with her doctor's daughters, and another participant's children attended the same school. They spoke of the importance of the whanaungatanga connection.

"He's like whānau – our whānau."
"They're friendly and you get to know the staff and they get to know you."
"I feel like I'm being cared for and they know me."
(Whānau participants)

A whānau-centred approach is important

The importance of having other whānau members present in consultations, if wanted, was emphasised by those interviewed. They felt that providers welcomed this, and encouraged whānau attendance. Some patients mentioned they always have another whānau member, often an adult child, accompanying them. Patients commented that an accompanying whānau member can help them remember important details, both during and after the consult. Whānau also said they can provide a third person perspective which is particularly important if illness is being downplayed.

Rangatiratanga

Key features of the HCH model

Visual management boards are important for showing progress and for aligning with the existing practice model of care

These boards are helpful for showing targets and for staff to see progress and the areas they might want to be involved in. The boards are presented as a journey, with a traffic light system to show progress. In Newlands, the board displayes staffing levels, meetings, issues to discuss, celebrations, progress against targets and patient feedback. The board is kept updated, with input from any of the staff. Hora Te Pai also have their visual management board represented as a journey, with their ten kaupapa providing overall guidance. These are: rangatiratanga; kaitiakitanga; kotahitanga; manaakitanga; pūkengatang;, te reo Māori; wairuatanga; whakapapa; whanaungatanga; and ūkaipōtanga.

Year of Care plans require dedicated time to co-develop, yet help promote self-management and more patient involvement in their own care

The Year of Care (YOC) programme requires identifying those who are at high risk, and co-designing a year of care and support around them. The list is supplied by Tū Ora Compass PHO, based on patients' ED admissions, blood test results and smoker status. It was felt that the YOC programme placed a strong emphasis on self-management, and although still in its infancy, will be transformational over time. It was viewed by provider staff as being particularly good for Māori, and

one GPs said it was particularly useful for finding out what social supports whānau have in place and helping get that in place if needed. Another GP said it has limitations in that not many patients think of their goals for the year, it doesn't allow for change and that it requires a high degree of health literacy to complete. It was also noted that it can be a bit overwhelming for some patients and works better if undertaken in two or three sessions rather than all at once. Providers reported evidence of increased medication compliance and a reduction in ED rates as a result of YOC plans.

"It's been really useful seeing where people are and what their expectations are of us instead of us just assuming what they are."
(General Practitioner)

Whānau found that most of their health care needs are met at the clinic with the YOC Plan. They have longer appointments with time to see the nurse and then the doctor to develop a self-management plan and they appreciated the security of appointments, including specialist appointments, being scheduled months in advance. They appreciate the opportunity to include what they themselves think is important for their health into their plan, and that including their own goals helped "put you back on track again". These goals included things such as walking, gardening, healthy eating, maintaining their independence, seeing whānau and social interaction. The service allows them to be self-managing by providing good information and support when needed.

"... suggestions are made, I say what I think and then [they say] what's the alternatives – we have plenty of input."
(Whānau participant)

Advanced Care Plans promote a sense of security although a kaupapa-based plan is also needed

Although Advanced Care Plans (ACPs) are not a component of HCH, the HCH programme was used as a platform to implement ACPs. These can be included in the Year Of Care programme, and involves patients setting out their current goals and making a plan for how they will spend their last days or weeks, putting their minds at ease. Newlands Medical Centre uses an article or narrative written by a koroua to share with whānau how it works. Staff at Hora Te Pai felt that the plans were "too pākehā" and had a eurocentric approach, with little to relate to in the document. They were seen as being unnecessarily repetitious and too long. The practice saw the need for a kaupapa Māori process, and have asked for whānau feedback in order to develop a new form for planning advanced care.

Those whānau who had completed an ACP plan spoke favourably of the process. They appreciated both the support from nurses to complete it, and the fact that they had a say in every decision. They also spoke of the feeling of security to have everything organised, and to have a plan for the future, with goals, treatment plans and wishes set down in writing. Making decisions on funeral arrangements was a "worry off the mind". They also appreciated the opportunity to develop their wills, with a lawyer present to guide them through the process. While it was a difficult kaupapa, it just "had to be done".

Use of the Manage My Health portal varied across whānau and practices

Practices commented that the Manage My Health (MMH) portal is a bit cumbersome to use, but can be useful for sending out bulk messages to patients e.g. with COVID-19 advice and updates. One practice undertook a big drive to promote MMH when it was first introduced. While a few patients declined to use it because they prefer face to face or don't have access to technology, the majority were open to it. Literacy levels of patients can prove a challenge and verbal messages work better in those instances. Practices also need to take care with use of medical jargon and acronyms.

There was considerable variation in whānau feedback on the MMH portal, and also in what aspects of it were used and not used.

"Just [for] checking results."
"I order my prescriptions through it."
(Whānau participants)

Several participants stated that they "just ring up" to get their test results instead. They like chatting to the staff and prefer the personal contact. They also like to hear their health information direct, and getting an immediate response. The comment was made that with submitting information via Manage my Health, there's uncertainty if it's being monitored straight away. Others mentioned the doctor would email, message or phone with results, and therefore didn't assume results were being accessed online via MMH. There was some resistance to the use of the portal and of technology, and some knew of it, but hadn't yet engaged.

"I don't know what to do and I don't care".
"I keep thinking I should join up but – too old!"
(Whānau participants)

One couple pointed out an issue regarding the separation of their personal information in the system, noting that although they have separate Manage my Health accounts, appointments for either of them are sent to just one of them – likely because they are both under the same file number at the practice. While this wasn't an issue for this particular couple, it raises privacy issues.

Some whānau found the Manage My Health portal easy to use, convenient and that it better enabled them to be on top of their health

Many older patients use MMH, not just the younger generation as is often assumed, and some kuia and koroua get their grandchildren to help them with it at first. Those who used it said they found it very helpful after initital problems with the system were solved and that it was easy and convenient to use, that is was available 24/7 and reduced the need to visit or contact the clinic which, in turn, reduced time and cost barriers and improved access to health care when they're away from home. They valued being able to view and chart their results, monitoring their progress over time and not having to rely on their memory and being able to send and receive communications to and from their GP.

"Everything's there in terms of results so that really helps and I use it a lot for repeat prescriptions…. I also use it to email my doctor if needed and they respond really promptly."
(Whānau participant)

Patients' use and activation of their MMH portal varied

The 'open notes' measure shows the total population enrolled with a service, the number registered with MMH and the number of these who have activated their notes (i.e. logged in). A practice may elect individual patients to not have open notes access, in which case their data is not reflected in these numbers.

As at September 2019, 46 per cent of all patients enrolled with Newlands had registered with MMH (4,309 individuals), and of these, 90.5 per cent (3,898) had also activated their MMH account. This equated to 41.5 per cent of the total enrolled population for Newlands Medical Centre. For Hora Te

Pai, 19 per cent of their enrolled patients had registered with MMH (528 individuals), and of these 72.7 per cent (384 individuals) had activated their account. This equated to 14% of the total enrolled population for Hora Te Pai.[17]

MMH data was not available by ethnicity.

MMH portal traffic

This is a measure of the number of times the MMH portal is accessed by patients of a service. It does not show the number of visits per patient. From July 2017 to June 2018, Newlands showed a steady increase in access, increasing from 1,827 to 10,133 portal visits. Their target of 7,736 was met in April 2018.[18] Over the same period, Hora Te Pai also showed a steady increase in access, increasing from 61 to 1,306 portal visits. Their target of 470 was met in December 2017.[19]

[17] See Appendix 2, Table 9: Population, patients registered, and number and proportion of patients that have activated MMH.
[18] See Appendix 2, Figure 5: MMH portal visits, Newlands Medical Centre, July 2017 - June 2018.
[19] See Appendix 2, Figure 6: MMH portal visits, Hora Te Pai, July 2017 - June 2018

Shared Medical Appointments require a lot of organisation but are appreciated by whānau and generate improved health outcomes

A Shared Medical Appointment (SMA) involves patients with similar medical issues coming together, usually a chronic condition, for an extended appointment time. Although quite a process to follow for providers and kaimahi (organisation, coordination, transport and consent), SMAs are appreciated by patients and encourage them to talk about things they might not otherwise discuss with their GP. The freedom to speak and question was described as "like being in the marae in the kitchen". One practice carried SMAs out in the local community centre to make it a freer speaking space. SMAs work particularly well for Māori who appreciate having other Māori present, where they can bounce ideas off each other, learn from each others' questions, and can essentially "run it themselves" as long as the doctor is in the room. There is a shift in the power dynamic during an SMA – patients are more comfortable than in one-to-one consultations, there is a greater sense of safety and they are less inhibited.

"Sometimes patients will only tell you the story they want you to hear."
"We heard a lot of real stuff."
(General Practitioners)
"They participated, engaged, it worked."
(Provider staff member)

It was felt that SMAs were a good way to roll out services to the community. One practice spoke of the SMA they organised with two extended whānau, where they drew on their relationships in the community to engage a family that "never came in".

Considerable praise was given by whānau for SMAs and patients in a whānau focus group spoke at length of one that was set up for gout. This SMA increased their overall knowledge of the condition, its signs, symptoms and treatment. They noticed an improvement in their gout (with all uric acid levels decreasing), and that some whānau members accessed treatment for the first time as they hadn't previously been aware they had the condition. The pharmacist was involved in these SMAs, providing useful information on the medications and it also afforded whānau the opportunity to develop a relationship with them, which continued after the programme had finished.

Feedback from whānau who attended SMAs was that they "want more" because they provide them the ability to (better) control their condition. When whānau were asked about other kaupapa they would like to see covered in SMAs, they listed diabetes and hypertension.

"Now that my gout's under control I want to deal with my diabetes."
(General Practitioner reporting a patient's comment)

Strong leadership to champion implementation

All three providers found it challenging to have others come into their workplace to "enforce their ideas", particularly when those ideas don't align with what the practice knows is appropriate for their population, or team. While it was accepted that there were measurements and targets to meet, practices preferred to determine their own path to meet them. Strong leadership within providers was required to champion HCH implementation and gain buy-in from other staff or the process risked losing momentum. The staff of one practice spoke at length of their appreciation for the leadership, strength and consistency shown by their manager, and how this has been critical for implementing the programme.

Pae ora

Whānau wellbeing is optimised by being able to connect with services through te ao Māori

Patients felt that acknowledgement of te ao Māori is important, and several whānau mentioned the importance of being able to connect with their GP and clinic staff in this way.

"That's special for us – that they understand the Maōri side."

"I feel comfortable knowing that the Māori side of things is there – that really helps. I can express what I need to get out and they get it."

(Whānau participants)

Whānau appreciate prompt attention to their needs and preferences

The patients interviewed spoke of the promptness and thoroughness of the service provided. This contributed to the feeling they were valued and important, and receiving the best possible care.

"If she can't solve it, they refer me straight on. They don't muck around which is really comforting."

(Whānau participant)

Patient preference is respected. As an example, one patient had declined chemotherapy which was accepted and an alternative was found by the specialist, who they were referred to by their GP.

Whānau want to improve their health literacy and management of their own health

Some participants said they took a number of medications but weren't clear on their purpose which really bothered them. They said they would appreciate clear labelling with the reason for the medication, dosage and frequency.

Te reo Māori and rongoā are important for wellbeing

Participants talked of the importance of te reo Māori to them. They felt it was important to see and hear te reo spoken at their health provider as it made them feel at ease.

"The reo is important – important to see it [in the building], important to hear it."

(Whānau participant)

There was discussion in one whānau focus group on the incorrect usage of a karakia printed on a poster on the wall, and the desire for it to be used correctly. There were also discussions about the mis-spelling and mis-pronunication of Māori place names and people's names. These mis-uses of te reo continue to cause offence and distress to whānau.

The importance of rongoā Māori was spoken about, including access to rongoā, as well as traditional healing practices.

Provider connection to place and history needs to be acknowledged in the wider community

A number of whānau participants talked of the importance of connections to place and history. For example, one group talked of the beginnings of the hauora and how they'd like this to be known and acknowledged by the wider community, including by the adjoining non-Maōri health service. They spoke of a tension between the two services about the hauora's use of the building and site, despite the history that sat behind them. There was also a desire for the hauora to be in iwi hands.

"Context really matters. History really matters"

(Key informant, CCDHB)

Q2. What were the key components of the HCH model and its implementation that supported improved outcomes for practices, kaimahi and whānau Māori?

This section relates to the implementation of the HCH programme by providers, the change management process for implementation facilitated by Tū Ora Compass PHO and the involvement of, and relationship with, CCDHB.

Manaakitanga

Support for providers was appreciated and gradual, deliberate implementation worked well

It was commented several times by providers that the support from both the change team at Tū Ora Compass PHO, and those involved at CCDHB was exceptional, greatly appreciated and contributed to easing implementation. The Tū Ora Compass PHO change team undertook monthly visits in the first year, every two months in the second year and provided other support and advice as and when needed. The philosophy of the team is to "lead with kindness", exercising sensitivity and reflexivity when required. Many in the PHO have worked in primary care and are conscious of the pressures, so there is flexibility in the programme to "pause and have some breathing room". They are also conscious of the need to be agile and make changes when required, and to reflect and adjust in order to ensure practices are receiving appropriate individualised support. The Tū Ora Compass HCH team incorporates aspects of kaupapa, tikanga and te reo Māori into their work.

"It's an evolutionary programme."

(Key informant, Tū Ora Compass PHO)

A gradual implementation of the HCH programme seemed to work well (compared to Waikato where the HCH model was implemented overnight), with staff briefed on each change and with opportunities provided for both training and staff input. The process was one of introducing a change through a planned, stepwise approach, trialling it for a period and then reviewing and revising it.

Providers gained useful data on patient engagement and want to do more to support whānau to give feedback

Several of those interviewed from the providers spoke of implementing the new patient management system, Indici, and that it provided some good data on patient engagement.

Practices said they would also like more feedback from Māori patients to improve implementation of HCH. They want to know things like, what more could they be doing? Are their health needs being met? Have they noticed a difference? Do they need more explanation of their medication? Do they feel confident with their medication? However, providers reported that many of their clientele have limited literacy, including health and IT literacy. To facilitate this communication flow, providers highlighted the need to increase patient health literacy and ensure staff are communicating with them in ways that are clear and understandable.

Whanaungatanga

Practices underwent 'a ready for change' analysis and had opportunities to share learnings with other providers

Practices underwent a 'ready for change' analysis. This has meant that some practices have an edge as they already met some of the criteria with their existing mode of practice. Having seen the potential for greater health care access for Māori through HCH, CCDHB wanted Māori providers in the first tranche to get this added advantage. Practices are also provided opportunities to come together and share learnings from their to implement HCH and share resources they've developed.

The change team at Tū Ora Compass is also part of a wider HCH collaborative to share learnings nationally. The sharing process is an important part of gathering feedback on what works and what doesn't, in order to inform ongoing improvement of HCH.

Rangatiratanga

The HCH programme gives providers both structure and flexibility to tailor it to their practice

Staff from Tū Ora Compass described the HCH model as "fluid and developing", with key features being both structure and flexibility.

> *"It's matured as we've matured…. Governance and oversight has matured, leadership and management has matured, implementors and facilitators have matured and so have our practices along the way."*
>
> (Key informant, Tū Ora Compass PHO)

As such, the model should be able to adapt to what works for providers and their patients. However, the claim to flexibility was sometimes at odds with reports from providers. This is detailed in the section on barriers and challenges.

Providers chose whether or not to implement the HCH programme

In the beginning, practices were invited by CCDHB to join the HCH programme. Participation was therefore by choice rather than at the direction of CCDHB. For implementation, providers are invited to identify their own team leaders and drivers for change. The aim of the process is to bespoke as much as possible for individual practices, where they are able to progress at their own pace.

It was reported that the providers who were successful in implementing the HCH programme could "see themselves" in the model; they could see at the outset how it could work for them. Key features of successful implementation were reported to be strong clinical leadership, a solid practice culture and a willingness to change.

> *"You can't underestimate that championing of cause."*
>
> (Key informant, CCDHB)

Q3. What were the unintended benefits and consequences that the HCH model created for whānau Māori?

Manaakitanga

The HCH programme provides flexibility, choice and stronger engagement between providers and whānau

Overall, HCH allows multiple ways of doing consultations, more proactive care as opposed to treatment and improved access for whānau Māori. The triage system and morning briefings enable opportunistic appointments and follow-ups with patients, through more coordinated and responsive care. The YOC process has been useful for providers to learn more about their patients and what they need and expect instead of making assumptions.

Whānau have particularly enjoyed attending Shared Medical Appointments (SMAs)

As noted earlier in the report, whānau have found SMAs engaging and uplifting as they're able to learn more about their health in a safe, comfortable space alongside their whānau and peers.

Whanaungatanga

Relationships within providers strengthened along with relationships between providers, communities and whānau

Practices found aspects of the HCH brought their team of staff closer together through a better appreciation of each others' roles, which has had flow-on benefits for patient care.

Numerous features of the HCH programme have also broken down barriers between GPs and patients through more direct, ongoing contact. Patients appreciate this, and the benefits are experienced by both staff and whānau. The improved level of care too has built bridges between staff and whānau, building rapport and trust, and improved knowledge of patient needs and what practices can do to help.

MDTs and the organisation and running of SMAs have also helped build relationships between health professionals and between health professionals and local communities and whānau, centred around improving patient care. SMAs have also allowed the development of ongoing relationships between whānau and other health professionals who have been part of it.

Rangatiratanga

Improved overall self-management of health for patients undertaking YOC, SMAs and using the MMH portal

Patients experience increased self-management of their overall health, particularly through YOC, SMAs and through use of the MMH portal, and including those with chronic conditions such as diabetes and COPD who have been able to self-manage exacerbations. One provider spoke of a patient who attended SMAs, and during this time they could see a visible improvement in his appearance, dress, hygiene, his positive attitude towards the SMAs and to his health in general.

Pae Ora

Morning briefings have provided a space for te reo and tikanga Māori

Morning briefings have been seen as a space for staff to use and practice te reo and tikanga Māori and particularly through karakia and waiata.

Implementation of HCH has allowed for greater practice efficiencies and forward planning

The HCH model freed up time for provider staff to focus on other aspects of the practice such as governance, meeting targets and addressing equity issues. It has allowed for conscious reflection, reviews of systems and standards and forward planning to improve care for whānau Māori.

Through HCH, Newlands Medical Centre has been able to extend the practice – with a new space built for allied health services. While they might have done this without HCH, it was felt that the patient-centredness of the model "gave focus to it and made it happen".

Implementation of HCH has helped support staff wellbeing

It was reported that the triage process has helped increase the confidence of the nursing staff to successfully triage patients.

Covid-19 response

Several aspects of HCH helped in the response to the COVID-19 pandemic.

These included MDTs, telephone consultations, use of videoconferencing and technology to allow whānau to have non-contact consultations and continue to access health care. Community workers have tablets and were thus able to connect to GPs via zoom for advice for whānau.

Q4. What were the barriers and challenges to implementing the HCH model of care and how were these addressed?

A number of significant barriers and challenges to implementing the HCH model were identified. Alongside this, providers acknowledged the efforts of both the CCDHB and Tū Ora Compass PHO and, in general, appreciated the good relationships and open communication they have with each other.

Manaakitanga

The HCH model is not patient-centred and has elements that are ill-suited to whānau

One GP described the HCH programme as a "model driven by providers, not the needs of patients". One practice manager felt that the HCH programme was very doctor-centric.

One example, already raised, is that ACPs are seen by some Māori staff and whānau as being unrelateable and not designed for Māori. In one practice, ACPs weren't implemented as they found the questionnaire cumbersome, time consuming and eurocentric and that it left patients thinking "my doctor thinks I'm going to die". The value of ACPs is acknowledged, however, and there is a plan to develop a process and documentation that works better for whānau.

There is a lack of accountability to communities

One practice spoke of the resistance from their kaimahi to some aspects of HCH, and how those at the interface who have a community's trust, are answerable to them and shoulder the responsibility of managing patient responses to change but often have little say about that change or how it is to be implemented.

"They're the ones who have to stay here and answer to their whānau at the marae."
(Practice Manager)

Confidentiality is compromised with open notes

One provider was reluctant to make patient's notes available to them (through MMH). In a very interconnected community, other individuals or relatives are often mentioned in a patient's notes, and to grant the patient access to these notes would compromise confidentiality. The Privacy Act is quite clear that details of others can't be revealed.

Whanaungatanga

Supporting the whanaungatanga that is the core of practice for Māori

Staff at Māori providers spoke of the depth of their connection to the practice, the patients and the community. Whakapapa connections to both the whenua and to individuals and whānau of the practice meant they viewed themselves as an inextricable part of the organisation, with a strong sense of responsibility to take care of the whānau they work with. It means they carry a greater level of accountability and have more at stake to ensure interventions such as the HCH meet the needs of

their whānau and community. This is a key strength of such providers and the challenge for HCH into the future is to ensure that strength is supported, including by being accountable and responsive to staff and whānau needs, ideas and feedback.

"... there's that aroha because of our ancestors .... this is our whānau."
(Provider kaimahi)

"How deep do your roots as a Māori go in an organisation that's part of you."

"My belief is that we're here to ensure that iwi look after our iwi. We have skin in this. We're always going to be here ... we're in for the long haul, long term. We are here for our iwi, hapū, whānau."
(Practice manager)

Rangatiratanga

The HCH model lacks flexibility and doesn't adapt well to the specific context of providers

The view across all three providers was that the model lacks flexibility. Practices found that funding was put at risk if they didn't adhere to the exact specifications of the HCH programme. Examples given included the requirement for GP triage as opposed to triage by nurses, nurse practitioners or a combination of nurses and GPs. Another was the requirement for clinics to have extended operating hours as opposed to the preference of some to increase the availability of appointments by rostering on additional GPs instead. There was a strong view that more is needed to recognise the idiosyncrasies of each practice, particularly those that serve high needs communities, and enable the model to be adapted to suit their needs.

Instead, providers would have liked the freedom to select the elements of HCH that suited them best and be consulted on what was needed for their practice and community. For example, one practice was required to do a pilot programme on pediatrics but with only two patients in pediatrics it was of limited use. If given the choice, the provider would have done a pilot on cardiovascular conditions.

Providers also said that some of the things they were already doing couldn't be counted towards the HCH programme. One in particular listed the large number of activities and services they offer, but none could be counted towards HCH because they weren't held at a general practice. Given that not all primary care is concentrated at general practice, they felt there should have been some flexibility.

The HCH model didn't align well with kaupapa Māori

Kaupapa Māori providers acknowledged that some elements of HCH could be 'tweaked' to align with kaupapa and met the needs of whānau (such as SMAs) and that in some respects providers could 'pick and choose' the elements that suited them. Despite this, the general view was that a Western model was being forced into a Māori framework.

"We're often feeding back to the PHO that this doesn't work for us."
(Practice manager)

At Hora Te Pai, the key features of HCH were put alongside their ten kaupapa. It was felt that every element of HCH should be able to be expressed through the kaupapa of a Māori practice, but the HCH model fell short and their kaupapa were not able to be adequately expressed.

Ora Toa spoke of how they initially thought it aligned well with kaupapa, but quickly realised it did not and that there was rigidity and clashes instead.

Some targets were unrealistic and the funding formula they're based on didn't work for VLCA practices

Various targets were set as part of HCH, including for smoking cessation and immunisation, with funding dependent on achievement of those targets. Providers said the funding formula did not work for Very Low Cost Access (VLCA) practices, as it was much more difficult for them to reach their patients as they often change phone numbers and addresses. It meant that meeting those targets took considerable amounts of time and effort and diverted time away from critical care. Targets were also often unmanageable because of the larger gap between their current numbers and the target numbers (from having, for example, higher numbers of smokers in their enrolled population). There was a general view that the targets did not reflect kaupapa Māori priorities or contexts. There was also a view that HCH should not be dependent on targets, that it acted as an immediate barrier and was not practical at the practice level. One provider noted that they couldn't have reached their targets if they hadn't had a community team to call on.

Funding was inadequate to cover the changes providers were required to make, and didn't take into account the different complexities for different providers

Providers were under-funded and under-resourced to implement HCH, even where they had already implemented some aspects of it before signing up. One provider talked of the very expensive phone system they did not want but were required to purchase, and which continues to be difficult to use and generate data they don't use.

HCH funding did not take account of the different complexities in different providers and implementation of the model made no concessions as to how providers had been funded to date. For example, the underfunding was particularly harsh on Māori providers as their previous funding model had been inadequate for many years. Ora Toa spoke of their 30 year history of base contract under-funding by the system and the impact on their infrastructure. Another provider found that the HCH GP triage process clashed with how they remunerated their GPs which impacted on how it was implemented.

HCH funding for the fourth and final year was halved, compromising the programme's sustainability through that year and beyond and creating additional difficulties for providers to meet their targets and provide the same service. Tū Ora Compass PHO's view that HCH could be self-funded by the efficiences it produced was not supported by the any of the providers. Instead, providers said it will be a challenge to keep the changes going when the funding ceases. The options they face are to make cuts to services, retain only those aspects that are sustainable or not continue with HCH.

In the face of the funding shortfall, Hora Te Pai has made cuts to its services and will not run any more SMAs due to the costs involved and despite the successes they achieved. Whānau enrolled in their service who had participated in these highly productive and effective fora were extremely disappointed by this news.

There was a strong view that HCH funding should be maintained for the final year, not halved, and continued into the future. It was felt it is an important investment that helps ease the load on secondary services which has been a key driver of HCH. Attempts to address the funding issue with the PHO have not been successful.

Practice readiness assessment design was limited and did not assess provider infrastructure

At the time of implementing the HCH programme, Ora Toa reported that they had just taken on board two new practices, bringing their total number to five. The HCH was implemented in three practices, operating as a hub and spoke model. In retrospect, they said it might have been better to implement HCH in just one practice to begin with as implementing it in three so soon after purchase presented a huge logistical challenge to the organisation, and the base infrastructure covering the five practices wasn't yet stable enough to support such a change. The HCH readiness assessment design was limited and was not geared up to assess provider infrastructure. It assessed the hub of the three practices as a whole, but did not recognise that the individual practices operated quite differently, with distinctly different contexts and communities. In addition to this, their capacity to report back on HCH was limited due to running five practices and they were further restrained in moving forward by the inadequate level of funding attached to HCH. As outlined above, Ora Toa was also restricted by the 30-year and reportedly $1million shortfall of funding for their base contracts and no additional base funding was provided to help faciliate their implementation of the HCH programme. Ora Toa's implementation of HCH is currently paused.

Looking to the future, Ora Toa suggested that a more helpful approach would be for providers to be resourced for what currently works well in their model, and to strengthen that first. They also reported that by revealing and highlighting CCDHB's 30 year history of underfunding, their HCH journey has created a focus for support from CCDHB.

"We needed to do it right at the very beginning."
(Key informant, CCDHB)

There was limited engagement with the Māori Partnership Board before implementing HCH

The Māori Partnership Board (MPB) was not truly consulted during the decision-making process for CCDHB to take on the HCH programme. Instead, the MPB was presented to about the HCH model before it was implemented.

"Māori weren't really asked how this was going to affect Māori."
"We were part of the discussions, but not really."
(Key informant, CCDHB)

Provider autonomy and data sovereignty was compromised during implementation

As outlined in the case study overview of providers participating in this evaluation, Ora Toa is also a PHO. The decision of CCDHB to put both administration and data collection into the control of Tū Ora Compass, set up a conflict between the two PHOs who are essentially competitors. It required Ora Toa to feed their data to Tū Ora Compass PHO and relinquish their data sovereignty and a certain amount of their autonomy and control which runs counter to the very foundational kaupapa of Māori providers, their rangatiratanga. The view of Ora Toa was that the task of implementing the programme should have sat with CCDHB rather than a rival PHO.

"This is how we failed Ora Toa. We failed them at the outset by requiring them to release their data."
"We had imposed an impossible model over the mana of manawhenua. Data should not have had to be fed to a competitor."
"Their rangatiratanga – and even more so as manawhenua – had been inappropriately trampled on, no one had thought about this, let alone the Treaty obligations."
(Key informant, CCDHB)

"One of the reasons we formed a PHO was so we could do what we wanted to do ... our model of care, our own framework ... [it's a] bit ironic."

(Provider staff member)

Systemic barriers and institutional racism were encountered

Māori providers reported that they faced even yet more barriers when referring whānau to external specialist services, in the form of systemic barriers and institutional racism from hospitals whose processes and procedures require more of Māori providers.

We have to jump through a lot more hoops than anyone else as a Māori organisation. Then the funding gets squeezed, and the more it gets squeezed, the more we have to show that we are Māori."

(Provider staff member)

One GP stated that a lot of the whānau they see as patients have been "bruised by institutions", not just health, but also by the education and justice systems and so on, which has created a deep distrust of institutions. Community workers were seen as key in bringing whānau into providers, Māori providers included, where the aim is to facilitate an experience that makes them feel as though "this is not an institution, this is our place". While joint video consults with CCDHB specialists have been successful, it was found that CCDHB was not well set up to conduct video consultations.

Pae ora

Practices experienced change fatigue and resistance from staff

Practices found the fast pace of change while also maintaining their existing workload a challenge, and also spoke of change fatigue when trying to implement other changes simultaneously such as switching to a new patient management system. It can take some time for new changes to embed in a practice. In some instances, staff were hard to convince of the benefits of the changes proposed in the HCH programme. This was noted in one practice as coming from a deep commitment and loyalty to the existing organisation and structure. The strategy of management was to identify the most resistant person, get them on board, and then get them to get others on board.

Staff turnover presented a challenge to implementation

Practices that experienced GP turnover found it a a challenge to maintain consistency of implementation and continuity of care for patients. For example, it was found that GP triage worked best for experienced GPs, and was a challenge for new GPs. One practice experienced a period of strike by clinical staff, and a loss of a number of staff in a short time. Another practice reported difficulties with keeping PCPA staff in the role.

Implementation and reporting was more work than anticipated

Providers stated that a considerable amount of monthly reporting was required in the first few years, and "changing goalposts" in the initial stages of the project, provided an additional challenge to implementation and reporting. However, much of this settled over time. Overall, it was felt by some that implementing the HCH programme was a lot more work than they had anticipated.

Implementation of the HCH programme presented logistical challenges

One practice felt that the removal of the phone from the front desk was a good idea in theory, but in reality created a logistical challenge for those at reception, particularly when there were five GPs consulting and eight phone lines with just two people to manage calls. The self check-in hadn't been working for over a year in one practice. While they found most patients preferred to check in at the desk, they were encouraging its use again with the advent of COVID-19.

MMH produced clashes with existing booking systems and challenges remained in improving uptake

One practice said that the online booking system clashed with those phoning in for urgent appointments, and they had to start guarding appointments. They felt that once this was sorted out and MMH was underway, it would be useful in freeing up the front desk. However, challenges remained in getting people to use MMH – and while many sign the form, some don't activate their portal. Possible barriers included the level of IT literacy of patients, limited access to devices or data or the system itself not being user-friendly. While many were using MMH, a level of disinterest was also noted as a barrier to uptake. IT Literacy too was a barrier for staff, who not being experts in it themselves, were limited in the help they were able to offer to patients.

Q5. How do health outcomes for Māori compare to non-Māori for selected health indicators?

Ōritetanga: outcomes for Maōri and non-Māori are equitable

Interviews with CCDHB key informants showed there is recognition that the element of equity in the HCH model was "a little light", but that there has been a recent turn to focus on strengthening this aspect. This has included four equity workshops held in the CCDHB region and which have involved Māori providers, academics, clinicians and consumers to contribute to a refresh of the model with a stronger focus on equity. As noted by one of the key informants, because Māori health is so vulnerable, "you actually have to do more to get equity".

There has been no evidence produced as yet about whether the HCH improves equity and anecdotal reports of its impacts have been mixed. While nurses at one practice observed that the HCH model has increased their equity outcomes, a manager at another practice noted that the process of implementing the model allowed them to see that more focus and resource was being directed to non-Māori patients compared to Māori.

This section reports on an equity analysis of health outcomes for Māori and non-Māori for selected health indicators relevant to HCH. The indicators include enrolment in an HCH provider, the number of triage events, the proportion of triage events completed by a GP, triage outcomes, the proportion of triage events where contact is not made with the patients, triage results and ASH rates.

In order to monitor for equitable outcomes, data must first be gathered and analysed by ethnicity. However, some data was unavailable by ethnicity, such as use of the Manage My Health portal. Providers said they would like ethnicity-based data on the use of the MMH portal, and self check-in.

Approximately 80 per cent of CCDHB Māori and non-Māori are enrolled in a HCH provider

In May 2020, approximately 80 per cent of Māori enrolled in the CCDHB region were enrolled in a HCH provider.[20] This proportion was similar across age groups, and identical to the rate for non-Māori indicating no difference in the proportion of Māori and non-Maōri enrolled with a HCH provider in CCDHB.

Figure 7 in the appendix shows the proportion of Māori in each provider, by tranche, since the beginning of the HCH programme implementation in CCDHB in July 2016.[21] The intent was to enrol providers with high numbers and proportions of Māori early in the programme and **Error! Reference source not found.** shows the high proportions of Māori enrolled in the three Ora Toa practices and in Hora Te Pai. While Newlands Medical Centre has a small proprtion of Māori (12 per cent), this still equates to 1,137 individuals as they have high overall enrolment numbers.

[20] This includes those enrolled in Ora Toa practices

[21] See Appendix 2, Figure 9: proportion of HCH enrolled patients who are Māori, by provider and tranche

Māori triage events have been increasing in both number and as a proportion of events

In the time period from July 2016 to July 2019, the number of Māori triage events increased and the Māori proportion of all triage events increased from 3.7 to 19.6 per cent. A decrease in the non-Māori proportion of triage events is seen through this time.[22]

Māori tend to have a lower proportion of their triage events completed by a GP, and this proportion is decreasing

In the HCH enrolled population of CCDHB between January 2018 and June 2019, Māori patients experienced a noticeably lower proportion of total triage events completed by a GP compared to non-Māori. This proportion has decreased over time, particularly between the time period from January 2018 to July 2019 where it dropped from 49 per cent to 22 per cent. During this same time period, the proportion of non-Māori triage events completed by a GP increased from 20 per cent to 34 per cent.[23]

Most triages were completed by a nurse for Māori: approximately 75 per cent in April 2019 compared to 64 per cent of non-Māori triage events. Although a small number overall, Māori have a higher proprotion of triages completed by a nurse practitioner (3.4 per cent) compared to non-Māori (1.6 per cent).

Triage outcomes are very similar for Māori and non-Maōri

Between October 2016 and December 2017, triage outcomes for Māori compared to non-Māori are very similar for all outcomes (data not shown). The exception is that Māori appeared to experience higher same day urgent appointments, however, this may also reflect provider differences in categorising triage events as during this time there were no same day non-urgent events recorded at all. Māori patients appear to have a slightly higher proportion of appropriate Accident and Medical events as triage outcomes than non-Māori, and slightly lower Emergency Department outcomes (data not shown). Between July 2016 and December 2017, an estimated 99 Māori patients were seen at either A&E or emergency departments due to insufficient capacity at their provider, compared to 394 non-Maōri.

The proportion of triage events where contact is not made with the patient is higher for Māori

Of some concern, is that the proportion of events where contact was not made with the patient was higher for Māori in the time period from January 2018 to July 2019. The proportion ranged from 4-16 per cent for Māori compared to a range of 1-10 per cent for non-Maōri (data not presented).

In terms of when a triage event is resolved, results for both Māori and non-Māori were similar. Both groups experienced an increase in events classified as 'today urgent' in the time period from January 2018 to July 2019. It is possible that this increase over time reflects an increase in use of the triage function in practices (i.e. patient awareness of this service is greater over time), however, it is not possible to determine this from the data.

[22] See Appendix 2, Figure 10: triage events proportion of Māori and non-Māori. Triage data includes Ora Toa and Karori, and excludes Wairarapa data.

[23] See Figure 9 in Appendix 2: HCH triage events by provider role for Māori and non-Māori, January 2018-April 2019.

Results are similar for Māori and non-Māori for 'when' a triage event is resolved

Similar proportions, and a similar pattern over time is seen for triage events that result in an appointment on the same day (urgent/non urgent), or in the future for both Māori and non-Maōri (data not presented).

Non-Māori experience ASH at approximately half the rate of Māori,whether enrolled in an HCH provider or not

For the time period 1 October 2017 to 1 June 2020, age-standardsised ASH rates for the non-Māori group enrolled in an HCH provider are consistently lower than those for Māori enrolled in an HCH provider. For HCH non-Māori, these rates range between 22-28 per 1,000. For HCH Māori these rates range between 46-52 per 1,000.

Similarly, age-standardised ASH rates for non-Māori not enrolled with an HCH provider are consistently lower than Māori. For non-HCH non-Māori, these range between 28-57 per 1,000. For non-HCH Māori, these range between 59-88 per 1,000.[24]

The disparity in ASH rates between Māori and non-Māori persist over time

The non-Māori group experience approximately half as many ambulatory sensitive hospitalisations as Māori, whether enrolled with an HCH provider, or not (HCH rate ratio = 0.5, non-HCH rate ratio 0.5-0.6).

During the time period from October 2017 to 1 June 2020, these rates were consistent over time, indicating no evidence of a reduction in the disparity between Māori and non-Māori for those enrolled with an HCH provider, and also for those who are not.[25]

From the analysis in this section, and particularly in relation to the persisting disparities in ASH rates between Māori and non-Māori, it is suggested that the HCH model has not yet had a impact on equity in outcomes. It also raised concerns about equity in access in terms of GP triage.

[24] See Appendix 2, Figure 12: Age-standardised ASH rates per 1,000 over time for Māori and non-Māori by HCH/non-HCH

[25] See Appendix 2, Figure 13: ASH rate ratios for non-Māori compared to Māori for HCH and non-HCH populations.

Q6. What are the key best-practice features of kaupapa Māori models of care?

Pūkengatanga: service delivery for whānau Māori is underpinned by excellence in skills, knowledge, information and expertise

Introduction

While this evidence review explores key features of kaupapa Māori models of care, it has necessarily expanded in several ways. The scope of the review extends beyond primary care into other areas of health such as mental health, and also beyond models of care to models of health, service delivery, programme design and intervention. It also includes a review of assessment tools that can be used to critique and evaluate a model or intervention before its implementation in Māori communities. A model needs to be considered in the context within which it intends to operate. Research and experience has revealed systemic structures that serve to disempower those delivering care to whānau Māori,[26] therefore this review includes an overview of systemic direction and of national frameworks and strategies that serve to guide activities in the health sector.

Recent reviews highlight systemic failures and reiterate the necessity of adhering to te Tiriti

A whole of system approach to model development is required, and a focus on the need for systemic transformational change is timely.[27] The *Hauora* report, released in July 2019, reported that Māori want a system that is aspirational and inspirational. It recommended embedding matauranga Maōri and implementing te Tiriti across the whole health and disability system, requiring a commitment to achieving Māori health equity and honouring the guarantee of tino rangatiratanga.[28] It also found that primary health care funding has not addressed Maōri health need and has disadvantaged Māori-led services, stating that health entities are not held to account for achieving equity.

"… the Crown failed to lead and direct the primary health care system in a way that adequately supported and resourced Māori to design and provide for their own wellbeing through designing and delivering primary health care to Māori. The Crown's failures prejudicially affect the ability of Māori to sustain their health and wellbeing."[29]

Five principles of Te Tiriti o Waitangi are specified as they apply to the health and disability sector as follows: tino rangatiratanga; partnership; active protection; options; and equity.

The recently released *Health and Disability System Review* also recommends enhancing rangatiratanga and mana motuhake opportunities within the health and disability system, and that

[26] Came H and Tudor M 2017, Waitangi Tribunal 2019.
[27] Pepler E and Martell RC 2018.
[28] Waitangi Tribunal 2019.
[29] Waitangi Tribunal 2019, p161.

mātauranga Māori is embedded into all health and disability services.[30] With regards to primary care, the report recommended that as there is no requirement to contract through PHO services, additional investment should be made in kaupapa Māori health services and providers, and that communities are given a 'real say' in the system. Work is happening on a national primary care dataset and a data strategy.

The Whānau Ora Commissioning Agency advocates for kaupapa Māori services, Māori models of care and partnership in decision-making. Their 2019 report emphasised the need for whānau to have control over their own health and the system itself, and reiterated the importance of tackling ongoing institutional racism and barriers to quality health for Māori. It acknowledged the small funding stream that has been provided for this to happen, stating that the funding for health services for Māori is "hampered and outright undermined" and "the system has been set up to fail Maōri".[31]

Tangata whenua have the right to sovereignty over their data

Māori data refers to data that is about Māori, produced by Māori, and includes data about the health ecosystem and all the environments that Māori have a relationship with. Data is a taonga and the right to this taonga is affirmed in Te Tiriti o Waitangi and the United Nation's Declaration on the Rights of Indigenous Peoples, and is articulated in the United Nation's Convention on the Elimination of All Forms of Racial Discrimination.[32] This right also includes the right to monitor the Crown and the right to high quality, timely ethncity data provided by the Crown.[3334]

National frameworks and strategies promote aspirational wellbeing through a holistic model of health and strong relationships

He Korowai Oranga is the Māori health strategy with the overall goal of Pae Ora (healthy futures), and also includes whānau ora (healthy familes), mauri ora (healthy individuals) and waiora (healthy environments. The comprehensive framework was developed following extensive consultation with Māori.[35] First developed in 2002, then updated in 2014, it is accompanied by *Whakatātaka*, the Māori Health Action Plan which is currently being updated.[36]

Whānau Ora focuses on the network of relationships surrounding an individual, empowering whānau as a whole. It contains six whānau outcomes: that whānau will be self-managing; live healthy lifestyles; participate fully in society; confidently participate in te ao Māori; have economic security and be involved in wealth creation; and are cohesive, resilient and nurturing. The Whānau Ora Outcomes Framework has set goals and targets for the next 25 years.[37] Many providers employ Whānau Ora workers who are community-based and who work directly with families. Some

[30] Health and Disability System Review 2020.
[31] Whānau Ora Commissioning Agency 2019.
[32] United Nations 2007, CERD 2007.
[33] Reid and Robson 2007.
[34] Te Mana Raraunga is the national Maōri Data Sovereignty Network https://www.temanararaunga.maori.nz/
[35] Ministry of Health 2014, https://www.health.govt.nz/our-work/populations/maori-health/he-korowai-oranga.
[36] Ministry of Health 2019.
[37] Te Puni Kōkiri 2015.

programmes consult closely with their community to determine what a whānau ora approach entails at a local level.[38]

A number of assessment tools are available to critique and redesign programmes before implementation in Māori communities

Various assessment tools have been developed that can be used to estimate the potential impact of an intervention or programme, and in this instance, could be used to assess the impact of the HCH model of care on whānau Māori, or serve as examples of frameworks in other DHBs.

Equity needs to be the focus of every model, framework, strategy and intervention in the health system, and indeed the CCDHB Māori Health Strategy, *Taurite Ora*, is centred around the concept of balance and justice, and lays down the challenge of Māori health equity.[39] The strategy acknowledges that the current system, services and policies have failed tangata whenua and support inequity, and it contains a commitment to rebuild as a pro-equity organisation. Equity has also been defined as a central component to quality improvement in primary care, and the recent increased national focus on primary care saw the establishment of the Whakakotahi programme with the key aims to address equity, foster consumer engagement and promote system and service integration.[40]

The *Health Equity Assessment Tool* (HEAT) is a planning tool that improves the ability of policies, programmes and services to promote health equity.[41] It is a set of 10 questions which can be asked of an intervention or programme, such as 'how could this affect health inequalities? Who will benefit most?' Since its development in 2008, it has been extensively used both to design and to assess programmes and interventions. Similarly, the *Whānau Ora Health Impact Assessment* establishes a process to assess the impact of policy or initiatives on whānau health.[42] From the Treaty Understanding of Hauora in New Zealand (TUHANZ), a series of questions have been developed such as: how will Māori be involved in decision-making? How are Māori aspirations reflected? What actions will be undertaken to ensure health equity outcomes? How will they be monitored? How well are Māori world views and values reflected?[43]

The *Whānau Ora Tool* places Māori at the centre of planning, implementation and evaluation, and can be used to assess or design proposed interventions and programmes.[44] It has a set of questions at each level: organisational; programme; implementation; and evaluation. These seek to examine empowerment of Māori and leadership development, allocation of resource, Māori health workforce needs, benefits of the proposed programme to Maōri and inclusion of Māori perspectives in models of health. It is designed to complement other tools such as the HEAT tool and the Whānau Ora Health Impact Assessment.

The *Equity of Healthcare for Māori Framework* is a comprehensive guide for practitioners and organisations with clear actions that can be taken at individual, service and system levels that will

[38] Kidd 2010.
[39] CCDHB 2019.
[40] HQSC April 2019.
[41] Signal et al 2008.
[42] Ministry of Health 2007.
[43] Health Promotion Forum 2002.
[44] Ministry of Health 2008.

contribute to achieving equity. These are organised into three categories – leadership, knowledge and commitment, and include actions such as to engage Māori appropriately, to acknowledge the importance of te reo and to ensure high quality ethnicity data.[45]

He Pikinga Waiora is a framework specifically designed for implementation interventions, and is intended for Māori with chronic conditions. It has self-determination at its core and consists of four elements – cultural-centredness, community engagement, systems thinking and integrated knowledge translation. It contains a clearly constructed table demonstrating different measures for the principles in practice, and a coding scheme for each (high, medium, low or negative). The features of an intervention can be assessed against this framework to estimate its effectiveness for Maōri and identify areas of change required.[46] He Pikinga Waiora has been applied to diabetes interventions in four countries, in a study which found that culture-centredness and community engagement explained differences in blood pressure outcomes.[47]

Other tools include *The CHI Model* (Culturally Appropriate Auditing Model) which enables service delivery to be audited against Māori development, health gain, cultural beliefs and values.[48] *He Taura Tieke* provides a checklist which assesses effectiveness of service delivery to Māori.[49] Although these two models were published in 1994 and 1997 respectively, they contain many of the same themes present in recent models.

Institutional racism is a significant barrier to quality service delivery, and exists when the nature of a system, its structure, processes and outcomes is determined by one (usually dominant) ethnic group, thus standardising care into one dominant cultural paradigm.[50] An assessment of a programme should include identifying and eliminating structural racism, which can be achieved by upholding te Tiriti o Waitangi.[51]

At a local level in the Bay of Plenty DHB (BOPDHB), *He Ritenga* is a framework designed as a mechanism to implement the Treaty of Waitangi, *He Korowai Oranga* and *Whakatātaka* into the overall governance planning and delivery of a health organisation.[52] It is framed around the five key pathways that form the base of He Korowai Oranga, and contains an attainment level and a process for identifying the degree of risk to attaining Māori health gain for each criteria. To accompany this, a framework for the determinants of Māori health has been developed for the region. *He Pou Oranga Tangata Whenua* was developed through consultation with whānau, hapū, iwi and Māori health providers to ensure traditional tangata whenua values, knowledges and institutions are recognised as key indicators of toi ora (optimal health and wellbeing).[53] These two documents form the basis of the recently released *Te Toi Ahorangi*, the Māori health strategy, determined by Te Rūnanga Hauora o Te Moana a Toi, the mandated Tiriti partner of BOPDHB. It also upholds the right to health enshrined in te Tiriti o Waitangi, the United Nations Declaration on the Rights of

[45] Ministry of Health 2014.
[46] https://www.hpwcommunity.com/applying-the-framework.
[47] Oetzel J et al 2017.
[48] Durie 1993.
[49] Cunningham 1995.
[50] HQSC 2017.
[51] Came et al 2019 .
[52] BOPDHB 2004.
[53] Te Rūnanga Hauora o te Moana a Toi 2007.

Indigenous Peoples and also the Mataatua Declaration on Cultural and Intellectual Property Rights. *Te Toi Ahorangi* is inspired, driven and led by tangata whenua and intends a whole-of-system transformation to achieve toi ora.

The use of Māori models of health and clinical assessment help ensure the range of health needs of whānau are included in their care

Probably the most well known model of health is *Te Whare Tapa Whā*, with it's four components that represent tinana (physical), hinengaro (mental and emotional), whānau (health of the collective and social wellbeing) and wairua (spiritual wellbeing).[54] Many models use this as a core framework to build upon.

Te Wheke has eight dimensions including the additional concepts of whanaungatanga, waiora (total wellbeing), mauri (life force), mana ake (unique identity), whatumanawa (emotional wellbeing) and hā a koro mā, a kui mā (breath of life from ancestors).[55] A model for health promotion, *Te Pae Mahutonga* also includes mauriora (cultural identity and access to te ao Māori), waiora (environmental protection), toiora (healthy lifestyles), te oranga (participation in society), ngā manukura (leadership), and te mana whakahaere (autonomy).[56]

Ngā Pou Mana is a model that situates individual health in the context of whānau and includes the four concepts of whanaungatanga, te ao tūroa (environment), tūrangawaewae (a place of belonging and identity) and taonga tuku iho (cultural heritage), highlighting the importance of te reo Māori.[57] The TUHANZ document describes 'elements of Māori health' which include wairua, hinengaro, whānau, te ao tūroa (environment) and te reo rangatira, the importance of language, language as a taonga, a gift from ancestors and a focus of identity. It also emphasises the importance of tino rangatiratanga, or having control over health, requiring Māori health to be understood in the context of the social, economic and cultural position of Māori.[58] The document also acknowledges the diversity of Māori realities, and promotes the consideration of other factors such as age, gender, socio-economic, urban and rural realities and their implications. The importance of the unique identity of different iwi and hapū is emphasised.

Key aspects of these Māori health models are: self-determination; a holistic perspective of health; a foundation of core Maōri principles and an acknowledgement of the specific circumstances of tangata whenua. This summary has deliberately included those with a point of difference and creative application of traditional practices in a modern context.

Whānau journeys in health must be considered in the broad context of colonial impacts on health determinants

More recent developments of Māori health models have expanded to include a framework for clinical assessment and engagement. The very comprehensive *Meihana Model* presents the health journey of a patient alongside that of their whānau, and in addition to aspects of hauora, it positions health in the physical and social environment, considers the role of the health system and also

[54] Durie M 1994.
[55] Pere 1991.
[56] Durie 1999.
[57] Henare 1988.
[58] Health Promotion Forum of New Zealand 2002.

includes social determinants of health such as colonisation, racism, marginalisation and migration.[59] This model is taught in the Otago university medical curriculum alongside the *Hui Process* which is a framework for engagement between health professionals and patients that follows the pattern of traditional Māori rituals of engagement. It includes whakawhanaungatanga, the exchange of personal information in order to build trust, find an authentic connection and engage through te ao Māori.[60] Incorporating te reo Māori in consultations, at a level and pace guided by patients, has been identified as an important factor in primary care.[61]

Authentic, respectful engagement through te ao Māori helps build trust-based relationships

Another process for engagement is *Āta*, which means careful, slowly, cautiously. It describes the development and maintenance of a safe space by focusing on relationships and negotiating boundaries and includes principles of respect, reciprocity, reflection and transformation.[62]

Planning Alternative Tomorrows with Hope (PATH) is a collaborative planning tool used both as a method of engagement with whānau and as a process to establish aims and aspirations. It promotes storytelling, critical analyses and active engagement to create an aspirational place for patients and whānau.[63] Two key aspects set it apart from other tools: self-efficacy and creativity. This is an example of a model developed overseas (in Canada), and adapted for use with whānau Māori in planning health journeys.

In general, Māori whānau and communities favour *kanohi ki te kanohi* (face to face) interactions, allowing for trust-building and authentic engagement.[64] This requires health professionals and organisations to engage at a community or whānau level, sometimes in Māori-defined spaces such as marae. The development of these community relationships can reduce barriers to health system engagement for whānau. Effective, authentic engagement between health professionals and Māori individuals, whānau and communities reduces barriers to health and provides for a more effective consultation.

Māori models of care are firmly centred in te ao Māori, and underpinned by Māori principles and practices

A report developed to provice insights into a kaupapa Māori primary mental health and addictions model, undertook extensive consultation with Māori communities during late 2019, gathering the perspectives of over 700 whānau. It identified seven dominant themes of relevance to a kaupapa Māori model – whānau-centred, by Māori for Māori, Māori principles and practices, reo, tikanga, mātauranga Māori and rongoā. A further collection of themes included whanaungatanga, whānau ora, te Tiriti, mana motuhake, inclusion of Maōri models of health, marae-based approaches, te Ao Māori, te taiao, tohunga, identity, whakapapa, kaumātua-kuia, wairuatanga, access, workforce development and the involvement of tangata whaiora.[65] These were consistent with themes identified in the Mental Health and Addictions Inquiry, which also noted the importance of having

[59] Pitama, Huria and Lacey 2014.
[60] Lacey et al 2011.
[61] Pitama 2011.
[62] Pohatu 2005.
[63] Pipi 2010.
[64] Cram 2009, Jones et al 2010.
[65] Awa Associates 2019.

workers from local areas working with their own communities, and the need for funding to be flexible to respond to the needs of whānau.[66]

With regards to implementing a Whānau Ora model, an example is provided in the Whanganui region. *Te Oranganui Iwi Health Authority,* a Māori-governed and led PHO provides a range of programmes which reflect a broad determinants approach to health. This requires combining different contracts and funding sources, working intersectorall, and often outside the scope of narrowly-defined contracts. A *Whānau Ora Assessment Tool* has been developed to measure and monitor whānau wellbeing, and a training programme for Whānau Ora practitioners to graduate with an undergraduate diploma in this area of expertise.[67] There is a focus on a 'single point of entry' to the health system for whānau, and a representation of the whānau journey is summarised as follows: single point of entry; inital assessment by aclinician and Whānau Ora practitioner; prioritisation of need and identification of internal specialist services by a Whānau Ora practitioner and whānau; development of a care plan and identification of external agency service requirements; and activation of a multidisciplinary team with the Whānau Ora practitioner as lead carer. The representation of the patient and whānau journey provides an important model for closely considering the context and perspective of those that the health system serves.

Comprehensive programmes that centralise equity and autonomy and are facilitated by skilled workers supported by technology are effective

Mana Tū is a programme designed to support Māori with type 2 diabetes and was developed by an expert advisory group to align with *He Korowai Oranga* and the *Equity of Health Care for Māori Framework*, and therefore has equity and rangatiratanga at its core.[68] It works across the system, services and at a whānau level and involves the integration of a diverse range of providers to encompass the wider determinants of wellbeing. It is delivered through kaimanaaki who receive specialised training that includes motivational interviewing, cultural safety and health literacy. Kaimanaaki live in and contribute to the communities with whom they are working. A purpose-designed, sophisticated information platform (Mohio) has been designed to allow data capture.

Te Kūwatawata is a te ao Māori approach to care within a mainstream mental health service. It has developed, through a single point of entry, access to a raft of services for those who are mentally distressed, and a therapeutic treatment pathway based on the *Mahi a Atua* model. This model is facilitated by skilled and diverse practitioners known as mataora, who have recognised expertise as tohunga (traditional Māori healers) and provides a pathway to healing through pūrākau (Māori creation and custom narratives).[69] Through this process, an individual can develop a full understanding of their own context and determine possible ways forward. The stories cover many topics such as conflict, adversity, incest and bullying but also demonstrate resolutiosn to issues that involve love, nurture, courage, empathy, curiosity, creativity and endurance.[70] Te Kūwatawata is centred on the following principles – immediate response, whanaungatanga, flexibility and mobility, tolerance of uncertainty, wānanga and transparency. The model seeks to not privilege diagnosis, Western therapy, medication or coercion and instead encourages a 'culture of feedback' with a therapist performance and whānau outcomes measurement system.

[66] Inquiry into Metal Health and Addiction 2019.
[67] Boulton et al 2013.
[68] Harwood 2018.
[69] Tipene-Leach D et al 2019.
[70] Rangihuna et al 2018.

Similarly, the *Ngā Pou Wahine* framework is centred in te ao Māori. It is based on the artwork of Robyn Kahukiwa, and is a series of eight paintings of wāhine Māori who each have distinctive strengths and characteristics. The pou are connected to stories that affirm identity as Māori and promote reconnection through whakapapa and whanaungatanga. This becomes a decolonising process and serves to restore the mana, tapu, mauri and rangatiratanga of women who have had challenges with gambling. The model involves traditional activities such as weaving and poi-making, and has been positively received by participants.[71]

The *Whanaungatanga* model of care uses te Whare Tapa Whā as the core model of health, and is underpinned by the philosophies of whanaungatanga, manaakitanga and arohatanga. The interesting aspect of the interpretation of whanaungatanga in this model is that it involves obligations to those who have shared experience, and therefore the nurses who care for individuals and whānau become 'whanaunga'. In this model, the role of reo, tikanga, whānau, rongoā and wairuatanga is incorporated into recovery alongside conventional medicines and treatments. A tuakana-teina model of mentorship is included to support nurses in training.[72]

Frameworks include a focus on the system and health workforce, and clear guidelines for achieving excellence in health care for Māori

Te Hā o te Whānau is a framework developed as a part of a PhD thesis, through consultation with ten whānau with recent maternity experiences. It is centred on rangatiratanga, manaakitanga, whakawhanaunga and the three Tiriti principles which is consistent with many other Māori models and frameworks. Its point of difference is that it includes wellbeing aims not only for whānau, but also for the system.[73]

The *Kaupapa Māori Mental Health and Addiction Services Best Practice Framework* contains six dimensions – kaupapa (defined as indigenous solutions founded on manaakitanga, kōtahitanga and whanaungatanga), whānau ora, rangatiratanga, mātauranga Māori and specialist kaupapa Māori mental health. It also includes health workforce and service development, and the framework is presented in a useful and user-friendly table that describes each dimension, best practice examples and implications.[74]

Te Ara Whakapikioranga was developed to inform the practice for all those who work with whānau towards optimal wellbeing. It acknowledges whānau as experts of their own lives and aims to guide the reclamation of wisdom inherently present within whānau. It consists of four elements: te āu i te whānau (the self in the family); puna ki te puna (practice wisdom sourced through whakapapa); te tohu o te rangatira (whānau-centred leadership); and hono mai hono atu (connections and relationships).[75]

Other models

While not kaupapa Māori models, the following examples of models of care currently undergoing reconstruction contain some elements of importance.

[71] Morrison & Wilson 2013.
[72] Lyford and Cook 2005.
[73] Stevenson 2018.
[74] Te Rau Matatini 2016.
[75] Moananui-Makirere et al 2014.

While not kaupapa Māori, other models include important considerations such as professional development, funding configurations and the responsibility of health professionals to influence system change

The vision of the New Zealand Nurses Organisation (NZNO) acknowledges the need for a flexible, person-centred model based on whanaungatanga, manaakitanga, rangatiratanga and wairuatanga.[76] Extensive consultation identified five key themes of which one was mātauranga Māori: providing a place for traditional practices and ways of knowing, whānau-centred care and the tuakana-teina relationship model for professional development. This review also acknowledges the importance of strengthening and caring for the Māori health workforce.

The NZNO emphasises that a model of care involves both people and money, and acknowledges the restrictions of existing funding models, their contribution to increasing disparities and the need to focus on service mix and design. They note the inertia of the system and the entrenchment of the biomedical model of care that is "historically embedded and self-reinforcing".[77] NZNO visibilises power in naming the model as a "model of care and power" in their strategy.[78]

The Physiotherapy New Zealand (PNZ) model of care acknowledges system-level components that physiotherapists work within, but states they should "influence as they are able".[79] The model places importance on awareness of physiotherapists' own culture and philosophy of care, responding positively to diversity and sharing of power, responsibility and decision-making with patients and whānau and effective communication and sharing of information with a distinct focus on increasing health literacy. The PNZ model is clearly visually represented with patient and whānau at the centre, and equally weighted components.

A model of care needs to consider health workforce, Māori health workers, and creating a culturally safe environment for whānau Māori

A model of care needs to consider the health workforce that will deliver the service. This includes professional development in terms of clinical skills and technological expertise for new systems. To provide appropriate care to whānau Māori requires ongoing skills development in the areas of reo, tikanga, hauora Māori and cultural safety. There are a number of existing kaupapa Māori frameworks for health workforce development, of which the *Takarangi Competency Framework* is probably the most commonly implemented.[80]

Cultural safety is an area currently undergoing considerable review in the medical profession, with a recently released statement on cultural safety by the Medical Council of New Zealand. It considers the power dynamic between health professionals and patients, the development of a critical consciousness and the practice of self-reflection, and identifies the need for doctor awareness of their own biases, attitudes and assumptions that can impact the quality of care provided.[81]

[76] Nursing Council of New Zealand 2011.
[77] NZNO 2018.
[78] Ibid.
[79] Physiotherapy New Zealand (undated).
[80] Huriwai 2013.
[81] Te Kaunihera Rata o Aotearoa 2019.

Indigenous populations worldwide have the right to optimal health and self-determination

The scan of international literature was brief, and limited mostly to reviews, but revealed some interesting and important commonalities and affords a broader perspective. The United Nations states that in order to address indigenous health, there must be full recognition and exercise of indigenous collective rights to communal assets and self-determination. This right is in the United Nations Declaration on the Rights of Indigenous Peoples,[82] and the Convention on the Elimination of Racial Discrimination.[83]

Current research on indigenous health models worldwide has revealed four core elements: the desire to not only survive, but thrive; a distinctive identity and belonging; the importance of balance, harmony, equilibrium and living in balance with nature; and autonomy or self-determination.[84]

A scoping review of literature on indigenous primary health care service delivery models revealed eight themes: accessible health services; community participation; continuous quality improvement; culturally appropriate and skilled workforce; culture; flexible approach to care; holistic health care; and self-determination and empowerment.

A focus on the wellbeing of both individuals and families was common across models. Cultural values, customs and beliefs were seen to be central and interwoven through all the other elements. The review also identified three characteristics of indigenous service delivery – an appropriate and skilled workforce, community participation and self-determination and empowerment. The creation of a welcoming space was found to be important, including family-friendly environments, use of indigenous artwork, signage and language. Also important were the employment of indigenous staff, cultural mentoring and ensuring cultural competence of non-indigenous staff members. The interdependance of all these characteristics was evident and culture was woven throughout each or seen as central to all the other themes.[85]

Relationships are key: acknowledgement of diverse contexts, resource realities and a commitment to healing are required

The 'relational' worldview is shared by many indigenous populations and contains common values such as the importance of the extended family, connection to land and spiritual wellness.[86] Rather than focusing on symptoms or causes of illness, it aims to return the individual or system back into balance. It contains four quadrants: context (family, culture, community, environment, history); mind (cognition, emotion, identity); body (physical and practical needs); and spirit.[87] Elsewhere, the inclusion of funding mechanisms in frameworks has been described as important.[88]

Research in American Indian and Alaska Native communities' theorises about indigenous model development states that the intent of an indigenous model must reflect indigenous reality and integrate the past, present and the people's vision for the future. It must acknowledge resources and challenges, and contain a deep commitment to resolving health concerns and issues. An indigenous model also requires an ecological approach in which inequities are recognised as failures

[82] United Nations General Assembly 2007.
[83] Convention on the Elimination of Racial Discrimination 2010.
[84] Kukutai T, personal communication, May 2020.
[85] Harfield S et al 2018.
[86] Rountree and Smith.
[87] Friesen B et al 2014.
[88] Davy C 2016.

of the system. The wounds of colonisation, trauma, racism, disparities in health, education and living conditions must be recognised, alongside a strong commitment to healing them.[89]

International examples promote self-efficacy, shared responsibility customer ownership and a deep commitment to wellness

Two international models were mentioned several times during consultation for this evaluation. The first is the Stanford self-management programme which was developed to support those with chronic disease, and has been adapted and implemented in over 25 countries, including Aotearoa.[90] The model is based on a concept of self-efficacy and is applicable to a range of chronic diseases. It is provided through a six-week course (available in many languages including te reo Māori), held at a time and location suitable to community groups and is open to family and carer participation. There is a focus on goal-setting, problem-solving and reducing isolation and it aims to build participants' confidence in managing their health and keeping them active and engaged in their lives.

Workshops are facilitated by two trained leaders, one or both of whom are non-health professionals with a chronic disease themselves. Topics covered include dealing with problems such as frustration, pain and isolation, appropriate exercise, appropriate use of medications, communicating effectively, nutrition and how to evaluate new treatments.[91]

The second model of interest is Southcentral Foundation's *Nuka System of Care*. The term describes the entire healthcare system created, managed and owned by Alaskan Native people.[92] The model recognises the control of individuals over their healthcare decisions and focuses on understanding each customer-owner's unique story to engage them in their own care.

The vision and mission focus on physical, mental, emotional and spiritual wellness and working together as a Native community and are facilitated through three 'key points' – shared responsibility, commitment to quality and family wellness. The governing board is composed entirely of customer-owners and a sophisticated data and tracking system ties directly back into the fulfilment of the vision and mission. Service delivery mechanisms include visits to the practice, home visits (including distance visits to villages off the road system accessible only by air or boat), email and telephone visits, health information and education delivered by in-person classes and mixed media, hospital services and consultation with specialist care. A seamless continuum of care is provided by working in partnership with tertiary and specialist medical services. State-of the art telemedicine technology is used to facilitate consultations from a distance. At the core of this model is relationships – that between consumer-owners and providers, but in every other operational aspect of service planning and delivery. The operational principals spell out the word 'relationships' and the core concepts spell the word 'wellness'. A culture of trust in relationships encourages shared decision-making and supports innovation and creativity, with a focus on collaboration rather than competition. Better relationships entail healthier customer-owners and also healthier employees and a healthier organisation.[93]

---

[89] Chino M and DeBruyn L 2005.
[90] Sometimes called 'Long course', or the 'Chronic Disease Self-management programme', or 'My health our LIFE', or 'LIFE programme'
[91] New Zealand Guidelines Group 2011
[92] www.scfnuka.com/our-story/
[93] Gottlieb 2013

The evidence review reveals consistent themes in providing for whānau wellness

Core elements of kaupapa Māori models of care, service and service delivery are: tino rangatiratanga (self-determination and autonomy), equity and a solid foundation in kaupapa Māori principles and practices. A whānau-centred model, based on a Māori concept of hauora, developed by Māori, supported by an appropriately skilled workforce and delivered by providers who are empowered through equitable funding configurations is what works best for tangata whenua.

Q7. Does the CCDHB HCH programme provide a platform for further developments that are fit for purpose for Māori?

"The concept is easy - essentially it's around giving people what they need when they need it ... in a respectful and supportive way, and in a flexible way."
(Provider GP)
"HCH is better than what we had, but doesn't meet the needs fully."
(Key informant)

Key features of the HCH model suit many of the needs of whānau Māori, particularly around providing flexibility, choice and various modes of access. Provider processes are more streamlined, enabling the redirection of resources to where they are most needed "rather than those that just book appointments first". Several features serve to improve self-efficacy and health literacy for whānau and provide a healthcare service that is less individualistic. Care provision is more comprehensive and coordinated and there is closer communication and connection between provider, whānau and community. Use of technology varied but provided convenience and flexibility. Some features require modification to better suit whānau Māori, such as YOC and ACPs.

It was felt that the HCH model had "deconstructed the traditional model of practice", there were some elements to preserve, some to modify or build on, and that it still has potential and provides a pathway for new ways of doing things.

While feedback from whānau was mostly positive and showed that health and wellbeing benefits wider than the current delivery scope of HCH had been delivered, provider experience varied with reports of limited flexibility, funding constraints, unrealistic targets and restrictions on their autonomy to deliver care to their communities. The equity analysis of the available quantitative data revealed some positive outcomes of HCH. However, there was little evidence of improved equity in outcomes. It also raised concerns about the inequitable distribution of some HCH features, such as equity in accesss in terms of GP triage, and inadequate ethnicity data.

The best-practice evidence review provides several frameworks through which the HCH programme can be critiqued from a kaupapa Māori perspective to ensure its applicability to Māori providers and whānau. Core elements of kaupapa Māori models of care that are consistent with international indigenous experiences, and both the literature and on-the-ground experience highlight the importance of close authentic involvement of both providers and communities in the design and redesign of their care.

Q8. What are the opportunities to modify the existing CCDHB HCH programme to best suit providers, kaimahi, and whānau Māori?

"How do we ensure access for whānau, do they get what they need? Is our service delivery model working efficiently? How do we create an efficient system to support our whānau Māori? How can we be flexible enough to meet our whānau needs?
(Key informant, CCDHB)

Providers felt that the HCH programme should be and could be customised to their needs, but they lacked the time to do this themselves. It needs to be centred on a Māori concept of hauora, founded on Māori principles, and include technology. Both the model and the implementation process need to provide for autonomy of providers and whānau. It was felt that the attempt to 'retrofit' the model into providers presented problems, especially to Māori providers, and the solution is to design the model with the provider "not the other way round".

"If their model doesn't work for us? Change it."
(Practice manager)

"I see HCH as a structure that you weave things into, its a structure, it's a basis, it's a way of thinking - when you interface it with a Māori way of thinking, it actually might change ... this discussion didn't happen until way down the track."
(Key informant CCDHB)

Drawing on the kōrero shared by participants, opportunities to modify the existing model include:

- A review of the entire model using a kaupapa Māori assessment framework;
- Provision of high quality ethnicity data on all features of HCH;
- High quality ethnicity data on the health workforce;
- Data on the full range of health workers in providers;
- Targets defined by providers and communities;
- Continue and further embed lean/Kaizer practices;
- Ensure adequate time for triage and flexibility in the triage process;
- Ensure triage staff are fully supported;
- Ensure confidentiality is maintained with open notes;
- Reconsider the reception set-up to suit what works best for individual practices;
- The development of kaupapa Māori equivalents of Year of Care and Advanced Care plans, facilitated through a suitable Kaupapa Māori process;
- Extend and continue Shared Medical Appointments, and ensure ongoing support;
- Ensure inclusion of te reo and tikanga;
- Include quality mechanisms for authentic feedback from whānau;
- Strengthen and promote the variety of ways whānau can communicate with providers and access health information;
- Better alignment between the model and the specific context of individual providers; and
- Ensure adequate funding, and the appropriate configuration for individual providers.

Several things will be important into the future:

- Strengthening relationships between providers and their community;
- A clear recognition of the diverse needs of whānau;
- Ongoing development and maintenance of trust-based relationships between CCDHB, PHOs, and providers;
- Strengthening relationships between providers and other health providers in their community such as pharmacists;
- Authentic engagement with the Māori Partnership board, Māori providers and manawhenua;
- An acknowledgement of the impacts of historical and ongoing inequitable resource distribution to providers and plans to remedy the inequity;
- Ensuring provider data sovereignty is maintained;
- Constantly challenging the biomedical model of health;
- Flexibility and reflexivity;
- Embed features that are working;
- Ensure the health workforce and Māori health workers are fully supported;
- A strong focus on equity in all aspects of the model;
- A critique and review of the funding configuration;
- Ensuring funding continuity;
- Ensuring provider autonomy is maintained;
- A critique of systemic lines of power and decision-making;
- Empowering whānau; and
- Close, authentic involvement of communities in the design of their care.

"We need to go on that journey with our patients."
(General Practitioner)

References

Awa Associates (2019) *Ngāi Māori insights for a Kaupapa Māori primary (community) mental health and addictions service model: the analysis*. A report prepared for Te Manatū Hauora, Ministry of Health, December 2019.

Māori Health Planning and Funding team, Bay of Plenty District Health Board (2004) *He Ritenga, Treaty of Waitangi principles health audit framework*. Tauranga: Bay of Plenty District Health Board. https://www.bopdhb.govt.nz/media/16351/AuditFramework_Blue.pdf

Boulton A, Tamehana J, & Brannelly T (2013) Whānau-centred health and social service delivery in New Zealand. *MAI Journal*, Volume 2, Issue 1.
http://www.journal.mai.ac.nz/sites/default/files/Vol%202%20%281%29%20024%20Boulton.pdf

Came H, McCreanor T, Manson L, Nuku K (2019) Upholding Te Tiriti, ending institutional racism and Crown inaction on health equity. *New Zealand Medical Journal*, Volume 132, Number 1492. http://openrepository.aut.ac.nz/bitstream/handle/10292/12402/Inaction%20NZMJ.pdf?sequence=2&isAllowed=y

Capital and Coast DHB (2019) Taurite Ora, Maōri Health Strategy 2019-2030. Wellington, New Zealand. https://www.ccdhb.org.nz/news-publications/publications-and-consultation-documents/taurite-ora-maori-health-strategy-2019-2030/web-ccdhb-taurite-ora-maori-health-strategy.pdf

Carlson T, Barnes HM, Reid S & McCreanor T (2016) Whanaungatanga: a space to be ourselves. *Journal of Indigenous Wellbeing, 1*(2).

Chino M and DeBruyn L (2005) Building true capacity: indigenous models for indigenous communities. *American Journal of Public Health*, Volume 96, Number 4. https://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.2004.053801

Cram, F (2009) *Maintaining indigenous voices: a handbook of social science research ethics*. California, USA: Thousand Oaks.

Convention on the Elimination of Racial Discrimination (2010) Human rights in New Zealand. Section 3, Economic, Social and Cultural Rights. 11. Right to health https://www.hrc.co.nz/files/9714/2388/0506/HRNZ_10_Right_to_health.pdf

Davy C, Harfield S, McArthur A, Munn Z, Brown A (2016) Access to primary health care services for indigenous peoples: a framework synthesis. *International Journal for Equity in Health*, Volume 15, Number 163 https://link.springer.com/article/10.1186/s12939-016-0450-5

Durie, M (1994) Tirohanga Māori: Māori health perspectives. In MH Durie (Ed), *Whaiora: Māori health development*. Auckland, New Zealand: Oxford University Press.

Durie M (1999) Te Pae Mahutonga, a model for Māori health promotion. *Health Promotion Forum of New Zealand Newsletter, 49.*

Friesen BJ, Cross T L, Jivanjee P, Thirstrup A, Bandurraga A, Gowen LK, & Rountree J (2014) Meeting the transition needs of urban American Indian/Alaska Native youth through culturally-based services. *Journal of Behavioral Health Services & Research, 42*(2), 191-205. http://dx.doi.org/10.1007/s11414-014-9447-2

Gottlieb K (2013) The Nuka system of care: improving health through ownership and relationships. *International Journal of Circumpolar Health*, Volume 72. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3752290/

Harfield S, Davy C, McArthur A, Munn Z, Brown A, Brown N (2018) Characteristics of indigenous primary health care delivery models: a systematic scoping review. *Globalization and Health*, Volume 14, Number 12. https://link.springer.com/article/10.1186/s12992-018-0332-2

Harwood M, Tane T, Broome L, Carswell P, Selak V, Reid J, & Stewart T (2018) Mana tū: a Whānau Ora approach to type 2 diabetes. *New Zealand Medical Journal, 131*(1485).

Health and Disability System Review (2020) *Health and disability system review: final report – pūrono whakamutunga*. Wellington, New Zealand: Health and Disability System Review/Hauora Manaaki ki Aotearoa Whānui. https://systemreview.health.govt.nz/assets/Uploads/hdsr/health-disability-system-review-final-report.pdf

Health Promotion Forum of New Zealand (2002) *TUHA-NZ, a Treaty understanding of hauora in Aoteroa New Zealand*. Wellington, New Zealand: Health Promotion Forum of New Zealand. http://www.hauora.co.nz/assets/files/Maori/Tuhanzpdf.pdf

Health Quality and Safety Commission New Zealand (2017) *Quality improvement: no quality without equity?* Wellington, New Zealand: Health Quality and Safety Commission New Zealand. https://www.hqsc.govt.nz/assets/Other-Topics/Equity/Quality_improvement_-_no_quality_without_equity.pdf

Henare M (1988) *Ngā tikanga me ngā ritenga o te ao Māori: standards and foundations of Māori society.* Wellington, New Zealand: The Royal Commission on Social Policy.

Holdaway M A (2002) *A Māori model of primary health care nursing.* (Doctor of Philosophy), Massey University, Palmerston North, New Zealand.

Huriwai T (2013) *Takarangi Competency Framework*. Retrieved from https://www.matuaraki.org.nz/uploads/files/resource-assets/takarangi-competency-framework-precourse-introduction.pdf

Inquiry into Mental Health and Addiction (2019) *Oranga tāngata, oranga whānau: a kaupapa Maōri analysis of consultation with Maōri for the Government Inquiry into Mental Health and Addiction*. Wellington, New Zealand: Department of Internal Affairs.

Jones B, Ingham T, Davies C, & Cram F (2010) Whānau tuatahi: Māori community partnership research using a kaupapa Māori methodology. *MAI Review, 3*.

Kidd J et al (2010) A Whānau Ora approach to health care for Māori. *Journal of Primary Health Care*, Volume 2, Number 2, June 2010.

Kukutai T, personal communication, May 2020. https://www.youtube.com/watch?v=QTuh5uY2zXA

Lacey C, Huria T, Beckert L, Gillies M, & Pitama S (2011). The Hui Process: a framework to enhance the doctor-patient relationship. *New Zealand Medical Journal, 124*(1347).

Le Grice J, Braun V, & Wetherell M (2017) "What I reckon is, is that like the love you give to your kids they'll give to someone else and so on and so on": whanaungatanga and mātauranga Māori in practice. *New Zealand Journal of Psychology, 46*(3).

Lyford S, & Cook P (2005) The Whanaungatanga Model of Care. *Nursing Praxis in New Zealand, 21*(2), 26-36.

Ministry of Health (2002) *He Korowai Oranga: Māori health strategy*. Wellingon, New Zealand: Ministry of Health. https://www.health.govt.nz/system/files/documents/publications/mhs-english.pdf

Ministry of Health (2007) *Whānau Ora health impact assessment*. Wellington, New Zealand: Ministry of Health. https://www.health.govt.nz/system/files/documents/publications/whanau-ora-hia-2007.pdf

Ministry of Health (2008) *The Whānau Ora Tool*. Wellington, New Zealand: Ministry of Health. http://www.hauora.co.nz/assets/files/Maori/Final%20Whanau%20Ora%20A4-4.pdf

Ministry of Health (2014) *Equity of healthcare for Māori: a framework*. Wellington, New Zealand: Ministry of Health. https://www.health.govt.nz/publication/equity-health-care-maori-framework

Ministry of Health (2019) *Document to inform discussions to develop a Māori health action plan to implement He Korowai Oranga 2020-2025.* Wellington, New Zealand: Ministry of Health. https://www.nzdoctor.co.nz/sites/default/files/2019-08/Document%20to%20inform%20discussions%20to%20develop%20a%20Maori%20Health%20Action%20Plan.pdf

Moananui-Makirere J, T, King, L, Eruera M, Tukukino M, & Maoate-Davis S (2014). Te Ara Whakapikiōranga. *Aotearoa New Zealand Social Work, 26*(1).

Morrison L, & Wilson D (2013) Ngā Pou Wāhine: a framework of empowerment for Māori women and gambling misuse. *MAI journal, 2*(2).

New Zealand Guidelines Group (2011) *RapidE: chronic care: a systematic review of the literature on health behaviour change for chronic care*. https://www.health.govt.nz/system/files/documents/publications/rapide-chronic-care-systematic-review.pdf

Nursing Council of New Zealand (2011) *Guidelines for cultural safety, the Treaty of Waitangi and Māori health in nursing education and practice*. Wellington, New Zealand: Nursing Council of New Zealand. https://www.nzno.org.nz/LinkClick.aspx?fileticket=5jW7lmRlrko%3D&portalid=0

New Zealand Nursing Organisation (2018) *Strategy for Nursing 2018-2023*. Wellington, New Zealand: New Zealand Nursing Organisation. https://www.nurses.org.nz/Portals/1/2018%20Nursing%20Strategy/NZNO%20Strategy%20for%20Nursing%202018-2023.pdf

Oetzel J, Scott N, Hudson M, Masters-Awatere B, Rarere M, Foote J, Beaton A and Ehau T (2017) Implementation framework for chronic disease intervention effectiveness in Māori and other indigenous communities. *Globalization and Health*, Volume 13, Number 69. https://link.springer.com/article/10.1186/s12992-017-0295-8

Pepler E, Martell RC (2018) Indigenous model of care to health and social care workforce planning. *Healthcare Management Forum*, Volume 32, Number 3. https://www.researchgate.net/publication/329418499_Indigenous_model_of_care_to_health_and_social_care_workforce_planning

Pere R (1991) *Te wheke: a celebration of infinite wisdom*. New Zealand: Ao Ako Global Learning.

Physiotherapy New Zealand (undated) *Person and Whānau Centred Care: a model for Physiotherapy in Aotearoa New Zealand*. https://pnz.org.nz/pwcc/Attachment?Action=Download&Attachment_id=1032

Pipi K (2010) The PATH planning tool and its potential for whānau research. *MAI Review, 3.*

Pitama S, Ahuriri-Driscoll A, Huria T, Lacey C, & Robertson P (2011) The value of te reo in primary care. *Journal of Primary Health Care, 3*(2).

Pitama S, Huria T, & Lacey C (2014) Improving Māori health through clinical assessment. *New Zealand Medical Journal, 127*(1393).

Pohatu T (2005) *Āta: Growing respectful relationships.*

Rangihuna D, Kopua M, & Tipene-Leach D (2018) Mahi a Atua: a pathway forward for Māori mental health. *New Zealand Medical Journal, 131*(1471).

Reid P and Robson B (2007) Understanding Health Inequities. Chapter 1 in *Hauora: Māori Standards of Health IV. A study of the years 2000-2005.* Wellington: Te Rōpū Rangahau Hauora a Eru Pōmare.

Robson B, Purdie G, Cram F & Simmonds S (2008) Age-standardisation – an indigenous standard? *Emerging Themes in Epidemiology*, Volume 4, Number 3.

Robson B and Purdie G (2007) Appendix 1: Methods. B Robson R Harris (Eds) (2007*) Hauora: Māori standards of health IV, a study of the years 2000-2005.* Wellington, New Zealand: Te Rōpū Rangahau Hauora a Eru Pōmare.

Rountree J, Smith A (2016) Strengths-based wellbeing indicators for indigenous children and families: a literature review of indigenous communities' identified wellbeing indicators. *American Indian and Alaska Native Mental Health Research*, Volume 3, Number 23. https://pubmed.ncbi.nlm.nih.gov/27383093/

Signal L et al (2008) *The Health Equity Assessment Tool: a user's guide*. Wellingon, New Zealand: Ministry of Health. https://www.health.govt.nz/system/files/documents/publications/health-equity-assessment-tool-guide.pdf

Stevenson K (2018) *Mā te wāhine, mā te whenua, ka ngaro te tangata.* (PhD), University of Otago, Wellington, New Zealand.

Te Kaunihera Rata o Aotearoa, Medical Council of New Zealand (2019) Statement on cultural safety, October 2019. https://www.mcnz.org.nz/assets/standards/b71d139dca/Statement-on-cultural-safety.pdf

Te Puni Kōkiri (2016) *Whānau Ora Outcomes Framework*. Wellington, New Zealand: Te Puni Kōkiri. https://www.tpk.govt.nz/docs/tpk-wo-outcomesframework-aug2016.pdf

Te Rau Matatini (2016) *Kaupapa Māori Mental Health and Addiction Services Best Practice Framework*. Wellington, New Zealand: Te Rau Matatini.

Te Rūnanga Hauora o Te Moana ā Toi (2007) He Pou Oranga Tangata Whenua: Tangata Whenua Determinants of Health Framework. Tauranga, New Zealand: Bay of Plenty District Health Board. https://www.bopdhb.govt.nz/media/16339/he_pou_oranga_tangata_whenua.pdf

Tipene-Leach D, Abel S, Hina A & Matthews K (2019) *Rangahaua Te Kūwatawata! The Te Kūwatawata evaluation*. Hawke's Bay, New Zelaand: Māori and Indigenous Research, Research and Innovation Centre, Eastern Institute of Technology. https://www.hauoratairawhiti.org.nz/assets/Uploads/Te-Kuwatawata-Evaluation-FINAL-Report.pdf

United Nations (2007) *United Nations Declaration on the Rights of Indigenous Peoples*. United Nations General Assembly.

Waitangi Tribunal (2019) *Hauora: report on stage one of the Health Services and Outcomes Kaupapa Inquiry*. Wellington, New Zealand: Waitangi Tribunal. https://forms.justice.govt.nz/search/Documents/WT/wt_DOC_152801817/Hauora%20W.pdf

Whānau Ora Commissioning Agency (2019) Submission to Inquiry into Māori Health Inequities. Auckland. https://whanauora.nz/assets/resources/275ee74305/WOCA-submission-to-Inquiry-into-Maori-Health-Inequities.pdf

Appendices

Appendix 1: Quantitative data analysis methods

Ethnicity

These analyses have used patient record ethnicity data as at the date of data extraction, using prioritised ethnicity to obtain estimates for Maōri and non-Māori groups.

In keeping with kaupapa Māori principles, applying the 'ever Māori' principle was considered, which entails including in the Māori count individuals who have identified as Māori in the past, but who are not currently recorded as Māori. An investigation into the data revealed that 87 individuals who currently identify as Pacific, and 400 who are currently grouped in 'other' have identified as Māori in the past.

While these were not included in the final analysis (due to time restrictions), it raises an important point about ensuring the quality of ethnicity data on patient records.

Age Standardisation

Where comparisons are made between Māori and non-Maōri, data are age-standardised to the Māori 2001 standard population.[94] Note that this data is therefore not comparable to similar data for Health Care Homes that has been standardised to a different standard population.

Rate Ratios

A kaupapa Māori analysis has been undertaken in drawing comparisons between the two groups. In this case, the non-Māori group is compared to the Māori group (rather than the more traditionally reported Māori:non-Maōri comparisions). This places the focus on the non-Māori group, highlighting advantage when present, and limits the opportunity for deficit analysis.

[94] See Robson B and Purdie G 2007 for a description, and Robson B et al 2008 for the theoretical background.

Appendix 2: Data tables and figures

Multidisciplinary Team meetings (MDTs)

Table 4: Māori MDTs and total CCDHB Oct 2014 -Dec 2019

		Number n	Proportion of total (%)	total
2014	Oct	0	(0)	1
2015	Jan	1	(7)	14
	Apr	6	(23)	26
	Jul	6	(24)	25
	Oct	7	(41)	17
2016	Jan	14	(67)	21
	Apr	8	(36)	22
(HCH start)	Jul		(0)	16
	Oct	3	(33)	9
2017	Jan	5	(31)	16
	Apr	59	(40)	148
	Jul	94	(40)	235
	Oct	72	(38)	192
2018	Jan	103	(38)	270
	Apr	89	(34)	262
	Jul	87	(33)	266
	Oct	100	(37)	270
2019	Jan	92	(29)	319
	Apr	66	(30)	218
	Jul	76	(29)	262
	Oct	65	(28)	232
Total		**953**	**(33.7)**	**2,841**

Data supplied by CCDHB, June 2020

Triage

Table 5: HCH Māori triage events by provider role, July 2016-April 2019

		Māori triage event by provider role						Māori Total triage events		CCDHB total
		GP		Nurse		Nurse Practitioner				
		n	(%)	n	(%)	n	(%)	n	(%)	n
2016	Jul			11	(100.0)			11	(3.7)	298
	Oct			24	(100.0)			24	(3.9)	621
2017	Jan	1	(2.4)	41	(97.6)			42	(6.1)	689
	Apr	1	(1.9)	52	(98.1)			53	(3.7)	1,419
	Jul	1	(1.3)	77	(98.7)			78	(5.5)	1,428
	Oct	1	(1.4)	69	(98.6)			70	(4.4)	1,577
2018	Jan	88	(49.2)	91	(50.8)			179	(8.8)	2,039
	Apr	618	(47.9)	673	(52.1)			1,291	(14.3)	9,040
	Jul	874	(30.2)	2,018	(69.8)			2,892	(17.2)	16,848
	Oct	733	(24.4)	2,273	(75.6)	2	(0.1)	3,008	(21.2)	14,196
2019	Jan	640	(20.7)	2,368	(76.8)	77	(2.5)	3,085	(20.3)	15,208
	Apr	816	(21.8)	2,808	(74.9)	127	(3.4)	3,751	(19.8)	18,956
Grand Total		**3,773**	**(26.0)**	**10,505**	**(72.5)**	**206**	**(1.4)**	**14,484**	**(17.6)**	**82,318**

Data supplied by CCDHB, June 2020

Table 6: Outcomes of triage events for Māori, CCDHB, July 2016-April 2019. Total number, and percentage of all events per quarter.

	A&M - Appropriate	A&M - Insufficient Capacity	ED - Appropriate	ED - Insufficient Capacity	Future face to face	Same day face to face - not urgent	Same day face to face - urgent	Other	**Total**
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	
2016 Q3					1 (9.1)		5 (45.5)	5 (45.5)	**11**
Q4					3 (12.5)		14 (58.3)	7 (29.2)	**24**
2017 Q1					3 (7.1)		12 (28.60	27 (64.3)	**42**
Q2					5 (9.4)		22 (41.5)	26 (49.1)	**53**
Q3					9 (11.5)		35 (44.9)	34 (43.6)	**78**
Q4					7 (10.0)		42 (60.0)	21 (30.0)	**70**
2018 Q1					16 (8.9)	40 (22.3)	64 (35.8)	59 (33.0)	**179**
Q2	5 (0.4)	7 (0.5)	3 (0.2)		89 (6.9)	249 (19.3)	364 (28.2)	574 (44.5)	**1,291**
Q3	8 (0.3)	13 (0.4)	8 (0.3)		318 (10.9)	526 (18.1)	769 (26.4)	1,268 (43.6)	**2,910**
Q4	12 (0.4)	19 (0.6)	8(0.3)	1 (0.0)	334 (11.0)	597 (19.6)	789 (25.9)	1,289 (42.3)	**3,049**
2019 Q1	21 (0.7)	20 (0.6)	8 (0.3)	1 (0.0)	376 (12.0)	696 (22.1)	606 (19.3)	1,418 (45.1)	**3,146**
Q2	17 (0.4)	36 (1.0)	7 (0.2)	2 (0.1)	374 (9.9)	1,043 (27.6)	601 (15.9)	1,698 (44.9)	**3,778**
TOTAL	**63 (0.4)**	**95 (0.6)**	**38 (0.3)**	**4 (0.0)**	**1,535(10.5)**	**3,151 (21.5)**	**3,459 (22.)**	**6,426 (43.9)**	**14,631**

Dropped call rate and calls answered in under 30 seconds

The target for dropped call rate is >5%

The target for calls answered in less than 30 seconds is >85%

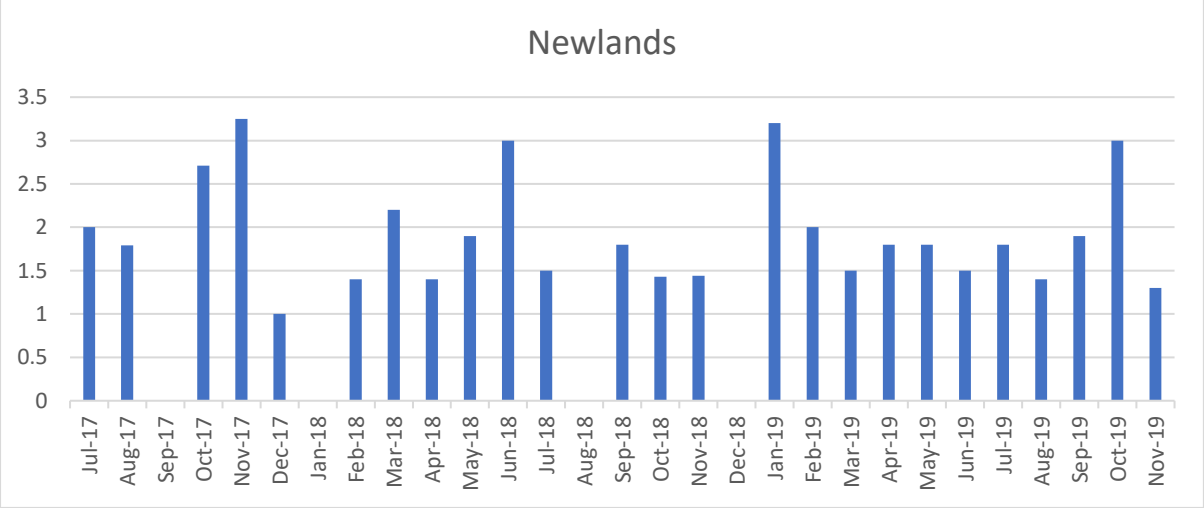
Table 7: Dropped call rate, and calls answered in under 30 seconds, 2019

		Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov
Newlands	Dropped	3.2	1.4		6.5	3.2	3.3	2.9	3.2	2.2	5.1
	under 30s	83	83.9		84.5	88.6	89.3	83.2	84	89.1	91.1
Hora Te Pai	Dropped	2.7	5	4.9	12.1	10.4	10.7	9.2			
	under 30s						42.8	37.3			

Data supplied by CCDHB, June 2020

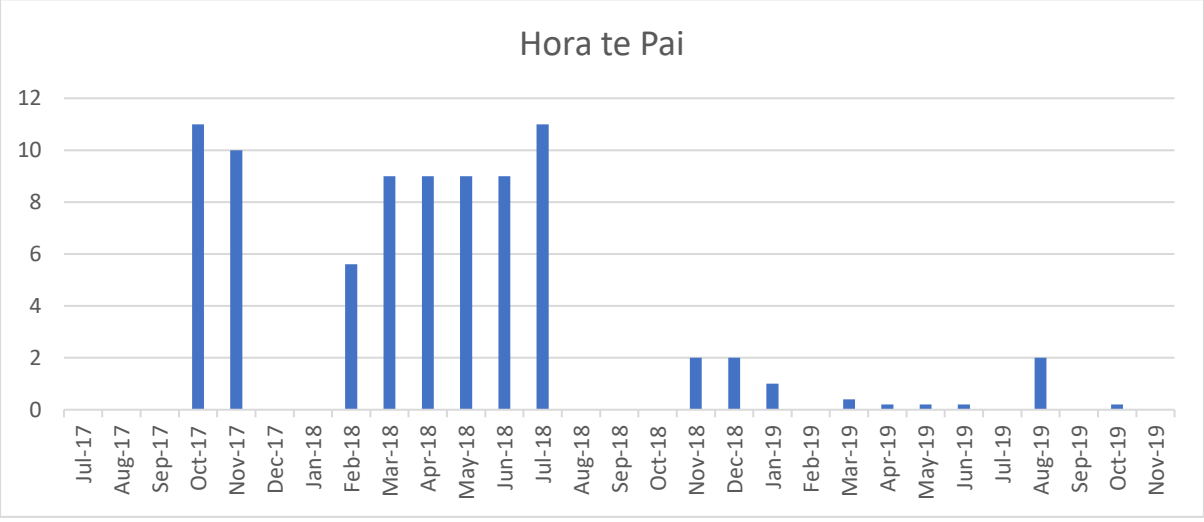
Time to Third Next Appointment (TNAA)

Figure 3: Time to third next appointment (days), Newlands Medical Centre



Data supplied by CCDHB, June 2020

Figure 4: Time to third next appointment (days), Hora Te Pai



Data supplied by CCDHB, June 2020

Māori ASH rates

Table 8: CCDHB Māori age-standardised ASH rates and Māori population enrolled in HCH

	Total CCDHB Māori ASH rate (age std)	**CCDHB Māori enrolled in HCH n (%)**	**Total CCDHB Māori n**
1/10/2017	55.7	14,619 (47.7)	30,626
1/01/2018	56.3	17,411 (55.8)	31,192
1/04/2018	55.5	18,238 (58.2)	31,326
1/07/2018	55.2	18,626 (59.0)	31,560
1/10/2018	54.2	20,911 (65.8)	31,769
1/01/2019	53.2	23,350 (73.2)	31,907
1/04/2019	53.7	25,710 (80.6)	31,908
1/07/2019	56.3	24,655 (80.1)	30,769
1/10/2019	53.5	26,898 (79.8)	33,717
1/01/2020	53.6	27,614 (79.8)	34,615
1/04/2020	52.1	27,814 (79.9)	34,820

Rates are age-standardised to the Māori 2001 standard population. Data supplied by CCDHB, June 2020

Manage My Health registrations and activation

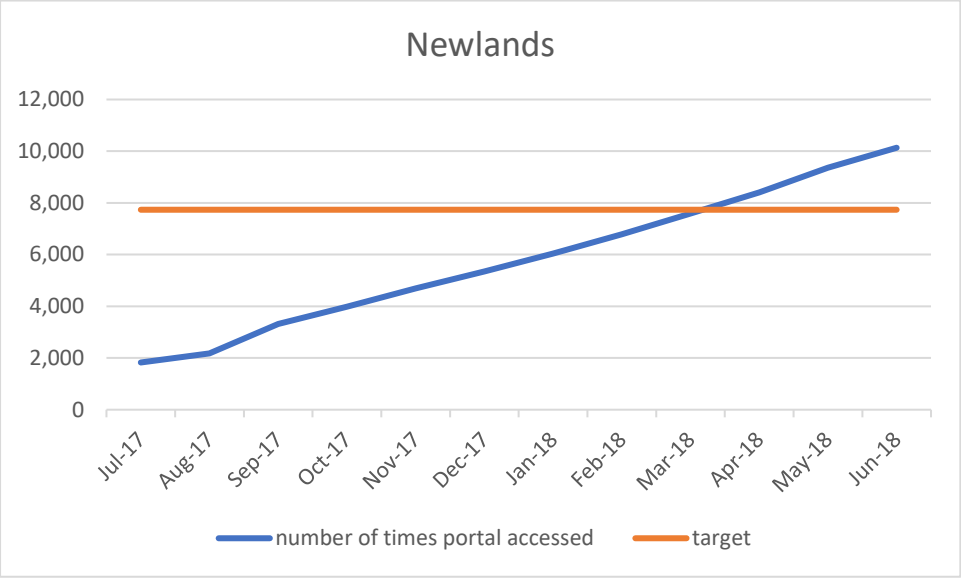
Table 9: Population, patients registered, and number and proportion of patients that have activated MMH

	Enrolled population as of September 2019	Total patients registered with MMH (% of enrolled)	Total patients activated (% of registered)	Percentage of total population activated
Newlands	9,383	4,309 (45.9%)	3,898 (90.5%)	41.5%
Hora Te Pai	2,737	528 (19.3%)	384 (72.7%)	14.0%

Data supplied by CCDHB, June 2020

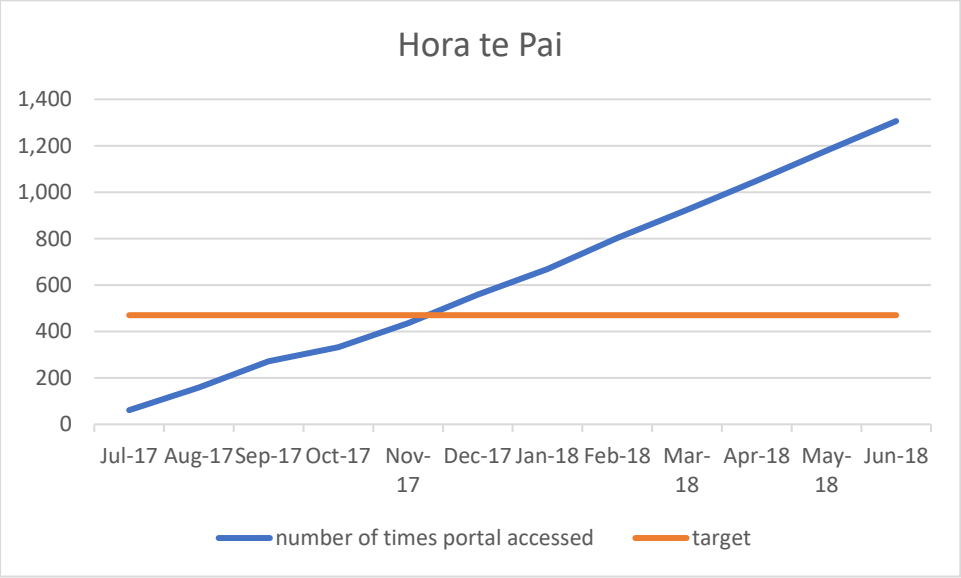
Manage My Health Portal Visits

Figure 5: MMH portal visits, Newlands Medical Centre, July 2017 - June 2018



Data supplied by CCDHB, June 2020

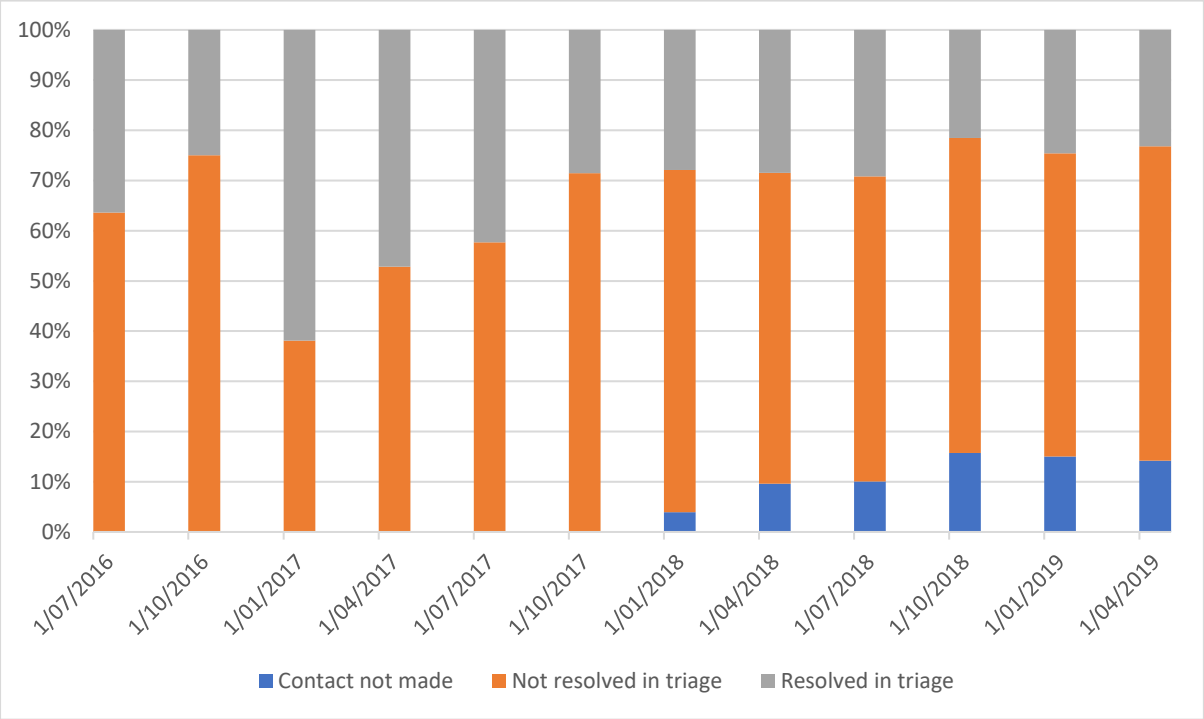
Figure 6: MMH portal visits, Hora Te Pai, July 2017 - June 2018



Data supplied by CCDHB, June 2020

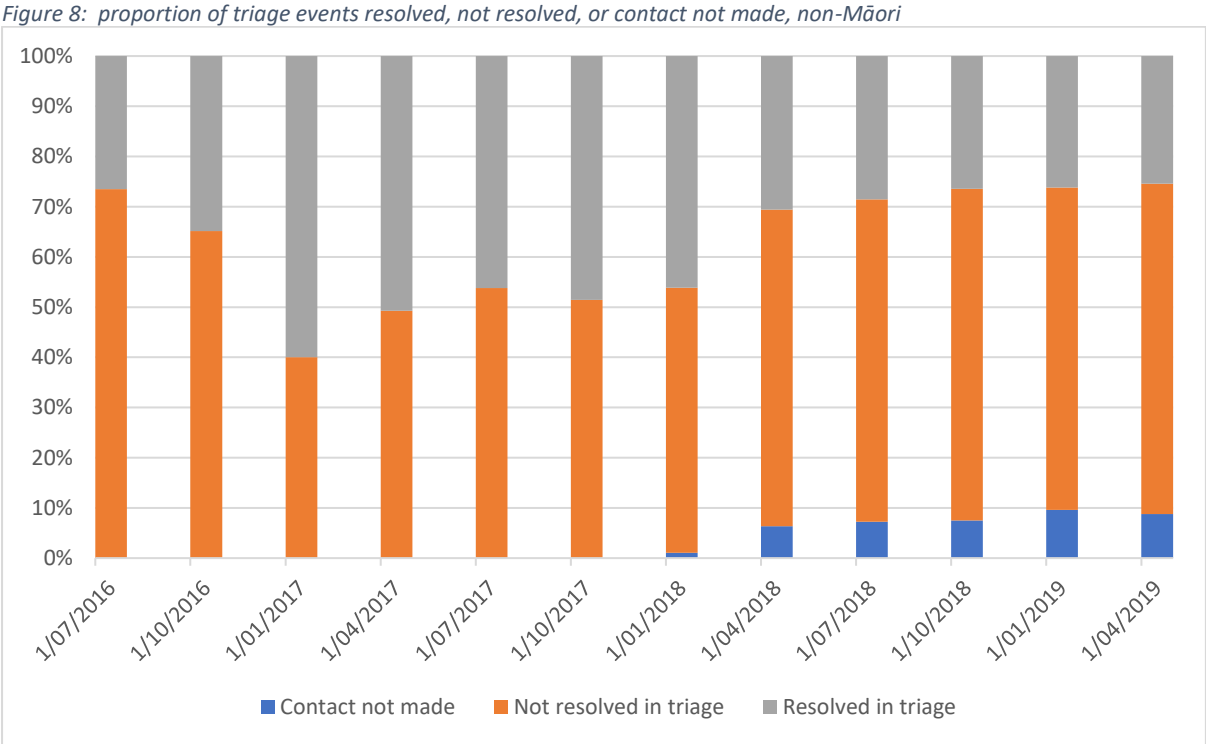
Triage results

Figure 7: Proportion of triage events resolved, not resolved, or contact not made, Māori



Data supplied by CCDHB, June 2020

Figure 8: proportion of triage events resolved, not resolved, or contact not made, non-Māori



Data supplied by CCDHB, June 2020

Ambulatory Sensitive Hospitalisations (ASH)

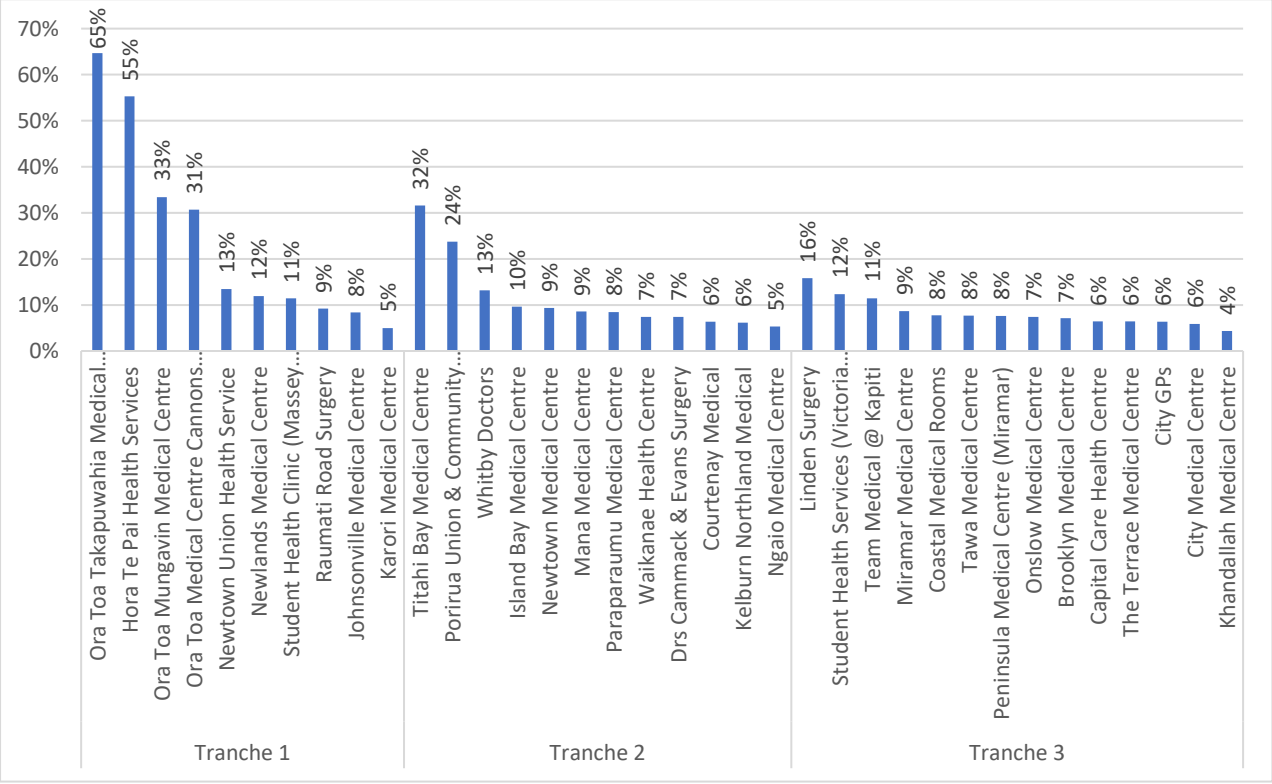
Table 10: Age-standardised ASH rates and ratios for Māori and non-Māori by HCH/non-HCH, between 1 October 2017 and 1 April 2020

	HCH			Non-HCH		
	HCH Māori Rate per 1,000	HCH non-Māori Rate per 1,000	Non-Māori:Māori rate ratio	Non-HCH Māori Rate per 1,000	Non-HCH non-Māori Rate per 1,000	Non-Māori:Māori rate ratio
1/10/2017	49	22	0.5	62	33	0.5
1/01/2018	46	23	0.5	71	33	0.5
1/04/2018	48	26	0.5	67	33	0.5
1/07/2018	53	28	0.5	59	32	0.5
1/10/2018	50	26	0.5	64	38	0.6
1/01/2019	46	24	0.5	76	48	0.6
1/04/2019	46	23	0.5	88	57	0.6
1/07/2019	50	25	0.5	81	45	0.6
1/10/2019	50	26	0.5	68	37	0.5
1/01/2020	52	28	0.5	62	31	0.5
1/04/2020	50	27	0.5	59	28	0.5

Rates are age-standardised to the Māori 2001 standard population. Data supplied by CCDHB, June 2020

Enrolments by provider and tranche

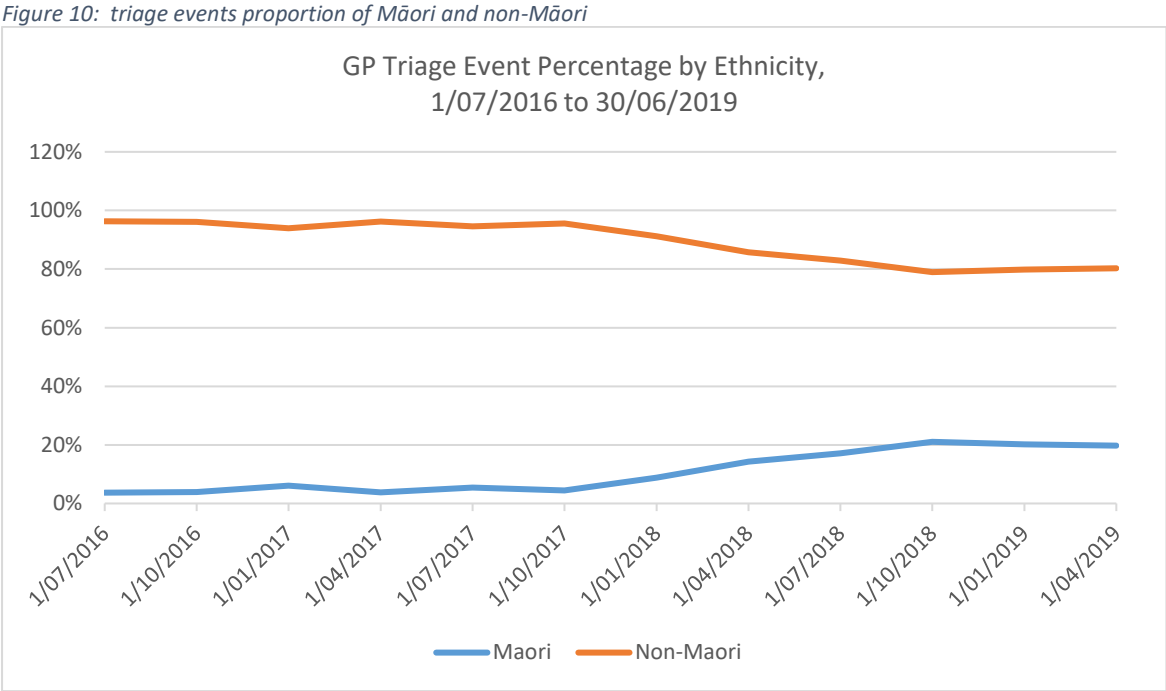
Figure 9: proportion of HCH enrolled patients who are Māori, by provider and tranche



Data supplied by CCDHB, June 2020

Triage events by ethnicity

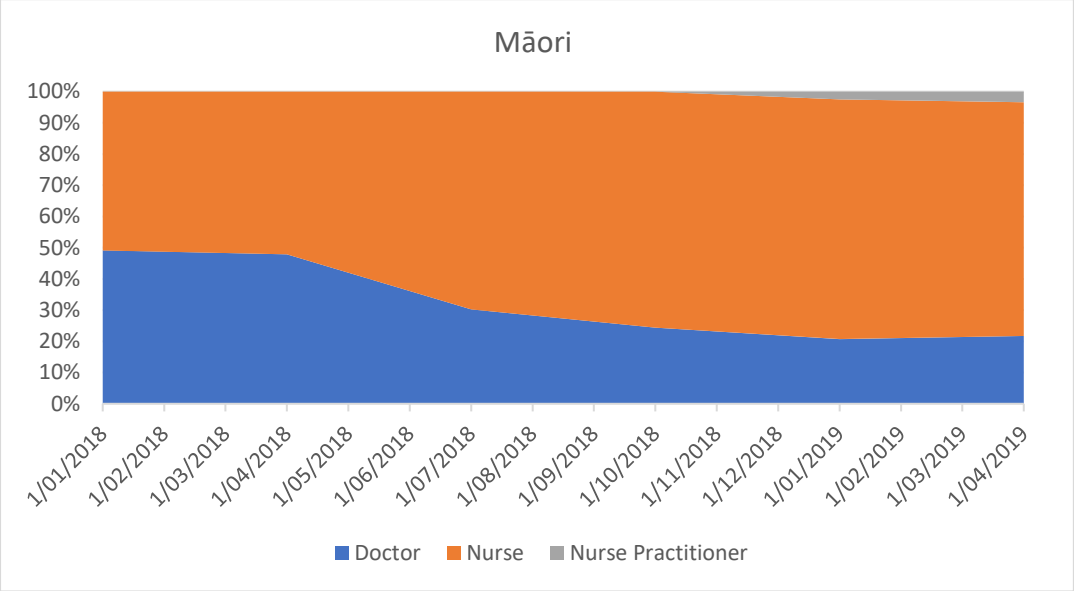
Figure 10: triage events proportion of Māori and non-Māori

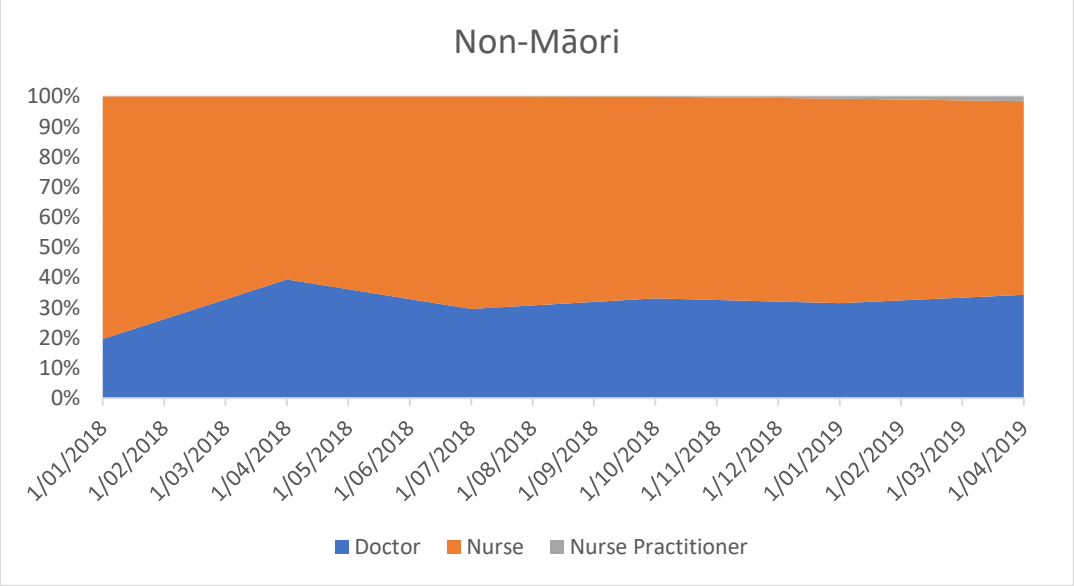


Data supplied by CCDHB, June 2020

Triage events by provider role by ethnicity

Figure 11: HCH triage events by provider role for Māori and non-Māori, January 2018-April 2019

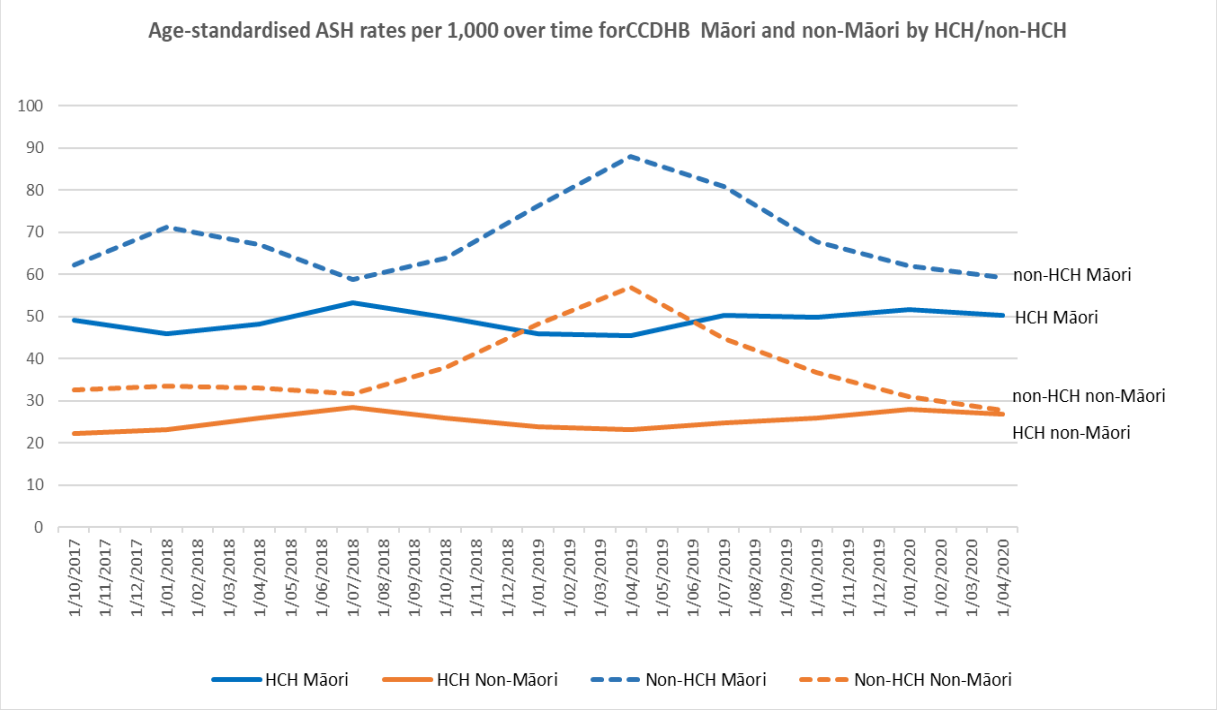




Data supplied by CCDHB, June 2020

ASH rates by ethnicity

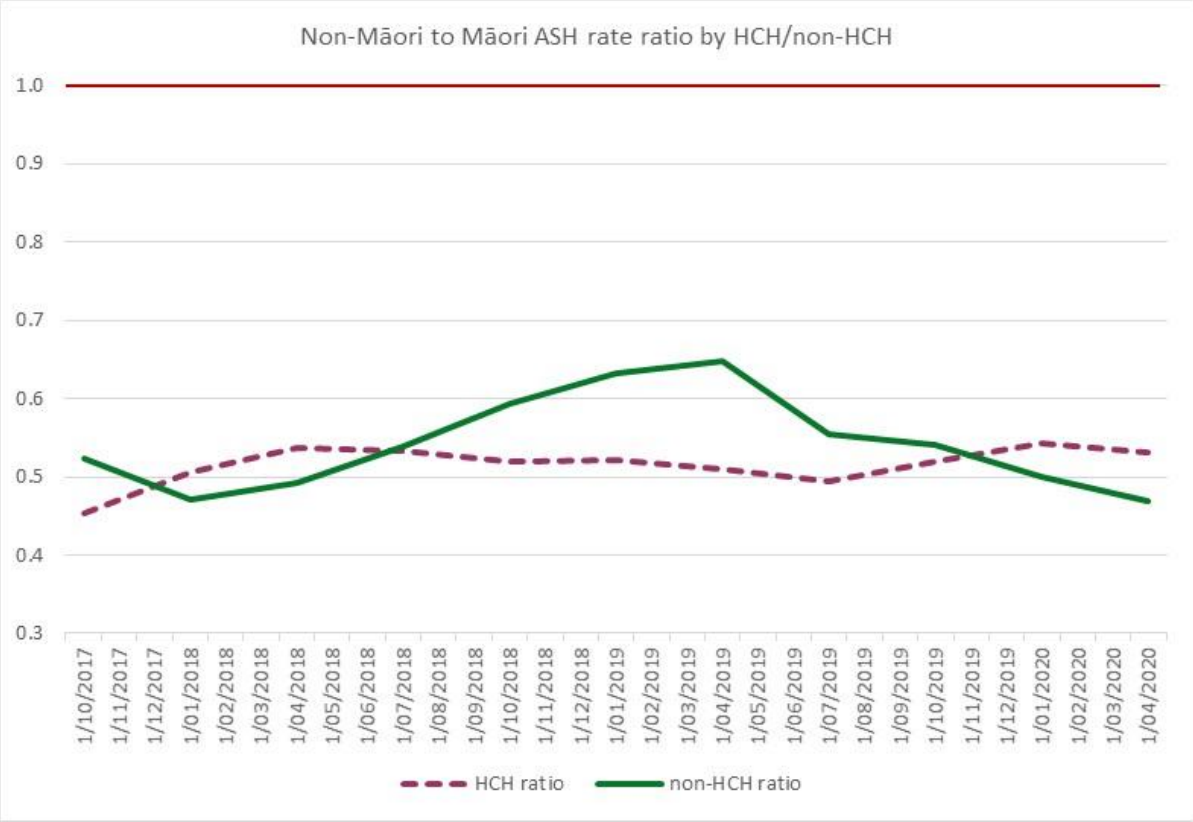
Figure 12: Age-standardised ASH rates per 1,000 over time for Māori and non-Māori by HCH/non-HCH



Rates are age-standardised to the Māori 2001 standard population. Data supplied by CCDHB, June 2020

ASH rate ratios by ethnicity

Figure 13: ASH rate ratios for non-Māori compared to Māori for HCH and non-HCH populations



Rates are age-standardised to the Māori 2001 standard population. Data supplied by CCDHB, June 2020