O le fale e fau ao fau po

An evaluation of the Health Care Home programme from a Pacific World View

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Explanation of Samoan proverb

O le fale e fau ao fau po. The fale (house) is built working day (fau ao) and night (fau po).

Building a fale (house) requires time, energy, attention to detail and continuous evaluation, assessment and adjustment. The phrase includes concepts about work that is visible or known - fau ao (day work), as well the planning, assessment and redesign/ remedial actions that may be required and that occurred after the days' work was done – fau po. This also references the need for deeper consideration of underpinning factors; for example, the importance of the role of supporters (tapuai) and spiritual elements.

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Executive Summary

This report presents the findings of an evaluation of the Health Care Home (HCH) model of primary health care service delivery undertaken from a Pacific worldview. The report examines how the HCH model has been implemented in the Capital and Coast District Health Board (CCDHB) region.

HCH aims to change the way that primary care is delivered to improve quality of care, efficiency and to achieve equitable outcomes for Māori, Pacific peoples and those experiencing high deprivation Four domains, comprised of service elements and practice characteristics, address core primary care activities:

- timely access to unplanned care
- proactive care for patients with complex needs
- better routine and preventative care
- business efficiency.

The HCH programme has been implemented in the Wellington region since 2016, with rapid uptake by practices. Approximately 80% of the CCDHB population now attend an HCH practice. Almost three-quarters (74.6%) of all Pacific people enrolled with the three Wellington PHOs are enrolled with HCH practices.

Case study evidence from two primary care practices in the Wellington region serving large Pacific populations form the main basis of evaluation findings. A literature review of relevant research and desktop review of PHO and CCDHB documentation provided further contextual information.

An evaluation framework guiding the case study data collection, analysis and presentation of findings was grouped into four domains examining HCH *objectives*; the *delivery* of HCH for Pacific peoples; the *impact* of HCH for Pacific peoples and key *learnings*.

Delivery - how well is the programme delivering for Pacific peoples?
While HCH implementation and delivery has required demanding and continuous change in practices, the patient-centred and equity-focused goals of HCH have fostered buy-in and commitment from staff.

In addition, HCH 'infrastructural' features, such as change management support, national datasets, and frameworks and mechanisms to strengthen multidisciplinary and intersectional approaches, provide a significant range of support for practices.

Case study analysis of practices implementation and delivery across HCH domains found that:

Urgent and unplanned care

HCH approaches for reducing incoming call volumes are helping practices to manage daily demand

GP and nurse telephone triage is offering a range of benefits for many patients

Telephone triage is being used to identify unmet need and offer a broad range of care options

Proactive care

Delivering proactive care for those with complex needs is a major challenge for practices. The need for significant improvements to proactive care for Pacific patients and families is recognised

Year of Care planning is progressing, but can be time intensive for practices and difficult to sustain

Despite these benefits, triage is time intensive and has added to clinical workloads While HCH approaches have helped practice's to improve access to urgent and unplanned care, some efficiency gains are elusive - particularly for high need populations	HCH is encouraging information sharing, intersectoral coordination and strengthened relationships between providers Practices are exploring shared care initiatives and group education sessions for delivering proactive care for those with chronic conditions
Routine and preventative care	**Business efficiency**
ManageMyHealth is delivering mixed results in terms of expected benefits for Pacific patients and gains for practices. Practices have a strong commitment to affordability systems that remove cost as a barrier to care Appropriate communication and addressing health literacy and language barriers is critical for meeting the cultural needs of Pacific patients and families across HCH domains It is unclear how HCH efficiency and capacity building aims impact practice ability to enable continuity of care for Pacific patients and families Managing consultation lengths is challenging for practices with high need population	LEAN approaches have improved back-office efficiencies and are helping practices to work more effectively Morning huddles have contributed to team cohesion and coordination and have been an important factor in sustaining ongoing commitment to HCH changes Some business efficiency outputs, such as changes to front of house areas, have caused confusion and required extra support for patients Expanded and enhanced practice teams have been a key benefit of HCH

The intersecting health, social, economic, and cultural needs of Pacific peoples; practice characteristics and the way practices were configuring and using their teams; community relationships and practices understanding of local needs; and broader funding models, were identified as important contextual factors that were influencing how HCH is being implemented and delivered.

These contextual factors are contributing to some divergence in delivery from HCH model of care requirements and intended results for practices and patients and families. Importantly, the case studies highlighted that meeting the specific needs of a large, high need Pacific population is likely to require some adaption of HCH delivery.

In particular, challenges relating to 'urgent and unplanned care', such as a shift or increase to workloads for practice staff; the extent and nature of daily demand; longer triage for those with complex needs; and the continued importance of face-to-face care, are compromising practices ability to better manage practice demand and increase capacity. For the delivery of proactive and preventative care, the quality of tailored approaches for engaging and communicating with Pacific patients and families and multidisciplinary approaches will affect delivery for those with the most complex needs.

Impact - What impact is the programme having for Pacific?

The evaluation examined the impact of HCH implementation and delivery for Pacific peoples from a number of perspectives, including in relation to:

	Key findings:
Achieving the stated goals of HCH	• Key 'trade-offs' between HCH efficiency measures to increase capacity, and dimensions of quality care, may be involved for practices delivering the HCH model of care to high need Pacific populations. • 'Whole of practice' strategies are essential to engage and meet the cultural needs of Pacific patients and families • Enhanced and expanded practice teams improve practice effectiveness and contribute to addressing access barriers and providing dimensions of care that are important to Pacific peoples • HCH professional peer groups, multidisciplinary team meetings and intersectoral frameworks and mechanisms are building capability and driving change and improvement within practices
Meeting the needs of Pacific people and their families	• 'Face to face' delivery remains an important aspect of care for Pacific people • Proactive follow-ups, reminders, and updates help engage patients and families with health and social services • Continuity of care, underpinned by trusted relationships, was highly valued by Pacific patients and families • Pacific patient and families have specific communication needs that are closely interrelated to health literacy and language barriers • Online solutions in health settings may not be effective for all Pacific patients
Supporting practice staff to provide services for Pacific people and their families	• Support by the HCH Development Team has helped practices through a process of significant change and adjustment • Ongoing support is needed to manage challenges in the delivery of proactive and preventative care • Practices need support to ensure that trained and skilled translators or interpreters are available for consultations with Pacific patients and families

Though this evaluation was not able to develop a clear picture about this, the case studies suggest there is a tension between HCH efficiency measures to increase capacity and dimensions of quality care for practices delivering care to high need populations. Identifying whether and how some aspects of the HCH model are delivered at the expense of others, as well as the broader impacts of this on equity for groups such as Pacific people, warrant further examination

Learnings - What are the key learnings and what needs improvement to achieve health and service outcomes for Pacific?

Four key learnings span across HCH domains:

- Pacific patients and families value care that is underpinned by continuity and trusted, respectful relationships where their backgrounds and family contexts are understood. They are seeking and welcome information and engagement that is appropriate to their needs and meets them where they are at.
- Multidisciplinary approaches are critically important for providing proactive, coordinated, and timely care for Pacific people that is responsive to intersecting factors that compound need.
- HCH-enabled enhancements and expansions to practice teams are a key enabler for these approaches and are central to the success of the model of care for high need Pacific populations.

- HCH frameworks and mechanisms to strengthen interdisciplinary and intersectoral coordination offer opportunities to deliver high quality, equitable care to Pacific patients and families and impact positively on Pacific health outcomes.

HCH improvements include:

- Monitoring frameworks could be improved to better consider the complex experience of Pacific patients and families; offer a more nuanced perspective on practice performance; and reflect an equity-focus for Pacific peoples.

- CCDHB should work with the HCH Collaborative to ensure that it has access to good quality data and reporting that is clinically-informed and conforms to good practice, particularly in terms of comparative analysis by ethnicity and controlling for other variables.

- The monitoring framework should inform equity focused future evaluation of the HCH model of care in relation to Pacific patients and families

- The effectiveness of HCH-enabled enhanced and expanded practice teams should be built on through ongoing workforce training and development

- Strategies and approaches are needed that ensure genuine access to patient portals for Pacific peoples.

1. Introduction

The Health Care Home (HCH) Programme is a model of primary care that was developed in response to the imperative to change the way that primary care is delivered. The programme components address core primary care activities including: timely access to unplanned care, proactive care for patients with complex needs, better routine and preventative care as well as supporting improvement of business efficiency. The HCH programme has been implemented in the Wellington region since 2016, with rapid uptake by practices. Approximately 80% of the Capital and Coast District Health Board (CCDHB) population now attend an HCH practice.

Pacific people are the third largest ethnic group in the CCDHB region (about 20,000 people). Pacific communities are resilient and report high levels of wellbeing, despite challenging socioeconomic circumstances. However Pacific people in CCDHB experience persistent and significant inequities in health outcomes and access to health services compared with the total CCDHB population.

CCDHB commissioned this evaluation of the HCH programme with a focus on how well the programme is meeting the needs of Pacific people, families, and communities.

1.1 Evaluation objectives

The objectives for the evaluation are from a Pacific worldview to describe:

- critical success factors in specific HCH sites with larger volumes of Pacific people;
- barriers to implementing the HCH model;
- key components of the expanded/enhanced HCH team that support improved outcomes for Pacific people; and
- unintended benefits and issues that the HCH model creates for Pacific people.

Key learnings and recommendations from the evaluation will be used to:

- describe whether the CCDHB HCH model provides a platform for further model of care developments in primary care, the community and across the DHB that are fit for purpose for Pacific people.
- identify opportunities to modify the existing CCDHB HCH programme to best suit Pacific health.

1.2 Evaluation design

This evaluation takes the approach of a predominantly descriptive study, capturing evidence about the HCH programme from a range of secondary and primary data sources. Two in depth practice case studies were developed using a mix of research methods including qualitative and Pacific research methods for engagement and interviews with patients and families and focus groups with practice staff. A desktop review of documentation obtained from CCDHB and the practices was used to triangulate case study findings and provide the context for the evaluation. Documentation supplied by CCDHB included HCH programme publications and presentations, HCH Oversight Group papers (May 2020, June 2020), extracts from HCH datasets for the 2 case study practices to May 2020, and prior HCH evaluation reports. A review of relevant literature was also completed.

The research approach was used to enable the development of a multi-layered description of the programme processes as experienced by Pacific patients and their families and the outcomes achieved with the aim of informing future primary care developments for Pacific people.

Evaluation Framework

An evaluation framework was agreed with CCDHB prior to commencing the evaluation. The framework was used to guide the case studies data collection and analysis and presentation of the key findings. The evaluation questions were grouped within four domains:

- Objectives: What is the programme trying to achieve for Pacific?
- Delivery: How well is the programme delivering for Pacific?
- Impact: What impact is the programme having for Pacific?
- Learnings: What are the key learnings and what needs improvement to achieve health and service outcomes for Pacific?

Case studies

Two primary care practices in the Wellington region serving large Pacific populations were identified with CCDHB as the settings for the case studies. The practices are the Porirua Union and Community Health Service (PUCHS) and the Newtown Medical Centre (NMC). Table 1 (page 12) provides an overview of the practice populations and their context.

Qualitative and quantitative data collection, guided by the evaluation framework, drew from patient/family and practice team perspectives; available practice level and PHO Pacific data; and key reporting and documents from practices, Tū Ora Compass Health PHO and CCDHB.

Pacific research methods were used to capture the complexity of the various perspectives, as well as the diverse cultural, geographic and socioeconomic contexts in which patients and families live, and services are delivered.

Interviews and focus groups

In-depth face to face interviews with 10 Pacific patients and their families and focus groups with staff from the two selected practices were undertaken (19 participants in total). The Pacific research approach of *talanoa*, embedded in the context of ongoing relationships (or *va)* with communities, families, and individuals, provided the overarching framework for interviews (Southwick, Kenealy, & Ryan, 2012).

Further information about the research methods is included in Appendix 1.

Limitations

The evaluation was designed to provide in depth understanding of the nuances and context for the HCH model in 2 practices and included a focus on the experiences of patients and staff.

We did not directly interrogate the data used to produce the quantitative reports that were supplied and relied on the parameters selected for the evaluation by HCH programme staff. No attempt was made to assess the statistical significance of any results. Time series data was generally unavailable.

The scope of the evaluation did not include information about the funding inputs for each practice and the impact that this may have had on the models of care or approaches that were adopted for Pacific populations.

Given the above constraints, caution should be exercised in comparisons between the two practices and extrapolating the findings of this evaluation to other HCH practices and Pacific people in the CCDHB region.

1.3 Context for the evaluation

Background

The HCH model of care was first introduced into New Zealand in 2011 by the Pinnacle Midlands Health Network, a Primary Health Organisation (PHO) that operates across the Lakes, Tairāwhiti, Taranaki and Waikato DHBs.

The HCH model drew on primary care innovations in Europe and the United States (Pinnacle, 2020). The model integrated lean production methodologies, which seek to limit the use of resources to those processes that create value for end-users or customers (Kimsey, 2010).

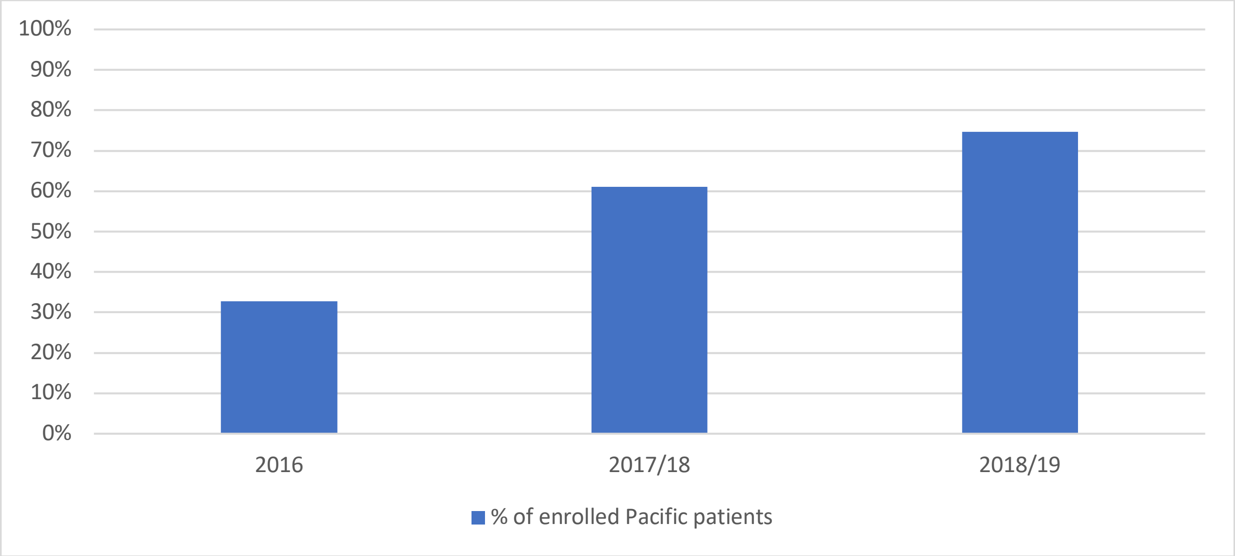
Development and implementation of the HCH model of care in the Wellington region began in 2016 as a collaborative process between CCDHB and the three Wellington PHOs: Tū Ora Compass Health, Ora Toa PHO and Cosine Primary Health Network.

The model was implemented progressively in the Wellington region. Three tranches of adoption by practices were organised. Tranche one involved nine practices in 2016, tranche two involved 12 practices in the 2017/18 year and tranche three 14 practices in the 2018/19 year (CCDHB, 2020).

The 35 practices that have adopted the model account for 59.3% of the 59 practices and 80.1% of the 315,257 enrolled patients in the networks of the three PHOs (as at 1 November 2019) (CCDHB, 2020).

HCH practices accounted for the majority of Pacific enrolled patients in the three networks by 2018/19. Almost three-quarters (74.6%) of all Pacific people enrolled with the three PHOs were enrolled with HCH practices. (see **Error! Reference source not found.**).

Figure 1: Share of Pacific people enrolled in primary health care in the CCDHB region covered by HCH practices to 2018/19



Source: (CCDHB, 2020) **Note**: Prioritised ethnicity data only.

As of November 2019, eleven practices in the CCDHB region reported that more than 10% of their enrolled population were Pacific. Six of these practices were HCH practices (CCDHB, 2020).

Policy context

Roll out of the HCH model has occurred in the context of two decades of evolving primary care policy that sought to respond to major challenges facing the New Zealand health system.

Some of these challenges include a growing, increasingly diverse and ageing population, increasing prevalence of long-term conditions and multimorbidity, inequities in access and outcomes for Māori, Pacific peoples and people from low socioeconomic neighbourhoods, workforce shortages and financial constraints.

The New Zealand Health Strategy (NZHS) in 2000 and the Primary Health Care Strategy (PHCS) in 2001 signalled an increased focus on primary healthcare to improve outcomes and reduce costs, that has since remained an important part of health care policy (Middleton, Dunn, O'Loughlin, & Cumming, 2018).

Organising services around the needs of an enrolled population, enabling greater community involvement in governance and decision making, reducing the costs of care, and increasing the range and flexibility of services provided, were features of government policy aiming for early intervention and improved coordination in primary care settings (Moore, 2019), (Middleton, Dunn, O'Loughlin, & Cumming, 2018).

From 2008 onwards, the delivery of 'Better, Sooner, More Convenient' increased focus on new, integrated models of care, delivered 'closer to home'. An updated NZHS, released in 2016, continued to emphasise and build upon these strategies (Middleton, Dunn, O'Loughlin, & Cumming, 2018).

Evaluations of the PHCS indicate that while reductions to general practice co-payments occurred, there was little change to the delivery of primary healthcare services at a micro level, or shift to a population health focus (Hefford, 2018).

A lack of comprehensive research and evaluation has characterised more recent developments towards integrated models of care (Cumming, 2011). However, system reviews, including the NZ Productivity Commission Report on Social Services (NZPC, 2015) and the Welfare Expert Advisory Group Report (WEAG, 2019) have shown that health and social services systems in NZ are fragmented and difficult for patients to access and navigate. Groups, including Pacific people, with the highest levels of need were least likely to receive the care they required.

The HCH model has emerged from these ongoing challenges in the health system, grounded in evidence-informed, international health system trends: a strengthened role for primary healthcare; 'lean' quality improvement processes; the adoption of technology to improve service delivery; and coordinated care for those with complex needs (Hefford, 2018)

Pacific population of CCDHB

Pacific communities are clustered in two main parts of the Wellington region - almost 60% of the population live in Porirua City (with the majority residing in the Waitangirua-Titahi Bay arc), and 40% live in Wellington City (primarily in the southern and south-eastern suburbs of Newtown, Kilbirnie and Strathmore Park).

Considerable diversity within the Pacific population underscores the varied worldviews and experiences that exist within and between communities. Culturally and linguistically distinct ethnic groups make up the Pacific population in CCDHB, with the largest group being Samoan (over 60%), followed by Cook Islands (21%), Tokelauan (10.2%) and Tongan (5%). Multi-ethnic identity is also increasingly common for Pacific peoples in CCDHB (and happening faster than for the total population) and shaping the perspectives, in particular, of NZ-born Pacific peoples.

Around 46% of Pacific peoples in CCDHB live in NZ deprivation decile 9 and 10 areas, with a particular concentration of socioeconomic deprivation found in Waitangirua/Titahi Bay where 86% of Pacific people live in areas of highest deprivation.

With homeownership among Pacific peoples at 21% (compared to 48% for the total Wellington population), the majority of Pacific families are tenants in an increasingly pressured rental sector in Wellington. The constrained economic circumstances for many Pacific families are reflected in median individual net worth figures for Pacific peoples, which at $12,000 is nine times lower than that of NZ Europeans ($114,000).

This social and economic context is essential for understanding (and responding to) marked and long-standing inequities in health outcomes between Pacific and non-Māori non-Pacific (NMNP) peoples.

In the CCDHB region, an estimated life expectancy gap of eight years between Pacific peoples and NMNP (76 and 84 years respectively) has not narrowed over the last ten years. The amenable mortality rate (potentially avoidable deaths) increased by 15.2% for Pacific people between 2009 and 2016 and is three times higher for Pacific peoples at CCDHB than for NMNP (189 versus 63 per 100,000).

These outcomes are largely attributable to a high prevalence of long-term conditions (cardiovascular disease, diabetes and cancer) and multimorbidity, and high levels of modifiable risk factors (excess body weight, smoking, a lack of physical activity).

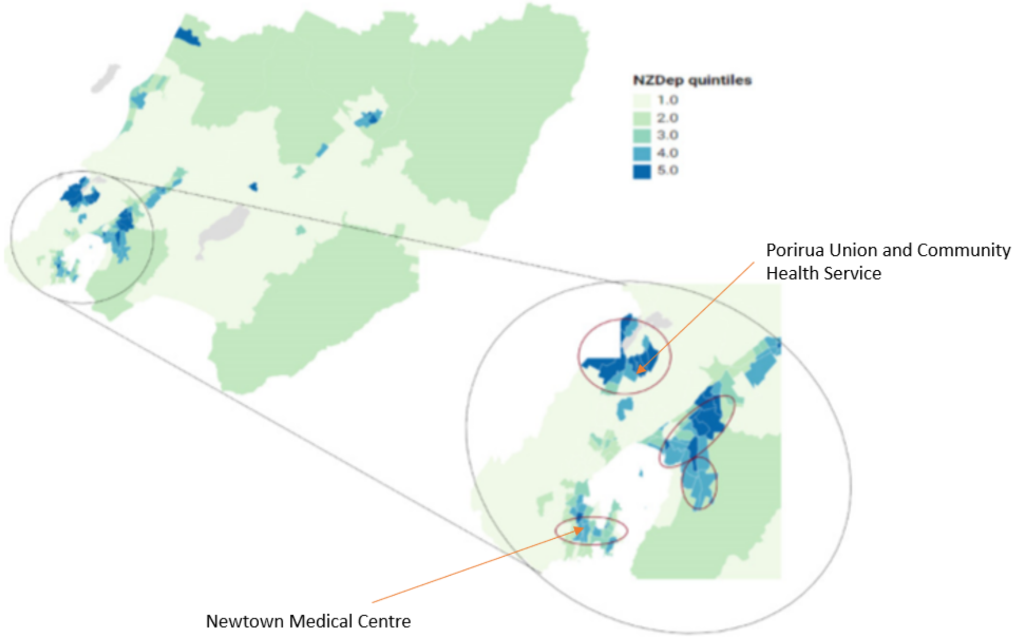
Diabetes prevalence of 12% for Pacific people in CCDHB, compared to 4.5% for the total population, shows the extent of this disease burden – as does data showing that around 90% of Pacific peoples have excess body weight (body mass index).

Though the health issues experienced within many Pacific families requires engagement with a complex mix of primary care and community-based care, as well as hospital services, the evidence is clear that Pacific peoples' access to health care and the quality of health care they receive, is not adequately meeting their needs.

While Pacific enrolment rates in PHOs have been consistently high in CCDHB (eg 97% in 2019), high reported rates of unmet need for primary care compared to the total CCDHB population mirror national patterns for Pacific peoples and highlight the pervasive nature of long cited cost and availability barriers to care. Pacific children in the CCDHB region, for example, are less likely to be fully immunised or to have received the HPV vaccination than NMNP children and have lower rates of immunisation than Pacific children nationally.

More broadly, health system performance measures point to significant levels of unmet need for primary care. Ambulatory Sensitive Hospitalisation (ASH) rates, a measure of timely access to effective primary care, are persistently higher for Pacific peoples than the total population and include high rates for Pacific children for dental issues and skin infections. Similarly, the use of emergency department (ED) services in CCDHB by Pacific people is growing at more than twice the rate of the non-Pacific population.

Figure 2: Distribution of Pacific peoples and measured socio-economic deprivation, Wellington region, 2013 census



The circled areas are neighbourhoods with high numbers of Pacific people.

Source: Adapted from (PPL, 2019)

1.4 Characteristics of case study practices

The two selected practices, Porirua Union and Community Health Service and the Newtown Medical Centre, are located in areas where the Pacific population is relatively concentrated in the Wellington region (see Figure 2).

Porirua Union & Community Health Service is a Porirua based practice and is a member of the Tū Ora Compass Health PHO.

Established almost 30 years ago, the practice is a community trust serving an ethnically diverse population across a large geographical area. With 91% of the enrolled population classified as high need, the practice is part of the Very Low Cost Access programme that provides additional funding to practices with more than 50% high needs enrolees.

The practice consistently performs well in relation to PHO clinical targets and has been formally recognised for their successful immunisation outcomes (achieving the 95% target). They adopted HCH in 2017 (part of Tranche Two) and have received credentialing by the HCH Collaborative.

As well as a large Pacific enrolled population (over half of total enrolled), the practice also has a large Māori enrolled population (23.7%) and a significant refugee population of over 700 with distinct health, social and cultural needs. Practice staff estimate that around half of the population are NZ-born. Of those born overseas, a high proportion are recent migrants to NZ.

The enrolled population is youthful, with the majority of enrolees aged 5-14 years and 25-44 years. Many of the families served by the practice live in multigenerational households.

Improving the management of a ‘rapidly growing’ prevalence of long-term conditions and multimorbidities is a particular focus for the practice. Addressing high levels of socio-economic need, most notably a shortage of state and private rental accommodation and health issues associated with poor quality and crowded housing, is also a significant challenge.

Newtown Medical Centre operates in the Newtown suburb of Wellington city and is a member of the Tū Ora Compass Health PHO. The practice has operated as a partnership of GPs since the 1940s.

The practice caters to a predominantly non-Maori, non-Pacific population (81.6% of all enrolled patients) (CCDHB, 2020).

More than a quarter of the enrolled population served by NMC are high needs (Māori, Pacific peoples or >Dep 5).

According to the practice’s HCH implementation plan for 2019/20, almost 1% of patients are very high predicted risk and 3.4% have a high risk of admission to hospital in the next 12 months. These rates are reportedly lower than for Tū Ora Compass Health as a whole (NMC, 2019).

Pacific people comprise approximately 10% of the enrolled population, with the majority in this group of Samoan ethnicity (70%).

The characteristics of these practices are set out in **Error! Reference source not found.** These data show that the two practices account for one in six (16.8%) of all Pacific patients enrolled with HCH practices, catering to a total of 4,385 Pacific people.

Table 1: Characteristics of the 2 case study practices

Practice	Pacific Union and Community Health Service Incorporated	Newtown Medical Centre
Staffing		
GPs FTE	6.0	5.0
Nurses FTE	8.0	5.0
Reception/Administration FTE	2.5	6.3
Other (HCH) *	5	4
Other*	2	1
Enrolled patients		
Total	6630	9608
Patient population (Pacific) (no.)	3,444^	941
Detailed ethnicity**		
Samoan (no.)	2,246	663
Cook Island Maori	646	123
Tongan	177	69
Niuean	57	32
Tokelauan	401	16
Fijian	134	55
Kiribati	0	0
Tuvaluan	9	0
Other	83	48
Patient share		
Pacific patients as a share of practice population (%)	51.9%	9.8%
Pacific patients as a share of all Pacific patients, HCH practices (%)	13.1%	3.7%
Other characteristics		
HCH adoption	Tranche 2 (2017)	Tranche 2
NZDEP Index#	Decile 10	Decile 9
Very Low Cost Access practice	Yes	No
Copayments – maximum fee for enrolled adult	$15	$47.50

Notes

^ Non-prioritised ethnicity

**Total response ethnicity. The sum of ethnicities may not equal the distinct count of people due to people self-identifying with multiple Pacific ethnicities

* Not FTE weighted

New Zealand Deprivation Index decline based on the area unit where the practice is located

2. Findings

2.1 Objectives - What is the programme trying to achieve for Pacific?

What are the HCH programme activities?

HCH aims to change the way primary care is delivered to improve quality of care, efficiency and to achieve equitable outcomes for Māori, Pacific peoples and those experiencing high deprivation
The HCH model of care supports systematised ways of working to increase capacity; multidisciplinary and coordinated team based care; integrated health and community services; and a responsiveness to social, economic, and cultural needs.

The model is comprised of 20 service elements and 38 characteristics of an HCH practice, that are grouped into four core domains:

- *Ready access to unplanned and urgent care* - e.g. telephone triage and treatment; reduced wait times through triage and prework; systematic reserving of appointment slots for same-day access.
- *Proactive care for those with more complex needs* – e.g. population risk stratification; care planning; care coordination.
- *Better routine and preventative care* – e.g. appropriate consultation lengths; continuity of care; reduced barriers to care; patient portal.
- *Business efficiency* – e.g. expanded clinical and non-clinical roles; LEAN quality improvement processes.

The most recent version of the HCH model of care requires a 'stronger and more explicit' equity focus
HCH practices are required to demonstrate their ability to monitor processes and outcomes by ethnicity and to develop a 'practice-based approach to achieving health outcomes where possible', particularly for Māori, Pacific and patients living in high deprivation (HCHC, 2018).

HCH governance and support structures provide ongoing guidance to HCH practices
Overarching governance and support for the HCH model is provided by the HCH Collaborative - a NZ wide collective of PHOs and DHBs (including CCDHB and participating PHOs in the Wellington region) and the Royal College of General Practitioners.

The HCH Collaborative develops and oversees an HCH National Dataset that contains measures to demonstrate the system impact of the HCH model and guide practice improvement. Measures are related to areas such as primary and secondary service utilisation; clinical outcomes; care planning uptake; continuity of care; and patient and practice team experience survey scores.

A Tū Ora Compass Health HCH Development Team provides a broad range of focused support to participating practices to implement and manage changes required by the HCH model.

How are these activities intended to lead to the outcomes sought?

The HCH theory of change has been informed by evidence and literature about the strengthened role of primary healthcare to address major 'whole of system' challenges facing healthcare
HCH approaches intend to drive a 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-coordinated, 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

The 'complementary and coordinated' sequencing of elements and characteristics is the key design innovation of the HCH model for offering 'more convenient high-quality care' and services that are 'more sustainable in the long term'. (Middleton et al., 2018)

A focus on equity and responsiveness to social, economic, and cultural barriers to care reflects a significant evidence base about the inequities and unmet needs experienced by Pacific peoples in NZ
A range of HCH activities intend to address the persistent access barriers to care, high rates of comorbidity and long-term conditions, and socioeconomic determinants of health experienced by Pacific patients and families. These include:

- streamlined access to health information (e.g. via a patient portal);
- optimised patient time (e.g. via shorter waiting times or virtual consultations);
- increased clinical capacity for patients with complex needs.
- improved multidisciplinary teamwork across a broad range of services

What are the assumptions made?

The HCH model of care is predicated on better demand management that optimises human resources and improves access
The key assumption underpinning the HCH model of care in NZ is that 'freeing up GP time for complex patients will mean better care for those populations'. (Cumming et al., 2018) Strategies such as telephone triage, remote options for treatment, patient portals, huddles, and coordination of care are intended to direct patient demand toward the most appropriate service channels.

Research indicates that further investigation is needed about whether these assumptions (and dimensions within relating to demand levels, existing practice capacity and patient need) are realised. (Middleton, Dunn, O'Loughlin, & Cumming, 2018)

What activities lead to results, for whom and in what context?

HCH research in NZ has noted the need to better understand the impact of the HCH model of care for different groups, in different contexts, particularly Māori and Pacific peoples
The HCH Collaborative provides sophisticated, practice-level reporting on the clinical and other outcomes associated with the HCH model including disaggregating the results by ethnicity including for Pacific peoples.

Practices are able to monitor through dashboards and online interfaces key performance metrics such as ASH, ED and acute admission events, primary care utilisation data including immunisations and risk assessments and access data including consultation rates all disaggregated by ethnicity.

This practice level monitoring data is aggregated for use by an ‘Oversight Group’ and the HCH Collaborative maintains a data warehouse which allows for further analysis and reporting.

2.2 Delivery - How well is the programme delivering for Pacific peoples?

How is the service going?

While HCH implementation and delivery has required demanding and continuous change in practices, the broad goals of HCH have fostered buy-in and commitment from staff

Both practices expressed the significant adjustments that HCH implementation has required. Across all HCH domains, adjusting to workload shifts and emerging training needs while ‘bringing patients along’ with changes has placed significant demands on staff.

The perceived value of patient centred, equity focused goals have encouraged staff to see HCH ‘in a positive way’ and contributed to a willingness by staff to embrace the model.

> *“…just looking at things in a different way. Not like the way we’ve always just done it” (Practice team interview).*

Pre-HCH delivery of ‘HCH-like’ approaches can provide a solid foundation for implementation

PUCHS felt that their pre-HCH model of care, characterised by ‘wraparound’ multidisciplinary and family-centred care that is affordable, accessible, and culturally responsive, prepared them well for adopting dimensions of the HCH model. In some aspects HCH provided an opportunity to enhance their model of care and strengthen key services, such as social support for their population experiencing increasingly long term, complex health needs and social issues.

After three years of delivery, practices have made progress towards a broad range of HCH elements

A maturity matrix, developed by the HCH Collaborative to describe model of care requirements for service elements, is used by practices to map their progress on a development continuum.

Implementation reports and annual reporting for the case study practices show that significant progress has been made, although practice ‘maturity’ between different HCH domains is variable. Table 2 shows key service elements that were frequently discussed in the practice interviews.

Table 2: HCH domains and service elements discussed in practice interviews

Urgent and unplanned care	**Proactive care**
• GP and nurse triage • Multiple channels for contacting practice (e.g. ManageMyHealth, SMS) • Reserving space for urgent appointments in GP schedules	• Year of Care plans • Shared care appointments • Community services integration
Routine and preventative care	**Business efficiency**
• ManageMyHealth • Affordability systems • Continuity of care	• Expanded and enhanced practice teams • Daily practice team ‘huddles’ or briefings • LEAN processes

HCH 'infrastructure' - change management support, national datasets, and collaborative frameworks and mechanisms – provides a significant range of support for practices

Resources, skills, and expertise from the HCH Development Team have provided valued support for practices throughout the HCH implementation and delivery process.

The national dataset, governed by the national HCH Collaborative, is enabling practices to track progress and examine links between targeted service delivery and outcomes in greater detail. For PUCHS, integrated primary and secondary service data (e.g. a register of ED presentations by enrolled patients) offers valuable insights about patients who may benefit from follow up appointments and additional clinical support.

Similarly, HCH frameworks and mechanisms, such as management and clinical peer groups across the Wellington region; Multidisciplinary Team meetings; and fora to coordinate intersectoral work between providers, has been important for building relationships and networks, sharing insights, and raising issues.

What results are reported?

Reporting frameworks enable practices, PHOs and the HCH Oversight Group to continually track progress and impact

The HCH national dataset provides the basis for internal monthly reporting used by practices, PHOs and the HCH Oversight Group. Key measures relate to areas such as:

- telephone triage (e.g. number of triage calls; 'resolution rate' of telephone triage)
- general practice utilisation (e.g. consultation invoicing data)
- patient portals (e.g. ManageMyHealth uptake rates)
- population needs analysis (e.g. risk stratification data, number of chronic conditions)
- population health quality of care (e.g. progress against immunisation and smoking targets; cardio-vascular risk assessments, diabetes care)
- Year of Care plans (e.g. Year of Care numbers against targets)

This data is also used to inform practice's annual HCH implementation reports and position on the HCH maturity matrix. Appendix Four presents examples of the kind of reporting used by practices, PHOs and the HCH Oversight Group.

In addition, practice data is matched to CCDHB administrative data in order to calculate ED, ASH and acute admission rates (HCHC, 2018). An overview of these results is published annually by Tū Ora Compass Health (HCH, 2017), (HCH, 2018), (HCH, 2020a).

Disaggregated data by ethnicity is available for some, but not all, indicators used in reporting

The administrative data made available for the evaluation indicates where and how HCH performance in relation to Pacific peoples is being tracked (see Table 3 for examples).

Table 3: Examples of disaggregated ethnicity data available for HCH reporting

Reporting area	Disaggregated ethnicity data (Māori, Pacific, Other) examples)
Acute utilisation (ED and acute admission rates, ASH rates)	• Monthly acute or ED admissions
Practice population needs analysis	• Predicted risk of hospital admission • Risk level (low/high/very high) • Specific conditions and risk factors (patient numbers, rates)
Quality improvement targets	• Immunisation rates • Alcohol/smoking advice • CVRA • Diabetes clinical guidelines data
Preventative care focus areas	• Pacific dashboard data – smoking; diabetes and pre-diabetes
Youth health – quality indicators	• Smoking status and advice • HPV vaccination rates
General practice utilisation	• Consultation invoicing data
Year of Care plans	• Māori/Pacific target (combined) and actual numbers

Appendix Four provides selected examples of how these indicators are used.

Reflecting on the methodologies used for reporting

The reporting presented in these reports and other ad hoc analysis we received through the course of this evaluation provide a useful case study of the key issues with the approach to data analysis and reporting employed throughout the programme.

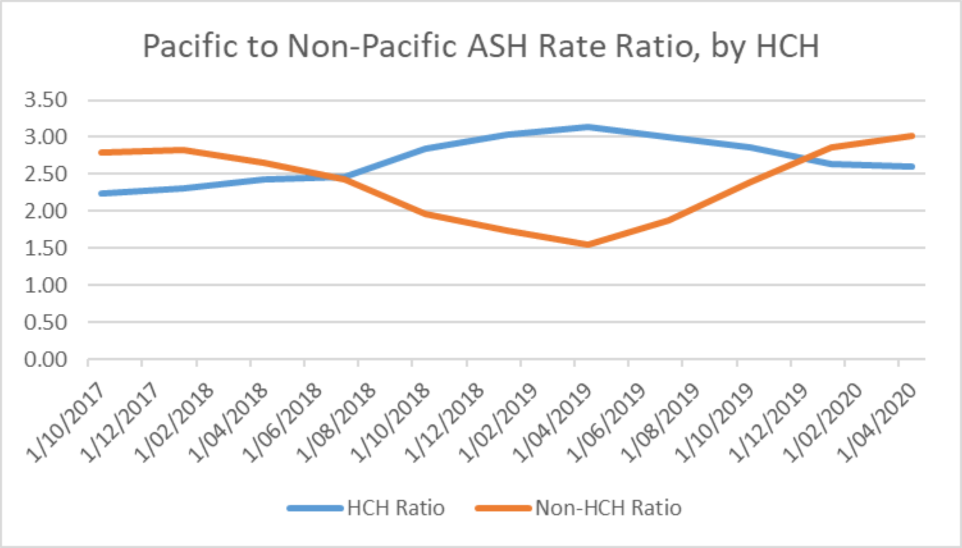
Error! Reference source not found. presents the measured change in ASH rates over time comparing the rates for Pacific and non-Pacific people. Analysis of this kind can provide a useful overview of measured change, however it suffers from several limitations.

ASH rates are influenced by a variety of factors including gender, age, socioeconomic status and health status risk stratification. Within the context of the HCH programme, there is presumably a relationship between the duration of a practice's engagement with the HCH programme and their capacity to influence change in key clinical indicators. Additionally, it is generally accepted practice for ethnicity views to distinguish between Pacific and non-Maori, non-Pacific results.

There is need across the suite of indicators used for the HCH programme to carefully integrate clinical understanding of the relevance of particular measures and the factors that may influence measured change and employ good analytical practice.

Employing these practices would imply more sophisticated analysis that controls for length of engagement with the HCH programme, distinguishes between the experience of Pacific people given the very great diversity in our community and make relevant comparisons.

Figure 3: Pacific to non-Pacific, ASH Rate Ratio by HCH



Has the programme delivered on the intended results?

Table 4: Has the programme delivered on the intended results? Key findings across HCH domains

Urgent and unplanned care	*HCH approaches for reducing incoming call volumes are helping practices to manage daily demand* *GP and nurse telephone triage is offering a range of benefits for many patients* *Telephone triage is being used to identify unmet need and offer a broad range of care options* *Despite these benefits, triage is time intensive and has added to clinical workloads* *While HCH approaches have helped practice's to improve access to urgent and unplanned care, some efficiency gains are elusive - particularly for high need populations*
Proactive care	*Delivering proactive care for those with complex needs is a major challenge for practices. The need for significant improvements to proactive care for Pacific patients and families is recognised* *Year of Care planning is progressing, but can be time intensive for practices and difficult to sustain* *HCH is encouraging information sharing, intersectoral coordination and strengthened relationships between providers* *Practices are exploring shared care initiatives and group education sessions for delivering proactive care for those with chronic conditions*
Routine and preventative care	*ManageMyHealth is delivering mixed results in terms of expected benefits for Pacific patients and gains for practices.* *Practices have a strong commitment to affordability systems that remove cost as a barrier to care* *Appropriate communication and addressing health literacy and language barriers is critical for meeting the cultural needs of Pacific patients and families across HCH domains* *It is unclear how HCH efficiency and capacity building aims impact practice ability to enable continuity of care for Pacific patients and families* *Managing consultation lengths is challenging for practices with high need populations*
Business efficiency	*LEAN approaches have improved back-office efficiencies and are helping practices to work more effectively* *Morning huddles have contributed to team cohesion and coordination and have been an important factor in sustaining ongoing commitment to HCH changes* *Some business efficiency outputs, such as changes to front of house areas, have caused confusion and required extra support for patients* *Expanded and enhanced practice teams have been a key benefit of HCH*

HCH approaches for reducing incoming call volumes are helping practices to manage daily demand

HCHs' focus on managing daily demand through reduced phone traffic and streamlined systems for patient requests have driven significant system reviews and key changes by the case study practices.

Though ongoing work is needed, both practices felt that the introduction of multiple channels for contacting practices (e.g. ManageMyHealth or SMS for non-urgent appointment bookings and prescription repeats), and the reconfiguration of administrative, reception and phone functions had enabled them to make progress in this area.

For example, while reception staff at PUCHS still spend "quite a bit of time at the front seat triaging", reductions in phone-based appointment requests and dropped call rates (the latter reducing from 8% to 5% in 2019)[1] suggest that management of phone traffic is improving.

At NMC, many patients continue to contact the practice primarily by phone during office hours (including all of the Pacific patients and families interviewed for this study). However, efforts to create trust in a new system and "pushing other alternatives" (such as ManageMyHealth) on the clinics website and when speaking with patients on the phone were showing some results.

GP and nurse telephone triage is offering a range of benefits for many patients

The case studies show that HCH support and resources had enabled GP and nurse telephone triage to become a routine daily practice at both PUCHS and NMC.

At NMC, patients contacting the practice team are called back soon after by a nurse or GP for triaging. The ability to assess and treat patient on the phone is seen to be "a real bonus" that could reduce unnecessary travel, waiting times, incurred childcare costs or time away from work for patients.

The system also increased access to GPs and reduced waiting times for 'face to face' consultations for those who require them. Patient time was also optimised through increased opportunities for pre-work (such as blood tests and x-rays). NMC practice staff felt that it helped them to "know what's coming through the door" and better utilise consultation time ("*they've done half the consultation already." [Practice team interview]).*

Generally, patients were felt to be largely on board with the changes.

> *"They're trusting the system works now with the GP triage. They can ring up, and someone will ring them back" (Practice team interview)*

Interviews with patients and families suggested that phone triaging processes were well understood. One participant felt that the ease and speed of getting an appointment had noticeably improved "probably just in the last couple of years".

Telephone triage is being used to identify unmet need and offer a broad range of care options

PUCHS describe triaging as an opportunity to offer alternatives to standard consultations, such as email or phone consultations for low-risk patients, home visits, and other community-based services. In this sense, phone triaging had the potential to improve access (particularly for those with unmet needs) via a broad range of responsive and tailored care options.

> *"You could offer a split on the phone, offer them an appointment that suits them better, or refer them on the same day. So there's a lot more mobile options…and a lot more options for us to offer them" (Practice team interview).*

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[1] Porirua Union and Community Health Service (2020)

Despite these benefits, telephone triage is time-intensive and has shifted - and sometime increased - clinical workloads

Descriptions of time taken for individual triage calls (alongside the fact that many triaged patients need to come into the practice[2]) suggest that potential capacity gains achieved through HCH approaches (including aspects of triaging) may be constrained by shifts or increases to clinical workloads.

Similar suggestions were also made during patient and family interviews. Though all acknowledged the 'busyness' of the practices, a number of patients expressed frustration about the time taken for a triage GP or nurse to ring them back, indicating that demand for the practice (and perhaps the time taken on triage calls) was relatively high.

> *"And there are times when I ring up, or they'll say, okay we'll get one of the nurses to ring you. And there are times they don't do that, to be honest. And then I'll wait … I ring back…" (Patient interview)*

Data about triage call lengths and resolution rates may provide a more precise picture of this issue.

While HCH approaches have helped practice's to improve access to urgent and unplanned care, some efficiency gains are elusive - particularly for high need populations

For both case study practices, the quantity of unplanned requests for care and appointment availability have been recognised issues in the past. Both felt, however, that an improved ability to anticipate patient demand and manage patient flow has enabled them to better accommodate patient preferences for care at short notice.

Both practices reserve space in each clinician's daily schedule for unplanned same-day consultations and walk-in's (patients seeking care without a prior appointment). For NMC, this is a positive result, to which extended opening hours for the practice (7.45am- 5.30pm) have also contributed. The practice feels that they are able to accommodate the majority of requests:

> *"Nine times out of ten a GP will see that person if the nurse says, "Actually, we do need to check this chest," "We do need you to just give this person a once over."…They'll just slot people in" (Practice team interview).*

For PUCHS, same day requests for the practice typically involve less engaged patients with complex issues, long wait times, and have a significant effect on nurse capacity. The practice reserves around 10-15 GP appointments for same day requests and supports this practice by educating patients about booking systems and how to best use their services. While they feel this has brought some gains, unplanned care remains a challenge. Blocked off appointments are insufficient to accommodate every 'walk-in', but priority is given to cases involving children. This group of patients is generally able to access same-day appointments.

> *"…there are a group that just walk-in when it's last minute, when they're desperate, they'll either walk in here or walk into…our closest hospital…So those who do need to be seen will be seen, and mostly children, we try not to turn them away" (Practice team interview)*

Delivering proactive care for those with complex needs is a major challenge for practices. The need for significant improvements to proactive care for Pacific patients and families is recognised

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[2] Most recent data for the case study practices suggests that around 40-50% of patients triaged by telephone go on to have a 'face to face' consultation.

The case study practices expressed concern about the increasing burden of chronic conditions experienced by their populations and the need to access more frequent care from a broader range of services. They recognised that there was considerable room to improve how care is delivered to high risk Pacific patients and families living with chronic conditions and multimorbidity and how teams are supported to do this.

> *"… we all want to improve the stats that our Pacific people are going through. So one of the things that I'm working on at the moment is our diabetes here, because … why are we still failing our Pacific patients with diabetes? Why are we not winning in that domain?" (Practice team interview)*

Practices are grappling with the shifts required in their models of care to realise these improvements – or as one practice team member put it, to "not operate like a GP practice" but rather "give out work to a whole lot of other people.". For both of the case study practices, multidisciplinary team meetings are helping to facilitate coordinated and interdisciplinary approaches to assessment and care planning. PUCHS, in particular, identified the meetings as an important opportunity for ongoing learning and development, while also providing a useful forum for tracking referrals to community-based support.

Year of Care planning is progressing, but can be time intensive for practices and difficult to sustain

Year of Care planning is supported by targets for practice populations and Māori and Pacific practice populations. For both NMC and PUCHS, the target is for 3% of their enrolled populations to have Year of Care plans (approximately 300 patients at NMC and 200 patients at PUCHS), with Māori and Pacific patients making up 30% of this group (approximately 90 patients at NMC and 60 patients at PUCHS). The case studies showed that practices have tended to tailor care planning approaches to suit their particular contexts.

At NMC, patients are invited to meet with a nurse (sometimes a GP) and a member of the clinical administration team to talk about "how they're managing their daily lives…what their objectives for the year are and if we can align ourselves with their expectations and create a plan". Patients are assigned a care coordinator - typically a nurse that they are most familiar with. Though care planning appointments (usually 60-90 minutes long) require considerable staff resource, the value of this process is recognised.

> *"It's quite time-consuming, but it's nice to meet with the patients, and it's nice for them to feel that we are walking alongside them" (Practice team interview).*

While they have made good progress towards targets in the past (a practice Health Coach was at one point achieving 5-10 plans per week), this has been hard to sustain and it has become more difficult to "get people in". Recent data, showing that the practice has achieved around 30% of their Māori and Pacific target[3], reflects the extent of these challenges. It is recognised that new approaches to engage patients and their families are needed.

PUCHS has focused on embedding Year of Care planning as the "normal way to deliver care" with a practice focus on diabetes to reflect the significant burden of the condition for their patient population. There is an emphasis on the active involvement of patients and families to "decide, agree and own" how their condition is managed. Tools, such as the 'Partners in Health' questionnaire, have been used to encourage relationship-building between GPs, practice team

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[3] Oversight Group report June 2020

members, and patients and families.[4] While recent data shows that some improvement is needed towards their overall target, results for Māori and Pacific peoples are positive with over 70% of their target met.[5]

HCH is encouraging information sharing, intersectoral coordination and strengthened relationships between providers

A range of practitioner forums across the DHB region have been established to support HCH delivery. Management and clinical staff participate in fora such as clinical peer meetings and diabetes nurse forums which are attended by PHO and HCH Development Team members.

The focus on community services integration (and mechanisms to facilitate this) has been received positively by practices.

> *"… one of the things I do really like, and I think it works well, is the community services integration" (Practice team interview)*

Practice staff reported strengthened working relationships with other health and social providers (*"It's hard to refer out to social services if you don't have a relationship with them…" [Practice team interview]*), shared expertise, more opportunities to raise issues and an enhanced ability to deliver effectively the intersectoral care that their population requires.

Practices are exploring shared care initiatives and group education sessions for delivering proactive care for those with chronic conditions

Shared care and group education interventions are increasingly viewed by practices as an important driver for future service improvement.

At NMC, free group sessions about specific health topics or conditions (e.g. gout) are a "big initiative" under development for the practice. The practice's Clinical Administrator has completed training to facilitate these sessions. The group sessions are intended to establish an alternative care setting for sharing experiences, providing self-management support, integrating other health messages, and engaging patients in care planning.

A recent pre-diabetes group session delivered by PUCHS was positively received by attending patients, family members, clinical and non-clinical health workers. Shared experiences about living with diabetes were particularly effective and, for the practice, indicated the potential of these approaches.

> *"We had something like 40 odd patients…well, probably 20 to 25 patients turn up with one or two support people, family members. We had the DHB nurse here, we had someone from NZ Arthritis, and then people sharing their testimonies of how they were able to change, lose weight and actually not be diabetic through the lifestyle changes. And people really connected, especially to those testimonies" (Practice team interview).*

ManageMyHealth is delivering mixed results in terms of expected benefits for Pacific patients and gains for practices.

Amongst patient and family interviewees, the use of ManageMyHealth was relatively low. Those who were using it regularly, however, spoke positively about its convenience for booking

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[4] Porirua Union and Community Health Service Annual Report

[5] Oversight Group Report June 2020

appointments, renewing prescriptions, and receiving communication about test results, reminders, and follow-ups.

> *"And they're really good with getting back to you. Even like the messages ... It is pretty good. I really like it." (Patient interview)*

The introduction of ManageMyHealth has required considerable effort from the two case study practices. Although use of the app by Pacific people is not measured by practices, uptake rates of 23% at PUCHS and 35% at NMC are below target and suggest that progress has been slow (HCH, 2020).

Both practices felt that younger people were typically receptive to the app, but for many patients it has been confusing and taken some getting used to. The expectation that patients would use the app and then require fewer interactions with practice staff has not occurred. NMC, for example, noted that people will commonly "book an appointment through ManageMyHealth and then ring to see if it's confirmed".

A range of strategies have been employed to support patient confidence and proficiency with ManageMyHealth, for example, placing a member of staff in the waiting room to 'sign people up' and explain how to use the app. While such efforts are contributing to gains – NMC noted that uptake is steadily increasing – they have also created additional work for the practice teams that potentially is offsetting increased capacity from other HCH approaches.

In addition, reservations were expressed about the appropriateness of access to medical notes for some patients – particularly those with health literacy or language needs who require considerable support to interpret and understand this information.

Practices have a strong commitment to affordability systems that remove cost as a barrier to care

Case study practices were unequivocal about their commitment to enabling patients and families to access care regardless of their ability to pay.

> *'…you're going to access this healthcare that you need, and it's not going to be a barrier" (Practice team interview)*

Practice systems to identify those likely to be affected by the cost of care and to manage outstanding payments were supported by clear policies about costs of care, communicated consistently to ensure that patients will not delay or avoid care when they need it.

> *"…they feel that they can ring in and come in and have a service without being asked…We text. We use communication a lot with patients as well. I think that's worked really well. (Practice team interview)*

Interviews with patients and families clearly showed that these systems were well understood. Some interview participants were in the process of paying off outstanding debts with their practice and appreciated how these situations were managed (*"I think that's good that you get to pay it like a bit …" [Patient interview])*. Others had been able to access care at a time when they were not able to pay.

> *"This is the good thing about it is they won't turn you away." (Patient interview)*

At PUCHS, removing cost barriers has been a long standing priority that pre-dates HCH. With consultations at $7 for those over 65 years and $15 for 18-64 -year-olds, the practice is one of the lower-cost providers in the region and has long provided a range of free services (e.g. nurse consultations are free at the practice) and waived co-payments for families who are unable to pay for the care they require.

While HCH support has helped them to address persistent cost issues, affordability systems that meet the needs of their practice population and broader community have implications for ongoing viability and capacity. Free nurse-led services, for example, are in high demand and leaving nurses “inundated’. The impacts of waived or delayed payments were even raised by patients and families interviewed:

> *“So, if you can’t pay on the spot, they can give you a paper like, you know, they remind you like your bill. This is how much you owe ... I think that’s pretty good but then it’s not always good for them. I think sometimes they won’t get paid ... so they’re quite lenient with payment …” (Patient interview)*

Appropriate communication and addressing health literacy and language barriers is critical for meeting the cultural needs of Pacific patients and families across HCH domains

Interpretation at health appointments was an important issue for several of the patient and family interview participants. While family members could sometimes fill the role of interpreter or translator, work and other commitments often made it not possible.

Telephone triage and daily huddles provide an opportunity to identify language needs for Pacific patients and address them through pre-work by organising for a translator or interpreter to support. For both case study practices, this may also at times involve calling on the specific language capabilities of Pacific staff to contact patients or provide support during consultations. While this is often a best available option, the situations frequently require special skills and considerations of patient confidentiality and privacy issues. One staff member expressed some discomfort and a lack of expertise in translating medical information:

> *“…I do sometimes get a doctor who will come down and (I’m Tongan) he’s got a Tongan patient, and he needs to come and interpret. At first, I sort of felt like I don’t really want to. I probably know most of the Tongans that are registered here, so I don’t want to put my foot in there and know all of what’s happening with their health and all that stuff. But then most of them just trust me, so I just go in there and hopefully interpret the right things for the patients. Sometimes there’s actually no Tongan word for it, so I’m like … I don’t know” . (Practice team interview).*

In addition, the patient and family interviews indicated that many participants had communication needs that went beyond direct translation. There was a need expressed for clear (and reiterated) explanations of medical advice, treatment, and general information to supplement consultations.

It is unclear how HCH efficiency and capacity building aims are impact practice ability to enable continuity of care for Pacific patients and families

The case study practices described divergent experiences of ensuring continuity of care within the HCH context. For either practice, it was unclear whether and how HCH efficiency and capacity building aims (to drive improved access) were impacting (or were impacted by) continuity of care.

Although continuity of care is not measured at NMC, efforts are made to enable patients to see their preferred GP as far as availability allows. The practice felt, however, that workforce capacity issues (particularly constrained GP capacity) were significantly impacting their ability to do this consistently. These issues were reiterated by several patient and family interview participants, who commented on the difficulty of seeing a regular GP at the practice.

> *“Now my GP has been changed maybe three or four times. The doctors move away so I will have a new doctor. This doctor here just started … Sometimes it's hard because I’m not sure how many days he works in here. It's hard to see him. It takes weeks. If I really need to see a doctor, I see the other doctor” (Patient interview)*

The practice has looked at ways they can better support continuity of care by strategies such as making telephone triage more systematic so that it contributes to wider goals such as continuity of care.

PUCHS has opted to prioritise continuity of care as an important element of quality care, particularly for Pacific patient and families with complex medical histories and broader circumstances. For patient and family interviewees, many of whom had medical histories or had experienced serious health events in the past, the benefits of seeing a regular GP or nurse were clearly expressed. As one participant explained:

> *“Your own GP you don’t need to explain the same thing you had before. But if you have another GP on you, you have to explaining, explaining … if you get report from where you go, like when you went to the hospital. So that GP can’t give you your information. It’s only your own GP can give it to you.” (Patient interview)*

In recent years, the practice has established systems to facilitate continuity of care, such as GP patient lists (matched to cultural or language needs where possible) and a buddy system that pairs GPs and nurses to coordinate and work with the same set of patients.

While quantitative continuity of care data was also not available for PUCHS, the practice explained that patients are booked to see their regular GP unless it is not possible (e.g. for acute cases) and follow-ups will, in most cases, be with the regular GP. If a patient’s regular GP is not available, the ‘buddy’ nurse may be there to provide support.

Managing consultation lengths is challenging for practices with high need populations

As discussed above, pre-work opportunities identified during telephone triage and daily huddles are helping some practices to optimise consultation time for patients. However, for practices serving high need populations where a significant proportion of appointments need to extend beyond the standard 15-20 minutes, the impact of HCH’s efficiency and capacity building aims were less clear.

At PUCHS, both practice staff and patients/families described longer consultations (30 minutes or more) to be the norm. One participant explained that an appointment would typically last “nearly an hour” for practice staff to “check everything”. Speaking about appointments with their GP, another participant noted:

> *“… he doesn’t like, push you out. He like, makes sure that he knows every single detail. And he puts every detail in and he always double checks everything. (Patient interview)*

The practice relies on their multidisciplinary teamwork to manage consultation lengths. Staff felt that standard 15-minute GP consultations are only viable for many patients when coupled with support from a nurse or HIP and, often, pre-arranged translation or interpretation support.

LEAN approaches have improved back-office efficiencies and are helping practices to work more effectively

The scope and pace of HCH business efficiency changes has often been a challenging adjustment for practices. LEAN training sessions facilitated by the HCH Development Team from Tū Ora Compass Health, however, have been positively received by the case study practices. PUCHS staff reported that the benefits from newly created workspaces, standardised consultation rooms and reduced waste had exceeded their initial expectations.

> *"…we knew that this model is similar to what we have, but it made a lot of improvements for back-office" (Practice team interview).*

Morning huddles have contributed to team cohesion and coordination and have been an important factor in sustaining ongoing commitment to HCH changes

Short, daily huddles have been a popular addition for both case study practices, providing an opportunity to coordinate care and focus on the specific needs of patients and families.

At NMC, morning huddles have played a key role for navigating HCH change and support a broad range of practice activity that spans HCH domains. The daily meetings provide an opportunity for the practice team to 'check-in' with one another. GP appointment templates for the day ahead are discussed and patients requiring follow up or specific care are identified.

> *"Personally, I think our huddles have been the best thing that have come out of HCH" (Practice team interview).*

Some business efficiency outputs, such as changes to front of house areas, have caused confusion and required extra support for patients

At PUCHS, a recently installed self-check-in kiosk at reception had presented some challenges both for the practice team and patients. Practice staff had invested considerable time in teaching people how to use the kiosk:

> *"… It took a while for people to learn how to use it properly…they used the kiosk but didn't announce themselves…So we have people sitting in the waiting room and the doctor not knowing that they were there…we'd have to scramble to see if the doctor can try and squeeze him in" (Practice team interview).*

The patient and family interviews highlighted the potential difficulties involved in securing patient buy-in to change. For some participants, being 'known' and acknowledged by front of house staff positively affected their experiences at the clinic (*"… they always make sure you're okay. You're being seen. And just happy people you know." [Patient interview]*). The perception was that reception area changes had left front desk staff with fewer opportunities to greet people and offer help.

Expanded and enhanced practice teams have been a key benefit of HCH

HCH-enabled expansion and enhancement of teams were highlighted by both practices to have positively impacted how they were working and the services they were able to offer.

At PUCHS, team additions have been a "big change" for the practice, boosting their capacity and capability to improve the responsiveness and timeliness of services to better meet the needs of their population and the broader community.

A Health Coach and Health Improvement Practitioner bring a coordinated wellbeing focus to the practice through increased support for lifestyle issues (nutrition, physical activity) and mental health respectively. The capability offered by a social worker was described as "one of the biggest benefits" that is enabling the practice to meet patient and family needs "a lot faster". A Medical Care Assistant has freed up clinical time by carrying out procedures such as blood pressure readings or recalls and spending additional time with patients around GP or nurse consultations.

Though the practice has a strong presence within the local community, the expanded practice team add a breadth of organisational relationships and community-based networks that the practice is able to draw on and provide connections for patients and families.

At NMC, a full-time Clinical Administrator has assumed responsibility for many of the systems central to day to day operation of the practice (practice management system, recalls, clinical rosters and appointments), and is a trained shared care facilitator. A Clinical Pharmacist, who plays a key role in the provision of medication education, and a counsellor (with increased hours) have also been valued additions to the team.

In particular, a Pacific Navigator has contributed considerably to the practice's ability to identify and respond to health, social and cultural safety issues for Pacific patients that act as barriers to care.

> *"She's invaluable. We could do with a couple of her actually" (Practice team interview).*

With their specific skill set, community networks and health sector experience, the Pacific Navigator provides support to Pacific patients for specialist care at the hospital, accompanies patients to appointments and offers interpretation and translation assistance. The practice staff have seen the "positive influence" for Pacific patients for whom hospital services and specialist care can be an "intimidating, overwhelming place to be when you're confronted with the language, the medical language".

What are the reasons for divergence?

A range of challenges relating to 'urgent and unplanned care' are compromising practices ability to better manage practice demand and increase capacity

The case studies highlighted a number of interrelated issues that are impacting the ability of practices to proactively manage demand and increase capacity. These include:

- *Persistent use of telephones by patients* over other channels for contacting the practice, such as ManageMyHealth.

  Access to appropriate technology, digital literacy, resistance to digital modes in a healthcare setting and generational factors were all suggested by practices as reasons for low uptake of patient portals by Pacific patients. [6] Many of these reasons were reflected in the patient and family interviews and provide some insight about Pacific attitudes to technology solutions in healthcare. Some participants were outright resistant (*"I don't use those Mind Your Health, whatever thing in the system. I don't do those ones."* [Patient interview]). Others commented that they had "tried it once, but it didn't work on my phone." or that they had "heard about it, but no one actually showed me.".
- *Shift or increase to workloads* in relation to ManageMyHealth and phone triage may be cancelling capacity gains from other HCH approaches such as pre-work.
- *Extent and nature of daily demand* impacts on their ability to balance patient flow and staff availability, even when some progress is made.

  For high need patients and families, the urgency of health issues can be compounded by work, family, financial and time pressures. Particularly for PUCHS, where over 90% of enrolees are high need, the critical role they play as a 'last line' between patients going directly to the ED drives how they accommodate access for urgent requests. As discussed in

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[6] A finding that is consistent with other research which suggests Pasifika people are among the most digitally-excluded groups in New Zealand (Digital, 2017).

later findings, these events can be used opportunistically to engage families and put in place wraparound care.

Patient interviews highlighted that participants often felt they had “no choice” but to use an emergency service when an urgent appointment was not available – even if it involved considerable direct and indirect costs.

> *“So, I have to go to the … afterhours. The expensive one down in Keneperu. Sometimes I can’t afford, I have to go all the way to [Wellington ED] … Because you have to pay [at Keneperu] more than 70 something dollars ... Because [Wellington ED is] free, even you wait for a long time and least you’ve been seen ... I have to. Cause if you feel wheeze or you feel unwell you need to see the doctor. Especially if you took the time off work.”*

- *Longer triage assessment* for patients and families with complex needs. At PUCHS, the aims of telephone triage extend beyond capacity or efficiency gains and are used as an important opportunity to identify possible unmet care need.
- *Alternatives to face to face care, such as virtual consultations, can be inappropriate* for high-risk patients or those with health literacy and language needs.

  At PUCHS, telehealth options were considered appropriate for ‘low risk’ patients, whether clinically indicated or with whom relationships are well established. Face to face consultations can also play an essential role for engaging patients and providing wraparound health and social support.

A practices level of progress towards developing tailored approaches for engaging Pacific patients and families affects the delivery of proactive care for those with complex needs and preventative care

Both of the case practices were putting significant effort and thought into strategies to better engage Pacific patients and families. NMC, for example, recognised that targeted, family centred engagement approaches (beyond standard forms of contact and follow-up) were essential for improving their delivery of Year of Care planning to Pacific patients.

> *“Maybe that’s because we’re not engaging it enough…And I say that because maybe we’re just using it as, you know, opportune, it’s when they come in, we’re not actually targeting” (Practice team interview).*

Meeting the specific needs of a large, high need Pacific population has required some adaption of HCH delivery

> *“You got to make it work for your particular client group” (Practice team interview).*

The PUCHS case study highlighted ways that the practice has prioritised aspects of service delivery that they feel are crucial to equitable, culturally responsive and quality care, even where this diverges from intended HCH delivery. Underpinning decisions to focus on continuity of care and extended consultation lengths, was an understanding of the distinct health and social issues, language and health literacy needs experienced by a significant proportion of the practice’s population.

> *“… I think there's still a lot of changes that probably we need to do to be more efficient to what it means to our Pacific. So you can't have a healthcare model that's general for every practice” (Practice team interview).*

In particular, face to face care is viewed as an effective part of a broader, multifaceted strategy to engage patients and families in proactive and preventative care. PUCHS seek to build a coordinated range of care into a single visit to the practice when patients are waiting for appointments or during walk-in clinics. Opportunistic engagement with patients and families is used to create an opening to then try to put more systematic, planned care in place.

> *"…we have people who will come in and see the triage nurses or they'll come into the doctor for an ailment. The doctor or the nurse will pick up something that's happening that's not related and say, "Well, can you see…our HIP or health coach?" So that's the warm handover or on the day. And then we'll just see them straight away. Because most of the time, if they were to leave, they won't come back. We catch them on the day and then well, we can watch them, get them engaged and then we'll follow up with them in maybe two, three weeks" (Practice team interview).*

What are the contextual factors that impact on implementation?

A number of interrelated contextual factors have impacted HCH implementation in distinct ways in each practice.

Intersecting and compounding health, social, economic, and cultural needs of Pacific peoples

Information collected for the evaluation consistently illustrated the significant health needs experienced by Pacific peoples in the Wellington region. These needs can be largely attributable to the prevalence of long-term conditions and multimorbidity, and social and economic circumstances, dominated by poor quality and crowded housing.

The nature and extent of these needs were certainly reflected in the two case study practices (particularly in the patient and family interviews) and are impacting the rate of implementation and how practices are delivering HCH approaches.

Practice characteristics and the composition and use of practice teams

We heard that the availability of skilled labour was a capacity constraint for practices that has impacted implementation and delivery across HCH dimensions, particularly at NMC.

The HCH model of care was thought to have shifted or increased clinical workloads in a way that had exacerbated pre-existing capacity issues. NMC pointed to the net effect of telephone triage, electronic correspondence with patients, administrative tasks and extended opening hours for increasing GP workloads and constraining their ability to deliver proactive and preventative care for patients.

The practice recognises the importance of multidisciplinary care for their high risk patients and families.

> *"…we're certainly not doing preventative care to the best of our ability. We are seeing long-term conditions patients, and they're very, very complex, and they often need that wraparound service. They need that multidisciplinary team" (Practice team interview).*

While they acknowledged that reduced reliance on GPs through the increased use of nurses, nurse practitioners and allied care workers is key to addressing these capacity issues, making this shift is a work in progress.

Adoption of multi-disciplinary approaches varied between the two case study practices. At PUCHS, for example, they are a key strategy for delivering care to their high need population, though potentially at the expense of other efficiency gains within the HCH model. The case studies suggest that key decisions taken at a practice level will tend to influence the kinds of successes and challenges experienced across HCH domains. When and how this occurs, however, may need further examination.

Community relationships and understanding of local needs and priorities

For PUCHS, local knowledge about the health, social and cultural contexts of their Pacific population and strong presence in the diverse community they serve was critical to their delivery of equitable, culturally responsive care within the HCH programme.

Practice team comments repeatedly emphasised the importance of understanding the backgrounds and issues of their Pacific patients and families to drive how they work. That practice staff are often participating members of the community beyond the practice environment fostered familiarity and trust for patients and families.

> *"I think that's good for our Pacific because I understand the context for them really. And I'm a place where they can reach out for help explaining." (Practice team interview)*

Efforts by management to build a team that reflects the local community has a been a key enabler of this.

> *"… he's looked at how to serve this population by having people who understand the community." (Practice team interview)*

Broader funding models that create sustainability constraints for high need practices

The evaluation findings tended to support the view that there is mismatch between the core funding that some practices receive and the needs of their patient populations.

This is consistent with other assessments which point to complex funding arrangements, multiple commissioning agents and inflexible national contracts as a barrier to serving communities that experience particularly poor health outcomes (Health and Disability System Review, 2020a).

This issue is more acute at PUCHS where the opportunity of some practices to offset the marginal costs of service delivery through co-payments is constrained.

How could delivery be changed to make it more effective?

Greater flexibility for practices to meet overarching goals of equity and social, economic and cultural responsiveness

Further consideration about the level of discretion currently available for practices to tailor HCH to their specific practice and population contexts may be warranted.

To an extent, this is already occurring. As discussed above, practice and population contexts influenced how (and the extent to which) practices adopted the HCH model and seem to have influenced the kinds of benefits practices and patients/families have experienced from the programme. Contextual factors have also tended to underpin decisions to diverge from the HCH model of care or to prioritise certain dimensions of care.

The case studies show, however, that there is an impetus for greater flexibility still.

Enabling practices more scope to set the pace of change

Additionally, there may be greater scope to allow providers to 'set the pace' of change to reflect their practice and population contexts. Cumming et al. (2018) note that PHOs can only move as fast as practices want to go when introducing new models of care. The case studies supported this but also illustrated that in some cases, the opposite was true.

Both practices (PUCHS in particular) described aspects of the HCH model that they wanted to take further. HCH-enabled additions to the practice team, for example, such as the MCA at PUCHS and the Clinical Administrator at NMC, have become central to practice operations and key enablers for change. Practices were keen to evolve and broaden these roles to build on the gains achieved and the flow-on benefits for patients and families.

2.3 Impact - What impact is the programme having for Pacific?

To what extent is the programme delivery for Pacific as planned? Have the stated goals of the programme been achieved?

Key 'trade-offs' are involved in delivering the HCH model of care to high need Pacific populations
The case studies indicated that providing care for populations with complex needs may require a 'trade-off' for practices between HCH efficiency measures to increase capacity and dimensions of quality care.

Within their particular contexts, case study practices were balancing the demands of urgent and unplanned care (and the impacts this was having on practice team workloads) with the challenges of delivering proactive and preventative care that met the needs of patients and families. In relation to Pacific patients and families, this balance involves managing particular healthcare seeking behaviours, patterns of service utilisation, and valued dimensions of care that influence how services are delivered.

These factors need to be better understood and would benefit from deeper examination with the support of quantitative data. For example, a more detailed picture of the extent and nature of 'urgent and unplanned care' sought by Pacific patients and families (e.g. numbers of inbound and outbound calls, duration of triage calls, rates of virtual and non-virtual consultations, appointment availability and wait times) may aid the development of responses that have implications across HCH domains.

More broadly, a better understanding of the interdependencies (or potential tensions) between HCH aims, particularly as they affect dimensions of care (such as continuity) that are valued by Pacific people, has implications for equitable care and outcomes.

'Whole of practice' strategies are essential to engage and meet the cultural needs of Pacific patients and families
Effective engagement approaches and culturally appropriate care were recognised as essential to delivering proactive and preventative services for Pacific patients and families. Improving their ability to do this was a focus for both case study practices.

At PUCHS, strategies to engage Pacific patients and families and respond to cultural needs were underpinned by an understanding of the backgrounds and the issues affecting the Pacific communities that they serve. For NMC, with their smaller Pacific population, the contributions of a Pacific Navigator had been "invaluable" for connecting with Pacific patients and families and identifying unmet needs.

Although the Pacific Navigator was having a "positive influence" on Pacific patients and families, the extent to which their work was integrated with, or fed into, other practice activity was unclear. Staff concerns, however, that the extensive community networks of the Navigator were creating confidentiality and privacy concerns (*"… because they know her so well, they don't want her knowing their business…" [Practice team interview]*) suggest that Pacific patients and families may need a broader range of support options for enabling access to care.

Enhanced and expanded practice teams improve practice effectiveness and contribute to addressing access barriers and providing dimensions of care that are important to Pacific peoples

Detailed descriptions from both practices highlighted the considerable contributions being made by HCH-enabled team additions. Roles, such as a Medical Care Assistant, Health Coach, Health Improvement Practitioner, Social Worker (at PUCHS) and Clinical Administrator (at NMC) are supporting practice teams to work more effectively. These observations were also reflected in patient and family stories about their relationships with practice staff (discussed in more detail in the following section).

Importantly, expanded practice teams are helping practices to develop a more future focused vision of how their model of care can evolve in the long term. The Clinical Administrator at NMC will play a central role in the delivery of shared care appointments - an important initiative for the practice. At PUCHS, the benefits of the Medical Care Assistant to the practice has led to a broadening of responsibilities.

> *"So my role is constantly getting new things added to it, but I enjoy it. And I feel like I support the team really well. We seem to work a lot better and faster." (Practice team interview)*

Continuing to define and describe the key functions of practice teams has the potential to highlight a significant HCH strength for meeting the needs of Pacific people. This opportunity applies whether staff are working relatively independently or within multi-disciplinary teams.

HCH professional peer groups, multidisciplinary team meetings and intersectoral frameworks and mechanisms are building capability and driving change and improvement within practices

HCH-enabled groups and networks are driving coordinated and integrated approaches that improve access for high need Pacific patients and families to the range of services they need, when and where they need them.

The groups and networks play an important role in facilitating workforce development and building capability within practices. They provide valuable opportunities for knowledge sharing to improve understanding about, and responses to, Pacific health inequities and their broader contexts.

Has the programme met the needs of Pacific patients and their families?

'Face to face' delivery remains an important aspect of care for Pacific people

While the HCH model of care places considerable weight on alternatives to 'face to face' care, the PUCHs case study highlights the important quality and safety dimensions of in-person care for Pacific patients and families that can override efficiency considerations.

Face to face care can be particularly relevant for high risk patients or those with language or health literacy needs. Similarly, opportunistic engagement of patients and families physically present in the practice continues to be an important way to facilitate wrap-around care.

Proactive follow-ups, reminders, and updates help engage patients and families with health and social services

For many participants, being kept "up to date" was the "best thing" that their practice did. Reminders and follow-ups whether by phone, SMS or in person, were welcomed by patients otherwise occupied with family and work concerns and helped to engage them in routine or preventative care.

> *"Keeping us up to date, like, health wise. My children they're up to date with immunisation. They follow up with things like my smear test. That's the thing I really appreciate, like sometimes I forget due to nine kids. You can't blame me … some guy rung me about [cervical smear reminder] last night and … he was nice enough to ask, oh would you like to text*

> *message. Oh yes please … And then he texts me about eight. And I said yes, thank you, I'll see you at... I will be there."*

Similarly, proactive and sustained communication by a social worker was effective for one interview participant.

> *"And she's update. It's not like just tell you once. Like I say, I forget stuff. And she ring us like, how's the home. You know, do feel like the home needs more, you know, work on it. Like, mould and anything … She like question you about things that she knows … Well she's probably already knew about what this company does, but she was like, she lets me know about it. And this is what they can offer you. And you don't have to pay a thing. All you have to do is be there and they'll come to you. I'll make an appointment so I can be there …"*

Continuity of care, underpinned by trusted relationships, was highly valued by Pacific patients and families

Patients and families interviews suggested that continuity was an important aspect of care that positively influenced their experiences of the health system and their health decisions.

> *"And I'll try and wait it out until the next day. Yeah. Only because I know my doctor, he knows the kids. He's really good with them. That's why I prefer going to him instead of anyone else." (Patient interview)*

For patients and families with complex health issues; negative experiences in the health system; health literacy and language needs; or social issues experienced by whole families or households, receiving care from someone familiar with their medical history and broader circumstances was critical.

Several of the interview participants also relied on one constant member of the practice team to provide and explain information relating to their health conditions, advice, and treatment they'd received, medications and test results.

> *"I want one person for me. My idea is that that person understands me and they know me, and whenever I ring she advises me what to do …" (Patient interview)*

Pacific patient and families have specific communication needs that are closely interrelated to health literacy and language barriers

The case studies repeatedly show that the health literacy needs of Pacific peoples (relating particularly to the processing and understanding of health information) have implications for the design and delivery of care planning, continuity of care, consultation length and face to face care in the context of the HCH model.

Also clear were the specific capabilities required to translate or interpret complex clinical consultations.

Online solutions in health settings may not be effective for all Pacific patients

The case studies showed that the ManageMyHealth app has been convenient and beneficial for those with the equipment, connectivity, and skills to use it. For many Pacific patients, however, the app is not well-optimised and may be creating a 'digital divide' that exacerbates existing access barriers to care. These barriers risk compounding challenges for those with health literacy and language issues, particularly in navigating, interpreting, and understanding health information, such as clinical records.

Practice efforts to support and educate patients in using the ManageMyHealth app have required considerable practice time. The HCH model of care should incorporate more deliberate steps to enable access and recognise the variation in the readiness of enrolled populations.

Has the programme supported practice staff in providing services for their Pacific patients and their families?

Support by the HCH Development Team has helped practices through a process of significant change and adjustment

The HCH Development Team has provided a range of support, expertise, and resources for practices throughout the HCH implementation and delivery process. This has been particularly valuable for practices during the 'set up' phases of the programme and helping them to build a strong foundation for subsequent HCH change.

> *"And [HCH is] stuff that we already do anyway, but what happened is they improved the service that we do provide." (Practice team interview)*

Ongoing support is needed to manage challenges in the delivery of proactive and preventative care

As practices enter their fourth year of HCH delivery, progress within HCH domains is varied and occurring at different paces. Ongoing support and capability building tailored to the specific needs and contexts of practices will help to advance and consolidate key aspects of the programme - especially those relating to proactive care for patients and families with complex needs and preventative care.

Practices need support to ensure that trained and skilled translators or interpreters are available for consultations with Pacific patients and families

Improvement is needed in the way persistent language related barriers to care are addressed for Pacific patients and families. Ensuring that appropriate skills and expertise are available for the translation and interpretation of health information, particularly during clinical consultations, is likely to impact patient and family experiences, levels of engagement, confidentiality concerns and the length of consultations.

What are the unintended outcomes?

Key aspects of the HCH model of care intended to drive capacity gains appear to be shifting, and in some cases increasing, practice team workloads.

The case studies indicate that adoption of the HCH model will result in a net increase in staff workload in some practice contexts. The proximal reasons for this pattern of change include the pre-existing capacity of the practice and the level of need in the patient population. Choices about how work within practices is organised will also tend to influence the level of additional work that arises.

The key 'trade-offs' involved in delivering the model of care to high need populations may have a negative impact on equity in care and outcomes

Though this evaluation was not able to develop a clear picture about this, the case studies suggest there is a tension between HCH efficiency measures to increase capacity and dimensions of quality care for practices delivering care to high need populations. Identifying whether and how some aspects of the HCH model are delivered at the expense of others, as well as the broader impacts of this on equity for groups such as Pacific people, warrant further examination

Is the programme more effective for some participants than others?

Case studies strongly suggest that some of the key assumptions underpinning HCH domains and elements are not aligned with the realities of Pacific peoples.

The case studies illustrated the significant and distinct health, social, economic, and cultural needs experienced by Pacific patients and families, and how these needs are reflected in the demands on practices. Our impression is that the HCH model may be better suited by default to patient populations that experience less need (on average), but it would be important to test this tentative finding through further research.

As has been noted earlier, further examination (including information about funding inputs to practices) supported by quantitative analysis is needed to identify the impacts of the HCH model in these contexts and, more fundamentally, the appropriateness and desirability of impacts in these contexts.

2.4 Learnings - What are the key learnings and what needs improvement to achieve health and service outcomes for Pacific?

What are the key learnings on what led to improvement, for whom and in what context?

The case studies provide key learnings about HCH delivery for Pacific patient and families and the HCH change process within specific practice and population contexts

The evaluation provides insights into the specific needs and contexts of Pacific peoples; the care Pacific people are receiving from the HCH model of care in different practice contexts; and the experiences of the practices that serve them.

Key learnings span across HCH domains and should be recognised as a partial baseline for ongoing monitoring. They include:

- Pacific patients and families value care that is underpinned by continuity and trusted, respectful relationships where their backgrounds and family contexts are understood. They are seeking and welcome information and engagement that is appropriate to their needs and meets them where they are at.
- Multidisciplinary approaches are critically important for providing proactive, coordinated, and timely care for Pacific people that is responsive to intersecting factors that compound need.
- HCH-enabled enhancements and expansions to practice teams are a key enabler for these approaches and are central to the success of the model of care for high need Pacific populations.
- HCH frameworks and mechanisms to strengthen interdisciplinary and intersectoral coordination offer opportunities to deliver high quality, equitable care to Pacific patients and families and impact positively on Pacific health outcomes.

What needs improving?

Monitoring frameworks could be improved to better consider the complex experience of Pacific patients and families and to offer a more nuanced perspective on practice performance

A monitoring framework that reflects an equity-focus for Pacific peoples should:

- link qualitative patient, family and practice staff experiences and measured performance to the underlying mechanics of the HCH model, as they relate to specific contexts and issues for Pacific patients and families and the practices serving them.
- adopt indicators from the HCH Collaborative national dataset that measure important dimensions of care for Pacific populations (eg continuity of care) that can be disaggregated by practice tranche, ethnicity, and risk stratification.

- consider the development of indicators that measure Pacific patient and family interactions with community-based services and the extent and range of outcomes from these interactions.
- develop a range of appropriate approaches that enable the experiences and priorities of diverse Pacific patients and families to be collected
- describe and define key functions of HCH enhanced and expanded practice teams to inform how newly established positions could evolve to optimise the provision of equitable care for Pacific peoples.
- coordinate data and analysis relating to the performance of initiatives at the practice-level to enable and support monitoring of health system performance in relation to Pacific people.

The monitoring framework should inform equity focused future evaluation of the HCH model of care in relation to Pacific patients and families

Future evaluative practice for the HCH should enable further examination of:

- Contextual factors (e.g. the extent and nature of Pacific need and how this translates to demand in practices, particularly in relation to HCH elements such as telephone triage).
- The interdependencies and potential tensions of high-level HCH goals for practices serving large Pacific populations (e.g. how efficiency, quality and equity aims of HCH affect key dimensions of care for Pacific people, such as continuity of care).
- The appropriateness of key HCH elements and characteristics for Pacific people (e.g. alternatives to face to face care).
- The impact of the HCH programme, within the context of broader health and social service funding models, on the viability of practices serving high need populations.

The effectiveness of HCH-enabled enhanced and expanded practice teams should be built on through ongoing workforce training and development

Training and development should be strategic and future-focused to strengthen the delivery of the HCH model of care for Pacific populations. HCH interdisciplinary and intersectoral networks and fora should be recognised as key settings for capability building and knowledge sharing that improves understanding of, and responses to, Pacific health inequities and broader social, economic and cultural contexts.

Strategies and approaches are needed that ensure genuine access to patient portals for Pacific peoples.

As part of this, examination of the appropriateness of patient portals for those with significant health literacy and language needs may also inform the use of digital technologies in health settings for high need populations more broadly.

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Appendix one: Research methods

Patient and family interviews

Criterion sampling was used to select up to six adult patients from each practice to participate in interviews. Practices identified two to three Pacific individuals or families they regarded as ‘well engaged’ with the practice and two individuals or families they regarded as ‘hard to reach’ or experiencing access barriers to care.

A mix of participants by gender, age, ethnicity, complexity of medical need (eg > three long-term conditions) and/or disability or functional impairment was sought. Participants whose preferred language was not English were included for selection to enable any unique care needs to be captured. Children, youth and individuals who were unable to provide informed consent were excluded.

Practice staff invited potential participants to take part in the research, providing an information sheet to those interested that sought consent for their contact details to be passed on to the evaluation team. Those who consented were contacted by a member of the research team, who explained the evaluation in more detail and gained informed consent for participation.

Pacific researchers and language experts from different Pacific ethnic groups were recruited through PPL networks to ensure that patient, and family experiences could be captured accurately and in their own words. A semi-structured interview schedule was developed to facilitate a narrative or ‘storytelling’ approach. Interviews were held in a venue agreed to by participants and ran for about one hour. Refreshments and koha were provided.

Practice team interviews

Focus groups with staff from each practice were guided by an interview schedule. This schedule was based on information emerging from the document review, patient and family interviews and preliminary correspondence and discussions with practice management and clinicians. Group participants and sizes were determined by the practices. Focus groups ran for about 60-90 minutes and were facilitated by an experienced researcher.

Qualitative data analysis and synthesis

Digital recordings of interviews and focus groups were transcribed and, where necessary, translated.

Collected data was analysed using thematic coding, which involved systematising and aggregating the data to develop common areas of interest. The analysis was guided by an interpretive approach that prioritised Pacific worldviews and, while principally inductive (i.e. generating theory emerging from the data), included deductive elements (i.e. theory testing) to respond to the requirements of CCDHB.

Findings for each practice were synthesised for patients and providers separately (to reflect differing legitimate worldviews and concerns) and together (to compare and contrast patient and provider views and to contextualise findings with other sources of data from the wider evaluation) to provide overall conclusions from a Pacific worldview.

Appendix two: PUCHS Pacific patient and family experiences

Four interviews with individuals and **one** with a married couple were conducted. Four of the participants were female (three Samoan, one Tongan), and two were male (one Samoan, one Samoan/Tokelauan). An interpreter was used for one interview, and all others were in English.

The cohort was generally younger adults with young families, all lived locally to the practice and have a range of often complex social needs.

Access to quality housing was a key issue for families. Access to affordable, healthy housing was a particularly significant, often urgent, unmet need. Participants with young children or grandchildren had all experienced housing-related health issues or hospitalisations.

Appointment booking systems

Participants understood that they needed to book an appointment at the practice and couldn't 'just turn up'. While the majority of participants booked appointments by phone, three had used ManageMyHealth with positive results (*"…they're really good with getting back to you...They text us to confirm...It is pretty good. I really like it."*)

Those ringing for an appointment described a process where they were called back by a nurse or GP to be interviewed about 'what's wrong with you'. For one participant, whose children had a history of health issues and hospitalisations, this was always very quick. She noted that the ease and speed of getting an appointment had noticeably changed in recent years:

> *…usually when we call in, there's always appointments like the following week…but if it's urgent then I get the nurse to call back, and most of the time it's my doctor that calls back...But, yeah, and they...book me in, just squeeze me in. That why I really like it here because it's quite fast…Probably, just in the last couple of years. Way better …[it used to be] You had to wait quite a bit, like yeah.*

Other participants, however, felt frustrated by the time it took for them to be called back – even when the demands on the practice were understood (*"I don't blame ... I understand the situation here."*). One participant described regularly ringing in again after a long wait:

> *And there are times when I ring up, or they'll say, okay we'll get one of the nurses to ring you. And there are times they don't do that, to be honest. And then I'll wait…I ring back, and they say, 'Oh yeah.' They apologise…And then they ring back later on…I'd like more improvement from this…ring the patient when you say you're going to ring the patient.*

Same day care

Some participants elect to Keneperu After Hours and Emergency Care or the Wellington Hospital emergency department when they are not able to be seen on the same day by the practice.

The willingness to pursue these options is notable, given the high direct financial and non-financial costs for participants and reported dissatisfaction with the services.

People using the Keneperu After Hours and Emergency Care incur relatively high fees (up to $51) (Healthpoint, 2020) compared to a maximum fee of $15 at PUCHS (PUCHs, 2020a).

Travel costs from Porirua to the Wellington Regional Hospital have the potential to be significant for those without access to private transport. In either case, waiting times can be significant.

Participants were also largely dissatisfied with the care they received. One participant, however, explained that this was necessary if they had taken a day off work and needed a medical certificate.

> *Sometimes I had to go to the after-hours. You know, because...it's fully booked and had to wait for next day or the day after to see the doctor here…So, I have to go to the…afterhours. The expensive one down in Keneperu. Sometimes I can't afford, I have to go all the way to [Wellington ED]…even you wait for a long time and least you've been seen…I have to. Cause if you feel wheeze or you feel unwell you need to see the doctor. Especially if you took the time off work…you have no choice, you have to go to get help at the same day, not wait for a couple of days.*

The practice environment and practice team – service delivery and quality of care

Participants had the sense that they were understood and supported at the practice. The practice team was described as friendly, caring, and accepting.

> *Even though they know they over the amount, but they accept it because they care for people…they accept you. But they need more doctors and nurses. Simple as that.*
>
> *… they always make sure you're okay. You're being seen. And just happy people, you know. Like when I come in, and I'm late and…then they converse in Samoan like, you know, so it's kind of like they know…They're quite understanding ...There's that nice aura maybe.*

The front of house environment was described as busy, but several of the participants spoke positively of reception staff - they knew them and would check in on them if they had to wait for long periods.

Routine care - reminders, follow-ups and medications

Participants receive updates, reminders and followup from the practice via phone or ManageMyHealth (*"I think the big thing is communication in keeping you updated. I think that's the best thing that they do.")*

For one participant with a large family, these kinds of follows up were a big help.

> *Keeping us up to date, like, health wise. My children, they're up to date with immunisation. They follow up with things like my smear test. That's the thing I really appreciate, like sometimes I forget due to nine kids. You can't blame me…some guy rung me about [cervical smear reminder] last night and…he was nice enough to ask, oh would you like to text message. Oh yes please…And then he texts me about eight. And I said yes, thank you, I'll see you at...I will be there.*

Systems for renewing prescriptions had reduced the need to physically come into the practice and were particularly helpful for participants on multiple medications.

> *Actually, she can put on the repeats I don't have to come and see you again. I just go and pick it up from the pharmacy.*

ManageMyHealth

Though the number of participants using ManageMyHealth was small, those who did spoke positively about being able to book appointments, message GPs, check their records, and renew prescriptions that could be collected directly from the pharmacy.

It was noted that the app took a while to get used to and confident with – one participant had been shown by his GP how to download and use it, which was consistent with practice staff comments that staff time and support is needed to introduce patients to the system. Comments from non-users suggested the same.

> *No, I've been trying to download it…but I only tried it once, but it didn't work on my phone. I just heard about it, but no one actually showed me.*

> *…I don't use those Mind Your Health…I don't do those ones.*

Cost of care

Participants noted that the practice was one of the most affordable in the region (*"this is a lower fee I ever had before. I think we pay $15 here"*).

Nonetheless, the costs of GP visits and medication put financial pressure on most of the participants, with several commenting that they had difficulty paying for care when they needed it.

One participant described paying only for his most urgent medication and getting the rest when he could afford it. Another couple was uncertain whether they should visit their GP because of mounting medical costs, despite being assured by the practice that they should still come in.

Most participants, however, gave examples of being able to access care despite having outstanding payments.

> *I think that's pretty good, but then it's not always good for them. I think sometimes they won't get paid...so they're quite lenient with payment…*

Communication

Language needs were not an issue for the majority of the participant cohort, although participants enjoyed the option of speaking to practice staff in their own Pacific language).

Many, however, needed support from practice staff and pharmacists to explain information relating to advice and treatment they'd received, medications and test results.

Having one constant member of the practice team, who knew them and their background well, to improve their understanding of these things was helpful for some participants. One participant, for example, relied on a relative at the practice. Another participant valued the explanations from their GP:

> *She always rings … explains the problem well. Really well…That's what I love about Union Health is because it's coming from the doctor…she really looks after us well and up to date about everything.*

Confidentiality and privacy

For one participant, ensuring there was privacy around certain procedures or aspects of her care, particularly from Pacific staff, was important.

> *…when I come and do my smear test, yeah, I find that a bit shy because you're dealing with someone that you know…your own nationality, your own people that is actually doing this to you…I will request another [nurse]…and I say why…because I know her, we're related. Or we're close and it's a bit weird.*

Nurse consultations

One participant commented that the chance to be seen by a nurse when a GP was not available was a big advantage that hadn't been available at their previous practice.

> *…there's no doctors available, then they refer me to a nurse…I get to see the nurse first…And I think it's an awesome idea. At least I've got something to, you know, to take on the day not waiting and be sick until next week. Otherwise I'll end up in emergency afterhours.*

Relationships with GPs and continuity of care

Participants understood the time constraints on their consultations with GPs (*"I do respect the doctors. There are other patients waiting. So, you just got to be like, you know, on the spot…"),* but many noted that consultations would frequently run longer than the allocated 15-20 minutes.

> *If I book on a 10- or 15-minute appointment, at last the doctor's seeing me, but nearly an hour because I have to, they have to check everything.*
>
> *I haven't really noticed [if length of consultation had changed]. I think it's once we're done with...he doesn't like, push you out. He like, makes sure that he knows every single detail. And he puts every detail in and he always double checks everything.*

Most of the participants had a strong preference to see their regular GP because they knew them and their family and, importantly, had knowledge of their background and medical history.

For participants with complex health needs (either individually or as a family) or for those who have had serious health events in the past, explaining this history to an unfamiliar doctor could be challenging.

> *Your own GP you don't need to explain the same thing you had before. But if you have another GP on you, you have to explaining, explaining…*
>
> *And I'll try and wait it out until the next day. Yeah. Only because I know my doctor, he knows the kids. He's really good with them. That's why I prefer going to him instead of anyone else…Because, I don't know, I just feel comfortable with our own doctor and he knows the history…Because I was saying to my husband before, like the other two times, the times my children were admitted in hospital was because the doctors that I see they didn't know the history of the children.*

However, although it may not be their first preference, many participants will see other doctors in order to get a timely appointment or to get medication.

> *I can go any doctor. Because I always ask them is there another doctor's available. And they just book me whatever doctor is available that day.*

Addressing broader social needs

Participants had been referred by the practice to a range of social agencies and organisations (such as Well Homes, Sustainability Trust, and Family Start).

Participants described being frequently asked by social workers and other practice staff about the support they need, being accompanied to meetings with agencies and having issues or referrals to agencies followed up. One participant described the help she had received from a practice social worker for housing support:

> *I didn't know about Sustainability Trust but…it was [social worker] that keep me updated about what they can do for my family. Like, especially a family with one income. And she's updating. It's not like just tell you once. Like I say, I forget stuff. And she rings us like, "how's the home?". You know, "do you feel like the home needs more, you know, work on it?". Like, mould and anything…She like question you about things that she knows…And this is what they can offer you. And you don't have to pay a thing. All you have to do is be there and they'll come to you. I'll make an appointment so I can be there…*

Appendix three: NMC Pacific patient and family experiences

Five patient interviews were conducted – three with single participants and two with married couples. Three female and two male participants were Tongan and one female and one male were Samoan. An interpreter was used for one of the interviews. In other interviews an interpreter was present, but they were carried out mostly in English.

The majority of participants were in their 60s and 70s and several have long-term conditions requiring frequent use of a range of health services.

Participants generally had a long association with NMC, often spanning several decades. A few participants continued to travel some distance to the practice after moving to other parts of Wellington.

Appointment booking systems and 'same day' care

Participants were aware that they should book an appointment at the practice, rather than just turn up. They all contact the practice by telephone, no one in the cohort was using ManageMyHealth.

Though participants understood the pressure the practice was under to accommodate same day appointments *"My own doctor is very busy … Too much people I think to see her."*, this could cause frustration. One participant, who'd had an accident in the home one morning, felt like their issue was not treated with the urgency it warranted and didn't understand why they weren't encouraged to come to the practice straightaway.

> *…I told her I've got an accident. I thought she was listening to what I was saying. She explained to me that everything is alright from my appointment at eleven. I said to her, "I had an accident; can't you hear?"…I knew it was not much; that's why I didn't want to go to the hospital…But, three hours I waited for that appointment. That's the only disappointment…because I thought when they answer the phone, where they say 'accident' they tell you have to come straight away.*

The practice environment and practice team – service delivery and quality of care

Practice staff were described as caring and friendly and, on the whole, participants felt that they were treated well. Some commented positively on knowing and being known by the front of house staff (*"…I like, you know, those people working front. Because they know me well"*).

Costs of care

Although the costs of care and medicines was an important consideration, all of the participants were able to manage and keep on top of their health expenses. Most were aware that they could access care at the practice, regardless if they had outstanding payments from previous visits.

Communication

Having an interpreter present during consultations was an important issue for some participants. Though most had family members able to provide support, work and other commitments meant they were not always available.

Even if participants felt confident communicating in English, having health advice, and information about medications and test results explained clearly, in lay terms and possibly reiterated if necessary was of great importance.

One participant relied on the same practice nurse to explain all the medical advice and information he received and to 'prep' him before visiting a GP.

> *…I want one person for me…that person understands me and they know me, and whenever I ring she advises me what to do…Everything goes through my doctor goes through her…She tells me everything is good, or something else and at about time I go to see my doctor and I know what tell him.*

Relationship with GP
Having a trusting relationship with a GP who knew members of their family and was familiar with their background and medical history was highly valued by participants. Many were keen to describe GPs, either current or prior, that they'd had a positive association with over time.

While participants preferred to see their regular GP, they would usually see another doctor in order to get a timely appointment.

> *Most of the time if I don't see my own doctor, I see the other one; so I know him, and he knows me well too…Now my GP has been changed, maybe three or four times. The doctors move away so I will have a new doctor. This doctor here just started…Sometimes it's hard because I'm not sure how many days he works in here. It's hard to see him. It takes weeks. If I really need to see a doctor, I see the other doctor.*

Addressing broader social needs
Some participants and their families were experiencing significant health and social issues. One participant, for example, described multiple health issues in her household and a patchwork system of support that perhaps could be better coordinated from a whole of family perspective. The family was uncertain about the support they were entitled to.

> *At the moment I also care for my father…Three years ago I used to change him myself and help with his medication, but now I talked to one of the ladies at the hospital; so he does have help now. I don't change his bag anymore; they come three times a week to change it. That's all they do. Asides from that I help with cooking and washing his clothes and look after him. I do have a care support benefit helping doing that for him…help I get from Work & Income.*
>
> *Going to the hospital, one of my daughters will be off work to come with me. If it's a long walk I have to hop in a wheelchair. I go there for physio plus for a check-up. My next appointment on the 10th of next month, one of them will be off work just to come with me … We've only got one vehicle and my husband takes it to work. We just get a taxi over. Going in a bus I have to get two buses …*

Participants described instances where the practice had advocated on their behalf or coordinated social support that had made a difference to their circumstances, such as a GP who had helped one participant into a new house that suited her husband's mobility issues.

> *And I get the house. It's a nice house, you know...They got a letter of what they have from this doctor. Because the doctor keep asking all the time…"What's going on your house?", you know, because he don't like him to walk up in the step and door.*

Appendix four: Selected quantitative indicators and reporting as at June 2020

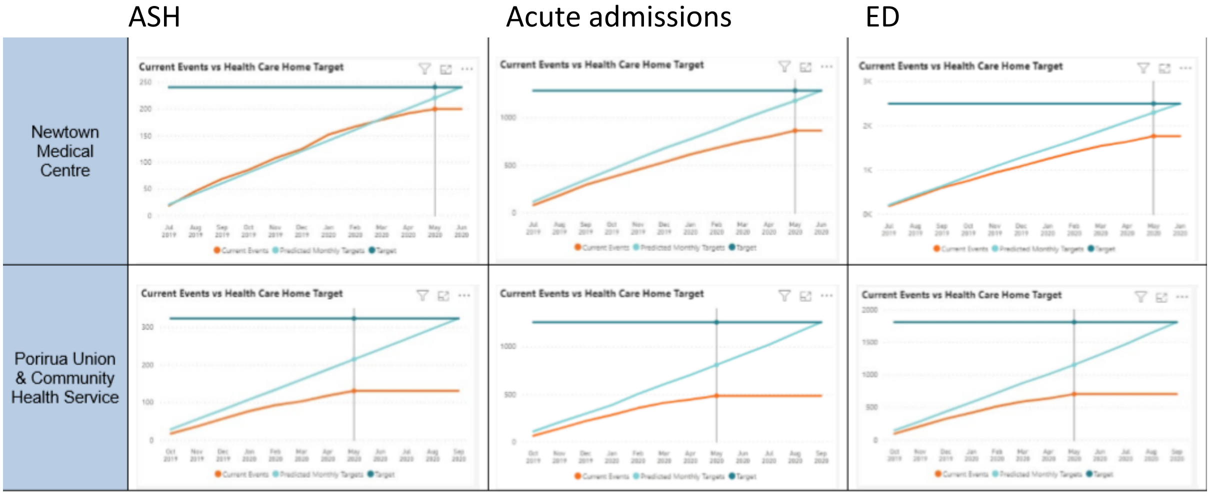
Table 5: Selected HCH indicators for Pacific patients, case study practices

	NMC	PUCHS
Health targets		
Immunisation	100%	95%
Smoking	92%	85%
Year of care plans^		
Target	89	59
Actual	25	43
Diabetes annual review		
Last 12 months	54.9%	26.8%
Ever	87.8%	83.5%
Cardiovascular risk assessment	74.1%	83.0%
Falls screening	3.3%	0.0%
Risk level		
Low	85.1%	
High	9.1%	
Very High	3.2%	
Unknown	2.5%	

Notes: ^ Combined Maori and Pacific patient data. Indicators relate to a range of points in time during quarter two 2020.

Source: Practice-level Quality Indicator Report (HCH, 2020)

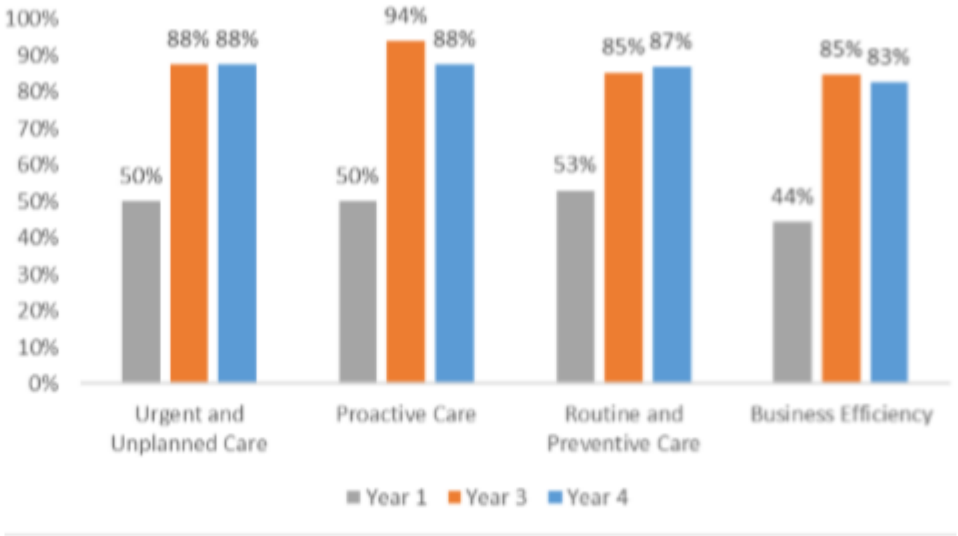
Figure 4: Selected secondary care utilisation indicators, case study practices



Notes: Results may be influenced by reporting practices of practices and period overlaps with the initial response to the COVID-19 pandemic.

Source: (HCH, 2020)

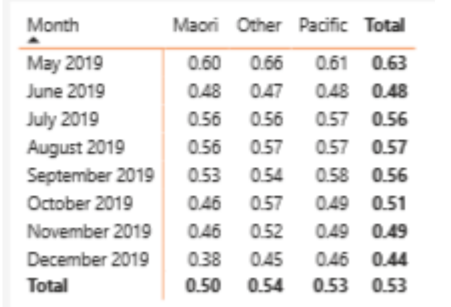
Figure 5: HCH self-assessment results, aggregated results of self-assessment, Newtown Medical Centre



Source: (HCH, 2020)

Table 6: Consultation rate, trend by ethnic group, May 2019 to December 2019

PUCHS

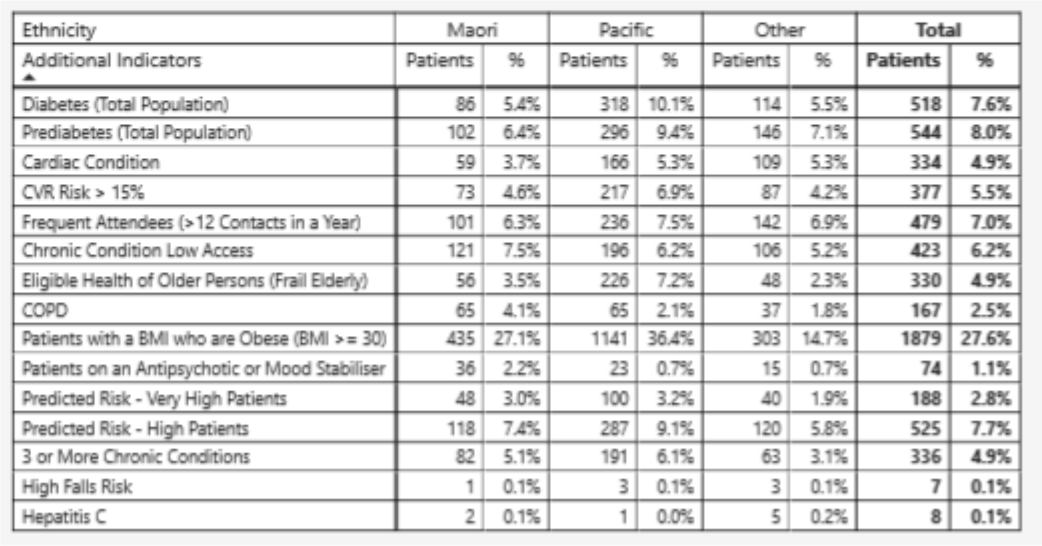


Month	Maori	Other	Pacific	**Total**
May 2019	0.60	0.66	0.61	**0.63**
June 2019	0.48	0.47	0.48	**0.48**
July 2019	0.56	0.56	0.57	**0.56**
August 2019	0.56	0.57	0.57	**0.57**
September 2019	0.53	0.54	0.58	**0.56**
October 2019	0.46	0.57	0.49	**0.51**
November 2019	0.46	0.52	0.49	**0.49**
December 2019	0.38	0.45	0.46	**0.44**
Total	**0.50**	**0.54**	**0.53**	**0.53**

Note: Data not supplied for Newtown Medical Centre.

Source: (HCH, 2020)

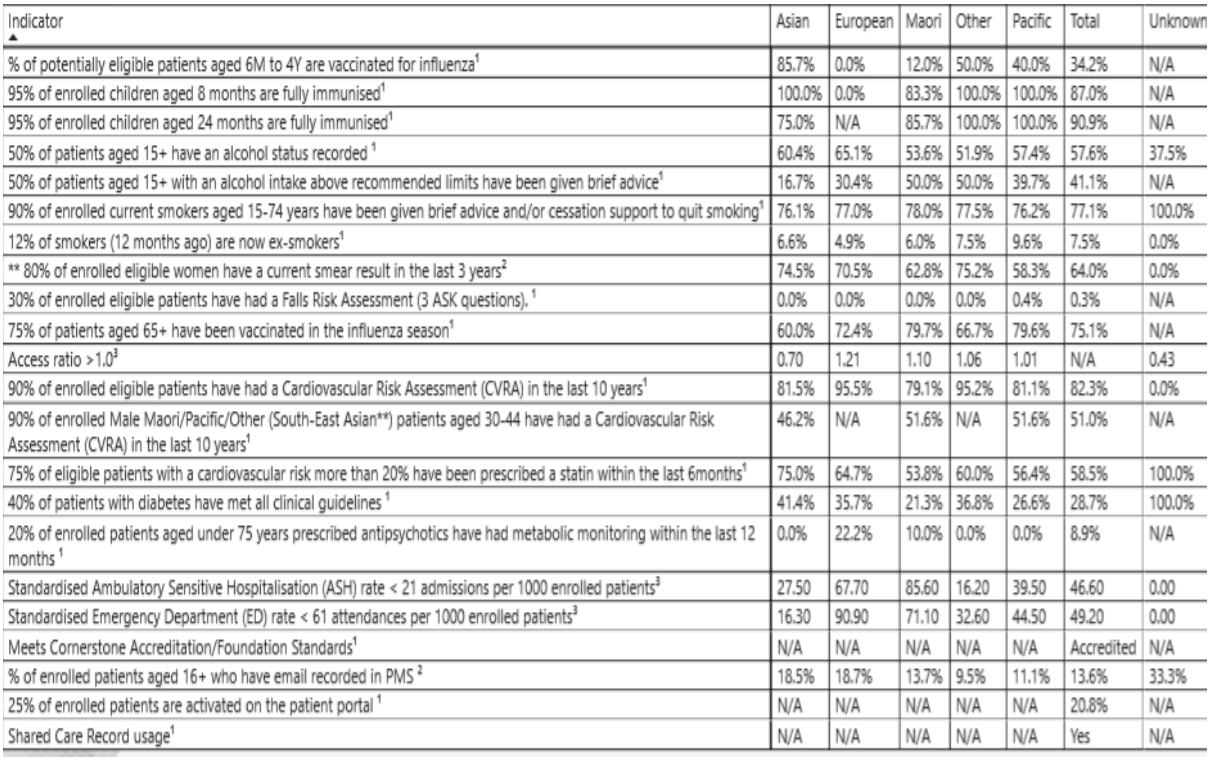
Table 7: Selected patient characteristics by ethnicity, 2019, PUCHS



Ethnicity	Maori		Pacific		Other		**Total**	
Additional Indicators	Patients	%	Patients	%	Patients	%	**Patients**	**%**
Diabetes (Total Population)	86	5.4%	318	10.1%	114	5.5%	**518**	**7.6%**
Prediabetes (Total Population)	102	6.4%	296	9.4%	146	7.1%	**544**	**8.0%**
Cardiac Condition	59	3.7%	166	5.3%	109	5.3%	**334**	**4.9%**
CVR Risk > 15%	73	4.6%	217	6.9%	87	4.2%	**377**	**5.5%**
Frequent Attendees (>12 Contacts in a Year)	101	6.3%	236	7.5%	142	6.9%	**479**	**7.0%**
Chronic Condition Low Access	121	7.5%	196	6.2%	106	5.2%	**423**	**6.2%**
Eligible Health of Older Persons (Frail Elderly)	56	3.5%	226	7.2%	48	2.3%	**330**	**4.9%**
COPD	65	4.1%	65	2.1%	37	1.8%	**167**	**2.5%**
Patients with a BMI who are Obese (BMI >= 30)	435	27.1%	1141	36.4%	303	14.7%	**1879**	**27.6%**
Patients on an Antipsychotic or Mood Stabiliser	36	2.2%	23	0.7%	15	0.7%	**74**	**1.1%**
Predicted Risk - Very High Patients	48	3.0%	100	3.2%	40	1.9%	**188**	**2.8%**
Predicted Risk - High Patients	118	7.4%	287	9.1%	120	5.8%	**525**	**7.7%**
3 or More Chronic Conditions	82	5.1%	191	6.1%	63	3.1%	**336**	**4.9%**
High Falls Risk	1	0.1%	3	0.1%	3	0.1%	**7**	**0.1%**
Hepatitis C	2	0.1%	1	0.0%	5	0.2%	**8**	**0.1%**

Source: (HCH, 2020)

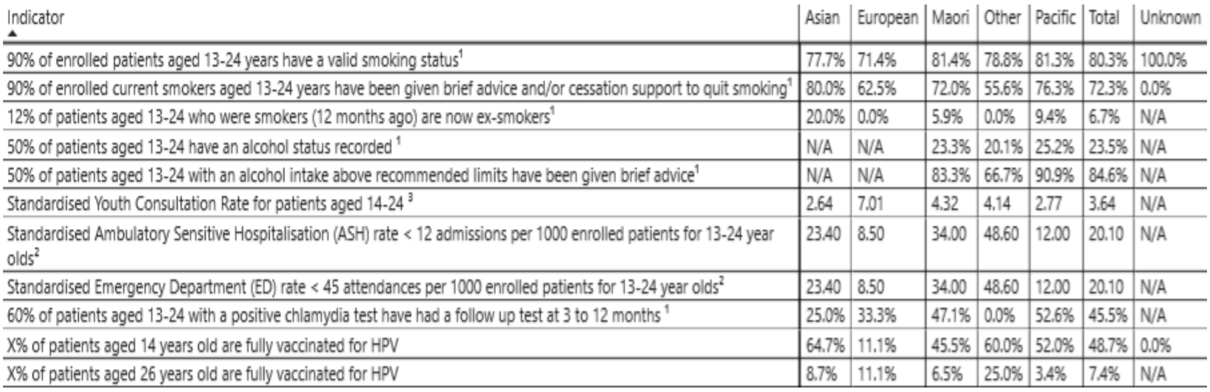
Table 8: Quality Indicator Report, PUCHS



Indicator ▲	Asian	European	Maori	Other	Pacific	Total	Unknown
% of potentially eligible patients aged 6M to 4Y are vaccinated for influenza[1]	85.7%	0.0%	12.0%	50.0%	40.0%	34.2%	N/A
95% of enrolled children aged 8 months are fully immunised[1]	100.0%	0.0%	83.3%	100.0%	100.0%	87.0%	N/A
95% of enrolled children aged 24 months are fully immunised[1]	75.0%	N/A	85.7%	100.0%	100.0%	90.9%	N/A
50% of patients aged 15+ have an alcohol status recorded [1]	60.4%	65.1%	53.6%	51.9%	57.4%	57.6%	37.5%
50% of patients aged 15+ with an alcohol intake above recommended limits have been given brief advice[1]	16.7%	30.4%	50.0%	50.0%	39.7%	41.1%	N/A
90% of enrolled current smokers aged 15-74 years have been given brief advice and/or cessation support to quit smoking[1]	76.1%	77.0%	78.0%	77.5%	76.2%	77.1%	100.0%
12% of smokers (12 months ago) are now ex-smokers[1]	6.6%	4.9%	6.0%	7.5%	9.6%	7.5%	0.0%
** 80% of enrolled eligible women have a current smear result in the last 3 years[2]	74.5%	70.5%	62.8%	75.2%	58.3%	64.0%	0.0%
30% of enrolled eligible patients have had a Falls Risk Assessment (3 ASK questions). [1]	0.0%	0.0%	0.0%	0.0%	0.4%	0.3%	N/A
75% of patients aged 65+ have been vaccinated in the influenza season[1]	60.0%	72.4%	79.7%	66.7%	79.6%	75.1%	N/A
Access ratio >1.0[3]	0.70	1.21	1.10	1.06	1.01	N/A	0.43
90% of enrolled eligible patients have had a Cardiovascular Risk Assessment (CVRA) in the last 10 years[1]	81.5%	95.5%	79.1%	95.2%	81.1%	82.3%	0.0%
90% of enrolled Male Maori/Pacific/Other (South-East Asian**) patients aged 30-44 have had a Cardiovascular Risk Assessment (CVRA) in the last 10 years[1]	46.2%	N/A	51.6%	N/A	51.6%	51.0%	N/A
75% of eligible patients with a cardiovascular risk more than 20% have been prescribed a statin within the last 6months[1]	75.0%	64.7%	53.8%	60.0%	56.4%	58.5%	100.0%
40% of patients with diabetes have met all clinical guidelines [1]	41.4%	35.7%	21.3%	36.8%	26.6%	28.7%	100.0%
20% of enrolled patients aged under 75 years prescribed antipsychotics have had metabolic monitoring within the last 12 months [1]	0.0%	22.2%	10.0%	0.0%	0.0%	8.9%	N/A
Standardised Ambulatory Sensitive Hospitalisation (ASH) rate < 21 admissions per 1000 enrolled patients[3]	27.50	67.70	85.60	16.20	39.50	46.60	0.00
Standardised Emergency Department (ED) rate < 61 attendances per 1000 enrolled patients[3]	16.30	90.90	71.10	32.60	44.50	49.20	0.00
Meets Cornerstone Accreditation/Foundation Standards[1]	N/A	N/A	N/A	N/A	N/A	Accredited	N/A
% of enrolled patients aged 16+ who have email recorded in PMS [2]	18.5%	18.7%	13.7%	9.5%	11.1%	13.6%	33.3%
25% of enrolled patients are activated on the patient portal [1]	N/A	N/A	N/A	N/A	N/A	20.8%	N/A
Shared Care Record usage[1]	N/A	N/A	N/A	N/A	N/A	Yes	N/A

Source: (HCH, 2020)

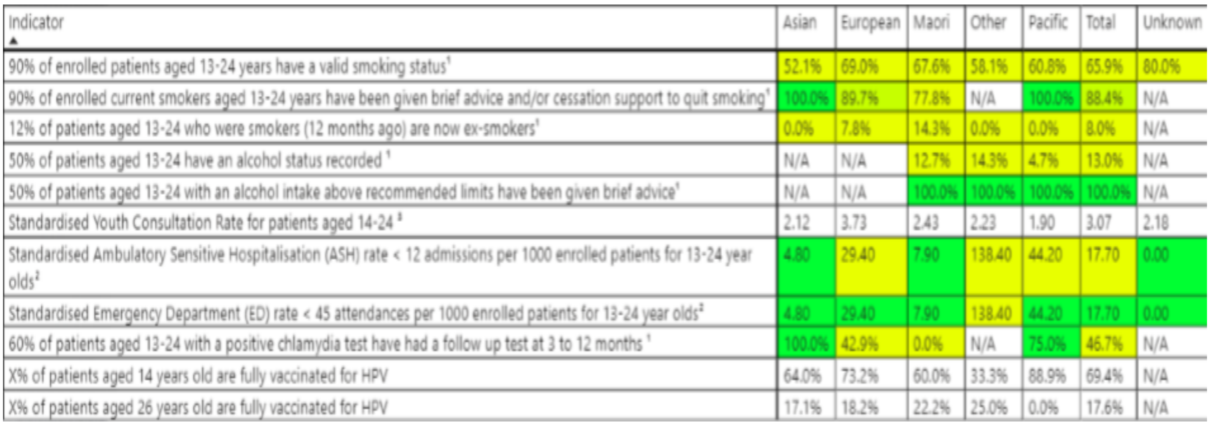
Table 9: Youth Quality Indicator Report, 2019, PUCHS



Indicator ▲	Asian	European	Maori	Other	Pacific	Total	Unknown
90% of enrolled patients aged 13-24 years have a valid smoking status[1]	77.7%	71.4%	81.4%	78.8%	81.3%	80.3%	100.0%
90% of enrolled current smokers aged 13-24 years have been given brief advice and/or cessation support to quit smoking[1]	80.0%	62.5%	72.0%	55.6%	76.3%	72.3%	0.0%
12% of patients aged 13-24 who were smokers (12 months ago) are now ex-smokers[1]	20.0%	0.0%	5.9%	0.0%	9.4%	6.7%	N/A
50% of patients aged 13-24 have an alcohol status recorded [1]	N/A	N/A	23.3%	20.1%	25.2%	23.5%	N/A
50% of patients aged 13-24 with an alcohol intake above recommended limits have been given brief advice[1]	N/A	N/A	83.3%	66.7%	90.9%	84.6%	N/A
Standardised Youth Consultation Rate for patients aged 14-24 [3]	2.64	7.01	4.32	4.14	2.77	3.64	N/A
Standardised Ambulatory Sensitive Hospitalisation (ASH) rate < 12 admissions per 1000 enrolled patients for 13-24 year olds[2]	23.40	8.50	34.00	48.60	12.00	20.10	N/A
Standardised Emergency Department (ED) rate < 45 attendances per 1000 enrolled patients for 13-24 year olds[2]	23.40	8.50	34.00	48.60	12.00	20.10	N/A
60% of patients aged 13-24 with a positive chlamydia test have had a follow up test at 3 to 12 months [1]	25.0%	33.3%	47.1%	0.0%	52.6%	45.5%	N/A
X% of patients aged 14 years old are fully vaccinated for HPV	64.7%	11.1%	45.5%	60.0%	52.0%	48.7%	0.0%
X% of patients aged 26 years old are fully vaccinated for HPV	8.7%	11.1%	6.5%	25.0%	3.4%	7.4%	N/A

Source: (HCH, 2020)

Table 10: Youth Quality Indicator Report, 2019, Newtown Medical Centre



Indicator ▲	Asian	European	Maori	Other	Pacific	Total	Unknown
90% of enrolled patients aged 13-24 years have a valid smoking status[1]	52.1%	69.0%	67.6%	58.1%	60.8%	65.9%	80.0%
90% of enrolled current smokers aged 13-24 years have been given brief advice and/or cessation support to quit smoking[1]	100.0%	89.7%	77.8%	N/A	100.0%	88.4%	N/A
12% of patients aged 13-24 who were smokers (12 months ago) are now ex-smokers[1]	0.0%	7.8%	14.3%	0.0%	0.0%	8.0%	N/A
50% of patients aged 13-24 have an alcohol status recorded [1]	N/A	N/A	12.7%	14.3%	4.7%	13.0%	N/A
50% of patients aged 13-24 with an alcohol intake above recommended limits have been given brief advice[1]	N/A	N/A	100.0%	100.0%	100.0%	100.0%	N/A
Standardised Youth Consultation Rate for patients aged 14-24 [3]	2.12	3.73	2.43	2.23	1.90	3.07	2.18
Standardised Ambulatory Sensitive Hospitalisation (ASH) rate < 12 admissions per 1000 enrolled patients for 13-24 year olds[2]	4.80	29.40	7.90	138.40	44.20	17.70	0.00
Standardised Emergency Department (ED) rate < 45 attendances per 1000 enrolled patients for 13-24 year olds[2]	4.80	29.40	7.90	138.40	44.20	17.70	0.00
60% of patients aged 13-24 with a positive chlamydia test have had a follow up test at 3 to 12 months [1]	100.0%	42.9%	0.0%	N/A	75.0%	46.7%	N/A
X% of patients aged 14 years old are fully vaccinated for HPV	64.0%	73.2%	60.0%	33.3%	88.9%	69.4%	N/A
X% of patients aged 26 years old are fully vaccinated for HPV	17.1%	18.2%	22.2%	25.0%	0.0%	17.6%	N/A

Source: (HCH, 2020)