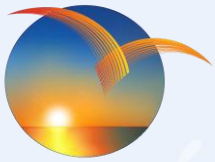
COUNTIES MANUKAU HEALTH



Evaluation of Fanau Ola

Advocacy and Support Service as implemented for Pacific patients and their families in Counties Manukau Health

September 2015

Acknowledgements

We acknowledge the vision and direction of the Honourable Minister Tariana Turia who has reinvigorated the age-old discussion of Whānau Ora / Fanau Ola, providing the space for re-centering health and wellbeing within our families – Tēnā Koe. We acknowledge the leadership and courage shown by the Pacific Health Development Fanau Ola Team, led by Elizabeth Powell. And we recognise the support of Counties Manukau Health for providing the space for innovation in healthcare. Finally, we thank the many fanau / families of Counties Manukau with whom the Fanau Ola Advocates have been able to develop positive relationships, as they have endeavoured to support Pacific patients and their fanau throughout their difficult journeys.

Disclaimer

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Part 1 of 3: Wolfgramm, T. (2015) Fanau Ola Overview and Evaluations Summary. Auckland: Counties Manukau Health.
Part 2 of 3: MacLeod G., Sinclair S. (2015) Evaluation of Fanau Ola Advocacy and Support Service as implemented for Pacific patients and their families in Counties Manukau Health. Auckland: Counties Manukau Health.
Part 3 of 3: Pacific Perspectives (2015) Experiences of Pacific patients who have used Fanau Ola services. Auckland: Counties Manukau Health.

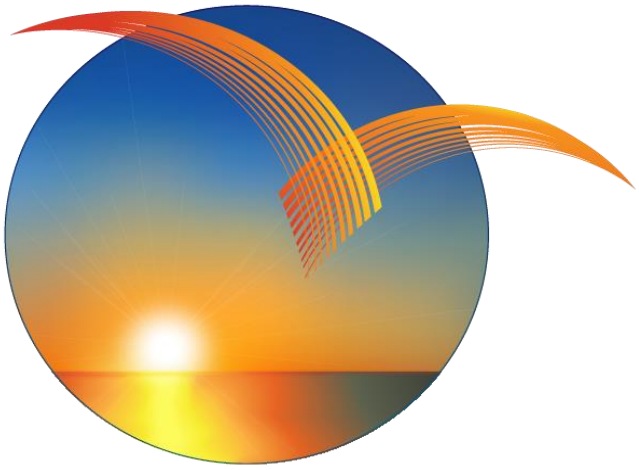
NOTE: Fanau Ola is a healthcare solution designed by Tania Wolfgramm, Fanau Ola Systems Architect, using the HAKAMANA[1] System of Transformative Design, Development, and Evaluation, with support from the Pacific Health Development team at Counties Manukau Health. Fanau Ola is currently deployed as a healthcare solution known as the *Fanau Ola Advocacy and Support Service* for Pacific patients and their families, at Counties Manukau Health, New Zealand.

[1] The HAKAMANA Integrated System of Transformative Design, Development, and Evaluation is Copyright © Tania Wolfgramm 2010

Fanau Ola

Expressing the vision…

A beautiful and powerful bird,
farsighted and keen of eye,
flies across the oceans
in search of new vistas.
The sun rises on the horizon,
bringing light, warmth
and life into the world.



The bird is Pasifika Fanau, their spirit, heart, mana and dignity.
They weave strong relationships with each other and their communities.
They are empowered to pursue their vision of a brighter future,
as they seek to experience greater wellbeing, balance and harmony in their lives.

What does Fanau Ola feel and look like?

Pasifika fanau will be healthy

in body, mind, heart, and spirit,

educated, connected, socially strong,

thriving and content ☺

Pasifika fanau will have the courage

and will to live; and the skills, abilities,

and resources to plan and pursue their

own futures … *Stronger and Better!*

Executive Summary

FANAU OLA SUPPORT SERVICE TRANSFORMED THE PACIFIC CULTURAL SUPPORT TEAM

Evaluation of the Fanau Ola Support Service had been a priority from its inception, and in 2014 the Population Health Team at CM Health became involved through the assignment and support of a public health registrar to scope and carry out initial evaluation work. Initial internal reports had indicated a decline in average numbers of admissions in the period following enrolment into Fanau Ola Support Service, which appeared promising.

Recognising, however, that the Service was still very early in its development, and represented a very small input into the large complex system that affects health outcomes for the patients involved, this was planned from the outset as a formative and exploratory piece of work which could inform future, more detailed evaluations.

The key evaluation questions identified in consultation with key stakeholders were:

1. Does the more focused work with families improve outcomes?
2. What can routinely collected data tell us about healthcare utilisation by patients in the periods before and after their interaction with the Fanau Ola Support Service and/or the previous Pacific Cultural Support Team?
3. How have the patients' experiences of care changed? (from the previous Pacific Cultural Support Team)
4. What are the key ingredients for success?

To investigate the evaluation questions, the registrar carried out detailed analysis of routinely collected data and also interviewed a number of CM Health staff from the Fanau Ola Support Service and closely related services.

Quantitative analysis of 217 selected patients seen by the former Pacific Cultural Support Team in the corresponding timeframe (but the previous year) who had attended the emergency department five or more times in the preceding year, was used as a comparison group for 321 patients seen by the Fanau Ola Support Service during July – December 2013 (the first six months of the Service's operation).

For each set of patients, the number of admissions in the six months before they enrolled in the service was compared with their corresponding admissions in the six months immediately following their enrolment. Comparison was also made between the first cohort of Fanau Ola Support Service patients (from July–December 2013) and a later group seen between March–August 2014. An attempt was also made to

compare the running costs of the Fanau Ola Support Service with those of the former Pacific Cultural Support Team based on routinely collected costing data from CM Health's Finance Department.

Interviews were undertaken with ten of the staff of the Fanau Ola Support Service and five CM Health staff from other services, both hospital and community-based, selected for their familiarity with the Fanau Ola Support Service and/or the former Pacific Cultural Support Team. These used similar broad questions, and thematic analysis by group was undertaken using the written record of the responses.

KEY RESULTS INCLUDED THE FOLLOWING

TRANSFORMATION OF THE PACIFIC CULTURAL SUPPORT TEAM INTO FANAU OLA SUPPORT SERVICE

This report describes the Fanau Ola Advocacy and Support Service (Fanau Ola Support Service) provided since July 2013 by Counties Manukau Health for Pacific patients (and their fanau / families) with recognised high secondary care utilisation. This service represents a change in approach from the former Pacific Cultural Support Team in which Pacific staff worked mainly with individual patients during their stay in hospital, seeing large numbers of patients with varying degrees of need.

NEW SERVICE SEES HIGHER-RISK PATIENTS – AND THEIR FAMILIES - IN HOSPITAL AND AT HOME

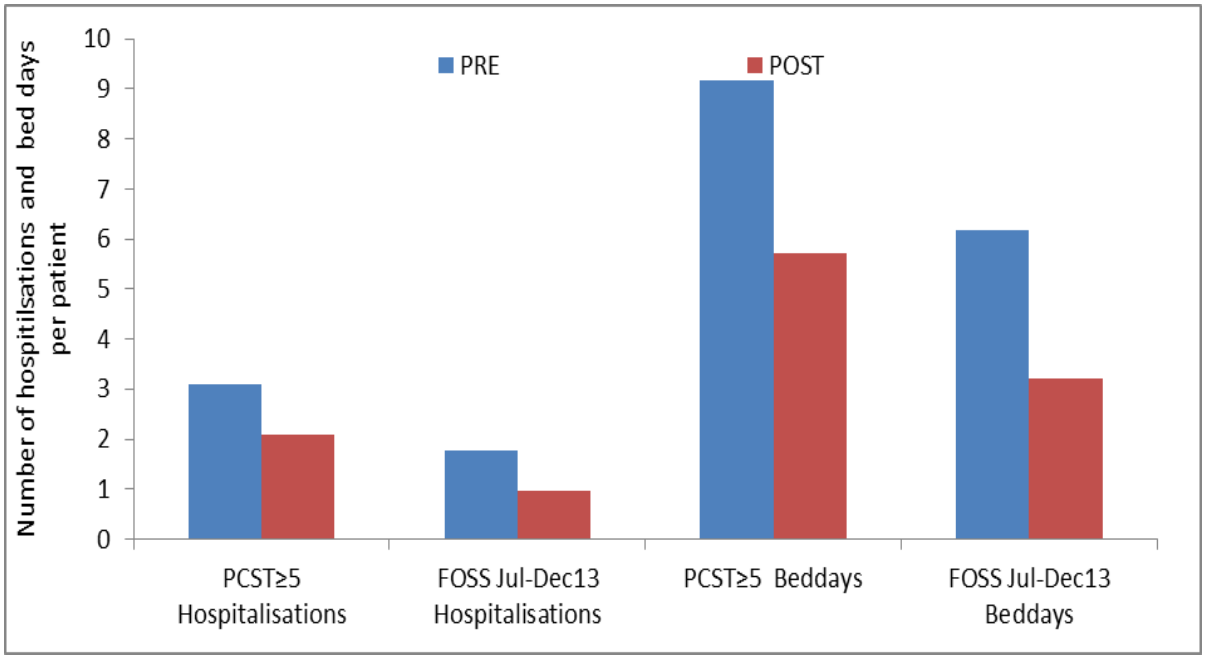
The Fanau Ola Support Service includes staff previously employed by the Pacific Cultural Support Team and also those previously employed as Lotu Mo'ui community workers. Instead of being referred patients from the ward, the Fanau Ola Support Service selects a smaller number of Pacific patients with high secondary service use or other concerns. A Fanau Ola Advocate then works with patients and their families both in hospital and at home, following up over a period of several months to ensure that the range of issues that can affect people's health (including broader social determinants) is addressed with the support of a multi-disciplinary team.

ROUTINELY COLLECTED DATA INDICATE SECONDARY SERVICE USE DECLINED BY HALF IN THE SIX MONTHS AFTER FANAU OLA SUPPORT SERVICE INVOLVEMENT

Routinely collected data showed that both the cohort of selected Pacific Cultural Support Team patients and that of the Fanau Ola Support Service patients one year later experienced reduction in their use of secondary services - as measured by emergency department attendances, hospital admissions and bed days – in the six months following enrolment, compared to the six months immediately preceding enrolment with the respective service. For the Pacific Cultural Support Team cohort

the overall reduction was around 40% while for the Fanau Ola Support Service cohort the overall reduction was around 50%.

Figure 1 Number of hospitalisations and bed days per patient for the PCST ≥5 cohort and Fanau Ola Support Service Jul-Dec 13 cohort in the six months before and after the intervention



Emergency care attendances

Both the PCST ≥5 and Fanau Ola Support Service Jul-Dec 13 had less people attending the emergency care in the six months after the intervention compared to the six months before. For the six months post intervention there were 42% less EC attendances per patient for the PCST ≥5 cohort and 52% less for the Fanau Ola Support Service Jul-Dec 13 cohort.

Table 1 Number of emergency care attendances at Middlemore Hospital for PCST ≥5 and Fanau Ola Support Service Jul–Dec 2013 cohorts six months before and six months after the intervention

Patient group	Six months before total number	Six months before per person	Six months after total number	Six months after per person	Change
PCST ≥5 EC	772	3.6	449	2.1	-42%
Fanau Ola Support Service (Started Jul-Dec 2013)	723	2.2	344	1.1	-52%

Hospitalisations

In this report the data for all hospitalisations are shown below. The Fanau Ola Support Service Jul-Dec 13 cohort had an average length of stay, for all hospitalisations, that occurred in the six months before the intervention, of 3.47

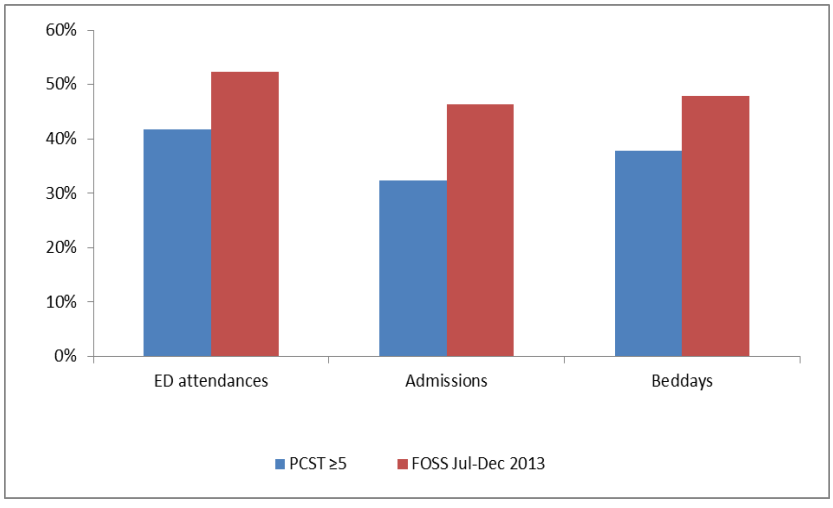
days. This was 0.49 days longer than the PCST ≥5 cohort's pre intervention ALOS which was 2.98 days.

The percentage decrease in hospitalisations and bed days after the intervention was larger for the Fanau Ola Support Service Jul-Dec 13 cohort. After the interventions this cohort had a 46% decrease for hospitalisations and 48% decrease in bed days; the respective decreases for the PCST ≥5 cohort were 32% and 38%.

Table 2 Number of hospitalisations, bed days and average length of stay to CM Health facilities for the PCST ≥5 cohort and the Fanau Ola Support Service Jul-Dec13 cohort six months before and six months after the intervention, all admission types

Patient Group	Utilisation	Six months before	Six months before per patient	Six months after	Six months after per patient	Change
Ward-based PCST (Jul-Dec 2012) AND HAD (≥5 EC admits in 12 months)	Hospitalisations	669	3.1	453	2.1	-32%
	Bed days	1,992	9.2	1,238	5.7	-38%
	ALOS	2.98	2.98	2.73	2.73	-8%
Fanau Ola Support Service (Started between Jul-Dec 2013)	Hospitalisations	582	1.8	312	1.0	-46%
	Bed days	2,017	6.2	1,051	3.2	-48%
	ALOS	3.47	3.47	3.37	3.37	-3%

Figure 2 Percentage reductions in EC attendances, hospitalisations and bed days for the PCST ≥5 and Fanau Ola Support Service Jul-Dec13 cohorts in the six months before and after the intervention[2]



[2] Macleod G, Sinclair S (2014): Evaluation of Fanau Ola Advocacy and Support Service as implemented for Pacific patients and their families in Counties Manukau Health [Figure 11, page 63]

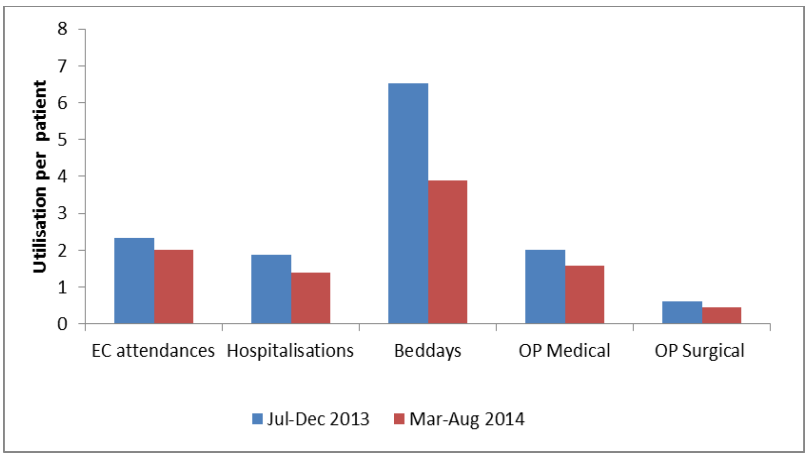
Reductions over time in secondary service utilisation prior to enrolment in Fanau Ola Support Service

Fanau Ola Support Service staff members had observed that as the months progressed the new patients they enrolled into the service had less history of secondary service utilisation. This is demonstrated quantitatively by comparing the cohort of patients enrolled in the Fanau Ola Support Service during its first six months (July–December 2013) with a later cohort (those enrolled during March–August 2014). This has also made it possible for the Service to enrol and support almost double the number of patients and fanau seen in the second year of the programme as shown in the graph on p.2 (Primary Clients and Fanau Members July 2013 - March 2015).

Table 3 Secondary service utilisation per patient for the Jul-Dec 13 and Mar-Aug 14 Fanau Ola Support Service cohorts in the six months prior to the intervention by utilisation

Utilisation	Jul-Dec 13	Mar-Aug 14	Percentage Difference
ED attendances	2.3	2.0	-14.3%
Hospitalisations	1.9	1.4	-26.3%
Bed days	6.5	3.9	-40.4%
OP Medical	2.0	1.6	-21.4%
OP Surgical	0.6	0.5	-25.1%
ALOS (Days)	3.5	2.8	-19.1%

Figure 3 Number of EC attendances, hospitalisations, bed days and OP appointments per patient for the Jul-Dec 13 and Mar-Aug 14 Fanau Ola Support Service cohorts before the intervention[3]



[3] Macleod G, Sinclair S (2014): Evaluation of Fanau Ola Advocacy and Support Service as implemented for Pacific patients and their families in Counties Manukau Health [Figure 12, page 64]

FINDINGS FROM THE STAFF INTERVIEWS HIGHLIGHTED THE FOLLOWING:

FANAU OLA STAFF

Key findings from discussions with Fanau Ola Staff included the following:

- Necessary resourcing including pool cars for home visits, computers and enhanced technologies to gather and share data is important
- The Fanau Ola Assessment tool received both positive (for its comprehensive approach) and negative (for its length) feedback
- The Fanau Ola approach enhanced staff strengths, especially cultural intelligence
- The Service allowed staff to develop good relationships with patients and families, include being able to 'talanoa' with them at home
- Patients were supported to link with key services (e.g. pharmacist for medication issues – such being a very common problem for patients)
- Having increased cultural knowledge had positive effects on the way patients related to staff and vice versa.
- Non-consent into the Fanau Ola Support Service was noted to be higher if the Fanau Ola Advocate was of a different ethnicity to the patient.
- Staff training for the Fanau Ola Support Service was important and it built upon staff members' existing skills
- Advocates helped patients and families understand what was happening to them when they were in the hospital
- Fanau Ola Advocates also understood that helping patients and families to take care of their ongoing needs at discharge was a key outcome
- Increasing elements of health literacy, including greater utilisation of GP services, and accessing quality care in the community was also an important outcome

NON-FANAU OLA STAFF

Key findings from discussions with non-Fanau Ola staff included the following:

- Wanted more communication on Fanau Ola Support Service findings and actions
- Expressed that they had less involvement with Fanau Ola Support Service staff than with PCST staff
- Stated that the Fanau Ola Support Service complements their work
- Believed that the rapport Fanau Ola Support Service staff developed with patients and their families also helps other staff members to do their jobs

ANSWERS TO KEY EVALUATION QUESTIONS

Does the more focused work with families improve outcomes?

The impression of Fanau Ola Support Service staff members is that they were able to help patients. In particular this meant increasing patients' understanding of the medical care they were receiving and supporting patients in reducing barriers to obtaining full health once they returned home. The evaluation identified actions occurring with patients, such as improving patient health literacy, which may lead to improved health outcomes. The Fanau Ola Support Service Team identifies people with high health needs. Therefore targeting actions of Fanau Ola Support Service to these patients is likely to improve health equity.

What can routinely collected data tell us about healthcare utilisation by patients in the periods before and after their interaction with the Fanau Ola Support Service and/or the previous Pacific Cultural Support Team?

Routinely collected data indicate secondary service use declined by half in the six months after Fanau Ola Support Service involvement

There was an approximately 50% decrease in secondary service utilisation by the 321 patients who started receiving Fanau Ola Support Services in July-December 2013 in the six months after Fanau Ola Support Service staff members became involved with patients, compared to the six months before. This is a greater decrease than the corresponding 40% decline in secondary service utilisation observed among a subset of patients seen by the former Pacific Cultural Support Team one year earlier. The acuity of patients entering Fanau Ola Support Service between Mar-Aug 2014 appears lower than Jul-Dec 2013. While contributing to outcomes, it is not possible to make linear attributions to these declines as there are numerous factors would also affect them.

How have the patients' experiences of care changed? (from the previous Pacific Cultural Support Team)

More focused work with families is considered to make a positive difference

Both Fanau Ola and other CM Health staff considered that the Fanau Ola Support Service provided a valuable contribution to the health of Pacific patients and their families. By understanding their culture and social contexts, and talking to patients in their own language (e.g. explaining medications) the Fanau Ola Support Service may result in patients benefitting by having less harm (e.g. from medication misunderstandings)

What are the key ingredients for success?

The rapport with patients was the key ingredient for success

The key ingredient for success of the Fanau Ola Support Service was felt to be the rapport the Fanau Ola Advocates developed with patients and their families. This rapport was developed by the Fanau Ola Advocates knowledge of the patient's culture, the patient's language and the continuity of care due to the same Fanau Ola staff member seeing the patient in hospital and at home and again in hospital if they were readmitted.

FANAU OLA – NEXT STEPS (excerpt from Pacific Health Plan 2020)

1. **Implement Fanau Ola Service Delivery across whole of system:** Spread and improve Fanau Ola approaches for those Pacific patients for whom family based support is critical to recovery and living well with disease

- Refine Fanau Ola system and processes based on learnings and recommendations of evaluations, including taking a lifespan / lifeline approach
- Refine patient referral, eligibility, and allocation to support 'fanau of focus'
- Increase Fanau Ola / fanau-centred approaches and targeted training across Counties Manukau Health
- Integrate the Fanau Ola approach in Counties Manukau Health, taking a whole-of systems view
- Improve health literacy and fanau management education with patients, fanau, and communities
- Implement Fanau Ola technologies to improve processes including patient and fanau engagement, service integration and efficiency of data capture, analysis and reporting
- Capture case studies and Fanau Ola stories for learning and broader dissemination across and between sectors

These steps are consistent with a recommendation to the incoming Minister of Health to consider to:

"Streamline health and cross government programmes across the social sector to make it easy for vulnerable populations and people with complex needs to find the help they need from government and community services, for instance through joint commissioning and integrated contracts." (Ministry of Health, 2014)

Table of Contents

List of Figures

List of Tables

Abbreviations

ALOS	Average Length of Stay
CI	Confidence Interval
CM	Counties Manukau
CM Health	Counties Manukau Health
CCU/SDU	Coronary Care/Step Down Unit
DHB	District Health Board
DNA	Did Not Attend
EC	Emergency Care
FOSS	Fanau Ola Support Service
FOA	Fanau Ola Advocate
GP	General Practitioner
HI&I	Health Intelligence and Informatics
MMH	Middlemore Hospital
MDT	Multi-Disciplinary Team
NHI	National Health Index
NZ	New Zealand
NZDep	New Zealand small-area index of relative socio-economic deprivation
OP	Outpatient
PCST	Pacific Cultural Support Team
PHD	Pacific Health Development
SW	Social Worker
VHIU	Very High Intensity Users

Definitions used in this report

'Fanau Ola Support Service' - Counties Manukau Health's 'Fanau Ola Support Service' is what is evaluated in this report. The full name for this is the Fanau Ola Advocacy and Integrated Support Service. The evaluator was aware that the whole Fanau Ola approach is much larger than this service. However this evaluation focused on what the Fanau Ola Support Service team did starting on July 1st 2013. In this report this is referred to as the Fanau Ola Support Service.

'Primary client' refers to the patient; the person who, due to their medical and social background, was recognised as being most likely to benefit from Fanau Ola Support Service and who consented to engagement with the Fanau Ola Support Service. They are also referred to as 'vulnerable and complex' patients.

'Fanau Champion' is the family spokesperson and key point of contact. The primary client may or may not be (e.g. if the primary client is a child) the Fanau Champion.

'Fanau' and 'Family' is the fanau/family as defined by the Primary Client and the Fanau Champion. Often a 'fanau/family' will include everyone at the same address. However people at the same address may not be considered part of the fanau/family and people counted as fanau/family may also be living at another address. While the words 'fanau' and family' are used interchangeably in this report, for the purposes of this report they have the same meaning.

'Intervention' is the date that Fanau Ola Support Services patients first started with Fanau Ola (the date they consented). The comparison group used in this report is patients seen by the Pacific Cultural Support Team (PCST) who also had five or more Emergency care attendances in the previous 12 months. For the PCST group the intervention date is the first time the person was seen within the July to December 2012 period.

Introduction

This report details work led and performed by Pacific people to improve the health of Pacific people. It describes how the newly implemented Counties Manukau Health (CM Health) Fanau Ola Advocacy and Support Service (referred to as the **Fanau Ola Support Service** in this report) could improve Pacific peoples' hospital care, primary care, community healthcare and their determinants of health. This report describes the demography of patients seen by Fanau Ola Support Service and the volumes of secondary healthcare the patients used before and after they started receiving the Fanau Ola Support Service. It also provides analysis a number of staff interviews to indicate what staff members think and feel about what has happened. It further identifies potential areas for improvement.

CM Health Triple Aim

Counties Manukau Health's Triple Aims are: *Improved quality, safety, and experience of care*; *Best value for public health systems resources*; and *Improved health and equity for all populations.* Pacific people have the worst health of CM Health's population on a number of measures, including life expectancy[4], health expectancy and ambulatory sensitive hospital admissions (Ministry of Health, 2014). Therefore improvements in the health of people of Pacific ethnicities are a step towards achieving this aim. The Fanau Ola Support Service was established as part of the process of improving Pacific wellbeing.

Demography of CM Health's 109,050 Pacific people

In the Pacific plan there were details about the Pacific population living in the CM Health area. These are re-presented here, but with updated statistical details based on the 2013 Census.

Approximately 21% of CM Health's 509,000 people (estimated resident population projection for 2014) are those identified as of Pacific ethnicities. Thirty two percent are aged less than 15 years old. A high percentage of Pacific people in Counties Manukau live in crowded households: 25% of Pacific people in CM Health live in a house with eight or more people in the household. A significant proportion of Pacific people identify with more than one ethnicity.[5] Pacific people have varying levels of knowledge of both English and Pacific languages.

CM Health Very High Intensive Users (VHIU) Team

In 2009 CM Health set up a Very High Intensive Users (VHIU) team, comprising mainly of clinically trained personnel. This team sees selected patients who were

[4] Analysis by CM Health's Population Health Team in 2014 (Chan et al, 2014a) estimated life expectancy at birth of CM Health's people of a Pacific ethnicity to be approximately five years less than CM Health's non-Maaori/non-Pacific population.

[5] Nationally 47% of Pacific children aged 0-4 years were reported as having multiple ethnicities in the 2006 Census (Statistics NZ, 2012)

identified as very high users of CM Health services, particularly of secondary care. VHIU select patients of all ethnicities but limit their service to those aged 15 years and over. The VHIU team works across secondary, primary, and community settings, and also see people in their homes. Information used in the establishment of VHIU and actions of the VHIU team have been published (Kenealy et al,2007; Rea et al,2007; Rea et al, 2010; Maingay and Rea, 2012) and have been given as presentations (Hill and Boulton, 2013). The Fanau Ola Team believed that it was essential to establish a close working relationship with the VHIU Team as the Fanau Ola approach was refined and implemented.

CM Health's Fanau Ola concept was described in the Pacific Development Health 2013-14 Annual Plan

In early 2013 planning was undertaken to further apply Pacific knowledge of health and wellbeing to improve Pacific peoples' health in the CM Health region. This planning involved the creation of the Pacific Health Development Annual Plan 2013-14 (Wolfgramm, 2013).

HAKAMANA System

The **HAKAMANA Integrated System of Transformative Design, Development, and Evaluation**[6] was activated to re-envision and re-think the challenges facing Pacific people in Counties Manukau, and in particular those relating to their health and wellbeing. HAKAMANA is an ethical values-based system incorporating design, development and evaluation approaches that integrate ancient indigenous and Pacific wisdom with modern methodologies. The focus for HAKAMANA is the interactions and interrelationships between key elements, environments, and people.

Improving the health and wellbeing of Pacific people, their families, and communities has many challenges and layers of complexity. Mapping these relationships through the HAKAMANA framework has allowed for the co-creation of robust and holistic solutions to these complex problems (see Appendix 13 for further information about HAKAMANA).

In relation to this complexity, it was essential that a holistic framework was designed and developed for **Fanau Ola** that explored physical, mental, emotional, cultural, spiritual, economic, and environmental elements to support patients and families to sustain good health and wellbeing.

To **HAKAMANA Fanau Ola**, a healthcare ecology of compassionate, culturally intelligent, respectful care needed to be developed and deployed in Counties Manukau for Pacific patients with complex and high needs.

[6] The HAKAMANA System of Transformative Design, Development, and Evaluation is Copyright © Tania Wolfgramm 2010

FANAU OLA APPROACH

Fanau Ola are ancient Pacific words – used across the Pacific and are based on sounds of creation (Wolfgramm, 2013)

The words Fanau Ola express many sounds of creation:

"**fa**' a special number signifying the *foundations of family life*
'**na**' interweaving *family relationships* with others
'**u**' manifesting the *realisation of the family's potential*
'**o**' animating the *family space of creativity*
'**la**' embracing the warmth of the sun as *families grow*" (Wolfgramm, 2013)

'Fanau' thus speaks of *being born, bringing forth, having children, grandchildren, siblings*, and *extended families (Maori … whanau ora)*.

'Ola' is a word that expresses *being alive, healthy, nourished with food, healed from illness, refreshed*, and *successful*."

Other Pacific languages express similar concepts, including *'Moui lelei'* in Tongan; *'Soifua Maloloina'* in Samoan; and *'Oraanga Meitaki'* in Cook Islands Maori.

FANAU OLA encompasses

- VISION Shared Vision / Goals / Objectives
- SOCIAL Relationships / Caring Connections
- CULTURE Worldview / Tradition / Language
- BODY Physical Health / Conditions / Risks
- SPIRIT Wairua / Spirituality / Religion
- HEART Emotional Wellbeing / Love / Support
- MIND Learning / Intellect / Education
- RESOURCES Resources / Housing / Income
- CONTEXT Environment / Community / Systems
- LEADERSHIP Building Leadership Skills / Fanau Champions

The desired outcome for Fanau Ola was stated in the Annual Plan as follows:

> **Fanau Ola is realised and achieved**
>
> **When Pacific fanau experience positive health, social, cultural, spiritual, economic and educational outcomes.**
> **When Pacific fanau are empowered and have the capacity, skills and support to plan and pursue their own futures.**

THE PACIFIC HEALTH DEVELOPMENT ANNUAL PLAN AND FANAU OLA SUPPORT SERVICE LOGIC MODELS

Aligned to the template outlined in the Pacific Health Development Annual Plan 2013-14 the Fanau Ola Support Service team was established in the first six months of 2013. The plan had a logic model for Pacific Health Development overall which is included in Appendix One. Although many parts of the plan inform of the Fanau Ola approach the key components relating to the specific component of the Fanau Ola Support Service that this evaluation focuses on are provided in Table 1 below. The plan also outlined the Fanau Ola Support Service Logic model (of activities) which was called the "Fanau Ola Support Service Journey" and is shown in Table 2.

Table 4 Parts of Pacific Health Development - Intervention Logic in the Annual Plan 2013-2014 specifically relating to the implemented Fanau Ola Support Service

Goals	Key activities	Deliverables	CM Health Programmes / Linkages	Ind. Num.	Indicator - Focus	Outcomes/Benefits
G7. Fanau Ola Support Service Approach	Articulate Fanau Ola Support Service position Consolidate Fanau Ola Support Service communications Hold Fanau Ola Support Service workshops	Position Paper; Key Messages Socialisation Training	Fanau Ola Support Service Approach Planning Development Implementation	There were 39 indicators created as part of the Pacific Health Development Annual Plan 2013-14. The indicators are likely to be influenced by a number of different goals so are not stated here. Please see the full plan in Appendix One.		
G8. Fanau Ola Support Service Toolkit	Fanau Ola Support Service tools , materials, resources developed	Toolkit; Manuals				
G9. Fanau Ola Support Services	Develop services / Programme Alignment Plan Monitor implementation	Alignment Plan Monitor Services Implementation				
G10. Fanau Ola Support Service Centres / Resources	Develop Resources Plan Centre Designs and Development Plan Establish Fanau Ola Support Service Centres	Resources Plan Development Plan; Fanau Ola Support Service Centres				

Source: Pacific Health Development 2013-14 Annual Plan (Wolfgramm, 2013)

FANAU OLA SUPPORT SERVICE OVERVIEW

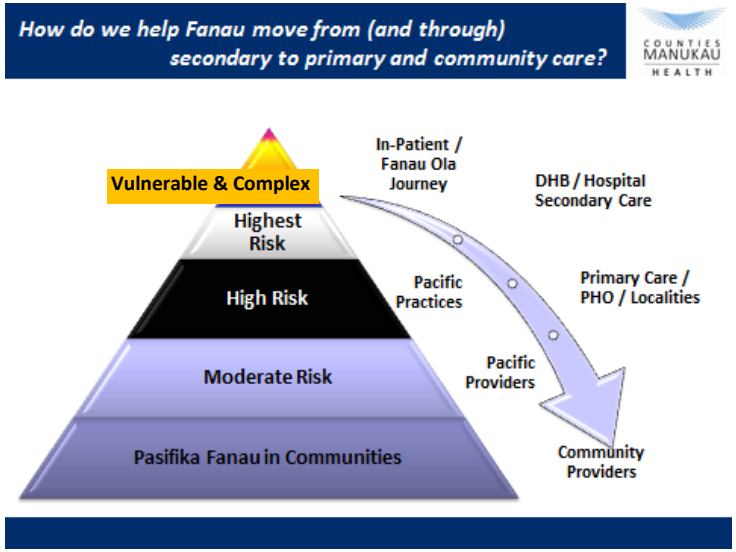
Main Points of Entry

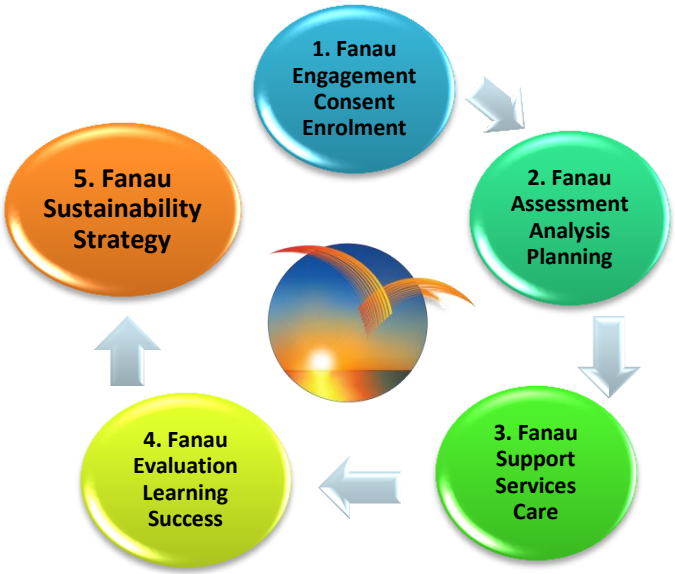
- Daily List (Pacific Patients admitted in previous 24 hours)
- Very High Intensive Users (VHIU) Team
- Emergency Department
- Internal Referrals (e.g. Hospital Wards / ED)
- Pacific Cardiac Programme

Centralised Referral System

All Referrals Centralised → Triage Process

- Triage process by Fanau Ola Senior Team
- Considerations for triage include:
    - Number of Hospital Admissions
    - Number of Emergency Care Presentations
    - Number of DNA
    - Condition (e.g. excl. dialysis patients)
    - Age (with careful consideration of newborn to 18 yrs)
    - 'Red Flags'
- *Allocate to Fanau Ola Advocates*
- *Commence Fanau Ola Journey*





COMPREHENSIVE CASE MANAGEMENT ENCOMPASSING ENGAGEMENT, ASSESSMENT, REFLECTION, PLANNING, SERVICE SUPPORT AND EVALUATION IS UNDERTAKEN WITH Pacific patients and their fanau as a whole, taking into account collective relationships *and* Pacific fanau members as individuals.

Table 5 Logic Model for Implemented Fanau Ola Support Service as presented in the Pacific Health Development 2013-2014 Annual Plan

FANAU OLA Journey

Phase		Core elements explored in each phase	Fanau Ola Journey			Process Measures / Outcomes	
			Fanau grow through …	Fanau Ola Phases	Deliverables	Process Indicators	Outcomes / Benefits
1	I	Vision Fanau Culture Body Mind Heart Spirit Context Resources Leadership	***Searching Dreaming*** *Week 1*	Greet / Engage / Consent / Enrol	Fanau Champion identified; Fanau Consent Form; Fanau Enrolment Form	Fanau Champions engaged; Fanau Consents; Fanau Enrolments	**Inspired** - Fanau are encouraged and inspired to participate in Fanau Ola Journey
2	O		***Reflecting Planning*** *Week 2-3*	Assess / Reflect / Analyse / Plan	Comprehensive Assessments; Fanau / Fanau Member Plans	Fanau plans provide vision, strategies, implementation steps, activities, measures	**Optimistic** - Fanau have a clear understanding of their situation and are engaged in planning
3	E		***Activating Generating*** *Week 3-4*	Implement Plan / Support / Connect	Pacific Patient and Fanau-Centred Support, Services and Care	Access to and support received from fanau-centred services	**Energised** - Fanau access a range of quality fanau-centred culturally appropriate support /services /care
4	A		***Learning Succeeding*** *Monthly / Quarterly*	Fanau Ola Evaluation	Fanau Ola Indicators measured / Fanau Ola Plan updates	Comprehensive range of Fanau Ola indicators move in right direction	**Animated** - Fanau experience positive health, social, economic, educational outcomes.
5	U		***Thriving Sustainably*** *Quarter 4*	Co-create Fanau Ola Sustainability Strategy	Fanau Ola Sustainability Strategy	Fanau Ola Sustainability Strategy completed	**Uplifted** - Fanau are empowered; have the skills to plan and pursue own futures.

Source: Pacific Health Development 2013-14 Annual Plan (Wolfgramm, 2013 b)

FOCUSING THE FANAU OLA APPROACH FOR GREATEST BENEFIT WITH LIMITED STAFF

The Pacific Health Development team recognised that with only seventeen staff they could not immediately apply the Fanau Ola approach to all the Pacific people in CM Health. Therefore the new Fanau Ola Support Service was implemented in a way in which it was felt the existing Pacific Health Development Team staff could provide the most improvement in health using the Fanau Ola approach. This was focusing Fanau Ola Advocates to work with Pacific patients who frequently use CM Health's Middlemore[7] Hospital for healthcare and to apply Fanau Ola approaches to decrease the barriers for these patients obtaining wellbeing.

The aim was for Fanau Ola Advocates to assist these patients and their families "to transition back to home and to keep well at home alongside their fanau" and to be "actively sharing in decision making-processes and fully understand their care options." (Wolfgramm, 2013)

EARLY REPORTS INDICATED LOWER USAGE OF SECONDARY SERVICES AFTER THE INTRODUCTION OF FANAU OLA SUPPORT SERVICE THAN BEFORE

As this evaluation was beginning, reports about the Fanau Ola Support Service were being created to measure the acuity of Fanau Ola Support Service patients before they were seen by Fanau Ola Support Service. These reports informed the future criteria for patient selection for the service. These reports were distributed internally to some CM Health staff and indicated that patients had used less secondary healthcare in the six months after Fanau Ola Support Service than in the six months before (See example in Appendix Two). While the reports did not state that the effects of Fanau Ola Support Service had caused specific changes in health services utilisation, some people may have inferred that. It is useful to acknowledge that future discourse on the Fanau Ola Support Service will likely be influenced by these reports produced previously, as well as this evaluation and other service reports that may be written.

AN EVALUATION OF AN EXISTING SERVICE SHOULD BE ABLE TO MAKE SUGGESTIONS FOR CONSIDERATIONS

Any project or intervention that is beneficial and cost effective will still have opportunity costs. Also it is almost certain that parts of the project/intervention could be improved in the future. This report highlights opportunities for service improvement as well as describing strengths of the current service.

[7] Note that CM Health has two main inpatient facilities, Middlemore Hospital and Manukau SuperClinic which are on different geographical sites. Middlemore Hospital in Mangere provides acute inpatient services for adults and children. The majority of CM Health's elective inpatient procedures, as well as outpatient services, take place at Manukau SuperClinic in Manurewa.

Purpose of the Fanau Ola Support Service Evaluation

THE PURPOSES OF THE EVALUATION WERE TO:

1) Provide CM Health with a clear description of what the implemented Fanau Ola Support Service does;
2) Describe what has changed for patients;[8]
3) Describe what the key factors for the Fanau Ola Support Service success are;
4) Find how Fanau Ola Support Service could be improved; and
5) Provide suggestions for development of the programme including future evaluations.

Key questions were identified early in the evaluation

An evaluation of the Fanau Ola Support Service was planned when creating the Fanau Ola Support Service in early 2013. The Pacific Health General Manager and the Fanau Ola Systems Architect (also known as Senior Programme Manager) both wanted an evaluation to occur so they could review what was happening and improve the service.

Early meetings with senior Fanau Ola Support Service staff members and their managers, including a three hour workshop, led to the formation of four key questions.

KEY QUESTIONS FOR THE EVALUATION

1) Does the 'more focused work' with families improve outcomes?
2) What can routinely collected data tell us about healthcare utilisation by patients in the periods before and after their interaction with the Fanau Ola Support Service and/or the previous Pacific Cultural Support Teams?
3) How have the patients' experiences of care changed? (i.e. from the previous Pacific Cultural Support Team)
4) What are the key ingredients for success?

The "more focused work" in question 1 refers to the more focused work the patients receive under the Fanau Ola Support Service rather than extra volume of work by staff members. Previously, patients would have had a 1-2 hour long consultations with the Pacific Cultural Support Team (PCST) staff members. PCST staff members

[8] A private contractor, Pacific Perspectives, performed the patient and family interviews including their translation to English (when required), transcription and analysis. A fully self-contained report will be provided by Pacific Perspectives in early 2015. Early versions of the current report provided information about Fanau Ola Support Services to Pacific Perspectives and the evaluator also helped them identify patients for interviewing.

were attached to specific wards with the PCST staff members reporting their findings to the ward-based clinical team.

In contrast Fanau Ola Support Service staff members spend about 1 ½ hours with the patient initially, then ensure the patient understands what is happening to them on the ward. An initial assessment is completed with the patient and the Fanau Champion, with an initial plan of action agreed on. At discharge the Fanau Ola Support Service staff member checks that the patient understands the discharge plan and then follows up with them in the community by a home visit to complete the Fanau Ola Assessment and agree on a Fanau Ola plan (in about half of the cases) or with phone calls (in the other half of the cases).

The community work is described in more detail in the description of the Fanau Ola Support Service and includes identifying factors that may influence the patient and their family's health and then working with the fanau to address these (for example finding out a house is cold and then taking steps so it can be made warmer).

REPORT LAYOUT

- Purpose of the Fanau Ola Support Service evaluation.
- Details of the 'evaluand' – the CM Health Fanau Ola Support Service for Pacific patients with high secondary service use.
- Methods used for the evaluation.
- Fanau Ola Support Service patient demography.
- Comparison of the Fanau Ola Support Service's patients to a subset of the patients seen by the previous ward-based Pacific Cultural Support Team.
- Comparison of the patient acuity of Fanau Ola Support Service patients starting in Jul-Dec 2013 to Fanau Ola Support Service patients starting in Mar-Aug 2014.
- Findings of interviews with Fanau Ola Support Service Staff.
- Findings of interviews with non-Fanau Ola staff.
- Discussion of the findings of the evaluation and considerations.

Intended Report Use

The main audience of the report was deemed to be senior managers at CM Health. The document would provide an overview of what the Fanau Ola Support Service is; what patients and their fanau/families receive; some of the effects of Fanau Ola Support Service; and areas in which improvements and changes could be made.

Those directly involved in Fanau Ola Support Service could also use this report to reflect on what they do and what this means for the patients and their fanau/ families. In addition, this report was written so that it could provide a guide to other organisations, if they wished to set up a similar service.

Evaluation Methodology

"As a social protection tool, health research can be of immense benefit to enhancing the wellbeing of Pacific communities".

(The Health Research Council of New Zealand, 2014)

The Key Questions were identified by Meetings and a Workshop

CREATION AND CLARIFICATION OF THE KEY QUESTIONS BY MEETINGS AND A WORKSHOP

The evaluation began by the evaluator meeting with the Fanau Ola Systems Architect about the rationale, establishment process and activities of the Fanau Ola Support Service. This also gave the evaluator a broad overview of the plans to create better health outcomes for Pacific people in Counties Manukau Health (CM Health). The Fanau Ola Systems Architect illustrated on a diagram in the Pacific Health Development Annual Plan 2013-14, how the implemented Fanau Ola Support Service was a small part of the entire plan they had for improving Pacific health in CM Health.

The evaluator then met with a CM Health Senior Manager and then with the General Manager for Pacific Health to identify their key questions for the evaluation to address. These questions were taken to a three hour workshop involving the Fanau Ola Systems Architect, senior Fanau Ola Support Service staff, CM Health's evaluation manager, the evaluator and the evaluator's supervisor. The questions were discussed at this workshop and extra questions added. The list was then reviewed and refined by the evaluator and his supervisor to a list of four key questions for the evaluation to answer. These questions were circulated back to the people involved in the meetings and workshop for agreement.

THE PROCESS TO SELECT PACIFIC CULTURAL SUPPORT TEAM (PCST) PATIENTS AS A 'COMPARISON GROUP' (SEE APPENDIX 2 FOR FURTHER DETAILS ABOUT PCST)

At the workshop and other earlier meetings there were discussions about who could feasibly be a comparison group for the purpose of examining health service utilisation before and after Fanau Ola Support Service interventions. Possible options were discussed, as outlined below:

Option One: *Pacific patients either not selected for or who had not received Fanau Ola Support Services.*

If this option had been selected the comparison group would all have been Pacific patients. However multiple criteria are used for Fanau Ola Support Service selection, including consenting for the service, and it was felt the application of these criteria would have resulted in Fanau Ola Support Service patients being too different from the non-Fanau Ola patients.

Option Two: *Patients from a different ethnic group.*

Those identifying as Maaori were considered as a comparison group as they have some similarities with CM Health's Pacific population: populations are of a similar size, both are youthful populations and both have lower life expectancy than non-Maaori/non-Pacific people. However, there were concerns that any difference between the two groups may not be due to the Fanau Ola Support Service. Once reported some people could make incorrect assumptions as the evaluation would not be able to control all variables that affect secondary service utilisation. Also there are many differences between Maaori and Pacific communities besides the important position of Maaori as Tangata Whenua. A much higher proportion of Maaori people are born in New Zealand and nearly all Maaori people are fluent in English. It was decided it would be both inappropriate and unhelpful for people who are Maaori to be a comparison group. Other ethnicities were unlikely to be useful due to the difference in demography and social factors.

Option Three: *Pacific People resident in other District Health Board (DHB) areas*

If these had been selected the comparison group would all have been of a Pacific ethnicity. However the demography of those who identify as Pacific in other DHBs was likely to be different to those at CM Health (e.g. a different proportion living in areas of socioeconomic deprivation, based on NZDep2013 results). Approval would have been needed from other DHBs for use of data.

Option Four: People seen by PCST before the staff changed to Fanau Ola Support Service *(Chosen Option)*

These would all be people who identified as Pacific and had been seen in Middlemore Hospital. This also applied to Fanau Ola Support Service patients.

To match the Fanau Ola Support Service July-Dec 2013 cohort, the months selected for the PCST cohort were for the previous year, namely July-Dec 2012. A subsection of the PCST patients was selected in an attempt for them to be more similar to the Fanau Ola Support Service patients. The criterion for the selection was that they had to have five or more EC attendances in the previous 12 months. This criterion was chosen because when the Fanau Ola Support Service started in July 2013 the service selected patients with five or more EC attendances in the previous 12 months.

The evaluator was aware that there are many potential issues in considering PCST patients as a comparison group. Although both groups consisted of Pacific patients, the selection of the patients for these two services was very different. Also technically some of the patients counted as starting with PCST July-December 2012 may have already had contact with the PCST at an earlier date.

Quantitative Data was collected from the Fanau Ola Support Service and Health Intelligence and Informatics Teams

The quantitative data was captured to answer the key question 2 –

> *"What can routinely collected data tell us about healthcare utilisation by patients in the periods before and after their interaction with the Fanau Ola Support Service and/or the previous Pacific Cultural Support Teams?"*

THREE PATIENT COHORTS WERE SELECTED FOR ANALYSIS:

TWO FANAU OLA SUPPORT SERVICE COHORTS AND ONE PCST COHORT

Data relating to patients who started receiving Fanau Ola Support Service July-December 2013 and those who started receiving Fanau Ola Support Service March-August 2014 were analysed.

The July-December 2013 Fanau Ola Support Service cohort consisted of people seen in the first six months that the Fanau Ola Support Service was in operation. The final month of the cohort was chosen to be December 2013 to enable analysis of data in the six months following the patient starting to receive Fanau Ola Support Services.

The March-August 2014 cohort was chosen as it became apparent to the evaluator during the evaluation that the medical backgrounds of new patients entering Fanau Ola Support Service were changing over time. This cohort was analysed only for events occurring in the six months before they started Fanau Ola Support Service. The Mar-Aug 2014 cohort's events occurring in the six months before Fanau Ola Support Service started were compared to the July-December 2013 cohort events in the six months before Fanau Ola Support Service, to compare the patient acuity in the two cohorts. The evaluator was aware that as the time of year was different in the two cohorts, the secondary care use before starting Fanau Ola Support Service could be affected by different weather exposure in the two groups.

The selection criteria to become a PCST patient were only being of a Pacific ethnicity and referred from a ward. As discussed in the evaluand, Fanau Ola Support Service has a more detailed selection policy. This means that, although in theory predialysis and renal patients should have an equal chance of being included in both cohorts, in reality PCST ≥5 had more renal outpatient appointments.

Table 6 Patient cohorts for quantitative analysis of secondary service utilisation

Cohort	Description	Time periods
Pacific Cultural Support Team patients with high EC department use	Had Pacific Cultural Support Team visit them between July 1 and December 31 2012. Just the first time seen in the time period to count AND had five or more EC attendances in previous 12 months	6 months before first time seen in Jul-Dec 2012 period, 6 months after first time seen
Fanau Ola Support Service patients Jul-Dec 2013	Started Fanau Ola Support Service between July 1 and December 31 2013	6 months before started Fanau Ola Support Service, 6 months after started Fanau Ola Support Service
Fanau Ola Support Service patients Mar-Aug 2014	Started Fanau Ola Support Service between March 1 and August 31 2014	6 months before started Fanau Ola Support Service

Information was also gathered for the Jul-Dec 2012 and Jul-Dec 2013 periods for all patients seen at CM Health facilities and all patients who were identified as Pacific seen at CM Health facilities. This was to provide a context of Pacific patient service utilisation at CM Health and also if there was any overarching difference between the two years.

Table 7 Cohorts to provide information on service utilisation by patients of Pacific ethnicities and CM Health overall

Cohort	Time periods
All patients seen at CM Health facilities	July 1 – December 31 2012 and July 1 – December 31 2013
All patients seen at CM Health facilities that were identified as Pacific ethnicities	July 1 – December 31 2012 and July 1 – December 31 2013

DATA WAS GATHERED ON THE DEMOGRAPHY OF FANAU OLA SUPPORT SERVICE PATIENTS

Data was requested from CM Health's HI&I team on the demography of Fanau Ola Support Service patients. This included the patient's age; gender; prioritised ethnicity; the first, second, and third ethnicity entered; socio-economic deprivation; suburb they lived in; and religion. The data supplied was first reported ethnicity and NZDep2006 by Census Area Unit.

Country of birth was requested but was not available. The place of birth was supplied. However this was a free text field and had many empty fields and so it was not analysed.

DATA WAS GATHERED ON EC ATTENDANCES, HOSPITALISATIONS AND OUTPATIENT APPOINTMENTS

The data fields captured on emergency care attendances, hospitalisations and outpatient appointments are shown in Table 5. This data was selected as it had been previously reported by Fanau Ola Support Service staff to CM Health staff internally and therefore it would be useful to have more in depth analysis of these figures. The NZ Ministry of Health regulates national collection of this data, including maintaining agreed definitions.

Patients admitted to a hospital are grouped into five different admission types. In this report the total for all admissions is shown and then it is shown for three of the admission types used to classify patient admissions to hospital in NZ (see Table 6).

The evaluator was aware that there were many other factors outside Fanau Ola Support Service that could affect the volumes of secondary service use by the PCST and Fanau Ola Support Service patients after they were seen by Fanau Ola Support Service or the PCST. These include the medical conditions the patients have and seasonal effects. The decision to use this data was influenced by the fact it had already been used internally in CM Health, it was asked for by senior managers and it provides a quantitative description of the patients seen.

The outpatient data was requested by Purchase Unit Code. However these were not supplied with the data. The evaluator used speciality of the service to classify patients as Medical or Surgical. The list of the speciality grouping can be found in Appendix Three.

Table 8 Data fields requested for quantitative analysis from CM Health's HI&I team on Fanau Ola Support Service patients

Type of data	Detail	Groups
Emergency	Attendances	
Outpatient	OP appointments (Including DNAs)	Medical and Surgical
	OP DNAs	Medical and Surgical
Hospitalisations	Number of hospitalisations	Acute, Arranged Admissions, Waiting List[9], General Medicine, Paediatric Medicine
	Bed days*	As above
	Average Length of Stay (ALOS)	As above
Other	If Patient died ,the date of death	

* Bed days is the total cumulative count of the number of midnights all patients are in the hospital

[9] Waiting list is the official term for a planned admission that occurs more than seven days after the specialist made the decision that an admission was necessary (National Health Board, 2014). Although not agreeing with the definition in the National Health Board document sometimes these are referred to as elective admissions.

In this report the data for all hospitalisations is shown and then shown for three of the admit types: Acute, Arranged Admission and Waiting List. The data for the remaining two admission types was too small to be useful for analysis.

Table 9 The three different admission types patients are grouped by in this report

Admission type name	Description
Acute	An unplanned admission.
Arranged Admission	Planned admission that occurs less than seven days after the specialist made the decision an admission was necessary.
Waiting List	Planned admission that occurs more than seven days after the specialist made the decision that an admission was necessary.

Source (National Health Board, 2014)

Most of the analysis was performed on the combined data from all patients of Pacific ethnicities

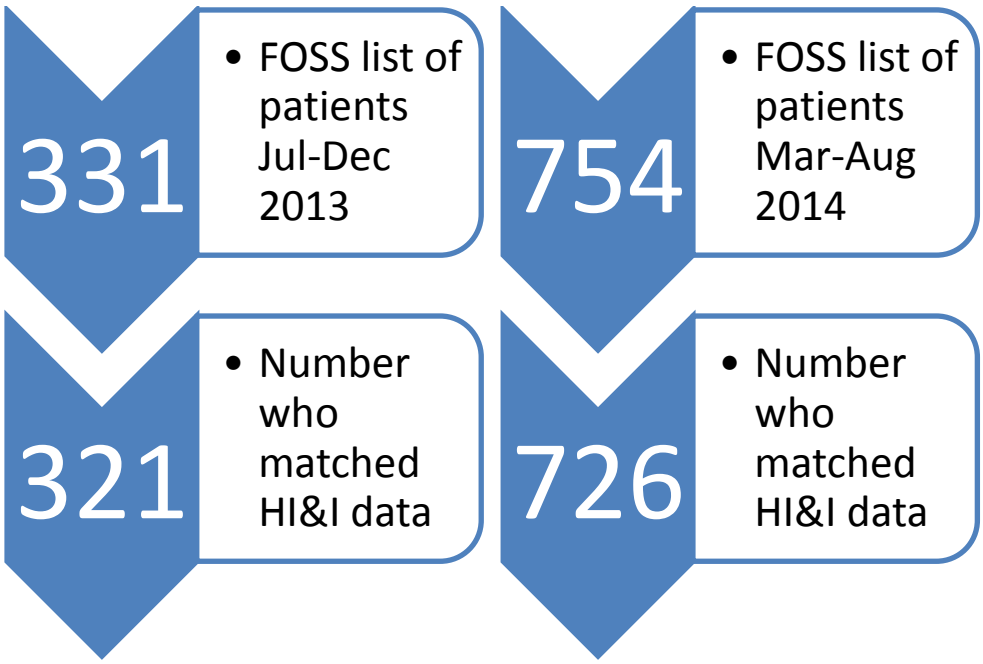
This report describes and analyses the data with the data from all the different Pacific ethnic groups combined. In the demography section there is a simple description of the two Fanau Ola Support Service cohorts by the number of people in each ethnic group.

Analysis was performed on the data about the primary clients of Fanau Ola Support Service. There was no analysis of other family members of the Fanau Ola Support Service patients. This was influenced by the fact that it was not a requirement to obtain the NHIs of fanau/family members and therefore only some family members had NHIs recorded by the Fanau Ola Support Service team.

Data extraction was from the Fanau Ola Support Service team data and the HI&I team data

Fanau Ola Support Service staff members kept an excel list of Fanau Ola Support Service patients and their consent date. Using this list, 331 primary clients were identified for the July to December 2013 period and 754 primary clients for March to August 2014. Their NHIs and date of consent were sent to the Counties Manukau Health's HI&I team. The HI&I team matched the data provided to their data for 321 (97%) of the NHIs for Jul-Dec13 and for 726 (96%) of the Mar-Aug14 patients.

Figure 4 Number of patients at stage of selection for data analysis



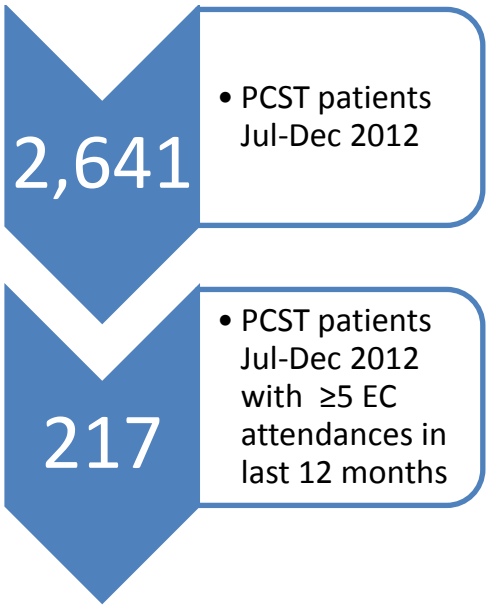
For these patients all emergency care events, hospitalisations and outpatient events occurring six months before they started receiving the Fanau Ola Support Services were analysed. For the Jul-Dec 2013 cohort the events in the six months after they started receiving the Fanau Ola Support Services were analysed as well. The hospitalisation on which entry to Fanau Ola Support Service occurred was not included as an event either in the six months before or six months after.

The hospitalisations were divided into acute, arranged hospitalisation and waiting list, and the data included their length of stay. The service managing the patient was also in the data provided. Information on hospitalisations for the General Medicine and Paediatric Medicine services is presented in this report as they were the two largest volume services. Each service also covers a specific age range, patients aged less than 15 years for Paediatric Medicine and patients aged 15 years and over for General Medicine.

The Pacific Cultural Support Team (PCST) data was supplied by CM Health's HI&I Team. The first time a person was seen between July and December 2012 was used as the entry point date. There were 2,641 patients identified by this criterion.

A subgroup of 217 PCST patients (8.2% of the 2,641 PCST patients) who had five or more emergency care attendances in the 12 months prior to their "entry" date into the cohort was identified. This cohort, referred to as PCST ≥5, was chosen as the closet feasible comparison group for patients who began Fanau Ola Support Service between Jul-Dec 2013. The PCST ≥5 data on age, gender and ethnicity was analysed by the same method as the two Fanau Ola cohorts' data.

Figure 5 Selection of the PCST cohort with ≥5 EC attendances in 12 months



QUANTITATIVE DATA WAS ANALYSED IN EXCEL

The quantitative data was supplied by CM Health's HI&I team between September and December 2014. This was analysed in Excel. The two Fanau Ola Support Service cohorts were analysed separately. The analysis described the cohorts by gender, age groups as defined by the evaluator (see Table 7), Ethnicity, NZDeprivation2006, the person's suburb and the person's religion.

Table 10 Age ranges used for describing Fanau Ola Support Service cohorts

Age group range	Size of range	Ages (years)
Less than 5 years	Varying	0,1,2-4
5-19 years	5 years	5-9, 10-14, 15-19
19-80 years	15 years	20-34, 35-49, 50-64, 64-80
80+ years	Unlimited top range	80+

For all three cohorts the volumes were analysed for events occurring in the six months before the person started receiving the PCST or Fanau Ola Support Service. The analysis was done in October 2014, less than six months after August 2014. Therefore only the PCST ≥5 Jul-Dec 2012 and Fanau Ola Support Service Jul-Dec 2013 cohorts had analysis performed on events which occurred in the six months after starting with the service.

It was therefore not felt that detailed statistical testing would add value to this report, so it was not performed. This is due to the knowledge that the PCST ≥5 and Fanau Ola Support Service cohorts had unequal selection criteria. The PCST staff members were allocated to Medical, Surgical, Gynaecology and Paediatric wards and received patients from other wards, including the renal wards, by referral only. The Fanau Ola Support Service staff selected their own patients.

COSTING DATA WAS OBTAINED FROM THE CM HEALTH FINANCE DEPARTMENT

The costs of the PCST and Fanau Ola Support Service were obtained directly from CM Health's Finance Department.

The Fanau Ola Support Service that is evaluated in this report did have additional costs to those supplied by finance as Fanau Ola. These were

1) Three staff members who were part-time Lotu Mo'ui and part time Fanau Ola Support Service. One of these left the Lotu Mo'ui /Fanau Ola Support Service role in March 2014 and was not replaced
2) The Fanau Ola Support Service Senior Nurse (0.5FTE)
3) Pool car costs
4) The Fanau Ola Systems Architect costs

The Fanau Ola Systems Architect costs were not obtained as these were considered start-up costs. The staff and pool car costs were obtained and reported together as a rounded figure in order to protect confidential staff salary information.

Qualitative Data was collected from Staff

The qualitative data described in this report was obtained by interviewing three different groups: Fanau Ola Support Service staff, non-Fanau Ola CM Health hospital staff, and non-Fanau Ola CM Health staff who worked both in the hospital and in the community.

University of Auckland Associate Professors Tim Kenealy and Nicolette Sheridan were consulted on producing an interview schedule for Fanau Ola Support Service patients and CM Health staff. They provided guidance on the interviewing, including providing some potential questions.

The question list was developed further by the evaluator, with guidance from his supervisor and the CM Health Evaluation manager. The lists were then reviewed by some of the Fanau Ola Support Service staff. This process resulted in different approaches being taken for the interviews of Fanau Ola Support Service staff, CM Health non-Fanau Ola staff, and the patients and their families.

The Fanau Ola Support Service staff interviews were carried out to find out about the Fanau Ola Support Service, their activities, and what they thought made it successful. After the Fanau Ola Support Service staff members had been interviewed the non-Fanau Ola staff members were interviewed. This was to obtain a different view of how the Fanau Ola Support Service contributed to CM Health's input into improving the health and wellbeing of patients and their families.

TEN OF THE FANAU OLA SUPPORT SERVICE STAFF WERE INTERVIEWED

Fanau Ola Support Service staff members were interviewed with a particular focus on finding answers to key question 4, "What are the critical ingredients for success?" The interviews were carried out face-to face between the evaluator and staff members at CM Health sites between 19th September and 13th October 2014. The interview schedule used is shown in Appendix Six.

Staff members were informed that the interviews would be used for the evaluation but their own responses would be kept confidential. Reponses were written down and then later typed into word for thematic analysis.

Of the 17 Fanau Ola Support Service staff, 10 were interviewed. This included four Fanau Ola Advocates, based on their availability, and all but one of the senior staff members. The decision not to interview the remaining senior staff member was that their colleague with an identical job title had already been interviewed and it was felt that an additional interview was unlikely to add additional information.

All ten Fanau Ola Support Service staff members had been interviewed before the analysis was performed. The analysis involved an iterative process of reading and rereading the transcripts of the interviews for common themes. Also all the answers

to each particular question were examined, one question at a time. The thematic analysis was done by the evaluator and his supervisor.

As well as the actual interviews the evaluator attended weekly team meetings between the Fanau Ola Support Service Senior Social Worker, Senior Nurse and Fanau Ola Advocates on four occasions and full Fanau Ola Support Service staff meetings on three occasions. On a number of occasions he also e-mailed, phoned or visited Fanau Ola Support Staff to obtain extra details.

FIVE NON-FANAU OLA STAFF MEMBERS WERE INTERVIEWED

CM Health staff that did not work for the Fanau Ola Support Service were also interviewed. They were purposely selected as people who knew about the Fanau Ola Support Service and also had contact with the PCST. Two of the staff worked only at the Middlemore Hospital site and had a clinical role. The three other staff were based at Middlemore and also worked in the community, two of which have a clinical role. These interviews were carried out by the evaluator as face-to-face interviews between 12th November and 24th November 2014. Apart from having a different interview schedule (see Appendix Six), the interviews were conducted and analysed in the same way as Fanau Ola Support Service staff interviews.

Patient interviews were performed and analysed by a private contractor

At the very early stages of the evaluation it was acknowledged that it would not be appropriate for the evaluator, a NZ Pakeha who could not speak any of the Pacific languages, to be the interviewer of patients in their own home. Also it would not be appropriate for Fanau Ola Support Service staff to interview patients due to the risk of biasing the responses from patients.

It was identified that patient interviews were an important element of the review of Fanau Ola Support Service, with how much the patient and family were empowered by Fanau Ola Support Service, a critical piece of information to find. Therefore a decision was made for the interviews to be conducted by someone other than the evaluator or the Fanau Ola Support Service staff. It was also felt that any CM Health staff interviewing patients may produce a biased response. A professional company, Pacific Perspectives, with experience in interviewing Pacific patients on health issues, was commissioned to conduct the interviews.

CM Health staff created a list of ten patients. This list was purposefully selected so all individuals had been seen both by the PCST and Fanau Ola Support Service teams. (Although they did not have to have five or more EC visits in 12 months like the PCST ≥5 cohort.) There was a deliberate bias towards patients who had more contacts with the PCST and Fanau Ola Support Service. Apart from excluding patients aged less than 18 years of age, the patient mix was similar to the Fanau Ola Support

Service patient mix based on ethnicity, gender and age. The list of patients for the patient interviews (three people who were Samoans, three who were Tongan, three Cook Island Maaori and one Niuean), was specifically arranged to closely reflect the percentages of the different ethnicities of the primary clients. There were five patients from the July-December 2013 cohort and five from the March-August 2014 cohort. The technical details of the selection can be found in Appendix Five.

Once the patient interviews were performed by Pacific Perspectives they also transcribed the interviews, and analysed them. Results from these interviews will be provided by Pacific Perspectives in a report in early 2015. A discussion document from the Population Health team will draw together information from both reports with publishing following that synthesis.

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FANAU OLA

Establishment of the Fanau Ola Support Service

This section discusses the establishment of Fanau Ola Support Service and what its staff and resources were.

FANAU OLA SUPPORT SERVICE STAFF MEMBERS WERE ALL CURRENT CM HEALTH EMPLOYEES

All the Fanau Ola Support Service Team members were working under the Pacific Health Development Team management prior to Fanau Ola Support Service starting except for the Senior Nurse. When Fanau Ola Support Service began on July 1 2013 the Pacific Cultural Support Team (PCST) was disestablished with all resources transferred to the Fanau Ola Support Service Team. Lotu Mo'ui continued and the Lotu Mo'ui staff were split 0.5 FTE Lotu Mo'ui and 0.5 FTE Fanau Ola Support Service. Team Leaders were appointed from within the staff members.

The Lotu Mo'ui programme was developed in 2005 to improve Pacific people's health and wellbeing (Clinton et al, 2009). It was established as a partnership between Pacific churches and CM Health and is delivered in the communities alongside church leaders (Lotu Mo'ui, 2014).

The staff that had less formal social work qualifications completed a Community Health Worker Certificate at Manukau Institute of Technology in early 2013. Staff also received three hours a week of in-house training by the Fanau Ola Systems Architect.

Specific forms were designed for Fanau Ola Support Service. These included a consent form, a four page initial assessment form and a fourteen page more detailed assessment form.

Those establishing Fanau Ola Support Service requested tablets so data could be captured electronically for analysis, wherever patients and their families were seen. However electronic tablets were not purchased so staff captured data in a written form and some of this was later entered into Excel spread sheets.

Qualifications and work immediately prior to the Fanau Ola Support Service Establishment Staff

ALL TEN FANAU OLA ADVOCATES WORKED FOR THE PACIFIC HEALTH DEVELOPMENT SERVICE BEFORE THE FANAU OLA SUPPORT SERVICE WAS ESTABLISHED

Before Fanau Ola Support Service began eight of the Fanau Ola Advocates had been cultural support workers, with three of these having also been community health workers. The other two were previously Lotu Mo'ui community development

officers. One team leader had previously been a community support worker and community diabetes educator whilst the other was the Pacific Cultural Support Team (PCST) leader before their Fanau Ola Support Service position.

The formal qualifications of the Team Leaders and Fanau Ola Advocates before Fanau Ola Support Service began and in October 2014 are shown below.

Table 11 Academic Qualifications of Fanau Ola Advocates and Team Leaders before Fanau Ola Support Service and in October 2014

Pre Fanau Ola Support Service	**Newly acquired from start of Fanau Ola Support Service to October 2014**
Business Management Certificate Community Diabetes Education Diploma	Best Academy Leadership Certificate Award
Diploma in Advanced Management	
Community Health Worker Certificate	
Bachelor in Social Work, Policy and Research	Pacific Nutrition Certificate Le Va Leadership Program
Diploma in Business Education, Post Graduate Diploma in Health Service Management	
Community Health Worker Certificate	Mental Health Worker and Addictions Support Worker Certificate
Diploma in Social Work	
Community Health Worker Certificate	
Social and Community Health Worker Certificate AUT Interpreting Certificate	
	Community Health Worker Certificate*
Bachelor in Social Work	
Diploma in Early Childhood Education	Community Health Worker Certificate*

*The Community Health Worker Certificate was completed by the staff without a higher social work degree as part of Fanau Ola Support Service training in early 2013.

The Senior Nurse works 0.5 FTE for Fanau Ola Support Service and 0.5 FTE as the Nurse Coordinator Cancer and has been with CM Health since starting Fanau Ola Support Service. The service manager for Pacific Health has Fanau Ola Support Service as one of their portfolios. Fanau Ola Support Service was established by the Fanau Ola Systems Architect who also assists Pacific Health in other areas[10].

[10] This includes Pacific Health planning, strategic development across the Pacific region, CM Health secondary, primary, and community care; Senior Programme Management - contract design / development / management; evaluation systems development and implementation.

The Fanau Ola Support Service

This section describes the Fanau Ola Support Service as it was at the time of the evaluation in October 2014. Although it had been running for 15 months by October 2014, there had been only very small structural changes over that time. These changes are mentioned at the end of this section.

The Fanau Ola Support Service team as at October 2014 consisted of ten Fanau Ola Advocates, two Senior Social Workers, two Team Leaders, an administration assistant and a Senior Nurse. Two of the Advocates and the Senior Nurse were employed 0.5 FTE for the Fanau Ola Support Service. As at October 2014 the Fanau Ola Support Service healthcare staff members' duration of employment at CM Health was:

- Fanau Ola Advocates (Ten individuals) an average of 7 years (range 3-13 years, median 7 years).
- Senior Social Workers (Two individuals) 12 years and 17 years.
- Team Leaders (Two individuals) also 12 years and 17 years.
- Senior Nurse (One individual) new with CM Health at time of starting Fanau Ola Support Service

There also was an eleventh Fanau Ola Advocate who was employed 0.5 FTE for the Fanau Ola Support Service. This person left in March 2014 and has not been replaced.

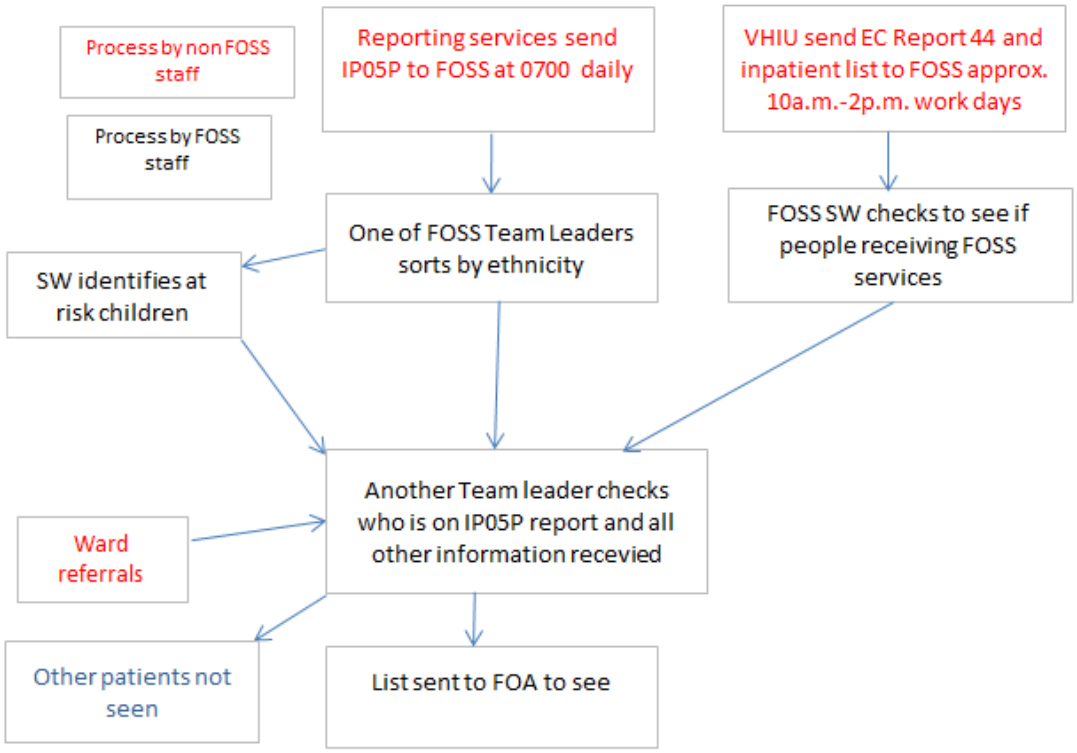
Process for Patients to Receive Fanau Ola Support Services

There are several identification stages for Fanau Ola Support Service patients and their family before receiving Fanau Ola Support Services, which are described in detail in the eligibility and triaging section below. Once they are identified as eligible and possibly likely to benefit from Fanau Ola Support Services, then they are offered Fanau Ola Support Services. If they consent, they receive Fanau Ola Support Services.

Every week day, excluding Public Holidays, a process, involving multiple inputs, steps and decisions occurs to identify new patients who may benefit from Fanau Ola Support Services. The process includes using patient lists to triage and select patients. The approach to the patients and their family, as well as how they are assisted first on the ward and then in the community, is shown in Figures 1-3 below and then described.

The daily selection of patients to be seen by Fanau Ola Support Service has multiple inputs before the final list is created by a Team Leader. The patients on Coronary Care and the Step Down Unit (CCU/SDU) are referred by the nursing staff directly to the two Fanau Ola Advocates attached to those wards.

Figure 6 Process for selection of patients to be offered Fanau Ola Support Services

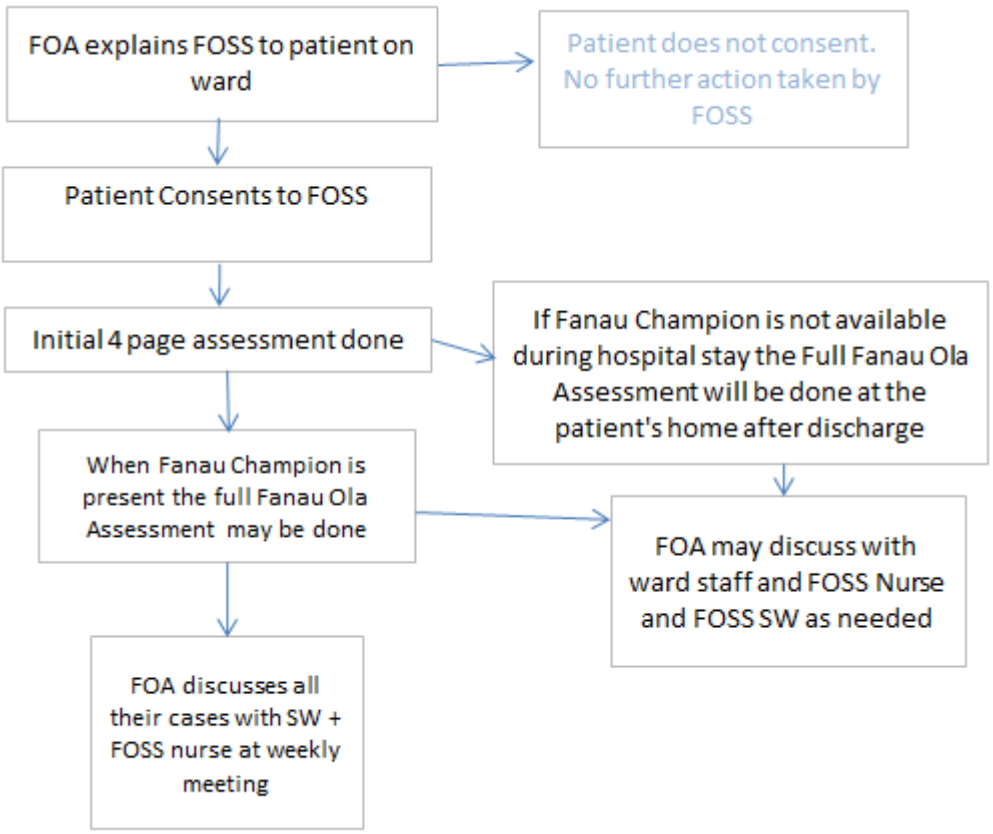


Abbreviations

EC	Emergency Care
FOA	Fanau Ola Advocate
FOSS	Fanau Ola Support Service
SW	Social Worker
VHIU	Very High Intensity Users
IP05P	An automated report sent to Fanau Ola Support Service
ED 44 Report Manager	A report run by VHIU of patients in Middlemore Hospital (MMH) who have had five or more EC attendances in the past 12 months

The Fanau Ola Advocate (FOA) then visits the patients on the ward in hospital. After a patient consents to engage with the Fanau Ola Support Service, the FOA actions will depend on whether the Fanau Champion is available, and what concerns are found. The FOA could have their weekly meeting with the Fanau Ola Support Service Senior Nurse and Senior Social Worker either before or after the patient is discharged.

Figure 7 Fanau Ola Support Service process with patient when the patient is on the ward

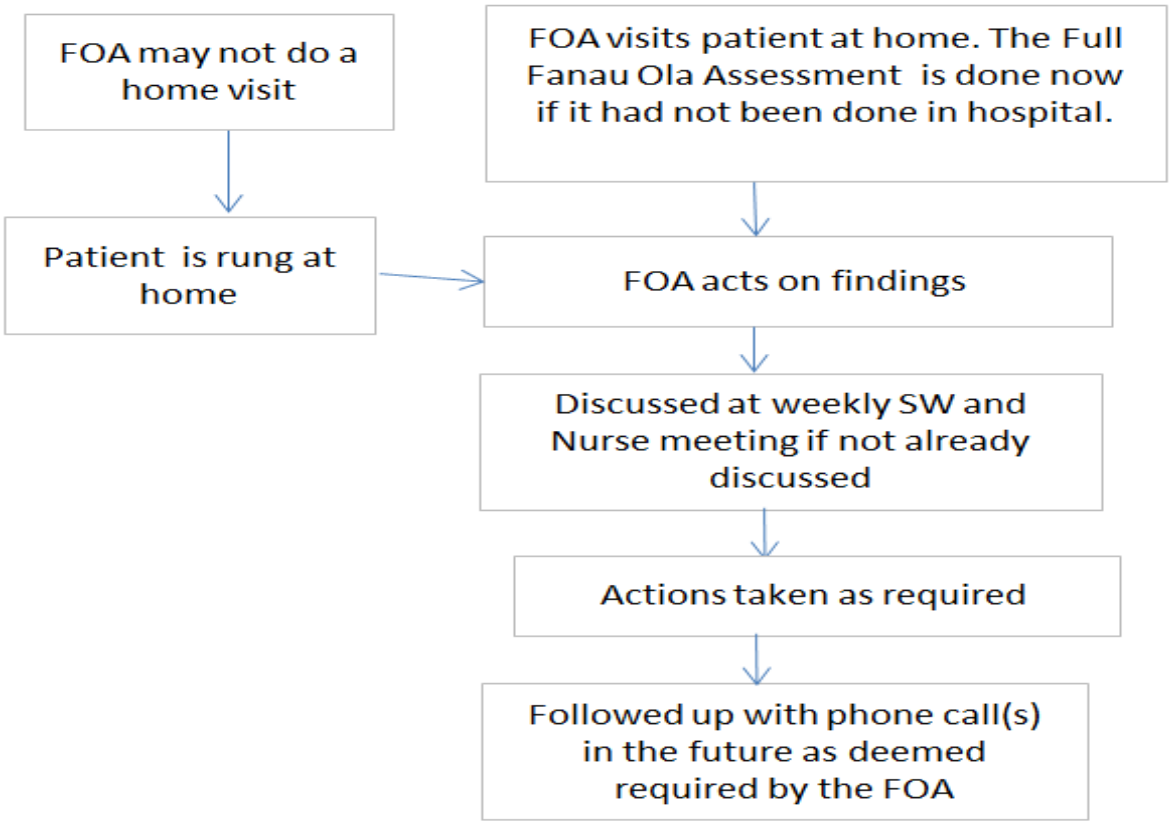


Abbreviations

FOSS	Fanau Ola Support Service
FOA	Fanau Ola Advocate
SW	Social Worker

Once the patient has gone home the Fanau Ola Advocate may or may not visit them at home.

Figure 8 Fanau Ola Support Service's involvement with a patient after discharge from CM Health facilities



Abbreviations
FOA Fanau Ola Advocate
SW Social Worker

ELIGIBILITY AND TRIAGING

A) Selection by "Report IP05P- Current inpatients for Pacific Patients"

Please note there are two Fanau Ola Support Service Team Leaders and two Fanau Ola Support Service Senior Social Workers involved in this process. For clarity they are referred to as Team Leader A and Team Leader B and Senior Social Worker A and Senior Social Worker B.

1) A report, "IP05P - Current Inpatients for Pacific Patients", is sent to Fanau Ola Support Service staff electronically at about 0700 every day. The CM Health's Health Intelligence and Informatics (HI&I) team is responsible for this report. The report has approximately 170 people on it each day.

2) IP05P has basic details of all the patients identified as one of the Pacific ethnicities who are current inpatients at Middlemore Hospital (MMH). This includes for each person: ward, NHI, patient name, gender, age, ethnic group (at Ministry of Health level 2 ethnicity, e.g. Samoan, Tongan), admission method, admission date, admission time, consultant, number of outpatient appointment Did not Attends (DNAs) in the last 6 and 12 months, number of hospital admissions in last 6 months and 12 months. This report was used by the Pacific Cultural Support team staff before the Fanau Ola Support Service started. This report does NOT state how many EC attendances the people have had.
3) Team Leader A examines the list and separates the patients by Level 2 ethnicity (e.g. Samoan, Tongan).
4) Senior Social Worker A uses IP05P to identify children on the list (those aged less than 18 years old).
5) Senior Social Worker A looks in the electronic patient clinical records via the Concerto portal at the details of the children on the list to identify who may benefit from Fanau Ola Support Service input. There are no set written criteria for this, however the kind of factors taken into consideration are social work alerts, having multiple addresses, frequent DNAs, documented non-compliance, self-discharges from hospital and a history considered to place the child at risk. For example a child with a history of streptococcal sore throats could be considered at risk of suffering from acute rheumatic fever in the future.
6) Senior Social Worker A then sends her list of children to a Fanau Ola Support Service Team Leader B. This list has all the details in IP05P and also, for each child the SW thought could benefit from Fanau Ola Support Service, a short phrase to explain why (about 1-2 cases per day).
7) Team Leader A sends the adult list to Team Leader B (approximately 80 each day).
8) Team Leader B identifies patients on the list who are already receiving Fanau Ola Support Services.
9) If not already applied the Team Leader B applies Fanau Ola Support Service exclusion criteria. These are Mother and Baby assessment unit patients, day surgery patients, terminal cancer patients, predialysis patients[11], Tiaho Mai (CM Health's inpatient psychiatric service) patients and Indo-Fijian patients.

[11]A patient is considered predialysis if they are not on dialysis but it is thought likely to be needed by the person in the future. If a predialysis person is admitted to hospital, for a non-renal problem, they will not be considered a renal patient unless dialysis is needed in the admission. Both renal staff said that PCST and Fanau Ola teams were not involved with the renal patients unless the renal team requested their input.

An additional criterion applied is that patient on certain wards are only seen on a referral basis: Maternity, Neonatal, Emergency Care, ICU, HDU, Renal ward, Adult Rehab wards 23 and 24, Medical Adult Short Stay and Assessment Units.

10) The two VHIU lists received the previous day are included at this stage. The details of the creation of these lists are described below.
11) Team Leader B identifies new patients who would benefit from Fanau Ola Support Service. The main factor in deciding this is the number of EC attendances in the past 12 months. In November 2014 this applied to anyone with three or more EC attendances in the last 12 months.
12) Team Leader B takes into account the amount of patients each Advocate has when allocating patients. This may mean asking a Fanau Ola Advocate to see a patient of a different ethnic group. The Team Leader specifically mentioned this part of the process particularly meant Samoan patients were more likely to be approached by non-Samoan Fanau Ola Advocates.
13) Team Leader B sends a list to each Fanau Ola Advocates advising them about the selected patients to see on wards. In total for the ten advocates this was normally 20-30 per day. However as Mondays include all hospitalisations from Friday the list on Monday is between 40 and 65 patients.

B) Selection Process for VHIU Emergency Care list

Usually the Fanau Ola Support Service staff members receive the VHIU Emergency Care (VHIU EC) list between 10 a.m. and 2p.m. each day.

1) A VHIU staff member runs the report “ED44 Report”.
2) This list includes everyone who has been in MMH EC in the last 24 hours who has presented to MMH EC five or more times in last 12 months. It excludes patients aged <15 years. Approximately 20 people a day meet these criteria and appear on the list.
3) The VHIU staff member adds to the list whether patients are to be excluded from VHIU due to VHIU protocol. Patients who are excluded are
    - Dialysis patients
    - Haematology patients
    - Pregnant women
    - Patients in palliative care if known to a hospice team
    - Patients in a rest home or private hospital resident
    - Patient not domiciled in CM Health area
    - Patients previously excluded from VHIU, if their circumstances are still the same

- The patient's GP is not in Otara, Mangere, Manurewa or Franklin. (If the patient's GP is in other suburbs, such as Papatoetoe and Papakura, the patient is excluded). The suburb stated on the GP address is used as the criteria for this rather than the local board or CM Health locality the GP practice is in.
- Patient's age less than 15 years (Generally VHIU is not involved with many teenagers; however the official cut off is less than 15 years.)

4) The names and details of all Pacific patients on the original ED44 list are sent to five Fanau Ola Support Service staff (Both Senior Social Workers, both Team Leaders and the Senior Nurse). The VHIU exclusions are documented but the list sent to Fanau Ola Support Service staff retains those patient's names and details.
5) Senior Social Worker B for the Fanau Ola Support Service checks the VHIU EC list and looks up patients one by one in the patient management system (PIMS) to see if the patient is already a Fanau Ola Support Service patient.
6) Senior Social Worker B adds to the VHIU EC list recommendations for assessments to be performed on patients that have not been seen by the Fanau Ola Support Service. For the patients who have been seen by Fanau Ola Support Services Senior Social Worker B states which of the Fanau Ola Advocates the patient was seen by.
7) Senior Social Worker B sends the VHIU EC list to a Fanau Ola Support Service Team Leader B. Staff estimate about 90% of these patients receive Fanau Ola Support Services.

   Sometimes there are patients on the VHIU EC list that may have left Middlemore Hospital before they are seen by Fanau Ola Advocates. Most of these patients are already Fanau Ola Support Service patients. The follow up for these existing patients is usually a phone call by a Fanau Ola Support Service staff member. Each week about three–five people become new patients by this selection method and these new patients have their consent and Full Fanau Assessment done at their home.

C) Selection VHIU inpatient list

Usually the Fanau Ola Support Service staff members receive this between 10a.m. and 2p.m.

1) This list that contains the names of all current VHIU patients who are in MMH (10-12 on average per day). The patient appears on the list every day while they are in hospital. The HI&I Team is responsible for this report.
2) The full VHIU inpatient list, which does not state the ethnicity of patients, is sent to Fanau Ola Support Service and given straight to a senior team member. Staff estimate about 98% of patients on this list who are of a Pacific ethnicity these patients receive Fanau Ola Support Services. (One reason it is not 100% is that patients may have been discharged over the weekend. The Fanau Ola Support Service will follow up with the VHIU staff about these patients.)

CORONARY CARE AND STEP DOWN UNIT PATIENTS HAVE A SPECIAL SELECTION PROCESS

Patients who are on the CCU/SDU wards can also receive Fanau Ola Support Services, even if they haven't had multiple EC presentations or hospitalisations. The selection process for these patients is different from patients on all the other wards. Patients on the CCU /SDU wards are referred directly by the Cardiac Nurse Specialists to the two Fanau Ola Advocates specifically attached to the CCU/SDU wards. This referral is e-mailed directly to the Fanau Ola Advocates from the nurses. There are about 15 referrals per month. These patients are then approached by one of the two Fanau Ola Support Service staff members on the CCU/SDU wards for consent to receive Fanau Ola Support Service input. If the patient wishes to speak in a language that neither of the Fanau Ola Advocates on the CCU/SDU wards can speak the Advocates will request that one of the other eight Fanau Ola Advocates, that do not normally see patients on the CCU/SDU wards, see the patient so the patient can receive Fanau Ola Support Services in the language requested.

Patient Consent for Fanau Ola Support Service and the order patients receive Fanau Ola Support Services

INVOLVEMENT WITH PATIENTS ON THE WARD

Once it has been decided that a patient meets the criteria, a Fanau Ola Advocate visits the patient and their family on the ward, usually on the same day, but sometimes the next working day.

1) The initial meeting, discussion and explanation about the Fanau Ola Support Service is held by the Fanau Ola Advocate with the patient. Family members could be present, depending on circumstances, e.g. patient is a child, patient is not able to consent or the patient's wishes.
2) The patient is consented to receive interventions through the Fanau Ola Support Service. There is no easy way to access electronic data on the number of cases that do not consent. The initial assessment, a form four pages long, is done on the ward and the Fanau Champion for the patient is identified. (EC is not visited as historically patients had left before staff arrived).
3) The Fanau Ola Advocate may then proceed immediately to the more detailed 14 page long Full Fanau Ola Support Service Assessment. For some there is a delay due to the absence of the Fanau Champion nominated by the patient. Sometimes it can be difficult for the Fanau Champion to be present, for example if they are at work.
4) Where possible other family members 16 years of age and over are consented for engagement with the Fanau Ola Support Service as well. The timing of this varies according to the availability of the family members. Family members, who are less than 16 years of age, are consented by older family members.
5) The Fanau Ola Advocate may liaise with ward staff (including ward Social Worker and Pharmacist) or contact the Fanau Ola Support Service Senior Nurse or one of the Fanau Ola Support Service Senior Social Workers with urgent questions. Prior to the Fanau Ola Support Service the PCST workers did work with ward staff, but were not required to look at the bigger, long term picture of the patient as is done by Fanau Ola Support Service staff members.
6) Each week the Fanau Ola Advocates meet with the Fanau Ola Support Service Senior Nurse and one of the Fanau Ola Support Service Senior Social Workers for case reviews and planning.

INVOLVEMENT WITH PATIENTS AFTER LEAVING HOSPITAL

1) For some Fanau Ola Support Service patients, there is a home visit, either before or after the case review. About half of all the consented Fanau Ola Support Service patients are visited at home. Sometimes the visit may be made by the Fanau Ola Advocate alone. Other times it may involve any combination of the Fanau Ola Advocate, the Fanau Ola Support Service Senior Social Worker, the Fanau Ola Support Service Senior Nurse, a VHIU Nurse, a VHIU Social Worker and the VHIU pharmacist. The other half of the patients are rung by the Fanau Ola Advocates. This information is stored in paper form only. (There is no electronic data capture of who has had a home visit.)
2) The issues for the patients and their family identified in the reviews are then worked through. Housing, finance and knowledge of their own medications are among the most common issues. The emphasis is on empowering the patients and their family. As this is one of the key inputs of the Fanau Ola Support Service extra details are provided at the end of this section. For example Fanau Ola Support Service staff members sit with them and help them to fill in forms rather than completing the forms for them.
3) New issues are worked through if they arise.
4) Patients can call their Fanau Ola Advocate for advice.
5) The Fanau Ola Advocate may then, in later months, follow up the patient by a phone call or visit. The timing of these calls is determined by the Fanau Ola Advocates based on their assessment of the patient's requirements for the follow up call. It is estimated half of all Fanau Ola Support Service primary clients receive these follow-up phone calls. (There is no electronic data capture of how many patients have follow-up phone calls.)

Most CCU/SDU patients, whether in Fanau Ola Support Service or not, will be offered the Pacific cardiac rehabilitation programmes based in the community that are run by the Cardiac Nurse Specialists. Fanau Ola Advocates based on cardiac wards will attend these programmes and assist, even if none of the patients consented for the Fanau Ola Support Service. The Fanau Ola advocates attached to the CCU/SDU wards also support a home service called Fatu Ola Cardiac Rehabilitation by the Pacific Cardiac Nurse Specialist.

CHANGES TO THE PROCESS THAT HAVE OCCURRED BETWEEN JULY 1 2013 AND OCTOBER 2014

As mentioned previously the description of the Fanau Ola Support Service process above is that which was occurring in October 2014. The Fanau Ola Support Service started in July 2013. Changes between July 2013 and October 2014 were:

1) The Full Fanau Ola Support Service Assessment form was slightly shortened in October 2013 but is still 14 pages long.
2) The Senior Team Members and Senior Social Workers used to meet each morning to discuss which patients would benefit from Fanau Ola Support Service. This was stopped after about six months due to
   a) The difficulty of getting everyone together.
   b) It was impacting on the time Fanau Ola Support Service staff members had available to meet with patients and their families.
3) In February 2014 the Senior Social Worker started using IP05P to identify children at risk who could benefit from Fanau Ola Support Service.
4) A Samoan Fanau Ola Advocate who was based in the CCU/SDU wards left in March 2014 and they have not been replaced.
5) In March 2014 Fanau Ola Support Service Management set a target for Fanau Ola Advocates. The advocates were to aim to see 30 new primary clients each month.

EXTRA DETAILS OF EVENTS THAT HAPPEN ON A HOME VISIT

The Fanau Ola Advocates, sometimes in discussion with the Fanau Ola Support Service Senior Social Worker and the Senior Nurse, decide which patients to visit at home and which to follow-up with a phone call. At the home visit the Fanau Ola Advocate gets to visualise and assess the physical housing situation as well as the household situation.

The Fanau Ola Advocate discusses the discharge summary with the patient, and when available the Fanau Champion. The Fanau Ola Advocate's focus is on ensuring the patient understands the discharge summary including the reasons for attending follow up appointments and the importance of medication. In particular the Fanau Ola Advocate emphasises that the information in the discharge summary was provided by a doctor as advice to the patient so that they could keep themselves healthy.

Numerical results on Patients' Secondary Service Use

Description of the patients of the Fanau Ola Support Service and PCST

For this evaluation demographic data was gathered on Fanau Ola Support Service patients for two different time periods. One was patients who received Fanau Ola Support Services in the first six months that Fanau Ola Support Service was in operation between July and December 2013. The second cohort was patients first seen by Fanau Ola Support Service between March and September 2014. The second group was added as during the evaluation it was reported that patients seen in 2014 had less emergency care attendances than patients seen in 2013.

Data was also gathered on a subset of patients seen by the Pacific Cultural Support Team (PCST) between July and December 2012. The subset criterion was that the patients had five or more EC attendances in the previous 12 months.

OVER HALF THE PATIENTS WERE YOUNGER THAN 2 YEARS OLD OR OLDER THAN 50 YEARS OLD

Approximately 60% of Fanau Ola Support Service and PCST ≥5 patients were either young children or older adults. For the Jul-Dec 13 cohort 34% were aged 2-49 years old and for the Mar-Aug 14 cohort 37%. As shown in Table 9 this is different to the age distribution of CM Health's entire Pacific population.

Table 12 Number of Fanau Ola Support Service patients Jul-Dec 2013 and Mar-Aug 2014 by age group

	PCST ≥5 Jul-Dec 2012		Fanau Ola Support Service Jul-Dec 13		Fanau Ola Support Service Mar-Aug 14		
Age Group (years)	**Number of cases**	**Percentage of group**	**Number of cases**	**Percentage of group**	**Number of cases**	**Percentage of group**	**CM Health %***
0	21	10%	37	12%	165	23%	2.2%
1	9	4%	23	7%	50	7%	2.2%
2-4	7	3%	5	2%	34	5%	7%
5-9	5	2%	9	3%	23	3%	10%
10-14	3	1%	2	1%	31	4%	11%
15-19	7	3%	8	2%	31	4%	10%
20-34	22	10%	35	11%	72	10%	23%
35-49	34	16%	50	16%	74	10%	18%
50-64	47	22%	71	22%	105	14%	12%
65-79	49	23%	62	19%	99	14%	4.8%
80+	13	6%	19	6%	39	5%	0.8%
Unknown	0	0%	**0**	0%	3	0.4%	
Total	**217**	**100%**	**321**	**100%**	**726**	**100%**	

* CM Health's Pacific population age breakdown based on estimated resident population projection 2014 for people identified as Pacific ethnicities

MALES PREDOMINATE FOR UNDER 15 YEAR OLDS AND FEMALES PREDOMINATE FOR PEOPLE AGED 15 YEARS AND OVER

In the first six months of Fanau Ola Support Service 56% of primary clients were female (179 individuals) and 44% were male (142 individuals). For the March–August 2014 cohort the total number of females (360) and males (366) was very similar.

However in Mar-Aug 2014 all age groups less than 15 years of age had more males and all age groups 15 years and older had more females. This difference was most marked for children aged less than 2 years with 134 males and 81 females. Between July 2013 and June 2014 male children made up 58% of all the children aged less than 2 years old of Pacific ethnicities discharged from Kidz First medical and surgical ward. In the 23 months from January 2013 to November 2014 the discharges from the Kidz First wards that were aged less than 2 years old and of a Pacific ethnicity 58% were male. For more details see Appendix Seven. This is not explained by the census results with those aged less than 5 years old being 51% male. Further investigation of this is beyond the scope of this investigation.

Table 13 Number and Percentage of age group of PCST ≥5 and Fanau Ola Support Service Jul-Dec 2013 and Mar-Aug 2014 cohorts by gender

	PCST ≥5 Jul-Dec 2012			Fanau Ola Support Service Jul-Dec 13			Fanau Ola Support Service Mar-Aug 14			
Age Group (years)	**Fe-male**	**Male**	**% Male**	**Fe-male**	**Male**	**% Male**	**Fe-male**	**Male**	**% Male**	**CM Health %***
<15	21	23	52%	37	39	51%	116	187	62%	32%
15-64	64	46	42%	102	62	38%	159	123	44%	62%
65 and over	28	34	55%	40	41	51%	84	54	39%	6%
Total	113	103	48%	179	142	44%	359	364	50%	

* CM Health's Pacific population age and gender breakdown is based on the 2014 estimated resident population projection

MOST OF THE FANAU OLA SUPPORT SERVICE PATIENTS WERE SAMOAN, COOK ISLAND MAAORI AND TONGAN

For the Jul-Dec 2013 period over 85% of the Fanau Ola Support Service primary clients were Samoan, Cook Island Maaori or Tongan. In March–August 2014 this was over 90%.

Table 11 shows the ethnicity of the two Fanau Ola Support Service cohorts, along with the ethnicity of the CM Pacific population based on the 2013 Census. Please note the CM Health percentage column in Table 11 is based on total response as stated in the 2013 Census. Some people reported more than one Pacific ethnicity in the 2013 Census.

When answering the census 51% of all people who identified with at least one Pacific ethnicity in CM Health reported Samoan as one of their ethnicities. There also was 21% identifying as Cook Island Maaori, 23% Tongan, 9% Niuean, 3.2% Fijian, 1.0% Tokelauan, 0.4% Kiribatian and 0.3 %Tuvaluan. This total adds to 109.1% as people can identify with more than one ethnic group.

The Fanau Ola Support Service cohorts have a higher percentage who identify as Cook Island Maaori than the wider CM Health population.

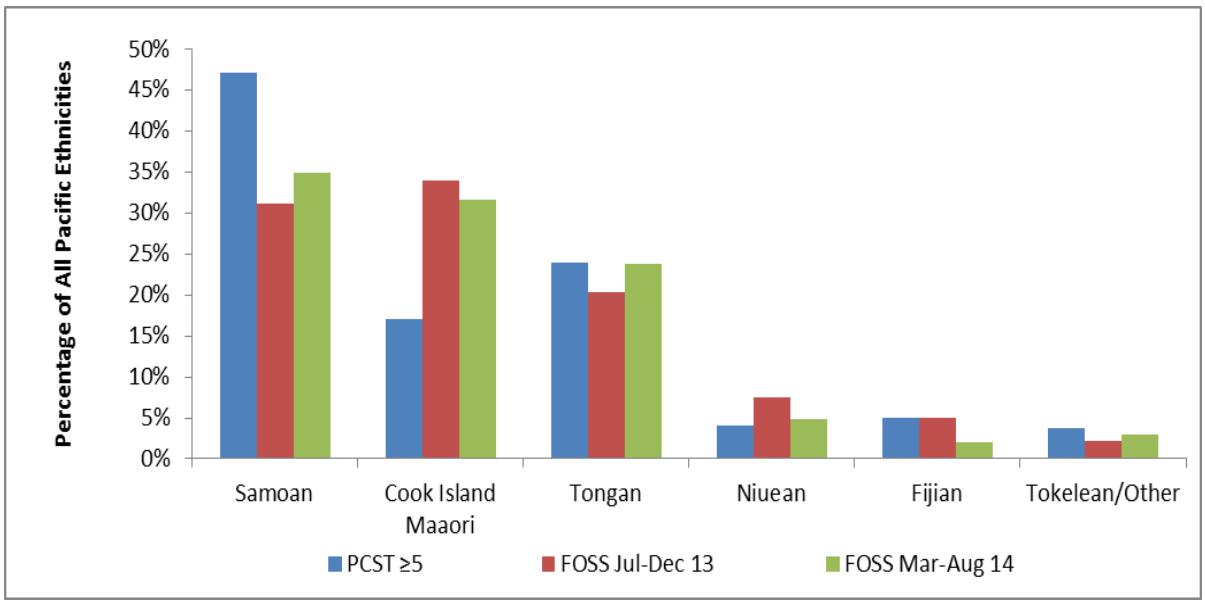
Table 14 Number and percentage of PCST ≥5 and Fanau Ola Support Service Jul-Dec 2013 and Mar-Aug 2014 cohorts by identified ethnic group

	PCST ≥5 Jul-Dec 2012		Fanau Ola Support Service Jul-Dec 13		Fanau Ola Support Service Mar-Aug 14		
Ethnicity	**Number of cases**	**% of group**	**Number of cases**	**% of group**	**Number of cases**	**% of group**	**CM Health %***
Samoan	101	47%	100	31%	253	35%	51%
Cook Island Maaori	37	17%	109	34%	229	32%	21%
Tongan	51	24%	65	20%	172	24%	23%
Niuean	9	4%	24	8%	35	5%	9%
Fijian	11	5%	16	5%	15	2.1%	3.2%
Tokelauan	1	0.5%	0	0%	3	0.4%	1.0%
All others	7	3.2%	7	2.6%	19	2.6%	0.7%
Total	**217**	**100%**	**321**	**100%**	**726**	**100%**	**109%**

*CM Health's Pacific population breakdown by ethnicity is based on the total response of ethnicities reported by the usually resident population in the 2013 Census. As total response means people can report more than one ethnicity the total equals 109%

Figure 6 does not include census as the total being 109% would make the graph difficult to meaningfully interpret when alongside totals of 100%.

Figure 9 Percentage of PCST ≥5 and Fanau Ola Support Service cohorts by ethnicity



Data obtained from the National Minimum Data Set (NMDS) for CM Health provided services in the 2013/2014 fiscal year for the three largest Pacific ethnic groups had a spread of: 53.3% Samoan, 19.3% Cook Island Maaori and 27.4% Tongan.

Over 60% of primary clients live in the most socio-economic deprived decile

The two Fanau Ola Support Service cohorts had similar proportions of primary clients living in the most socio-economic deprived deciles using NZDep2006 by Census Area Unit. In both time periods over 60% of primary clients lived in decile 10 and over 90% lived in decile 8, 9 or 10.

In the 2013 census usually resident data 52% of Pacific people were living in decile 10 neighbourhoods and 86% in deciles 8, 9 and 10 as shown in Table 37 and Figure 15 in Appendix Eight.

More details of NZDep and information on the religion and suburb of the patients in the two Fanau Ola Support Service cohorts is supplied in Appendix Eight.

Utilisation of Secondary Services by all Patients and by Patients of a Pacific ethnicity

Analysis by the grouping used in this report had between 21% (Surgical Outpatients) and 48% (Paediatric Medicine hospitalisations) of the CM Health secondary services utilised by people of Pacific ethnicities.

About a third of Middlemore Hospital's EC attendances are by people of Pacific ethnicities

Middlemore Hospital has approximately 105,000 emergency care attendances per year. People identified as Pacific ethnicities comprised 33% of emergency care attendances between Jul-Dec 2012 and 32% between Jul-Dec 2013 as shown in Table 12. In Jul-Dec 2013 there was a small increase in total attendances and a small decrease in attendances by people of a Pacific ethnicity compared to Jul-Dec 2012.

About a quarter of CM Health's 130,000 hospitalisations per year are by people of Pacific ethnicities

There are approximately 130,000 hospitalisations, including well newborns, to all CM Health Facilities per year. Every midnight approximately 930 beds are occupied. People identified as being of a Pacific ethnicity comprised 28% of hospitalisations Jul-Dec 2012 and 27% Jul-Dec 2013. The midnight occupancy of CM Health facility beds by people identified of Pacific ethnicities was 24% Jul-Dec 2012 and also 24% for Jul-Dec 2013.

Nearly half of Paediatric Medicine hospitalisations were by people of Pacific ethnicity

The percentage of Paediatric Medicine patient hospitalisations that were by people of Pacific ethnicities (47% Jul-Dec 2012 and 47% Jul-Dec 2013) was nearly double the percentage of hospitalisations (26% Jul-Dec 2012 and 26% Jul-Dec 2013) to the Adult General Medicine service as shown in Table 12.

Table 15 Number of hospitalisations and bed days at CM Health facilities July-December 2012 and July-December 2013 for all ethnicities and for people identified as Pacific ethnicities

Secondary service	Jul-Dec 2012 All ethnicities	Jul-Dec 2012 Pacific ethnicities	% Pacific ethnicities	Jul-Dec 2013 All ethnicities	Jul-Dec 2013 Pacific ethnicities	% Pacific ethnicities
EC Attendances	52,070	17,200	33%	53,500	17,050	32%
Hospitalisations	64,780	17,970	28%	64,300	17,340	27%
Bed days	171,090	40,550	24%	169,800	40,080	24%
General Medicine Hospitalisations	9,380	1,500	16%	9,300	1,490	16%
General Medicine Bed days	27,780	2,800	10%	28,690	2,530	9%
Paediatric Medicine Hospitalisations	3,150	1,500	47%	3,250	1,490	46%
Paediatric Medicine Bed days	5,870	2,800	48%	5,610	2,530	45%

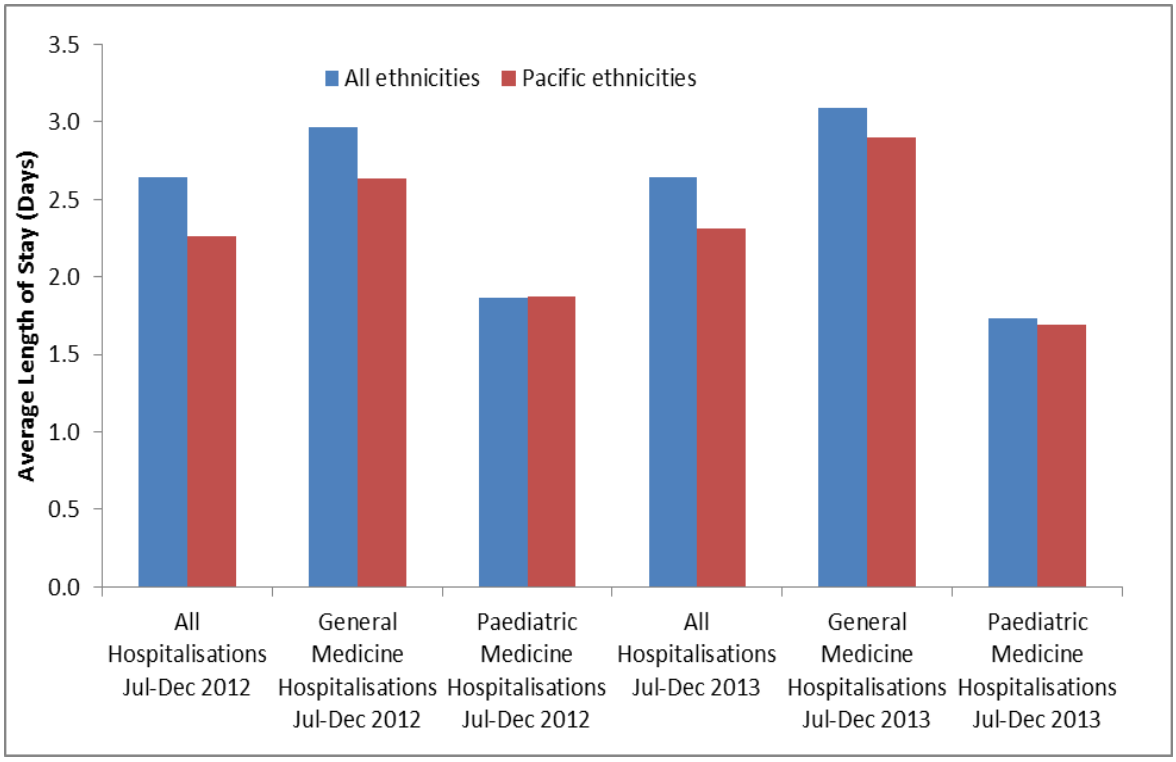
AVERAGE LENGTH OF STAY

The average length of stay (ALOS) for people of Pacific ethnicities was less than all ethnicities for all hospitalisations and General Medicine hospitalisations. For Paediatric Medicine patients of Pacific ethnicities (1.87 days in Jul-Dec 2012 and 1.69 Jul-Dec 2013) had a similar ALOS to all ethnic groups (1.86 days in Jul-Dec 2012 and 1.73 Jul-Dec 2013).

Table 16 Average length of stay of CM Health hospitalisations July-December 2012 and July-December 2013 for all ethnicities and for people identified as Pacific ethnicities

Secondary service	Jul-Dec 2012 All ethnicities	Jul-Dec 2012 Pacific ethnicities	Jul-Dec 2013 All ethnicities	Jul-Dec 2013 Pacific ethnicities
All Hospitalisations	2.64	2.26	2.64	2.31
General Medicine Hospitalisations	2.96	2.63	3.09	2.90
Paediatric Medicine Hospitalisations	1.86	1.87	1.73	1.69

Figure 10 Average length of stay of CM Health hospitalisations July-December 2012 and July-December 2013 for all ethnicities and for people of Pacific ethnicities



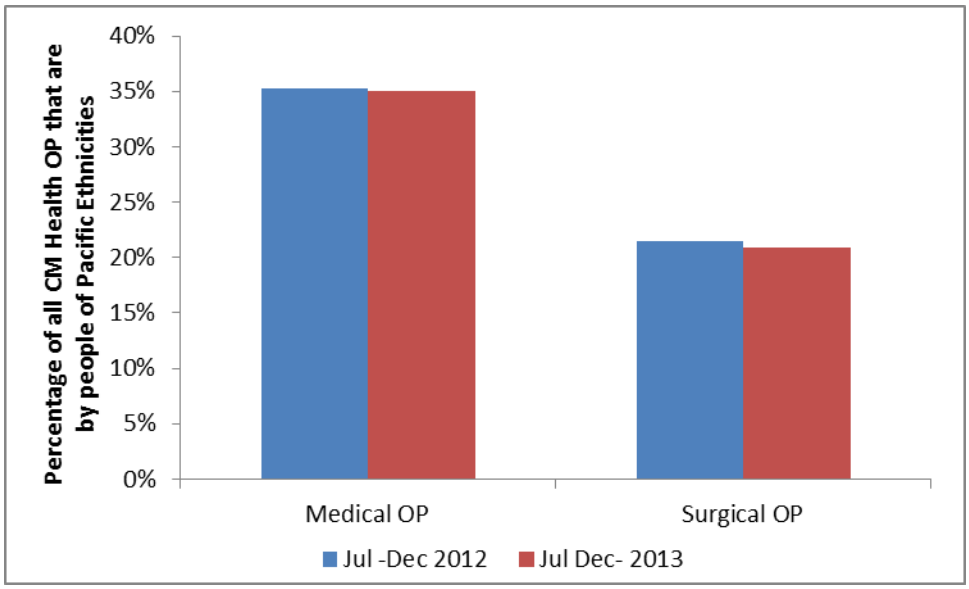
The percentage of utilisation of CM Health medical and surgical outpatient services by people of Pacific ethnicities is provided in Table 14 and shown in Figure 8.

Table 17 Number of Outpatient appointments to CM Health facilities July-December 2012 and July-December 2013 for all ethnicities and for people identified as Pacific ethnicities

Secondary service	Jul-Dec 2012 All ethnicities	Jul-Dec 2012 Pacific ethnicities	% Pacific ethnicities	Jul-Dec 2013 All ethnicities	Jul-Dec 2013 Pacific ethnicities	% Pacific ethnicities
Medical OP visits (incl. DNAs)	83,210	29,340	35%	88,860	31,110	35%
DNAs	6,570	2,450		6,370	2,440	
DNAs %	7.9%	8.4%		7.2%	7.8%	
Surgical OP visits (incl. DNAs)	76,410	16,380	21%	81,020	16,910	21%
DNAs	6,110	2,430		6,770	2,570	
DNAs %	8.0%	14.9%		8.4%	15.2%	

* Please note Medical outpatients includes Renal Medicine

Figure 11 Percentage of all CM Health outpatient appointments that are by people of Pacific ethnicities for Jul-Dec 2012 and Jul-Dec 2013 for medical and surgical specialties



Secondary Services use decreased for Fanau Ola Support Service patients and PCST patients with ≥5 EC attendances

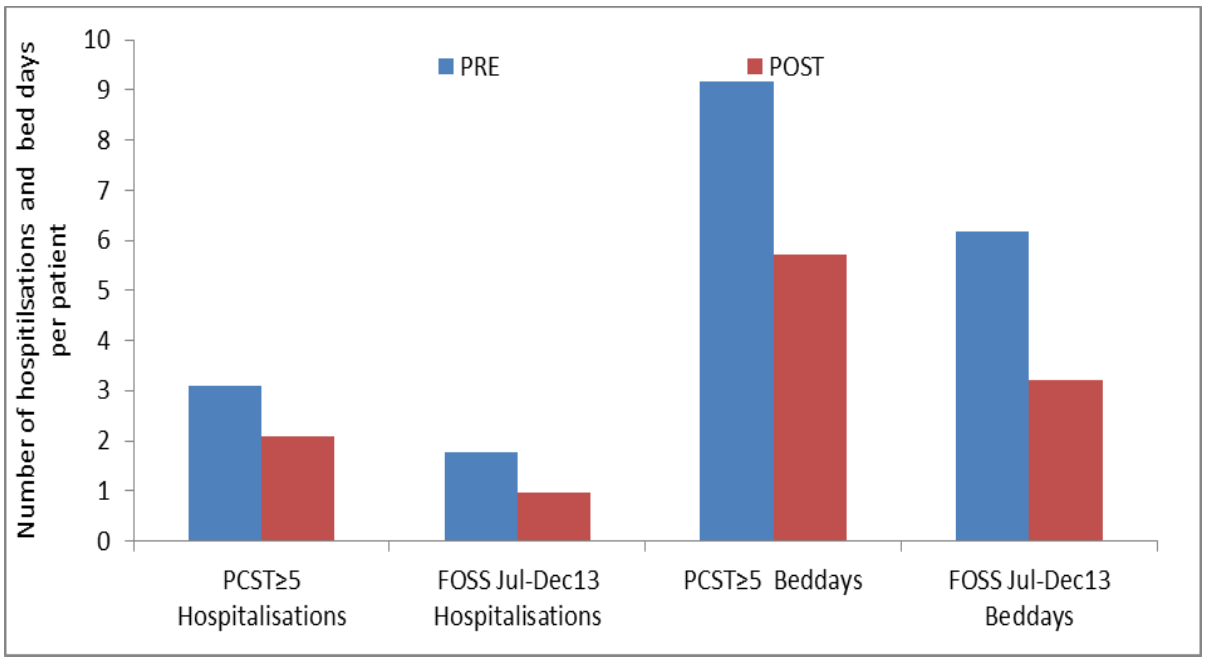
KEY RESULT

There was an approximately 50% decrease in EC attendances, hospitalisations and bed days per patient for the patients that started Fanau Ola Support Service between July and December 2013 in the six months after they started Fanau Ola Support Service.

There was an approximately 40% decrease per patient for Pacific Cultural Support Team (PCST) patients who had five or more EC attendances in the previous 12 months, in the six months following their starting with PCST. However due to the differences in the selection of Fanau Ola Support Service and PCST ≥5 patients it is not possible to state if there is any significance to this difference.

As stated in the methodology, the hospitalisation that occurred at the start of the PCST ≥5 or Fanau Ola Support Service involvement is excluded from both the pre and post analysis. The number of individuals in the PCST ≥5 cohort was 217 and the Fanau Ola Support Service Jul-Dec 13 cohort was 321.
Both PCST ≥5 and Fanau Ola Support Service Jul-Dec 13 cohorts had reductions in hospitalisations per patient and bed days per patient as shown in Figure 9.

Figure 12 Number of hospitalisations and bed days per patient for the PCST ≥5 cohort and Fanau Ola Support Service Jul-Dec 13 cohort in the six months before and after the intervention



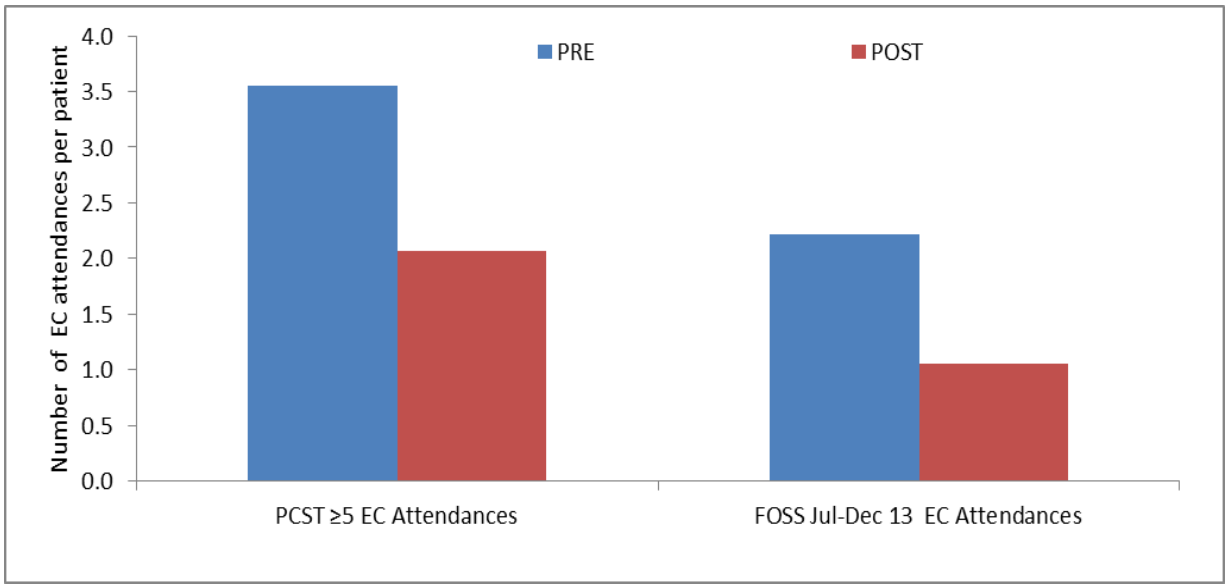
EMERGENCY CARE ATTENDANCES

Both the PCST ≥5 and Fanau Ola Support Service Jul-Dec 13 had less people attending the emergency care in the six months after the intervention compared to the six months before. For the six months post intervention there were 42% less EC attendances per patient for the PCST ≥5 cohort and 52% less for the Fanau Ola Support Service Jul-Dec 13 cohort.

Table 18 Number of emergency care attendances at Middlemore Hospital for PCST ≥5 and Fanau Ola Support Service Jul–Dec 2013 cohorts six months before and six months after the intervention

Patient group	Six months before total number	Six months before per person	Six months after total number	Six months after per person	Change
PCST ≥5 EC	772	3.6	449	2.1	-42%
Fanau Ola Support Service (Started Jul-Dec 2013)	723	2.2	344	1.1	-52%

Figure 13 Number of EC attendances per patient for the PCST ≥5 and Fanau Ola Support Service Jul-Dec 2013 cohorts in the six months before and after the intervention



HOSPITALISATIONS

In this report the data for all hospitalisations are shown in Table 16. The data shown for three of the admit types (acute, arranged hospitalisation and waiting list) is shown in Appendix Nine.

The Fanau Ola Support Service Jul-Dec 13 cohort had an average length of stay, for all hospitalisations, that occurred in the six months before the intervention, of 3.47 days. This was 0.49 days longer than the PCST ≥5 cohort's pre intervention ALOS which was 2.98 days.

The percentage decrease in hospitalisations and bed days after the intervention was larger for the Fanau Ola Support Service Jul-Dec 13 cohort. After the interventions this cohort had a 46% decrease for hospitalisations and 48% decrease in bed days; the respective decreases for the PCST ≥5 cohort were 32% and 38%.

Table 19 Number of hospitalisations, bed days and average length of stay to CM Health facilities for the PCST ≥5 cohort and the Fanau Ola Support Service Jul-Dec13 cohort six months before and six months after the intervention, all admission types

Patient Group	Utilisation	Six months before	Six months before per patient	Six months after	Six months after per patient	Change
Ward-based PCST (Jul-Dec 2012) AND HAD (≥5 EC admits in 12 months)	Hospitalisations	669	3.1	453	2.1	-32%
	Bed days	1,992	9.2	1,238	5.7	-38%
	ALOS	2.98	2.98	2.73	2.73	-8%
Fanau Ola Support Service (Started between Jul-Dec 2013)	Hospitalisations	582	1.8	312	1.0	-46%
	Bed days	2,017	6.2	1,051	3.2	-48%
	ALOS	3.47	3.47	3.37	3.37	-3%

General Medicine and Paediatric Medicine hospitalisations

General Medicine and Paediatric Medicine were the specialties with the most hospitalisations and are shown in Tables 17 and 18. The PCST ≥5 cohort and the Fanau Ola Support Service Jul-Dec 13 cohort had 32% and 34% reductions in hospitalisations to the general medical service in the six months following the intervention.

Table 20 Number of hospitalisations, bed days and average length of stay to CM Health facilities for the PCST ≥5 cohort and the Fanau Ola Support Service Jul-Dec 13 cohort six months before and six months after the intervention, General Medicine hospitalisations only

Patient Group	Utilisation	Six months before	Six months before per patient	Six months after	Six months after per patient	Change
Ward-based PCST (Jul-Dec 2012) AND HAD (≥5 EC admits in 12 months)	Hospitalisations	183	0.84	125	0.58	-32%
	Bed days	616	2.84	473	2.18	-23%
	ALOS	3.37		3.78		12%
Fanau Ola Support Service (Started between Jul-Dec 2013)	Hospitalisations	168	0.52	111	0.35	-34%
	Bed days	638	1.99	443	1.38	-31%
	ALOS	3.8		3.99		5%

The Fanau Ola Support Service Jul-Dec 13 cohort (61%) cohort had a slightly larger reduction in Paediatric Medicine hospitalisations per patient than the PCST ≥5 cohort (54%).

Table 21 Number of hospitalisations, bed days and average length of stay to CM Health facilities for PCST ≥5 and Fanau Ola Support Service Jul-Dec 13 cohorts for the six months before and six months after the intervention, Paediatric Medicine hospitalisations only

Patient Group	Utilisation	Six months before	Six months before per patient	Six months after	Six months after per patient	Change
Ward-based PCST (Jul-Dec 2012) AND HAD (≥5 EC admits in 12 months)	Hospitalisations	100	0.46	46	0.21	-54%
	Bed days	248	1.14	98	0.45	-60%
	ALOS	2.48		2.13		-14%
Fanau Ola Support Service (Started between Jul-Dec 2013)	Hospitalisations	93	0.29	36	0.11	-61%
	Bed days	185	0.58	74	0.23	-60%
	ALOS	1.99		2.06		4%

THERE WERE A HIGH NUMBER OF RENAL APPOINTMENTS AMONGST THE MEDICAL OUTPATIENT APPOINTMENTS

The PCST ≥5 cohort had very high numbers of medical outpatient appointments, both before (2,048, 9.4 per patient) and after (2,191, 10.1 per patient) the intervention. There were 1,639 renal appointments (74% of all medical OP appointments), which can include dialysis outpatient visits, in the six months prior to the intervention in the PCST≥5 cohort and 1,854 (79%) in the six months after the intervention. Of the Fanau Ola Support Service Jul-Dec 2013 cohort's appointments, 21% were renal before the intervention and 32% of the appointments after the intervention.

The PCST≥5 cohort had 40 patients who had at least one renal outpatient appointment before the intervention and 41 after the intervention. The Fanau Ola Support Service Jul-Dec 13 cohort had 24 patients with at least one renal outpatient appointment before the intervention and 29 patients with at least one intervention after the appointment.

Table 22 Number of renal appointments and number of people who had at least one renal appointment for the PCST ≥5 cohort and the Fanau Ola Support Service Jul-Dec 13 cohort in a six month period, by before or after the intervention

Patient Group	Six months before appointments	Six months before number of patients	Six months after number of appointments	Six months after number of patients patient
Ward-based PCST (Jul-Dec 2012) AND HAD (≥5 EC admits in 12 months)	1,639	40	1,854	41
Fanau Ola Support Service (Started between Jul-Dec 2013)	137	24	362	29

The renal medicine outpatient appointments can also be expressed per person as shown in Table 20.

Table 23 Number of renal appointments per person and percentage of people in the cohort who had at least one renal appointment for the PCST ≥5 cohort and the Fanau Ola Support Service Jul-Dec 13 cohort in a six month period, by before or after the intervention

Patient Group	Six months before appointments	Six months before number of patients	Six months after number of appointments	Six months after number of patients patient
Ward-based PCST (Jul-Dec 2012) AND HAD (≥5 EC admits in 12 months)	7.6	18%	8.5	19%
Fanau Ola Support Service (Started between Jul-Dec 2013)	0.4	8%	1.1	9%

The PCST did not have staff on the renal ward but would accept referrals directly from the renal ward.

At CM Health predialysis patients with a non-renal problem are admitted to a service other than renal. However the definition of predialysis is a patient who is not presently on dialysis but it is thought likely to be on dialysis in the future.

Table 24 Number of medical outpatient visits and DNAs for the PSCT ≥5 cohort and the Fanau Ola Support Service Jul- Dec 13 cohort six months before and six months after the intervention

Patient Group	Data	Six months before	Six months before per patient	Six months after	Six months after per patient	Change
Ward-based PCST (Seen Jul-Dec 2012) AND HAD (≥5 EC admits in previous 12 months)	Medical OP visits (incl. DNAs)	2,048	9.4	2,191	10.1	7.0%
	DNAs	158	0.7	146	0.7	-7.6%
	% DNA	7.7%		6.7%		-0.7%*
Fanau Ola Support Service (Started between Jul-Dec 2013)	OP visits (incl. DNAs)	680	1.8	1,130	3.0	+52.7 %
	DNAs	106	0.3	162	0.5	+38.5 %
	% DNA	14.3%		14.3%		0.0%*

* Expressed as absolute decrease

The surgical outpatient appointments decreased slightly (10%) after the intervention for the Fanau Ola Support Service Jul-Dec 13 cohort and decreased slightly (-21%) for the ward-based PCST cohort.

Table 25 Number of surgical outpatient visits and DNAs for the PCST ≥5 and Fanau Ola Support Service Jul-Dec 13 cohorts for six months before and six months after the intervention

Patient Group	Data	Six months before	Six months before per patient	Six months after	Six months after per patient	Change
Ward-based PCST (Seen Jul-Dec 2012) AND HAD (≥5 EC admits in previous 12 months)	Surgical OP visits (incl. DNAs)	165	0.8	131	0.6	-20.6%
	DNAs	29	0.1	25	0.1	-13.8%
	% DNA	17.6%		19.1%		1.5%*
Fanau Ola Support Service (Started between Jul-Dec 2013)	Surgical OP visits (incl. DNAs)	287	0.7	256	0.7	-9.8%
	DNAs	52	0.2	44	0.1	-2.2%
	% DNA	18.1%		17.2%		-0.9%*

* Expressed as absolute increase or absolute decrease

Fewer of the Jul-Dec 2013 Fanau Ola Support Service cohort died within 6 months than the PCST ≥5 cohort

The Fanau Ola Support Service Jul-Dec 2013 cohort had 3.1% of the patients die within six months of having initially been seen by Fanau Ola Support Service. The Pacific Cultural Support Team (PCST) patients that had five or more EC attendances in the previous 12 months had a greater proportion of the patients (13.0%) that died in the first six months after having been seen.

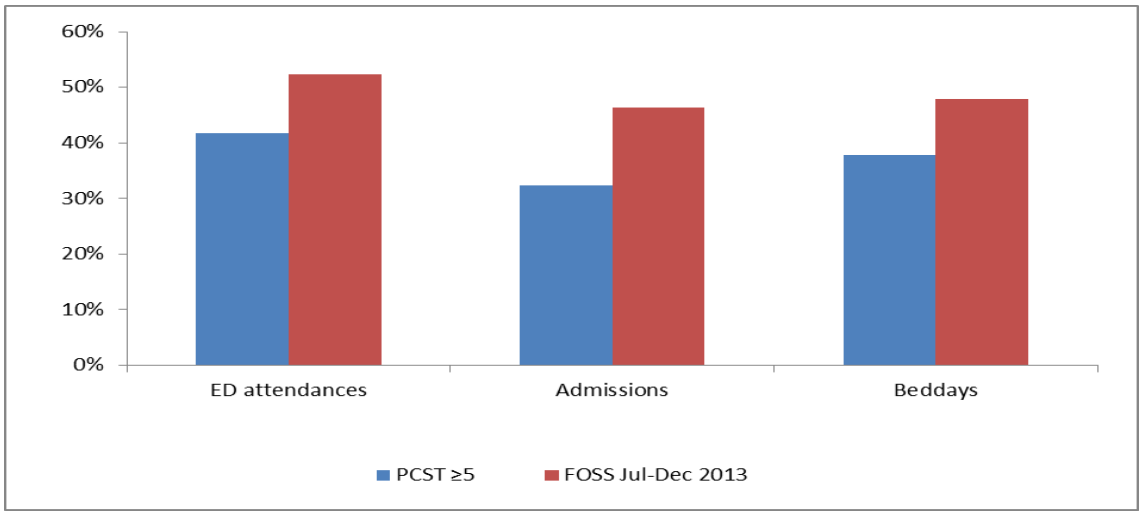
Table 26 Number and Percentage of patient who died within three months and six months of been seen by the Fanau Ola Support Service or the Pacific Cultural Support Team

Cohort	Died at 3 Months (%)	Died at 6 Months (%)	Number of cases
FO Jul-Dec 2013	8 (2.5%)	10 (3.1%)	321
PCST Jul-Dec 2012	21 (9.8%)	28 (13.0%)	217

Summary of utilisation of secondary services by patients of the PCST ≥5 and Fanau Ola Support Service Jul-Dec 13 cohorts

The PCST ≥5 and Fanau Ola Support Service Jul-Dec 13 cohorts both had decreases in the six months after the intervention for emergency care attendances, inpatient hospitalisations and bed days. As could be inferred from Figure 11 the overall reduction post Fanau Ola Support Service for the Jul-Dec 2013 cohort for EC attendances, hospitalisations and bed days was approximately 50%. For the PCST ≥5 patients it was approximately 40% as shown in Figure 11.

Figure 14 Percentage reductions in EC attendances, hospitalisations and bed days for the PCST ≥5 and Fanau Ola Support Service Jul-Dec13 cohorts in the six months before and after the intervention



The PCST ≥5 cohort had a much larger number of medical outpatient appointments both before and after the intervention than the Fanau Ola Support Service cohort. Over 70% of these were renal outpatient appointments.

Fanau Ola Support Service Jul-Dec 2013 compared to Fanau Ola Support Service Mar-Aug 2014

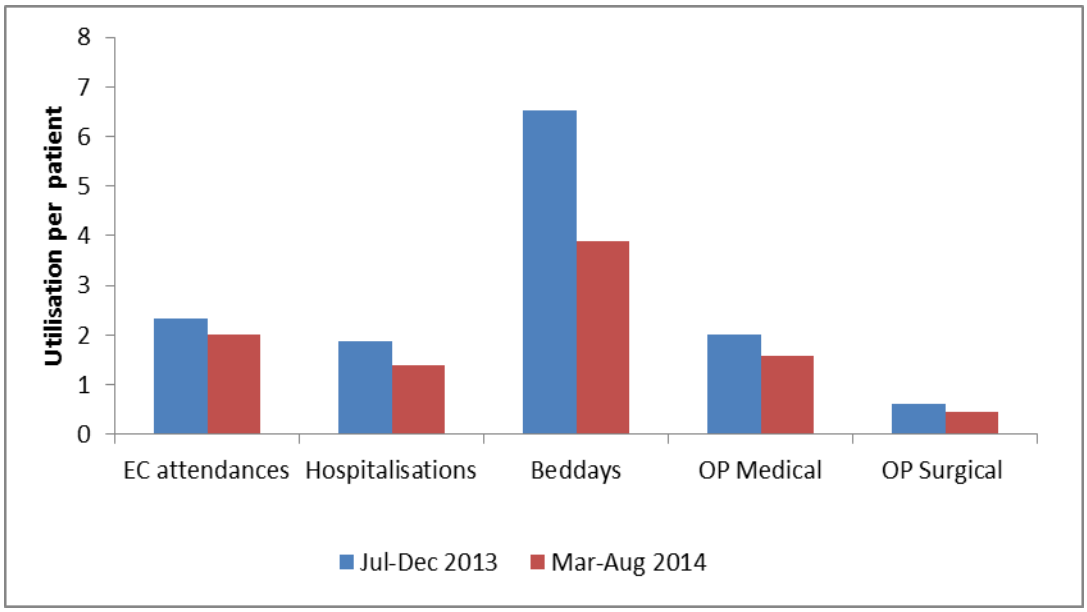
KEY FINDINGS IN THIS SECTION

Every working day Fanau Ola Support Service staff members select new patients to offer Fanau Ola Support Services to. The Fanau Ola Support Service staff members observed that as the months progressed the new patients they selected each day had had fewer and fewer previous EC visits and hospitalisations in the past 12 months. To assess this difference quantitatively the Fanau Ola Support Service Jul-Dec 13 and Mar-Aug 14 cohorts were compared. The data that was compared was secondary service use in the six months before the intervention. When expressed as per patient, on all measures the Mar-Aug 14 cohort had less secondary service utilisation as shown in Table 24 and Figure 12.

Table 27 Secondary service utilisation per patient for the Jul-Dec 13 and Mar-Aug 14 Fanau Ola Support Service cohorts in the six months prior to the intervention by utilisation

Utilisation	Jul-Dec 13	Mar-Aug 14	Percentage Difference
ED attendances	2.3	2.0	-14.3%
Hospitalisations	1.9	1.4	-26.3%
Bed days	6.5	3.9	-40.4%
OP Medical	2.0	1.6	-21.4%
OP Surgical	0.6	0.5	-25.1%
ALOS (Days)	3.5	2.8	-19.1%

Figure 15 Number of EC attendances, hospitalisations, bed days and OP appointments per patient for the Jul-Dec 13 and Mar-Aug 14 Fanau Ola Support Service cohorts before the intervention



NUMBER OF EC ATTENDANCES, HOSPITALISATIONS AND BED DAYS PER PERSON

As stated previously in the methods there were 321 people in the Jul-Dec 13 cohort and 726 people in the Mar-Aug 14 cohort. As some of the patients who started Fanau Ola Support Service in the Mar-Aug 14 cohort did not have six months between their starting Fanau Ola Support Service and when the analysis occurred, there is no information presented in this section for events occurring in the six months after the intervention.

The Jul-Dec 13 cohort had more utilisation per person than the Mar-Aug 14 cohort in the six months before the intervention. This applied to:

- EC attendances 2.25 per patient Jul-Dec 13 and 1.66 Mar-Aug 14.
- Hospitalisations 1.81 per patient Jul-Dec 13 and 1.15 Mar-Aug 14.
- Bed days 6.28 per patient in Jul-Dec 13 and 3.22 Mar-Aug 14.

Table 28 Number of emergency care attendances, hospitalisations and bed days at CM Health facilities for the Jul-Dec 13 and Mar-Aug 14 Fanau Ola Support Service cohorts six months before the intervention

Utilisation	Fanau Ola Support Service Jul-Dec 2013 Total	Fanau Ola Support Service Jul-Dec 2013 per patient	Fanau Ola Support Service Mar-Aug 2014 Total	Fanau Ola Support Service Mar-Aug 2014 per patient	Percentage difference between cohorts
ED attendances	723	2.25	1205	1.66	-36%
Hospitalisations	582	1.81	834	1.15	-58%
Bed days	2,017	6.28	2,339	3.22	-95%

The average length of stay for the Fanau Ola Support Service Jul-Dec 13 patients (3.47 days) was more than the average length of stay for the Fanau Ola Support Service Mar-Aug 14 patients (2.80 days) for all hospitalisations as shown in Table 26.

Table 29 Average length of stay for hospitalisations for the Jul-Dec 13 and Mar-Aug 14 cohorts in six months before the intervention

Fanau Ola Support Service (Started between Jul-Dec 2013) (Days)	Fanau Ola Support Service (Started between Mar-Aug 2014) (Days)	Absolute difference (days)	Percentage difference between cohorts
3.47	2.80	0.67	-23.9%

Please see Appendix Nine for the hospitalisations, bed days and ALOS by different admission types.

General Medicine and Paediatric Medicine hospitalisations and bed days

The Fanau Ola Support Service Jul-Dec 13 cohort had more General Medicine hospitalisations and bed days per patient than the Mar-Aug 2014 cohort. The average length of stay for General Medicine in the Fanau Ola Support Service Jul-Dec 13 cohort (3.80 days) was almost a day longer per hospitalisation than the Fanau Ola Support Service Mar-Aug 14 cohort (2.88 days).

Table 30 Number of hospitalisations, bed days and average length of stay for Jul-Dec 13 and Mar-Aug 14 Fanau Ola Support Service cohorts for the six months before the intervention, General Medicine hospitalisations only

Utilisation	Fanau Ola Support Service Jul-Dec 2013 Total	Fanau Ola Support Service Jul-Dec 2013 per patient	Fanau Ola Support Service Mar-Aug 2014 Total	Fanau Ola Support Service Mar-Aug 2014 per patient	Percentage difference between cohorts
Hospitalisations	168	0.52	173	0.24	-54%
Bed days	638	1.99	498	0.69	-65%
ALOS	3.80		2.88		

Table 31 Number of hospitalisations, bed days and average length of stay for Jul-Dec 13 and Mar-Aug 14 Fanau Ola Support Service cohorts for the six months before the intervention, Paediatric Medicine hospitalisations only

Utilisation	Fanau Ola Support Service Jul-Dec 2013 Total	Fanau Ola Support Service Jul-Dec 2013 per patient	Fanau Ola Support Service Mar-Aug 2014 Total	Fanau Ola Support Service Mar-Aug 2014 per patient	Percentage difference between cohorts
Hospitalisations	93	0.29	162	0.22	-23%
Bed days	185	0.58	333	0.46	-20%
ALOS	1.99		2.06		

Medical and Surgical Outpatient Visits and DNAs

The DNA rate for the medical outpatients was 16% for the Jul-Dec13 cohort and 13% for the Mar-Aug 14 cohort. Although the time periods do not match identically it is worth noting that the DNA rate for Medical outpatient appointments for all people of Pacific ethnicities in Jul-Dec 2013 was less than half (7.8%) that of the Jul-Dec 2013 Fanau Ola Support Service cohort.

Table 32 Number of Medical outpatient visits and DNAs for the Jul-Dec13 and Mar-Aug 14 Fanau Ola Support Service cohorts for the six months before the intervention

Event type	Fanau Ola Support Service Jul-Dec 2013 Total	Fanau Ola Support Service Mar-Aug 2014 per patient	Fanau Ola Support Service Mar-Aug 2014 Total	Fanau Ola Support Service Mar-Aug 2014 per patient	Percentage difference between cohorts per patient
OP visits (incl. DNAs)	680	1.79	1,022	1.41	-21%
DNAs	106		134		
% DNA	16%		13%		

The number of renal outpatient appointments, the number of individuals who had renal OP visits is shown in Table 30.

Table 33 Number of renal appointments and number of people who had at least one renal appointment for the Fanau Ola Support Service Jul-Dec 13 and Mar-Aug 14 cohorts in a six month period before the intervention and for only the Jul-Dec 2013 cohort the six months after the intervention

Patient Group	Appointments in preceding six months	Number of patients in preceding six months	Appointments in subsequent six months	Number of patients in subsequent six months
Fanau Ola Support Service (Started between Jul-Dec 2013)	137	24	362	29
Fanau Ola Support Service (Started between Mar-Aug 2014)	397	39	NA	NA

Table 34 Number of renal appointments per person and percentage of people who had at least one renal appointment for the Fanau Ola Support Service Jul-Dec 13 and Mar-Aug 14 cohorts in a six month period before the intervention and for only the Jul-Dec2013 cohort the six months after the intervention

Patient Group	Number of appointments per person in preceding six months	Percentage of patients with at least one appointment in preceding six months	Number of appointments per person in subsequent six months	Percentage of patients with at least one appointment in subsequent six months
Fanau Ola Support Service (Started between Jul-Dec 2013)	0.4	7.5%	1.1	9.0%
Fanau Ola Support Service (Started between Mar-Aug 2014)	0.5	5.4%	NA	NA

For surgical outpatients the DNA rate was 18% for the Jul-Dec 2013 cohort and 13% for the Mar-Aug 14 cohort. The DNA rate for all people of Pacific ethnicities in Jul-Dec 2013 was 15.2% for surgical outpatient appointments.

Table 35 Number of Surgical outpatient visits and DNAs for the Jul-Dec13 and Mar-Aug 14 Fanau Ola Support Service cohorts for the six months before the intervention

Event type	Fanau Ola Support Service Jul-Dec 2013 Total	Fanau Ola Support Service Jul-Dec 2013 per patient	Fanau Ola Support Service Mar-Aug 2014 Total	Fanau Ola Support Service Mar-Aug 2014 per patient	Percentage difference between cohorts per patient
OP visits (incl. DNAs)	287	0.89	385	0.53	-41%
DNAs	52		50		
% DNA	18.1%		13.0%		

Staff Interview Findings

Interviewing of Fanau Ola Support Service Staff

The key themes identified through staff interviews can be grouped into structure, culture and language, staff training, helping in the hospital and health literacy.

Structure

RESOURCES – POOL CARS, COMPUTERS AND NUMBER OF STAFF

None of the staff felt that any current resources could be removed without affecting the Fanau Ola Support Service adversely. In particular home visits, for which the staff members require cars, were seen as an essential part of the service.

One staff member did say that possibly someone else from a different service could see the patient and their family in hospital, as long as it was done in a culturally appropriate way. However most of the staff recounted that the building of trust between the Fanau Ola Advocate and the patient and their family was an important ingredient for Fanau Ola Support Service success. The continuity of having the same Fanau Ola Advocate at the hospital and at the patient's home is likely to add to the building of this trust.

Staff members felt the Fanau Ola Support Service could improve outcomes for patients and their families if they had a mechanism of capturing the data electronically. As at October 2014 they were writing down every detail and then having to enter some of the details into various places such as the Patient Information Management System (PIMS) and Excel data sheets.

Benefits staff mentioned for improving patient and family outcomes included:

> *Increasing patient health literacy by staff being able to work with the patients to find services in their own area (e.g. after hours pharmacies) via electronic searches.*

Benefits staff mentioned for efficiency included:

i) Less staff time being spent on data entry when returning to the office. As some staff members do not have their own computer their data entry can be delayed
ii) Less time and space spent on paper storage.

It was also felt that if the number of staff were reduced the number of patients the Fanau Ola Support Service team could see would decrease.

Six staff said that if more resources were available it would be useful to have more staff. The staff gave different responses as to the type of extra staff. Suggested extra staff included a Fijian Fanau Ola Advocate, a Samoan Fanau Ola Advocate based on the CCU/SDU wards, Nurses, Social Workers and a Pharmacist.

THE ASSESSMENT TOOL

The Full Fanau Ola Support Service Assessment tool (a 14 page long list of questions for patients) was both commended and criticised by staff. The assessment tool (based on a similar list of questions which had been designed by the Fanau Ola Systems Architect and refined for Fanau Ola in Waikato) was redesigned for the Fanau Ola Support Service. The ward-based PCST did not have a similar tool. The tool provided a structure of questions to ask. A staff member stated that it also acted as a reminder to ask the questions and in particular to remind the Fanau Ola Advocates to involve the fanau/family in the assessment.

However four Fanau Ola Support Service staff made negative comments about the form. One commented that the form was *"too long, especially for a sick person",* and creates extra paper work. One staff member said that *"some patients think they [the questions] are too personal"*. Another said that the forms should be narrowed down. A further comment was that the forms have been a challenge and that some people do not *"know"* scales and felt using text descriptions may be better.

The 'scales' the Fanau Ola Support Service staff member was referring to are 1-10 scales asked in the assessment. There are 14 of these questions and some of these 14 can apply to multiple fields. For example patients are asked to rate from 1 to 10 how much every one of their family members suffers from a list of 22 illnesses and diseases.

It should be noted that some of the staff who made negative comments about the assessment form also made positive statements about it too.

Culture and Language

One of the interviewees said the Fanau Ola approach has been in place for decades. However the Fanau Ola Support Service at Counties Manukau Health was a new service established in 2013. As a new service it endeavoured to best use the existing skills of the staff. All staff had a strong cultural knowledge. To best utilise this cultural knowledge staff received training on areas of process they may not have been experienced in before the commencement of the Fanau Ola Support Service. One interviewee said the most challenging part of the Fanau Ola approach was "changing the mind set of staff from cultural support workers to wrap around care for patients and families".

Key themes from the staff interviews, which relate to the staff application of their cultural knowledge components, are shown below.

i) Good relationships with patients and family are important; people open up more with such relationships.
ii) Patients are more open at home.
iii) It is very important for Fanau Ola Support Service staff to have cultural knowledge for Fanau Ola Support Service success.
iv) Consent for Fanau Ola Support Service can be hard to get, especially if the ethnicity of the Fanau Ola Advocate does not match the ethnicity of the patient.
v) Fanau Ola Support Service staff can help with medication issues by speaking to patients in their own language.
vi) In hospital Fanau Ola Support Service staff can help patients by ensuring other health professionals have input and these inputs are appropriately recorded.

RELATIONSHIPS AND SEEING PATIENTS IN THEIR OWN HOMES

The importance of the relationship between the Fanau Ola Advocate and the patient and their family was frequently mentioned by staff as being a key element of success. Two staff members used the Samoan term of "Talanoa" – translated as conversation. One staff member stated that the relationship with patients and their family was the best thing about starting Fanau Ola Support Service. Under the previous model the patients were not followed up by the same Pacific Cultural Support Team worker unless, by chance, the worker was called to see the patient on a subsequent hospitalisation to a CM Health healthcare facility.

Staff said that under the Fanau Ola model the patient feels more comfortable and engages more, and this level of openness and engagement was enhanced by the home visit.

A key focus of the home visits was based on the patient's understanding of the discharge summary. Fanau Ola Advocates reported most patients could produce a hard copy of the discharge summary they had received. However some of the patients had not read the discharge summary and some of those that had did not understand it.

Before the home visit the Fanau Ola Advocate checks what appointments the patient has attended, has not attended and what appointments they have in the future. At the home visit the Fanau Ola Advocate can discuss why the patient may not have attended the appointment with questions such as: Did they receive the appointment letter? What was their understanding of the reason for the appointment? On occasions, the Fanau Ola Advocate may find out that the patient had been given two appointments on the same day, one at Greenlane (with Auckland DHB) and one at

Counties Manukau SuperClinic (with CM Health). They would then assist patients to decide which appointment to prioritise that day and to which to reschedule.

The home visit also enables the Fanau Ola Advocate to address the individual patient's needs. One Fanau Ola Advocate described assisting a patient going from living with her extended family to a small one bedroom house. For this person, and her family, living together in one house was not beneficial to either party. The Fanau Ola Advocate saw that the patient's living situation at the family's house was poor. The patient's room was downstairs and this made it difficult to access the upstairs bathroom. Friends and family who wished to visit her in her old house had to check it was OK to visit with other members of the household. Culturally it is now easier for people to visit the woman in her own house. The family and the patient are both pleased with this outcome. Had the Fanau Ola advocate not visited the house they may not have appreciated the unique circumstances.

CULTURAL KNOWLEDGE CAN AFFECT THE WAY PATIENTS RELATE TO STAFF AND THE WAY STAFF RELATE TO PATIENTS AND THEIR FAMILY

Staff frequently commented on how their culture knowledge affected the different aspects of their role with the Fanau Ola Support Service. One staff member reported that when on the ward they were often approached by patients of their culture to come and talk with them.

Some elements related to the knowledge of the family hierarchy. For example for Tongans the oldest adult daughter was described as the key person in family decision making. This knowledge was used by Fanau Ola Support Service workers in their work with Tongan families.

NON-CONSENT CAN BE RELATED TO ETHNICITY AND WHETHER THE PATIENT BELIEVES THE STAFF MEMBER CAN HELP THEM

Some patients did not consent for Fanau Ola Support Service. It was commented that the non-consent rate was higher if the Fanau Ola Advocate was of a different ethnicity from the patient. This could occur if staff members were away on leave and the position had to be covered by staff of another ethnicity. In particular the Fanau Ola Advocates specifically attached to the CCU/SDU wards (one Tongan and one Cook Island Maaori) commented that patients of other cultures had a high rate of non-consent.

A Fanau Ola Support Service staff member commented that people of their culture aged 55 and over, who grew up in the Pacific, were not likely to want people involved in their care unless they felt the staff member was going to help them. Realising this, the Fanau Ola Support Service staff member knew that to obtain consent they needed to be extra well prepared when approaching patients over 55 years of age.

MEDICATION

Seven of the ten staff members mentioned that medication was often an issue for patients who received Fanau Ola Support Services. Fanau Ola Support Service staff members assist patients by talking to them in their own language about medications. They also help by explaining to patients and their family that Island medication, which you take when you are sick and stop when you are well, is different from the Western medications which you often need to continue to take to stay in good health. One of the staff members would like a pharmacist added to the Fanau Ola Support Service team.

Other Themes – Staff training, Helping in Hospital and Increasing Patient Health Literacy

THE STAFF TRAINING BEFORE FANAU OLA SUPPORT SERVICE DEPENDED ON STAFF MEMBERS' EXISTING SKILLS

Part of the preparation for starting Fanau Ola Support Service on 1st July 2013 was training staff to a standard minimal skill level. This meant some Fanau Ola Support Service Staff obtained a Community Health Worker Certificate from Manukau Institute of Technology before the commencement of the Fanau Ola Support Service. Those who already had this level did not receive this extra training. The other training was done "in-house". One staff member said this was excellent and another said it helped.

HELPING PATIENTS AND THEIR FAMILIES UNDERSTAND WHAT IS HAPPENING WHEN THEY ARE IN HOSPITAL

Although Fanau Ola Support Service staff members stated the main input for patients and the family occurred when they were at home, input when they were in hospital was more than getting the details and building rapport. When in hospital the Fanau Ola Support Service staff could increase patients' and their families' understanding of what was happening by describing it in their own language.

Fanau Ola Support Service staff had some influence making it more likely that inputs from health professionals occurred when on the ward. Examples of this include:

- Checking that the ward nursing staff members request a pharmacist referral for Fanau Ola Support Service patients.
- Assisting ward nurses to explain to patients the care plans and procedures.
- Speaking to ward Social Workers, including utilising their referral processes, if issues are identified. (A Fanau Ola Support Service staff member stated that once a patient was discharged it could take 4-6 weeks to arrange these types of inputs).

Another Fanau Ola Support Service staff member commented that the Fanau Ola Advocates assist patients to understand their discharge summary. This was felt to increase the number of patients that leave hospital with a clear understanding of their health plans when back in the community.

PATIENTS' HEALTH LITERACY CAN BE INCREASED BY FANAU OLA ADVOCATES

Ensuring that the patients have received the discharge summary is a way Fanau Ola Support Service staff can assist with patients' care transfer from hospital to community care and also increase the patients' health literacy. The Fanau Ola Advocate can then talk through the discharge summary with the patient.

The decision by a Fanau Ola Advocate to phone a patient, rather than do a home visit is based upon the patient's situation. When phoning patients the Fanau Ola Advocate still aims to improve aspects of the person's health literacy. The Fanau Ola Advocate checks the patient's understanding of the discharge summary including whether they are taking the medications and attending follow up appointments.

Many Fanau Ola Support Service staff members commented that enabling patients and their families to take care of their ongoing needs was one of the key outcomes. This included increasing elements of their health literacy, such as knowledge of services they can access and utilising the GP service. Patients were also empowered so that they would not be discharged from hospital if they felt their problems had not been adequately addressed.

Fanau Ola Support Service Support Staff Interviews Summary

The interviews showed what Fanau Ola Support Service staff think are key ingredients for the success of Fanau Ola Support Service. Most staff appreciated the current structures and processes, which appear to enable them to build rapport with patients and their families. This included deliberately having the same Fanau Ola Advocate seeing the patient in hospital, at the patient's home and on any subsequent hospitalisations.

Staff members being of the same ethnicity, knowing the language and understanding the culture well were stated as key requirements for success. In particular the language helped when increasing patients' health literacy, including explaining to patients what was happening in hospital and talking about medications.

Although several people reported that the assessment form was a positive part of the Fanau Ola Support Service, several staff reported it was too long. The amount of time spent on paper work was also a concern. Potentially this could be reduced by capturing the data using smart technology which several staff said would be useful for their job.

Qualitative Interviewing of Non-Fanau Ola Staff

The key identified themes through non-Fanau Ola staff members' interviews were communication, staff availability, concerns regarding duplication of resources, cultural and language knowledge and patient rapport. These are discussed in more detail below.

STAFF WANTED MORE COMMUNICATION ON FANAU OLA SUPPORT SERVICE FINDINGS AND ACTIONS

All the staff expressed difficulty in obtaining information that the Fanau Ola Support Service had gathered about patients. Generally this related to not having a method of accessing Fanau Ola Support Service staff documents about the patients and their family, actions taken and future plans.

In particular staff noted that it would be desirable for the Fanau Ola Support Service records to be available electronically so non–Fanau Ola staff members could obtain this information directly.

One of the ward staff members stated that the four page long Fanau Ola Support Service assessment form was placed in the back of the patient's clinical notes, where it was not often seen by the doctors. This was different from the Pacific Cultural Support Team (PCST) which documented directly into the clinical notes where it was read by the doctors on their ward rounds.

One staff member stated that by looking at the Patient Information Management System (PIMS) you can see if Fanau Ola Support Service had seen the patient, although this would not provide any details.

One non-Fanau Ola staff member said that the Fanau Ola Support Staff members were slow to reply to e-mails.

One of the Middlemore based staff members specifically commented that none of the Fanau Ola Support Service staff had come up to them individually to discuss patients' situations. The same staff member also stated they were not aware what Fanau Ola Support Service did with their patients. E.g. Did the Advocate discuss the case with either a Fanau Ola Support Service Social Worker or another CM Health Social Worker? Did Fanau Ola Support Service follow up with the patient? The staff member was aware of the continued presence of the Fanau Ola Support Service. Even though the interviewee had a number of their patients seen by Fanau Ola Advocates, the Middlemore staff member did not have a clear way of working with those Advocates.

STAFF EXPRESSED THAT THEY HAD LESS INVOLVEMENT WITH FANAU OLA SUPPORT SERVICE STAFF THAN WITH PCST STAFF

Both Middlemore based staff and two of the three community staff stated that the Fanau Ola Support Service staff members were less involved with other CM Health services than the PCST had been. This included Fanau Ola Support Service staff not attending team meetings. Four staff suggested that the Fanau Ola Support Service staff members could attend their multi-discipline team (MDT) meetings.

One interviewee commented that experienced hospital staff members often did not know who the Fanau Ola Support Service staff members were. One interviewed staff member, who had worked at Middlemore for more than 10 years, stated that they themselves did not know who the Fanau Ola Support Service staff were on some occasions. Another interviewee said that a number of staff, who had been working at Middlemore for many years, did not know all of the Fanau Ola Support Service staff members. The staff member also commented that this had not been the case with PCST staff.

[Evaluator note: There are ten Fanau Ola Advocates who could see any Pacific person based on the patient's ethnicity. The PCST staff members were attached to specific wards.]

A community staff member stated it is important for members of a team to know other team member's skills.

One community staff member felt that the Fanau Ola Support Service staff members were willing to work alongside staff members from other departments but due to work pressures of Fanau Ola Support Service they did not always have the capacity to do so. In particular they noted the requirement to see 30 patients each month could put pressure on conducting a full and detailed approach to each patient and their family.

RESOURCE DUPLICATION

There were concerns voiced that if the Fanau Ola Support Service team expanded by providing medical care and employing more nurses and/or a pharmacist there could be a duplication of resources.

CM HEALTH STAFF STATED THAT THE FANAU OLA SUPPORT SERVICE COMPLEMENTS THEIR WORK

Staff members feel the cultural knowledge the Fanau Ola Support Service staff bring to CM Health's involvement with patients complements their skills in other areas. Staff commented that a benefit of Fanau Ola Support Service was that they could address the patient's health issues more easily. One mechanism of this was the Fanau Ola Support Service staff identifying cultural barriers to behavioural change. This enhances the chance of these changes, sought by the non-Fanau Ola staff member, being achieved.

The cultural aspect was also felt to be very important when discussing end of life decisions. A non-Fanau Ola staff member commented on a case where the Fanau Ola Support Service helped. In this case the son was the family leader and did not want the clinical staff to discuss his mother's prognosis with her.

THE RAPPORT FANAU OLA SUPPORT SERVICE STAFF DEVELOP WITH PATIENTS AND THEIR FAMILIES HELPS OTHER STAFF MEMBERS TO DO THEIR JOBS

Four of the five staff members replied definitively that Fanau Ola Support Service did help the patients. Fanau Ola Support Service also helped other healthcare staff to get better outcomes for the patients due to Fanau Ola Support Service staff member's rapport with patients. The one other staff member interviewed felt they did not have enough knowledge of Fanau Ola Support Service's outputs and outcomes to make a comment on the usefulness of the service.

The cultural knowledge was seen as the key element which enabled the Fanau Ola Support Service staff to develop rapport. One community based staff member stated "the Pacific perception is utterly invaluable". They stated many behaviours have a cultural component so, in order to change a patient's behaviour, knowledge of the cultural barriers to the change is required. For example changes to eating must make allowances for the fact that in most cultures, including Pacific cultures, providing food is seen as a way of bonding with guests and this can involve providing large amounts of food. The Non-Fanau Ola staff member commented that unless you can "take the family with the patient" you are unlikely to get change.

It was stated that when a Fanau Ola Support Service staff member brings their knowledge of a patient to the hospital setting it saves the hospital's MDT resources. It was stated this can apply even when the patient is new to the Fanau Ola Support Service. The in depth background the Fanau Ola Support Service staff member brings means planning can start on future actions quickly, rather than having to reassess all aspects of the patient.
It was commented that the rapport of the Fanau Ola Support Service team was developed by the same Fanau Ola Support Service staff member seeing the patient in more than one setting, leading to the patient feeling someone really cared about them.

Fanau Ola Support Service's Resources

STAFF MEMBERS HAVE ACCESS TO POOL CARS FOR HOME VISITS AND NOT ALL THE STAFF MEMBERS HAVE COMPUTERS

The staff members have access to CM Health pool cars for the purposes of home visits. The staff members have desk spaces in an open plan office (apart from one Team Leader who has an office) that is on the Western Campus part of Middlemore Hospital. They have access to Concerto (the portal for patient information). However five Fanau Ola Advocates do not have their own computer and have to use other staff members' computers when they become available. Staff members are encouraged to take extra training and, if work related, they could receive financial assistance for this.

FANAU OLA SUPPORT SERVICE HAS ITS OWN ASSESSMENT FORMS

One of the resources for Fanau Ola Support Service is the Pasifika Fanau Ola Support Service Fanau Assessment and Reflection Form. This is referred to in this report as the Full Fanau Ola Support Service Assessment form[12]. It provides a template for recording the answers to the questions and has six sections. The sections are Body/Physical Health, Heart & Mind/Emotional Wellbeing, Resources and Contexts, Learning & Education, Culture & Spirituality, Fanau Vision and Goals.

FANAU OLA SUPPORT SERVICE COSTS APPROXIMATELY $175,000 MORE PER YEAR THAN PCST

Costs of the Pacific Cultural Support Team and of Fanau Ola Support Service were obtained from the CM Health Finance Department. For the Pacific Cultural Support Team the cost was $665,000 for the 2011/2012 financial year and was $675,000 in 2012/2013. For Fanau Ola Support Service it was $754,000 for the 2013/14 year.

Nearly all the PCST and Fanau Ola Support Service costs were staffing costs: 97% in 2011/12, 98% in 2012/13 and 97% in 2013/14. In 2013/14 the $13,000 spent on mobile phones, made up 65% of all the non-staff costs.

Costs which apply both to the PCST and the Fanau Ola Support Service that are not included in those stated above are building costs and the service manager's costs.

Costs which apply to Fanau Ola Support Service but not to PCST are the pool car costs, the part-time Fanau Ola Support Service Senior Nurse, the two Fanau Ola Advocates based on CCU/SDU wards (who are both part-time Fanau Ola Support Service), and the Fanau Ola Systems Architect. The cost for the Fanau Ola Systems Architect could be thought of as an establishment cost rather than as an ongoing cost. Therefore to compare PCST and Fanau Ola Support Service, the cost of the three part time staff and pool cars should be added to the $754,000.

[12] Due to the form being intellectual property it is not included in this report.

The cost for three part–time staff and the pool cars was approximated to $100,000 per year giving a cost per year of approximately $850,000 for the Fanau Ola Support Service. This would be a $175,000 (26%) higher than the PCST 2012/13 cultural team cost. If the Fanau Ola Support Service sees 1,000 primary clients per year the average cost would be approximately $850 per primary client. (This estimated cost of $850 per primary clients incorporates the cost of what the family receives as well.)

CM Health's total expenditure in 2013/14 was $1,437 million. (CM Health, 2014a)

Limitations of this evaluation

There are a number of limitations to the evaluation described in this report. One of the difficulties is in evaluating the very broad nature of the goal of the Fanau Ola Support Service: improving the health of the 109,050 people of Pacific ethnicities in the CM Health Area. The evaluation narrowed down the scope to only patients seen by the Fanau Ola Advocacy and Support Service team, but this still included people aged from newborn to 92 years old and people with a diverse spectrum of medical illnesses.

Time was spent considering what group might be a reasonable comparison group for the quantitative assessment of health service utilisation. It is acknowledged that the one selected was not ideal but the Fanau Ola Support Service was not set up as a controlled trial and the group selected was felt to be the most appropriate available. The Pacific Cultural Support Team (PCST) patients who had five or more emergency care attendances (≥5) within the previous 12 months was chosen as the closest group.

However the analysis did not apply other Fanau Ola Support Service selection criteria, such as excluding renal patients, to the PCST ≥5 patient cohort. The evaluator was surprised at the number of renal patients in the data as speaking with the Fanau Ola staff directly he was given the impression that renal patients were not commonly seen. There are a number of factors that could influence the secondary care utilisations of the PCST ≥5 patient cohort and the Fanau Ola Support Service Jul-Dec 2013 cohort differently outside the influences of PCST and Fanau Ola Support Service inputs.

The logic model that was created for the Fanau Ola Support Service was expressed in the Pacific Health Development 2013-14 Annual Plan. This logic model did not provide specific detail how each of the Fanau Ola Support Service Team inputs would be expected to lead to improved health for Fanau Ola Support Service patients and their families.

This report does not describe in detail or analyse a number of steps the Fanau Ola Advocates undertook with patients. One of the key factors influencing this was that there was no electronically reportable data available on these steps to analyse.

The data supplied from HI&I was not what was originally requested in some areas. For outpatients this meant the Medical /Surgical split being was not applied by the nationally defined Purchase Unit Code as the evaluator had planned. The grouping of speciality was done by the evaluator.

The classification of patients seen by the Fanau Ola Support Service and Pacific Cultural Support Team was slightly different from the standard “prioritised” ethnicity classification used for the remainder of the routinely collected data. This is because patients were eligible to be seen by these services according to whether they

identified with a Pacific ethnicity (primarily or at all), regardless of whether they also identified themselves as Maaori; whereas in the broader data, the prioritisation process used as standard by the Ministry of Health means that a patient identifying as Pacific could be re-classified as Maaori (their "prioritised" ethnicity) even if their primary affiliation was with their Pacific ethnicity.

Triangulation of the data to confirm its numerical accuracy was not performed. This was affected by the fact that the HI&I analyst providing data on Fanau Ola Support Services left CM Health during the evaluation and there was difficulty refilling the position.

One of the key approaches of Fanau Ola Support Service is addressing factors that affect health of the family as well as the primary client. The evaluation did not report on or analyse the families of primary clients involved in Fanau Ola Support Service, but did consider the health of families in suggesting the patient interview questions.

The data that was analysed included all the different Pacific ethnicities. This means the analysis may not represent what happens to any one ethnicity.

This report did analyse some of the differences between patients who started in Fanau Ola Support Service in Jul-Dec 2013 and Mar-Aug 2014. However this was limited to their demographics and secondary service use before starting Fanau Ola Support Service. This was due to the fact that six months after August 2014 is February 2015 and this report was written in December 2014.

Discussion

This discussion section reviews:

1) The key findings
2) Addressing CM Health's Triple Aims
3) Process of Fanau Ola Support Service
4) Quantitative results
5) Qualitative results
6) Suggestions for consideration

Key findings, value and answers to key questions

Fanau Ola Advocacy and Support Services were judged as being helpful to patients and families by Fanau Ola Support Service staff members and other CM Health staff members who have a working relationship with them. The reduction in secondary service use post Fanau Ola Support Service was approximately 50%. The reduction in PCST ≥5 patients was approximately 40%. However attributing this effect to the Fanau Ola Support Service is difficult. It could be misleading due to the number of extra factors that could influence the results.

ANSWERS TO KEY QUESTIONS

1) *Does the more focused work with families improve outcomes?*

The impression of Fanau Ola Support Service staff members is that they were able to help patients better than before. In particular this meant increasing patients' understanding of the medical care they were receiving and supporting patients in reducing barriers to obtaining full health once they returned home.

Non-Fanau Ola staff members commented that due to the Fanau Ola Support Service Staff members identifying and reducing barriers to their messages being received and acted upon, the non-Fanau Ola staff were better able to improve peoples' health.

Using PCST ≥5 patients as a comparison group has many flaws. However this was felt to be the most appropriate comparison group. Fanau Ola Support Service patients had an approximately 50% decrease in secondary care use after the intervention compared to a 40% decrease in the PCST ≥5 patients. The proportion that had died at six months was higher for the PCST ≥5 patients (13.0%) than the Fanau Ola Support Service Jul-Dec 2013 patients (3.1%). Investigation of this was beyond the scope of this evaluation.

2) *What can routinely collected data tell us about healthcare utilisation by patients in the periods before and after their interaction with the Fanau Ola Support Service and/or the previous Pacific Cultural Support Teams?*

As shown in Figure 11 there was an approximately 50% decrease in EC attendances, hospitalisations and bed days by Fanau Ola Support Service patients in the six

months after they started receiving Fanau Ola Support Service. PCST ≥5 patients following their starting with PCST had an approximately 40% decrease.

The acuity of patients entering Fanau Ola Support Service between Mar-Aug 2014 appears lower than Jul-Dec 2013.

3) How have the patients' experiences of care changed? (from the previous Pacific Cultural Support Team)

This will require the results from the patient interviews. These were arranged to be performed by a private contractor, Pacific Perspectives, as part of the work of this evaluation. The interviews will be completed by Christmas 2014 and a fully self-contained report produced by Pacific Perspectives in early 2015.

4) What are the key ingredients for success?

The rapport between patients and their families and Fanau Ola Advocates was felt to be the key ingredient for success by Fanau Ola Support staff members, non-Fanau Ola staff members and the evaluator. This rapport is a result of the Fanau Ola Support Service staff member's cultural knowledge, knowledge of the patient's language and the continuity of care by seeing them in the hospital and at home and, where possible, the same Fanau Ola Advocate seeing the patient if they were readmitted to hospital.

ADDRESSING CM HEALTH'S TRIPLE AIMS

Improved health and equity for all populations

The evaluation identified actions occurring with patients, such as improving patient health literacy, which may lead to improved health outcomes. The Fanau Ola Support Service Team identifies people with high health needs. Therefore targeting actions of Fanau Ola Support Service to these patients is likely to improve health equity.

Improved quality, safety and experience of care

By talking to patients in their own language and explaining medications to patients Fanau Ola Support Service may result in patients benefitting by having less harm from medication. Fanau Ola Support Service's aim is to deliver patient and family centred care. Possible future improvements may be suggested from the results of the interviews of Fanau Ola Support Service patients.

Best value for public health system resources

Due to the nature of the work, Fanau Ola Support Service itself does appear to require and use more specific resources (e.g. vehicles) than its predecessor, the PCST. Non-Fanau Ola staff members said that the work of Fanau Ola Support Service does save on resources elsewhere, including specifically ward MDT resources, but this could not be quantified.

Fanau Ola Support Service enables CM Health staff to work as a high performing team, taking on difficult issues such as behavioural change. The Fanau Ola Support Service staff member can discuss the cultural barriers with the non-Fanau Ola staff member. As a team the Fanau Ola Support Service staff member can address cultural barriers and the non-Fanau Ola staff member can tailor their advice to the specific culture of the individual patient and their family. This kind of work would be improved by better communication between Fanau Ola Support Service staff and other CM Health hospital and community staff.

Process of Fanau Ola Support Service

The Fanau Ola Support Service logic model, explaining how the steps in Fanau Ola Support Service processes link to outputs and outcomes, did not provide specific detail about the Advocate's actual actions. Based on discussions at the workshop, the evaluator did identify areas that could be links in a logic model for actions of the Fanau Ola Advocates (FOA) to improve health.

E.g. FOA learns of the patient and their family's home situation from the Full Fanau Ola Support Service Assessment Form.→ The FOA takes this knowledge and when doing a home visit expands and clarifies housing issues→ FOA works with patient and family to address housing issues →Patient and family have better housing → Patient and family have lower rates of hospitalisations for housing-related illnesses.

Lack of electronic data capture limited numeric reporting of volumes related to these identified links.

STAFF MEMBERS USE THEIR SKILLS AND EXPERIENCE TO SELECT PATIENTS DAILY

The daily selection of patients does seem to require a number of staff inputs. Most of these steps however are not steps which could be automated, with the exception of sorting by ethnicity and recognition of patients already receiving Fanau Ola Support Services. Staff members use their skills and experience to select the patients who they think will most benefit from Fanau Ola Support Services.

The final creation of the list requires taking into account the staff availability on the day. Patients may not be selected one day even though they may have been selected if they had been admitted a day earlier or a day later. This means entry to the Fanau Ola Support Service is not strictly consistent from day to day, even though the same general principles apply.

An important consideration for any organisation wishing to replicate a similar service to Fanau Ola Support Service elsewhere is the years of life experience the Fanau Ola Advocates have.

Quantitative Data

DECREASED SECONDARY SERVICE UTILISATION BY FANAU OLA SUPPORT SERVICE PATIENTS AND PCST ≥5 PATIENTS

EC attendances, hospitalisations and hospital bed days utilisation in the six months after the intervention decreased approximately 50% for patients who started receiving the Fanau Ola Support Service between Jul-Dec 2013. For the PCST ≥5 patients the decrease was approximately 40%.

Secondary service utilisation of patients could be affected by a number of causes other than work by the Fanau Ola Support Service or PCST. Secondary service utilisation after Fanau Ola Support Service interventions had already been dispersed to key individuals associated with Fanau Ola Support Service in CM Health. However this early data did not have a group to compare with and therefore did not discuss a range of potential reasons for a decrease in utilisation after the intervention.

One such potential reason is regression to the mean. Regression to the mean is a statistical phenomenon whereby if a group is selected because they are an extreme group in relation to some event of interest, a later re-study of the group will produce a result closer to the population mean, without any intervention between studies. This phenomenon has been described in a CM Health report on CM Health's 5,000 highest cost patients in 2010 (Chan et al, 2014a). In that study, of the group with very high costs in 2010, only 891 (17.8%) were still in the 5,000 highest cost patients in 2012.

As the Fanau Ola Support Service patients were purposefully selected to be patients with high utilisation of secondary health services, it would be expected, from a statistical viewpoint, that they would regress to the mean. The PCST ≥5 patients were purposefully selected in this evaluation, and provided a useful comparison group in that their results might also be expected to be affected by regression to the mean.

As the patients in the Mar-Aug 14 cohort are less extreme, based on the statistical phenomenon of regression to the mean, they are likely to have a smaller percentage reduction in the six months after the Fanau Ola Support Service intervention. This analysis cannot be performed until February 2015.

Caution is needed judging the Fanau Ola Support Service intervention on the fact that an "approximately 50%" reduction is larger than an "approximately 40%" reduction. Statistical testing could have been performed on the values but there was concern that statistical testing may be seen as "real evidence" that a difference did,

or did not, exist whereas there were clearly differences of selection of the groups which would have confounded the results.

The PCST ≥5 patients would likely have had received many inputs in attempts to improve their health. One of these would have been referral and being seen by the PCST, otherwise they would not have been in the data. The five EC attendances in 12 months would have also led to a referral to the VHIU team.

FANAU OLA SUPPORT SERVICE PATIENT DEMOGRAPHICS IN JUL-DEC 2013 AND MAR-AUG 2014

The Fanau Ola Support Service team saw 94% more patients in the six months of March-August 2014 than they saw in six months July-December 2013. This was despite a 0.5 FTE Fanau Ola Support Service staff member leaving in March 2014. A likely reason for this is that in March 2014 the Fanau Ola management set a target of 30 primary clients per month for each Fanau Ola Advocate.

Apart from a higher percentage of children aged less than 2 years old being seen in the second cohort, the underlying demography appears similar for the two cohorts. In both groups there are higher numbers in the young and older age groups with lower numbers in those aged between 2 and 50 years old.

The percentage of Cook Island Maaori primary clients (~32%) compared to Samoan (~34%) and Tongan (~23%) was surprising as the CM Health population has a higher percentage of people of Samoan and Tongan ethnicity than Cook Island Maaori ethnicity. For the three largest ethnicities, the patient mix of individuals admitted to CM Health facilities in the 2013/2014 fiscal year was 53.3% Samoan, 19.3% Cook Island Maaori and 27.4% Tongan. In the NZ 2013 Census, in which people could record multiple ethnicities, of all people living in CM Health who stated one of the Pacific ethnicities 51% stated Samoan, 21% stated Cook Island Maaori and 23% stated Tongan.

When a Team Leader was asked about the daily patient selection for the evaluand they mentioned patient ethnicity without prompting from the evaluator. They stated that when dividing work to specific Fanau Ola Advocates they take into account the ethnicity mix of the primary clients. This may mean asking a Fanau Ola Advocate to see a patient of a different ethnicity. The Team Leader specifically stated it was normally Samoan primary clients that required a Fanau Ola Advocate of a different ethnicity.

The ethnicity mix of Fanau Ola patients is likely to reflect the fact that there are three Samoan Fanau Ola Advocates, three Cook Island Maaori and three Tongan. In the Fanau Ola Support Service staff members' interviews section two comments were made about non-consent. These were

1) Non-consent was more likely if the Fanau Ola Advocate was of a different ethnicity than the patient
2) For at least one of the Pacific ethnicities patients aged over 55 years old who grew up in a Pacific Island country would not want people involved in their care unless they thought they could help them.

This means that it is likely that the Fanau Ola Support Service utilisation is being driven by availability of an ethnically matched Fanau Ola Advocate, rather than the size of patient demand. The Fanau Ola Support Service team trying to adjust for this by getting non–Samoan advocates to see patients of Samoan ethnicity is likely to have a limited impact. This is due to a higher proportion of non-consent by patients of different ethnicities to the Fanau Ola Advocate, in this circumstance Samoan patients being seen by Non- Samoan Fanau Ola Advocates. This is an area that should be part of future planning for the Fanau Ola Support Service.

The percentage of Fanau Ola Support Service patients living in socio-economic deprived neighbourhoods is very high (over 90% in deciles 8, 9 and 10). If it is assumed that every family member of the patient' family live in the same census area unit, the families will have the same NZDep profile.

Although this is very similar to the percentage for all the people of Pacific ethnicities in CM Health (86% in deciles 8, 9 and 10 in the census data) it is important to acknowledge that this makes this group very vulnerable to any worsening of financial conditions. On the other hand improvements in health can also create great benefits as the patient may be able to work or one of their caregivers may become available to work.

The high rate of people stating a Christian religion supports the targeting of at least some services through church based programmes such as Lotu Mo'ui, to improve Pacific people's health. It should be noted that the census stated religion does not necessarily mean the person attends or is a member of a church.

CM HEALTH SECONDARY SERVICE UTILISATION BY PEOPLE OF PACIFIC ETHNICITIES

Overall about a quarter to a third of all CM Health secondary service utilisation is by people of Pacific ethnicities. People of Pacific ethnicities make up 33% of emergency care use, 30% of acute hospitalisations, and 16% of waiting list hospitalisations (See Appendix Eight for more details). This tends to indicate that healthcare utilisation in 2012 and 2013 was more of an acute nature than a planned nature for Pacific people compared to the rest of the Counties Manuakau population. This difference may be related to the younger age structure of Pacific people in Counties Manukau, given some procedures which result in waiting list hospitalisations are more common with

increased age (e.g. cataract extraction, joint replacement). More detailed analysis of this is outside the scope of this evaluation.

The youthfulness of the Pacific population will contribute to the high percentage of Paediatric Medicine service utilisation by children identified as being of a Pacific ethnicity. However only 29% of the expected resident population projection for CM Health under 15 year olds in 2014 are identified as being of Pacific ethnicities by Ministry of Health prioritised ethnicity whereas approximately 50% of Paediatric medicine hospitalisations to CM Health facilities were for children of Pacific ethnicities.

Staff Interviews

The main findings were

1) The assessment form was a valuable tool but its length could present problems.
2) Staff members felt better electronic resources were needed.
3) Developing patient rapport and home visits were seen as essential elements for Fanau Ola success.
4) Non-Fanau Ola staff highlighted the need for better awareness of, and better communication with, the Fanau Ola support service

Suggestions for Consideration

Early in the process of the evaluation, it was decided the report would not make recommendations. One reason for this was that it is the role of management to act on an evaluation, as they have to consider budgets, long term plans and other events happening in the organisation. Recommendations made in an evaluation may or may not be cognisant of many of these factors.

The stating of recommendations can also distract from other actions that may have not been considered by the evaluator. The following section of the report outlines some ideas that came out of the evaluation that might be usefully considered as part of future planning for the Fanau Ola Advocacy and Support Service programme. However these should not be considered as an exhaustive list.

A TAILORED PAPER AUDIT COULD PRODUCE USEFUL FINDINGS

The Fanau Ola Support Service has collected a wealth of data on vulnerable and complex patients, fanau, and people of Pacific ethnicities in CM Health by using the Full Fanau Ola Support Service Assessment. At the time of writing in December 2014 Fanau Ola support service had been provided to 2,000 patients with an additional 6,000 family members (8,000 individuals in total). A well planned paper audit of all this data, possibly linking with CM Health HI&I Service data by NHI, could lead to improvements in the Fanau Ola Support Service Support and possibly the wider CM Health population as well.

In particular, increasing the understanding of renal patients may be useful. It seemed to the evaluator that there was not a clear, standard approach to renal patients. This could mean that the renal patients that do enter Fanau Ola Support Services may not get optimal value from the Fanau Ola Support Service as not all Fanau Ola Support Service staff members know the optimal way to assist renal patients.

STAFF MEMBERS COULD GET "SILOED" DUE TO BEING IN THE FANAU OLA SUPPORT SERVICE TEAM

Non-Fanau Ola staff expressed concern that staff in Fanau Ola Support Service may not advance due to them being "siloed" in Fanau Ola Support Service. An example was given of a person with a social work qualification who could not register as a Social Worker. Fanau Ola Support Service Managers need to continue to consider staff members' ongoing training, especially their long term career options.

FANAU OLA SUPPORT SERVICE STAFF COULD USE THEIR GRASS ROOTS KNOWLEDGE TO ASSIST INTEGRATION INITIATIVES

Fanau Ola Support Service staff could combine their collective knowledge of problems encountered by the Fanau Ola Support Service patients and their families to promote system changes to reduce the social and economic burdens for them. This is consistent with a recommendation to the incoming Minister of Health to consider to:

> *"Streamline health and cross government programmes across the social sector to make it easy for vulnerable populations and people with complex needs to find the help they need from government and community services, for instance through joint commissioning and integrated contracts." (Ministry of Health, 2014)*

FUTURE SELECTION OF PATIENTS

As per Table 24 the patient acuity was less in Mar-Aug 14 than Jul–Dec 13. If this continues, as the evaluator thinks is likely, Fanau Ola Support Service staff may need to consider how this will impact on the service. One of the questions raised by the service manager at the very start of this evaluation was "Is this the right entry system into Fanau Ola Support Service?" Changes may be required such as

1) Changing the ratio of patients using current entry systems. e.g. more ward referrals.
2) Involving patients currently excluded.
3) Picking up referrals to be seen alongside clinical staff in the outpatient setting at Middlemore /Manukau Surgical Centre.
4) Having community-based referrals.

RENAL DIALYSIS PATIENTS MAY BENEFIT FROM FANAU OLA SUPPORT SERVICES

Renal dialysis patients are purposefully excluded from Fanau Ola Support Services. This is due to confidence that the renal service will address the renal dialysis patients' medical concerns. However renal patients of Pacific ethnicities and their families could possibly benefit from the input of Fanau Ola Support Services.

DATA CAPTURE NEEDS IMPROVEMENT

Planning and prioritisation is needed to consider what data points will enhance reporting in the future. Then ways to capture the data could be developed.

The most expensive option would be electronic capture via hardware such as tablets. Another option would be establishing a Microsoft Access database for recording the information – possibly with a link to other CM Health data. The cheapest option would be setting up Excel recording so it is easily reportable. However with Access and Excel there is still the cost of staff time to enter the data.

During the time of the evaluation, CM Health was planning for improvements in Information Technology as an enabler of healthcare (Counties Manukau Health, 2014b) including a Fanau Ola Smart System cloud-based technology, which is likely to assist improving this aspect of the Fanau Ola Support Service programme in the future.

Fanau Ola Support Service staff wished to be able to record their information on mobile devices. If this information was available to other CM Health employees this could improve the care provided to the Fanau Ola Support Service patients and families.

One non-Fanau Ola staff member said Fanau Ola Support Service staff members were slow to reply to emails. This could be due to staff being out of the office seeing patients, and/or to five staff members not having a computer. There may be a delay before they can get on to a computer and respond to e-mails.

NON FANAU OLA SUPPORT SERVICE STAFF WANT A RECORD OF WHAT IS HAPPENING TO PATIENTS

In the hospital setting staff may be too busy to specifically look at the four page long Fanau Ola Support Service summary that is placed in the back of clinical notes. Staff may not even be aware that Fanau Ola Support Service staff members have had contact with the patient. Possibly Fanau Ola Support Service staff could do a very brief summary directly into the patient notes.

Some services in hospital have a service stamp which is stamped into patient notes with the signature which also makes it clear to other services they have seen the patient. It may be possible for Fanau Ola Support Service workers to wear a common lanyard to indicate they are Fanau Ola Support Service staff. A small flag could be added to identify the ethnic group they serve.

Fanau Ola Support Service staff members could attend MDT meetings. This may be difficult due to Fanau Ola Advocates seeing their own ethnic group being a key element of the Fanau Ola Support Service. However staff could be rostered so one of the Fanau Ola Support Service staff members attends every relevant MDT at least once every one to two months.

MONDAYS ARE DISPROPORTIONALLY BUSY FOR FANAU OLA ADVOCATES BECAUSE OF THE NUMBER OF PATIENTS IN THE WEEKEND

As stated in the introduction, Mondays are particular busy days for Fanau Ola Support Service staff due to the high number of new patients from the weekend. Possibly this could be partially addressed by Fanau Ola Advocates being rostered to work on weekends. However there are several barriers to this

1) The identification of new patients involves several staff and some are VHIU staff rather than Fanau Ola Support Service staff.
2) The Fanau Ola Support Service is based around Fanau Ola Advocates seeing patients of their ethnicity so one staff member on a weekend would probably offer a limited service to 50% or more of the Pacific patients.
3) Generally most hospital services have less staff on weekends which would make it harder for the Fanau Ola Advocate to liaise with other staff.
4) Community Services are likely to have less or no staff on weekends so it would be difficult for the Fanau Ola Advocate to advance issues in these areas.

To all who helped to bring Fanau Ola to life …. Malo, Fa'afetai, Vinaka, Meitaki, ***Thank You***

Appendices

Appendix One: Pacific Health Development- Intervention Logic from Draft Plan

Pacific Health Development – Intervention Logic

VISION – Better Health Outcomes – Fanau Ola for Pacific fanau in Counties Manukau							
Triple Aim	Strategy	Goals	Pacific Health Development		CMH Programmes / Linkages	Impact Measures		Outcomes / Benefits
			Key Activities	Deliverables		Ind Num	Indicator - Focus	
Improved health and equity for all populations	Better Health Outcomes for Pacific People	G1. Fanau Ola Outcomes	Develop Fanau Ola framework Integrate Fanau Ola in to key projects	Framework Project Integration	First 2000 Days Smoking Housing Oral Health Diabetes Cardiovascular	1	CVD / diabetes	Reduced mortality
						2	Fanau smokers	Decrease in Pacific smokers
						3	Hospitalised smokers	Improved respiratory
						4	ASH	Access to quality primary health
						5	Breastfeeding	Improved infant immunity
						6	Breast screening }	Reduced cancer mortality and
						7	Cervical screening }	morbidity
						8	Infant immunisation	Better health for children
						9	Tertiary cardiac	Reduced mortality
						10	Ethnicity data*	Improved accuracy
						11	LMC registration	Safer / supported pregnancies
						12	Antenatal care	Improved knowledge
						13	Infant enrolment	Improved health for infants
						14	B4 School checks	Improved health for children
						15	Rheumatic fever	Improved CVD health
						16	SUDI	Fewer infant deaths
						17	Dental Clinics	Early intervention for children
						18	Dental Caries	Improved oral health
						19	Pregnant-smoking	Fewer pregnant smokers
						20	Initiation-smoking	Fewer youth start smoking
						21	Youth-smoking	Better health for young people
						22	Assess housing	Accurate housing information
						23	Housing support	More housing support
						24	Housing insulation	Healthier housing for fanau
						25	CVD risk assessment	Reduced CVD mortality
						26	Cardiac rehabilitation	Improved cardiac health
						27	Youth –primary care	Better health for young people
						28	Youth suicide	Fewer youth suicides
						29	Suicide services	More support services

	Better Health Outcomes for Pacific People	G2. Health Literacy	Develop Health Literacy Plan for Fanau Ola Develop quality resources	Fanau Ola Literacy Plan Resources	Health Literacy		Culturally relevant, quality health literacy resources	CMH quality health literacy resources empowers fanau to understand health systems and make informed decisions
		G3. Research & Development	Scope research and development and create plan Literature / Evidence Stocktake and baseline building development	Research & Development Plan Stocktake Baseline development	CM Health Research & Development Ko Awatea		Well designed and developed culturally relevant Pacific health and wellbeing research	Fanau are active research participants; quality research provides CMH with evidence to improve planning, systems development, processes and service provision
		G4. Community Engagement	Engagement framework and processes developed Plan implemented	Engagement Plan Monitoring	Lotu Moui / Community		Community engagement Agreements between CMH/PHD and community groups	Improved engagement leads to stronger and more supportive relationships between CMH and local groups and churches and the Pacific community
		G5. Intersectoral Opportunities	Develop Intersectoral map Intersectoral engagement processes planning	Intersectoral Map Processes	Sectors		Intersectoral support (monitored through Fanau Ola Plans)	Increased support from multiple sectors for both CMH and Pacific fanau
Improved quality, safety and experience of care	First Do No Harm	G6. Zero Harm	Develop position paper on Pacific Approach to Zero Harm	Position Paper	Centre for Quality Improvement		Number of sentinel and harmful events experienced	Decrease in number of sentinel and harmful events experienced by Pacific people
	Delivering Pacific Patient / Fanau-Centred Care	G7. Fanau Ola Approach	Articulate Fanau Ola position Consolidate Fanau Ola communications Hold Fanau Ola workshops	Position Paper; Key Messages Socialisation Training	Fanau Ola Approach Planning Development Implementation	30 31 32 33 34 35 36 37 38	Under 6 yrs After Hrs People present to EC LOS Emergency VHIUS Fanau Ola Plan VHIUS referrals Annual health checks Elder influenza Older people services Elder Fanau Ola plans	Access to more services Fewer present to EC Shorter LOS in EC Better fanau planning Improved referrals More health checks Improved health Access better services Better elder planning
		G8. Fanau Ola Toolkit	Fanau Ola tools, materials, resources developed	Toolkit; Manuals				
		G9. Fanau Ola Services	Develop Services / Programme Alignment Plan Monitor Implementation	Alignment Plan Monitor Services Implementation				
		G10. Fanau Ola Centres / Resources	Develop Resources Plan Centres Design and Development Plan Establish Fanau Ola Centres	Resources Plan Development Plan; Fanau Ola Centres				

Best value for public health system resources	System Integration	G11. Fanau Ola Integration	Develop Plan for Fanau Ola Systems Integration Align with CM Health Programmes and other linkages	Systems Integration Plan	CM Health Projects / Programmes / Localities / Commissioning / Contracting / Information / IT Systems			
		G12. Localities Development	Align Fanau Ola with Localities Development	Localities Integration Plan			Pacific fanau-centred services provided in Localities	Improved Pacific health in localities; reduced avoidable hospital admissions
	System Integration	G13. Fanau Ola Info / IT System	Alignment of information needs and IT systems with Fanau Ola Integration with CM Health	Information / IT Systems Plan Monitor design / development			Information and IT Systems developed that are aligned to, and reflect Pacific Health foci	Improved information and IT systems leads to increased knowledge flows and allows for better prioritisation of time / development activities
	Ensuring Financial Sustainability	G14. Commissioning Fanau Ola Outcomes based Contracting	Develop Pacific Health Commissioning Plan / Contract guidelines and Protocols Contract monitoring and evaluation	Commissioning Plan / Contracting Guidelines / Contract Evaluation Plan			Pacific fanau-centred and Fanau Ola outcomes-based services contracted; Contracts monitored and evaluated	Pacific fanau have 'better, sooner, more convenient' healthcare provided by contracted providers, leading to improved health and wellbeing outcomes
	Enabling High Performing People	G15. Workforce Development / Pacific Leadership	Develop Pacific Workforce Plan; Workforce resources; Align with other workforce initiatives; Implementation of Plan Scope and develop Pacific Leadership plan – align with Ko Awatea initiatives	Pacific Workforce Plan Workforce Resources Pacific Leadership Plan	CM Health Workforce Leadership Academy	39	Implementation of Pacific Workforce Plan Number of Pacific staff employed within/across CM Health Engagements with Pacific fanau	Pacific workforce matches Pacific population (percentage) CM Health has Pacific staff across all areas / professional groups Pacific fanau have quality healthcare provided by Pacific workforce
		G16. Strategic Intelligence	Develop Pacific Strategic Intelligence hub to develop multi-year plan and monitor system-wide performance	Pacific Strategic Intelligence Hub developed; ongoing monitoring	Strategic Intelligence Hub		Ethnicity data* Accurate data for Pacific in CM Health provided for all indicators	Improved multi-year planning for Pacific Health Development; clarity of baselines to provide for better evaluation and monitoring
Pacific Health Development Quality Evaluation								

Appendix Two: Pacific Cultural Support Team – Service Overview from 1 July 2012 – 30 June 2013

PACIFIC CULTURAL SUPPORT WORKERS (CSW) WERE POSITIONED IN HOSPITAL LOCATIONS – FOCUS SECONDARY SETTING - MIDDLEMORE HOSPITAL

Team Structure: Team Leader (1); Administrator (1); CSW (9); Social Workers (2)

Team Member	Location / Placement
# 1	Ward 6; Ward 2; Ward 33 East; Ward 33 North
# 2	All Surgical Wards
# 3	All Surgical Wards
# 4	Kidz First; Gynaecology
# 5	Maternity; Neonatal Unit; Kidz First
# 6	Emergency Care; Short Stay
# 7	Ward 7; Respiratory; Ward 32 North; Cardiac Ward; Ward 23
# 8	Non-Specific - assist across wards
# 9	Non-Specific - targeted ethnic-specific patients

POINTS OF ENTRY IN SERVICE

- iPO5 Daily Allocation list provided to all CSW, which including the following information:
  - Patient Name; Date of Birth; NHI; Ethnicity; Consultant; Ward
  - Number of DNA in last 6 months
  - Number of Hospital Admissions in last 6 months (FPA prioritised >2)
  - Number of Hospital Admissions in last 12 months (FPA prioritized >3)
- Internal Referrals (ICU; HDU; Emergency Care; Short Stay; Wards)
  - Referrals received from ward staff verbally / phone / pager directly to CSW
  - Faxed, phone or email referrals sent to Team Leader
- Cardiac Referrals
  - Cardiac referrals emailed to the Team Leader before 9am by cardiac nurses

TRIAGE AND ALLOCATION

- iP05
  - Ethnic specific visits carried out by CSW based on agreed priorities identified on (# FPA, # DNA)
- Internal Referrals
  - If received directly by CSW in the wards – CSW would respond directly as required
  - Any referrals sent to the Team Leader were allocated to CSW

        - *Internal Referrals attended to within 24 hours or sooner if urgent*
- Cardiac Referrals
    - Patients allocated by Team Leader to CSW
    - Referral by CSW to cardiac nurses for follow up support in the ward or at home
    - Identified cardiac patients invited to community cardiac rehab sessions

CSW PROCESS

- Meet, engage with, and discuss Cultural Support Work available; gauge patient needs and gain verbal consent to complete Cultural Assessment Tool
- Cultural Assessment Tool completed (to provide guidance on plan of support)
- Assessment carried out with patients and/or parents/caregivers as necessary (e.g. for children; patients in ICU)
- Referrals to other services (secondary; primary; community) actioned either verbally, using paging system, phone calls, email, or referral forms.
- Follow-up where possible, while patients were still in hospital
- Limited follow-up once patient discharged

CSW TARGETS

Each CSW was required to complete the following:

- Minimum 5 new patient visits daily (or 100 per month)
- Arrange and attend a minimum of two family meetings per month
- Attend weekly multidisciplinary meetings in allocated wards
- Joint home visits with Pacific Cultural Support Social Workers as required

CSW ADMINISTRATION

- Enter patient contacts in PIMS daily
- Complete excel spreadsheet of daily contacts / patient visits
- Ensure all entries are completed by the end of each calendar month
- Fortnightly meetings with Team Leader
- Periodic meetings with General Manager and full Pacific Team

CSW DAILY SCHEDULE TIMES:

- Patient Support 6 hours (min. 5 patients to be supported in this time)
- Administration 1 hour
- Breaks 1 hour

Appendix Three: Fanau Ola Support Service report for the first three months

Table 33 below was used to state Fanau Ola Support Service actions in the first three months. (Note – this was an internal update based on HI & I data received))

Table 36 Fanau Ola Support Service Intervention for 167 Pacific Patients (by NHI) (aggregated over period)

For 167 Pacific Patients	6 mths Pre FO	6 mths Post FO	Diffe-rence	Dire-tion	Trend	Comment
Number of EC presentations	221	173	**48**	↓	22%	decrease in EC presentations
Transfers to an IP ward from EC	124	96	**28**	↓	23%	decrease in transfers to IP wards
Number of inpatient events(3 hrs +)	229	157	**72**	↓	31%	decrease in IP events
Number of acute admissions	162	130	**32**	↓	20%	decrease in acute admissions
Total number of bed days	954	577	**377**	↓	40%	decrease in bed days
Average LOS	4.2	3.7	**0.5**	↓	12%	decrease in average LOS
Primary and secondary diagnosis for most recent event	1340	519	**821**	↓	61%	decrease in # primary & secondary diagnoses
Outpatient assessments						
Attend	415	605	**-190**	↑	46%	increase in OP appointments attended
DNA	85	85	**0**	-	-	same number - however decrease in ratio
Grand Total	500	690	**-190**	↑	38%	increase in total number OP assessments
Ratio DNA to Grand total	17%	12%	**5%**	↓	5%	decrease in ratio of DNA to total OP assmts

Pre Fanau Ola Support Service = 6 mths = 1 Jan 2013 - 30 Jun 2013
Fanau Ola Support Service = Q1 = 3 mths = 1 Jul 2013 - 30 Sep 2013
Post Fanau Ola Support Service = 6 mths = 1 Oct 2013 - 31 Mar 2014

Appendix Four: Grouping of Specialities into Medical and Surgical

Table 37 Grouping used for quantifying appointments based on the outpatient speciality of the appointment into medical and surgical for this report.

Medical	Surgical
Acute Allied Health	Burns
Anaesthesiology	Colposcopy Clinic
Audiology	G.U. Medicine
Cardiology	General Surgery
Child Development Service	Gynaecology
Children in Care	Neuro Rehab
Chronic Pain Service	Ophthalmology
Community Based Rehabilitation Team (CBRT)	Ophthalmology Diabetes
Dermatology	Oral/Maxillofacial Surgery
DHB Mat. Provider Antenatal	ORL/ENT
Diabetes	Orthopaedic Surgery
Dietary	Orthotics
Endocrinology	Plastic Surgery
Gastroenterology	Plastics Hands
General Medicine	Spinal Rehabilitation
Genetics	Urology
Geriatric - A & R	Gynaecology
Haematology	Ophthalmology
Hearing & Vision Screening	ORL/ENT
Histology	Orthopaedic Surgery
Home Health Care	Orthotics
Infectious Diseases	Plastic Surgery
Neuro Rehab	Plastics Hands
Neurology	Spinal Rehabilitation
Oncology	
Ophthalmology Diabetes	
Paediatric Medicine	
Public Health Nursing	
Renal Medicine	
Respiratory Medicine	
Rheumatology	
Youth Specialist	

Appendix Five: Selection of Fanau Ola Support Service Patients for Interviewing

From all the Fanau Ola Support Service patients some were purposely selected for the interviews based on the fact that they had experienced both the ward-based PCST prior to July 2013 and the Fanau Ola Support Service team after July 1 2013. The technical process for this is described below

1) The list of patients seen by Fanau Ola Support Service in July–December 2013 and March-August 2014 was supplied by Fanau Ola Support Service staff.
2) A list of all patients who had been seen by PCST or Fanau Ola Support Service between 2011 and October 2014 supplied by CM Health's HI&I Team. From this a list was created of 258 people who had been seen at least once in the 2011-2012 period by the PCST and also at least once in the 2013-2014 period by Fanau Ola Support Service.
3) Twenty three people were excluded as they were aged under 18 year old, as this would have required extra work for consent, leaving 225 people.
4) The total number of contacts, by all 225 individuals over the time period, was 2,437. The list was sorted by the total number of times each individual had seen by either the PCT or Fanau Ola Support Service.
5) Using the cumulative total number of contacts the decile levels of total contacts were calculated. The deciles levels were 40 contacts, 25, 18, 17, 13, 12, 10, 8, 6, 4 and 3 times. People with a similar number of contacts to these numbers were selected creating a list of 71 people.
6) From the list of 71 people, individuals were picked from each decile.
   A deliberate attempt was made for the group to have a certain ethnic, gender, age and time started in Fanau Ola Support Service mix.
   (Ethnicity: three Samoans, three Tongans, three Cook Island Maaori, and one Niuean; Gender: five female, five male; Age: Three aged 18-39, Four aged 40-64, Three aged 65 and over; Start in FO: five in 2013 and five in 2014. Fijians were not included as there was no Fijian Fanau Ola Advocate.) This was done in attempt to match the adult patients in Fanau Ola Support Service.
   Even though the Jul-Dec 2013 cohort was smaller five patients were chosen from this cohort as this cohort was the one that had their quantitative data analysed pre and post starting Fanau Ola Support Service.
7) The Middlemore Hospital management system was used to check that everyone on this list had not deceased. If a patient was deceased a different person was added from the list of 71 based on an attempt to match matching their ethnic, gender, age, start year in Fanau Ola Support Service and times seen by PCT and Fanau Ola Support Service in the four years.
8) From this list patients were then approached for their consent. The person making the phone call was a CM Health staff member. The person ringing

for the consent was able to speak the Pacific language of the Fanau Ola Support Service patient.

9) If someone did not consent they were replaced by someone similar from the list of 71.

Appendix Six: Interview Schedule for Fanau Ola Support Service Staff

(Remember these questions are designed to answer Key question four – "What are the key ingredients for success?")

FANAU OLA SUPPORT SERVICE OVERALL

1) How do you think Fanau Ola Support Service helps patients compared to the ward-based Pacific Cultural Support Team?
2) How do you think Fanau Ola Support Service helps patients new patients in September 2014 compared to new patients in September last year?
2) What have been the best things about starting FO?
3) What have been the challenging bits of FO?

HELPING PATIENTS

4) What do you feel helps patients and their family more, what you do to help them in hospital or what you do to help them after they leave hospital? Why do you think this?
5) How many of your patients and their families did you talk with about their medications?
6) What changed in the way you managed Fanau Ola Support Service patients because of doing a home visit?
7) In what way or ways are patients and their families better able to look after their health because of FO?

IMPLEMENTING MODEL

8) Is Fanau Ola Support Service working like you thought it would? Please explain or tell me more
9) What support are you getting to do your job?
10) What are the best things about implementing Fanau Ola Support Service the model?
11) What are the most difficult things about implementing the Fanau Ola Support Service model?
12) If you had additional resources where would you place these?
13) Now that Fanau Ola Support Service has been running over a year, have you any thoughts about how we could improve it?

13B) How often do you do a home visit with other departments?

13C) How often is the GP consulted?

TRAINING FOR JOB

14) How much help has the training been for this work?
15) Was it as much help as you expected?
16) Is there any other training that you think would have been helpful?
17) Is there any training that you think would be useful now?
18) What advice would you give for people running the training next time?
19) What advice would you give for those training for your role?
20) Are you getting continual training when on the job? Does it help?
21) What else could CM Health do to help you, or others in FO, improve at your job?

JOB SKILLS

22) Can you talk about the most important skills for this job?
23) If you were selecting candidates for a new Fanau Ola Support Service staff member what would you be looking for?
24) What skills have improved from one year ago?
25) How were these skill been developed?
26) In what ways do you think you could work better with other health professionals?
27) How easy do you find it to liaise with other Health professionals?
28) What could make this easier?

Appendix Seven: Interview Schedule for non-Fanau Ola Staff

PROVIDE FOR STAFF

1) How does the work of Fanau Ola Support Service staff help you to do your job?
2) Have you found this better, worse or no different to when there was a ward-based Pacific cultural team?
3) How much does the work of Fanau Ola Support Service help other staff?

PROVIDE FOR PATIENTS

4) What does Fanau Ola Support Service provide for patients?

IMPROVEMENTS FANAU OLA SUPPORT SERVICE

5) Are there any areas you think the service delivered by Fanau Ola Support Service could be improved?
6) Are there any particular concerns you have about Fanau Ola Support Service?

FUTURE FOR FANAU OLA SUPPORT SERVICE

7) What do you see the future of Fanau Ola Support Service being?

Appendix Eight: Age and Gender breakdown of Fanau Ola Support Service patients and hospitalisations to Kidz First for children aged less than 2 years old of Pacific Ethnicities

Table 38 Number and Percentage of age group for the Fanau Ola Support Service Jul-Dec 2013 and Mar-Aug 2014 cohorts by gender

	July-December 2013			March-August 2014			
Age Group (years)	**Females**	**Males**	**Percentage Males**	**Females**	**Males**	**Percentage Males**	**CM Health % Male***
0	19	18	48.6%	66	99	60.0%	51.1%
1	9	14	60.9%	15	35	70.0%	51.1%
2-4	2	3	60.0%	15	19	55.9%	51.1%
5-9	6	3	33.3%	10	13	56.5%	50.7%
10-14	1	1	50.0%	10	21	67.7%	51.1%
15-19	6	2	25.0%	17	14	45.2%	50.6%
20-34	27	8	22.9%	47	25	34.7%	47.1%
35-49	31	19	38.0%	39	35	47.3%	46.6%
50-64	38	33	46.5%	56	49	46.7%	47.7%
65-79	30	32	51.6%	58	41	41.4%	47.0%
80+	10	9	47.4%	26	13	33.3%	35.2%
Unknown	0	0	0.0%	1	2	66.7%	
Total	**179**	**142**	**44.2%**	**360**	**366**	**50.4%**	**48.6%**

* CM Health's Pacific population age and gender breakdown is based on the 2014 estimated resident population projection

The age and gender of new patients that started Fanau Ola Support Service Jul-Dec 2013 is shown in Figure 13 and those that started Mar-Aug 2014 is shown in Figure 14.

Figure 16 Number of new Fanau Ola Support Service primary clients Jul-Dec 2013 by age group and gender

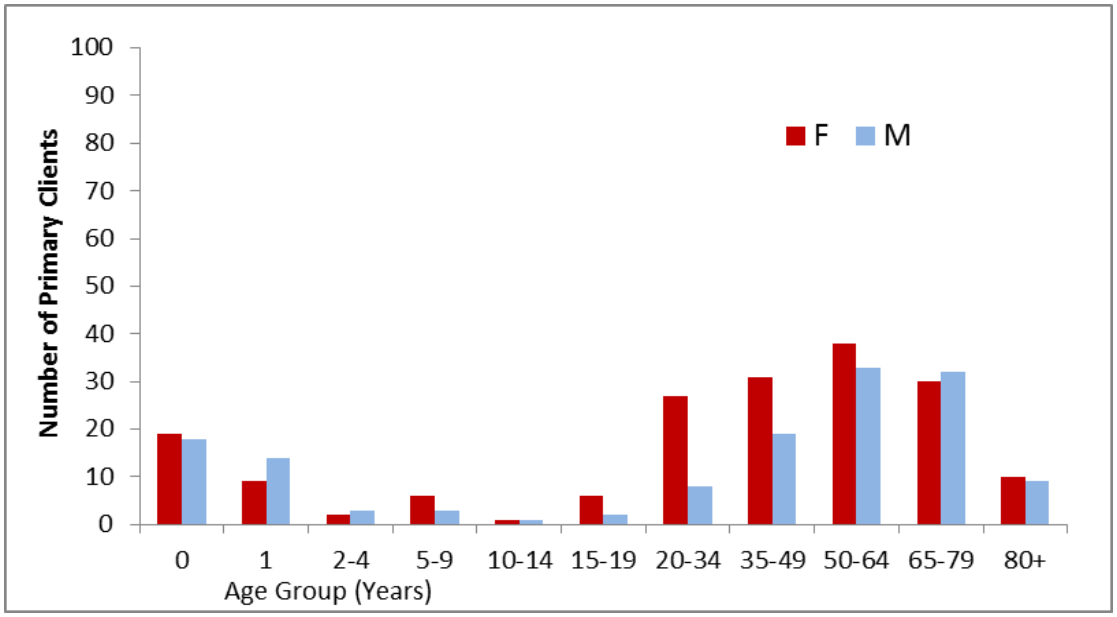
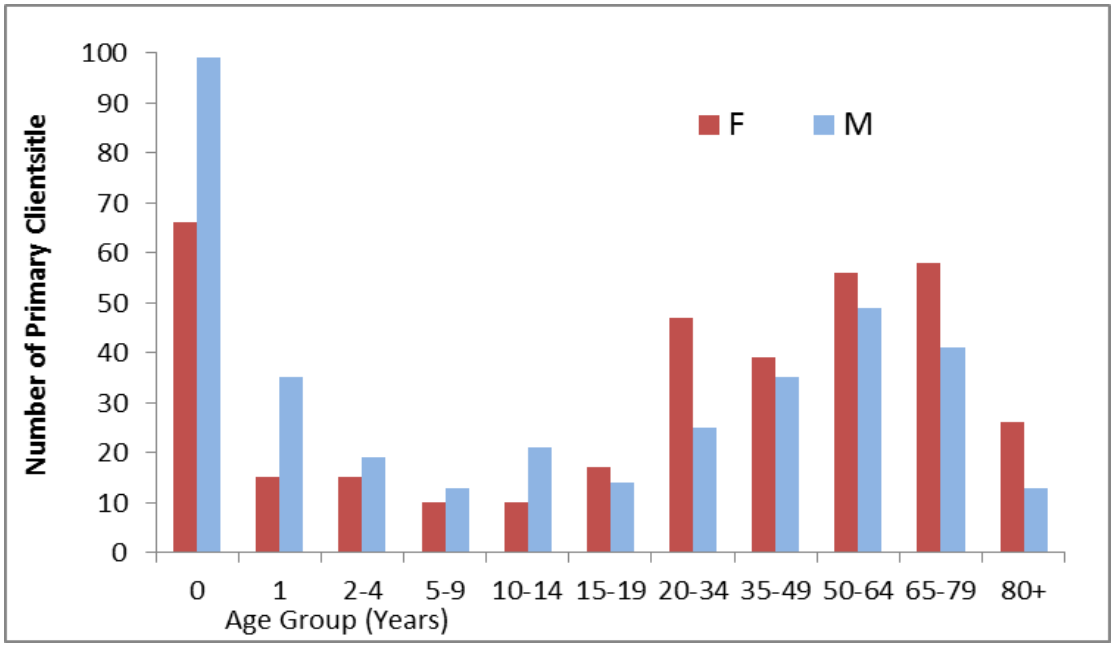


Figure 17 Number of new Fanau Ola Support Service primary clients Mar-Aug 2014 by age group and gender



Kidz First Hospitalisations

Of all the children of Pacific ethnicities aged less than 2 years old discharged from Kidz First medical and surgical wards between 1st July 2013 and 30th June 2014, 58% were male.

The number of discharges (noting that one person could have multiple discharges) for each month Between January 2013 and November 2014 are shown in Table 36. All the months except May 2014 had more male discharges than female discharges. The mean value for the male percentage for the 23 months was 57.5% and the median 57.0%.

Table 39 Number of Kidz First Medical and Surgical discharges for children aged less than two years old of Pacific ethnicities by month January 2013 to November 2014 by gender

Year	Month	Female	Male	Total	Female %	Male %
2013	January	25	43	68	37%	63%
	February	32	43	75	43%	57%
	March	30	34	64	47%	53%
	April	27	44	71	38%	62%
	May	38	39	77	49%	51%
	June	43	50	93	46%	54%
	July	54	70	124	44%	56%
	August	46	70	116	40%	60%
	September	47	77	124	38%	62%
	October	39	73	112	35%	65%
	November	29	53	82	35%	65%
	December	25	38	63	40%	60%
2014	January	35	40	75	47%	53%
	February	26	31	57	46%	54%
	March	26	34	60	43%	57%
	April	34	45	79	43%	57%
	May	35	31	66	53%	47%
	June	34	60	94	36%	64%
	July	58	95	153	38%	62%
	August	59	86	145	41%	59%
	September	55	67	122	45%	55%
	October	53	57	110	48%	52%
	November	40	45	85	47%	53%
	Total	**890**	**1,225**	**2,115**	**42%**	**58%**

Appendix Nine: Details of Patient Demography in the Fanau Ola cohort

Census data on socio-economic data can be reported on by census area unit or by a smaller division, known as a meshblock. When using census area units there is a slight averaging effect. For CM Health data this means there is a higher percentage of decile 10 when census area unit are used instead of meshblocks.

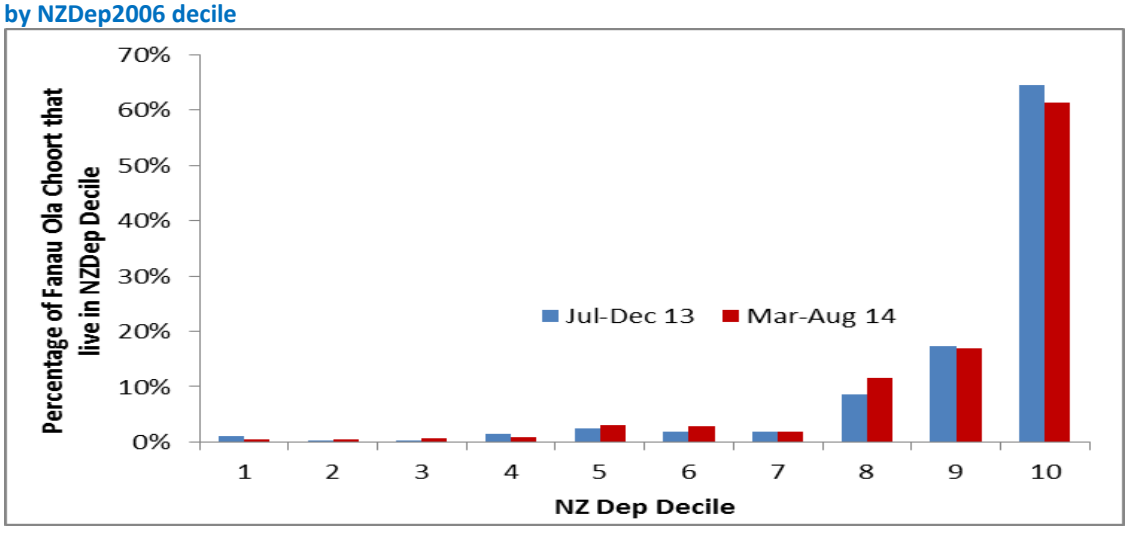
Table 40 Number and Percentage of Fanau Ola Support Service Primary Clients Jul-Dec 2013 and Mar-Aug 2014 by NZDep* Score

	July-December 2013		**March-August 2014**		
NZ Dep* Score	Number of cases	Percentage of known NZ Dep*	**Number of cases**	**Percentage of known NZ Dep***	**CM Health %****
1	3	1.1%	3	0.4%	0.8%
2	1	0.4%	3	0.4%	1.3%
3	1	0.4%	4	0.6%	1.3%
4	4	1.4%	6	0.9%	1.7%
5	7	2.5%	21	3.1%	2.3%
6	5	1.8%	19	2.8%	2.8%
7	5	1.8%	13	1.9%	4.8%
8	24	8.7%	79	11.6%	9.3%
9	48	17.4%	116	17.0%	23.2%
10	178	64.5%	418	61.3%	52.4%
Unknown	45	NA	44	NA	
Total	321	NA	**726**	**NA**	

*Fanau Ola Support Service data is based on NZDep2006

** CM Health Dep is based upon NZDep2013

Figure 18 Percentage of Fanau Ola Support Service patients starting Jul-Dec 2013 and Mar-Aug 2014 by NZDep2006 decile



MOST FANAU OLA SUPPORT SERVICE PATIENTS STATED A CHRISTIAN RELIGION

CM Health started to develop Lotu Mo'ui in 2005 as 84% of Pacific people surveyed in the 2001 Census identified themselves as affiliated to a church or religious organisation (Counties Manukau DHB, 2005). Of all the people in the Jul-Dec 2013 cohort 72% stated a Christian religion and in the Mar-Aug 2014 cohort 67%. These rose to 82% and 75% respectively if the number of people who did not have a response is removed from the denominator.

Table 41 Number and Percentage of Fanau Ola Support Service Primary Clients Jul-Dec 2013 and Mar-Aug 2014 by Religion

	July-December 2013		March-August 2014	
Religion	**Number of cases**	**Percentage of cohort**	**Number of cases**	**Percentage of cohort**
Christian	231	72.3%	489	67.4%
Hindu	5	1.6%	7	1.0%
Muslim	3	0.9%	6	0.8%
Other	7	2.2%	29	4.0%
None	35	10.9%	118	16.3%
Not recorded	39	12.1%	77	10.6%
Total	**321**	**100%**	**726**	**100%**

Religion of CM Health People of a Pacific ethnicity as stated in the census

In the 2013 Census people could record multiple religions. For people who were identified as being of one of the Pacific ethnicities and living in CM Health that filled in the census form 3.5% objected to answering the question, 8.1% stated no religion and for 6.3% of people the answer was not classified. This means 82% of Pacific people did state a religion. Of the religions stated, religions other than Christian made up 2.2 % of responses for people of a Pacific ethnicity.

OVER 70% OF PATIENTS LIVED IN MANGERE, OTARA OR MANUREWA

For both cohorts over a third of patients lived in Mangere and another third lived in Otara or Manurewa. Table 39 gives the number of people by suburb and this is shown graphically in Figure 16. Table 40 shows the usually resident population percentages by locality for people identified as Pacific ethnicities.

Table 42 Number and Percentage of Fanau Ola Support Service Primary Clients Jul-Dec 2013 and Mar-Aug 2014 by Suburb

	July-December 2013		March-August 2014	
Suburb	**Number of cases**	**Percentage of known Suburb**	**Number of cases**	**Percentage of known Suburb**
Mangere	107	33%	271	37%
Otara	56	17%	118	16%
Manurewa	41	13%	128	18%
Papatoetoe	32	10%	43	6%
Other	34	11%	130	18%
Unknown	45	14%	36	5%
Total	**321**	100%	**726**	100%

Figure 19 Percentage of Fanau Ola Support Service Primary Clients Jul-Dec 2013 and Mar-Aug 2014 by Suburb

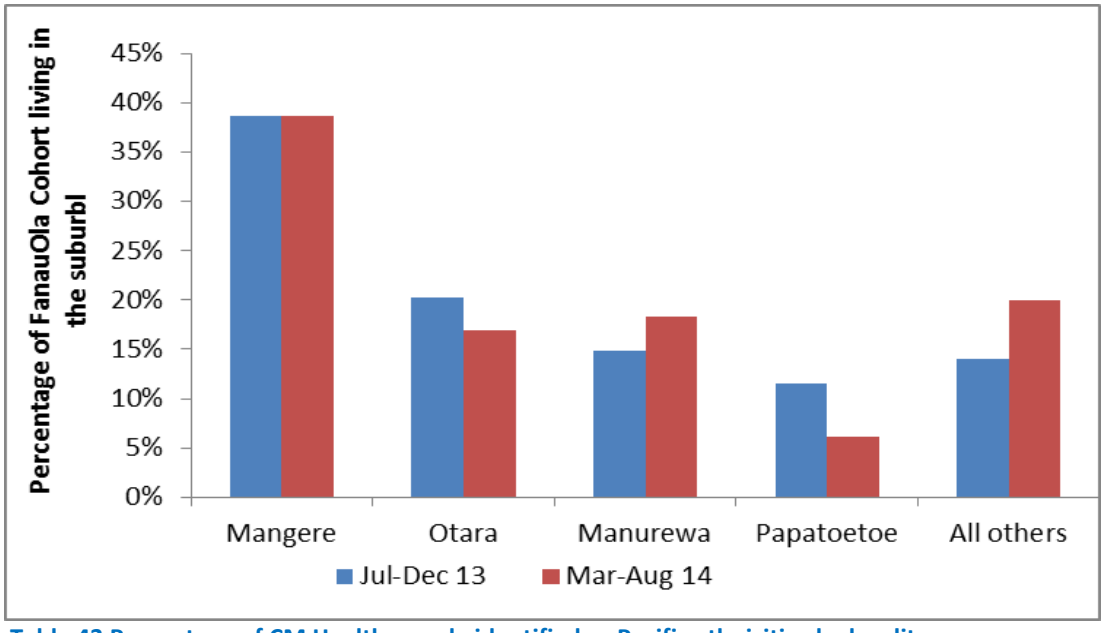


Table 43 Percentage of CM Health people identified as Pacific ethnicities by locality

Locality	Eastern	Franklin	Mangere/Otara	Manukau	**Total**
Estimated percentage	5.1%	2.3%	55.7%	36.9%	**100%**

Data from NZ Census, Analysed by CM Health

Appendix Ten: CM Health Hospitalisations, Bed days and ALOS

Table 44 Number of hospitalisations, bed days and average length of stay to CM Health facilities July-December 2012 and July-December 2013 for all ethnicities and for people identified as Pacific ethnicities

Admit type	Secondary service	Jul-Dec 2012	Jul-Dec 2013	Change
All admissions All ethnicities	Hospitalisations	64,775	64,299	-0.7%
	Bed days	171,090	169,783	-0.8%
	ALOS	2.64	2.64	0.0%
All Admissions Pacific ethnicities	Hospitalisations	17,969	17,340	-3.5%
	Bed days	40,554	40,084	-1.2%
	ALOS	2.26	2.31	2.4%
Acute admissions All ethnicities	Hospitalisations	32,478	33,442	3.0%
	Bed days	96,674	98,584	2.0%
	ALOS	2.98	2.95	-1.0%
Acute admissions Pacific ethnicities	Hospitalisations	9,897	9,884	-0.1%
	Bed days	25,345	25,693	1.4%
	ALOS	2.56	2.60	1.5%
Arranged admissions All ethnicities	Hospitalisations	19,417	18,125	-6.7%
	Bed days	50,278	51,284	2.0%
	ALOS	2.59	2.83	9.3%
Arranged admissions Pacific ethnicities	Hospitalisations	6,004	5,432	-9.5%
	Bed days	11,762	11,526	-2.0%
	ALOS	1.96	2.12	8.3%
Waiting list admissions All ethnicities	Hospitalisations	12,880	12,732	-1.1%
	Bed days	24,138	19,915	-17.5%
	ALOS	1.87	1.56	-16.5%
Waiting list admissions Pacific ethnicities	Hospitalisations	2,068	2,024	-2.1%
	Bed days	3,447	2,865	-16.9%
	ALOS	1.67	1.42	-15.1%

Appendix Eleven: Fanau Ola Support Service compared to PCST ≥5 for Acute admissions, Acute Arranged admissions and Waiting List admissions

ACUTE ADMISSIONS

The PCST ≥5 and Fanau Ola Support Service Jul-Dec 13 cohorts had 41% fewer acute admissions after the intervention than before, 595 to 349 for PCST ≥5 and 458 to 268 for Fanau Ola Support Service Jul-Dec 13.

Table 45 Number of hospitalisations, bed days and average length of stay to CM Health facilities for PCST ≥5 and Fanau Ola Support Service patients six months before and six months after intervention, acute admissions

Patient Group	Acute admission Event type	Six months before	Six months after	Change
Ward-based PCST (Seen Jul-Dec 2012) AND HAD (≥5 EC admits in previous 12 months)	Hospitalisations	595	349	-41.3%
	Bed days	1,727	1,022	-40.8%
	ALOS	2.90	2.93	+1.0%
Fanau Ola Support Service (Started between Jul-Dec 2013)	Hospitalisations	458	268	-41.48%
	Bed days	1,563	943	-39.7%
	ALOS	3.41	3.52	+3.20%

Arranged Admissions

After the intervention the number of arranged admissions dropped in the Fanau Ola Support Service Jul-Dec 13 cohort by 78% but increased for the PCST ≥5 cohort by 91%. The overall amount of arranged admissions for CM Health dropped 7% between Jul-Dec 2012 and Jul-Dec 2013 as shown in Table 43. Both the PCST and Fanau Ola Support Service cohort had relatively small numbers in this admission type.

Table 46 Number of hospitalisations, bed days and average length of stay to CM Health facilities for PCST ≥5 and Fanau Ola Support Service patients six months before and six months after intervention, arranged admissions

Patient Group	Arranged admission Event type	Six months before	Six months after	Change
Ward-based PCST (Seen Jul-Dec 2012) AND HAD (≥5 EC admits in previous 12 months)	Hospitalisations	44	84	+90.9%
	Bed days	150	160	+6.7%
	ALOS	3.41	1.90	-44.3%
Fanau Ola Support Service (Started between Jul-Dec 2013)	Hospitalisations	63	14	-77.8%
	Bed days	295	17	-94.2%
	ALOS	4.68	2.21	-52.8%

Waiting List Hospitalisations

Waiting list hospitalisations were the smallest group of the three admit types.

Table 47 Number of hospitalisations, bed days and average length of stay to CM Health facilities for PCST ≥5 and Fanau Ola Support Service patients six months before and six months after starting, waiting list admissions

Patient Group	Waiting List Event type	Six months before	Six months after	Change
Ward-based PCST (Seen Jul-Dec 2012) AND HAD (≥5 EC admits in previous 12 months)	Hospitalisations	30	20	-33.3%
	Bed days	115	56	-51.3%
	ALOS	3.83	2.80	-26.9%
Fanau Ola Support Service (Started between Jul-Dec 2013)	Hospitalisations	61	30	-50.8%
	Bed days	159	91	-42.8%
	ALOS	2.61	3.03	+16.1%

Appendix Twelve: Comparison of Fanau Ola Support Service Jul-Dec 13 and Mar-Aug 14 cohorts by for Acute admissions, Acute Arranged admissions and Waiting List admissions

Table 48 Number of emergency care attendances, hospitalisations and bed days at CM Health facilities for the Jul-Dec 13 and Mar-Aug 14 cohorts six months before the intervention

Event type	Fanau Ola Support Service Jul-Dec 2013 Total	Fanau Ola Support Service Mar-Aug 2014 Total	Fanau Ola Support Service Jul-Dec 2013 per patient	Fanau Ola Support Service Mar-Aug 2014 per patient	**Change per person**
Acute admission Hospitalisations	458	601	1.4	0.8	-72%
Acute Bed days	1,563	1,472	4.9	2.0	-140%
Acute admission Hospitalisations	63	180	0.2	0.2	21%
Acute Arranged Bed days	295	752	0.9	1.0	11%
Waiting list Hospitalisations	61	53	0.2	0.1	-160%
Waiting list Bed days	159	115	0.5	0.2	-213%

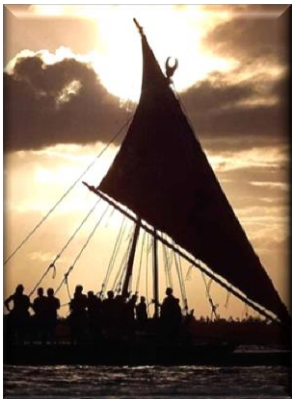
Appendix Thirteen: HAKAMANA Integrated System of Transformative Design, Development, and Evaluation

INTEGRATED SYSTEM OF TRANSFORMATIVE DESIGN, DEVELOPMENT, AND EVALUATION

First there is aroha; an understanding that all people, all taonga, all things share the pathway of life; appreciating that all are connected to each other and all must be cared for in the spirit of love. Then there is a blossoming, a manifestation of the deepest knowledge that allows one's thoughts to be made known … those thoughts, from the deepest recesses of the mind, realised in learning, study and evaluation[13], in other ways of seeking to know. (Wānanga - Tohunga Te Uranga o Te Ra Kingi, 2008).

Identity is fundamental to the concept of 'value' for Māori, Pacific, and local communities of Aotearoa NZ. Their identity is located in their physical, spiritual, and emotional connections to land and water, from the highest mountains to lowest valleys, from vast oceans to small streams, all having a special place in their hearts, minds and souls. From these, systems and structures have been developed that encompass the complexity of their environments, genealogies and lineage, family and social relationships, community living, health and wellbeing, learning and education, creativity and arts, corrections and justice, and economics and trading - indeed all aspects of life (Wolfgramm, 2015).

The process for determining and articulating – surely even thinking about 'values', is complex and multifaceted. Its reaches deep into the psyche, the spirit of an individual, is shaped by their familial relationships, informed and fashioned according to their cultures and worldviews and further developed by systems and structures both local and global. Even the words and language for those 'values' and concomitant behaviours and activities will further shape one's awareness, understandings and experiences of those 'values'.



[13] At the core of 'e-valu-ation' is 'value'. Hence, evaluation has been called 'the systematic determination' of the value, merit, worth, significance, quality or importance of something, such as people, groups, organisations, cultures, activities, conceptions and creations, programmes, policies, designs, processes, outcomes, institutions, systems and so forth.

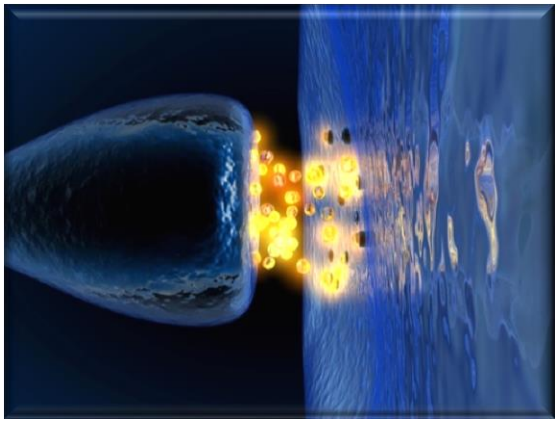
While a natural part of living and growing, evaluation can, within difficult contexts, demand the expression of heroic characteristics of those involved and impacted by the evaluation. Evaluation is not value-free. Central to its design and exercise is 'value'. Centuries of evaluation mechanisms based on value systems linked with structural power and institutional control of 'others' including testing, examination, assessment, benchmarking, grading, analysis, importance, and so forth have taken their toll on many groups and communities, including Māori and Pacific whānau of Aotearoa.

Thus the development of **HAKAMANA** is guided by an understanding that these groups and communities have always had ways of designing, developing, and assessing merit of worth based on their traditional values and ways and means of expressing themselves culturally, linguistically, and symbolically.

HAKAMANA – AN INTEGRATED SYSTEM

Implicitly honoured within **HAKAMANA** are ***Mauri*** - *life-force; the life principle intersecting light and dark*; ***Wairua*** - *the creative spirit within oneself existing across space and time*; ***Tapu*** - *intrinsically sacred elements requiring special care*; and ***Mana*** - *enduring and transcendent power infused at conception*.

Foundational to **HAKAMANA** are those values, which remain strong yet are also flexible and responsive to local traditions and culture. Ethical spaces are negotiated and experienced at many levels; within the psyche; in relationship with others and the collective, and in relation to the world at large. Ethical boundaries established by collective principles, such as knowledge systems and rights to traditions remind communities of what is important in life and what they value.



Systems' thinking continues to shift the focus from individual parts to their interactions as they are configured by a complex and dynamic web of relationships, both internal and external. Thus, in most cases, 'the whole' has properties that cannot be known from analysis of the constituent elements in isolation. The **HAKAMANA** **Integrated System of Design, Development, and Evaluation** provides for holistic integration, including mechanisms, processes and procedures for effective practice applied across complex and often chaotic environments.

The **HAKAMANA INTEGRATED SYSTEM OF TRANSFORMATIVE DESIGN, DEVELOPMENT, AND EVALUATION**

is a dynamic system that animates values that enhance

the mana and power of 'all our relations', past, present and future.

HAKAMANA is informed by the sounds and words of the ancient Polynesian language - *puorooro*, **I – O – E – A – U** - simultaneously 'verbs' and 'nouns'; processes and outcomes. These communicate states of relationship, creativity and potentiality, and provide both constancy on the one hand, and dynamic change on the other – embodying transformative processes (Wolfgramm, 2015).

HA – the breathe of life; the divine breath that connects all living entities

KA – the fire that burns within us; the energy expended for future transformations

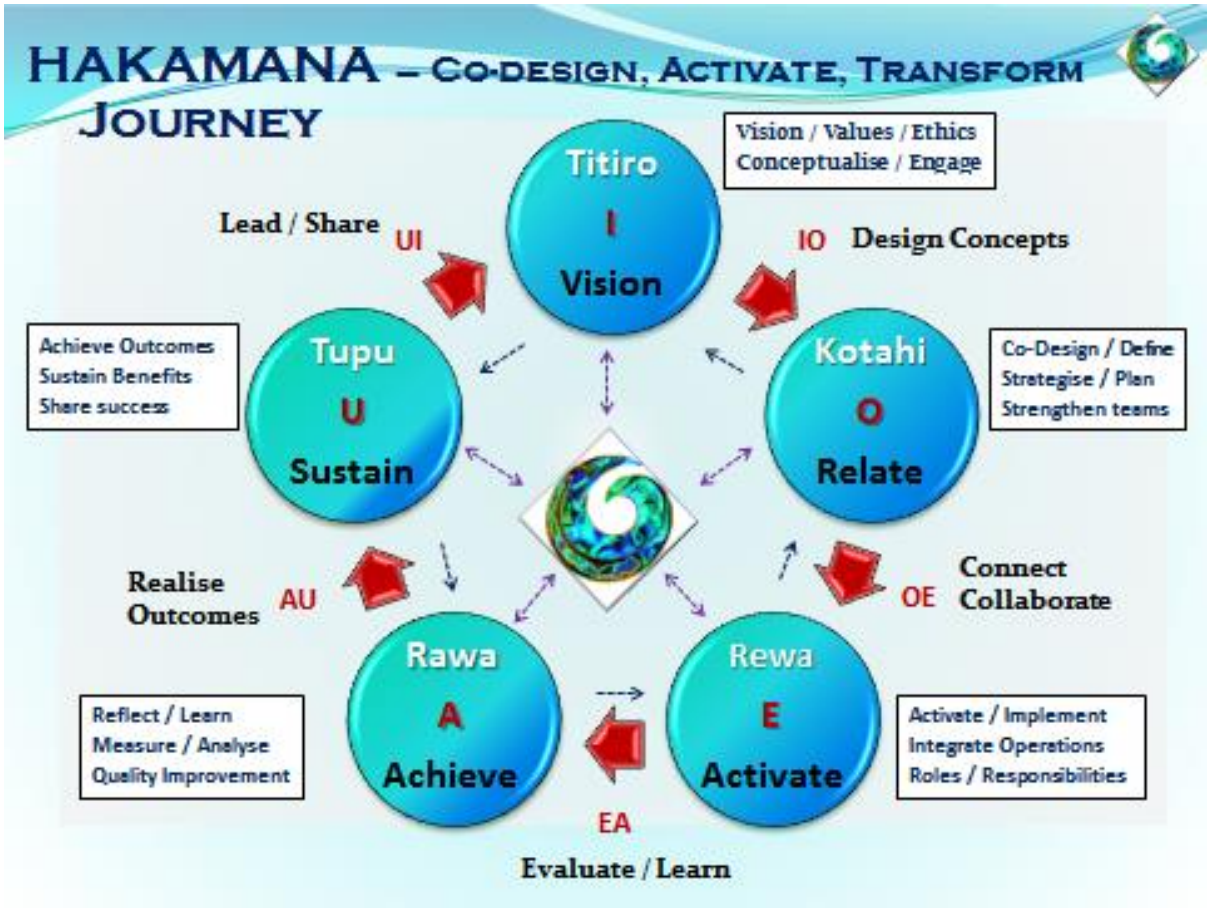
MA – the presence of all of one's 'light'; knowing oneself/one's world

NA – the relationships we have with each other, respectful kinship

HAKA – the 'dance of life and energy'; expression through animation and activation

MANA – the power, strength, authority one has; effectiveness, leadership

HAKAMANA – the creative process of realising one's power



HAKAMANA principles include:

- Ethical and social leadership – according mana to ancestral, spiritual and cultural facets of social engagement; reflexively reorienting and reinforcing our individual and collective sense of cultural, social and spiritual identity; facilitating, mediating and advancing societal wellbeing; expressing:
  - Aroha ki te tangata (respect for people; dignity; honour)
  - Kanohi kitea (presenting oneself to people face to face; cognisant of inherent value of people)
  - Titiro, whakarongo, korero (looking, listening and then speaking)
  - Manaaki ki te tangata (sharing and hosting people, being generous)
  - Kia tupato (being cautious and careful; protection; safety)
  - Kaua e takahia te mana o te tangata (not trampling on the mana of people)
- Inclusive, engaged and meaningful participation - conscious of and responsive to cultural values
- Awareness of roles and responsibilities; strengths; opportunities
- Intellectual, academic and philosophical leadership – co-creating and developing new knowledge
- Strategic leadership – visioning and realising the need to move our communities, agencies and nation forward
- Symbolic leadership – helping to lead through symbols – reflecting unique yet collective identities
- Whole of systems thinking - robust, dynamic, agile, design for sustainable outcomes and benefits
- Acknowledged measures, indicators of achievement, success – supporting good decision-making
- Continuous learning, reflection, analysis, and evaluation - quality intelligence and ongoing enhancement

References

Chan W, Papa D, Black L, Winnard D. Retrospective study of 5,000 people who had the highest healthcare cost in 2012 in Counties Manukau Health. 2014a. Auckland: Counties Manukau Health.

Chan W, Winnard D, Papa D. Life expectancy in Counties Manukau Health update 2013. 2014b. Auckland: Counties Manukau Health.

Clinton J, Percival T, Dunlop-Hill A, O'Connor T, Mahony F, Faeamani G, Wilson P. Summary evaluation report Pasefika LotuMoui Church Health Programme ('LotuMoui" programme) – a Counties Manukau District Health Board Initiative. December 2009. Auckland: Counties Manukau Health.

Counties Manukau Health. Counties Manukau District Health Board 2013/14 Annual Report. November 2014a. Auckland: Counties Manukau Health.

Counties Manukau Health. Introducing project SWIFT – system wide integration for transformation. 2014b. CM Health. Auckland. Cited on 02/12/2014. Available from http://southnet/AchievingBalance/Project-Swift/default.htm

Counties Manukau District Health Board. Pacific health symposium: LotuMoui mind body spirit 2005 report. 2005. Counties Manukau District Health Board. Auckland Cited date 14/12/2014. Available from http://www.countiesmanukau.health.nz/funded-services/Pacific-health/Symposium/Symposium-Report.pdf

The Health Research Council of New Zealand. Pacific health research guidelines. 2014. Auckland http://www.hrc.govt.nz/sites/default/files/Pacific%20Health%20Research%20Guidelines%202014.pdf

Hill P, Boulton K. VHIU- Reducing presentation to hospital emergency care. 2013. Poster Session. Health Round Table 1317 Innovation Awards

Kenealy T, Carswell, Clinton J, Mahony F. Report on the evaluation of chronic care management in Counties Manukau: Phase One. Auckland: Uniservices, University of Auckland, 2007

LotuMuoi. What is the Lotumoui programme? Counties Manukau District Health Board. 2014. Cited on 16/12/2014. Available from http://www.lotumoui.co.nz/page/5-Home

Maingay G, Rea H. Improving quality of care. Pharmacy Guild of NZ 2012. https://cdn.auckland.ac.nz/assets/fmhs/som/sacs/integrated-care/docs/2012-VHIU-publication.pdf

Ministry of Health. Briefing to the incoming Minister 2014. 2014. Wellington. Ministry of Health

National Health Board. National Minimum Dataset (Hospital Events) Data Dictionary. 2014. Wellington: Ministry of Health.
Published in 2014 by the Ministry of Health PO Box 5013, Wellington, New Zealand
Downloaded on 16/11 2014 from http://www.health.govt.nz/system/files/documents/publications/nmds_data_dictionary_v7.6.pdf

Rea H, Kenealy T, Horwood F, Sheridan N, Parsons M, Wemekamp B, et al. Integrated systems to improve care for very high intensity users of hospital emergency department and for long-term conditions in the community. NZMJ. 2010; 123 (1320) https://www.nzma.org.nz/journal/read-the-journal/all-issues/2010-2019/2010/vol-123-no-1320/view-rea

Rea H, Kenealy T, Wellingham J, Moffitt A, Sinclair G, McAuley S, et al. Chronic Care Management evolves towards Integrated Care in Counties Manukau, New Zealand. NZMJ. 2007; 120 (1252): 63-76
https://www.nzma.org.nz/__data/assets/pdf_file/0007/17836/Vol-120-No-1252-13-April-2007.pdf

Southwick M, Kenealy TW, Ryan D. Primary care for Pacific people: a Pacific and health systems approach.2012 Wellington, New Zealand. Cited Date 20/12/2014.Available from https://researchspace.auckland.ac.nz/bitstream/handle/2292/20803/primary-care-pacific-people-pacific-health-systems-approach.pdf?sequence=5

Statistics New Zealand. Demographics of New Zealand's Pacific Population: Multiple ethnicity. 2012 Cited date 06/12/2014. Available from
http://www.stats.govt.nz/browse_for_stats/people_and_communities/Pacific_peoples/Pacific-progress-demography/multiple-ethnicity.aspx

Wolfgramm T. (2013). Pacific Health Development Annual Plan 2013-2014. Auckland: Counties Manukau Health.

Wolfgramm T. (2015). Spiritual Dynamics in Systems of Evaluation: Maori and Pacific Models for Process and Application. In C. Spiller & R. Wolfgramm (Eds.), *Indigenous Spiritualities at Work* (pp. 209-232). Charlotte, NC: Information Age Publishing.