Te Whatu Ora
Health New Zealand
Counties Manukau

Tuuranga Hauora o te Mana Waahine Report

Division of Women's Health Report

JANUARY 2021 – JUNE 2022

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Acknowledgements

On behalf of the Maternity Quality and Safety Programme Governance Group I would like to express our gratitude to the Te Whatu Ora Counties Manukau team for their many and varied contributions to this report.

Special thanks to the Counties Manukau whaanau who have generously shared their stories and images – Hannah Niuelua, Meleane Quensell with baby Nasoni Titan, Holly Rihari and daughters Indie Taniwha and Georgie, Darlenna Headland with baby Harper Daniel Vea-Headland, Torr'e Thompson and baby Luca Myers, Samantha Heares, Luisa Silailai, Claire Flavell-Kemp, Maraea Pipi-Takoko, Taffy Muyambo with daughter Maimai and baby Maximus, Jen Schroder with baby Rosie, Annabelle Gascoine and Todd Littlewood with baby Parker John, Katie Brooks and baby Evander Schuster, Sammy and Thomas Sutton-Walsh with daughters, Addilyn and Willow, Emily and baby Caleb Bennet-Dowdeswell, Christine Punnett with baby George, and Peyton Niuelua.

Cover photo credit to Kau'i Wihongi (kauiwihongi.com).

Completion of this report would not have been possible without the editorial support of Sarah Johnson (sarah@sarahjohnson.co.nz) and the design work of the team at MakeReady (makeready.nz).

He waka eke noa
We are all in this together

Ngaa mihi nui,

Clare Senner
Maternity Quality and Safety Programme Manager
Te Whatu Ora Counties Manukau

Senior leadership foreword

▲ *Tuuranga Hauora o te Mana Waahine / Division of Women's Health Senior leadership: Left to right - Sarah Nicholson, Deputy Chief Midwife; Chris Mallon, Chief Midwife; Andy Simons, Clinical Director; Lesa Freeman, Clinical Nurse Director; Alex Boersma, General Manager*

Welcome to the Tuuranga Hauora o te Mana Waahine Report for January 2021 to June 2022, and thank you to all who have contributed: not only for your published words, but also for everything you all do every day caring for our community.

COVID-19 has continued to be a significant focus for our work over the last 2 years. We would like to thank the Women's Health division for stepping up to the mark, as we fluctuated between levels of lock downs, and surges and outbreaks of infection impacting on our community and workforce. We want to thank you all for supporting each other and displaying the Counties Manukau Health values along that journey. This pandemic compelled us to be creative in the way we deliver care, reinforcing the important role our community plays in our care partnership. It provided the impetus to challenge our current ways of working and this is reflected in the innovation described in this report.

Another significant impact for our workforce was the launch of our national health service, Te Whatu Ora – Health New Zealand, in July 2022. This overarching organisation will be responsible for New Zealand's national health services, working in close partnership with Te Aka Whai Ora – Maaori Health Authority. Together they will build a simpler, coordinated health system that focuses on equity and works for Maaori. Te Whatu Ora is still evolving, and it is exciting to see and participate in the transformational opportunities it is creating, to address inequity for our community with improved health outcomes for many.

This report reflects this dedicated work, in an ever-evolving clinical environment, seeking new initiatives across the breadth of care for women and pregnant people of all ages and their whaanau. Pictures and real-life stories from our whaanau and our communities are a feature of this year's report. We would like to acknowledge the community engagement with Tuuranga Hauora o te Mana Waahine / the Division of Women's Health. You will sense the growing involvement of women and whaanau reflected in our services, as they influence all aspects of planning and service delivery. In partnership, we look to develop a deeper understanding of the needs of our culturally diverse community: we are committed to addressing the inequity that influences the health outcomes of the people who live here.

It is also exciting to see the progression of coordinated care between primary and secondary services for gynaecology, demonstrated by new primary care initiatives to improve access to care for whaanau. With resource constraints and limited theatre access, maximising care in the community is paramount.

The Maternity Quality and Safety Programme plays an important role in raising the profile of the maternity services that women, pregnant people and whaanau receive, ensuring, as far as possible, that all peepi get a great start to life. Our chapter on the programme provides updates on current projects, and the work undertaken by local multidisciplinary teams to identify and implement improvements for local maternity services; both of which are driven by local midwifery and medical leaders working with maternity consumers to improve outcomes for women and their whaanau.

This report includes a chapter on COVID-19, which illustrates the huge impact that the pandemic has had across our whole service, community and staff. The chapter highlights our learnings and achievements over this time.

The report also provides us with an opportunity to publish some of our outcomes, and enables us to benchmark ourselves against other district health boards, by way of clinical indicators.

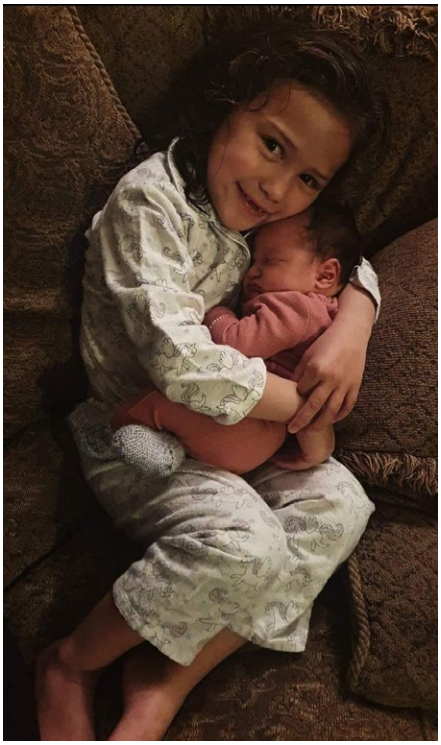
We continue to be a strong, motivated team, working passionately to deliver care within an environment of increasing demand, complexity and workforce shortages. As reflected throughout this report, our Women's Health strategy is to support the provision of quality care that is whaanau centred, safe and equitable for all. This commitment will support and drive our involvement in the development of the first National Women's Health Strategy and in Kahu Taurima (First 2,000 Days Programme) in 2023.

Thank you for your commitment to our mission during these challenging years.

Purpose of the *Tuuranga Hauora o te Mana Waahine Report*

The purpose of the *Tuuranga Hauora o te Mana Waahine Report* for January 2021 to June 2022 is to:

- demonstrate application of the principles of Te Tiriti o Waitangi as outlined in Pae ora healthy futures
- be transparent and accountable to the whaanau we serve and the workforce and stakeholders who contribute to their care
- describe the unique and diverse population we serve
- provide information about the work we do, the services provided and the quality improvement work underway in the Counties Manukau area for whaanau living and birthing in our district
- recognise the important work delivered by our maternity, gynaecology and neonatal services
- provide information about the women's health workforce, including quality improvement work relating to this workforce that is underway in Counties Manukau
- describe work underway and progress towards addressing the Maternity Quality and Safety Programme recommendations, which are driven by the priorities identified by the Perinatal and Maternal Mortality Review Committee and the National Maternity Monitoring Group
- benchmark our performance against the New Zealand Maternity Clinical Indicators and against ourselves over time
- describe planned work, as identified in the *Maternity Quality Improvement Work Plan*, to improve the quality and safety of maternity services to be delivered in 2023 and 2024
- provide Te Whatu Ora with the contractually required information, as set out in Section 2 of the Maternity Quality and Safety Programme Crown Funding Agreement Variation.



▲ *Big sister Indie Taniwha with new baby sister Georgie Rihari*

Te Whatu Ora Counties Manukau Women's Health Division / Tuuranga Hauora o te Mana Waahine acknowledges that not all of the people we care for identify as a mother, woman or female. To ensure that the diversity in our community is acknowledged, this report uses a gender-additive approach to language and includes the use of gender-neutral terms, such as whaanau and birthing person, along with gender-specific terms, such as wahine, woman and mother. Where gender-specific language is used, particularly in relation to the presentation of data, this represents the way that the data is currently collected and reported. This does not reflect in any way the value we place on the unique and individual identities of the people we care for.

Alignment with key strategic documents

This report aligns with the following strategic documents. Extracts from those documents and links to the full versions are below.

Ngā Paerewa Health and Disability Services Standard (NZS 8134:2021) and Pae ora healthy futures

Part 1: Our rights | Ministry of Health NZ

Te Pae Tata

Te Pae Tata interim New Zealand Health Plan 2022 outlines the first steps to becoming a health service delivery system that better serves all New Zealand's people and communities.

This plan covers a period of reset while the foundations of our health system change. As an initial plan, it outlines what we will do differently to establish the basis of a unified, affordable and sustainable health system.

Te Pae Tata replaces 20 different district annual plans. This interim plan is designed to begin transformation while a full-scale New Zealand Health Plan is being worked on.

Te Pae Tata Interim New Zealand Health Plan 2022 – Te Whatu Ora - Health New Zealand

Whakamaua Māori Health Action Plan 2020–2025

Provides a clear direction for the Ministry, district health boards, whānau, hapū, iwi, and other key stakeholders to improve Māori health.

The implementation of the plan will be shared and owned across these groups, reflecting the responsibility of all New Zealanders to improve Māori health in Aotearoa.
The Ministry will progressively update Whakamaua to respond to the outcomes of the Health and Disability System Review, and ensure we are well positioned for recovery from the COVID-19 pandemic.

Our commitment to the Ministry's obligations under Te Tiriti o Waitangi has fully informed the development of Whakamaua and will continue to inform its implementation over the coming years. Progressing work in this kaupapa needs to involve ongoing engagement with and participation by whānau, hapū, iwi, and Māori communities.[1]

Whakamaua: Māori Health Action Plan 2020–2025

National Maternity Monitoring Group

This report presents the activities and recommendations of the National Maternity Monitoring Group (NMMG) in their seventh year of operation, 2019/2020.

The NMMG oversees New Zealand's maternity system and provides a national overview of the quality and safety of our maternity services. The group was set up in 2012 as part of the Maternity Quality Initiative and reports to the Director-General of Health.

https://www.health.govt.nz/system/files/documents/publications/nmmg_2019_report_final.pdf

Perinatal and Maternal Mortality Review Committee Fifteenth Annual Report

The Perinatal and Maternal Mortality Review Committee is an independent committee that reviews the deaths of babies and mothers in New Zealand.

https://www.hqsc.govt.nz/resources/resource-library/fifteenth-annual-report-of-the-perinatal-and-maternal-mortality-review-committee-reporting-mortality-and-morbidity-2020

Maternity Morbidity Working Group

MMWG-Annual-Report-2019-WEB-v2.pdf (hqsc.govt.nz)

Te Whatu Ora Counties Manukau Strategic Plan

Together, the Counties Manukau Health system will enable equity in access and outcomes for Maaori, Pacific and communities with health disparities.

We will measure the impact we have on healthy life years every year. This is our commitment to act and be deliberate in our choices and priorities.

This means that people will live longer healthier lives in the community.

https://www.countiesmanukau.health.nz/about-us/who-we-are/our-strategy

1 Ministry of Health. July 2020. *Whakamvaua: Māori Health Action Plan 2020–2025.* Wellington: page v Dr Ashley Bloomfield Director-General of Health

AUTHORS

SHARON ARROL
Lead Analyst
Health Intelligence and Informatics

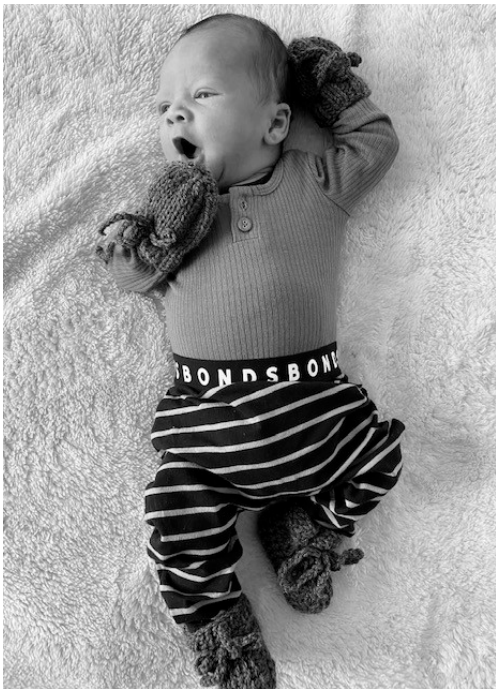
SINIVA SINCLAIR
Public Health Physician
Population Health Directorate

Data notes

In this *Tuuranga Hauora o te Mana Waahine Report*, the data used is from a number of sources and is provided for different populations.

The report essentially provides two views: that of the domiciled population (those women who live in the Counties Manukau Health district) and the provider arm view (the population for whom Counties Manukau Health provides services, regardless of where those people live). Different data sources provide information about these two populations. Some of those sources can provide data for both views, i.e., a domicile and provider arm view, while some can only give a provider arm view.

Most of the data is presented for the 2021 calendar year, or for the first half of 2022 (January to June), or is combined data for these two periods. This period was prior to Counties Manukau Health's transition to Te Whatu Ora – Health New Zealand on 1 July 2022. In light of this, Counties Manukau Health (or CM Health) is referred to throughout this report. Data from earlier years is included for comparison purposes.



▲ *Baby Luca Myers*

Data sources used in the report

Counties Manukau Health Data Warehouse is a system used for reporting and data analysis. It is a central repository of integrated data from one or more disparate sources. Taking information from lots of sources and putting it all together makes it more cohesive, accurate and easier to work with. The maternity tables within the warehouse system are comprised of coded data from the Maternity Clinical Information System (MCIS), Information Patient Manager (IPM), and International Classification of Diseases – 10th edition (ICD 10). IPM Theatre data has also been used within the report, similarly sourced from the Counties Manukau Health Data Warehouse. Note: Some graphs are now shown from 2016, the first full year of data collection from MCIS.

National Minimum Dataset is maintained by the Ministry of Health and is a national collection of publicly funded hospital discharge information, including clinical information, for inpatients and day patients. All hospital admissions during pregnancy are captured in this dataset, and birth events are recorded for both mothers and infants. It should be noted that the district-level analysis only captures births that occur in hospital. Therefore, homebirths and births that occur before arrival at hospital (e.g., in a car or ambulance) are not captured. The National Minimum Dataset provides the clearest domicile view for women resident in Counties Manukau, as it includes birthing units outside the district, and privately managed birthing units.

National Maternity Collection data is derived from the National Minimum Dataset, lead maternity carer claims for services provided under the Primary Maternity Services Notice, and data from Births, Deaths and Marriages collected by the Department of Internal Affairs. The collection can provide both a facilities and domicile view, although there are limitations on the variables available for women receiving care from Counties Manukau Health services, when compared to those available for community lead maternity carer midwives.

Clinical indicator data is collated by the Ministry of Health. This information can be presented in both a domicile (relating to all women living in Counties Manukau) and Middlemore Hospital facility view.

Health Roundtable produces a suite of customised briefing reports to help find improvement opportunities by benchmarking across Australasian hospitals. The maternity report provides an overview of maternity activity and performance; and is based on Casemix data, supplemented by parity and neonate data provided by the health services. The Counties Manukau health intelligence and informatics team provides data for the maternity report on an annual basis.

Throughout this report, full titles rather than acronyms have been used for data sources wherever possible, for ease of reading.

AUTHOR

SINIVA SINCLAIR
Public Health Physician
Population Health Directorate

Our population

Until 30 June 2022, Counties Manukau Health was one of 20 district health boards, established under the New Zealand Health and Disability Act 2000 to plan and fund the provision of personal health, public health and disability support services for the improvement of the health of the population.

Since 1 July 2022, Te Whatu Ora – Health New Zealand Counties Manukau broadly performs these functions for the Counties Manukau district under the Pae Ora – Healthy Futures Act 2022, as part of the broader Te Whatu Ora – Health New Zealand, and alongside the (also newly established) Te Aka Whai Ora – Maaori Health Authority.

In 2022, Te Whatu Ora Counties Manukau provides and funds health and disability services for an estimated 607,000[1] people who reside in the Auckland, Waikato and Hauraki local authority districts. Te Whatu Ora Counties Manukau has one of the fastest growing populations of any former district health board area in New Zealand, and that population is both youthful and ageing. Our population is diverse and vibrant, with strong cultural values. Counties Manukau is home to New Zealand's second largest Maaori population, and largest populations of Pacific and Asian (excluding Indian) people.

Across our district, the health and circumstances of our communities are not the same. Thirty-seven per cent of our population live in areas of high socioeconomic deprivation (NZDep2018 deciles 9 and 10).[2] Over 132,000 children live in Counties Manukau, with almost half (44 per cent in 2018) living in areas of high socioeconomic deprivation. By 2027, our district is forecast to be 17 per cent Maaori, 23 per cent Pacific, 32 per cent Asian (excluding Indian) and 28 per cent European/Other ethnicity.[3] There are persistent gaps in life expectancy between Maaori and Pacific people, and others living in Counties Manukau (Singh, Papaconstantinou, & Jackson, 2021). On the basis of the NZDep2018 measure, Ootara, Maangere and Manurewa, home to many of our Maaori and Pacific communities, are the most socioeconomically deprived areas in our district.

Long-term mental (Winnard et al., 2013) and physical health conditions also do not affect all groups in our community equally. Our population experiences relatively high rates of ill-health risk factors (such as smoking, obesity and hazardous alcohol use) that contribute to a 'package' of long-term physical conditions responsible for the majority of potentially avoidable deaths. Based on hospitalisation data from 2011 to 2013, the rate of hospitalisation for circulatory diseases for our Maaori communities is estimated to be 88 per cent higher than for non-Maaori (Robson et al., 2015). Diabetes prevalence in adults is higher amongst our Pacific (16 per cent), Indian (11 per cent) and Maaori (10 per cent) communities, compared to European/Other ethnicities (6 per cent) (Chan & Lee, 2020). Increasing the number of people who are living smoke-free and free from the harms of hazardous alcohol use, improving nutrition and physical activity, and reducing obesity are all key to improving the health of our population.

1 Unless otherwise referenced, population data is sourced from the district health board ethnic group population projections carried out by Statistics NZ for the Ministry of Health, 2021 update.

2 New Zealand Index of Deprivation (NZDep) is an area-based measure of socioeconomic deprivation. It measures the level of deprivation for people in each small area, based on nine Census variables. NZDep can be displayed as deciles or quintiles. Quintile 5, or deciles 9 and 10, represent people living in the most deprived 20 per cent of these areas.

3 Due to numeric rounding, totals can appear to exceed 100 per cent of the people living in Counties Manukau.

The communities we serve in Counties Manukau in 2022

As of 2022,
our area is home to

606,560 people

of which

132,430 are children

Our population is:

The second-fastest growing

12.5%
over 10 years

76,000
more people by 2032

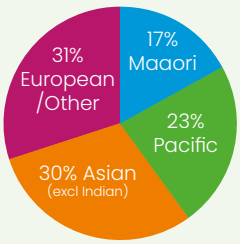
Aging quickly

34,000
more people aged over 65 years by **2032**

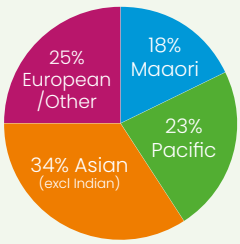
(that's a 47% increase over 10 years)

Our district is home to:

Currently:



By 2032:



Counties Manukau is home to New Zealand's second largest Maaori, and largest Pacific and Asian (excl Indian) populations

Our population has:

More people with a high body mass index (BMI) than any other district

23%
of NZ's obese children

19%
of NZ's adults in the most extreme BMI group (40+)

We have high rates of ill-health risk factors:

1 in 7 adults drink alcohol in a harmful way

1 in 7 adults smoke

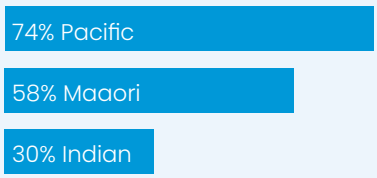
7 in 10 adults are overweight or obese

Across the district, our health and circumstances are not the same:

37% live in areas of high socioeconomic deprivation, with almost **half of our children** living in these areas

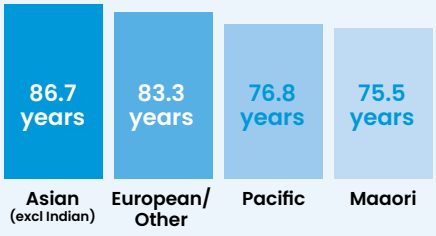
Socioeconomic deprivation is a key driver of health inequities

Maaori, Pacific and Indian populations are **over-represented in the most socioeconomically deprived areas** of Ootara, Maangere and Manurewa:

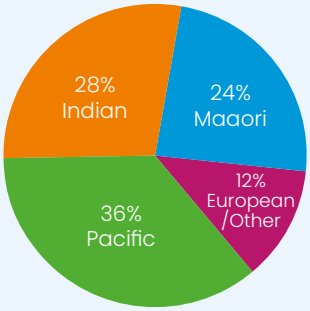


Populations live in decile 9 and 10 areas

Long-term mental and physical conditions do not affect all groups in our community equally, and **life expectancy at birth is not equal:**



Diabetes is three times more prevalent in Pacific people than Europeans:



References

Chan, W.C., & Lee. M. (2020). *Update on diabetes prevalence in 2019 based on laboratory results in the Auckland metropolitan region (from TestSafe)*. Auckland: Counties Manukau Health. Retrieved from: https://www.countiesmanukau.health.nz/assets/About-CMH/Reports-and-planning/Diabetes/2020-09-Updates_on_diabetes_prevalence_in_2019.pdf

Robson, B., Purdie, G., Simmonds, S., Waa, A., Scorringe, K., & Rameka, R. (2015). *Counties Manukau District Health Board Māori health profile 2015*. Wellington: Te Rōpū Rangahau Hauora a Eru Pōmare. Retrieved from: https://www.countiesmanukau.health.nz/assets/About-CMH/Performance-and-planning/health-status/394c841b19/2015-counties-manukau-DHB-maori-health-profile.pdf

Singh, H., Papaconstantinou, D., & Jackson, G. (2021). *Life expectancy in Counties Manukau: 2020 update*. Auckland: Counties Manukau Health.

Winnard, D., Papa, D., Lee, M., Boladuadua, S., et al. (2013). *Populations who have received care for mental health disorders*. Auckland: Counties Manukau Health.

AUTHOR

SINIVA SINCLAIR
Public Health Physician
Population Health Division

Birthing women who live in Counties Manukau – the population view

Counties Manukau Health is responsible for providing maternity services for women who live within the Counties Manukau District Health Board boundary.

Most women (around 85 per cent) living in Counties Manukau choose to birth at CM Health facilities (see Table 1). A woman living in Counties Manukau may birth at another facility for a range of reasons. One reason is if a woman has a community lead maternity carer midwife or an obstetric specialist who has an access agreement with another district health board (DHB). There are a small number of women who are referred to Auckland DHB because of identified fetal complications, such as congenital heart disease, or severe maternal cardiac conditions. A woman may also birth at another facility if she goes into labour unexpectedly while away from home.

Of the Counties Manukau women who birthed outside CM Health facilities in 2021 and between January and June 2022, the vast majority (97 per cent) birthed at an Auckland DHB facility.

For flows the other way, based on the National Minimum Dataset, there were 461 women domiciled in other DHB areas who birthed at CM Health maternity facilities and services in 2021, and a further 201 in the first half of 2022. This was mainly at Middlemore Hospital, and mainly from Auckland DHB (84 per cent).

The number of births to women aged 15 to 19 years continues to decline, with the highest numbers, as well as rates, continuing to be seen among Maaori and Pacific women in this age group. Numbers and rates of births to women in this age range among other ethnic groups continue to be remarkably low, as shown in Figures 1 and 2.

Maaori and Pacific women were more likely to birth at younger ages, with their highest numbers of births occurring in the 25 to 29 age group (Figure 3). The other ethnic groups were most likely to birth in the 30 to 34 age group, with Indian women also having high numbers of births in the 25 to 29 year group.

The overall total fertility rate (average number of births per woman over their lifespan) for Counties Manukau has been declining over the past several years, and is now below what is considered replacement level for a developed country (2.1 births per woman).

TABLE 1 ▼

Location of birthing for Counties Manukau women, 2019 to 2021 and January to June 2022

	2019	2020	2021	JAN–JUN 2022	% CHANGE 2019–2021
1. CM Health facilities	6,933	6,885	7,211	3,312	4%
2. Waitemata facilities	65	53	52	29	-20%
3. Auckland facilities	1,118	1,065	1,114	509	0%
4. Nga Hau Mangere Birthing Centre	33	173	181	62	448%
5. Elsewhere	64	89	71	22	160%
Total	8,213	8,195	8,629	3,934	5%
Percentage at CM Health facilities	84%	84%	84%	84%	
Home births to CM women	96	103	84*		

Note: Nga Hau Mangere Birthing Centre, the only private birthing facility in Counties Manukau, opened in May 2019. 'Elsewhere' includes births at private facilities in Auckland and Waitemata, and births at public and private facilities elsewhere in New Zealand. This data, and that in the remainder of this section, is from the National Minimum Dataset (NMDS). Data on home births is obtained from a different source (Ministry of Health Qlik database), with 2021 data only including births between January to November.

FIGURE 1 ▼

Number of births to Counties Manukau women aged 15 to 19, by ethnicity, 2015 to 2021

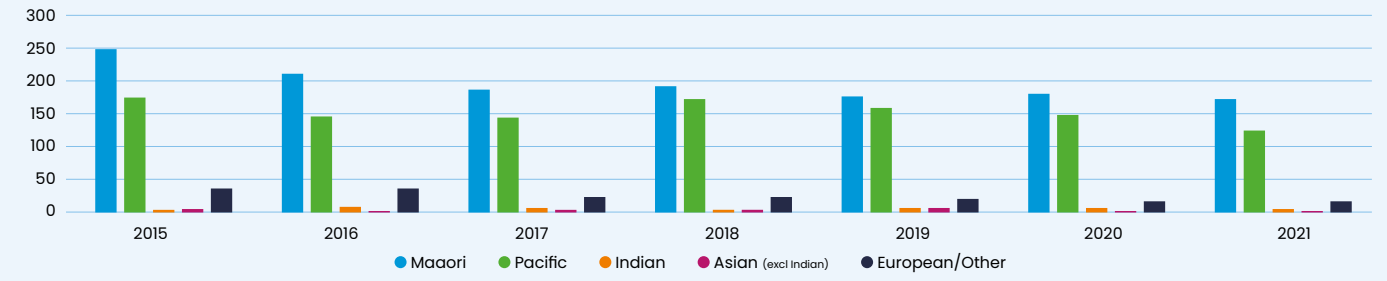


FIGURE 2 ▼

Births per 1,000 Counties Manukau women aged 15 to 19 years, by ethnicity, 2015 to 2021

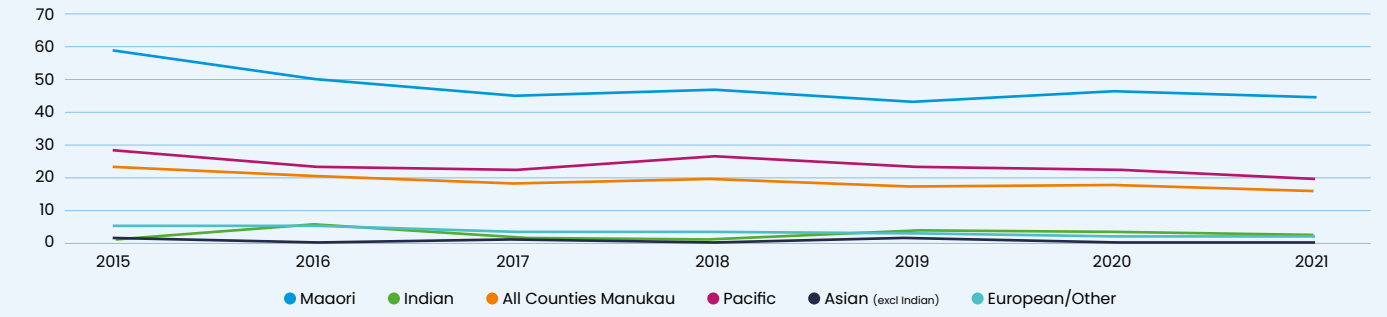


FIGURE 3 ▼

Births per 1,000 Counties Manukau women, by ethnicity and age, 2021

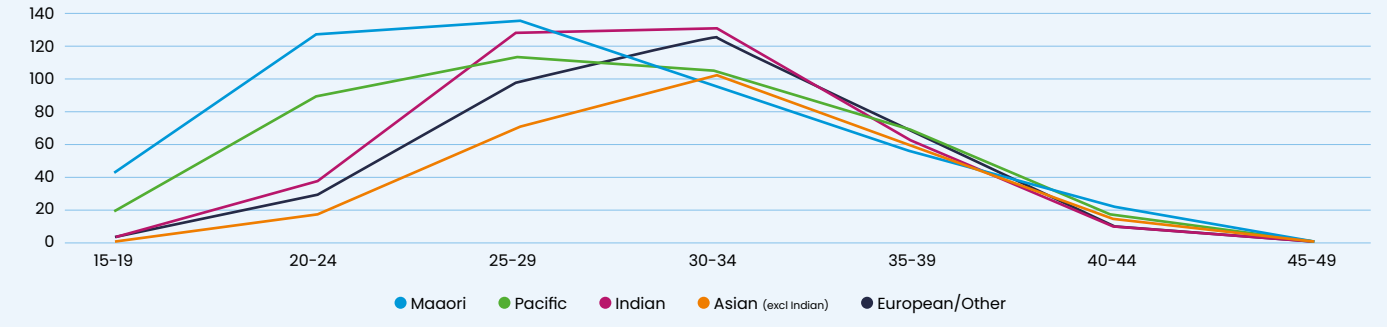
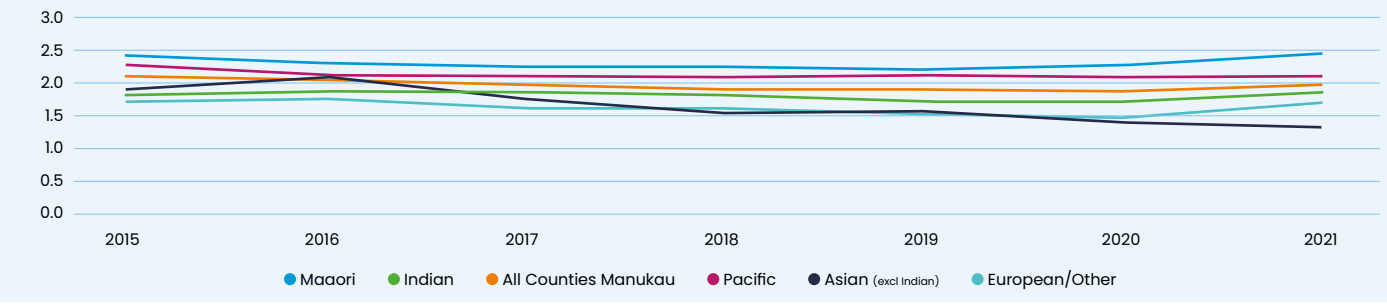


FIGURE 4 ▼

Total fertility rates for women living in Counties Manukau, 2015 to 2021



Among the different ethnic groups within Counties Manukau, the total fertility rate is above replacement value only in Maaori women, and around replacement value in Pacific women. All other ethnic groups are below replacement value, with Asian (excluding Indian) women having experienced the greatest decline in total fertility rate over this period: see Figure 4.

The characteristics of women who live in Counties Manukau and birthed in 2021 and the first half of 2022 (January to June), regardless of where they birthed, are shown in Table 2. (Note that percentages may not total 100 per cent due to rounding.)

Of the women who live in Counties Manukau and birthed in 2021, 29 per cent were Pacific, 24 per cent European/Other, 20 per cent Maaori, 17 per cent Indian and 11 per cent Asian (excluding Indian). It is important to note that ethnicity is prioritised.[1]

The most common ages to birth were 30 to 34 years of age (32 per cent of births), with this age group once again exceeding the 25 to 29 group (29 per cent), after having first done so in 2020.

More than two-fifths of women (43 per cent) lived in NZDep2013 Quintile 5 areas (representing the most deprived 20 per cent of communities in New Zealand).

The largest number of births were to women living in the Manukau locality (47 per cent), which includes the fast-growing suburbs of Manurewa, Takaanini, Papakura and Drury.

TABLE 2 ▼

Demography of women living in Counties Manukau who birthed in 2021 and January to June 2022

ETHNIC GROUP	2021	%	JAN–JUN 2022	%
Maaori	1,683	20%	771	20%
Pacific	2,466	29%	1,169	30%
Indian	1,461	17%	639	16%
Asian (excl Indian)	980	11%	477	12%
European / Other	2,039	24%	878	22%
Total	8,629		3,934	
AGE GROUP	**2021**	**%**	**JAN–JUN 2022**	**%**
15–19	325	4%	150	4%
20–24	1,338	16%	627	16%
25–29	2,487	29%	1,099	28%
30–34	2,780	32%	1,305	33%
35–39	1,407	16%	611	16%
40+	292	3%	142	4%
Total	8,629		3,934	
NZDEP13 QUINTILE	**2021**	**%**	**JAN–JUN 2022**	**%**
1	916	11%	430	11%
2	1,172	14%	514	13%
3	1,188	14%	542	14%
4	1,672	19%	766	19%
5	3,936	43%	1,670	42%
Total	8,629		3,934	
LOCALITY	**2021**	**%**	**JAN–JUN 2022**	**%**
Eastern	1,692	20%	783	20%
Franklin	1,105	13%	522	13%
Maangere/ Ootara	1,802	21%	837	21%
Manukau	4,030	47%	1,792	46%
Total	8,629		3,934	

Note: NZDep2013 combines census data relating to income, home ownership, employment, qualifications, family structure, housing, access to transport and communications. NZDep2013 provides a deprivation score for each meshblock in New Zealand (the smallest geographical area defined by Statistics New Zealand, with a population of around 60–110 people). NZDep2013 groups deprivation scores into quintiles, where 1 represents the areas with the least deprived scores and 5 the areas with the most deprived scores. A value of 5 therefore indicates that a meshblock is in the most deprived 20% of areas in New Zealand. [For comparison purposes, data in the previous report (*Women's Health and Newborn Annual Report 2019-2020*) also represented NZDep2013, although it was mistakenly labelled as NZDep2018. The latter is a more recent version of the NZDep Index, however NZDep2013 provides more granular data as it is able to get down to smaller (meshblock) areas].

1 A person who has identified as having multiple ethnicities is assigned to a single ethnicity, to ensure that the total by ethnicity equals the total number of women. This means that if a woman identifies as having more than one ethnicity, only one ethnic group is assigned to her, with Maaori prioritised first, followed by Pacific, then Asian and then European.

Population view: Counties Manukau women who birth anywhere in New Zealand

Counties Manukau resident women who birthed regardless of location of birth	2021	JAN–JUN 2022
	8,629	**3,934**

Total Counties Manukau women who birthed in Counties Manukau:

Total Counties Manukau women who birthed in Counties Manukau facilities

2021	JAN –JUN 2022
*7,211	**3,312

Nga Hau Mangere Birthing Centre (private facility)

2021	JAN –JUN 2022
181	62

Homebirth

JAN –NOV 2021	JAN –JUN 2022
84 *Later data unavailable*	**Data unavailable**

ETHNIC GROUP	2021	JAN–JUN 2022
Maaori	20%	20%
Pacific	29%	30%
Indian	17%	16%
Asian (excl Indian)	11%	12%
European / Other	24%	22%
AGE GROUP	**2021**	**JAN–JUN 2022**
15-19	4%	4%
20-24	16%	16%
25-29	29%	28%
30-34	32%	33%
35-39	16%	16%
40+	3%	4%
NZDEP13 QUINTILE 5	**2021**	**JAN–JUN 2022**
Counties Manukau birthing women who live in the most socioeconomically deprived areas	43%	42%

Notes: See pages 34 and 35 for the services view.
59% of women who birthed in a Counties Manukau facility in 2021 and 2022 lived in the most socioeconomically deprived areas.

*A total of 7,709 women birthed in a Counties Manukau facility in 2021, including women from other districts.
**A total of 3,539 women birthed in a Counties Manukau facility from January to June 2022, including women from other districts.

Data: Sharon Arrol, Population Health, MQSP

2 Division of Women's Health

AUTHOR

MARY BURR
General Manager Women's Health
Women's Health

Clinical services plan review

During 2021, Counties Manukau Health undertook a complete review of its organisational *Women's Health Clinical Services Plan*. This was timely for Women's Health, as it followed on from the work we undertook in 2019 and 2020 to review and reset our vision and values, and enabled us to plan for the operational activities that would deliver the vision for the future.

The principles that underpin the organisational plan provide an evidence-based approach, and will ensure that each service plan is founded on interventions and actions that are patient-, whaanau- and community-centric, is focused on equity of access and outcomes, and supports safe well-planned integrated patient care. For Women's Health, this approach aligns closely with the work we have already completed.

Overall, there is an emphasis in the plan on changing the way we provide care to encapsulate the following:

- a move from treatment to prevention
- more services delivered in the community
- a move to more whaanau- and community-centric and culturally appropriate models of care
- more integrated service delivery models.

By focusing on these pathways, the organisation will be able to ensure greater equity of access and better use of current resources.

For Women's Health, the review process required a full stocktake of our staffing, facilities and resources, and, importantly, a census of those women and whaanau we serve, in order to identify any unmet need that exists. From there, we identified our key strategic principles, with a requirement that they align to the goals outlined above.

Alongside our preparation for the new Te Whatu Ora – Health New Zealand framework, which will be a dominant feature of our work over the next 12 months, our key goals for 2022/2023 are as follows.

Maternity

- Ensuring strong effective secondary and tertiary obstetric care is available to all women.
- Protecting and promoting physiological birth, where appropriate, enhanced by the development of a comprehensive culturally focussed primary birthing strategy.
  - » Improving access to midwifery services.
  - » Designing and implementing new models to ensure staffing meets demand for service.
  - » Growing diversity in our workforce.
  - » Improving access to acute theatres and high-risk obstetric services.
  - » Improving care of pregnant women with diabetes.

Gynaecology

- Improving gynaecological cancer treatment for all women.
- Opening access for debilitating non-urgent gynaecological conditions.
- Improving theatre access for all elective gynaecological surgery.
- Focussing on equity of access for Maaori and Pacific women with cancer.
  - » Improving service delivery for women experiencing perinatal loss.
  - » Growing diversity in our workforce.
  - » Improving our responsiveness and reducing the time taken to see patients in the Emergency Department.
  - » Ensuring an active quality programme is in place.

For the full *Women's Health Clinical Services Plan* see Appendix 1 on page 159.

AUTHOR

MARY BURR
General Manager Women's Health
Women's Health

Women's Health Planning Day 2021

Even though we might reflect on 2021 as the year of COVID-19, and recall the disruption that it caused, especially in the Auckland region, we did manage to squeeze in some business-as-usual activities during the year.

One such activity was the annual Women's Health division planning session held in Ko Awatea on 14 April 2021, following our Women's Health awards ceremony. The session was attended by a large group from across all Women's Health professional groups. The goal of the afternoon was to discuss and formulate practical strategies for working together.

Current landscape

We began by asking everyone to think about the current landscape or context, and our communication strategies, and to describe what works well and what does not.

The information gathered highlighted the passion people have for their work, the goals they have to make things better for women and the need for more investment. The environment is seen as complex, demanding, busy and challenging at all times.

The need for physical facilities that suit the needs of our women came through clearly for both the primary birthing units and the Middlemore Hospital facility.

Where some people felt valued, others did not. Some felt dedication, joy and opportunity, while others felt overstretched and stressed.

How can we improve the way we communicate?

A number of strategies came to the fore for improving communication, including acknowledging that we are all part of the same environment. Communicating across work groups was seen as pivotal, using people's names, being polite and kind, having more face-to-face discussions, and building relationships. Listening was identified as a key skill to promote partnership and open communication.

Words like encouragement, generosity, partnership, joy, empathy, trust and respect described the actions required to improve relationships and the work environment.

How can we work together in a better way?

Setting our treaty obligations as a priority was thought to be paramount; as was ensuring our strategic plan encompasses all agreed equity priorities, so we know the direction we are heading.

The acknowledgement of good work, good orientation processes and the provision of continuous education were thought to also be key components for developing a mature cohesive workforce.

The afternoon provided much food for thought, as the division has a number of large projects underway, including the redesign of the Middlemore Hospital facilities and the development of new models of service provision for our primary birthing units and community services. Again, it was expressed that while we must continue to improve the way we work, progressing wider societal and funding changes will be key to transforming women's health in the Counties Manukau region.

AUTHOR

MARY BURR
General Manager Women's Health
Women's Health

Women's Health vision and values

During 2021 and 2022, our vision and values documents, which were developed in 2019, helped guide our progress through the challenges experienced due to COVID-19. We continue to use these important documents in our daily activities and for all future planning. We provide the principles below as a reminder.

◀ *Torr'e Thompson and Samantha Heares*

Our vision is that:

All women and pregnant people living in Counties Manukau have equitable access to woman/person-centred, compassionate, quality assured, evidence-based and culturally appropriate health care in a setting that suits their needs across the course of their life.

Our values highlight the foundations that underpin all our work, under the themes of:

- **whakawhanaungatanga (connection)**
- **wairua (spirit)**
- **manaakitanga (kindness)**
- **kotahitanga (unity)**
- **rangatiratanga (leadership).**

Maternity Quality and Safety Programme - Consumer advisors

Luisa Silailai

My 'baby' has just turned 3! He has successfully transitioned from cloth nappies to undies, learnt to jump over hurdles at 'athletics,' is confident with identifying colours and counting to 20, and adores fire trucks and Spiderman. During this time, it has been an absolute pleasure to continue to serve as the consumer advisor for the Maternity Quality and Safety Programme Governance Group. For a couple of months, I was joined by another amazing waahine, Talya Wilson, mother of five; her contributions, insights and support have been so valuable to the governance group and me.

When I reflect on the year that has been and the immense ongoing challenges and change, the Maternity Quality and Safety Programme Governance Group's and all our staff's unwavering commitment to our community remains strong. Key priorities for the group include equity- and evidence-centred initiatives, such as providing cultural safety training for staff, phones to access care and clinical notes, and resourcing for a Pacific-model of care in the community.

For the future, I look forward to seeing the consumer and whaanau voice amplified in our quality improvement initiatives, and integrating our successes and learnings into business as usual; bringing alive our commitment to Te Tiriti o Waitangi; and achieving health equity and maximising health gains for all. My time as consumer advisor will soon come to an end, but I am thrilled to be able to hand the role over to three incredible passionate South Auckland-based maamaa; who I have no doubt will work alongside the MQSPGG to take this kaupapa to greater levels, and positively effect change for whaanau and hapori in our rohe. Teenaa koe to Clare for her leadership and support, and ngaa mihi ki a koutou to the Maternity Quality and Safety Programme Governance Group team.

▼ *Consumer Advisors left to right Luisa Silailai, Taffy Muyambo, Maraea Pipi-Takoko, Claire Flavell-Kemp.*

Maternity Quality and Safety Programme - Consumer advisors

Claire Flavell-Kemp

Ko wai au?

Ko Puketapu te maunga
My mountain is Puketapu

Ko Tainui te waka
My waka is Tainui

Ko Moananui o Rehua te moana
My ocean is Moananui o Rehua

Ko Awaroa te awa
My river is Awaroa

Ko Ngaati te Ata te iwi
My tribe is Ngaati te Ata

Ko Tahuna te marae
My marae is Tahuna

Ko Rua Kaiwhare te taniwha
My guardian is Rua Kaiwhare

Ko Joshua Kemp toku hoa rangatira
My husband is Joshua Kemp

Ko Joshua, Alexander, Karly-May raua ko Rukuwai ooku tamariki
My children are Joshua, Alexander, Karly-May and Rukuwai

Ko Claire Flavell-Kemp toku ingoa
My name is Claire Flavell-Kemp

Whiria te taangata
Weave the people together

Teenaa koutou katoa
Greetings to you all

I'm very humbled to begin my journey as a lived-experience consumer representative with the Maternity Quality and Safety Programme Governance Group.

I believe having first-hand experience of accessing the health sector, and of recently giving birth to my peepi, Rukuwai, 8 months ago, provides me opportunities to contribute. Through these experiences, I hope to influence and reshape services to better meet the needs of maamaa, peepi and whaanau and provide positive outcomes in maternity health. I would like to connect through similarities that support waahine to make sense of their own experiences and views. My intention with this kaupapa is to contribute in a meaningful way that acknowledges prevention planning and values shared insights and perspectives. I'm very passionate about women's health, and am extremely excited to collaborate around ideas and visions for our future.

He waka eke noa
We're all in this together

Noo reira
Claire Flavell-Kemp

Maternity Quality and Safety Programme - Consumer advisors

Maraea Pipi-Takoko

Ka piki whakarunga awau ki te tihi taumata o woku maunga, ko Kokai, ko Titirangi. Ka heke aku kamo ki ngā wai koriporipo o woku awa, ara, ko ngā wai o te Hotohoto raua ko Uawanui-a-Ruamatua. Toia mai ngā waka o Horouta, o Tereanini ki te whenua tapu o Te Tai Rāwhiti, ki ngā whare tipuna, ara, ko Materoa, ko Ruakapanga. Haramai rā tenei uri o Porou; e mihi atu ana no ngā whānau Pipi-Urupa, Takoko, Karakıa, Brown hoki.

Ki te nōta tu pakari ai taku maunga, ara ko Motatau. Ka titiro hakararo ana ki te awa o Hikurangi e rere kau atu ana ki te pā o Pipiwai. Tu mai ana te tupuna whare, ko Tau Henare mo ngā uri o Ngāti Hine i raro i te korowai o Ngā Puhi. Nei rā he maramara no Hineamaru, no te whānau Henare; te mihi atu nei.

I climb to the peak of my maunga, Kokai and Titirangi. My eyes gaze downwards to the rippling waters of my awa, Hotohoto and Uawanui-a-Ruamatua. My waka, Horouta and Tereanini, approach the sacred shores of the east coast (Te Tai Rāwhiti) to my ancestral meeting houses, Materoa and Ruakapanga. Behold, a descendant of Porou from the Pipi-Urupa, Takoko, Karakia and Brown whānau.

I turn my gaze to the north where my maunga, Motatau, stands firm. I look below to my awa, Hikurangi, flowing straight through to my home of Pipiwai. My ancestral house, Tau Henare, stands proud for the descendants of Ngāti Hine under the cloak of Ngā Puhi. Here I stand, a seedling of Hineamaru from the whānau Henare.

I am passionate about maternal health and mental health for wāhine Māori. I have many lived experiences and am active in seeking support and providing feedback where necessary. I know that most organisations and services are trying their best to support my people, but sometimes these fall short and I love the opportunity to be able to provide honest and respectful feedback. I hold strong Māori values that I think all governance groups should reflect.

Maternity Quality and Safety Programme - Consumer advisors

Tafadzwa Muyambo

My name is Tafadzwa and in my native Shona language, it means, "the one who brings immense joy." All my friends know me as 'Taffy.'

I live in Botany with my husband Arthur, and we are proud parents to Maimai, aged 10, and Maximus, currently 9 months old.

I am originally from Zimbabwe, but New Zealand has been our home for the past 10 years. I work as a wellbeing practitioner for the largest government social housing provider in New Zealand. In my work and personal life, I am heavily invested in mental health and addiction support, suicide awareness and prevention, and women's wellbeing.

I thrive on building healthy and long-term relationships, and fundamentally believe that everyone should be treated fairly and equally, with dignity and respect, and without any discrimination or unconscious biases. These are the core principles that I bring to the Maternity Quality Safety Programme Governance Group.

Treating women in a manner that enhances their mana, and acknowledges their cultural preferences, whilst also addressing their health and wellbeing needs are areas that I would like to add insights and perspective into.

In 2022, I survived a high-risk pregnancy and my son Maximus is now 9 months old and thriving. My son and I would not be here if it weren't for the specialist teams within Counties Manukau Health who produced a care plan that involved going above and beyond for me and my son. I have the CM Health maternity and obstetrics teams to thank for our beautiful outcome.

My experiences as a patient, as an African woman, as an expectant mum and as a new mum navigating anxiety reflect the untold stories of many women living within the Manukau community. After having experienced chronic homelessness and living as a rough sleeper in my earlier years, I am relentless in advocating and seeking justice for marginalised and vulnerable women and communities. Through outreach work, I have built strong connections within the South and Central Auckland homeless communities, and am excited to add their voices to the projects we will undertake within the Maternity Quality Safety Programme Governance Group.

I joined the Maternity Quality Safety Programme to collectively share ideas and experiences that help build fit-for-purpose patient strategies and plans. With over 20 years in customer-facing roles, and experience within the social housing and wellbeing space, I feel perfectly positioned to make a positive impact within the programme's governance group. I was created for a time such as this!

AUTHOR

MARY BURR
General Manager Women's Health
Women's Health

Quality and safety

The Women's Health division has a number of committees, forums and roles that support quality, risk management and safety. Innovation, continuous improvement and excellence are the key areas of focus.

Our quality assurance activities include measuring, reporting and improving on the division's performance against care standards, key performance indicators and clinical indicators; ensuring controlled documents are current; and managing certification and audit processes. We maintain a focus on optimising patient safety, especially when reviewing adverse events and debriefing with women and whaanau after events have occurred.

The Women's Health Clinical Governance Group and the Maternity Quality and Safety Governance Group have a combined *Maternity Quality Improvement Work Plan* (see page 152). This provides transparency and oversight for the range of quality activities that occur across all areas of Women's Health.

A Women's Health (Obstetric and Midwifery) Controlled Document Coordination Group provides a multidisciplinary approach to updating policies, procedures and guidelines, and helps develop new controlled documents.

Overall, the compliments the division receives outnumber the complaints, as shown in Figure 5. We review both complaints and compliments to identify themes, understand what works well for whaanau accessing our services, and identify opportunities to improve the care and services we provide.

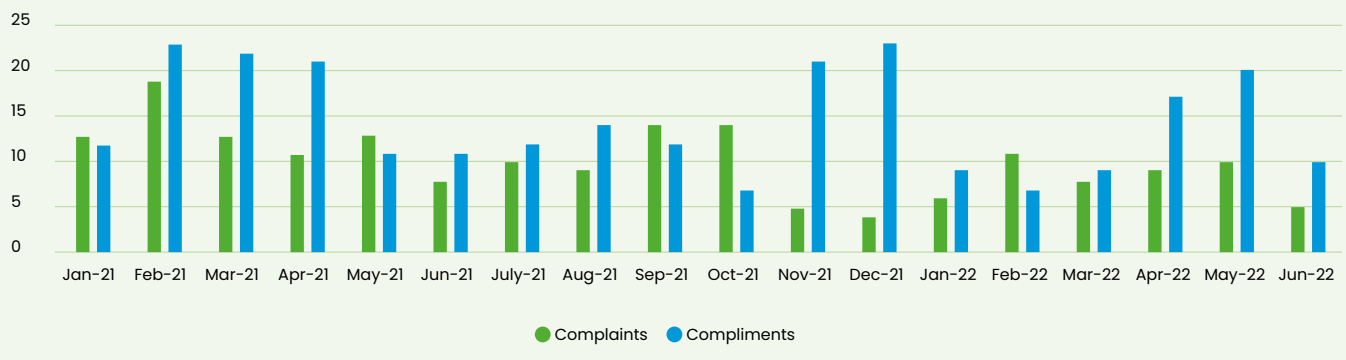
Other forums and meetings are held to discuss and share learnings. These include regular ongoing morbidity meetings, perinatal and maternal mortality meetings, serious adverse event presentations, group emails, brief summaries at shift change overs, access holder meetings, and the Women's Health Koorero on Facebook. This annual report also forms an important part of the learning loop related to our ongoing service development and continuous improvement.

Groups

Women's Health Clinical Governance Group
The Women's Health Clinical Governance Group is the divisional body mandated to discuss clinical departmental and hospital-wide issues, and make decisions as required. This includes providing a forum for clinicians and management to discuss the performance and direction of the division; confirming new policies and reviewing existing policies; reviewing regular reporting of quality and risk, clinical efficiency and financial sustainability; setting the

FIGURE 5 ▼

Complaints and compliments received by Women's Health, January 2021 to June 2022



direction for future planning of facilities and the workforce; and ensuring that departmental and staff credentials are current and maintained.

Women's Health Quality Forum
This forum is held monthly and attended by all managers. The group is chaired by the quality risk manager and discusses quality-related activities; reviews reports and outcomes, including complaints and any trends in incidents or compliments; and considers the learning to emerge from adverse events and information from external parties that may be of interest to our division.

Women's Health Complaints and Incidents Group
Ward clinical leaders meet monthly to discuss any trends, successes or challenges that have arisen, and plan any mitigation strategies to resolve issues. Each success or challenge is shared in a supportive environment, with the group sharing ideas for continuous improvement.

Maternity Quality and Safety Governance Group
Formed in response to the Ministry of Health's Maternity Quality and Safety Programme, this group meets monthly and is chaired by the maternity quality and safety programme manager. Its multidisciplinary membership consists of senior medical and midwifery clinicians, maternity management members from across the Women's Health sector, two community lead maternity carer (LMC) midwives (one urban and one rural), and two consumers. The group oversees a comprehensive programme for quality improvement in maternity services, which aligns with the ministry's priorities for maternity, aims for equity of outcomes, and is driven by the needs of the Counties Manukau community.

Maternal Morbidity Review Group
This multidisciplinary group was established 12 months ago to review maternity morbidity in Counties Manukau Health, with a focus on improving outcomes for mothers and babies. Over this period, we have developed a severe acute maternal morbidity trigger list, which was adapted from Health and Quality Safety Council New Zealand and Royal College of Obstetricians and Gynaecologists clinical governance advice on improving patient safety.

▼ *Some of the Women's Health team*

Multidisciplinary maternal morbidity meetings
These bimonthly meetings are primarily educational meetings. They involve presenting two or three women's stories around a particular educational theme, followed by an evidence-based presentation on the management of complex cases. Summaries of key learning points are circulated within Women's Health for those unable to attend. In 2021, these meetings also incorporated maternity morbidity data from our trigger list, as well as learning and recommended actions coming out of the Maternity Morbidity Review Group.

Midwifery Governance Group
The Midwifery Governance Group (previously known as the Workforce Group) is made up of community LMC midwives from the various areas within Counties Manukau, senior CM Health midwives and managers, and representatives from the New Zealand College of Midwives. The group meets monthly and is committed to the ideals of Te Tiriti o Waitangi and achieving equity. Its current focus is on finalising a framework for clinical governance for midwifery with women and whaanau at its centre. Its broader role is as a forum for midwives to work together to improve and be accountable for the quality and safety of the care they provide.

Maternity consumer advisors
We are committed to working closely with consumers of our services, and are growing and developing these relationships at every opportunity.

Access holder monthly meetings
These meetings were led by our chief and deputy chief midwife, and were mostly held on Zoom due to COVID restrictions. The meetings provide great opportunities to link in with our LMC colleagues, communicate, seek resolution to any challenges and offer support.

GROW Primary Birthing Units Group
Our GROW Primary Birthing Project continues. However, the incoming health reforms have required us to take a step back from the project, to review the expectations for services and facilities from a wider locality approach. The goal remains to increase low-risk birthing, in primary units and culturally appropriate settings, through services that have been co-designed by women, whaanau and our community.

Roles

Clinical quality and risk manager Women's Health
This role is responsible for overseeing, coordinating and implementing quality initiatives, risk and incident management (including serious adverse event investigations); and for sharing learning and ways of working with key stakeholders, to support the provision of high-quality patient care across all Women's Health services, in accordance with CM Health's vision and values.

Maternity quality and safety programme manager
This role supports the management and implementation of the Maternity Quality and Safety Programme across the CM Health district. The position involves participating in or leading projects that are part of our sector-wide maternity strategy, and covers service development, clinical leadership and communication of initiatives that improve maternity quality and safety. Continued funding and extension of the Maternity Quality and Safety Programme has allowed CM Health to retain this role, enabling us to engage with consumers and community LMC midwives around quality and safety, and provide quality improvement initiatives and resources for the maternity workforce.

Research midwife
This new role supports and promotes the development of midwifery-led research. The role recognises that midwifery care is strengthened through research undertaken by midwives, and that this benefits women, babies and their whaanau. Other responsibilities include providing input into guidelines and policies, and leading a journal club to raise awareness of current research and encourage evidence-based practice.

Perinatal loss roles
The perinatal loss midwife specialists support women and whaanau who experience perinatal loss. They coordinate the monthly perinatal morbidity and mortality meetings attended by hospital staff, community-based clinicians and consumers. The perinatal loss midwife specialists also provide continuity and support for women and their families who have experienced a perinatal loss, including facilitating access to counselling.

Health intelligence and informatics, population health and public health physicians
These teams provide data analysis and valuable resource support for Women's Health and to improve maternity quality and safety.

3 Our maternity services

AUTHORS

DEBRA FENTON
Maternity Service Manager
Women's Health

TANYA WILSON
Service Manager, Inpatient and
Community Maternity Services

Maternity Services overview 2021

Overall, 2021 was another challenging year, with the arrival of the Delta COVID-19 variant in Auckland and further lockdowns from 17 August.

Maternity Services was only just recovering from the previous lockdowns, relishing work activities returning to a new normal. However, the division was able to quickly respond, implementing previous COVID precautions, while adding process improvements and resources to keep staff and women and their whaanau safe.

This article provides an overview of high-level maternity outcomes during the year, a summary of the impact that COVID-19 has had, and an update on workforce and quality improvements.

Maternity outcomes

The high-level summary in Table 3 covers the key measurable outcomes for our maternity services. Detail supporting these outcomes can be found elsewhere in this report or is available on request from the services.

What is clear, is that there is increased demand on services at Middlemore Hospital, including due to increases in caesarean section volumes and the preterm birth rate. The percentage of women birthing in primary care settings has remained steady over the year, with an increase in volumes at Pukekohe Birthing Unit.

The perinatal loss rate remains static. Average length of stay has dropped slightly and is thought to be due to women requesting early discharge during COVID-19 lockdowns, because of the necessary visitor restrictions imposed.

Table 4 shows the volume of services delivered by outpatient services during the year.

COVID-19

Managing COVID-19 again became the priority for Maternity Services, particularly in February 2021, with a brief regional lockdown at Level 3, then with the emergence of the Delta variant in New Zealand in the second half of 2021. N95 masks never really left the faces of staff at the clinical coal face, and additional measures were implemented and previous policies, guidelines and procedures updated based on learnt knowledge.

New actions put in place in response to COVID-19 included:

- staff vaccinations, with two doses becoming mandatory by November 2021
- staff working in high-risk areas starting weekly polymerase chain reaction (PCR) testing
- plans for negative pressure room upgrades in the Birthing and Assessment Unit and Ward 21
- updated guidelines for transferring positive women from the primary birthing units to Middlemore Hospital
- review of the visiting policy, with changes made to match traffic light settings
- continuous work between Community Midwifery and the managed isolation quarantine facilities in the Counties Manukau area, to ensure pregnant women in these facilities received maternity care, if required
- measures to manage impacts on staffing levels through exposure to close contacts, including vulnerable staff working from home where possible, the vaccination mandate during December 2021 and monitoring immunisation reactions
- introduction of a COVID-19 vaccination service for inpatient women.

TABLE 3 ▼

Key measurable outcomes – Maternity Services			
MEASURABLE	**2020**	**2021**	**CHANGE**
Total women birthing in facilities	7,388	7,709	4.2%
Middlemore Hospital births	6,790	7,092	4.3%
Botany Downs Birthing Unit births	204	206	-
Papakura Birthing Unit births	135	131	-
Pukekohe Birthing Unit births	259	280	7.5%
Percentage primary birthing	8.1%	8%	-
Normal vaginal birth all facilities	4,281	4,468	4.2%
Instrumental birth	671	679	1.2%
Emergency caesarean section	1,836	1,898	3.2%
Elective caesarean section	600	664	9.6%
Total caesarean section %	33%	33.2%	-
Induction rate	35.2%	35.1%	-
Augmentation	19.7%	20.3%	-
Epidural rate	45.2%	45.6%	-
Episiotomy rate	21.2%	18.5%	-
Postpartum haemorrhage rate	22.8%	24.3%	1.5%
Third- and fourth-degree perineal tear	3.3%	3.3%	-
Body mass index > 29.9	44.8%	44.9%	-
Diabetes in pregnancy	934	958	2.5%
Preterm babies	614	696	11.8%
Antenatal stillbirths	49	52	-
Intrapartum stillbirths	13	19	-
Neonatal deaths	31	29	-
Exclusive breastfeeding at first discharge	73.8%	71.3%	-2.5%
Registered with lead maternity carer midwife	74.8%	76%	-
Average length of stay inpatient	61 hours	56 hours	5 hours

TABLE 4 ▼

Outpatient antenatal services – volumes			
ANTENATAL SERVICE PROVIDED	**2021**	**POSTNATAL SERVICE PROVIDED**	**2021**
Total district health board (DHB) community midwifery antenatal appointments	11,807	Total DHB community midwifery postnatal visits	9,930
Average antenatal visits for women under CM Health care	5.1	Average postnatal visits for women under CM Health care (including inpatient visits)	7.02
CM Health obstetric virtual appointments	2,706		
Maternity Assessment Clinic appointments	2,167		
Birthing and Assessment Unit outpatient assessments (< 3 hours)	2,311		

Note:

- A large number of women are transferred to lead maternity carer (LMC) community midwives for their postnatal care.
- Virtual appointments do not include all secondary referrals. Advice to consult the referrer or book a face-to-face appointment are alternatives to virtual appointments.

Data Source

Maternity Qlik, Sharon Arrol – Business Informatics Unit

Across the year, four COVID-positive women required care in Middlemore Hospital's maternity facility. Another 29 positive maternity cases were cared for in Ward 6 or 7 (dedicated COVID-19 wards at the hospital). For the majority of these 29 cases, daily visits or full care were provided by our maternity and obstetric staff in the COVID wards. There were many more cases of pregnant women with COVID-19 in the managed isolation facilities or in home isolation, once this became an option. These women were monitored by community or LMC midwives, and obstetric medicine doctors.

Maternity workforce update

Midwifery vacancies remain high.

Recruitment slowed significantly in 2021 due to closures of international borders and the impact of Auckland's COVID-19 lockdowns. This was also the year when smaller cohorts of graduate midwives were available, as the training programme moved from a 3-year to a 4-year course. We did, however, welcome four experienced midwives from overseas, two overseas graduate midwives and eight New Zealand graduate midwives in 2021. Our midwifery vacancies in some areas are supported by nurses with an interest in maternity and newborn care.

Juliette Wotton was appointed as Birthing and Assessment's new midwife manager. We also introduced a deputy midwife manager role in Birthing and Assessment, with Leigh Robertson appointed. Both Juliette and Leigh have been instrumental in developing the service in Birthing and Assessment over the past 6 months.

A maternity care assistant role was introduced in the midwifery collective agreement, and student midwives started their employment in this role at CM Health in December 2021. Assistants work predominantly in areas where midwives require additional support.

Service improvement initiatives

The following initiatives are some of those we have implemented to improve the quality of care for women during 2021. This summary complements other initiatives reported elsewhere in this report.

▲ *Back row: Rhea Cachola, registered nurse; Karen Green, associate clinical midwife manager; Alex Dyer, registered midwife. Front row: Juliette Wotton, midwife manager Birthing and Assessment; Violet Zheng, maternity care assistant; Maanyata Krishna, student midwife; Chris Mallon, chief midwife*

- The BadgerNet Global Platform was introduced as an upgrade to the Maternity Clinical Information System. The platform provides additional functionality and is based on the version used in the United Kingdom. The upgrade occurred in June 2021, with features continuing to be refined and added during subsequent months.
- The Primary Birthing Unit Project continues to be supported by Stephanie Emma as project manager. Consumer consultation was undertaken and some upgrades to facilities have commenced.
- The lactation team was integrated with ward and community midwifery services, enabling closer contact with midwives and nurses in their area of expertise.
- Clinical midwife specialists in postnatal complex care started mid-year. This role will be instrumental in improving quality standards, particularly at Middlemore Hospital. Current areas of work for the specialists include care planning, discharge processes, the neonatal hypoglycaemic guideline and breastfeeding outcomes.
- The booking process for inductions of labour became electronic, through BadgerNet, in September 2021.
- The national Neonatal Early Warning System (NEWS/NOC) was implemented in BadgerNet in November 2021.
- Additional midwifery teams were introduced within the Community Midwifery Service at Lambie Drive, Papakura and Pukekohe. The teams help provide care for an unprecedented number of women who could not find a community LMC midwife to provide pregnancy care.
- Midwifery clinical coaches (1.6 FTE) were appointed in December to start early 2022. Coaches will support graduate and returning-to-practice midwives, and are funded through the Ministry of Health.
- Te Rito Ora infant nutrition service received notice of additional funding for a further 3 years.

January to June 2022 update

From the beginning of 2022, there has been continued emphasis on the Baby Friendly Hospital Initiative (BFHI). The initiative continues exploring the reasons for a falling exclusive breastfeeding rate at discharge from Middlemore Hospital, as well as preparing for the BFHI accreditation audit. The audit was scheduled for October 2022. A senior midwife and lactation consultant has been recruited into the BFHI coordinator role, and has been focussing on ensuring a successful accreditation audit. Following the audit, the project team will again concentrate on the factors that contribute to exclusive breastfeeding, with the assistance of Ko Awatea improvement advisors.

In June 2022, the processes and methods for induction of labour were changed. The location for where inductions commence has been reviewed, and these are now done in both the Birthing and Assessment Unit and Ward 21. This enables the Birthing and Assessment Unit team to focus on their acute workload.

Workforce challenges have continued into 2022, with midwifery vacancies impacting on inpatient and community services. The maternity care assistant role is continuing and recruitment to increase this pool of casual staff will begin in the latter part of this year. This role is a valuable recruitment strategy, and those assistants who are currently in their last year of their undergraduate midwifery studies have indicated that they intend to apply for the Graduate Midwifery Programme commencing in 2023.

The Community Midwifery Service will be moving from Lambie Drive to Kerrs Road in October. The project team responsible has been working closely with the service to ensure that there will be a smooth transition to the new location, while maintaining service delivery for pregnant people under the care of the community midwives.

Looking to the future

As COVID-19 management in health services becomes the norm, the focus for maternity services for the future will be on increasing quality initiatives in priority areas (such as workforce and service delivery inequities), to continue working towards improved outcomes for all women, with a particular focus on at-risk mothers and babies.

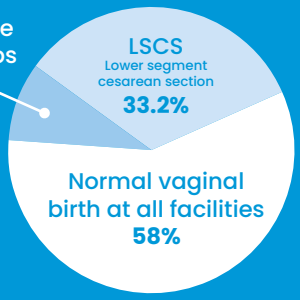
January – December 2021

Service view: Women who birth at a Counties Manukau health facility

Births

7,709 women birthed in Counties Manukau facilities

with **7,825** babies born



32.4% Induction of labour rates

12.4% Gestational diabetes mellitus

Deprivation NZ Quintile 5

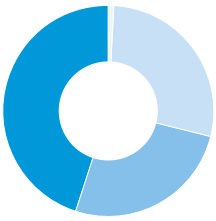
59% of women who birth in a Counties Manukau public facility **live in the most socio-economically deprived areas**

An average of 21 babies were born a day

Standard primip

11.8% of births

Body Mass Index at booking (BMI) %



Underweight	1%
Healthy	28%
Overweight	26%
Obese	45%

Smoking %

12.5% at first registration were smoking

Of the 12.5% of women

90% were provided with brief advice and support to stop smoking

67% were referred to the stop smoking service

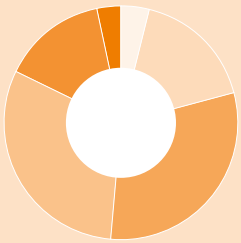
Birth by facility type

7,092 (92%) births were at Middlemore Hospital

617 (8%) were at the community birthing units

Estimated suitable for primary birth **27%**

Age of Birthing Women



<20	4.1%
20-24	16.9%
24-29	30.5%
30-34	30.9%
35-39	14.5%
>40	3.1%

Registration %

Registration for all women, LMC and DHB community midwives in first trimester **67%**

76.8% Registration with a community LMC midwife at some point during pregnancy.

A more in depth analysis will be available in the 2023 report

Maternal ethnicity %

	CMDHB	LMC	TOTAL	% OF TOTAL
NZ MAAORI	535	998	1,533	20%
PACIFIC	618	1,818	2,436	32%
INDIAN	255	1,114	1,369	18%
ASIAN (EXCL INDIAN)	144	460	604	8%
EUROPEAN/ OTHER	238	1,529	1,767	22%
TOTAL	1,790	5,919	7,709	100%

Data: Sharon Arrol, Andrea O'Brien and MQSP

Our community demographics are taken from BadgerNet and relate to births at Counties Manukau Health facilities.

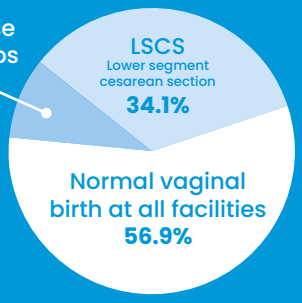
January – June 2022

Service View: Women who birth at a Counties Manukau health facility

Births

3,539 women birthed in Counties Manukau facilities

with **3,585** babies born



32.6% Induction of labour rates

14% Gestational diabetes mellitus

Deprivation NZ Quintile 5

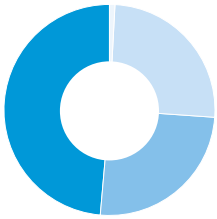
59% of women who birth in a Counties Manukau public facility **live in the most socio-economically deprived areas**

An average of 20 babies were born a day

Standard primip

11.7% of births

Body Mass Index at booking (BMI) %



Underweight	1%
Healthy	25%
Overweight	25%
Obese	49%

Smoking %

11% at first registration were smoking

Of the 11% of women

90% were provided with brief advice and support to stop smoking

67% were referred to the stop smoking service

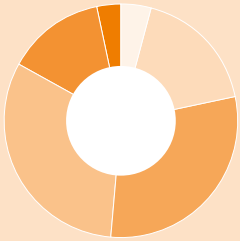
Birth by facility type

3,256 (92%) births were at Middlemore Hospital

274 (8%) were at the community birthing units

Estimated suitable for primary birth **26%**

Age of Birthing Women



<20	4.3%
20-24	17.6%
24-29	29.6%
30-34	31.7%
35-39	13.7%
>40	3.1%

Registration %

Registration for all women, LMC and DHB community midwives in first trimester **66%**

71.4% Registration with a community LMC midwife at some point during pregnancy.

A more in depth analysis will be available in the 2023 report

Maternal ethnicity %

	CMDHB	LMC	TOTAL	% OF TOTAL
NZ MAAORI	266	403	669	19%
PACIFIC	360	813	1173	33%
INDIAN	181	431	612	17%
ASIAN (EXCL INDIAN)	72	216	288	8%
EUROPEAN/ OTHER	132	665	797	23%
TOTAL	1,011	2,528	3,539	100%

Data: Sharon Arrol, Andrea O'Brien and MQSP

Our community demographics are taken from BadgerNet and relate to births at Counties Manukau Health facilities.

AUTHOR

CLARE SENNER
Maternity Quality and Safety Programme Manager

Our maternity facilities

Counties Manukau Health's birthing facilities are comprised of three primary birthing units located in Botany Downs, Papakura and Pukekohe, and a secondary/tertiary maternity service located at Middlemore Hospital. Community-based lead maternity carer (LMC) midwives with access agreements provide care in all four CM Health locations. The CM Health Community Midwifery Service is based in Manukau. Each of the primary birthing units also provides a Community Midwifery Service.

The primary birthing units are midwife led and are often located closer to where whaanau live. The units provide spaces for antenatal care, labour and birth care, and postnatal care. The option to use a purpose-built pool for labour and/or a water birth is available at all of the primary birthing units. Many other services are provided at the units, including vaccinations, contraception and breastfeeding support, as well as weekly obstetric clinics in the Pukekohe and Papakura units. There are two CM Health continuity of care midwifery teams based at Botany Downs and Papakura. We continue to explore ways to offer more services for whaanau from these units.

Middlemore Hospital provides care for whaanau requiring acute antenatal, labour and birth care, as well as high-risk antenatal and postnatal inpatient care. The multidisciplinary team includes midwives, nurses, medical sub-specialists such as obstetricians, anaesthetists and neonatologists, medical physicians, mental health teams, and operating theatre and procedural suite personnel.

CM Health community midwives

The Community Midwifery Service based in Manukau delivers primary and specialist midwifery care to women who elect to have care provided by CM Health, those who are ineligible for care within New Zealand, and those who are unable to secure the services of a community LMC midwife.

Acting as 'named midwives', the service operates from 7.30am to 4.30pm, 7 days a week, every day of the year. Both locality-based clinic services and home visiting services are offered to women in the antenatal and postnatal periods. The service is actively involved in supporting research and quality improvement projects.

Staff

TOTAL BUDGETED FTE 40

1	Midwife manager
1.4	Administrative staff who work 365 days a year
3.4	Associate clinical charge midwives
8	Locality community midwives
15	Senior specialist midwives
2	Graduate midwives on rotation

Specialist teams

DIABETES IN PREGNANCY SERVICE

911	Total number of referrals received 2021
N/A	Total number of referrals received 1 Jan to 30 June 2022
664	Gestational diabetes mellitus
19	Type 1 diabetes
209	Type 2 diabetes
19	Impaired glucose tolerance
1.6	Clinical midwife specialists
3.4	Clinical speciality midwives

AUCKLAND REFUGEE RESETTLEMENT CENTRE, MANGERE

0.4	CM Health employed community midwife

AUCKLAND WOMEN'S REGIONAL CORRECTIONS FACILITY

0.5	CM Health employed community midwife

MATERNAL FETAL MEDICINE

2	Clinical midwife specialists
2	Clinical specialty midwife

Community Health and Social Work team

ALL FULL TIME

7	Community health workers
2.4	Social workers

Antenatal referrals for DHB community midwifery care

4,043	2021
2,059	Jan-Jun 22

Birthing and Assessment

2021
Births total
7,092

1 Jan 22 to 30 Jun 22
Births total
3,265

2021
Assessments
4,485

1 Jan 22 to 30 Jun 22
Assessments
4,248

Middlemore Birthing and Assessment, provides primary birthing services for women residing locally. It also provides secondary maternity care where women or their babies experience complications that need additional maternity care involving obstetricians, paediatricians and other specialists; and tertiary maternity services for women and their babies who have highly complex clinical needs and require consultation with and/or transfer of care to a multidisciplinary specialist team.

The Birthing and Assessment Unit integrates the care it provides with the community midwives and the three primary birthing units located within Counties Manukau.

Staff

TOTAL BUDGETED FTE 74.12

- **1** Midwife manager
- **1** Deputy midwife manager
- **1** Personal assistant administrator
- **12** Associate clinical midwife managers
- **1** Intern associate clinical midwife manager
- **27** Employed midwives
- **7** Registered nurses
- **12** Health care assistants
- **39** Maternity care assistants
- **12** Ward clerks
- **33** Bureau midwives – *midwives with casual contracts working across the Women's health division*
- **102** Community LMC midwives who provide care in the unit

Facilities

- **16** Birthing rooms
- **3** Flexi rooms *– can be used as birthing rooms, and accommodate women*
- **5** Assessment rooms *– total of 7 beds (2 doubles)*
- **1** Ultrasound room
- **1** Clinic room
- **1** Whaanau room
- **1** Negative pressure room *-this number is also included in the Birthing rooms total*

Botany Downs Birthing Unit

2021
Births total
206

Jan-Jun 2022
Births total
97

2021
Antenatal and postnatal assessments <3 hours
475
Average length of stay
42.6 mins

Jan-Jun 2022
Antenatal and postnatal assessments <3 hours
159
Average length of stay
46.8 mins

2021
Transfer for postnatal care > = 3 hours
1,185
Average length of stay
46.5 hours

Jan-Jun 2022
Transfer for postnatal care > = 3 hours
557
Average length of stay
42.6 hours

Botany Downs Birthing Unit is also known as Whare Tapu. The conceptual meaning of Whare Tapu alludes to the most sacred beginning of life – the birth of a child.

Botany Downs Birthing Unit is a purpose-built facility, constructed in 1992 and located at 292 Botany Road, near the Botany Town Centre. In the unit, women are able to be supported by their families and significant others in a quiet and comfortable environment.

Many women who birth at Middlemore Hospital choose to transfer to Botany Downs Birthing Unit for their postnatal stay.

Staff

TOTAL BUDGETED FTE 21.39

- **23** Community LMC midwives who provide care in the unit
- **8** Team case loading midwives
- **22** Core midwives including charge midwife manager
- **4** Community midwives
- **2** Registered nurses
- **2** Clerical administrators
- **3** Health care assistants

Facilities

- **12** Resourced beds
- **15** Physical beds
- **3** Double-bed rooms
- **1** Three-bed rooms
- **6** Single postnatal rooms
- **5** Birthing rooms
- **2** Birthing pools
- **8** Clinic rooms

Papakura Birthing Unit

2021 Births total
131

Jan-Jun 2022 Births total
44

2021 Antenatal and postnatal assessments <3 hours
916

Average length of stay
50.7 mins

Jan-Jun 2022 Antenatal and postnatal assessments <3 hours
326

Average length of stay
55 mins

2021 Transfer for postnatal care > = 3 hours
813

Average length of stay
42.9 hours

Jan-Jun 2022 Transfer for postnatal care > = 3 hours
293

Average length of stay
44.2 hours

Papakura Birthing Unit is the oldest of the three birthing units and looks forward to celebrating 80 years of mothers and babies in June 2023. It is located in a historical farm house and came into being in 1958 following the takeover from the Auckland Area Health Board.

Papakura Birthing Unit is part of the community and generations of local whaanau choose to birth here. It is centrally located, close to the local township and public transport routes. It is also supported by a weekly obstetric clinic for secondary consultations and referrals.

Staff

TOTAL BUDGETED FTE 17.89

- **16** Community LMC midwives who provide care in the unit
- **3** Team case loading midwives
- **10** Core midwives including charge midwife manager
- **5** Community midwives
- **3** Clerical administrators
- **2** Health care assistant

Facilities

- **8** Resourced beds
- **9** Physical beds
- **2** Two-bed postnatal rooms
- **5** Single postnatal rooms
- **3** Birthing rooms
- **1** Birthing room with pool
- **5** Clinic rooms

Pukekohe Birthing Unit

2021 Births total
280

Jan-Jun 2022 Births total
133

2021 Antenatal and postnatal assessments <3 hours
1,074

Average length of stay
46.6 mins

Jan-Jun 2022 Antenatal and postnatal assessments <3 hours
439

Average length of stay
46.2 mins

2021 Transfer for postnatal care > = 3 hours
536

Average length of stay
49.5 hours

Jan-Jun 2022 Transfer for postnatal care > = 3 hours
209

Average length of stay
39.9 hours

Pukekohe Birthing Unit has long-established roots within the community of the Franklin District and Northern Waikato, encompassing north to Awhitu Peninsula, east to Kaiaua, south to Mercer and Waikaretu, and west to Waiuku and Port Waikato. In the unit, women are able to be supported by their families, whaanau and staff in a warm, friendly environment for their birthing and postnatal stay.

The Pukekohe Maternity Resource Centre, located within the birthing unit, provides women with information on pregnancy-related issues, free pregnancy tests, pamphlets, and a library of books and DVDs to hire. This centre is a base for community midwives and their clinics, with an obstetric antenatal clinic running weekly to provide local care for women who require a consultation with a doctor. This region is experiencing significant population growth.

Staff

TOTAL BUDGETED FTE 13.74

- **13** Community LMC midwives who provide care in the unit
- **15** Core midwives including charge midwife manager
- **2** Community midwives
- **1** Registered nurse
- **1** Enrolled nurse
- **3** Clerical administrators

Facilities

- **8** Resourced beds
- **12** Physical beds
- **1** Double-bed room
- **8** Single postnatal rooms
- **2** Birthing rooms with pool
- **3** Clinic rooms
- **1** Maternity resource centre

Maternity North

Maternity North is a 23-bed postnatal ward providing care for women and babies requiring secondary obstetric or neonatal care, including babies transferred from the neonatal unit. The midwifery and nursing team on Maternity North are highly skilled in delivering specialised care to all, but specifically to high-risk women and babies.

Staff

TOTAL BUDGETED FTE 41.99

- **5** Midwives
- **24** Registered nurses
- **5** Health care assistants

Facilities

- **23** Beds
- **8** Single rooms
- **7** Double rooms
- **1** Negative pressure rooms

Maternity South

Maternity South is a 22-bed ward providing care for postnatal women who require primary and secondary obstetric care or are in high-risk categories. We also care for babies who require neonatal care or have been transferred from the Neonatal Unit. The midwifery and nursing team on Maternity South are highly skilled in delivering specialised care to all women and babies.

Staff

TOTAL BUDGETED FTE 40.81

- **5** Midwives
- **26** Registered nurses
- **7** Health care assistants

Facilities

- **22** Beds
- **6** Single rooms
- **8** Double rooms

Ward 21

Ward 21 is a 30-bed ward providing care for pregnant woman who have high-risk pregnancies requiring inpatient care. We also care for women who have babies in the Neonatal Unit as well as woman with gynaecological conditions. We have a team of highly skilled midwives caring for our antenatal and postnatal women as well as a highly skilled nursing team that specialise in gynaecological care.

Staff

TOTAL BUDGETED FTE 39.4

- **14.85** Midwives
- **9.5** Registered nurses
- **4.9** Health care assistants

Facilities

- **30** Beds
- **7** Single rooms
- **2** Double rooms
- **5** Four bedded rooms
- **2** Negative pressure rooms

Shared resources

On both north and south wards an excellent service is provided by the Lactation Support Service, made up of consultants and breastfeeding advocates, to ensure expert care and advice is provided to women initiating breastfeeding. A broad range of health professionals including visiting physicians, a pain team, physiotherapy, dietetics and maternal mental health services are available to provide input to the care on both wards, ensuring comprehensive and holistic care is provided to women, babies and whaanau.

- **6** Ward clerks
- **7** Lactation consultants
- **3** Breastfeeding advocates
- **3** Contraception nurses *- not included in last annual report*
- **1** Ring security

Combined inpatients

Maternity North and South	2021	JAN-JUN 22
Antenatal episodes	5	61
Postnatal women birth and transfer episodes	5,742	2,584
Total number of women	5,747	2,645
% of all birth episodes discharged post caesarean section	42.80%	45%
Total baby episodes	5,604	2,543
MATERNITY NORTH		
Total post neonatal unit baby episodes	404	138
Average length of stay	5.8	6.5
MATERNITY NORTH		
Total post neonatal unit baby episodes	357	142
Average length of stay	5.1	5
Ward 21	2021	JAN-JUN 22
Antenatal episodes	1,981	1,055
Average length of stay days	2.2	1.6
Postnatal episodes	368	261
Average length of stay days	3.2	2.4
Gynaecology hyperemisis episodes	153	43
Gynaecology episodes (excl hyperemisis)	645	145
Average length of stay days	1.8	1.5

AUTHORS

JULIETTE WOTTON
Midwife Manager
Birthing and Assessment Unit

LEIGH ROBERTSON
Deputy Midwife Manager
Birthing and Assessment Unit

Birthing and Assessment Unit report 2021 to 2022

The Birthing and Assessment Unit began 2021 with a review of its leadership structure. Consultation with staff was managed by Human Resources and the Midwifery Employee Representation and Advisory Service. Following consultation, it was agreed that, in addition to the midwife manager role, a deputy midwife manager role would be created. This leadership model provides succession planning within the unit, and support for midwifery staff over the day and evening shifts. Juliette Wotton was appointed in July 2021 as senior midwife manager, and Leigh Robertson was appointed as deputy midwife manager in September 2021.

These timely appointments provided the additional support and clinical leadership required to manage the second COVID-19 surge in August 2021. Birthing and Assessment was at the forefront of the ever-changing COVID processes, and led a responsive agile service to meet the demands of woman and whaanau during the pandemic. As a gateway to maternity services and theatre, communication with our teams was pivotal to providing successful COVID surveillance and response management.

Capital works undertaken in the Birthing and Assessment Unit, in response to the pandemic, included increasing the number of negative pressure rooms from one to three, building a temporary structure for COVID triage and rapid antigen testing, and creating an orange room to comply with infection prevention control processes. A second bed space was created in Room 6 to provide a space for two high-acuity women receiving complex maternity care.

Birthing and Assessment has also been successful in attaining additional equipment to support the midwifery care of women with COVID-19 and influenza. This included two new scanners with linear probes for siting IV luers, a fluid warming cabinet, Welch Allyn monitoring equipment in each birthing room for calculating maternity early warning scores, and neonatal pulse oximeters in each birthing room to support neonatal resuscitation.

Birthing and Assessment has welcomed the following support roles over the past 12 months: three clinical coaches, funded by the Ministry of Health to coach new graduate midwives and midwives wishing to return to practice; and three midwife education development service staff to support student midwives. Birthing and Assessment acknowledges the contribution of these roles in supporting midwives to learn in the unit's often stressful, high-acuity environment. Student midwives employed in the new midwifery care assistant role have also made a significant contribution to the Birthing and Assessment Unit, especially during the pandemic through their hospitality and ancillary services.

The Birthing and Assessment midwifery educator continues to provide an excellent array of midwifery education for midwifery staff and provide expert clinical support. Cultural support is provided by Annabel Johns, the lead clinical advisor for Maaori midwifery, who has recently been appointed and previously worked with the Birthing and Assessment team.

Unfortunately, Birthing and Assessment has seen a steady decline in the number of core midwives working within it. The economic situation has meant many of our senior qualified midwives have moved out of Auckland seeking a lifestyle change, while several have moved to Australia for increased incomes. This has created a severe staffing shortage within Birthing and Assessment, and increased stress and pressure on our existing midwives. We would like to acknowledge the exceptional skills and management of members of the Clinical Charge Midwives Group, who lead the clinical service and serve woman and whaanau through these challenging times.

Despite the impact of staffing shortfalls, increasing acuity and the pandemic, Birthing and Assessment has managed to make several quality improvements:

- Med Chart introduced – Feb 2021
- Maternity Early Warning Score (MEWS) adopted – Aug 2021
- Obstetric Red Blanket 777 introduced for postpartum haemorrhage management – Oct 2021
- changes made to third-stage management – Dec 2021
- Induction of Labour Project – Sept 2021 to June 2022 (see article on induction of labour).

Kai pai waahine toa

◀ Chief midwife Chris Mallon with associate clinical midwife managers from the Birthing and Assessment Unit who received Women's Health Staff Excellence Awards in 2022

AUTHORS

LYNN SADLER
Perinatal Epidemiologist,
Obstetrics and Gynaecology

SARAH WADSWORTH
Senior Medical Officer,
Obstetrics and Gynaecology

CHARLOTTE OYSTON
Senior Medical Officer,
Obstetrics and Gynaecology

Perinatal Loss Service and perinatal outcomes

Perinatal loss includes both stillborn babies born after 20 weeks' gestation, and neonates born alive from 20 weeks who die in the first 28 days following birth. This includes termination of pregnancy over 20 weeks. All perinatal losses are formally reported to the National Perinatal and Maternal Mortality Review Committee (PMMRC). Dr Robin Cronin, midwifery researcher at Counties Manukau Health, currently sits as a midwife on this committee.

CM Health was the first district in New Zealand to employ a full-time perinatal loss midwife, with Debbie Davies appointed to this role in September 2012. Debbie developed the role beyond the requirements of the PMMRC reporting and perinatal loss liaison that was initially envisioned for it. She became a national expert in perinatal bereavement care and a leader within the New Zealand pregnancy loss community. She resigned from the role at CM Health in late 2021, and has subsequently taken up a role as national coordinator at the PMMRC. We would like to acknowledge Debbie's contribution to the care of women and whaanau experiencing perinatal loss, and her support and education for staff.

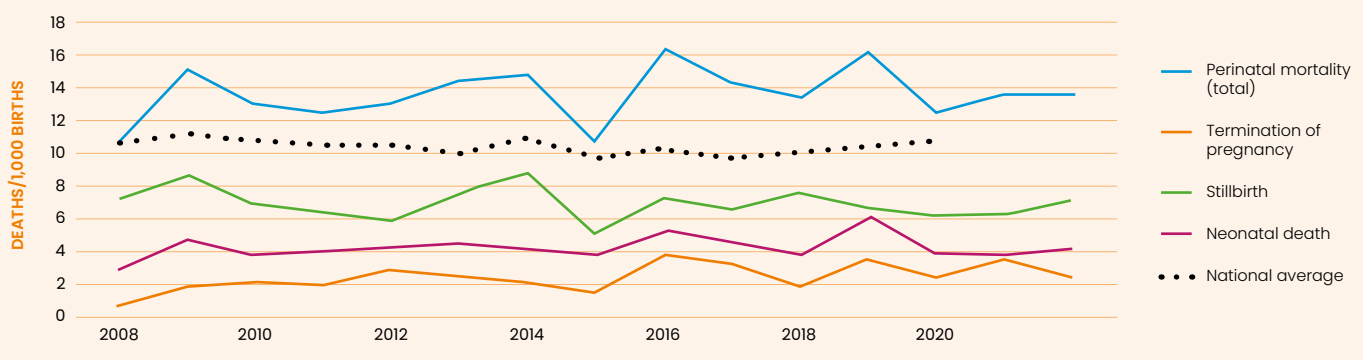
In early 2022, Anne Mariner and Lisa McTavish stepped into the shoes of Debbie Davies and Chrissie Sygrove (who was the previous perinatal loss nurse specialist). Since then, they have worked with the team to provide ongoing perinatal loss care across the whole of pregnancy at any gestation.

Since 2006, rates of perinatal loss have been published in the PMMRC annual report, which includes overall rates of perinatal loss for Counties Manukau and other regions, and New Zealand as a whole. However, as a department, we have not previously analysed or reported on CM Health data independently. In 2021/2022, midwifery student, Shoshanah Ballard, undertook a research summer studentship, collating perinatal data from 2006 until the present. We are currently analysing this data, but can now present basic findings specific to CM Health. These are compared to data obtained from the fifteenth PMMRC report.

Figure 6 demonstrates perinatal mortality rates from 2008 to 2021.

FIGURE 6 ▼

Annual perinatal-related mortality at CM Health compared to national rate



Source: PMMRC data; CM Health BadgerNet – perinatal-related mortality, stillbirth and termination of pregnancy /1000 births; neonatal death /1000 live births

In 2021, the stillbirth rate at CM Health was 6.3/1000 total births, the late termination of pregnancy rate was 3.5/1000 births, the neonatal mortality rate was 3.9/1000 live births and the perinatal-related mortality rate was 13.6/1000 births. There has been no significant change in overall rates of stillbirth, neonatal death or perinatal mortality overall. We were pleased to see that there has been no increase in rates with the COVID-19 pandemic, which we know has impacted on care since early 2020. However, it is frustrating that rates remain higher than the national average, with no sign of this gap narrowing, and that there are persisting or widening inequities of outcome. New and improved ways of supporting and providing care for whaanau and mothers in our community are needed to effect change.

All perinatal deaths in Australia and New Zealand are classified according to the Perinatal Society of Australia and New Zealand Classification system for stillbirth and neonatal deaths. This allows for comparison within and between regions. Figure 7 shows the rates of perinatal loss at CM Health, compared to the average national rate, against major classifications for cause of death.

It can be seen that CM Health has a similar or higher rate for all classifications. Of note, is that the largest contributors to perinatal loss are spontaneous preterm birth, congenital anomaly and antepartum haemorrhage. We need to develop and prioritise interventions that will reduce these complications, and improve the outcomes for mothers and babies who experience them.

We will continue to analyse perinatal loss data in more detail, and will report on findings annually. We hope analysis of this information will support improvements in quality of maternity care within the service.

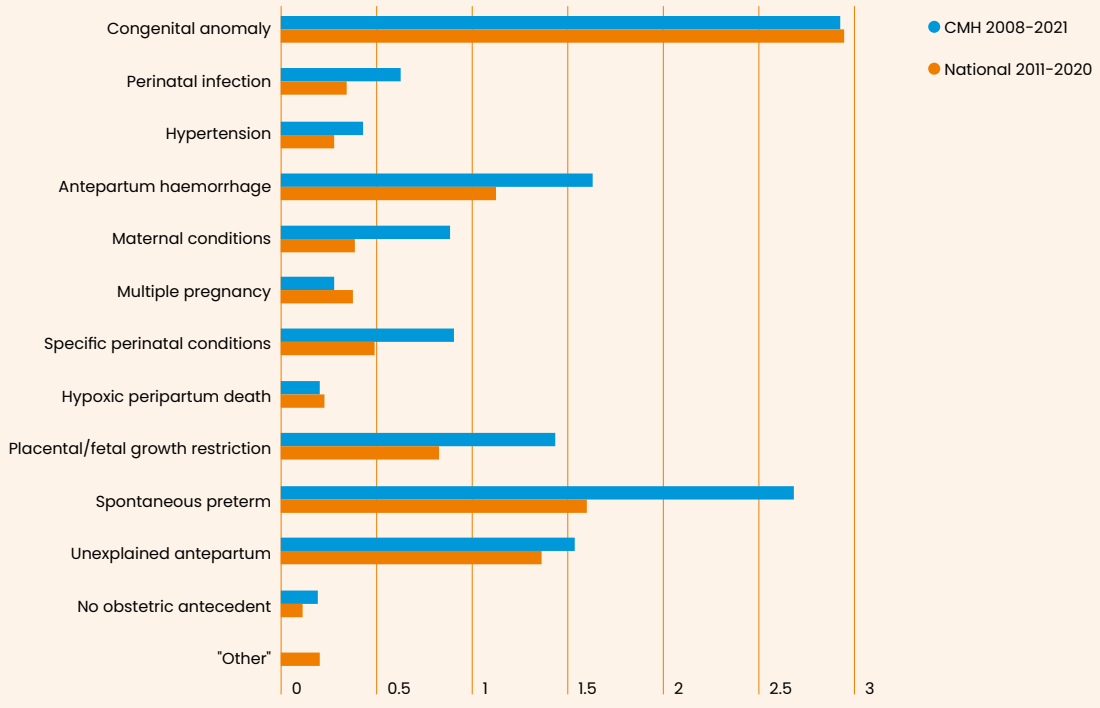
The perinatal loss team acknowledges the mothers and whaanau whose babies have contributed to this report; the perinatal loss team members for 2021/2022 – Sarah Wadsworth, Charlotte Oyston, Kerrie Hides, Debbie Davies, Lisa McTavish and Anne Mariner; and our CM Health fetal medicine, pathology, birthing and assessment, bereavement care and neonatal colleagues for their support. Thanks to Shoshanah Bollard and Holly Baker for their contribution to data collection, and Dr Lynn Sadler for her analysis of the data.

Sources

Data obtained from BadgerNet
(Andrea O'Brien, analysed by Lynn Sadler)

FIGURE 7 ▼

CM Health and national perinatal-related death rates, by Perinatal Society of Australia and New Zealand cause of death classification



4 Our workforce

AUTHORS

CHRISTINA MALLON
Chief Midwife

SARAH NICHOLSON
Deputy Chief Midwife

Midwifery workforce

Addressing midwifery workforce challenges, supporting workforce growth and retaining experienced staff remains the focus for the midwifery leadership team within Counties Manukau Health.

Our strategic workforce planning at a local level is informed by national initiatives. We are actioning short-term initiatives to alleviate workforce pressures, while also developing longer-term workforce strategies. A strong commitment to growing the Maaori midwifery workforce and supporting Pacific midwifery opportunities is part of our targeted approach to increasing the number of midwives from cultures that reflect our Counties Manukau birthing whaanau.

The release of *Te Pae Tata: Interim New Zealand Health Plan 2022* provides a clear opportunity for CM Health to lead and implement midwifery service delivery changes that place whaanau at the center of the system and improve equity and outcomes. The current shortage of lead maternity carers (LMCs) in primary maternity care in Counties Manukau has been escalated through multiple executive avenues. CM Health's midwifery leadership continues to lobby for changes to the midwifery commissioning and service structure at a national level, to help stabilise the midwifery workforce and enable equitable access to maternity care.

Care capacity demand management (CCDM)

In mid-2022, the CCDM Safe Staffing Programme was implemented in the Women's Health maternity inpatient areas. Embedding the programme has been challenging in the context of COVID-19 and midwifery workforce vacancies. Work to calculate the number of full-time equivalent (FTE) roles in all areas of Women's Health maternity has shown that there are staffing shortfalls in all inpatient areas. This vacancy rate is likely to increase once the data has been checked and acuity-based staffing models are endorsed.

The Technical Adviser Service's safe staffing national maternity lead, Jules Arthur, connects regularly with the CM Health midwifery workforce and hospital CCDM teams, and our union partners, to help embed the CCDM programme in maternity areas.

Graduate Midwifery Programme

CM Health annually welcomes a cohort of new graduate midwives into its employed midwifery workforce. Our structured 15-month Graduate Midwife Programme continues to be well regarded for providing a strong foundation for midwives joining the workforce. Over the past 5 years, 107 graduate midwives have joined the programme. Their feedback highlights how much they value the programme's structure and support, which provides a wide range of midwifery experiences. We currently have 22 midwives employed on this programme and will be recruiting a further 22 graduates in the new year.

Maternity care assistant – student midwife casual employment initiative

A national workforce development initiative to employ student midwives in maternity care assistant roles has been well received at CM Health.

The first cohort of 36 casually employed student midwives (recruited in October 2021) has been evaluated following their first year of employment in this role. A sample of their feedback follows.

> "The experience is invaluable. Being able to watch and listen to what was going on around me before having had clinical experience at Uni has been so helpful to my learning this year. It is amazing to know my way around the ward very well and understand the processes and guidelines at play. I think this will really show when I do placements at Birthing and Assessment or come to work there."

> "I strongly believe that students who are also doing the maternity care assistant role are at a huge advantage because we have become so familiar with equipment, stock, and staff. We are exposed to midwifery language which helps a lot."

> "It has made me feel very confident regarding how everything works. I can engage comfortably with other staff and I've learnt so much on the job."

Feedback from senior midwifery staff has also been positive.

> "They have been unbelievably amazing during COVID and pretty much willing to help out in any way possible. They have reduced our work-load significantly helping us out where we struggled with breastfeeding and bed baths and general love and support and stocking and kind words and being up for anything."

> "They have become an invaluable part of the team and it is definitely noticed if there isn't one on the shift."

> "Extra pair of hands helped keep the place running, really helpful with RAT testing!! I found lots of benefits."

◀ *Amelia Penney, maternity care assistant and student midwife*

Midwifery Workforce Development Group

Senior midwifery staff are developing strategies to support midwifery workforce challenges. A new Midwifery Workforce Development Group has been established to provide a cohesive whole-of-service approach to growing the midwifery workforce. Both short-term and longer-term workforce strategies to maximise recruitment and retention are within the group's scope.

Short-term strategies in place to alleviate workforce pressures over the 2022 to 2023 summer include:

- having an agreed clinical redeployment plan for non-clinical midwives
- checking meeting schedules and reducing midwifery attendance if possible
- reviewing urgent meeting attendance
- exploring inpatient models of care and discharge processes to create efficiencies
- encouraging local whaanau to use the primary birthing units
- developing and providing additional community-based services
- providing integrated care, such as postnatal contraceptive clinics, opportunistic maternal immunisations and additional lactation support clinics.

Longer-term strategies being considered include:

- a multi-employer collective agreement career pathway and senior midwifery role developments
- a joint community midwifery and inpatient midwifery care planning review to ensure whaanau receive information when it is most useful to them
- a review of inpatient midwifery leadership structures
- development of a kaupapa-Maaori-guided caseload midwifery team.

Future focus

Te Pae Tata: Interim New Zealand Health Plan 2022 outlines the first steps towards becoming a health service that better serves all New Zealanders, with one of the priority actions being improving equity and outcomes in maternity and the early years. The evolving developments in this space will highlight the importance of the midwifery profession in delivering quality health care at this vital part of the life cycle.

CM Health's midwifery leadership team will continue to prioritise local recruitment and retention strategies into 2023. It will also be actively engaged with national workforce initiatives, advocating for Counties Manukau, our birthing whaanau and the midwifery workforce to be at the heart of emerging service designs and improvements.

AUTHOR

ANNABEL JOHNS
Lead Clinical Advisor Maaori Midwifery

Maaori midwifery

Te tumanako a tenei poaari he whakarato i teetahi o ngaa taupori Maaori nui, taupori Maaori matatini, puta noa i te motu. Ko te whakakikokiko i te mana-taurite hauora Maaori teetahi o aa maatou tino whaainga. Ko too maatou hiahia ko te whakamana, ko te whakatinana hoki i te wairua me ngaa maataapono o Te Tiriti o Waitangi hei tuuaapapa i taa maatou e whai nei, me te whakapono nui -maa te aata whakapakari i te ara whakawaiora Maaori e taea ai te whakatutuki i te mana taurite hauora moo te katoa.

In Counties Manukau, we serve one of the largest and most diverse Maaori populations in the country. Achieving Maaori health equity is a key priority. Our commitment to this is driven by our desire to acknowledge and respect the Treaty of Waitangi and our belief that if we are serious about achieving health equity for our total population, we must first strengthen our commitment and drive to accelerate Maaori health gain in our community.

The 2021/2022 year has proved a challenging one, across the healthcare spectrum, and Maaori midwifery has been no different. The effects of a global pandemic and major structural changes to the healthcare system have impacted on the work that Maaori midwives are doing here at Counties Manukau Health. In a society where the rich have become richer and the poor have become poorer, we as Maaori midwives see our people bearing the brunt of this, reinforcing the ongoing need to recruit, train and retain more Maaori midwives to better meet the needs of whaanau.

The latest statistics show we have 39 Maaori midwives working in both core and lead maternity carer (LMC) roles at CM Health. Maaori midwives continue to provide care across all areas of midwifery in this rohe.

Pleasingly, we see Maaori midwives taking up some senior midwifery roles. Maaori midwifery is now represented through four clinical midwife specialists in maternal fetal medicine, one in the Maternal Assessment Clinic and one in the BadgerNet team. Birthing and Assessment now has two Maaori midwives working in the role of associate clinical midwife managers. We also have three midwives now working within the case load teams at Botany Downs and Papakura, providing continuity of care. We continue to have the services of a very experienced Maaori charge midwife manager at one of the primary birthing units.

Maaori midwifery is also represented at Women's Health leadership level, with the appointment of a service manager for inpatients and community maternity services. The position of lead clinical advisor for Maaori midwifery has been filled since May. This is a senior leadership role that sits within the clinical leadership team in Maaori Health. Having Maaori midwives in these roles is imperative for supporting both organisational and national aspirations.

Te Whatu Ora Counties Manukau is fortunate enough to have four Maaori graduate midwives working within the Graduate Midwifery Programme. For these young waahine, it has been a challenging transition from student to qualified midwife. The global pandemic that impacted their training has continued to impact on their graduate experience, with chronic understaffing affecting the facilities' ability to support them appropriately. They should be congratulated on the way in which they have navigated this journey and their commitment to providing holistic, whaanau-centric care for all waahine, especially waahine Maaori.

Our LMC colleagues continue to provide midwifery care in innovative ways, and Maaori midwives seek to work collaboratively with them at the primary–secondary interface.

We continue to foster a strong relationship with the AUT undergraduate midwifery programme. This is illustrated by the high uptake of clinical placement by Maaori students during their training, with the flow-on effect of facilitating entry to the new graduate program.

This year we have been working towards a cultural competency training package that will meet the needs of the organisation. This has proved to be a challenging undertaking, exacerbated by the pandemic, but negotiations remain ongoing and we hope to roll out our training in 2023.

He waka eke noa
We are all in this together

AUTHOR

SARAH NICHOLSON
Deputy Chief Midwife

Celebrating midwifery at CM Health

Innovation and excellence, working with whaanau and achieving equity.

Following the cancelled celebrations in 2020, we were delighted to be able to host Change to International Day of the Midwife celebrations at Counties Manukau Health in 2021.

On 4 May 2021, we delivered an all-day event at Ko Awatea profiling and celebrating midwifery care. Invitations for the day were extended nationally, with guests attending from various organisations, including the Ministry of Heath, Midwifery Council, NZ College of Midwives and multiple universities. Approximately 100 midwives attended: including local midwives and those from across the country. Our CM Health chief executive Margie Apa was also able to join our celebrations.

The overarching theme for all the presentations on the day was 'Innovation and excellence, working with whaanau and achieving equity'. After the mihi whakatau, kaumatua Muru Maipi eloquently explained the meaning behind the double koru which has been developed as a proposed image for a new midwifery logo. Nineteen presentations followed, showcasing the diverse midwifery work taking place within the Counties Manukau area. Over 40 midwives were involved in the presentations.

Key highlights from the day included an historical overview of our Graduate Midwifery Programme, featuring the experiences of very recent midwife graduates, through to those who completed the programme over 10 years ago. Another key presentation was a Maaori midwifery panel, which provided an insightful and practical perspective on achieving equity for Maaori whaanau.

Prior to lunch, a video montage presented kind wishes from midwives unable to attend; both local and international video clips were included. A surprise video featured New Zealand actor Sam Neill, who shared his gratitude for the midwives at Middlemore Hospital, as his family had recently used our maternity services.

Breaks were a hive of midwifery networking, with the room abuzz with old and new midwifery connections.

As well as profiling and celebrating our current CM Health midwives, the day was a recruitment opportunity. We highlighted opportunities for attendees to consider their career direction and the possibilities and benefits of joining our dynamic workforce.

Feedback from the day was overwhelmingly positive, and we will endeavour to establish the event as an annual occurrence.

▲ *International Day of the Midwife steering group, left to right: Robin Cronin, Leigh Robertson, Heather Muriwai, Jen Schroder, Chris Mallon, Sarah Nicholson, Tok Tobeck, Amanda Hinks, Lyn Stark, Clare Eyes*

▲ *Chief executive Margie Apa addressing attendees*

AUTHOR

ROBIN CRONIN
Research Midwife Specialist

Midwifery research

Outstanding outcomes have been achieved for midwifery research at Counties Manukau Health since a 0.6 full-time equivalent (FTE) midwife research specialist position was established in late 2020, providing evidence that this commitment has been worthwhile.

Outcomes include a CM Health midwife being named as an author on publications in respected academic journals;[1-9] midwifery success with competitive funding for new projects; midwifery membership on national and international research collaborations and working groups; and the establishment of a popular midwifery journal club.

CM Health research midwife specialist, Dr Robin Cronin, is a member of the University of Auckland research team, led by Professor Lesley McCowan, that has led to the successful New Zealand-wide public awareness campaign to encourage pregnant women to go to sleep on their side in the third trimester of pregnancy to reduce their risk of stillbirth. In addition, the team found that pregnant women who usually went to sleep on their backs gave birth to babies who were lighter than the babies of women who didn't; similar in effect to smoking 10 cigarettes daily. This sleep on your side during late pregnancy advice has since been incorporated into maternity care in New Zealand. It has also had an international impact, being cited in the evidence behind the 2021 UK National Institute for Health and Care Excellence (NICE) *Guideline for Antenatal Care*[10] and the Australian *Safer Baby Bundle* stillbirth prevention package.[11] For this work, the research team members were awarded a 2020 University of Auckland Research Excellence Medal. In 2021, the team also received the Royal Society Te Apaarangi and the Health Research Council Beaven Medal, one of New Zealand's top awards for excellence in translational health research.

We continue to grow this midwifery research service and our ability to enhance the skills and expertise of our midwives.

The following research projects included CM Health midwives as investigators.

- **Screening and assessment of decreased fetal movements in Aotearoa New Zealand: A nationwide online survey**

  This project is in collaboration with fetal movement expert and midwife, Dr Billie Bradford, and a team of midwives, students, doctors and consumers, with support from the CM Health Tupu Fund. The aim is to increase understanding of mothers' knowledge and perception of baby movements in late pregnancy throughout Aotearoa. More than 1,600 women in the third trimester of pregnancy completed the survey, including over 300 women from the Counties Manukau region. The findings have been presented at conferences and a journal article is underway.

- **Sleep in pregnancy pilot trial**

  This is a trans-Tasman collaboration of a randomised trial, coordinated by the University of Sydney, and in partnership with clinicians and researchers based in Australia, the UK and New Zealand. The trial is assessing the time that women spend sleeping on their back during the third trimester of pregnancy, with or without a sleep position aid designed by a New Zealand midwife. Participants draw from two major hospitals in Sydney and Brisbane.

- **COCOON study (continuing care in COVID-19 outbreak): A global survey of new and expectant parent experiences**

  The Centre of Research Excellence in Stillbirth in Australia is leading this global collaboration, involving 15 countries, comprising an online survey for parents who are pregnant or have recently given birth, and parents who have experienced a baby loss during the COVID-19 pandemic. The New Zealand arm of the study has been undertaken in partnership with colleagues at the Victoria University of Wellington. Analysis and planning for country and global publications is in progress.

- **PUDDLES: A qualitative study of late-term miscarriage, stillbirth and neonatal death**

  A research group from King's College London, led by Professor Jane Sandall, added a nested qualitative interview study to COCOON, known as PUDDLES, to better understand the effect of the COVID-19 pandemic on parents bereaved by baby loss. Twenty-six bereaved New Zealand parents were interviewed about their baby-loss experiences. Regular meetings with researchers from Kings College London and the seven other countries involved in PUDDLES to work towards a global publication have been valuable. Our New Zealand data has been shared at conferences and a journal article is in draft.

- **Maternity care during the COVID-19 pandemic: Experiences of frontline healthcare providers in the Counties Manukau region**

  Caring for women with COVID-19 has presented challenges for maternity care providers. While there is evidence that maternity care providers have been affected by the pandemic, resulting in changes to the provision of care, there is limited information available in the New Zealand context and none from the Counties Manukau region. This online survey was launched in September 2022 to establish the views and experiences of healthcare workers who provided maternity care in the region during the COVID-19 pandemic. We are delighted that more than 300 maternity care providers from the Counties Manukau region have participated. We look forward to sharing the results in 2023.

- **Midwifery and nursing research interest project at CM Health**

  This online survey has been delayed in order to incorporate the views of our nursing workforce. We look forward to rolling it out in 2023, with the aim of better understanding the existing midwifery and nursing research capacity, capability and culture in the Counties Manukau region. These findings will inform and support pathways for future midwifery and nursing research within the region.

- **Diabetes in pregnancy: Continuing care during COVID-19 in a multi-ethnic, socioeconomically diverse population in Aotearoa New Zealand**

  As part of a larger research project, led by Dr Charlotte Oysten, this qualitative study comprised interviews with women, by interviewers of the same ethnicity, who received care from the CM Health Diabetes in Pregnancy Service during the COVID-19 pandemic. The aim was to explore the views of women with diabetes in pregnancy about their care, including their experience of telephone clinics. Using thematic framework analysis, research midwife specialist, Dr Robin Cronin, and colleague, Dr Billie Bradford, have encapsulated the women's voices. The women provided recommendations to support the mahi towards equitable care, and all were grateful for the manaakitanga of the diabetes service staff. The women's views have been presented at workshops and conferences and a journal article is underway.

Midwifery research relationships

Building and maintaining relationships between CM Health midwives, the Midwifery Department at AUT, the Victoria University of Wellington, the Department of Obstetrics and Gynaecology at the University of Auckland, the School of Health Sciences at Massey University, and the New Zealand College of Midwives, is a key component of growing midwifery research and enhancing the research ability and skills of Counties Manukau midwives. In addition, the opportunity to share ideas, opportunities and innovations through Counties Manukau midwifery representation on national and international committees, including the New Zealand College of Midwives, the Australian Stillbirth Centre of Research Excellence (Stillbirth CRE) Steering Committee, the Perinatal and Maternal Mortality Review Committee, and the JBI Collaboration (formerly Joanna Briggs Institute) Women's and Children's Health Expert Reference Group, contributes to supporting research that will lead to improved care and outcomes for mothers and their babies.

Midwifery journal club

This popular midwifery journal club is run monthly for lead maternity carer (LMC) and core midwives. The aim is to review and present topical research in a supportive environment to stimulate ideas for future research, and to contribute midwifery perspectives to evidence-based initiatives and guidelines for Women's Health. The journal club flexes from face-to-face to online and email to meet the needs of the midwives.

Clinical practice guidelines and audits

The production of best practice guidelines for pregnant, birthing and postpartum women at CM Health requires high-quality and recent research evidence, combined with local knowledge, which is evaluated and agreed by an expert multi-disciplinary obstetric, medical and midwifery team. The opportunity to contribute a midwifery research perspective to these guidelines is valued. Highlights include involvement in the guidelines for birthing in a primary maternity unit, induction of labour, post-partum haemorrhage, cord blood sampling, and fetal movements. Audit projects have included auditing outcomes following induction of labour before and after the introduction of low-dose oral Misoprostal.

CM Health midwifery membership on the JBI Collaboration Women's and Children's Health Expert Reference Multi-disciplinary Group contributes to reviews of evidence summaries and recommended practices, which are then hosted on the JBI Evidence-Based Practice Database and used as point-of-care resources for clinicians. In 2022, this has included reviews on prevention of pre-eclampsia, vaginal breech birth, medical indications for caesarean section, midwives' experiences and support interventions for traumatic birth, and shoulder dystocia.

Contributions to international guidelines by CM Health midwives include:

- Perinatal Society of Australia and New Zealand (PSANZ) and Centre of Research Excellence Stillbirth. (2022). *Clinical practice guideline for the care of women with decreased fetal movements with a singleton pregnancy from 28 weeks' gestation.* Brisbane: Centre of Research Excellence Stillbirth.
- PSANZ and Centre of Research Excellence Stillbirth. (2022). *Position statement: Mothers' going-to-sleep position in late pregnancy.* Centre of Research Excellence Stillbirth: Brisbane.

▲ *Dr Robin Cronin at Te Wiki Rangahau*

International and national conference presentations

Conference presentations by CM Health midwives have been well received by local, national and international audiences of researchers, clinicians and consumers.

In 2021, these presentations included sharing the findings of an evaluation of a New Zealand public health awareness campaign on stillbirth prevention at the International Stillbirth Alliance and International Society for the Study and Prevention of Perinatal and Infant Death Virtual Conference in Brisbane; the Australian Centre of Research Excellence Stillbirth National Safer Baby Bundle Virtual Forum in Brisbane; the 32nd International Confederation of Midwives Virtual Triennial Congress; and the Best of the Best Forum at the PSANZ 2021 Annual Scientific Virtual Congress.

In 2022, our bereavement care midwives presented at the Society of Obstetric Medicine of Australia and New Zealand in Tasmania. The findings of the national survey of fetal movements and the thematic framework analysis from interviews of parents with baby loss during the COVID-19 pandemic were welcomed at the International Stillbirth Association Conference in Utah; the PSANZ 2022 Annual Scientific Congress in Adelaide; and the Virtual International Day of the Midwife Conference. These two projects, plus the Diabetes in Pregnancy Project, have been accepted for presentations at the PSANZ 2022 Annual Scientific Meeting in November 2022. Also in November, the parental baby loss project will be a plenary at the 2022 Sands National Conference in Hamilton; while the fetal movement, parental baby loss and diabetes projects will be presented at the CM Health Research Week 2022 and the 10th Biennial Joan Donley Midwifery Research Forum in Tauranga.

Research grants

Successful midwifery research grant applications in 2021/2022 included from the Auckland Medical Research Foundation, the AUT Faculty of Health and Environmental Sciences Summer Research Award, the CM Health Small Costs Fund, and the CM Health Tupu Fund.

1 De Graaff, E., Sadler, L., Lakhdhir, H., Simon-Kumar, R., Peiris-John, R., Burgess, W., Okesene-Gafa, K., Cronin, R., McCowan, L., & Anderson, N. (2022). Grouping women of South Asian ethnicity for pregnancy research in New Zealand. *Aust NZ Journal Obstet Gynaecol.* https://doi.org/10.1111/ajo.13626

2 Bradford, B., Cronin, R., Warland, J., Akelsson, A., Radestad, I., Heazell, A.,... & McCowan, L. (2022). Fetal movements: A framework for antenatal conversations. *Women and Birth*. https://doi.org/1 10.1016/j.wombi.2022.09.003.

3 Silverio, S., Easter, A., Storey, C., Jurković, D., & Sandall, J., on behalf of the PUDDLES Global Collaboration. (2021). Preliminary findings on the experiences of care for parents who suffered perinatal bereavement during the COVID-19 pandemic. *BMC Pregnancy Childbirth,* 21, 840. https://doi.org/10.1186/s12884-021-04292-5

4 Thompson, J., Wilson, J., Bradford, B., Li, M., Cronin, R., Gordon, A., Raynes-Greenow, C., Stacey, T., Culling. V., Askie, L., O'Brien, I., Mitchell., McCowan, L., & Heazell, A. (2021). A better understanding of the association between maternal perception of fetal movements and late stillbirth-findings from an individual participant data meta-analysis. *BMC Medicine, 19*(1), 267. https://doi.org/10.1186/s12916-021-02140-z

5 Warrilow, K., Gordon, A., Andrews, C., Boyle, F., Wojcieszek, A., Butler, D. S., Ellwood, D., Middleton, P., Cronin, R., & Flenady, V. (2021). Australian women's perceptions and practice of sleep position in late pregnancy: An online survey. *Women and Birth*. https://doi.org/10.1016/j.wombi.2021.04.006

6 Cronin, R., Thompson, J., Taylor, R., Wilson, J., Falloon, K., Skelton, S., Brown, E., Culling, V., Mitchell. E., & McCowan, L. (2021). Modification of maternal late pregnancy sleep position: A survey evaluation of a New Zealand public health campaign. *BMJ Open, 11*(5), e047681. https://doi.org/10.1136/bmjopen-2020-047681

7 Heazell, A., Timms, K., Scott, R., Rockliffe, L., Budd, J., Li, M., Cronin, R., McCowan, L., Mitchell, E., Stacey, T., Roberts, D., & Thompson, J. (2020). Associations between consumption of coffee and caffeinated soft drinks and late stillbirth: Findings from the Midland and North of England Stillbirth Case-Control Study. *European Journal of Obstetrics & Gynecology and Reproductive Biology.* https://doi.org/10.1016/j.ejogrb.2020.10.012

8 Heazell, A., Budd, J., Smith, L., Li, M., Cronin, R., Bradford, B., McCowan, L., Mitchell, E., Stacey, T., Roberts, D., & Thompson, J. (2020). Associations between social and behavioural factors and the risk of late stillbirth: Findings from the Midland and North of England Stillbirth case-control study. *BJOG: An International Journal of Obstetrics & Gynaecology.* https://doi.org/10.1111/1471-0528.16543

9 Shakespeare, C., Merriel, A., Bakhbakhi, D., Blencowe, H., Boyle, F. M., Flenady, V., Gold, K., Horey, D., Lynch, M., Mills, T.A., Murphy, M. M., Storey, C., Toolan, M., Siassakos, D., & the RESPECT Working Group. (2020). The RESPECT Study for consensus on global bereavement care after stillbirth. *International Journal of Gynecology & Obstetrics*, 149, 137–147. https://doi.org/10.1002/ijgo.13110

10 National Institute for Health and Care Excellence. (2021). *Guideline for antenatal care* [NICE guideline 201]. Available from: www.nice.org.uk/guidance/ng201

11 Centre of Research Excellence Stillbirth. (2019). *Safer baby bundle handbook and resource guide: Working together to reduce stillbirth.* Available from: https://www.stillbirthcre.org.au/safer-baby-bundle/

AUTHOR

DR CHARLOTTE OYSTON
Obstetrician and Gynaecologist Senior Lecturer University of Auckland,
Chair Women's Health Research and Audit Committee
Department of Obstetrics and Gynaecology

Research in obstetrics and gynaecology

Hospitals and their departments that take part in research have better patient outcomes, even amongst patients who are not participating in the trials themselves.[1]

A review of multiple studies shows that patients taking part in obstetrics and gynaecology trials have better health outcomes than those cared for outside of trials.[2] Supporting research and researchers, and giving patients the opportunity to take part in research is an important part of promoting protecting and improving the health of our patients and their whaanau.

To support new researchers, and to ensure that research happening in our area is relevant to the patients and whaanau who use our services, all research and audit proposals that involve staff or consumers of our services are reviewed by the Women's Health Research and Audit Committee. The committee is made up of both researchers and non-researchers, midwives, nurses and doctors. As a group, we are committed to supporting audits and research that improve service delivery and health equity, and build clinical audit and research capability and capacity.

Table 5 summarises the research studies that have been reviewed by the committee, and are currently running or have been undertaken since the last annual clinical report. Many of the completed studies have been published or presented at both national and international meetings. Reports from completed studies are available via the research office portal, or from the study investigators on request.

We look forward to sharing the results of research undertaken in Counties Manukau, and providing updates on the above projects in future reports. If you are interested in taking part in a study as a participant or researcher, please contact Charlotte Oyston – charlotte.oyston@middlemore.co.nz

▲ *Annabelle Gascoine and baby Parker John Littlewood*

1 Downing, A., Morris, E. J., Corrigan, N., Sebag-Montefiore, D., Finan, P. J., Thomas, J. D., Chapman, M., Hamilton, R., Campbell, H., Cameron, D., Kaplan, R., Parmar, M., Stephens, R., Seymour, M., Gregory, W., & Selby, P. (2017). High hospital research participation and improved colorectal cancer survival outcomes: A population-based study. *Gut, 66*(1), 89–96.

2 Nijjar, S. K., D'Amico, M. I., Wimalaweera, N. A., Cooper, N. A. M., Zamora, J., & Khan, K. S. (2017). Participation in clinical trials improves outcomes in women's health: A systematic review and meta-analysis. *BJOG*, 124, 863–871.

TABLE 5 ▼

Summary of research studies undertaken, January 2021 – present		
AUDIT OR RESEARCH QUESTION	**COUNTIES LEAD**	**STATUS**
PREGNANCY – CLINICAL STUDIES		
Can giving steroids prior to caesarean at 35–39+ weeks alter rates of respiratory distress in the newborn?	Charlotte Oyston	recruiting
Can melatonin use in pregnancy improve the neurodevelopment of growth-restricted babies?	Chris McKinlay	recruiting
How does the neurodevelopment of children born to mothers with and without psoriasis differ? What is the cause of this?	Charlotte Oyston	recruiting
What is the safety and effectiveness (for infants) of an RSV vaccine given in pregnancy?	John Baker	in progress
OBSTETRIC ANAESTHESIA		
What are the outcomes associated with epidural analgesia at Middlemore Hospital?	Grace Zhang	in progress
Is maternal temperature recorded during caesarean? Is a low temperature associated with neonatal admission?	Thomas Milne	in progress
What are the anaesthetic outcomes for patients with BMI >40 kgm^{-2}?	Jane Denman	complete
PREGNANCY – DIABETES		
How can we best support children, parents and whaanau to be healthy after pregnancies affected by diabetes?	Jacob Morton-Jones	recruiting
What effect do different thresholds for diagnosing gestational diabetes mellitus have on the later wellbeing of mothers and children?	Caroline Crowther	in progress
What are the views of practitioners about neonatal hypoglycaemia and use of dextrose gel?	Celia Grigg	complete
What are the views of patients on using a smartphone app in managing diabetes in pregnancy?	Jasveen Kaur	complete
Is using a skin sensor an accurate and feasible way of measuring blood sugar in neonates?	Jennifer Knopp	complete
What models of Pacific support exist that could be adapted to support Pacific patients with diabetes in pregnancy?	Kara Okesene-Gafa	compete
PREGNANCY – GENERAL		
What is women's knowledge of and perception of fetal movements?	Robin Cronin	in progress
Has use of the fetal pillow at caesarean reduced complications?	Lynn Sadler	in progress
What is the existing midwifery research capacity, capability and culture within Counties Manukau Health?	Robin Cronin	in progress
What are the trends in rates and causes of perinatal mortality at Counties Manukau Health?	Lynn Sadler	in progress
Does prescribing of corticosteroids/magnesium sulphate differ for Maaori and non-Maaori patients having preterm births?	Charlotte Oyston	in progress
What are the views of women and clinicians on the experience of postpartum anaemia and its treatment?	Esther Calje	in progress
What is the current approach to treatment of postpartum anaemia in New Zealand?	Esther Calje	complete[1]
What genetic or environmental factors might influence cleft lip/palate?	John Thompson	complete
COVID-19		
What is the experience of frontline maternity care providers during the COVID-19 pandemic?	Robin Cronin	in progress
What is the impact of COVID-19 on the pregnant population in South Auckland?	Aimee Brighton	in progress
What are the clinical and demographic predictors of COVID-19 severity in New Zealand?	William Good	in progress
What is the patient and staff experience of teleclinics for diabetes in pregnancy during COVID-19?	Charlotte Oyston	complete[2]
GYNAECOLOGY		
What are the experiences of Maaori and Pacific women diagnosed with uterine cancer?	Georgina McPherson	in progress
How much opiate medication is prescribed at discharge after surgery, and how much is used?	Andrew MacCormick	in progress
How can we optimise/make self-testing for HPV safe to reduce cervical cancer?	Karen Bartholomew	in progress
How is HbA1c associated with patient outcomes in elective and emergency surgery?	Nick Lightfoot	in progress
What is the association between BMI and vaginal pressure?	Lynsey Hayward	complete
What are the attitudes and beliefs around discussions about sexual health amongst nurses?	Rene Compan	complete
What are the waiting times for diagnosis and treatment of atypical endometrial hyperplasia?	Charlotte Oyston	complete[3]

1 Calje, E., Marriott, J., Oyston, C., Dixon, L., Bloomfield, F., & Groom, K. (2022). Postpartum anaemia in three New Zealand district health board regions: An observational study of incidence and management. *Aust N Z J Obstet Gynaecol*. doi.org/10.111 1/ajo.13588

2 Shashikumar, A., Okesene-Gafa, K., Apaapa-Timu, T. H., Wilson, J., & Oyston, C. (2022). Teleclinics for the management of diabetes in pregnancy during COVID-19-maternal satisfaction and pregnancy outcomes. *NZ Med J,* 135(1562), 63–77.

3 Anderson, A., Cooper, J., Oyston, C., Miles, C., Sowden, K., Peiris-John, R., & Wise, M. R. (2022). Audit of waiting time-to-treatment of atypical endometrial hyperplasia. *Aust N Z J Obstet Gynaecol*, 62, 707–713.

AUTHOR

LESLEY MACLENNAN
Clinical Coach Community Midwifery,
Women's Health Community Midwifery

Clinical coach for community midwives

In 2020, an 18-month, fixed-term clinical coach position was created to support midwifery staff to develop and maintain their clinical skills and knowledge within the Community Midwifery Service. The aim of the clinical coach role was to develop a specific knowledge and skills framework for all new midwifery staff delivering clinical midwifery care.

Work undertaken by the Midwifery Employee Representation and Advisory Service (MERAS), the New Zealand Nurses Organisation (NZNO), district health boards and the Director General of Health, as a result of the Midwifery Workforce Accord, has led to the midwifery clinical coach role being implemented nationally, including the appointment of clinical coaches across Women's Health.

The role has now been extended to include responsibilities on behalf of Te Tatau o Te Whare Kahu Midwifery Council of Aotearoa New Zealand, for supervising and reporting on midwives who are returning to practice after an absence and midwives on the overseas competence programme. Throughout 2022, the newly appointed Counties Manukau Health clinical coaches have regularly scheduled collaborative meetings, including attending a national meeting of clinical coaches from across Aotearoa, supported by MERAS representatives.

The new framework developed by the clinical coaches specifies what a midwife's work as a community midwife will involve, and the skills she should develop to be confident in her community-based role and to meet the requirements of her position description. Midwifery already has a nationally established cultural framework, which guides practice. During orientation we invite our midwives to use the existing cultural supports for Maaori and Pacific midwives at CM Health.

Developing clinical resources and providing direct coaching are central parts of the clinical coach role. Another key responsibility is assisting all community-based midwifery staff to update their knowledge about and apply any new or revised CM Health policies, guidelines, procedures and protocols. The role also includes supporting other practitioners at the Community Midwifery Service, including social workers, community health workers and maternity care assistants.

Formal external evaluation has been undertaken to ensure the clinical coach role is working as intended. Eight midwives on the graduate programme at CM Health, who had a clinical placement with the Community Midwifery Service in 2020, were interviewed using appreciative enquiry by an external midwife researcher. The report findings confirmed that the support methods used by the clinical coach were appropriate for the midwives, supporting strengths-based learning and reflective practice. The report identifies the qualities of a clinical coach that were valued by the interviewees and provides feedback, which will be used to further develop the role.

Refrences

https://meras.midwife.org.nz/wp-content/uploads/sites/4/2019/04/signed-Midwifery-Accord.pdf Accessed 16.02.2022

AUTHOR

SUZANNE MACINTOSH
Clinical Coach for Primary Birthing Unit Midwives

JOELLE FAULKE
Clinical Coach for Birthing and Assessment Unit Midwives

Women's Health clinical coach team

The team of clinical coaches at Counties Manukau Health expanded in February 2022, and now includes five midwives: three at the Birthing and Assessment Unit, one in the Community Midwifery Service and one working across all three primary birthing units.

As clinical coaches, our role primarily involves working in a supernumerary capacity with new graduates, but also extends to working with and supporting new-to-service staff, returning-to-practice midwives, new lead maternity carer (LMC) midwives, students and overseas-trained midwives in their first year of practice in New Zealand.

In 2022, we were thrilled to welcome 27 new graduate midwives; 23 employed by CM Health and four LMCs. The clinical coaches also provided support and orientation for seven new-to-service midwives and a returning-to-practice midwife.

There is a clinical coach presence in the Birthing and Assessment Unit across day and night shifts, in the community, and at all three of the primary birthing units. We aim to facilitate a safe and supportive environment, and provide mentorship, kindness and unhurried time for each midwife to develop their confidence, midwifery skills and consolidate their practice.

The role varies slightly in each area. In the primary birthing units, site-specific orientation folders have been developed, in online and paper versions. Monthly 1-hour education and professional development sessions occur throughout the year, alongside a 3-hour education session for immunisation, a clinical skills roadshow and support for cannulation training. In the Birthing and Assessment Unit, the focus is on assisting with clinical skills and developing confidence in all areas of labour and birth care. The Community Midwifery Service also hosts development sessions, open to anyone in Women's Health, which will continue throughout 2023.

We understand the current challenges our midwifery workforce continues to face with staff shortages, and especially the impact of this on our new graduate midwives. However, we are very proud of how resilient our midwifery team has been, and it is evident to us how passionate our midwives are about providing excellent care to the waahine, peepi and whaanau we serve.

"The one-to-one sessions have been very well received; it is where I believe the greatest job satisfaction and value of this role rests."

SUZANNE MACINTOSH
Clinical coach for primary birthing unit midwives

"Moving forward, my goal is to always provide a safe and supportive environment, and encourage our new midwives to feel confident, valued and part of a wonderfully supportive team."

JOELLE FAULKE
Clinical coach for Birthing and Assessment Unit midwives

"I feel privileged and honoured to be working alongside new members of the team as they grow and strengthen into our much needed fabulous future midwives."

KATIE BACON
Clinical coach for Birthing and Assessment Unit midwives

"We want the new graduates to enjoy their experience, and leave feeling confident and optimistic for the future."

CARRON STEEDMAN
Clinical coach for Birthing and Assessment Unit midwives

AUTHORS

TALEI JACKSON
AUT Pasifika Liaison Team

NGATEPAERU MARSTERS
AUT Pasifika Liaison Team

JO PUREA-ANAND
AUT Pasifika Liaison Team

Pacific midwifery workforce development

In 2014, a joint workforce initiative between the Midwifery Department at Auckland University of Technology (AUT), and Counties Manukau Health was implemented to support the growth of the Pacific midwifery workforce. Over the next 6 years, the initiative focused on recruiting, retaining and supporting Pacific midwifery students through to successful completion of their midwifery education. This resulted in significant improvements in Pacific student enrolments and retention, which will in turn improve health outcomes for the Pacific birthing population.

▲ *Pacific midwives and midwifery students from AUT*
Back row, left to right: Susan Laiseni, Rose Leauga
Third row, left to right: Dinah Otukolo, Gemma Ray, Whitney Amadia, Anau Fonua, Liz Yunus
Second row, left to right: Tokarahi Vaetoru, Tyra Fitisemanu, Makira Cornish,Vaimoana Lauaki, Ngatepaeru Marsters
Front row, left to right: Vaisiliva Manuofetoa, Nasi Valu, Talei Jackson, Nora Bukateci, Lisa Nathan, Tish Taihia

Highlights in 2021 and 2022

On 31 March 2021, Te Ara oo Hine Tapu Ora was launched at AUT's South Campus. Tapu Ora is the Pacific arm of the joint workforce initiative, between the Ministry of Health and the five midwifery schools of Aotearoa. Tapu Ora aligns with *Ola Manuia: Pacific Health and Wellbeing Action Plan 2020–2025*, and will help to address the dire shortage of Pacific midwives in Aotearoa. The Ministry of Health has provided $6 million over 4 years for wrap-around care and academic support for Pacific students.

Jo Purea-Anand joined the Pasifika Liaison team at AUT in September 2021. Her midwifery knowledge and organisational skills are a welcome addition to our team.

In 2021, there were two graduating cohorts (March and December), as the final students on the 3-year pathway completed their degree. In total, there were 11 Pacific graduates from the two cohorts. All current and future AUT students are now on the 4-year pathway and we have another seven Pacific students currently in their final year of the degree.

A half-day online fono to connect Pacific tauira across the motu was held in February 2022. AUT had planned to host the fono at South Campus, but travel restrictions, resulting from COVID-19, prevented this from going ahead. The first Tapu Ora national fono 'Looking to the Stars' will be held at AUT in October 2022.

Recruitment and retention

In June 2021, the Pasifika Liaison team attended the Tertiary & Careers exFOUsure Expo, sponsored by CM Health. Over 100 Year-13, students from seven schools around Taamaki Makaurau attended and rotated around stations representing different health disciplines. We talked about midwifery as a career option and the need for more Pacific midwives, and gave interested tauira information and contact details.

The Pasifika Liaison team has met with Pacific Health Development at Middlemore Hospital to discuss strengthening ties between AUT and CM Health. We have also met with Sarah Nicholson (deputy chief midwife CM Health), Professor Judith McAra-Couper (head of School of Clinical Sciences, AUT) and Dr Tania Fleming (head of department – midwifery, AUT) about potential opportunities for Pacific tauira and the Pasifika Liaison team at AUT. These discussions are ongoing, as we recognise the importance of maintaining and strengthening the relationship between AUT and CM Health.

Current student numbers and experience

Despite the uncertainty with COVID-19 and ongoing disruption to teaching and placements in 2021 and 2022, our retention rate has been good. Pacific tauira have learnt to be flexible and resilient, and have thrived being out on clinical placement.

Table 6 shows the number of Pacific midwifery students enrolled at AUT from November 2020 to April 2022.

Over this time, student numbers have remained relatively stable. This timeframe has seen the final cohort of students in the 3-year degree, with all AUT students now on a 4-year pathway. We have had some students rejoin the programme after a leave of absence. Due to the extra stresses associated with COVID-19, we have also had Pacific tauira withdraw from the degree for personal reasons. Despite this, in 2021 there were two cohorts who completed the degree programme and 11 Pacific graduate midwives entered the workforce as a result. Many of these are now working as midwives in Counties Manukau.

The future

Tapu Ora is now well established at AUT, and tauira are experiencing the benefits of the wrap-around support. It is envisioned that AUT's Pacific student retention will improve, and our number of Pacific midwifery graduates will increase. We are grateful to the ongoing support from CM Health for AUT Pacific students during their midwifery degree.

TABLE 6 ▼

Pacific midwifery students enrolled at AUT, November 2020 to April 2022

	NOV 2020	APR 2021	NOV 2021	APR 2022
Year 1	17	15	14	-
Year 2	7	13	11	16
Year 3	5	6	6	12
Year 4	6	6	6	6
On leave	1	1	2	0
TOTAL	**36**	**41**	**39**	**34***

*Taking into account tauira who identify as both Maaori and Pacific, the total number of Pacific tauira at April 2022 is 42

AUTHOR

MAKIRA CORNISH
AUT Midwifery Student

Student reflection on Te Ara oo Hine/Tapu Ora

Bula vinaka and warm Pacific greetings to you all. My name is Makira Cornish. I am a young proud Fijian woman, going into my final year of midwifery at AUT.

Being a midwifery student is not easy – juggling family commitments, theory work and challenging assessments, endless hours of placement and the financial burden of being a student and just a person living in Aotearoa today. Some of us are lucky enough to be able to work a casual job, but many of my peers have family commitments and as you can imagine, the struggle is real.

In March 2021, the Te Ara oo Hine/Tapu Ora initiative was launched to support Maaori and Pacific midwifery students nationwide. Tapu Ora is an initiative that we, Pacific midwifery students, have been very grateful for. I remember being at its launch at the AUT South Campus in Manukau, feeling very blessed and very excited about all the new doors that this initiative could unlock for us students. This is especially important to us, as we know that Maaori and Pacific midwives are under-represented. It has been reported that under 3 per cent of the total midwifery workforce is Pacific, while around 10 per cent of women giving birth nationally are Pacific. The latter figure rises dramatically in areas like Counties Manukau.

When the Ministry of Health announced the Tapu Ora initiative, we were so grateful for the financial help. It felt good being able to put gas in our cars, pay for the expensive parking at the hospital and afford $60 uniform shirts with less of a sting. I remember feeling very excited at the opportunity to now be able to join various professional groups (e.g., New Zealand College of Midwives and Pacific Midwives Aotearoa) and attend gatherings and events that we would otherwise shy away from solely due to the cost. Personally, being enabled by Tapu Ora to become a member of these professional groups has allowed me to access study grants, academic support, midwifery updates and new emerging research, which has been eye-opening and motivating.

In October 2022, we had our National Pacific Fono at AUT South Campus, which was an amazing 2 days. Pacific midwifery students and teaching teams from various midwifery schools across Aotearoa attended. This was such a heart-warming and humbling experience, as we were able to finally come together and share stories and kai with each other. It was nice to know that despite our small numbers, we were big in heart and aspirations. Every single person I talked to was proud of who they were, proud of their Pacific heritage and even more proud to serve and care for our Pacific mama and babies.

Another personal highlight was being able to attend the Joan Donley Midwifery Research Forum in Tauranga in November, thanks to Pacific Midwives Taamaki Makaurau. Witnessing the wealth of knowledge these midwives possess, as well as their heart and commitment to the profession, was incredible. Glass ceilings were shattered and feeling like we were not good or smart enough disappeared. Being enabled to attend that event made us feel like maybe one day we could be standing up there too. I have also been lucky enough to work as a maternity care assistant part time at Middlemore Hospital. It has been a great learning experience and a great way for midwifery students to work and build confidence in the hospital setting.

My midwifery studies so far have been incredibly challenging, but equally as rewarding. I cannot wait to finish my studies in 2023, alongside my friends, and to be a part of the small but steadily increasing number of Pacific midwives who serve our mamas, babies and whaanau.

▲ Some of the Tapu Ora Pacific student midwives from AUT
Back row, left to right: Saili Kaimoana, Azure Anderson, Makira Cornish
Front row, left to right: Vaimoana Lauaki, , Fetongi Mafi, ZenDayah Morisa-Ualesi , Yolanda Ualesi, Rudi Hill, Nasi Valu, Vaisiliva Manuofetoa,Ngatepaeru Martsters (Pasifika Liaison team)

AUTHORS

DR LESA FREEMAN
Clinical Nurse Director
Women's Health

PAAYAL LAL
Nurse Educator
Women's Health

Our Women's Health nurses

Nurses are a valued and integral workforce within the Tuuranga Hauora o te Mana Waahine Division of Women's Health.

Counties Manukau Health currently employs 83 full-time-equivalent (FTE) registered nurses and 25 FTE health care assistants who work in Gynaecology and Maternity Services. There are a further 18 senior nurses who work in managerial positions, lactation, contraception, cancer care, education and nurse-led gynaecological clinics.

Education and training

New nurses to Women's Health, in addition to their orientation programme, complete a Nurses Working in Maternity Education Programme. This programme comprises six study days and a period of supervised clinical experience in their area of work. The six study days cover the following themes: antenatal care, intrapartum care, postpartum care, neonatal care, gynaecology care and legislation that affects practice. To gain the programme certificate, nurses are required to attend all six study days and complete clinical performance assessments. At the completion of the education programme, nurses are able to demonstrate appropriate skills relating to the care of women and babies in accordance with the Te Kaunihera Tapuhi o Aotearoa / Nursing Council of New Zealand's competencies.

The Nurses Working in Maternity Education Programme is scheduled to be delivered twice a year, with the first programme between March and June, and the second between July and November. If nurses are unable to attend any of the six study days, there is flexibility to join the next cohort. However, due to the impact of COVID-19 the education programme planned for March to June 2022 was cancelled, and work is currently underway to evaluate the six study days for this cohort.

Professional Development and Recognition Programme

In accordance with Nursing Council requirements, all registered nurses and senior nurses participate in the Professional Development and Recognition Programme (PDRP) under Section 41 of the Health Practitioners Competence Act 2003, and maintain e-portfolios of their practice. The PDRP has three levels of practice: competent, proficient and expert. Nurses are required to submit an e-portfolio every 3 years.

Within their e-portfolios, the nurses complete self-assessments against the Nursing Council's competencies, by including practice examples and providing evidence of their professional development activities. The latter includes reflections on practice, as well as their career plans and annual performance reviews. Nurses then ask their colleagues who hold a proficient or expert portfolio to undertake peer assessments against the competencies, and request their line managers to verify their completed e-portfolios prior to submission for assessment.

▲ *Gynaecology Care Unit nurses: Briana Norman, Fariza Yunus, Renuka Prasad, Mele Robertson, Roshni Devi, Genesis Padua, Ypril Guleng, Karen Pierrepont*

▲ *Maternity Ward nurses: Back row, left to right: Genema Morallos, Mae Olores Siasoco, Paayal Lal (nurse educator), Blessy Paulose, Ancy Malayil, Shiji Varghese, Hema George, Lesa Freeman (clinical nurse director), Alicia Sharman. Front row, left to right: Mariam Al-Jawad (associate charge nurse), Savitri Devi*

5 COVID-19

AUTHOR

CLAIRE FLAVELL-KEMP
Maternity Consumer

My pregnancy and birth during COVID-19

For me, hapuutanga (pregnancy) presented mental, physical, emotional and spiritual challenges. It wasn't just me trying to navigate those things for myself, but also for whaanau. To bring a new peepi into our space, we needed to work through these challenges and the COVID-19 restrictions and associated isolation periods added to these.

My hope for my hapuutanga was that decisions could be fluid, but this time round there were different circumstances and some things were dictated to us, rather than me being free to make decisions for myself. Previously, I've had my mum at all my births. Having mum to lean into for support, comfort and guidance as I bring our new peepi into our whaanau, really makes the whole experience more fulfilling. So having to make that hard decision around who my one support person would be really saddened me. In my other pregnancies, I've also had other waahine with me, especially my sister-in-laws. I had three sister-in-laws who were pregnant at the same time as me. My hope was that they all could have come in, but that wasn't to be the case this time.

As it turned out, we were fortunate, because the charge midwife allowed my mum to come in and relieve my husband for a time while I was in labour. I was in early labour, on and off, for 4 days. This was stressful for our 8 year old daughter. My husband needed to be with her to settle her for some of the time while I was in labour. We had to get approval through the hospital for my husband to swap out with mum, so he could support our daughter and I could still have someone with me. This couldn't just be fluid, like it would have been in normal times – although I did have mum there for part of the time, I really wanted to lean into the comfort of having her there for the birth and that wasn't possible. It was heartbreaking watching her walk out, and I wanted to cry. I know mum felt the same, but it was so important for us as a whaanau for my husband to be present for the birth.

After mum left, the only way to communicate updates to whaanau was online with messages and calls. Then, when baby was born, we sent photos instead of handing him to mum, who I wanted to caress and hold our baby and share that aroha and love. In a different time, mum would have been there to manaaki me in that space. Mum's absence felt isolating and impersonal.

There were, however, some beautiful pivotal moments that I got to share with my husband. We were able to incorporate tikanga and traditional practices into our peepi's birth. We were able to bring in taonga to cut baby's umbilical cord. We also tied his umbilical cord with muka and shared karakia. The team were amazing. They were very inclusive with our decisions. We were able to collaborate and share ideas. I was really grateful and thankful for that.

There were changes of plans, because of COVID, that were out of my control. For me, it was about finding a space where I could come to accept what things might look like. There were lots of times where I needed to take a moment to process those decisions that were out of my control. I can probably speak for lots of people when I say that the mask came off when I was in strong labour, but you're quite constricted with moving around. Even things like needing to take a test to come into the hospital was different. I was sitting in uncertainty: What if my support person tests positive? What would that look like? I was just sitting there hoping that my husband would not test positive. The midwives were really professional, but you could see the strain on staff and the organisation as a whole, which is something I haven't seen before. My plan was to go to Botany Birthing Unit, but Botany was full, so I had to go to Papakura. The Papakura staff were really supportive. I stayed for the night and then went home, because I needed to get home to my daughter. In the past, she might have come in for a cuddle and some comfort, but with the restrictions this wasn't possible. Despite these restrictions, I think that protecting whaanau by staying home if someone is sick is one of the good things that has come out of COVID.

AUTHOR

AMANDA HINKS
Maternity Service Development Manager/
Service Manager Primary Birth Units
Women's Health

Supporting access to COVID-19 vaccinations

As vaccinations started to become one pillar of reducing COVID-19 infections in 2021, a need was identified to support access to vaccinations for all whaanau entering Maternity Services and also ensure an equitable approach to vaccine access. This article explains the steps taken to fulfil this aim.

Vaccination for COVID-19 during pregnancy, September to November 2021

The first step Maternity Services took when introducing COVID-19 vaccinations was to identify the need. In September 2021, an inpatient service providing COVID-19 vaccinations was set up. A system of communication with and referral to this roving service was set up from Maternity Services, which supported all whaanau to access the vaccination.

At this point, pregnancy records indicated that 12 per cent of pregnant people booked to birth in Maternity Services were vaccinated. The highest percentages of unvaccinated people, by prioritised ethnicity, were Maaori at 52 per cent, followed by Pacific at 37 per cent and Indian at 16 per cent, as shown in Figure 8.

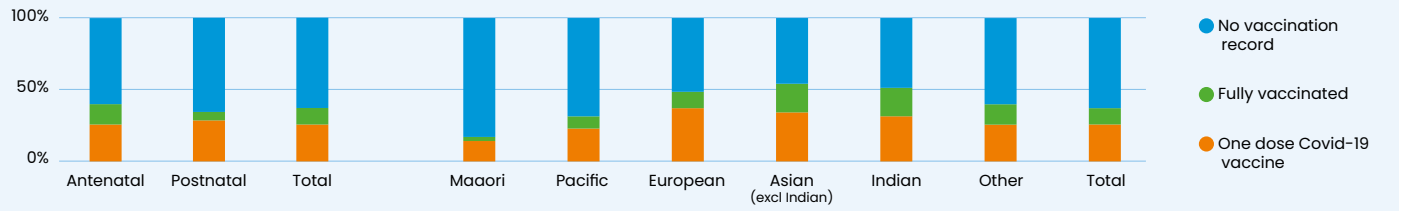
The initial response to this inequity involved the following actions:

- regional out-reach vaccinations services were provided at Papakura Birthing Unit and Mangere, with petrol vouchers offered as a koha, to increase access for all whaanau
- a vaccinating midwife provided vaccination counselling and administration at Papakura Birthing Unit
- information on the safety and efficacy of both the COVID-19 and influenza vaccines during pregnancy and breastfeeding was provided in pregnancy information packs, in English, Samoan, Tongan and Maaori (see Figure 9)
- a billboard with the same information in English was displayed outside Middlemore Hospital (see Figure 10)
- Healthpoint hosted links to community-based vaccination centres at marae and Pacific-led centres.

As time progressed, due to national campaigns, there was an increase in vaccination rates. The Maternity Service at Papakura then started to take a proactive approach by contacting unvaccinated pregnant people's lead maternity carers (LMCs) or community midwives to check whether there had been a discussion about vaccination, and whether there were any barriers to it. If not, the vaccinator midwife would call the unvaccinated person. This worked well and was well received in the main by all involved. The LMCs and community midwives could also ask the vaccinator any queries they had, to help with their discussions with pregnant people about the vaccine.

FIGURE 8 ▼

Vaccination status of pregnant people at 28 September 2021



Data source: BadgerNet

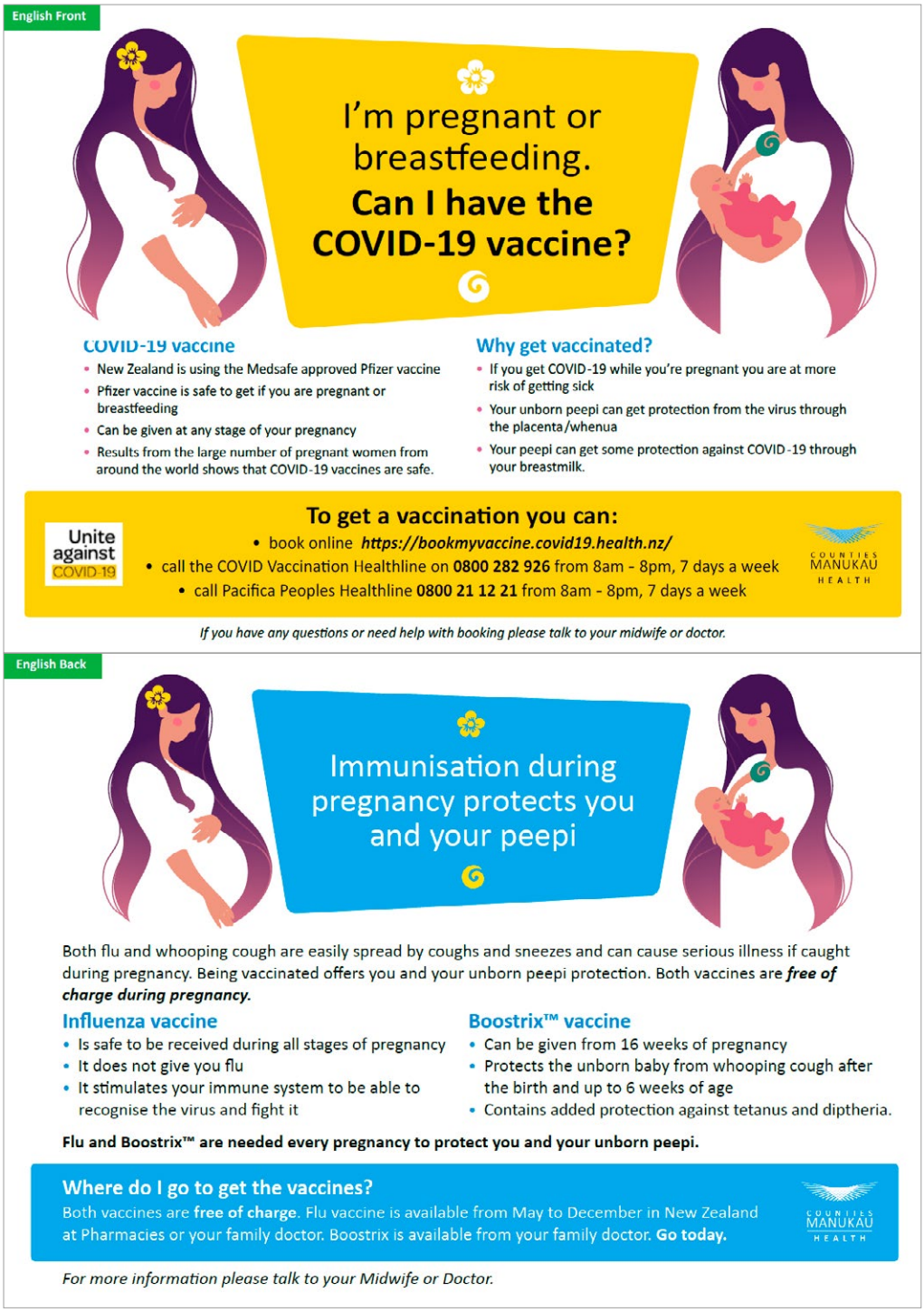


FIGURE 9 ◀
Information pamphlet used to support informed decision-making about immunisation

FIGURE 10 ◀
Billboard displayed outside Middlemore Hospital, September to December 2021

Pregnant people could ask the midwife vaccinator questions, and were then advised where and how they could access the COVID-19 vaccine. The same midwife vaccinator made herself available if pregnant people arrived at a birthing unit seeking a vaccination. Due to the nature of the vaccine, including how it needed to be diluted and administered, the logistics of accessing sufficient vaccine for this on-demand arrangement were challenging. Accordingly, a solution was worked out with Papakura Marae, enabling the vaccinating midwife to easily access sufficient vaccine to meet the demand.

Hope's story

Hope was a pregnant person who was undecided about the safety of the vaccine. Hope was contacted by the vaccinating midwife at Papakura on more than one occasion, as Hope had questions and engaged with the midwife to work through them. The midwife invited Hope to her local birthing unit, but Hope had decided that, if she was to receive the vaccination, she would meet the midwife at Papakura Birthing Unit. Hope and the midwife built a connection over a few weeks and phone calls. One day Hope arrived at the birthing unit to receive her vaccination. Hope was not local to the Papakura Birthing Unit, but had built a relationship of trust with the midwife and so made the journey.

Changes in vaccination rates

Figures 11, 12 and 13 show changes in vaccination rates from 28 September to 16 November 2021.

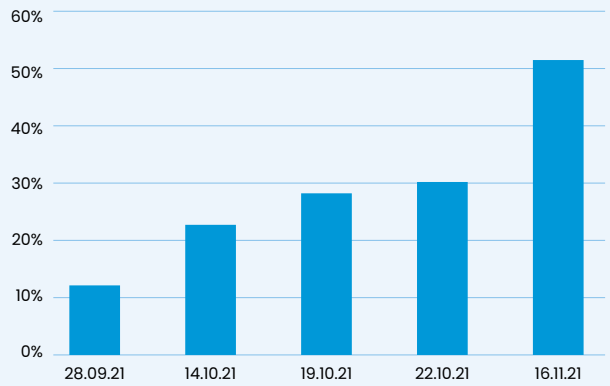
When the Covid-19 vaccination records started to be reviewed on 28 September 2021, only 12 per cent of pregnant people were fully vaccinated, with only 5 per cent of those who identified as Maaori being fully vaccinated.

By 1 July 2022, 83 per cent of antenatal people and 88 per cent of postnatal people were fully vaccinated, with rates, by ethnicity, recorded as: Maaori, 77 per cent; Pacific, 86 per cent; Asian (excl Indian), 95 per cent; Indian, 97 per cent; and New Zealand European/Other, 89 per cent.

While it is acknowledged there was a national campaign promoting vaccination, the measures taken by Maternity Services also supported access to information and to the vaccine. It was a period of high stress and anxiety, and having measures in place to support whaanau to feel comfortable during this period was paramount. Having multiple options for receiving information, and sites where the vaccine could be accessed, supported the rise in vaccination numbers.

FIGURE 11 ▼

Fully vaccinated people with an open pregnancy record, 28 September to 16 November 2021



All MCIS records opened after 1st November 2020

FIGURE 12 ▼

Ethnicity of people with an open pregnancy record who had no record of COVID-19 vaccination, 28 September to 16 November 2021

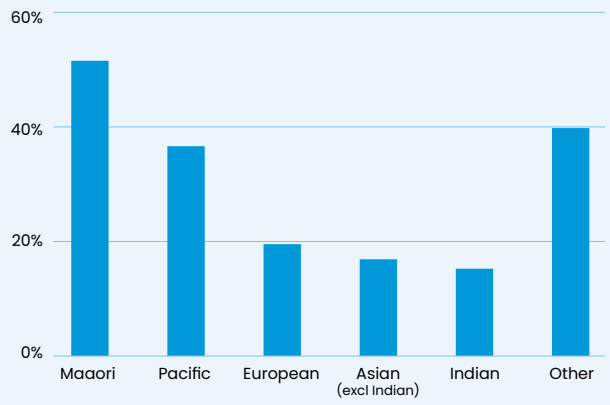
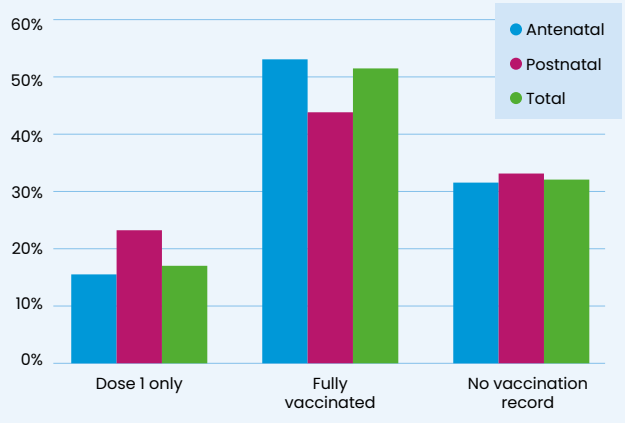


FIGURE 13 ▼

Distribution of COVID-19 vaccination across antenatal and postnatal cases, 28 September to 16 November 2021



AUTHORS

MIRJAM VISSER
Clinical Maternity Coordinator

SARAH NICHOLSON
Deputy Chief Midwife

Maternity inpatient wards management of COVID-19, 2021 to 2022

During the COVID-19 pandemic, inpatient maternity services were challenged to adapt at pace to a relentless flow of new processes, care pathways and infection control procedures. Maternity staff ensured that safe and quality care continued to be provided for mothers and babies who were navigating their way through the complexities of isolation care.

In August 2021, a small number of COVID-19 positive antenatal and postnatal patients were admitted via the Birthing and Assessment Unit, then transferred to designated COVID-19 isolation medical wards. This resulted in Women's Health inpatient services moving across the hospital to ensure that essential maternity care for COVID-positive pregnant people, new maamaa and peepi continued. Women's Health staff and equipment, cardiotocography (CTG) machines, breast pumps, nappies and medications were temporarily redeployed.

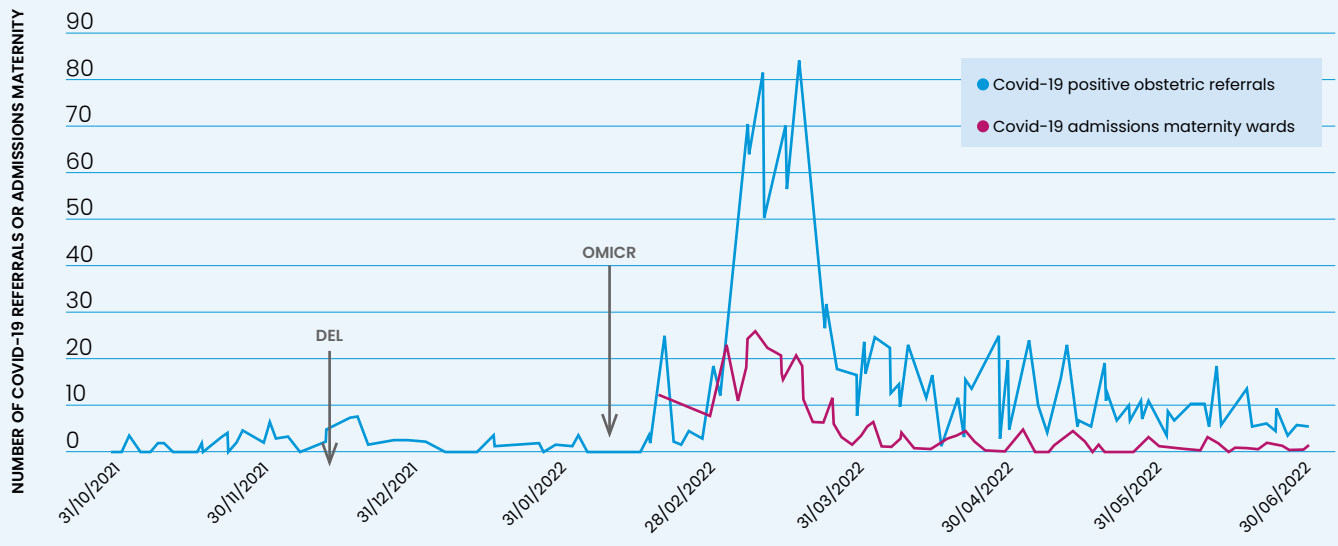
Effective teamwork enabled multi-service and multidisciplinary care to be delivered. Crucial midwifery antenatal pregnancy care, postnatal care and breastfeeding support was provided alongside medical respiratory care.

In late 2021, the arrival of the highly infectious Omicron variant resulted in a sharp rise in case numbers, and the rapid realisation that providing Women's Health care in designated respiratory ward settings was not going to remain a viable strategy (see Figure 14).

On the morning of Sunday 20 February 2022, 15 COVID-19-positive antenatal and postnatal people were waiting in

FIGURE 14 ▼

COVID-19-positive referrals for maternity, compared to total COVID-19-positive daily admissions



the Birthing and Assessment Unit needing admission with isolation management. An urgent Zoom meeting with the hospital executive leadership team resulted in the decision to immediately create isolation care areas within our own division. In a matter of only a couple of hours, the care pathways and formats of the maternity wards and Ward 21 were transformed.

Maternity South Ward became the Green Zone, with COVID-19 negative postnatal patients who had no close contacts. Ward 21 also changed into a Green Zone for antenatal and postnatal patients (with babies). Maternity North Ward was divided into a Red Zone for COVID-19-positive antenatal and postnatal patients, and an Orange Zone for antenatal and postnatal patients who were COVID-19 negative, but had close contacts.

With the changes to the formats of the wards, equipment had to be relocated. CTG machines were moved to Maternity North and baby scales were moved to Ward 21, along with a variety of disposable equipment. A new walk-through plan for COVID-19 positive patients had to be designed within the wards. New cleaning processes were developed, and staff were allocated to different working areas. This was an immense project for a Sunday, but with great teamwork the staff pulled it all together quickly.

On an almost daily basis, processes were adjusted, including the rules regarding infection prevention and the use of personal protective equipment, how and when to test staff and women and their whaanau, where and how to isolate, the discharge and transfer processes, to name a few. At the peak of the pandemic, Maternity North was changed completely to a Red Zone and half of Maternity South was transformed into an Orange Zone.

Inpatient maternity care during the pandemic significantly affected the experience of whaanau during their maternity care. Visitor screening and the restricted visitor policy affected whaanau birth plans, and their access to the maternity wards. We are grateful to the Counties Manukau birthing whaanau who were understanding of the restrictions as we worked together to reduce the spread of COVID-19.

▼ *Maternity ward midwives, left to right: Marcelle Chengan (student midwife), Lucy Neill, Ellie Foreman, Amanda Hinks (service manager), Eleanor Halligan (midwife manager), Susanna Fow*

AUTHORS

JULIETTE WOTTON
Midwife Manager
Birthing and Assessment Unit

LEIGH ROBERTSON
Deputy Midwife Manager
Birthing and Assessment Unit

Birthing and Assessment management of COVID-19 in 2021 to 2022

The Birthing and Assessment Unit has played a huge role in the Women's Health COVID-19 pandemic response, providing responsive, flexible and safe care, and often leading the way in developing national women's health COVID-19 guidelines and management approaches.

The Birthing and Assessment reception was fitted out with glass partitions to add a layer of protection for ward clerks, and spaces were marked on the floor for women to stand in, so they could socially distance. Every third chair in the waiting area was taped off to allow for social distancing.

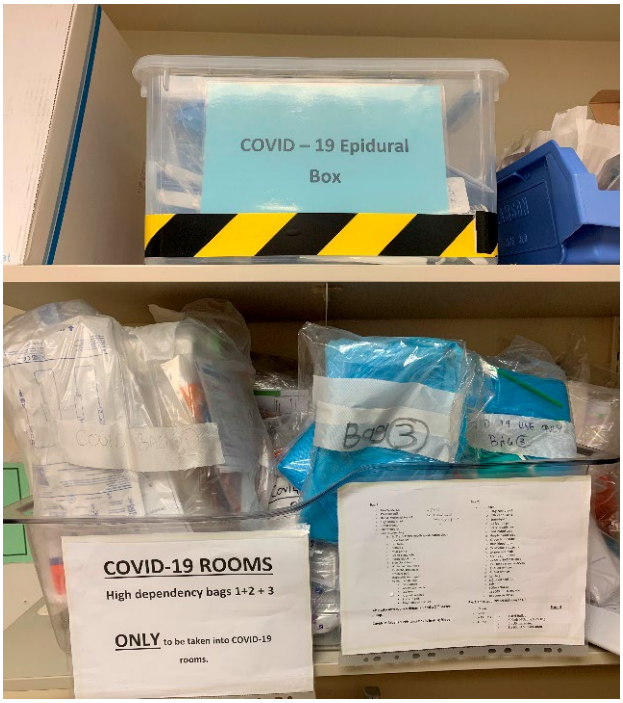
All women and visitors to Women's Health wards are screened twice with the Counties Manukau Health COVID screening questions: firstly, by the ward clerk on arrival at the ward, and secondly by the triaging midwife or nurse.

Initially, before rapid antigen tests (RAT) became available, women who responded positively to any of the screening questions or were known to be COVID positive, were taken through to a Red Zone room, with the negative pressure room used in the first instance. All others went to a Green Zone room.

Prior to the large outbreaks of Delta and Omicron, the whole assessment unit, and birthing rooms 4 to 8, were designated as Green Zone rooms. Women allocated to a Green Zone birthing room entered by the theatre corridor entrance, so as not to have to walk through the middle of the Red Zone.

The Red Zone consisted of seven birthing rooms. Once Delta and Omicron arrived, these rooms were quickly overwhelmed, and the Red Zone was extended into rooms within the assessment unit as well. The Birthing and Assessment Unit initially only had one negative pressure room and work has now finished to create two

▲ *Birthing and Assessment Unit reception*



▲ *COVID-19 birthing room packs*

more. Consumables required during labour and birth were collated and stored within the negative pressure rooms to reduce the requirement for multiple entry. Initially, a contingency birthing room was set up in the Maternity North Ward negative pressure room, but birthing women no longer used this when the service became overwhelmed with COVID-19 cases.

During this time, the unit obtained smartphones, so that midwives could video call or send photos of cardiotocography (CTG) readings to the associate clinical midwife manager or senior medical officer, and patients could call their whaanau.

COVID-19 positive women initially birthed without a key support person or their whaanau present. This was very isolating and frightening for women. During the Delta outbreak, following advice from overseas midwives, we adapted to allow one key support person to be present while the woman was in labour, as long as that person was feeling well and not symptomatic of COVID-19.

During both the initial and subsequent Delta outbreaks, women with COVID-19 tended to deteriorate postnatally with respect to their COVID symptoms. With Omicron, however, most COVID-positive women remained stable.

Personal protective equipment

With the arrival of the Delta variant of COVID-19 in August 2021, the entrances to the Birthing and Assessment Unit were all clearly signposted as Red Zones. N95 masks and eyewear were required to be worn by all CM Health staff and contractors, at all times. An Orange Room was set up for pre- and post-shift donning and doffing of N95 masks and eyewear, and procedure masks were provided for staff to wear as they left the hospital.

Personal protective equipment (PPE) stocks were also stored in this room, due to limited storage elsewhere in the unit. A PPE audit was undertaken every day at 0730 to ensure stock levels were satisfactory. In the first few months of the pandemic, there was a considerable amount of slippage of PPE, because of the uncertainty around national PPE supplies.

Evidence from overseas suggested that staff eating together was an exposure point, so the Birthing and Assessment Unit created a second temporary break room in the whaanau room to reduce the risk of transmission at meal breaks.

▲ *Orange Room used for donning and doffing PPE*

▲ *PPE eyewear was named to help with recognition*

▲ *Example of full PPE*

Rapid antigen testing

RAT kits were made available for staff and lead maternity carers during the Omicron outbreak. Birthing and Assessment Unit staff are considered critical workers, and therefore able to test at home and still come into work if negative, even if they had a positive household member. COVID-positive staff were also able to return to work once they were asymptomatic and had tested negative on days 5 and 6.

A temporary respiratory testing and triage room was erected for screening all admissions to the unit, with the ability to be made permanent if required. During the Omicron outbreak, all women on arrival had a RAT performed or a polymerase chain reaction (PCR) test if the woman had recently had a COVID infection.

It was often a challenge to effectively triage and test each woman on arrival, due to limited staffing. There were occasions where the community midwifery manager was able to release Community Health and Te Rito Ora workers to the Birthing and Assessment Unit to support this process. Midwifery care assistants and health care assistants were also trained to perform these tasks.

Information sharing

Information came from multiple sources. The hospital's incident controller had overall accountability for implementing a responsive hospital strategy for inpatient services. In partnership with the hospital infection prevention and control team, the controller developed and regularly updated the clinical assessment tool used to guide COVID-related practice and decision-making. Regular updates were also communicated to all hospital staff members via email.

The CM Health Women's Health team joined a daily (7 days per week) regional meeting attended by representatives from the infection prevention and control teams at all three district health boards in the region, the COVID managed isolation quarantine (MIQ) facilities and the St Johns Ambulance Service. The purpose was to discuss practice-based clinical queries from the MIQ facilities, as well as new issues and proposed solutions, and to agree on the regional distribution of beds and ambulances to the major hospitals, based on bed and staffing capacity.

The infection prevention and control team also helped Birthing and Assessment monitor its isolation process, and gave advice on managing incidents, such as exposure events. The unit also liaised closely with the Occupational Health Service, which gave advice and guidance on risk assessment and categorisation of unit staff who had been exposed to COVID.

A daily Women's Health COVID governance team let Birthing and Assessment managers know when processes were changed, guidelines updated or matters of concern needed to be discussed. COVID operational meetings were also held by Zoom several times a week to allow midwifery managers to discuss urgent challenges and process changes. Dedicated Women's Health email accounts were created to support dissemination of COVID-related updates.

With the arrival of Omicron, the Women's Health guidelines created for the initial COVID variants were updated. During the Omicron surge, the theatre team was no longer able to manage within a single obstetric COVID theatre, and reverted to the pre-pandemic theatre guidelines, but with the added protective layer of the used theatre being terminally cleaned following a COVID-positive patient.

Birthing and Assessment staff and lead maternity carers were kept up to date with the constantly evolving information by a COVID information board, which was set up outside the staff changing room and updated frequently with information around COVID processes. COVID information folders were also kept in each Birthing and Assessment hub, with frequent updates.

Towards the start of the Omicron outbreak, the Birthing and Assessment managers, supported by the chief midwife, delivered eight Zoom sessions to other district health board maternity and obstetric teams around New Zealand, sharing experiences and information about how to provide care for COVID-positive maternity patients. This included a session delivered on behalf of the Ministry of Health.

There has been a huge emotional toll on Birthing and Assessment staff over this pandemic, with staff in a constant state of flux as they moved through the process of learning about COVID and the changing rules and advice. Staff came to work fearful that they would take COVID home to their families. Colleagues were farewelled when the vaccine mandates came into effect. Acuity increased, due to certain staff being limited to only providing care for COVID-positive or -probable women, and the additional need for buddies, PPE spotters and transfer spotters. Equipment was tied up in the isolation rooms and couldn't be taken out until the woman had been discharged and the room bio-quelled or terminally cleaned.

The Birthing and Assessment team has worked tirelessly throughout the pandemic and, as a result, is now more prepared for future variants.

AUTHOR

SARAH NICHOLSON
Deputy Chief Midwife

Primary birthing unit management of COVID-19, 2021 to 2022

As the numbers of inpatients with COVID-19 increased at Middlemore Hospital, the primary birthing units became vital COVID-free community hubs to enable maternity care away from the main hospital.

Without the resources associated with a large hospital, the primary birthing units, in collaboration with the Infection Prevention and Control Service, needed to be innovative to establish isolation control systems and processes that suited the conditions of their facilities. To reduce the flow of people through the units, specific spaces were transformed into acute assessment rooms. Clinic rooms were transformed into spaces for urgent postnatal care. The units were also hubs for resources, such as community midwifery personal protective equipment (PPE) collection points and whaanau isolation care packs.

Pukekohe Birthing Unit was particularly affected by the September 2021 southern Auckland border restriction. Both staff and pregnant whaanau had to navigate delays at border restrictions, with exemption letters and contingency plans made for labour and births. Rural home-birthing midwives were busy, with an increased demand for home births.

International and national travel restrictions also affected the traditional family support networks that usually provide additional care for new families. This added to the postnatal care requirements of both inpatient and community-based midwives. Links to community support networks, such as engagement with the local Sikh temple, aimed to alleviate the isolation faced by some new families and foster community relationships.

The pandemic highlighted the value of our community-based facilities and had the positive impact of strengthening the integrated community-based Women's Health services provided at the primary birthing units.

Some of the Pukekohe Birthing Unit team

Back row, left to right: Sarah Tout, obstetrician; Sarah Williams, LMC midwife; Andrea Baker, administrator; Megan Pearce, midwife; Amanda Hinks, service manager.

Front row, left to right: Gina McGlade, ward administrator; Lyn Stark, midwife; Alisha Clayton, LMC midwife; Lynne Austerberry, midwife manager; Donna Smythe, midwife

AUTHORS

ISABELLA G SMART
Midwife Manager
Community Midwifery Service

MIRJAM VISSER
Clinical Maternity Coordinator

Community midwifery and COVID-19

At the start of the COVID-19 pandemic, the Lambie-Drive-based community midwives had a variety of processes in place. The pandemic brought the urgent need for different ways of working to be discussed and tested.

Many changes took place, from setting up processes with community service providers for online ordering of bloods tests and ultrasound scans, and arranging to email prescriptions to pharmacists, to working out how to provide tele-health midwifery care, and health and maternity education, via Zoom sessions. Following Ministry of Health and Counties Manukau Health guidelines, in-person contact was carefully considered and minimised wherever possible, in order to protect staff. However, with community midwifery staff using the correct personal protective equipment (PPE), women were still able to be seen at home or in the clinic for their antenatal and postnatal check-ups, as clinically required.

The CM Health community midwifery car fleet became 'changing stations', to isolate and minimise infection transfer between staff and clients, and staff and their families. While doing home visits, staff used their cars to change their PPE and sanitise their equipment, and to safely store rubbish after the visits to lower the risk of spreading COVID.

▲ *Nicola Williams, Community Midwife*

Women were screened for COVID symptoms via a phone call, the day before coming to antenatal clinics, as well as on the day itself. Between appointments, the clinic rooms were Virkon™ cleaned with the support of community health workers. Midwives working from home took initial antenatal bookings, and provided education over the phone and by video call on subjects like labour and birth. This decreased face-to-face time for clinical staff at risk of COVID. It was also noticed that many women felt more confident while on the phone to ask questions and speak out about sensitive issues, such as family violence and sexual abuse.

Besides contact by phone, educational Zoom sessions were introduced for specific subjects, like breast feeding, baby care and diabetes, but also for specific target groups, such as Indian women. These Zoom sessions were very positively evaluated and well attended, and we have continued them after the lockdowns ended, due to feedback from women and their whaanau. We intend to expand the sessions' content and reach over the next year.

For women in managed isolation quarantine (MIQ) facilities, we set up processes, referrals and care pathways to ensure care was provided in person by community midwives wearing PPE, as well as by phone. This care was documented both on BadgerNet and Indici (the electronic records system for MIQ). This innovation enabled safe and timely information sharing between the maternity services and the MIQ facilities. The various MIQ hotels used the referral and transfer processes to ensure women and babies received their care, and to provide a safe and timely emergency admission pathway for acute admissions to Middlemore Hospital. Community-based midwives and the obstetric team also provided advice around care plans to health professionals working in the MIQ facilities. Our processes were used regionally.

For women and their whaanau isolating at home, or in other ways affected by the pandemic, we made extensive contacts with a variety of support services to ensure they were well cared for.

The common feeling of the Lambie-based community staff, midwives, community health workers and all other staff, was that they were on top of the (COVID) game and were able to cope well. The processes and adjustments we made changed our way of working, and these improvements and learnings are continuing today. Events from December 2019 until today, combined with an ongoing national and local midwifery staffing shortage, mean that flexible and home-working midwives, tele-health care and online sessions are here to stay.

AUTHOR

SOPHIE MCDIARMID
Midwife Educator, Women's Health
People and Professional Development Team

Education in Women's Health through COVID-19

COVID-19 presented significant challenges to delivering education within Women's Health from 1 January 2021 to 30 June 2022. High patient acuity and increased staff illness across the service placed considerable demands on staffing.

This made it challenging for staff to be released from clinical settings to attend education days. Overall, 22.5 per cent of planned education days were cancelled for this reason, including all formal education for Women's Health nurses. Although 77.5 per cent of education days went ahead, most days saw several attendees being redeployed at short notice to clinical settings, due to inadequate staffing, and hence unable to attend.

The education team employed several strategies to facilitate quality education in the context of a pandemic. Study days were limited to a maximum of 10 attendees who wore masks and were distanced 1.5 metres from each other. Participants were encouraged not to attend if they had any flu-like symptoms. Although this was initially effective, the Level 4 lockdown in August 2021 meant that education days could no longer be held face-to-face.

Midwife and nurse educators, and clinical coaches facilitated on-the-floor education in a variety of clinical settings, including Birthing and Assessment, the maternity units, Ward 21, the primary birthing units and within the community midwifery team. This included support with COVID-19 cares and safe use of personal protective equipment (PPE). Nurses were supported to complete their Professional Development and Recognition Programme through phone support and Zoom assessments.

The team modified some of the education days to be delivered via Zoom. Mandatory education, in particular the midwifery emergency skills refresher course, was prioritised. Zoom education enabled much larger groups of attendees than ever before. The days were made shorter and included more regular breaks to mitigate 'Zoom fatigue'. A variety of learning modalities were employed,

▲ *Women's Health professional development team, left to right: Sanne Wesseling, Sophie McDiarmid, Paayal Lal, Danielle Foster, Gillian McNicoll*

including PowerPoint, video, group work in online break-out rooms, and plenty of time for questions and discussion. In total, 15.5 per cent of all education days were delivered using Zoom for the specified period.

Perhaps the most obvious drawback of Zoom education was the inability to practice hands-on clinical skills. Assessments of neonatal resuscitation, basic life support and airway management could not be performed. Participants were encouraged to contact an educator for one-on-one support with these skills if they felt they needed it. There was very poor uptake of this offer, however.

The feedback relating to Zoom education delivered over this period was almost universally positive. Participants enjoyed the new platform and being able to attend from home. Feedback indicated an appetite for Zoom education to continue to be offered into the future. Some participants did indicate that they missed the collegial aspect of in-person study days: the opportunity to connect with colleagues and share practice wisdom. The team plans to analyse the effectiveness of and participant preference for both Zoom and in-person education to inform 2023 education planning.

AUTHORS

SARAH TOUT
Senior Medical Officer

SARAH WADSWORTH
Senior Medical Officer,
Obstetrics and Gynaecology

Medical response to COVID-19

As the COVID-19 pandemic developed and changed through 2021 and into 2022, the medical team worked hard to stay abreast of developments and respond to the changing needs of the hospital and the community.

Drs May Soh (obstetric physician) and Aimee Brighton (obstetric senior medical officer) compiled a guideline for obstetric care for COVID infection in pregnancy that used international experience and evidence to ensure we were providing the most up-to-date care. They were involved in Zoom sessions with the Ministry of Health, to give other district health boards consistent advice on obstetric care across the country.

As in 2020, at times of increased infection in the community and during the Level 4 lockdown in August 2021, the medical staff moved to a 'pod roster' system. Under this system, four teams of doctors from across the Women's Health service (a senior medical officer, fellow, registrar and house officer) covered the on-duty acute component of the work, in three consecutive 12-hour shifts, alternating from days to nights, with rostered days off in between.

The remaining doctors formed an elective team, covering antenatal and urgent gynaecology clinics, and operations that could not be deferred. The Maternity Assessment Clinic continued, providing semi-urgent obstetric assessments and scanning in an outpatient setting. Antenatal and gynaecology clinics moved to telephone-based consultations, where possible, with face-to-face appointments when necessary.

Out of the pod roster system, it was recognised that providing care for unwell and pregnant inpatients who were COVID-positive was time consuming for the on-call doctors, and a separate COVID ward round team was established. This senior-medical-officer-led service provided obstetrics and gynaecology care for women throughout the hospital; on the COVID wards, in the Emergency Department or Intensive Care Unit, and in the COVID rooms that had been allocated in the Women's Health wards.

With the explosion in numbers of COVID-positive pregnant women during the Delta and Omicron phases of the pandemic, the numbers of referrals from lead maternity carer (LMC) midwives and GPs for advice about pregnancy management grew exponentially. Pre-populated letters were written through BadgerNet, so that advice could be sent rapidly, and this advice could be changed as the differing effects of the different waves of COVID were recognised.

The Women's Health medical team worked hard with its midwifery and nursing colleagues, with the aim of providing consistent and high-quality care to all who required it. We worked alongside the infectious diseases team and the Anaesthetic Department, and appreciated their assistance and responsiveness as situations and advice changed on a near daily basis.

As was the case with other services, we identified additional needs for working in the COVID environment. This included additional negative pressure rooms, which we are grateful to announce have now been installed in preparation for the next wave; whatever that may bring!

AUTHORS

NIU LIFE MIDWIVES
Judith Johnston Niuelua, Helen Tameifuna, Tanya Rangi, Linda Burke, Valenitina-Anne Kulitapa, Fa'anape Tafiti

AMANDA HINKS
Maternity Service Development Manager/ Service Manager Primary Birth Units Women's Health

Niu Life Midwives – The COVID-19 pandemic from an LMC midwives' perspective

Four months before the first lockdown in March 2020, the Niu Life Midwives team of lead maternity carer (LMC) midwives was formed.

The concept of the team, and the support we give each other to initiate a different model of care (which is sustainable and offers continuity of care, rather than a specific 'carer') proved to be timely and invaluable for the pandemic. The benefits of working closely and having a strong vision enabled the team to action the following systems and processes during, and despite, the pandemic.

Importantly, our clinics were not suspended, as we had access to our own clinic rooms. The fact that no support people were allowed to come to the appointment, made it easier for women to be present without partners and children, which in turn made screening for family violence and depression easier, and enabled clinicians and clients to build rapport without interruptions.

The other benefit to come from the lockdowns, was increased engagement with our midwives, as women had fewer other social interactions. The midwives set up a dedicated postnatal space in the clinic for women and their babies. Women were keen to attend postnatal assessments, just to get out of the house. The public health messaging and vaccination drive also increased awareness of the importance of vaccination. Niu Life was able to leverage off this, with a vaccinating nurse present 4 days a week to provide education, and access to maternal and infant immunisations.

The pandemic also created challenges for our community. Police stopped one woman and challenged her outing to a midwife appointment. She turned back home without asking the police to call midwife to confirm the appointment, as she was too embarrassed to prove her pregnancy. Lack of information about the vaccine in pregnancy (there was not enough information available at the time) was also an issue.

▲ *Niu Life midwives, left to right: Judith Johnston Niuelua, Helen Tameifuna, Tanya Rangi, Linda Burke, Valenitina-Anne Kulitapa, Fa'anape Tafiti*

The nature of the pandemic, and uncertainty as to how to manage the clinical aspects, changed so very regularly that it became difficult to keep up with the communications. Different hospitals in the Auckland region had different approaches, which was confusing for women and clinicians. Communications from the government also did not always align with Counties Manukau Health policies, creating additional confusion for pregnant women, their whaanau and LMCs. On top of this, Well Child provider services were delivered remotely, via video or phone, which did not suit all service users and placed pressure on the midwives to support whaanau with new infants.

Summary

Experiences of the COVID-19 pandemic, and the strategies used to manage it from March 2020 to July 2022, were different for every individual and whaanau.

Thank you to the Niu Life Midwives for sharing their positive and negative experiences of providing a midwifery service to pregnant, birthing and new parents during the pandemic. Sharing these experiences provides knowledge and understanding, which further equips other community-based services to continue to meet the needs of their communities, while learning to live with this virus.

6 Maternity Quality and Safety Programme

AUTHORS

SINIVA SINCLAIR
Public Health Physician
Population Health Directorate

ANDREA O'BRIEN
Senior Insights Analyst
Population Health Directorate,
Health Intelligence and Informatics

Clinical indicator view of women birthing at Counties Manukau Health facilities

This section of our annual report is dedicated to the Ministry of Health clinical indicators. Many of these indicators are based on the 'standard primipara' (see definition below). The standard primipara reflects low-risk women and therefore should be able to be used to compare outcomes across the district health boards.

This section of the report has been produced to give us a clearer understanding of the women birthing in our Counties Manukau facilities, and their outcomes. This knowledge leads to a deeper consideration of the women we serve and their needs. Having an accurate picture is essential for monitoring outcomes, and hence making meaningful changes to improve our services and practices.

The Ministry of Health's standard clinical indicators reports show either Middlemore Hospital births or CM Health domiciled women. However, these figures do not reflect all CM Health births. We have chosen to report on all births at CM Health facilities, which includes the outlying birthing units, to give a complete view of CM Health's birthing outcomes.

All data in this section is from the Maternity Clinical Information System (MCIS) database, held by the health intelligence and informatics team at CM Health. Accurate contemporaneous information input into MCIS by the carer is invaluable. Using MCIS fields and narratives allows for more precise measurement by our clinical coders who are required to interpret clinical documentation. The accuracy of information entered reflects the quality of the reports we prepare. We now have 6 complete years of clinical information from MCIS that we can access. For ease of visualisation, the present report includes the last 3 full years, plus the half year of data available for 2022.

We have also elected to compare outcomes from across the last few years to see whether we can identify any trends and to enable us to reflect on areas for improvement. We are committed to striving for equity across our populations. However, as can be seen from the ethnicity graphs provided, there is variation across ethnic groups.

Standard primipara

A standard primipara is a woman expected to have an uncomplicated pregnancy. Standard primiparae are women aged 20 to 34 years old at the time of giving birth who are giving birth for the first time at term (37 to 41 weeks' gestation), where the outcome of the birth is a single baby, the presentation is cephalic (head first) and there have been no recorded obstetric complications that are indications for specific obstetric interventions. Body mass index (BMI) is not included as a risk factor. Intervention and complication rates for such women should be low and consistent across hospitals and health boards. These women are a sub-set of the general maternity population and are not representative of all birthing women – in fact only around one in eight birthing women in Counties Manukau falls in this category.

Women birthing at CM Health

In 2021 (the last full calendar year for which data is available), almost 7,700 women gave birth in a CM Health facility: see Tables 7 and 8. Around 900 of these (close to 12 per cent) fell in the category of standard primipara – of whom most (over 800) delivered at Middlemore Hospital, with the remainder delivering at a primary birthing unit. Almost all women in this category with a BMI of 35 or over delivered at Middlemore Hospital.

In the 2022 year to date, 84.6 per cent of standard primiparae birthing at Middlemore Hospital had a BMI of less than 35 (302 women). If we include BMIs between 35 and 39, 94.1 per cent of women birthing at Middlemore Hospital have a BMI of less than 40 (336): see Table 9.

Table 10 summarises the Ministry of Health clinical indicators for CM Health for 2020 to 2022 (noting that the 2022 data is for the first 6 months from January to June), alongside data for all of New Zealand for 2020. This is followed by a series of figures (Figure 15 to 32) showing the levels of each clinical indicator by ethnicity, by calendar year for 2019 to 2022 (with the same proviso for 2022 data).

TABLE 7 ▼

Women delivering at CM Health facilities, by parity category, 2019–2022

	ALL WOMEN	ALL MULTIPARAE	NON-STANDARD PRIMIPARAE	STANDARD PRIMIPARAE	PERCENTAGE OF ALL BIRTHS
January to June 2022*	3,536	2,225	899	412	11.7%
2021	7,698	4,739	2,052	907	11.8%
2020	7,322	4,476	1,905	941	12.9%
2019	7,526	4,627	1,911	988	13.1%

* 2022 data is for the first half of the calendar year

TABLE 8 ▼

Birthing location for standard primiparae delivering at CM Health facilities, by calendar year, 2017–mid-2022

	BOTANY BIRTHING UNIT	PAPAKURA BIRTHING UNIT	PUKEKOHE BIRTHING UNIT	MIDDLEMORE HOSPITAL
January to June 2022*	17	8	30	357
2021	31	11	56	809
2020	34	19	52	836
2019	55	30	55	848

* 2022 data is for the first half of the calendar year

TABLE 9 ▼

Body mass index (BMI) category at booking, for standard primiparae delivering at Middlemore Hospital or any primary birthing unit in Counties Manukau, by calendar year, 2019–mid-2022

	BOOKING BMI	PRIMARY BIRTHING UNIT – NUMBER	MIDDLEMORE HOSPITAL – NUMBER	PRIMARY BIRTHING UNIT – PERCENTAGE	MIDDLEMORE HOSPITAL – PERCENTAGE
January to June 2022*	<35	55	302	100%	84.6%
	35–39	0	34	0%	9.5%
	>40	0	21	0%	5.9%
2021	<35	91	682	93.8%	84.5%
	35–39	6	84	6.2%	10.4%
	>40		41	0.0%	5.1%
2020	<35	102	711	97.1%	85.1%
	35–39	2	67	1.9%	8.0%
	>40	1	57	1.0%	6.8%
2019	<35	132	725	94.3%	85.9%
	35–39	6	66	4.3%	7.8%
	>40	2	53	1.4%	6.3%

* 2022 data is for the first half of the calendar year

TABLE 10 ▼

Ministry of Health clinical indicators – summary of CM Health data for recent years, and comparison with national data for 2020

	CM HEALTH JANUARY TO JUNE 2022	CM HEALTH 2021	CM HEALTH 2020	NEW ZEALAND 2020
CI 1: Registration with an LMC* in the first trimester of pregnancy	65.5%	67.3%	59.2%	74.1%
CI 2: Standard primiparae who have a spontaneous vaginal birth	59.5%	58.1%	58.2%	62.1%
CI 3: Standard primiparae who undergo an instrumental vaginal birth	18.2%	19.5%	18.6%	19.2%
CI 4: Standard primiparae who undergo caesarean section	22.3%	22.4%	23.2%	17.6%
CI 5: Standard primiparae who undergo induction of labour	17.2%	14.4%	14.5%	9.2%
CI 6: Standard primiparae with an intact lower genital tract (no 1st- to 4th-degree tear or episiotomy) **	10.3%	7.8%	9.4%	26.7%
CI 7: Standard primiparae undergoing episiotomy and no 3rd- or 4th-degree perineal tear **	37.2%	37.1%	36.1%	26.1%
CI 8: Standard primiparae sustaining a 3rd- or 4th-degree perineal tear and no episiotomy	2.8%	4.0%	4.9%	4.3%
CI 9: Standard primiparae undergoing episiotomy and sustaining a 3rd- or 4th-degree perineal tear	2.8%	3.4%	3.2%	2.1%
CI 10: Women having a general anaesthetic for caesarean section	8.4%	9.2%	10.6%	7.8%
CI 11: Women requiring a blood transfusion with caesarean section	4.2%	3.5%	4.0%	3.4%
CI 12: Women requiring a blood transfusion with vaginal birth	3.6%	3.2%	3.4%	2.4%
CI 13: Diagnosis of eclampsia at birth admission	0.03%	0.05%	0.0%	0.03%
CI 14: Women having a peripartum hysterectomy	0.06%	0.08%	0.05%	0.04%
CI 15: Women admitted to ICU and requiring ventilation during the pregnancy or postnatal period	0.08%	0.08%	0.04%	0.03%
CI 16: Maternal tobacco use during the postnatal period***	-	-	11.2%	8.6%
CI 17: Preterm birth	8.6%	9.3%	8.5%	7.9%
CI 18: Small babies at term (37–42 weeks' gestation)****	13.1%	13.1%	12.5%	3.0%
CI 19: Small babies at term born at 40–42 weeks' gestation****	32.8%	34.8%	30.0%	29.6%

* In CM Health, includes registration with a district health board midwife

**Includes vaginal births only

***Data not available for 2021 or 2022

****CM Health uses MCIS birthweight centile <10

Figures 15 to 32: Clinical indicators by ethnicity, 2019–2022

FIGURE 15 ▼

Registration with an LMC in the first trimester of pregnancy, 2019–June 2022, by ethnicity

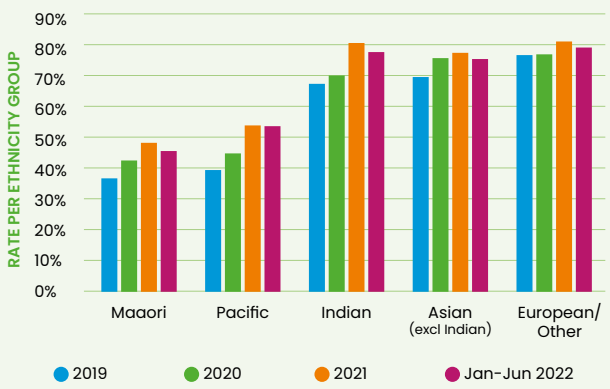


FIGURE 16 ▼

Standard primiparae who have a spontaneous vaginal birth, 2019–June 2022, by ethnicity

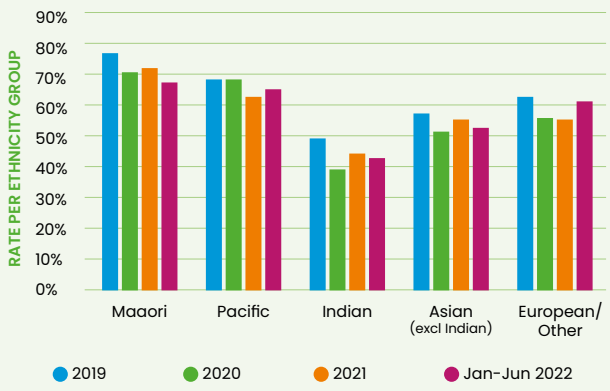


FIGURE 17 ▼

Standard primiparae who undergo an instrumental vaginal birth, 2019–June 2022, by ethnicity

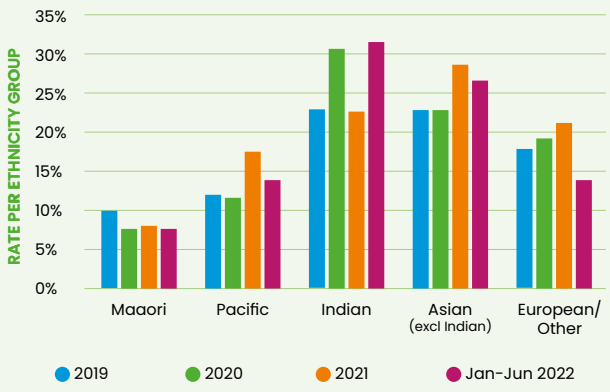


FIGURE 18 ▼

Standard primiparae who undergo caesarean section, 2019–June 2022, by ethnicity

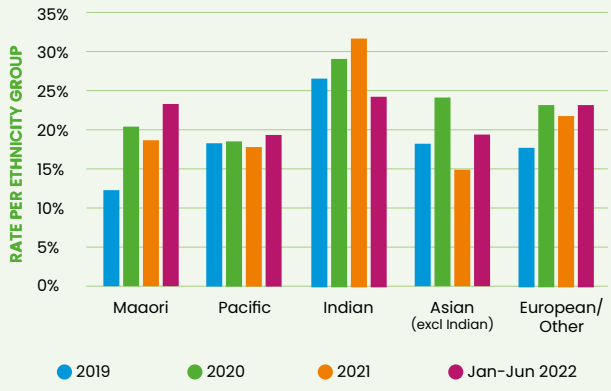


FIGURE 19 ▼

Standard primiparae who undergo induction of labour, 2019–June 2022, by ethnicity

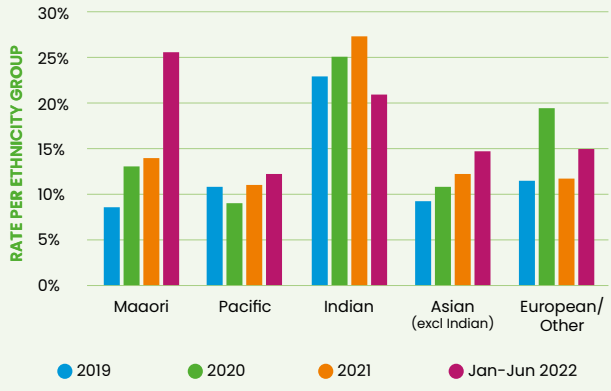


FIGURE 20 ▼

Standard primiparae with an intact lower genital tract, 2019–June 2022, by ethnicity

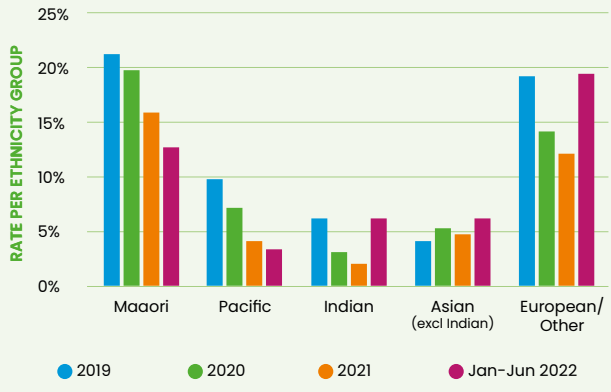


FIGURE 21 ▼

Standard primiparae undergoing episiotomy and no 3rd- or 4th-degree perineal tear, 2019–June 2022, by ethnicity

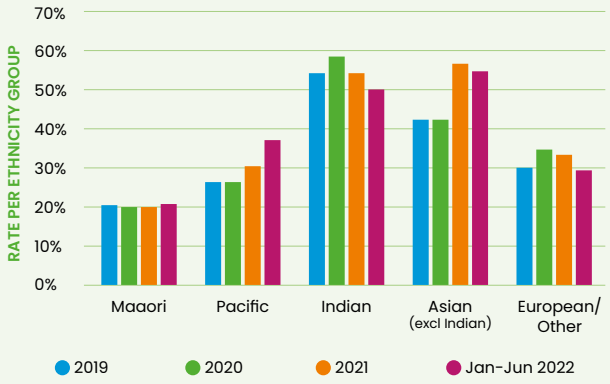


FIGURE 22 ▼

Standard primiparae sustaining a 3rd- or 4th-degree perineal tear and no episiotomy, 2019–June 2022, by ethnicity

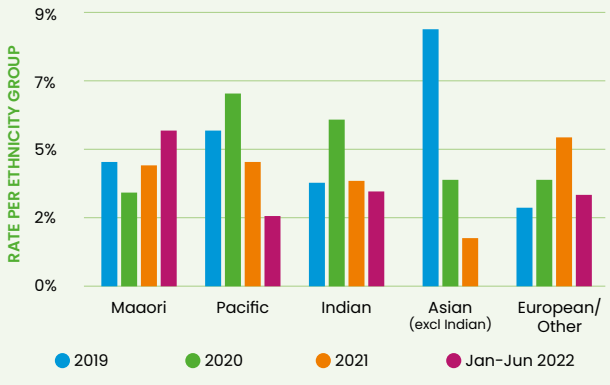


FIGURE 23 ▼

Standard primiparae undergoing episiotomy and sustaining a 3rd- or 4th-degree perineal tear, 2019–June 2022, by ethnicity

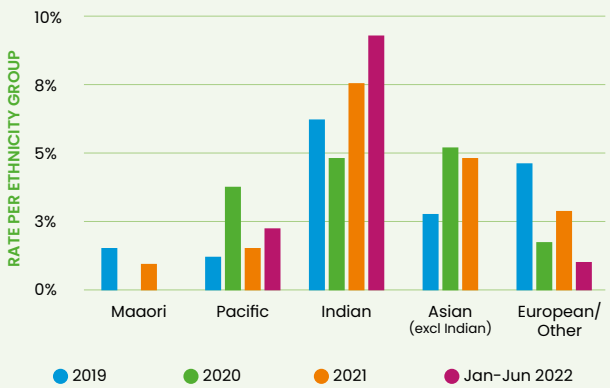


FIGURE 24 ▼

Women having a general anaesthetic for caesarean section, 2019–June 2022, by ethnicity

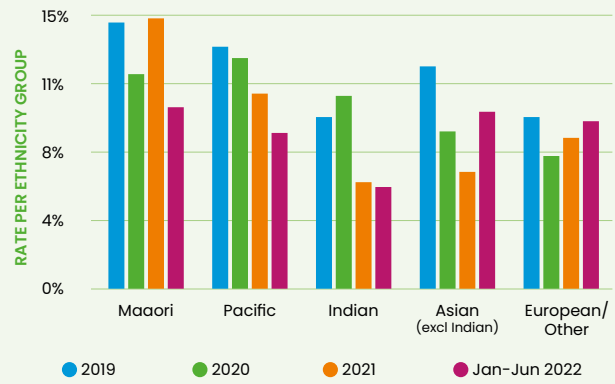


FIGURE 25 ▼

Women requiring a blood transfusion for caesarean section, 2019–June 2022, by ethnicity

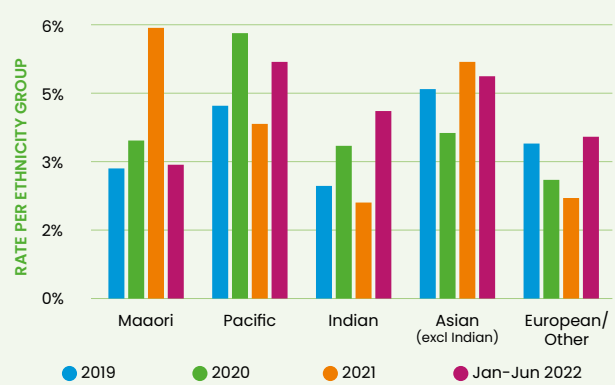


FIGURE 26 ▼

Women requiring a blood transfusion with vaginal birth, 2019–June 2022, by ethnicity

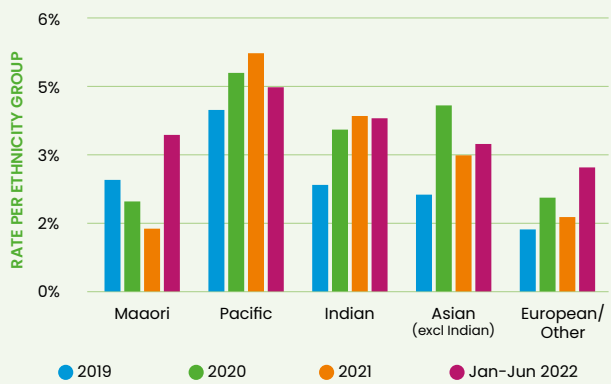


FIGURE 27 ▼

Diagnosis of eclampsia at birth admission, 2019–June 2022, by ethnicity

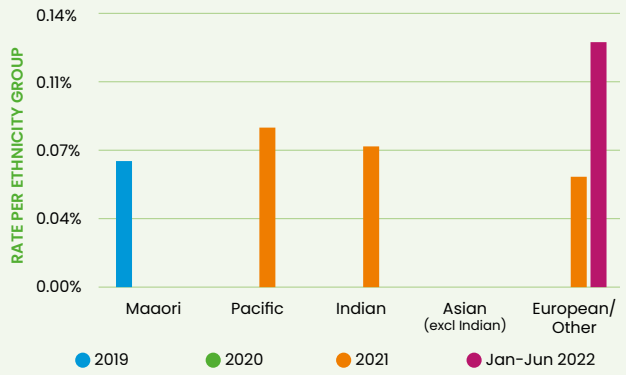


FIGURE 28 ▼

Women having a peripartum hysterectomy, 2019–June 2022, by ethnicity

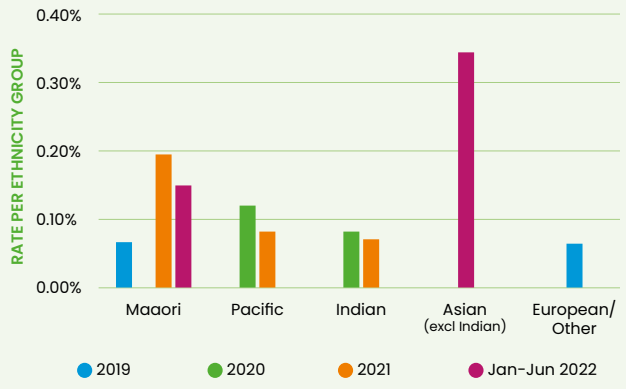


FIGURE 29 ▼

Women admitted to ICU and requiring ventilation during the pregnancy or postnatal period, 2019–June 2022, by ethnicity

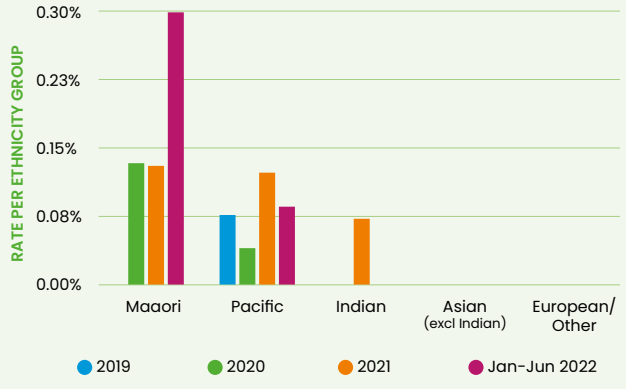


FIGURE 30 ▼

Preterm birth

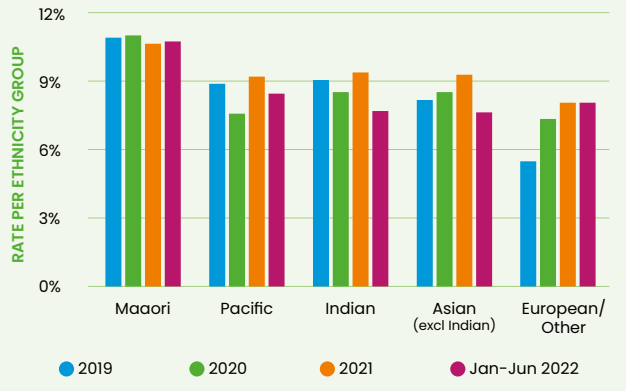


FIGURE 31 ▼

Small babies at term, 2019–June 2022, by ethnicity

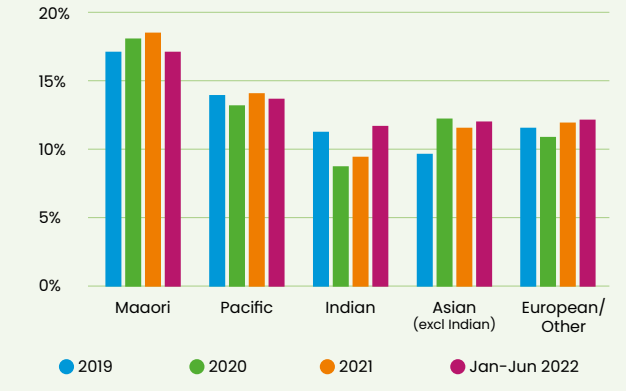
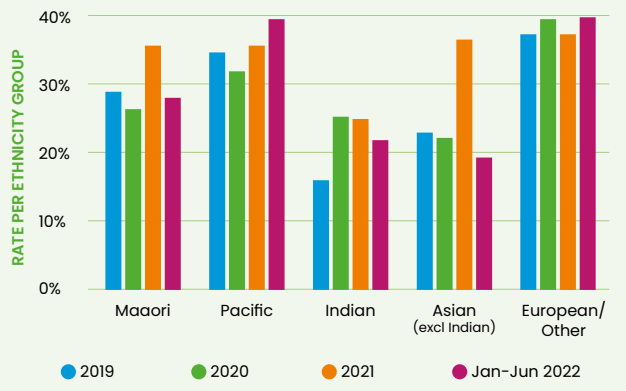


FIGURE 32 ▼

Small babies at term born at 40–42 weeks' gestation



AUTHOR

AMANDA HINKS
Maternity Service Development Manager/
Service Manager Primary Birth Units
Women's Health

Routine antenatal anti-D prophylaxis

Routine antenatal anti-D prophylaxis (RAADP) for pregnant people with a rhesus (Rh(D)) negative blood group has been recommended internationally since the 1970s.

In New Zealand, approximately one woman in seven has a Rh(D) negative blood group. The Rh(D) negative blood group is present in approximately:

- 17 per cent of Europeans
- 3 per cent of Maaori
- 7 per cent of Maaori/Europeans
- less than 1 per cent of Pacific people
- less than 1 per cent of Asians.
  (NZ Blood, n.d.)

If the baby of a Rh(D) negative mother is Rh(D) positive, there is a small risk during the pregnancy that the baby's blood cells may leak into the mother's blood and stimulate an immune response (called sensitisation). If this happens, the mother produces antibodies against the D-positive blood group and this can be a risk for current and future pregnancies.

Giving anti-D to a woman with a Rh(D) negative blood group during pregnancy or in the days following birth can reduce the risk of sensitisation, and of adverse consequences in the current and future pregnancies (CM Health, 2021). Anti-D is manufactured from donated blood, with the New Zealand Blood Service managing stocks and distribution, and providing patient-facing information.

Counties Manukau Health data from pregnancies in 2019 revealed approximately 360 pregnant women using its services (4 per cent) were Rh(D) negative.

In November 2020, CM Health started scoping for a project to provide RAADP to pregnant women who were Rh(D) negative. The first dose of anti-D administered under the project was in September 2021 during a level 4 Covid-19 lockdown period.

In order to provide an equitable service that is close to people's homes and delivered from a trusted source based in primary care, it was decided to use pharmacies to administer the anti-D doses. Pharmacists manage a number of medications, such as warfarin and immunisations, are physically equipped with the correct fridge requirements, and have capacity, due to their opening hours, with no need to book.

The process is led by the pregnant woman's lead maternity carer (LMC) community midwife, who discusses the prophylaxis with the woman, gains consent, explains the procedure, provides the prescription for the anti-D and explains the contents of the associated information pack. Information in the pack tells women where they can go for the antibody screen blood test and prophylaxis.

Pregnant women are referred to a local pharmacy to have their prophylactic doses. The woman's blood group and antibody status is confirmed by a blood test taken prior to presenting for her first dose. Two doses of anti-D 625IU are available from 28 and 34 weeks' gestation for pregnant women with a Rh(D) negative blood group. A double dose of anti-D is administered at 30 weeks, and no later than 34 weeks, if the first dose has been missed at 28 weeks' gestation.

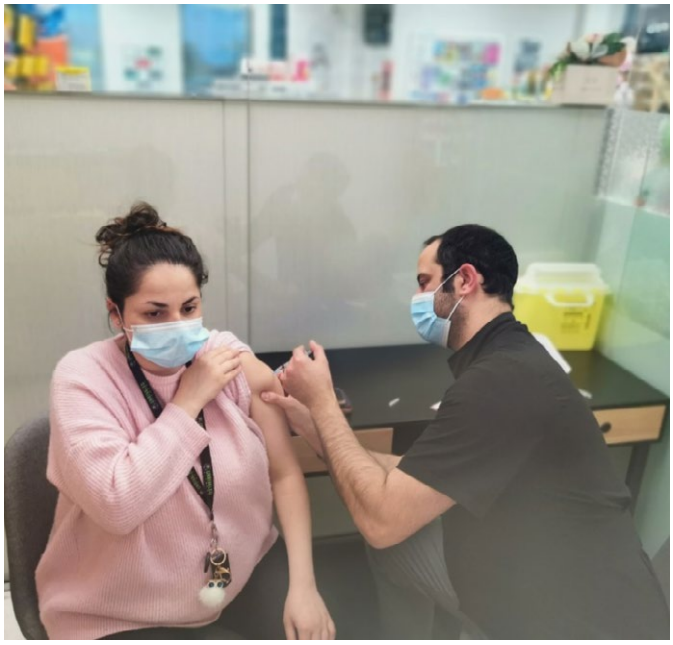
The blood bank at CM Health manages the stock levels of anti-D directly with pharmacies. A courier service ensures the vials arrive in a safe and timely manner. Information about administration of the anti-D doses is entered onto Traceline, a software programme which links to the woman's NHI, the clinical portal and Testsafe.

The project's reach so far

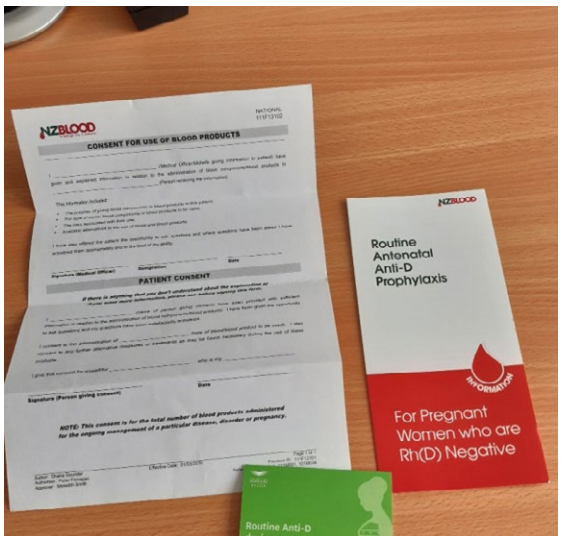
Since the RAADP project's launch in August 2021, 160 pregnant people have received prophylactic anti-D doses from the community-based service.

This number is lower than anticipated, for multiple reasons, with the timing of the roll out during a pandemic being a major factor affecting its uptake. There have also been difficulties with providing trained pharmacists over the past 3 months. Education sessions for stakeholders were held before the project's implementation and poster reminders have now been set up for midwives. Specialist nurses from the blood bank are providing on-site education for new pharmacists. An evaluation of the project is planned to be completed shortly.

A special note of thanks to the project team for their collaboration, professionalism and teamwork; Dr Natalie Gauld, pharmacy programme manager; Yvonne Choy, section head Blood Bank; Tala Teu, team leader Blood Bank; Rachel Donegan, Manpreet Gill and Graeme Sykes, specialist blood transfusion nurses; Dr Gounder, blood transfusion specialist, NZ Blood Service; Dr Sarah Tout, obstetrician CM Health.



▲ *Soheila Shakari receiving her first dose of prophylactic anti-D from pharmacist Michael Mishriki, at the Botany SuperClinic Pharmacy*



▲ *The contents of NZ Blood's RAADP information pack for pregnant Rh(D) negative women*

References

CM Health. (2021). *Guideline: Routine antenatal anti-D prophylaxis (RAADP).*

NZ Blood Te Ratonga Toto O Aotearoa. (n.d.). *Routine antenatal anti-D prophylaxis: For pregnant women who are Rh(D) negative.*

AUTHORS

NIKKI HEWITT
Project Manager

STEPHANIE EMMA
Project Manager

Grow Primary Birthing Project

The Grow Primary Birthing Project focuses on the primary birthing strategy and facilities in Counties Manukau Health, which require updating and review. The goal is to promote low-risk birthing in culturally appropriate settings in the primary birthing units, through services co-designed by women, whaanau and our community.

Observational study and staff conversations

Ko Awatea led the initial piece of work with an observational study of each of the three primary birthing units. The intention was to describe the current status of the units through an observational framework. The study identified a number of recommendations.

Following the observational study, Ko Awatea held individual koorero with senior staff at the units to gather an understanding of the ongoing challenges that the units face.

Consumer feedback

The project team attempted to validate the anecdotal stories of staff and consumers with actual verifiable data.

Feedback Central and the patient experience team both already collect feedback from consumers. However, neither had usable information relating to the patient experience of primary birthing units. Consequently, a three-phase process was started to gather consumer feedback.

Phase 1 started in August 2021, with women, their partners and whaanau invited to provide feedback about their stay in the primary birthing units.

Feedback was sought in relation to three main focus areas: our CM Health values, support with breastfeeding, and the facilities.

With respect to living our CM Health values, the feedback for all of the units was overwhelmingly positive, as shown in Figure 33.

For support with breastfeeding, the results for all the units were also overwhelmingly positive, with particular mention made of how supportive, understanding and helpful the teams were. Respondents also acknowledged the amount of knowledge and experience that staff shared. Figure 34 shows some of the language used by respondents to describe their experiences.

FIGURE 33 ◀
Feedback on CM Health values gathered during the Grow Primary Birthing Project

With respect to the facilities, despite the primary birthing units being older and well overdue for refurbish or replacement, most of the respondents loved the units and wouldn't change a thing! (See Figure 35.)

It was clear that what women and whaanau valued the most were the staff in the units, their support, kindness, knowledge and encouragement, and their overall lack of judgement around each woman's choices or situation.

However, that didn't mean that respondents wouldn't like improved facilities, and some feedback specifically highlighted desirable facility improvements that could be made, such as air conditioners, ensuite bathrooms and general modernisation.

Phase 2 of the work to gather consumer feedback rolled out in July 2022 and looks at the journey the women experienced to have their baby, and their interactions overall with Maternity Services. Data from this phase will be analysed and reviewed after the survey has been in circulation for 6 months. Phase 3 will incorporate conversations with respondents who have indicated they would like to continue to be involved in the primary birthing refresh.

Improving the primary birthing units' facilities

At present, there is no capacity within the primary birthing units for extra clinic rooms. As a result, alternatives are being investigated and solutions implemented.

Botany Primary Birthing Unit will increase its antenatal clinic rooms from four to eight by adding a Portacom and converting the larger waiting room to a smaller waiting room plus a clinic room.

Renovation work within the Papakura Primary Birthing Unit outpatient clinic will increase its clinic room capacity from four to five by the end of 2022.

Promoting the primary birthing units

Work has begun on raising the profile of the primary birthing units. The midwife managers of the units plan to present at the Auckland Faculty of the Royal New Zealand College of General Practitioners Women's Health Day. Their presentation will highlight the services that the units offer, why GPs should support their well women to birth in a primary birthing unit, and unit users' feedback. Social media pages for each unit are also in development. However, due to the transition to Te Whatu Ora, this work has been paused in the interim.

The year as a whole

Overall, 2021/2022 was a challenging time, yet despite the ongoing lockdowns and the challenges these caused, the project teams have achieved a number of milestones. The 2022/2023 plan for the Grow Primary Birthing Project will build upon the improvement work that has already commenced, and we will continue to develop new ways of working to achieve our goals.

FIGURE 34 ▲

Feedback on breastfeeding support gathered during the Grow Primary Birthing Project

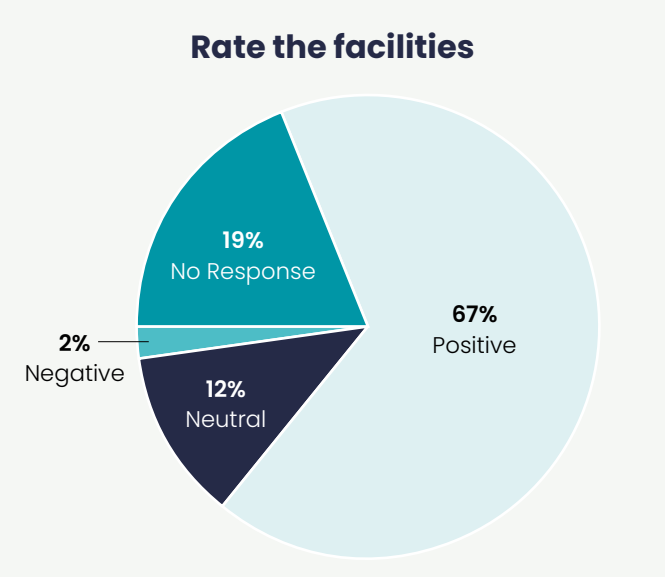


FIGURE 35 ▲

Feedback on breastfeeding support gathered during the Grow Primary Birthing Project

AUTHOR

HEENA LAKHDHIR
Specialist in Obstetrics and Gynaecology

Diabetes in pregnancy

Diabetes is a major public health burden for New Zealand, and affects individuals, whaanau and communities.

In 2021, about 292,400 people in Aotearoa New Zealand were estimated to have diabetes. Over the past 10 years, the estimated rate of diabetes has increased from 35.7 per 1000 population in 2012, to 41.5 per 1000 population in 2021. Counties Manukau had the highest estimated rate of diabetes in 2021 at 70.4 per 1,000 population.

Diabetes does not just affect the individual concerned, it also has significant social and economic effects on whaanau and communities – particularly for Maaori and Pacific people, who bear the greatest burden of diabetes. Diabetes is the leading cause of blindness, end-stage kidney failure and complications leading to lower-limb amputation.

Diabetes in pregnancy affects between 5 and 15 per cent of all pregnancies across various regions of the country. In Counties Manukau, the percentage of women who have diabetes in pregnancy, compared with the total births in each year is shown in Figure 36.

Counties Manukau women, particularly Pacific and Maaori women with overt diabetes, are entering pregnancy with poor glucose control, which increases the risk of congenital malformation. Pacific and Maaori women are also more likely to require insulin therapy (55.3 per cent and 47.2 per cent, respectively), have a large-for-gestational-age baby (30.1 per cent and 22.7 per cent), and suffer preeclampsia or eclampsia (13.4 per cent and 14.1 per cent). These risks can be reduced by 50 to 75 per cent by improving glycaemic control before conception.

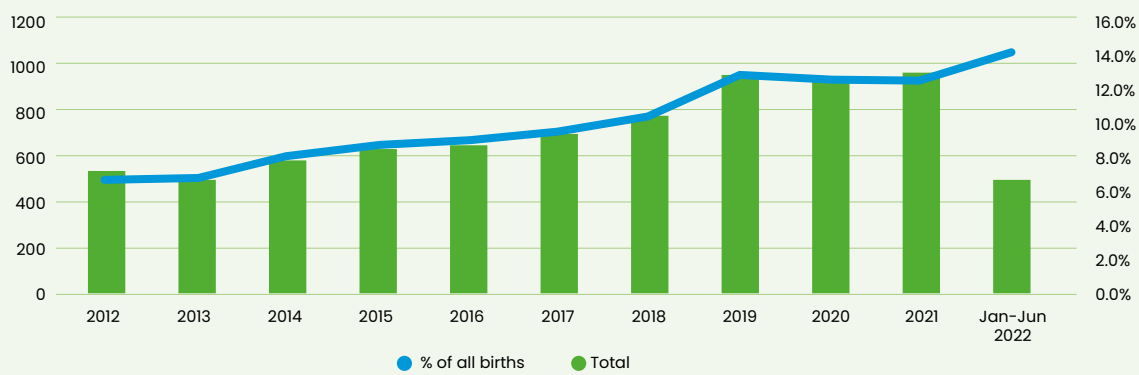
Figure 37 shows the percentage of Counties Manukau women who develop gestational diabetes mellitus, compared to their birth numbers, by ethnicity. The figure illustrates how over-represented Pacific women are in the gestational diabetes mellitus population, compared to their percentage of total births.

The Diabetes in Pregnancy Service aims to improve care during pregnancy for women with diabetes, to enable them to have the best outcome possible for themselves and their baby, both during and after pregnancy, and to reduce women's risk of developing type 2 diabetes in the future.

The national *Quality Standards for Diabetes Care 2020* stipulates that all women with gestational diabetes in pregnancy should have a follow-up after pregnancy, while the national guideline is for a HbA1c blood test to be performed 3 months after the pregnancy and every year thereafter. The cumulative risk of developing type 2 diabetes after diabetes in pregnancy is estimated to be as high as 50 per cent for some ethnic groups; these measures help ensure it is detected and managed.

FIGURE 36 ▼

Percentage of Counties Manukau women with diabetes in pregnancy, compared with the total births in each year



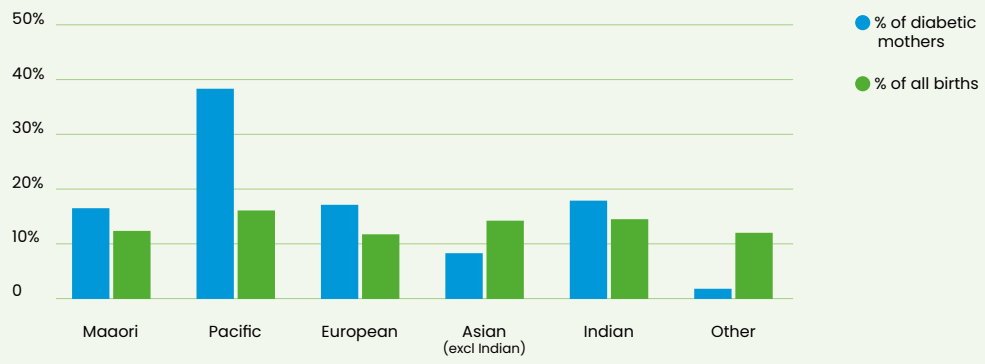
The following improvements have been made by the Diabetes in Pregnancy Service since the last report in 2020.

- The Module 10 Diabetes in Pregnancy Clinic continues to run smoothly, with reduced waiting times for women and improvements in the value of each appointment for women and their whaanau.
- The service now has regular meetings with primary health providers and community allied health providers, such as Green Prescription. We hope that regular meetings and collaboration will result in better continuity of care for women with diabetes; from preconception through to the postnatal period, and referral back to the adult diabetes service, their GP or the various community services that manage pre-diabetes and chronic health conditions.
- Negotiated appointments are now in place, with a dedicated administrator who follows the booking process seamlessly from referral to discharge.
- A new diabetes in pregnancy guideline has been completed and is in its final draft. This comprehensive document is for use by all clinicians, and can be used as a learning resource for new clinicians joining Middlemore Hospital. The guideline explains the tailor-made pathways and processes to be followed for our specific South Auckland population.
- A 0.2 full-time equivalent (FTE) health psychologist will be employed in the Diabetes in Pregnancy Clinic as a pilot project, and will start seeing women from early 2023.
- Funding has been made available for educational resources and this will be used to purchase healthy eating plates. These plates contain culturally relevant photographs of food, and are available in Maaori, Tongan, Samoan, Hindi, Punjabi and Mandarin languages. We aim to use the plates as a teaching aid that can be taken home and used as a reminder for the rest of the family.
- Research into various avenues of care, such as use of tele-health and digital technology, are continuing. Dr Charlotte Oyston leads this research. She has dual roles in Auckland University and Counties Manukau Health, and is well placed to direct clinically relevant research, as well as enable the translation of existing and new research into practice.
- Additional senior medical officers have joined the obstetrics and endocrinology services, ensuring we continue to provide care to the highest standards.

The Diabetes in Pregnancy Service endeavours to provide respectful, non-judgemental care for women and their whaanau. We continue to strive to provide a whaanau-focussed approach. We actively encourage ongoing audits and research, to ensure we achieve these principles of care.

FIGURE 37 ▼

Percentage of Counties Manukau women with gestational diabetes mellitus, compared to their birth numbers, by ethnicity



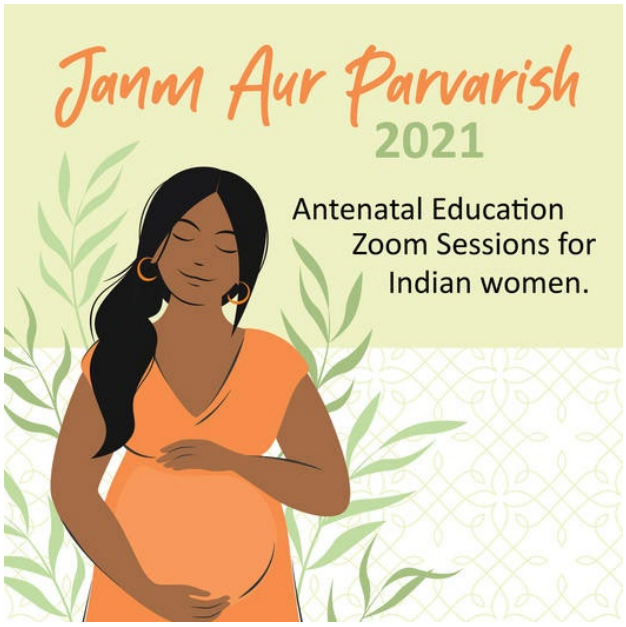
AUTHORS

SHIVANI SHAW
Kaitipu Ora Worker
Te Rita Ora

MIRJAM VISSER
Midwife Specialist Referrals

Janm aur Parvish birth and parenting information sessions for Indian women

The number of Indian women attending the Janm aur Parvish (meaning birth and parenting) sessions offered by Te Rito Ora in 2021 and 2022 continues to increase. What started as a face-to-face group and was 'forced' by COVID-19 to continue online as Zoom information sessions, is growing significantly in popularity.



Not only have attendance rates increased significantly, so too has the knowledge of the whaanau who attend.

The last Te Rita Ora report showed that Indian women proportionally required more contacts than any other ethnic or cultural group. Furthermore, COVID-19-related travel restrictions created an observed extra need for Te Rita Ora input, as whaanau were not able to access their traditional family supports from overseas. Many women felt isolated and unsupported.

This increased demand for support and information inspired the development of the Janm aur Parvish Zoom information sessions, which were set up in co-design with Indian women. The topics covered in these sessions responded to requests from Indian women, and covered questions that Indian women frequently ask.

Sessions covering nutrition and physical activity through pregnancy, breastfeeding, labour and birthing, immunisation, safe sleep and bathing baby, early childhood bonding, development and parenting were held in partnership with the Community Midwifery Service, and the Immunization and Safe Sleep services. The sessions were held on Mondays and Thursday from 10.30am to 11.30am.

In the first month, October 2021, the sessions had 109 attendees. The attendance rate in November more than doubled, with 234 attendees. From October to December 2021, in total 145 Indian women were enrolled for these sessions (Figure 38). Attendance numbers continued to grow in 2022, and do not include partners and other family members who were also able to attend the sessions (Figure 39).

In October 2021, the sessions were attended by women who were already enrolled with Te Rita Ora, or were referred by Counties Manukau Health community midwives. The significant increase in attendance in November was predominantly due to networking with women already in Te Rita Ora and greater publicity in places not usually associated with CM Health: for example, posters were displayed in 14 Indian stores, and posts appeared on the Woman Care Trust (an Indian women's organisation) and Takanini Gudware Facebook pages.

Information about the sessions was also available from the CM Health Facebook page, and through posters and leaflets in the maternity wards and primary birthing units. Self-employed midwives were also encouraged to invite their Indian women to attend the sessions.

Feedback

Women attending the Janm aur Parvish sessions were asked for feedback. This was provided in various ways, including questionnaires, text messages, emails and through verbal contact. In total, 58 questionnaire responses were received. The feedback shows that these sessions were very useful, and that participants' knowledge about the topics covered has significantly increased (see Figures 40 and 41).

The following written feedback was received from participants, while Figure 42 highlights some of the frequently used words.

> "These sessions are very helpful. Clears lot of doubts and gives more confidence to do things with baby."

> "Thanks so much for yesterday's session it was very helpful. Looking forward to the next sessions."

> "Kia Ora Shivani and whole team. Many thanks for today's session as it really helps me to get satisfied as lots of my questions got answered and got the professional advice for which I was looking for. Thanks a lot"

> "Thank you for the very informative session. It was an amazing experience. I am 34 weeks pregnant and these things are very much useful for me now onwards. Everything was very informative and really helpful keep on going. Thank you"

Positive feedback was also received from DHB community midwives who reported observed benefits and increased knowledge in the women they were caring for. Midwives reported that women had found the sessions informative, enjoyable and helpful, especially first-time mothers who felt more confident and better prepared as a result of attending the classes. The sessions also helped mothers grow confidence in themselves, and provided a layer of support for those women who do not have family or support in New Zealand. Some women found it was easier to ask questions in a Zoom chat than face-to-face, and reported that it was great to hear other women's questions, as they may not have thought of those questions themselves.

FIGURE 38 ▼

Topics and attendance rates for Janm aur Parvish sessions, October to December 2021

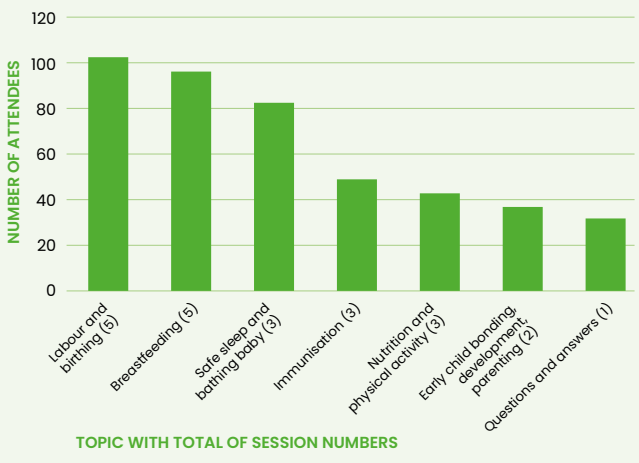
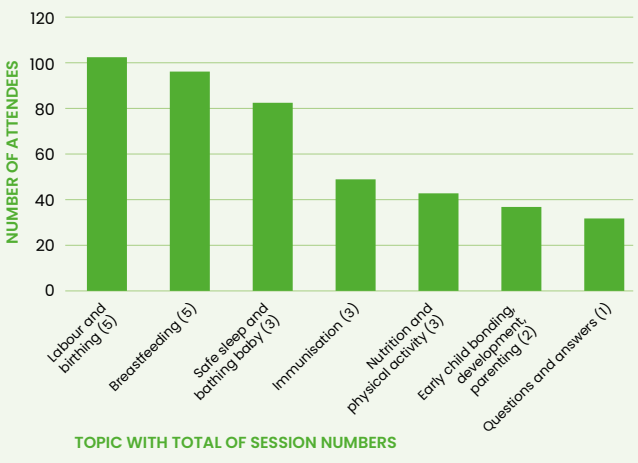


FIGURE 39 ▼

Topics and attendance rates for Janm aur Parvish sessions, February to June 2022



Going forward

In 2022, the Zoom information sessions continue to be well received by the Indian women. More suggestions have been given for subjects for the sessions to cover and these will be part of the new series. Some women wanted to attend, but could not because of the timing of the sessions or other obligations. Access to recorded sessions could improve coverage. Further sessions will be introduced for other cultural and ethnic groups.

FIGURE 40 ▼

Feedback about Janm aur Parvish sessions 2021

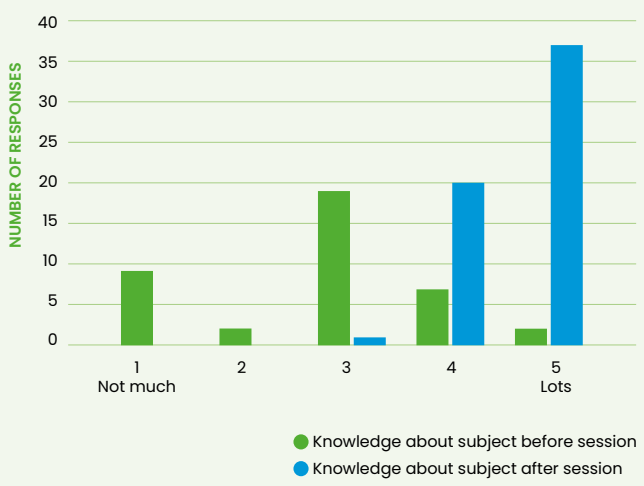


FIGURE 41 ▼

Feedback about Janm aur Parvish sessions 2022

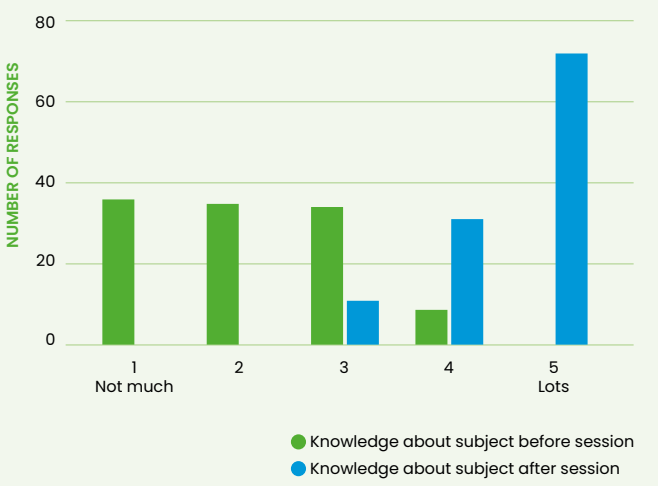


FIGURE 42 ▶

Words used to describe the Janm aur Parvish sessions

AUTHOR

HEENA LAKHDIR
Specialist in Obstetrics and Gynaecology

Preterm Birth Clinic

Worldwide, an estimated 15 million babies are born preterm each year. In 2015, preterm birth was responsible for nearly 1 million deaths (World Health Organization, 2012).

The World Health Organization has set a goal to eliminate preventable preterm deaths, focussing on equitable care for all and quality of care to minimise long-term impairment.

The rate of preterm birth ranges from 5 to 18 per cent of babies born worldwide.

Pregnancy ends prematurely (at less than 37 weeks gestation) in 7.4 per cent of births in Aotearoa New Zealand, with 0.5 per cent ending extremely prematurely before 28 weeks gestation (Ministry of Health, 2016).

Preterm birth is the single greatest cause of death and disability in children up to 5 years of age in the developed world.

Preterm birth is associated with perinatal mortality, long-term neurological disability (including cerebral palsy), admission to neonatal intensive care, severe morbidity in the first weeks of life, prolonged hospital stay after birth, readmission to hospital in the first year of life and increased risk of chronic lung disease (Australian Preterm Birth Prevention Alliance, 2022).

Increased rates of preterm birth are linked to social and economic inequalities in health, such as smoking, low education and poverty, which disproportionately affect Maaori waahine. In addition, waahine with a maternal age under 20 or over 35 years have higher rates of prematurity.

The Preterm Birth Clinic at Middlemore Hospital continues to provide services for women who have had a previous second trimester loss, a preterm birth below 27 weeks or are at an increased risk of preterm birth in this pregnancy. Women are referred by their lead maternity carer (LMC) and are triaged to the service. Lower-risk women are advised to have scans in the community.

Ad hoc feedback from women attending the clinic has been very positive, with the commonest comment being that they feel supported and less anxious after attending.

This clinic follows a holistic approach, with the mantra that health encompasses the physical, mental, spiritual, economic and social wellbeing of the whaanau. While the clinicians are unable to provide assistance in some of these matters, an acknowledgement of their importance and suggested pathways for accessing support for them, together with an effort to make women feel they are in a safe and non-judgemental zone, can make a big difference to women's engagement in care. Regular check-ins on these matters also make women feel like

they have someone in their corner. This is vital, as many of the women who attend the clinic have experienced a loss and can sometimes feel they are being reminded of the trauma they faced. Through the clinic, referrals are made to various services, for example quit smoking, maternal mental health, social work and women's health physiotherapy services.

The first appointment is typically an hour long. Women are encouraged to recount their story and an in-depth assessment is made of their history. The pathway for care through the clinic is discussed, and plans are made in collaboration with the women.

Subsequent visits are shorter, until the final visit to the clinic at 23 to 24 weeks. At this visit, a growth scan and fetal fibronectin test (a biomarker for preterm birth) are carried out, and a QUIPP score (an algorithm for predicting the risk of future preterm birth) is calculated. A comprehensive plan is made, based on the risks identified up to that point in the pregnancy, and the woman then returns to lead maternity care.

This year, the clinic has increased its capacity, is run by two senior medical officers, Drs Aimee Brighton and Heena Lakhdhir, and is provided on a Monday and Thursday, giving women greater flexibility to attend the day that most suits them. A senior obstetric training registrar also attends the clinic, providing an opportunity to train in vaginal scanning and managing preterm birth.

Our goal for the next year is to extend the Preterm Birth Service to more women who need it. An audit and research into outcomes would be extremely helpful to determine whether the needs of women are being met adequately. We hope to be able to do this next year.

▲ *Willow with her premature baby doll.*
Read Willow's story on page 142

References

Australian Preterm Birth Prevention Alliance. (2022). *Preterm facts and figures.* Retrieved from https://www.pretermalliance.com.au/About-Preterm-Birth/Preterm-Facts-and-Figures

Ministry of Health. (2016). *Maternity clinical indicators.*

World Health Organization. (2012). *Born too soon: The global action report on preterm birth.*

AUTHOR

DR EMMA PARRY
Maternal Fetal Medicine Specialist

Women's Health Update Day
Preterm birth: The goalposts are changing and so are the approaches

On 26 May 2021, the Women's Health team ran its second Update Day, focussing on the topic of preterm birth. The venue was the wonderful new lecture theatre in Ko Awatea.

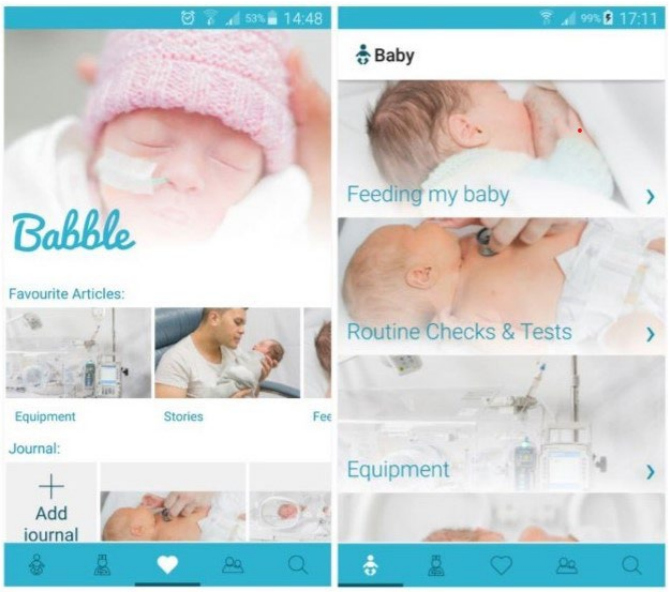
The day aimed to educate the wider multi-disciplinary team on preterm birth, as CM Health has recently developed a new guideline, based on the national guideline, which recognises that the margins of survival for preterm births are changing. Participants on the day included midwives, obstetricians, neonatal nurses, neonatologists and sonographers.

The morning started out with talks, some of which were challenging for the audience. Heather Muriwai, clinical Maaori midwifery leader, talked about equity and how women who had suffered preterm loss were affected by it. Heather also presented the cold hard facts about our high rates of perinatal loss, particularly among Maaori, Pacific and Indian women.

After morning tea, there was a focus on the Preterm Birth Clinic and the amazing resource this provides to women. This was followed by talks on cervical cerclage and what obstetricians need to know when faced with a woman at risk of preterm birth.

Afternoon sessions examined the interface between antenatal and neonatal care and included a meeting of minds on how we can all work together. The neonatal team presented several great talks on outcomes and how to talk to parents. Everyone downloaded the BABBLE NZ Neonatal Family App (available on the apps store)!

Feedback on the day was great with a range of suggested topics for future events. This second Update Day was originally scheduled for 2020, but like many events was delayed by COVID. The day is now planned to be a regular event, so keep posted for news of future updates!



▲ *Babble NZ Neonatal Family App was created in the Midcentral district for whaanau with a baby admitted to, or going to be admitted to, a neonatal, special care or neonatal intensive care unit*

Babble NZ Neonatal Family App app | Health Navigator NZ
https://www.healthnavigator.org.nz/apps/b/babble-nz-neonatal-family-app/

AUTHORS

MEGAN MCCOWAN
Team Leader
Kidz First Community

JESSICA HARPER
Senior Social Worker
Kidz First Community

Start Well Maangere

The Start Well Programme was established in 2017 with the South Auckland Social Wellbeing Board.

Under Start Well, clinical nurse specialists and senior social workers journey alongside maamaa, whaanau, and whaanau whaanui in South Auckland.

Over the years, our manaakitanga has sought to enrich and uphold; supporting life-course outcomes, through flexible and whaanau-led health and social care. The Start Well prototype is supported by an evidence and insights team, which alongside Start Well, seeks to capture and share what is learnt through whaanau and team voice; and nationally influence how support can be flexibly and effectively targeted and redistributed within existing service providers. This includes a multi-agency approach, with consideration and action for how services are shaped and commissioned.

What have we learnt?

Start Well and the evidence and insights team have shaped an understanding of what is required to enable this way of working. The key enablers identified are:

- early and consistent engagement
- strengths-based whaanau-centred and led (whose plan is it?)
- relational practice (where whaanau find value; trust-based)
- delivery setting (place of comfort chosen by whaanau)
- key worker co-worker workforce
- holistic provision of Well Child services (shaped to flex up and flex down as needed)
- low case load ratio (10 to 14 maamaa per frontline worker)
- continuous improvement (based on whaanau voice, and self or team reflection: what are our truths and how do we know this?)
- connection to other services and support (antenatal space, through to all-of-life-span care partners).

Start Well's model of practice is live and transformational, evolving as whaanau shape and refine our wisdom and kete of knowledge. The evidence and insights team has created a high-level overview that captures the background, learning and insights to date from the 5-year Start Well prototype.

Where to from here?

In 2023, the Start Well team and whaanau will transition into a community provider. In doing so, we aim to strengthen and grow the successful Start Well way of working, with potential to enrich the cultural responsiveness and richness of the service, as well as supporting its sustainability and scale.

The transition will embed Start Well within a Maaori or Pacific provider. Start Well and the provider will use their strengths, knowledge, values and ways of doing things to enhance each other's mahi, in turn continuing to strengthen their manaakitanga to the South Auckland community. In this process, we will continue to highlight how flexible cross-agency joint commissioning and funding can enable different ways of working, so as to provide meaningful early years support for whaanau facing complex life realities.

Funding has been secured through Te Whatu Ora Well Child Tamariki Ora Enhanced Support Pilot to support Start Well's continuation until June 2025. Procurement planning is underway and the request for proposals will go out to market in October 2022. We aim to identify an appropriate community provider by December 2022, leaving up to 6 months for whakawhanaungatanga with the selected provider and the operational transition team.

Work continues to secure additional funding from wider cross-sector agencies to support an extension of the Start Well cohort of maamaa (and associated scaling of the programme), and to test cross-agency joint commissioning in a community provider setting. Funding pitches are currently being prepared and it is hoped that additional funding will be confirmed by December.

Start Well learnings continue to feed into the Well Child Tamariki Ora review. This will be supported on an ongoing basis through Start Well becoming a Well Child Tamariki Ora enhanced support pilot site, as well as through other strategic pieces of work across the early years. Many of the members of the Start Well Steering Group are involved in wider early years system design work, and are therefore able to use learnings from the Start Well embedding work to inform future service design and delivery.

AUTHOR

ANNA HAWKINS
Consultant Clinical Psychologist; Clinical Team Coordinator,
Maternal and Infant Mental Health Services
Maternal Mental Health

Maternal Mental Health and liaison with lead maternity carers

The Maternal Mental Health Service at Counties Manukau Health is a districtwide, secondary mental health service. The service provides specialist perinatal mental health assessment and treatment for tangata whaiora experiencing moderate to severe mental illness, both in pregnancy and the postpartum period.

From January 2021 to December 2021, the number of referrals to the Maternal Mental Health Service increased overall, when compared to 2020, and was significantly higher than pre-COVID-19 levels in 2019. Referrals decreased slightly during the COVID lockdown periods, possibly due to women having less contact with primary care referrers, such as midwives and GPs.

There has been a notable increase in the severity and acuity of referrals over 2021 and 2022, with complex mental health presentations often occurring in a context of significant psychosocial stressors, such as family harm, housing stress and financial stress. In addition, women were less able to access natural supports, such as whaanau and community groups, to obtain in-home support during lockdowns. This made it harder to ensure that mothers and babies were adequately supported in their recovery.

A focus of the service in 2021 was supporting timely transitions from secondary back to primary level mental health care, when symptom reduction meant tangata whaiora no longer needed specialty involvement. This was made possible through the development of primary services and has enabled the Maternal Mental Health team to continue providing intensive treatment for those with severe mental health concerns. In order to maintain continuity of care, improving communication with GPs and midwives has also been important.

Midwives have previously identified a need for improved liaison and care coordination from the Maternal Mental Health team regarding pregnant women referred while under their care. As part of the *Maternity Quality Improvement Workplan 2021–2023*, a target was set for 80 per cent of pregnant women's lead maternity carers (LMCs) to be contacted within 4 weeks of the time of referral to Maternal Mental Health.

In 2021, an audit tool was used to determine the rate at which women's LMCs were contacted within this timeframe. Opportunities for quality improvement initiatives and progress monitoring were identified from this baseline data. The audit was completed initially for January to September 2021, from a random selection of pregnant women's referrals during this timeframe. An audit of the April to June 2022 period was completed to measure progress against the targets. The documentation of reasons for non-contact was also measured.

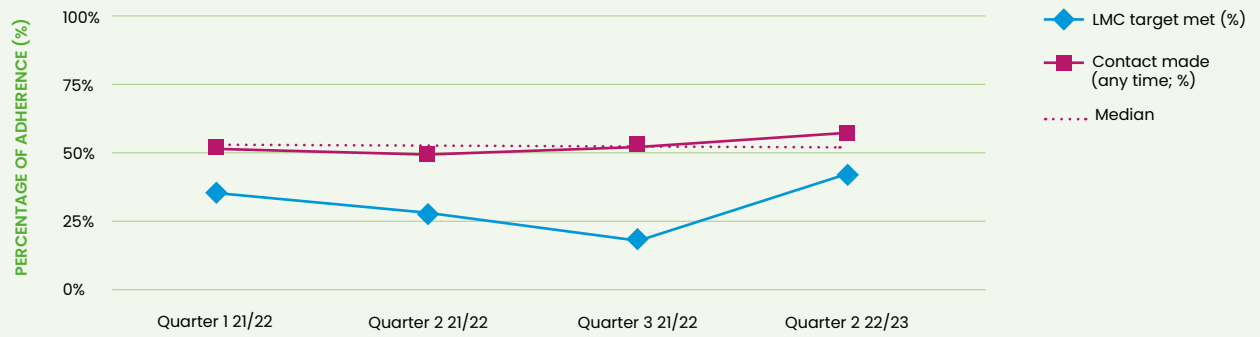
The results of the audit indicated that the proportion of LMC contact that occurred at any time within the episode of care, was between 50 and 53 per cent over the January to September 2021 period. Unfortunately, contact within the target 4-week timeframe decreased during this time period, from 35 per cent for the first quarter to 18 per cent in the third quarter (see Figure 43). Most women in the service had a documented LMC on file.

The 2022 second quarter results indicated improvements. Overall, 58 per cent of service users' LMCs were contacted (at any time within the episode of care), with 42 per cent being contacted within the target 4 weeks upon acceptance of the referral.

Within the clinical documentation, the reason for non-contact was given in 27 per cent of cases in the first quarter, improving to 43 per cent in the third quarter, but then reducing in 2022 to 18 per cent. The reasons given varied widely and included delays in engaging service users for the assessment, leading to delays in LMC liaison. One issue identified was the difficulty of correctly identifying the LMC, with some referrals only noting the first name of the LMC.

FIGURE 43 ▼

Percentage of pregnant women's LMCs contacted within 4 weeks of referral to Maternal Mental Health, Q1–Q3 2021, Q2 2022



Graph from clinical audit report: Determining whether discussions are routinely had with pregnant service user's Lead Maternity Carer (LMC) within 4 weeks of referral

Auditor : Danielle Diamond

The findings of the audit have been discussed with the Maternal Mental Health team, with recommendations for quality improvement including:

- routinely contacting and documenting contact with the LMC within the 4-week period, and updating the woman's maternal mental health plan, even if only to record that an assessment is scheduled or has been missed
- clearly documenting the reason when contact is delayed or is not possible
- documenting whether or not service users have a midwife as a routine part of assessment
- reviewing use of the Maternity Clinical Information Service for sharing information with LMCs in the future
- repeating the audit in 2023 to monitor progress and identify further opportunities for improvement in this area.

The Maternal Mental Health Service will continue to identify areas for improvement to ensure there is well-integrated care across services for women experiencing mental illness in the perinatal period. This will include timely communication and increased consultation and liaison with the health professionals involved in the care of women in our service, particularly GPs and midwives.

AMANDA HINKS
Maternity Service Development Manager/
Service Manager Primary Birth Units
Women's Health

Pregnancy and parenting services in Counties Manukau

Counties Manukau Health procured pregnancy and parenting services during 2017, with the priority population for the services identified as teens, Maaori, Pacific and first-time parents. This focus has not changed, and the initial contracts remain with providers that uphold the kaupapa of supporting the next generation of parents to make informed decisions for themselves and their whaanau.

During 2021, Auckland and its social and health service providers were heavily impacted by COVID-19, with many staff who support these pregnancy and parenting services being redeployed to manage the response. Lockdowns in Auckland from August to December 2021 affected service delivery, with attendance moving online to Zoom. The vaccine mandate also affected staff and contractors providing the services face-to-face, further impacting service delivery.

Services have since restarted, and are steadily increasing their capacity and attendance.

Turuki Healthcare

Turuki Healthcare's vision for their maamaa- and peepi-focused programmes is: "Whakamanatia te waahine hei orange whaanau – inspiring women to raise healthy families". Turuki Healthcare's antenatal waananga support a kaupapa Maaori approach, with one-off sessions held over a number of hours. Sessions are held at a variety of locations on a weekly basis. See Figures 44 to 46 for attendance numbers in 2021 and 2022, and Figure 47 for feedback from users attending the waananga.

Turuki Healthcare also provides other health, education and social support services for maamaa and peepi, which whaanau can be referred to.

FIGURE 44 ▼

Registrations on Turuki Healthcare waananga, 2021 to 2022

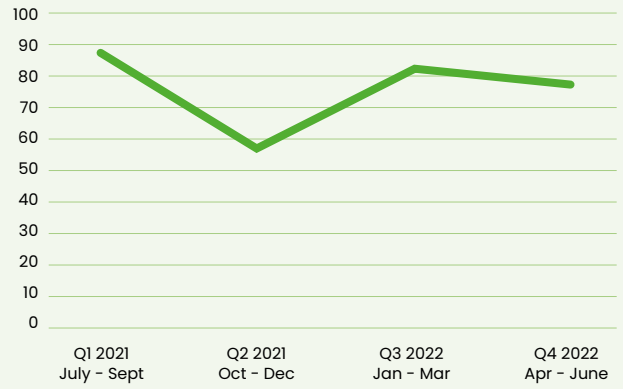


FIGURE 45 ▼

Registrations on Turuki Healthcare waananga for Maaori, 2021 to 2022

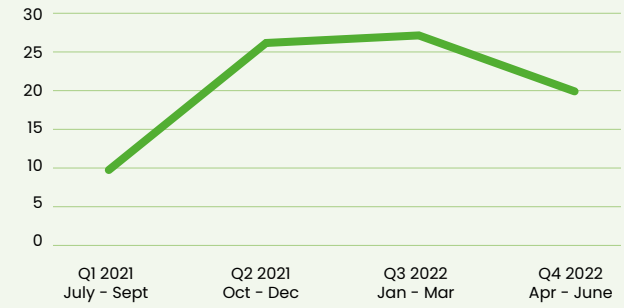
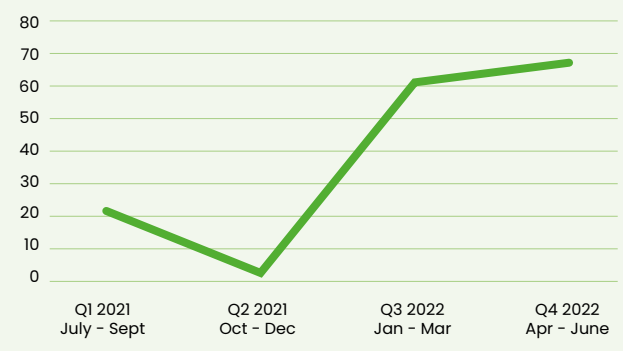


FIGURE 46 ▼

Registrations on Turuki Healthcare waananga for first-time parents, 2021 to 2022



South Seas Healthcare

South Seas Healthcare provides pregnancy and parenting education, based on the Pacific fonofale model and Tapuaki curriculum.

Access to South Seas' pregnancy and parenting sessions is through referral by a health professional. Women can also refer themselves. The service coordinator undertakes a social assessment of all referrals, over the telephone, which helps identify pregnant women who may experience barriers to attending an onsite session. The service aims to identify needs within the family that require addressing before education can begin, for example access to food, or social or financial support.

> "I feel less stress knowing there is help and support out there for me and thought the antenatal class could be beneficial to help me prepare for the arrival of baby."
>
> — Feedback from a 17-year-old South Seas service user, 2022

Sources of graphs/tables
Reporting from providers-Turuki Healthcare, South Seas Healthcare

Taonga Charitable Trust

Taonga Charitable Trust has the vision of: "Totally acknowledging our next generation's abilities."

All pregnancy and parenting service providers offer programmes for youth. However, Taonga Charitable Trust provides shared sessions for youth, covering the ages from teens to young adult. Taonga's kaupapa is to:

- represent and advance, from a Maaori perspective, the wellbeing of young parents, their babies and their whaanau
- encourage the development of potential, individually and collectively among young parents, their babies and their whaanau for the betterment of society as a whole
- endorse and promote the Treaty of Waitangi, which recognises and guarantees te tino rangatiratanga over the material, cultural and spiritual resources of mana whenua within the rohe of Manukau
- be a vehicle for and develop understanding by all people to those matters that concern and affect young parents, their babies and their whaanau
- be a vehicle for strengthening young parents, their babies and their whaanau, with strong cultural bonds and heritage.

Youth who attend the sessions and their whaanau are supported by peer supporters and social workers. Sessions are held over 2 consecutive weeks, with attendance varying for the second session.

FIGURE 47 ▼

Feedback from participants at Turuki Healthcare waananga, April to June 2022

SURVEY QUESTION	FEEDBACK RATING 5	4	3	2	1	FEEDBACK WRITTEN
Easy to register and attend	86%	14%	0%	0%	0%	"It was super easy!"
I was treated well and enjoyed the experience	93%	7%	0%	0%	0%	"I left feeling really empowered and excited about my pregnancy journey. I enjoyed listening to each other's personal experiences and I definitely feel a lot more ready after being well educated."
I have gained knowledge on what to expect	72%	24%	4%	0%	0%	"We had a fair idea about what to expect during pregnancy, labour and birthing, but it was great that today went furthermore into details for us unpacking our knowledge even more."
I am confident enough about giving birth supported by a midwife	62%	31%	7%	0%	0%	"I loved how passionate Katarina was in sharing how our pregnancy and birthing should be our way, the way we want. If we want our mum and partner in, then that's what we should have. I also told my husband, whatever happens, you make sure both you and my mum are in that room with me regardless what the Dr's, nurses say because I won't be able to push through without my support group and hearing Kat korero about that, gives me more mana to stand up for what I want in that moment of time."
I would recommend this service	90%	10%	0%	0%	0%	"These are great services to help support and guide families through the next phase of pregnancy and from our experience, we would definitely recommend and share this service with our friends and families!"

AUTHORS

JULIETTE WOTTON
Midwife Manager
Birthing and Assessment Unit

LEIGH ROBERTSON
Deputy Midwife Manager
Birthing and Assessment Unit

Induction of Labour Project 2021 to 2022

Induction of labour accounts for 30 per cent of all births at Middlemore Hospital. There has been a trend of increasing numbers of inductions, due to referrals from teams dealing with high-risk pregnancies, e.g., due to diabetes, small-for-gestational-age fetuses, pre-eclampsia, and women with several risk factors.

Women undergoing induction of labour have the right to be fully informed of the reason for the induction and the appropriate method for their parity and risk factors. The decision to undertake an induction may have implications on the place of birth and birthing practices for woman and whaanau, hence shared decision making is encouraged.

The Induction of Labour Project Group was set up to look at all of the processes relating to a woman's induction of labour journey. The group was led by a project manager and included a clinical director, Birthing and Assessment midwifery managers, a clinical educator, a BadgerNet administration manager and a pharmacist. The group met frequently to discuss processes relating to the varying phases of the project. We would like to acknowledge all the previous work undertaken on this work stream, which began in 2018, and the contribution of associate clinical midwife manager Kirby Rainbow.

The agreed plan for the project was undertaken despite the pandemic.

- Phase 1: Introduce electronic BadgerNet referral process – October 2021.
- Phase 2: Upgrade the electronic referral process – November 2021.
- Phase 3: Introduce oral misoprostol – June 2022; move inductions (primigravida and balloon) to the antenatal ward – June 2022.

▲ *Induction of Labour Project Group, left to right: Nikki Hewitt, Sarah Wadsworth, Stephanie Emma, Sarah Tout, Robin Cronin, Juliette Wotton, Leigh Robertson*

Phase 1

Phase 1 focused on creating an electronic referral method for all stakeholders, including lead maternity carers (LMCs).

In consultation with the BadgerNet team, a streamlined referral tool was tried and tested, with the parameters refined for the referral date ranges and indications. The new referral process was initially supported by the continuation of the old method, to ensure no induction request data was omitted. An immediate benefit of the new process was a reduction in phone calls to the associate clinical midwife manager requesting induction bookings.

The project group also reviewed the Counties Manukau Health induction of labour guideline against national guidelines, current evidence, and feedback from consultation with lead maternity carers (LMCs).

An unexpected finding was the lack of updates being made to the BadgerNet risk page, which led to further training and education being provided for stakeholders.

The group provided regular feedback and communication with our teams through emails and the monthly Birthing and Assessment newsletter.

Phase 2

Upgrades to BadgerNet's induction of labour functionality enabled it to provide a fully electronic online referral process. In particular, the addition of lists in BadgerNet allows bookings to be managed remotely and key staff to have easy oversight of both upcoming and ongoing inductions.

Another obvious advantage of the upgrade is ease of data collection for review. For example, using the data, Dr Robin Cronin carried out an audit of 133 woman who had received an induction in December 2021, and made the following key findings.

- There was a significant difference ($p>0.001$) between mode of birth by parity for woman who were induced, with just over half (54 per cent) of primigravida women achieving a vaginal birth, compared to most (85 per cent) multiparous women.
- Nearly one-third (32 per cent) of inductions did not align with CM Health guidelines. Complicating factors might include when a woman has more than one reason for requiring an induction of labour.

An audit of the induction of labour process will be undertaken in February 2023.

Phase 3

The misoprostol roll out included:

- getting pharmacy input on preparing oral misoprostol and prescribing it on Med Chart
- updating the induction of labour guideline, pamphlet and consent form for women and their whaanau
- getting Maternity, Quality and Safety funding for an external midwife consultant to support the roll out
- providing Zoom education sessions for all stakeholders
- providing posters on the misoprostol process in the Assessment Unit, as a quick visual tool for staff, including FAQs
- providing clinical support by midwifery managers and midwifery educators to familiarise midwifery staff with the oral misoprostol process.

An audit of the new misoprostol process will take place in 2023.

Changes were also made to where inductions of labour occur. Inductions now take place in:

- the antenatal ward for balloon inductions and oral misoprostol inductions for primigravida women
- the Birthing and Assessment Unit for multigravida women and those with spontaneous rupture of their membranes.

We would like to acknowledge the midwives in the Birthing and Assessment Unit and antenatal ward for being open to change and accepting the need for quality improvements across our organisation. The successful implementation of misoprostol induction of labour was due to the cohesiveness of the project team and the willingness of the midwives and doctors to implement the new process.

AMANDA HINKS
Maternity Service Development Manager/
Service Manager Primary Birth Units
Women's Health

Increasing access to contraception during the postnatal period

Access to effective and timely contraception supports women and whaanau to plan and space their pregnancies, and so provide the optimum environment for a pregnancy – physically, psychologically and socially. Using contraception can support lifestyle changes, and enable medication reviews for pregnancy and pre-conceptual screening to be undertaken.

Since 2019, Counties Manukau Health has used increased funding for long-acting reversible contraception (LARC) to provide a dedicated, nurse-led contraception service within the maternity services at Middlemore Hospital. It has also funded a vasectomy contract to support taane (men) who seek this method of contraception after the birth of a baby or termination of pregnancy.

The nurse-led service is provided by 2.8 full-time equivalent (FTE) staff positions, filled by two registered general nurses and a clinical nurse specialist (contraception). All three nurses are skilled subdermal implant inserters, two can remove implants and two can undertake cervical smear tests. The clinical nurse specialist role prescribes, diagnoses and treats sexual health conditions for those who attend the clinic.

Together, the contraception nurses provide a 7-day service based on the postnatal floor at Middlemore Hospital, and outreach clinics at two of the three CM Health birthing units. Two of the nurses also provide a clinic at a venue in Papatoetoe twice a month.

The kaupapa of the service prioritises equity. When people access the service, the nurses open with whakawhanaungatanga and meet the woman and whaanau 'where they are', acknowledging their journey to their current place. The nurses can then provide information to build on health literacy where applicable and support decision-making that is tailored to the individual whaanau and waahine.

▲ *Contraception nurses receiving a Women's Health Award 2022, left to right: Chris Mallon, Chief Midwife; Claire Stewart, Clinical Nurse Specialist; Simone Edwards, Registered Nurse; Denice Hickmott, Registered Nurse (absent); Amanda Hinks, Service Development Manager*

The service provides access to most contraception methods, including LARC, as well as cervical smears, and screening and treatment for diagnosed sexually transmitted diseases, including for partners.

In 2022, the nurse-led contraception service received a CM Health Women's Health Award for its work.

Demographics for people accessing long-acting reversible contraception

The demographics of the people accessing LARC through the hospital-based service reflect the demographics of people birthing and staying for postnatal care at Middlemore Hospital, as shown in Figures 48 and 49.

The contraception clinics at the birth units are held on a rotational basis. This includes a Saturday clinic that coincides with a Well Child Clinic at Papakura Birthing Unit, and a fortnightly clinic at Pukekohe Birthing Unit.

FIGURE 48 ▼

People receiving subdermal contraceptive implants at Middlemore Hospital, by ethnicity July 2021–June 2022

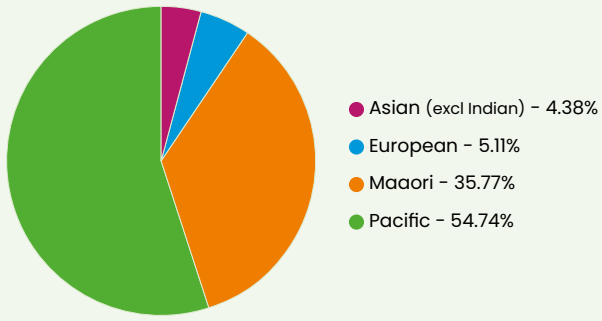


FIGURE 49 ▼

People receiving subdermal contraceptive implants at Middlemore Hospital, by quintile July 2021–June 2022

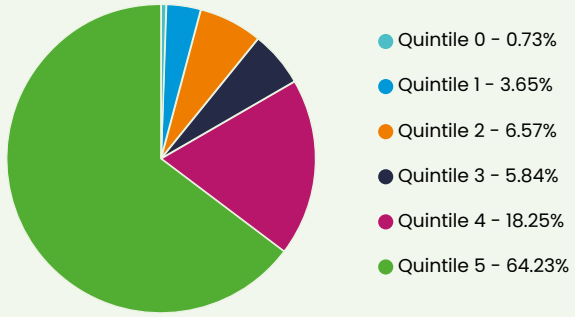


FIGURE 50 ▼

People accessing long-acting reversible contraception at Papakura Birthing Unit Contraception Clinic, by ethnicity July 2021–June 2022

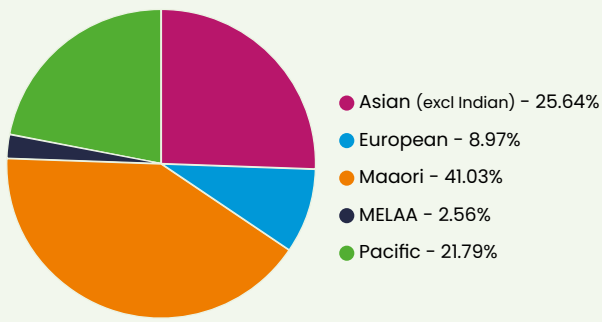


FIGURE 51 ▼

People accessing long-acting reversible contraception at Papakura Birthing Unit Contraception Clinic, by quintile July 2021–June 2022

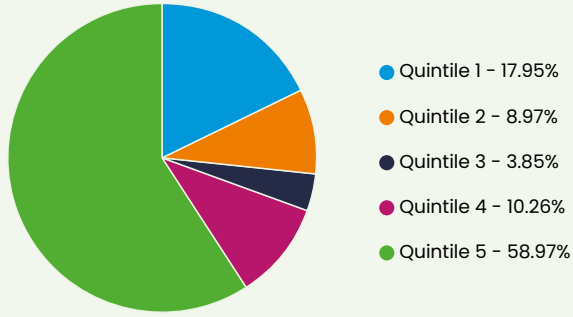


FIGURE 52 ▼

People accessing long-acting reversible contraception at Pukekohe Birthing Unit Contraception Clinic, by ethnicity July 2021–June 2022

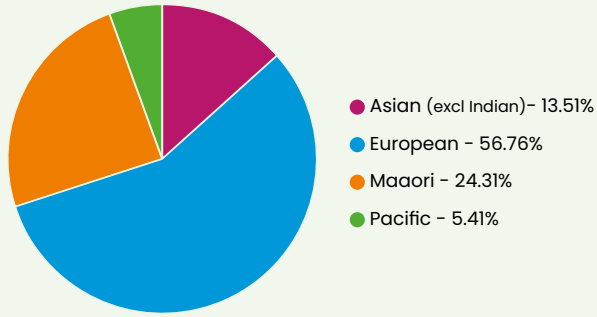
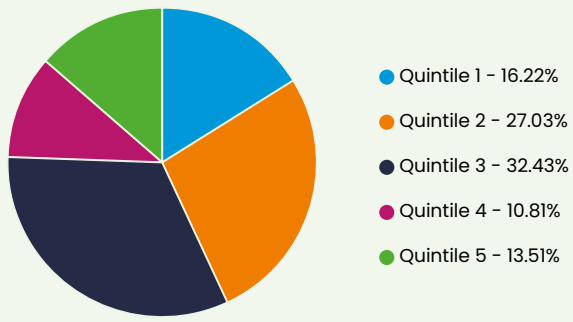


FIGURE 53 ▼

People accessing long-acting reversible contraception at Pukekohe Birthing Unit Contraception Clinic, by quintile July 2021–June 2022



Figures 50 and 51 indicate how the LARC insertion service is reaching our priority population at the Papakura Contraception Clinic.

The demographic picture is different for LARC insertions at the Contraception Clinic run from the Pukekohe Birthing Unit, as shown in Figures 52 and 53. This birthing unit covers rural and remote rural areas of the Franklin District of Auckland.

Access to funded vasectomy

Vasectomy has been available as a funded contraception option at CM Health since 2015. Vasectomy is recognised as a safe, effective and timely option for people who have completed their family.

By providing this service we are supporting women who might otherwise require a surgical procedure, which has an associated recovery period and consequences. Although access to funded LARC is now a viable alternative to a tubal ligation, for some women and their partners a vasectomy is a more acceptable method.

From July 2021 to June 2022, funding was provided for 196 vasectomies. Men receiving the funded procedure must reside in the CM Health catchment area, be eligible for publicly funded health services, and be certain their family is complete. In addition, their partner must be either currently receiving, or during the previous 6 months have received, care under CM Health maternity services; or be seeking a termination of pregnancy; or be seeking a tubal ligation.

Table 11 shows the demographics, referral pathways and criteria used for men accessing a funded vasectomy at CM Health from 1 July 2021 to 30 June 2022.

TABLE 11 ▼

Demographics, referral pathways and criteria used for men accessing a funded vasectomy at CM Health from 1 July 2021 to 30 June 2022

	JUL-21	AUG-21	JAN-22	FEB-22	MAR-22	APR-22	MAY-22	JUN-22		
MELAA	0	0	1	0	1	0	0	3	5	5%
Pacific	2	1	6	5	4	8	2	0	28	14%
Maaori	0	0	7	3	2	2	3	0	35	17%
European	9	5	16	21	22	27	6	8	104	53%
Indian	0	0	0	1	3	2	2	0	8	4%
Other	2	0	5	4	1	5	1	2	18	9%
GP	1	0	1	2	0	0	0	0	4	2%
Decile	1	0	4	4	10	13	2	3	37	18%
Midwife	12	6	27	28	27	32	11	10	153	78%
TOP	0	0	1	1	0	0	1	0	3	1.50%
Total	**14**	**6**	**34**	**34**	**37**	**44**	**14**	**13**	**196**	

Key:
MELAA – Middle Eastern/Latin American/African
TOP - Termination of pregnancy

Note: No funded vasectomies performed September to December 2021 due to COVID-19 restrictions

Source: Data for all graphs and tables in this article comes from clinic codes

AUTHORS

SUE TUTTY
GP Liaison
Primary care

LYDIA GILLAN
LARC Project Manager
Primary Care

Long-acting reversible contraception

The Long-Acting Reversible Contraception (LARC) Programme is steadily expanding, with the number of insertions, removals and conversations growing throughout 2020 to 2022. Training for contraception providers is now well established at our community clinics. Our evaluation of the programme has been completed, but is yet to be released.

The aim of this work has been to increase equity of access to contraception for low-income women and those living in deprivation, reduce poor health and social outcomes for women and infants associated with unplanned pregnancy, and provide more women with support, so they can be empowered to make an informed decision about their fertility and when to have children.

Table 12 indicates the activity that has happened in the programme to date.

Maternity services remain the greatest contributors to the volumes achieved. The volumes of insertions are now 30 per cent over the target set by the Ministry of Health at the outset of this contract, and conversations are at over 80 per cent of the target.

TABLE 12 ▼

Number of conversations, insertions and removals of LARC, over time, in various settings

		2019–2020	2020–2021	2021–2022	TOTAL
Community clinics	Conversations	77	138	221	436
	Insertions	77	114	174	365
	Removals	0	18	28	46
Primary health organisations	Conversations	1,160	1,400	1,241	3,801
	Insertions	425	473	382	1,280
	Removals	0	200	473	673
School clinics	Conversations	1,131	2,075	1,608	4,814
	Insertions	62	213	146	421
	Removals	0	3	9	12
Maternity services	Conversations	854	5,690	5,935	12,479
	Insertions	678	1,340	1,326	3,344
	Removals	0	44	123	167
Total	Conversations	3,223	9,303	9,005	21,531
	Insertions	1,246	2,140	2,028	5,414
	Removals	0	265	633	898

The equity focus of this work remains a priority, with the ethnicity of the women involved in the programme shown in Table 13.

While the primary health organisations (PHOs) contract is weighted towards equity, with deprivation and ethnicity criteria, this data does suggest that the programme is providing a service that was previously only available to women with more resources.

The community clinics continue to fill a gap in service provision and provide a great venue for training health professionals. The clinics have expanded in the last few years, moving from a half-day clinic on Thursday to a full-day clinic, with another clinic then established at Botany on a Saturday morning. The Saturday morning clinic gives women who would find it difficult to attend a clinic during the week the opportunity to attend on a weekend, and also offers health professionals a training opportunity outside of their usual work hours.

The clinics have been supported by a clinical support worker, which has been a wonderful asset for the clinics and helped reduce the non-attendance rate dramatically. This makes the clinics much more suitable for training, as it helps to ensure minimum numbers of insertions and removals for trainees, and makes the clinic a much more viable option for health professionals who are taking time away from clinical work to attend.

In June 2022, the *LARC: Health Practitioner Training Principles and Standards* were released, generating a lot of work to ensure our processes aligned with the national guidance. Our documentation has been refreshed and strengthened, and our procedures slightly modified.

The *LARC: Health Practitioner Training Principles and Standards* incorporate a mentoring process, which we will establish to provide supervision for trainees while they are gaining experience. There has been some interest expressed by PHOs in having their own trainers, and while this is still under discussion, there is also a plan to employ a roving trainer with capacity to visit more practices to provide training. This service was previously offered by the GP liaison team, but with limited flexibility and uptake.

Ongoing education was also highlighted in the national principles and standards and has been on the agenda for the Counties Manukau Health team. Pre-COVID-19, training evenings were organised for health professionals at Manukau Health Park, with models to practise LARC insertion techniques. These evenings will continue in 2023. A peer group has been established for health professionals to discuss difficult cases and as an avenue for disseminating new information.

TABLE 13 ▼

LARC activity, by ethnicity

	MAAORI	PACIFIC	NZ EUROPEAN	ASIAN (EXCL INDIAN)
2018 CENSUS COUNTIES MANUKAU	16%	22%	34%	28%
COMMUNITY CLINIC	18%	47%	13%	18%
PRIMARY HEALTH ORGANISATION	27%	50%	8%	13%
SCHOOL	36%	34%	17%	13%
MATERNITY SERVICES*	22%	37%	16%	22%

*This will partly reflect the birthing population

With the current changes to the health system, there is increasing emphasis on working regionally. It had already become obvious that it was not sustainable to have multiple ways of recognising experience and skills, criteria for accessing services, levels of funding or ways of claiming, particularly for practices on the borders of districts. All these issues will need to be resolved as we move forward.

In 2017, we surveyed 160 people in the community and discovered only 36 per cent were aware of intrauterine devices and 46 per cent of hormonal implants. While there has been some work to raise the profile of LARC in the community, it has been limited and a more extensive awareness raising campaign is envisaged. This will begin with community engagement and co-design; focus groups are already underway.

Another aspect of the primary care Women's Health portfolio is ensuring women in all practices across Counties Manukau can access a primary care provider that is able to provide women's health services. The expectation is that large practices will be able to provide this service within their practice, and small practices will have a colleague they can work with to provide this care.

Overall, progress has been made towards the goal of empowering women to make informed choices about their own fertility. We have exceeded the original target for the number of insertions, and services have been established across four work streams, with continuous growth across the community and maternity streams, despite the ongoing impacts of COVID-19. Areas of focus for the next 12 months include co-design and community engagement work, and work at a regional level to align our processes and services.

AUTHORS

DR LESA FREEMAN
Clinical Nurse Director (former Patient Safety and Quality Assurance Lead)
Women's Health

NOELLE SINGSON
Clinical Quality Analyst
Directorate of Nursing and Patient Experience

BRIDGET RAZEY
Charge Midwife Manager
Women's Health

Maternity Early Warning System auditing

The National Maternity Early Warning System (MEWS) went live on BadgerNet on 29 November 2019.

The Health Quality and Safety Commission developed a maternity vital signs audit form, and asked the district health boards to either audit 10 women's vital sign charts per week, or meet specified criteria to be excluded from reporting quarterly on MEWS. One of these exclusion criteria was that:

> "The DHB must demonstrate that regular audit (this can be monthly, spot checks or as appropriate for smaller DHBs), of chart completion and compliance with the escalation pathway is conducted with audit results reported to the appropriate clinical manager or group that provides (Maternity Quality and Safety Programme) MQSP oversight."

Counties Manukau Health's Maternity Quality and Safety Programme coordinator convened a meeting in June 2021 with senior Women's Health staff and the patient safety and quality assurance lead. The meeting's purpose was to determine the most efficacious way to undertake MEWS auditing, as part of business-as-usual, in order to meet the above criterion. The Health Quality and Safety Commission MEWS data collection tool was reviewed, and it was proposed that the MEWS audit be included onto Care Compass, CM Health's clinical auditing platform.

MEWS auditing would then be performed in a similar way to other Care Compass clinical audits undertaken within CM Health. This method requires all of the maternity wards and community birthing units to randomly select women using the random bed generator, and complete five MEWS audits per month on women who have been on the ward or unit for 6 hours or more. These audit records are entered electronically into Care Compass by ward staff. Figure 54 shows the standard audit report chart.

Seven measures were identified for regular reporting, namely:

- percentage of women receiving appropriate frequency of vital sign monitoring
- percentage of women with completed core vital sign set
- percentage of women with modifications made to MEWS triggers
- percentage of women that triggered an escalation
- percentage of women for whom escalations occurred as per pathway
- percentage of women for whom response occurred as per pathway
- percentage of women where responder completed documentation.

A QLIK dashboard report has subsequently been developed for reporting on these seven measures. Individual ward and unit reports are available for the charge midwife managers and Women's Health leadership team to view via the QLIK app in real time. This information will in turn inform quality improvement activities.

FIGURE 54 ▶
CM Health MEWS audit chart

Care Compass

MEWS - National maternity vital sign chart audit

Instructions:
1. Choose persons (five per month) who have been on this ward for 6 hours or more for audit.
2. Review up to the last 24-hours of vital signs charting and associated documentation in the clinical record.

General / demographics	Person 1	Person 2	Person 3	Person 4	Person 5
Audit date					
NHI					
How long has the person been in hospital during this admission (in days)?					
Ward					

MEWS - National maternity vital sign chart	Answer yes, no or not applicable (n/a)				
	Person 1	Person 2	Person 3	Person 4	Person 5
1. Was the frequency of vital sign monitoring appropriate for the person?					
2. Was the core vital sign set completed for the most recent set of vital signs? *If no, complete questions 2a-2i to record which vitals signs were present*					
2a. Respiratory rate					
2b. Oxygen					
2c. Oxygen saturation					
2d. Heart rate					
2e. Systolic blood pressure					
2f. Diastolic blood pressure					
2g. Temperature					
2h. Level of consciousness					
2i. Was there a rationale documented if the vital sign set was incomplete?					
3. Was the maternity early warning score (MEWS) calculated correctly for the most recent set of vital signs? *Put yes if calculated electronically*					
4. Were any modifications made to the MEWS triggers? *If yes, complete questions 4a and 4b*					
4a. Was a rationale and duration for the modification documented? (clinical requirements)					
4b. Did the person making the modification legibly date and sign it, and record contact details? (documentation requirements) *Put yes if electronically generated*					
5. Did the person reach any of the defined triggers for escalation in, or up to, the 24-hour audit period? *If yes, complete questions 5a-5c; otherwise go to Q6*					
5a. Did escalation occur according to the pathway?					
5b. Did the response occur according to the pathway?					
5c. Did the responder complete documentation requirements (according to local policy)?					
6. Was a core vital sign set completed before transfer to this ward/unit?					

AUTHOR

SUE TUTTY
GP Liaison
Primary Care

Pregnancy packs

The pregnancy packs have continued to be popular with our primary care practices, with a steady supply being delivered to the primary health organisation for it to distribute more widely to the practices.

The packs also go to the primary birthing units, where they are available for independent midwives to collect, and to the district-health-board-employed midwives. Some midwives and larger practices collect the packs directly from the volunteers at the main reception at Middlemore Hospital. The volunteers help enormously by putting the packs together for us and we are very grateful for their support.

The pregnancy packs have evolved over time to meet the changing needs of the community. The immunisation pamphlet has been revamped into a sheet, with information about protection against COVID-19, as well as flu and whooping cough.

The pamphlet on antenatal education has been redesigned as a fridge magnet to help women seek out this service at the appropriate time in their pregnancy.

The weight change in pregnancy pamphlet now incorporates all four graphs, for different BMIs, on one card, to enable it to be included in the pregnancy pack. The card is designed to help women monitor and control their own weight gain throughout pregnancy, and reduce the increased obstetric risk and inter-generational spread of obesity caused by massive weight gains. Going forward, there has been discussion with the Ministry of Health about putting these graphs onto BadgerNet, the maternity computer information system.

In response to the rise of syphilis in our community, and its spread to the heterosexual community, a pamphlet entitled 'What is Syphilis?' was produced and included in the pregnancy packs in 2021. The pamphlet discusses syphilis from a pregnancy viewpoint, and mentions the additional syphilis screening available to women in Counties Manukau.

The original aim of developing the pregnancy packs was to improve the quality of women's first antenatal visits, by providing primary care with the information that had to be covered in that visit. However, there have been constant requests to include additional information for women in the packs, much of which pertains to later in pregnancy. Accordingly, the decision was made to develop a mid-trimester pack containing the following pamphlets: Breastfeeding Your Baby, Keep Your Baby Safe During Sleep, Free Antenatal Classes, What is Syphilis?, AWHI, and Well Child Tamariki Ora. The original pregnancy pack now goes out to primary care and the mid-trimester pack is available to midwives. Mid-trimester packs are also available for those women who have already been given a pregnancy pack.

Paperless ways of disseminating information are also being developed, particularly with BadgerNotes now being available for midwives, and the Best Start pregnancy tool, found in the practice management systems within general practice, taking over some of the quality improvement aspects of the pregnancy packs. However, the pregnancy packs continue to be sought after in the meantime.

▶ *Esther Leilua and Pam Eli - two of the information desk team that put together the pregnancy packs*

7 General quality improvement

AUTHOR

BRITTANY MCNEIL
Project Manager, Integrated Immunisations Programme, Funding and Health Equity

Immunisation coverage in Counties Manukau

Childhood and maternal immunisation coverage in Counties Manukau and the rest of Aotearoa is currently well below the national 95 per cent target for all ethnicities. Immunisation coverage for Maaori is also below other ethnic groups across all of the milestone ages. This is a nationwide challenge, with immunisation coverage decreasing nationally.

Maternal immunisation

Maternal immunisation coverage in the Counties Manukau rohe is low at approximately 37 per cent. Maternal immunisation has the potential to protect the pregnant person and the peepi from mortality and morbidity from certain infectious diseases.

Three vaccines recommended during pregnancy in Aotearoa are for influenza, pertussis (Boostrix) and COVID-19. The measles, mumps, rubella (MMR) vaccine is not recommended during pregnancy, but can be given postpartum, even if the parent is breastfeeding. The role of maternal vaccination in reducing neonatal morbidity and mortality is expanding, but uptake remains suboptimal. The *Counties Manukau Health Annual Plan 2021/22* (CM Health, 2021) has an improving-child-wellbeing goal that 50 per cent of pregnant Maaori and Pacific people receive a flu and pertussis vaccine. Compared to New Zealand European and Asian (excluding Indian) pregnant people, Maaori and Pacific people have lower odds of receiving pertussis and influenza immunisations during pregnancy.

Gaps in maternal coverage for pertussis and influenza exist, and work is needed to reduce immunisation inequities. Business as usual is not enough to remedy or impact the current situation. Resources are required to support intended recovery plan initiatives, and to accelerate sustainable improvements to business-as-usual activities that are underpinned by Te Tiriti o Waitangi and reflect the strategic intent of *Whakamaua: Māori Health Action Plan 2020–2025* (Ministry of Health, 2020).

The Childhood and Maternal Immunisation Programme recovery and improvement plan proposal was approved by the CM Health executive leadership team in December 2021. The programme will offer information and easy access to appropriate vaccinations to every antenatal and postnatal person engaged with CM Health's primary birthing units or Niu Life Midwives (private midwifery service). Childhood immunisations will also be offered at Papakura Birthing Unit and by Niu Life Midwives as whaanau feel safe and well supported in these spaces.

A project working with vaccinating pharmacies in the Counties Manukau rohe is due to commence in July 2022, to provide access to pertussis vaccinations in pregnancy and proactive immunisation services and education.

COVID-19 response – leveraging from infrastructure and incorporating lessons learned

The health system's response to COVID-19 has put in place physical infrastructure and increased workforce capacity that offers opportunities to support initiatives aimed at improving maternal and childhood immunisation coverage. There are also important learnings from the health system's COVID-19 response that will be used to inform planning and implementation.

Some particular lessons learned that we plan to incorporate are as follows.

- Engagement with our pregnant people and whaanau through the COVID-19 vaccination programme has reiterated some of the principles we already knew for successful engagement with health services and vaccination activities.
  - » Getting vaccinated is an act of trust, built through relationships, reassurance and connection.
  - » The messenger or vaccinator is often more important than the message – the person encouraging or giving the vaccination needs to be able to relate to their community.
  - » Conversations about vaccinations need to be strength-based, mana-enhancing, reassuring and encouraging.

- We have invested time to understand our population and how our approaches need to be tailored differently to meet the needs of Maaori and Pacific pregnant people. The key drivers of vaccine hesitancy (individual and social group influences, contextual factors, vaccine- and vaccination-specific issues) are also relevant when considering these population groups.
- We are currently exploring how we can leverage from our existing relationship with Papakura Marae to provide an integrated immunisation and whole-of-whaanau vaccination model at Papakura Birthing Unit. There is particular scope for this type of activity in the context of outreach and home-visiting activities.

Where to next?

In the third quarter of 2022, the focus will be on implementing an immunisation service at Niu Life Midwives and Papakura Birthing Unit. The service will offer the full suite of immunisations to whaanau (pertussis, flu, human papillomavirus, MMR, childhood immunisations).

References

Counties Manukau Health. (2021). *Counties Manukau Health annual plan 2021/22.*

Ministry of Health. (2020). *Whakamaua: Māori Health action plan 2020-2025.*

AUTHOR

SINIVA SINCLAIR
Public Health Physician
Population Health Development

Weight management in pregnancy

Being overweight or obese at the start of or during pregnancy is a recognised risk factor for a number of complications, including gestational diabetes, pre-term and post-term birth, induction of labour, caesarean section, macrosomia, stillbirth, and neonatal and maternal death (Jackson, 2011).

Maternal obesity also increases the risk of childhood and adult obesity later in the life of the fetus (Rooney, Mathiason & Schauberger, 2011). Analysis of neonatal care admissions at Counties Manukau Health suggests obesity, and hence diabetes, are key drivers and help explain why neonatal bed days are rising faster than birth numbers would have suggested (Parwaiz, 2019).

The increasing rates of obesity in the general population are equally present in women birthing at CM Health facilities. Any body mass index (BMI) of 30 or more is likely to have a considerable impact on demand for clinical services, with increasing risks as BMI rises over 35.

Weight classes are now being used to describe obesity, in a move away from terms such as morbid obesity, which were felt to be stigmatising (Jackson, 2011): see Table 14.

Over the past 6 years, the percentage of women who are a normal weight has been trending downward, while the percentages in the obese range (all classes) have been trending upwards (see Figure 55).

From 2021 to June 2022, data collected for women booking at a CM Health facility showed 2 per cent of women were in the underweight range (BMI less than 18.5). Just over one in four (27 per cent) had BMI in the normal range (18.5 to 24.9), while one in four (25 per cent) were overweight (BMI 25 to 29.9), and almost one in two (46 per cent) were obese (BMI 30+).[1] More than half of the latter group, or more than one in four (26 per cent) of women booking in this period, had a BMI of 35 or over (obese classes II and III).

TABLE 14 ▼

Weight classes and body mass index ranges

CLASSIFICATION	BMI RANGE
Underweight	<18.5
Normal range	18.5 - 24.9
Overweight	25 - 29.9
Obese class I	30 - 34.9
Obese class II	35 - 39.9
Obese class III	≥40

The distribution of BMI varies by ethnicity (see Table 15 and Figure 56), with one in four (26 per cent) of Maaori women birthing at CM Health facilities in 2021 to June 2022 having a BMI in the overweight range (25 to 29.9); and over one in two (53 per cent) in the obese range. For Pacific women, the figures were almost one in six (16 per cent) overweight and three in four (75 per cent) obese; while for all other women, one in four (25 per cent) were overweight and just under one in five (19 per cent) were obese.

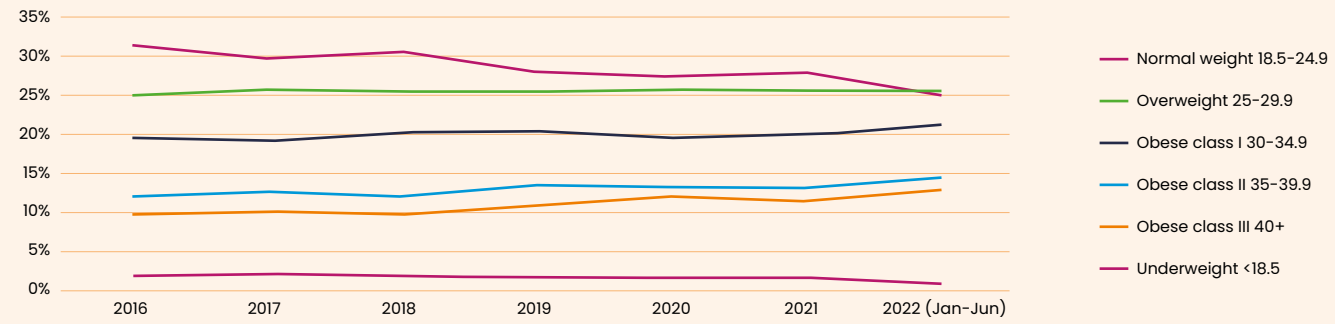
The high and growing rates of obesity, in particular class II and III obesity, drive the increasing rates of diabetes in pregnancy. Addressing obesity is a challenging issue, not least because evidence suggests that the interventions that are most likely to have the biggest impact sit at central government level. Issues such as the wider food and exercise environment, the availability and cost of healthy food, and the formulation of food and beverages, e.g. sugar content, are significant factors that sit outside the health sector and beyond an individual's control (Swinburn et al., 2011).

CM Health continues to provide and promote its 'Healthy Weight Change in Pregnancy' cards, which are designed to work alongside the Ministry of Health's *Guidance for Healthy Weight Gain in Pregnancy* (2014), and are available for maternity carers and pregnant women to use. The importance of discussing weight gain in pregnancy continues to be socialised to our maternity workforce and integrated into antenatal care provision. Work continues on developing the Diabetes in Pregnancy Service.

1 Note that women with an unknown BMI (65 bookings in 2020; 0.9 per cent) were excluded from the denominator.

FIGURE 55 ▼

Percentage of women by weight class, Counties Manukau 2016 to 2022



Source: Maternity Clinical Information System. Extracted by Health Intelligence and Informatics 2022

TABLE 15 ▼

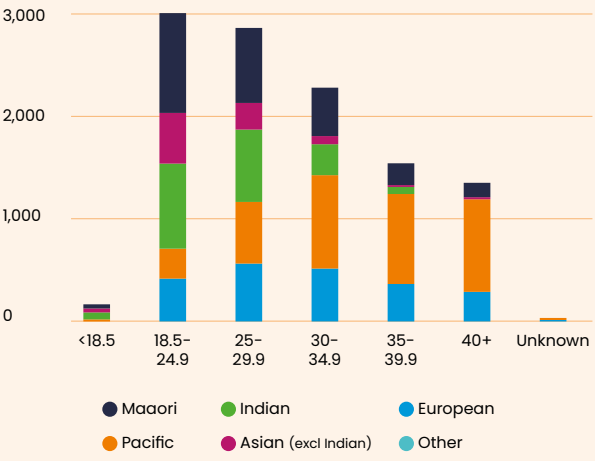
Booking BMI by ethnicity, for all births at CM Health facilities, 2021 to June 2022

BOOKING BMI	MAAORI	PACIFIC	INDIAN	ASIAN (EXCL. INDIAN)	EUROPEAN / OTHER	TOTAL	%
<18.5	7	17	64	44	39	171	2%
18.5–24.9	421	294	830	486	970	3,001	27%
25–29.9	576	595	700	259	729	2,859	25%
30–34.9	521	908	298	80	471	2,278	20%
35–39.9	369	876	64	18	214	1,541	14%
40+	288	905	19	2	135	1,349	12%
Unknown	21	14	6	3	6	50	0%
Total	**2,203**	**3,609**	**1,981**	**892**	**2,563**	**11,248**	**100%**

Source: Maternity Clinical Information System. Extracted by Health Intelligence and Informatics 2022

FIGURE 56 ▼

Booking BMI by ethnicity, 2021 to June 2022



Source: Maternity Clinical Information System. Extracted by Health Intelligence and Informatics 2022

References

Jackson, C. (2011). *Perinatal mortality in Counties Manukau*. Auckland: Counties Manukau Health. Retrieved from: https://cmhealth.hanz. health.nz/search/Pages/results.aspx?k=catherine%20jackson

Parwaiz, M. (2019). *Clinical drivers of increased demand for the neonatal unit at Counties Manukau Health*. Auckland: Counties Manukau Health.

Rooney, B.L., Mathiason, M.A., & Schauberger, C.W. (2011). Predictors of obesity in childhood, adolescence, and adulthood in a birth cohort. *Matern. Child Health J., 15*(8), 1166–75.

Swinburn, B.A., Sacks, G., Hall, K.D., McPherson, K., et al. (2011). The global obesity pandemic: Shaped by global drivers and local environments. *Lancet*, Aug 27, 804–14

Ministry of Health. (2014). *Guidance for healthy weight gain in pregnancy*. Wellington: Ministry of Health.

AUTHOR

MICHELLE LEE
Team Leader
Living Smokefree Service

Smokefree

Promoting smoke-free pregnancies is a key initiative, which can have a major impact on improving health outcomes, for infants born to women living in Counties Manukau.

Smoking during pregnancy is associated with a number of adverse pregnancy outcomes, including miscarriage, placental abruption, intrauterine growth restriction, premature delivery and stillbirth (US Department of Health and Human Services, 2014). In addition, smoking during pregnancy has been associated with an increased risk of neonatal death, particularly as a result of sudden unexpected death in infancy (SUDI).

Of all the women birthing in 2021, 12 per cent (961) were identified as smoking at the time of their admission for birth. This represented no difference in prevalence compared to the previous year. There were marked ethnic differences, with 35 per cent of Maaori women (3 per cent lower than the previous year) identified as currently smoking, compared to 12 per cent of Pacific women (3 per cent higher than the previous year), and 4 per cent of European, Asian (excluding Indian) and other women; see Table 16.

Smokefree maternal incentive programmes

The Smokefree Pregnancy Incentives Programme has been operating in Counties Manukau since 2013. The programme continues to achieve high success rates.

From January 2021 to June 2022, 274 women successfully stopped smoking with the service. (A woman's claim to have stopped is validated by carbon monoxide testing at 4 weeks following a quit date.) Over half (57 per cent) of these successful smoke-free pregnancies are Maaori, 34 per cent Pacific and 9 per cent other ethnicities.

To further promote the smoke-free message, the Smokefree Postnatal Incentives Programme has been running since 2017, and addresses the relapse experienced by some women following birth. Whaanau of women, either antenatal or postnatal, are also incentivised to stop smoking.

TABLE 16 ▼

Number of women, by smoking status and ethnicity, who birthed at a CM Health facility, 2021

	MAAORI	PACIFIC	EUROPEAN	ASIAN (EXCL INDIAN)	INDIAN	OTHER	TOTAL
Smoking	543	286	118	4	7	3	961
Not smoking	894	1,997	1,428	571	1,305	170	6,365
Unknown	96	153	39	29	57	9	383
Total	**1,533**	**2,436**	**1,585**	**604**	**1,369**	**182**	**7,709**

Results January 2021 to June 2022

Just under 70 per cent of women who were recorded as smoking at the time of their pregnancy booking were referred to the Smokefree Programme. Of the 845 referrals received between January 2021 and June 2022, 60 per cent were Maaori and 32 per cent Pacific. This represented a significant reduction in the number of referrals received, when compared to the previous equivalent time-period. This was largely due to restrictions caused by the COVID-19 alert levels. Yet despite this, the programme still resulted in a high number of women successfully stopping smoking: overall, only 25 less than the previous 18 months.

There continued to be a large focus within the programme on addressing holistic and wellbeing needs. For example, referrals were made for 361 safe-sleep devices, 129 healthy housing assessments (double the amount from the previous period), 193 for breastfeeding support services, 90 for antenatal classes, 17 for antenatal or postnatal distress services (a new service offered in this year), and 62 to Family Start (also a new service offered this year). Twenty-five women who had continued to drink during pregnancy were also provided with support to stop.

In addition, 30 per cent of the women engaging with the service also enrolled whaanau members onto the programme to provide extra support for their Smokefree journey.

We give huge acknowledgment to whaanau taking on this wero, and winning and allowing us to be part of their journey.

Proactive referring

This method of referring has continued to result in the Smokefree Programme receiving referrals for approximately 70 per cent of the pregnant women who smoke at the time that they are booked for pregnancy care. As a result, we encourage all referrers to refer all women who smoke to Smokefree, and allow the service to have the longer conversation with these women, using motivational interviewing to encourage engagement.

During January 2021 to June 2022, a greater number of GP practices also sent through lists of waahine hapuu who smoke. This has resulted in the service engaging with women who either had not accepted a referral from their midwife or had not disclosed their smoking status, leading to 33 extra referrals being received, with 16 of these women going on to become smoke-free.

▲ *Whaanau who have engaged in the Smokefree maternal incentive programmes*

References

US Department of Health and Human Services. (2014). *Surgeon General's report: The health consequences of smoking–50 years of progress*. Retrieved from http://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf

AUTHOR

AMANDA HINKS
Maternity Service Development Manager/
Service Manager Primary Birth Units
Women's Health

Supporting equitable access to ultrasound scans during pregnancy

Pregnancy ultrasound scanning services are an integral part of a woman's care during pregnancy, as they can support clinical decision making and subsequent management of pregnancy, which are vital to supporting a healthy pregnancy and birth.

Pregnant women in New Zealand have a choice whether to have certain ultrasound scans as part of their routine antenatal care:

- the screening scan for chromosomal abnormalities at 12+6/40 (nuchal fold measurement alongside a maternal serum blood test for biochemical markers)
- an anatomy scan between 19 to 21/40 to screen fetal structures.

The Ministry of Health's ultrasound scan guidelines (2019) no longer recommend a nuchal measurement and maternal serum screen prior to the first trimester scan.

The Ministry of Health funds maternity care and pregnancy-related scans for eligible women. Counties Manukau Health's Radiology Department provides access for some secondary and tertiary level ultrasound services, but is unable to complete primary ultrasounds as part of routine antenatal care. Instead, these scans are provided by private providers funded by the Ministry of Health under Section 88 of the Primary Maternity Services Act 2007.

The Ministry of Health has not increased the payment to scan providers since 2007. To compensate, since 2016, private providers have been charging a top-up fee. CM Health pays this fee for women who are unable to afford the extra charge (referred to as a co-payment).

The main challenges that CM Health has faced and sought to overcome over the past 4 years have been attaining timely access for pregnant women to ultrasound scans, and maintaining quality standards for pregnancy ultrasound scans in the context of a complex clinical environment and a changing society.

Funded co-payment scheme

The co-payment scheme was set up to address inequities in accessing scans that affected 63 per cent of the birthing population in Counties Manukau, due to social and economic deprivation. It also addresses the need to improve equitable outcomes for our women and whaanau, against a backdrop of a higher than national average perinatal mortality rate.

The scans that currently attract co-payment support are the first trimester nuchal screening scans, anatomy scans between 18 and 20 weeks, and scans for women who require surveillance for previous or current pregnancy complications.

Women who qualify for the funded co-payment are those identified as in financial need, or those with a Community Services Card.

From 1 July 2021 to June 2022, 1,232 people received a co-payment for a pregnancy scan. Of these scans, 1,338 were urgent scan requests made by referring clinicians, for various reasons (see Table 17). Urgent scan requests are for scans within the next 24 to 48 hours.

TABLE 17 ▼

Urgent scan requests, funded by co-payment, by type

TYPE OF/REASON FOR SCAN	NUMBER OF SCANS
Anatomy	21
Doppler/liquor	188
Growth	961
Nuchal	4
Suspected ectopic	16
Threatened miscarriage	148
Total	**1,338**

Table 17 indicates that growth assessment is the most commonly requested scan funded by co-payment. This is understandable, given the poor pre-conception health and co-morbidities of pregnant women in Counties Manukau, and the evidence-based guidelines used by midwives for growth assessment. Undetected intrauterine growth restriction is a leading cause of stillbirth nationally (Health Quality & Safety Commission New Zealand, 2018).

Eligibility for a Community Services Card indicates that people have a certain household income and is a social determinant indicator for health outcomes. For nuchal and anatomy scans, having a Community Services Card indicates that a woman is eligible for a funded co-payment. Midwives and GPs can contact the Maternity Service's development manager to request a co-payment in cases where a person does not hold a Community Services Card, but has other social or medical risk factors.

Figure 57 shows the percentage of women accessing a funded co-payment scan between July 2021 and June 2022, by Community Services Card holder status, and ethnicity.

Figures 58 to 62 all indicate that there has been an increase in the demand for funded co-payments from 2018 to June 2022, for every scan type.

Requests for funded growth scans have increased by 4,655 since 2020, as shown in Figure 58. This increase was driven by maternal medical acuity, past obstetric history and guidelines advising surveillance, for example for post-COVID-19 infections.

Funded anatomy scans have increased by 606 since 2020, as shown in Figure 59.

Funded nuchal translucency scans have increased by 606 since 2020, as shown in Figure 60.

There are other ultrasound scans required in pregnancy, which are categorised differently in the reporting. These include sans for twin pregnancies, placental localisation, pregnancy location and viability after experiencing vaginal bleeding. The number of women receiving funded co-payment scans for these reasons are shown in Figures 61 and 62, respectively.

Equity

In 2017, the National Maternity Monitoring Group, whose function is to monitor all maternity services with an equity lens and against the *New Zealand Maternity Standards* (Ministry of Health, 2011), recommended: "we also support work to reduce barriers to access for all women and work that seeks to fully understand the way that women access primary maternity ultrasounds."

FIGURE 57 ▼

Women accessing a funded co-payment scan from July 2021 to June 2022, by Community Services Card holder status and ethnicity

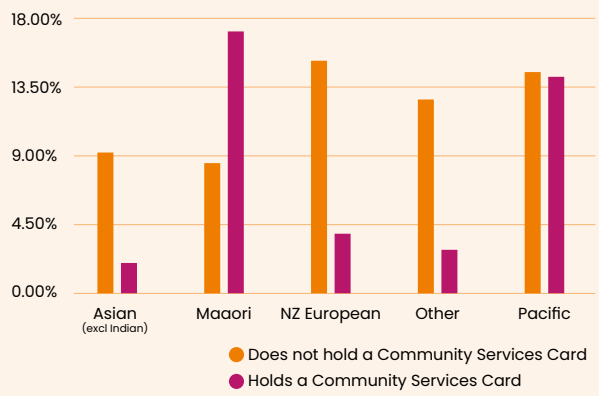


FIGURE 58 ▼

Women accessing a funded co-payment growth scan, 2018 to June 2022

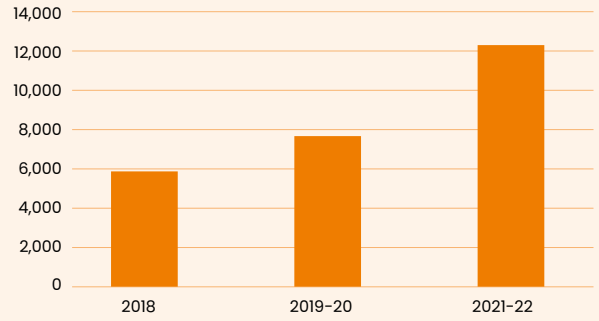


FIGURE 59 ▼

Women accessing a funded co-payment anatomy scan, 2018 to June 2022

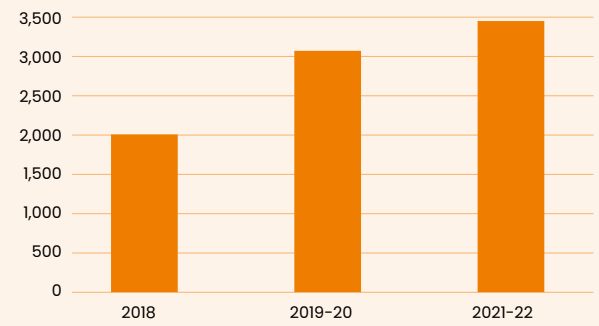


FIGURE 60 ▼

Women accessing a funded co-payment nuchal scan, 2018 to June 2022

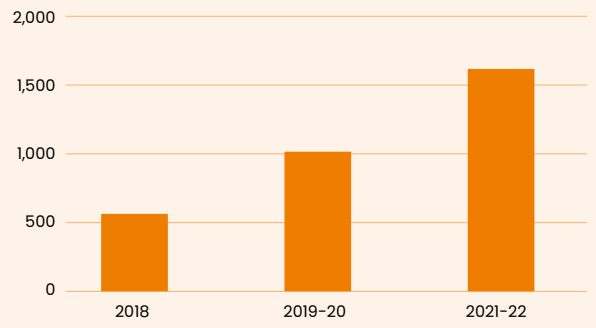


FIGURE 61 ▼

Women accessing a funded co-payment scan for twin pregnancies, July 2021 to June 2022

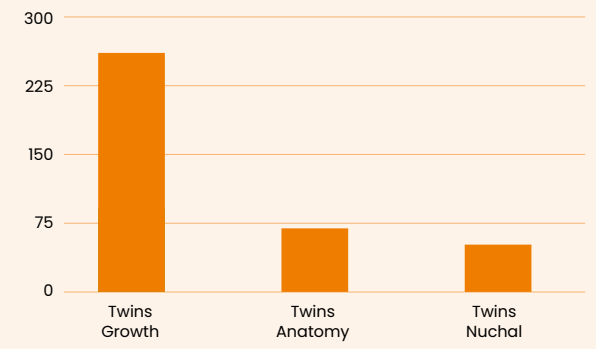
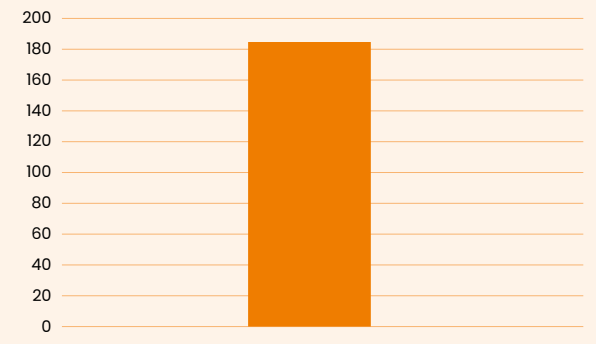


FIGURE 62 ▼

Women accessing a funded co-payment general obstetric early pregnancy scan, July 2021 to June 2022



The aim of the funded co-payment has been to reduce inequity. When private providers introduced the co-payment, women told their midwives they were unable to afford the fee and therefore would not have the scan. Enabling equitable access to scans is at the root of the co-payment system.

Figure 63 shows the numbers of women living in Quintile 5 areas who accessed funded co-payments for pregnancy scans under the scheme from June 2021 to July 2022. Compared with the numbers for 2019/2020, there has been an 18 per cent increase in Maaori and Pacific people residing in Quintile 5 areas who are accessing a co-payment. These people are among CM Health's priority groups for improving equity in access to healthcare.

The *Fourteenth Annual Report of the Perinatal and Maternal Mortality Review Committee* (Health Quality & Safety Commission New Zealand, 2018) stated:

> Our results show that certain groups are at higher risk of serious adverse outcomes. These include babies of Māori, Pacific and Indian mothers; and babies of mothers aged less than 20 years. Mortality also increased somewhat for babies of mothers aged 40 years and over. Mortality rates varied significantly by the level of socioeconomic deprivation in the areas where mothers lived, as measured by the New Zealand Index of Deprivation 2013 (NZDep2013). Those mothers living in the most deprived areas (quintile 5) were statistically significantly more likely to lose a baby from stillbirth, neonatal death and perinatal related death overall, compared with those living in any other quintile. This variation in mortality rates by deprivation was most marked for deaths due to spontaneous preterm labour or rupture of membranes.

This indicates more needs to be done to support pregnant people aged 20 and under, over 40 years old, and of Maaori, Pacific or Indian ethnicity into early pregnancy care, and to remove financial barriers to accessing pregnancy scanning used to detect and monitor fetal wellbeing.

Pilot pregnancy scanning at Pukekohe Birthing Unit

Access to ultrasound scanning during pregnancy can be challenging for pregnant people residing in rural areas, such as Franklin. The pilot pregnancy scanning service, operating out of Pukekohe Birthing Unit, started on 25 May 2022, and has been welcomed by the area's midwifery workforce and whaanau expecting a baby.

From 25 May until 18 October 2022, 312 pregnant people received a pregnancy scan at the Pukekohe Birthing Unit, and the service provided 526 growth scans.

Figure 64 describes the ethnicity of people using the service who received a growth scan, and shows the proportion living in Quintile 5 areas.

Similarly, Table 18 records the number of people using the Pukekohe service who received a growth scan, by ethnicity, and the number of people of each ethnicity that live in a Quintile 5 area. Also shown is the percentage that these numbers represent of the total number of people accessing growth scans at the birthing unit. The highlighted area of the table indicates the high level of deprivation experienced by Maaori service users.

Figure 65 describes the ethnicity of people using the Pukekohe Birthing Unit service who received an anatomy scan, and the total number of these people who live in Quintile 5 areas.

Figure 66 shows the total number of nuchal scans performed at the Pukekohe Birthing Unit, and the ethnicity of people using the service.

Figure 67 shows the overall ethnicities of people accessing the pregnancy scanning service at Pukekohe Birthing Unit.

Key aspects of the service that have attracted positive feedback are that it:

- is closer to home and in the local community
- is adjacent to midwifery and obstetric clinics, in case the scans raise any queries
- has a consistent sonographer
- is a service dedicated to pregnant people
- is easy to book an appointment
- enables whaanau to become familiar with the birthing unit environment for either their birthing or postnatal care.

Access

The demand for pregnancy ultrasound scanning services is reported as very high. Although a barrier to access has been removed (through funding the co-payment cost for some women), pregnant women in Counties Manukau are still having to find transport to private ultrasound scan providers outside of their area. In addition, some private providers have reduced their capacity for pregnancy-related scanning, further decreasing access for pregnant women in rural areas, while others have made changes to their criteria for scanning multiple pregnancies.

FIGURE 63 ▼

Women living in a Quintile 5 area who accessed a funded co-payment scan, by ethnicity, June 2021 to July 2022

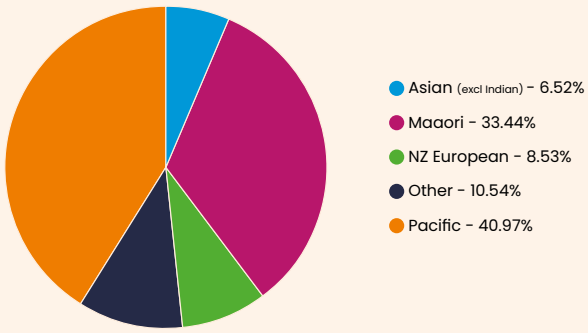


FIGURE 64 ▼

Total number of growth scans, with breakdown by ethnicity and Quintile 5 residence

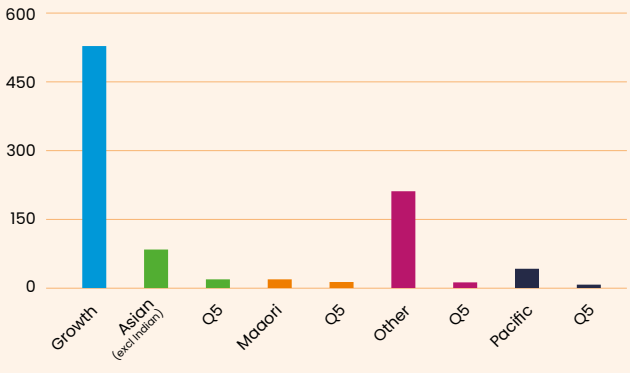


TABLE 18 ▼

Numbers of people accessing growth scans at Pukekohe Birthing Unit, by ethnicity and residing in Quintile 5 areas

Growth	**526**	
Asian (excl Indian)	82	15%
Q5	18	21%
Maaori	19	3%
Q5	13	2%
Other	211	40%
Q5	14	2.66%
Pacific	42	7.80%
Q5	9	1%

FIGURE 65 ▼

Total number of anatomy scans, with breakdown by ethnicity and Quintile 5 residency

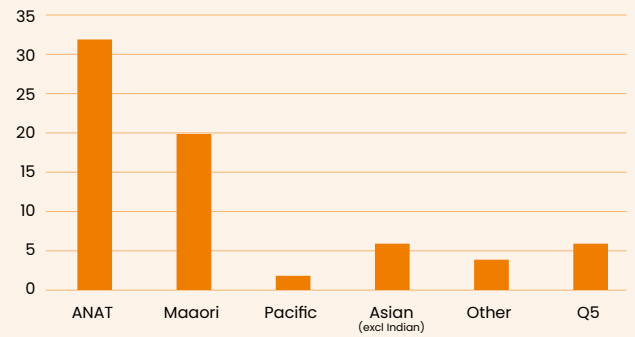


FIGURE 66 ▼

Number of nuchal scans at Pukekohe Birthing Unit, with breakdown by ethnicity

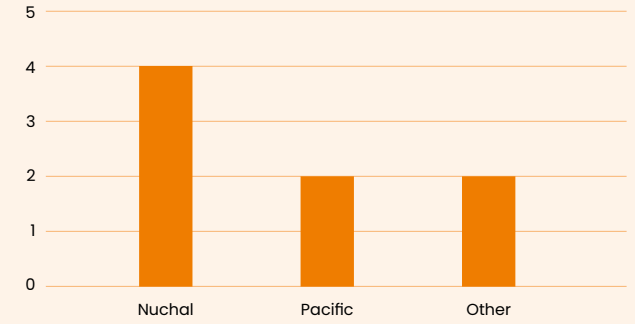
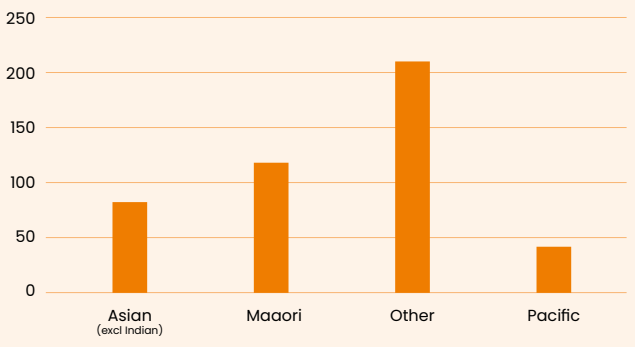


FIGURE 67 ▼

Ethnicity of people accessing the pregnancy scanning service at Pukekohe Birthing Unit



Quality

Women in Counties Manukau have to use multiple private providers for their pregnancy ultrasound scans, because provision is limited. This means the quality of pregnancy scanning can be affected by the variance between providers. After recommendations from the National Maternity Monitoring Group in 2017, the Ministry of Health, in consultation with the sector, produced the *New Zealand Obstetric Ultrasound Guidelines* to help improve uniformity and address this variance.

Summary

The main challenges faced by service users and pregnancy care providers within Counties Manukau are access to timely ultrasound scans and the quality assurance of those scans. Over the past 3 years, CM Health has provided additional access to existing pregnancy ultrasound services within its Women's Health division, against a backdrop of decreasing private provision (due to underfunding from the Section 88 primary care notice) and increased demand by service users and those providing pregnancy care. The demand for these services is clinically indicated, against a backdrop of social and economic deprivation, where approximately 12 per cent of pregnancies are affected by diabetes and other co-morbidities, which affect approximately 70 per cent of pregnant people in Counties Manukau. These figures are based on estimations of those people who fit the criteria to birth in a primary birth unit.

References

Health Quality & Safety Commission New Zealand. (2018) *Fourteenth annual report of the Perinatal and Maternal Mortality Review Committee: Te pūrongo ā-tau tekau mā whā o te Komiti Arotake Mate Pēpi, Mate Whaea Hoki*. Retrieved from: https://www.hqsc.govt.nz/resources/resource-library/fourteenth-annual-report-of-the-perinatal-and-maternal-mortality-review-committee-te-purongo-a-tau-tekau-ma-wha-o-te-komiti-arotake-mate-pepi-mate-whaea-hoki/

Ministry of Health. (2019). *New Zealand obstetric ultrasound guidelines*. Retrieved from: https://www.health.govt.nz/publication/new-zealand-obstetric-ultrasound-guidelines

Ministry of Health. (2011). *New Zealand maternity standards*. Retrieved from: https://www.health.govt.nz/publication/new-zealand-maternity-standards

Sources of graphs/tables:
Clinical Assessments Ltd (POAC) annual data

AUTHOR

EDITH PADAVATAN
Clinical Director for Allied Health, Scientific and Technical (Kidz First and Women's Health); Professional Lead – Social Work

Te Waiora Maternal Wellbeing Forum

Early intervention and collaborative working relationships are essential when supporting pregnant women with social challenges.

In March 2020, a hui was held with key stakeholders from Counties Manukau Health and Oranga Tamariki. The aim of the hui was to establish clear communication and collaborative working relationships. Participants saw working in partnership with whaanau and effective information sharing as imperative for building trusting and productive relationships. One of the key actions from the hui was to establish an inter-agency forum.

Te Waiora Maternal Wellbeing Forum was established in October 2021. The name 'Te Waiora', meaning 'the water of life', was gifted to us by the then advanced clinician social worker Dianne TeTau, who was instrumental in establishing the forum.

Forum membership consists of community midwifery social workers, community health workers, community midwives, members of the Child Protection Service and Maternal Mental Health, and Oranga Tamariki hospital liaison and allocated social workers. Community organisations and NGOs who work directly with pregnant woman are also invited to attend.

The forum operates on a strengths-based model of care, where judgement is removed and empowerment is the focus. We aim to facilitate collaborative partnerships, and ensure appropriate information sharing and effective early planning for pregnant women with high social needs or risk. Collaboration is not limited to the relationship between Oranga Tamariki and Te Whatu Ora Counties Manukau, but also includes women and their whaanau as valuable contributors to the partnership.

To date, we have supported 45 pregnant women, ensuring they received necessary social support and midwifery care. The journey has just begun! Our main focus moving forward is to secure a dedicated full-time person to coordinate the forum.

◀ Te Waiora Maternal Wellbeing Forum team, left to right: Hannah Autagavaia, Samantha Hyland, Kristin Hansen, Kristine Day, Edith Padavatan, Loa Su'A, Nicola Williams, Anna Hawkins

AUTHOR

HAYLEY GILL
MCIS Team Leader

BadgerNet update

The national Maternity Clinical Information System (MCIS) was implemented at Counties Manukau Health maternity services in October 2015, following recommendations from the CM Health External Maternity Care Review in 2012.

All women booked with CM Health maternity services have an electronic record created within the MCIS. The system is used across midwifery, obstetric and allied health services to share clinical information with practitioners involved in the women's care.

In 2021, we implemented the BadgerNet product in the same form as it is used in the United Kingdom, following 18 months of planning by existing users and engineering by CleverMed. This was a significant piece of work, which was only made possible for CM Health through having a dedicated project team working alongside our own MCIS team and financial support from the executive leadership team. All data has been migrated across from the previous version of BadgerNet and we now have access to new functionality that was not available in the old version. The BadgerNet product we are using now has a release every 2 months; some of the changes will be barely noticed by end users, but there is new and improved functionality each time. As part of this project, we were able to replace most of the hardware we use in Women's Health.

We have implemented an electronic booking process for inductions of labour, which has enabled a more streamlined workflow and reduced phone calls to the clinical charge midwives in Birthing and Assessment.

We are also close to turning on the cardiotocograph (CTG) integration, which will mean that monitoring will be viewable in real time within BadgerNet from anywhere. We envisage this will have a positive effect on the rate and timeliness of transfers from outlying units, and improve experiences and outcomes for mums and babies.

Once we have completed this, we will start work on BadgerNotes. BadgerNotes enables women to view their own notes and see a range of pregnancy-related information on their phones through an app. This work will be undertaken with a group from across Women's Health, and in collaboration with Auckland Hospital, to ensure we provide what is most valuable.

We are excited that Auckland Hospital will be starting to use BadgerNet from late March 2022, and Waitemata are also well underway towards their proposed roll out early next year. The opportunities we have to share information are enhanced significantly as more districts implement BadgerNet, and this will in turn improve the care and communication for women and babies across our region.

There are a number of other sites across the country now looking to implement BadgerNet, so the future certainly is exciting. We aim to support other sites as much as possible through their implementation, as we know the advantages of having a good electronic maternity record.

At CM Health, Neonatal Care has also started the process of implementing the Neonatal Clinical Information System (NCIS). This is another CleverMed product, and has many integration points with the maternity system, which provides much better information to clinicians across both disciplines. The neonatal staff have significantly increased their use of BadgerNet, and through enhanced functionality, developed by working closely with key neonatal staff, a more positive experience has been enabled.

We look forward to a year of changes and challenges, and this one started with Debra Fenton resigning from her role in Women's Health and as the BadgerNet sponsor. It has been a privilege to work with her, as she was involved from the beginning of BadgerNet, and has remained committed to the product and the benefits it can provide for women and clinicians. She leaves the project in good hands, with a dedicated team, which upholds the vision that electronic systems complement great care.

AUTHOR

ISABELLA G SMART
Midwife Manager
Women's Health Community Midwifery

Maternal and Fetal Medicine midwifery team

The Maternal and Fetal Medicine (MFM) midwifery team provides a community-based service, which bridges the gap in the coordination and delivery of care for women with complex pregnancies. As a team, our focus is on providing innovative and responsive approaches to pregnancy care to address health inequity and improve outcomes for women and their families.

The MFM midwifery team consists of specialist midwives who have all completed postgraduate studies. The team offers direct antenatal and postnatal continuity of care for a caseload of women with complex maternal medical and fetal medicine needs, who are under the care of specialist obstetric teams. The MFM midwives also act as a resource for other midwives, providing a shared-care MFM pathway for women who develop additional risk factors during pregnancy. Most women seen by the team remain under the care of their chosen midwife, while receiving additional support from a MFM midwife, and the Obstetric Medical Clinic and/or the Fetal Medicine Unit.

Within the Obstetric Medical Clinic, MFM midwives work alongside obstetricians, physicians and anaesthetists. When appropriate, they may attend an obstetric clinic to offer Boostrix and flu vaccines, making it easier for women attending the clinic for appointments to access vaccinations during pregnancy.

A key part of the service, is a collaboration between Counties Manukau Health and Auckland University of Technology to develop a structured orientation and education pathway for midwives working in the MFM field, known as the MFM Complex Care Course. After being introduced at CM Health, the course is now available to midwives throughout Aotearoa, and has set a standard for postgraduate study in the area of MFM midwifery.

The Counties Manukau Fetal Medicine Unit runs Monday to Friday at Middlemore Hospital. Within the unit, the MFM midwifery team supports both women and their MFM colleagues, including specialist fetal medicine obstetricians, neonatologists and social workers. MFM midwives assist with clinical procedures, and provide individualised information and support, so that women and whaanau who attend the clinic are fully informed about their care.

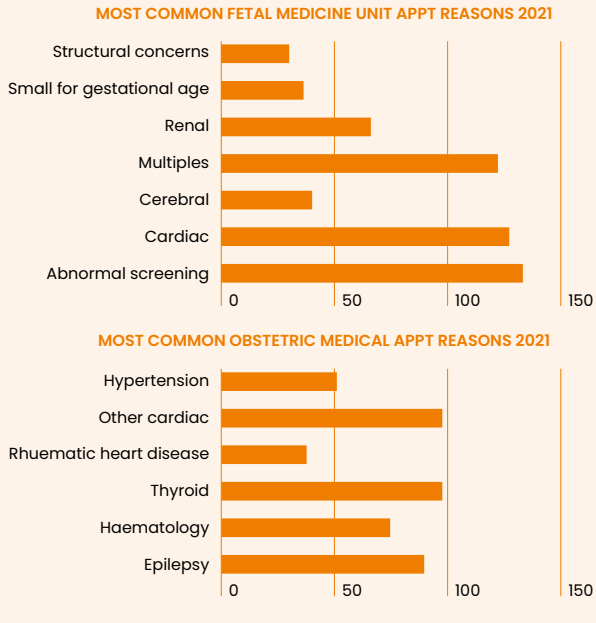
Between January and December 2021, MFM midwives supported 1,177 women attending the Fetal Medicine Unit, and 1,084 women seen at the Obstetric Medical Clinic. The reasons for these women's referrals varied, as shown in Figure 68.

Two MFM for midwives education days were held in 2021, with the second day held on Zoom, due to a COVID-19 lockdown. The sessions aim to demystify complex conditions and provide information, advice and tips on appropriate, evidence-based midwifery management. The team also produced written resources, including handy sized guidelines and reference cards for midwives to use within their clinical practice.

The MFM midwifery team will continue to develop and improve the services it offers to women and colleagues over the coming year. There are plans to update and improve information leaflets for women and whaanau on common conditions, and to update the clinical guidelines and procedures. In addition, the MFM online Google Drive resource for qualified and student midwives will be further developed with more resources. Further education days are also planned for the upcoming year.

FIGURE 68 ▼

Reasons for attending Fetal Medicine Unit and Obstetric Medical Clinic appointments, 2021



Source: CM Health MFM statistics

AUTHOR

ISABELLA G SMART
Midwife Manager
Women's Health Community Midwifery

Te Rito Ora

Te Rito Ora is a health promotion project, managed within Counties Manukau Health, which is funded on an annual decisional basis by the Ministry of Health. The aim of the project is to provide a free breastfeeding, baby feeding and adult nutritional support service for the mothers and whaanau of babies aged 0 to 2 years in Counties Manukau.

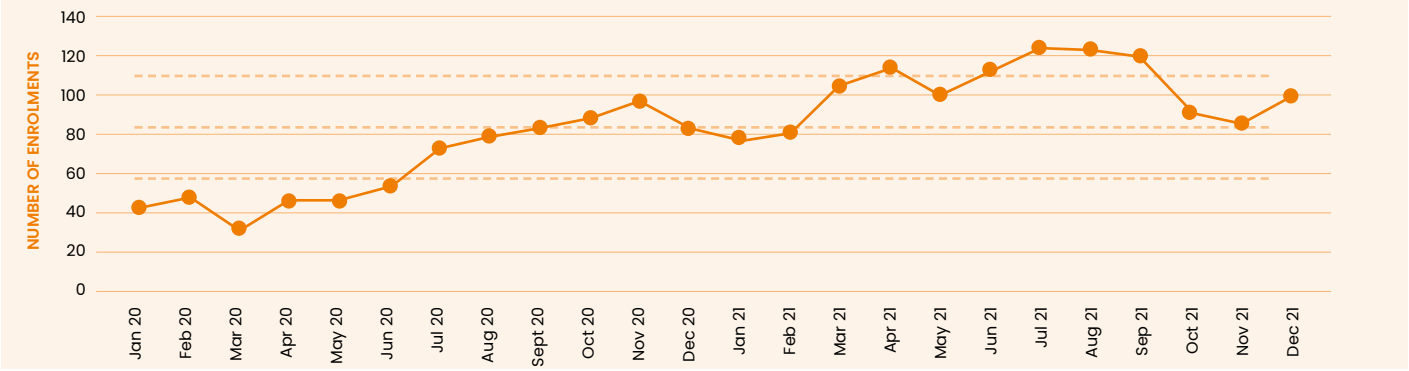
Te Rito Ora has a 0800 free-phone number for anyone to use, so that people can refer themselves, and an easy internal CM Health E-referral system. In addition, all midwives can refer to us directly through a woman's electronic maternity record. We have five kaitipu ora support workers and one full-time lactation consultant.

During 2021, referrals to our service increased by 59.8 per cent, from 771 in 2020 to 1,232 in 2021. Increases in referrals are linked to the impact of the Te Rito Ora communications strategy, devised during 2020 and carried out in 2021.

The steady increases in enrolments in Te Rito Ora, from January 2020 through to December 2021, are shown in Figure 69.

FIGURE 69 ▼

Total Te Rito Ora enrolments, antenatal and postnatal, 2020–2021



◀ *Te Rito Ora team members, left to right: Mar Eiao, Jenny Lester, Aleshia Dearlove, Elianna Poching, Florence Iosefa, Shivani Shaw*

Te Rito Ora's target groups are Maaori, Pacific and Asian/Indian people, although we do not decline referrals from anyone in the CM Health area who needs support with breastfeeding, or infant or adult nutrition. Figure 70 demonstrates how we are successfully prioritising and engaging with our target groups, while Table 19 provides a breakdown of Te Rito Ora enrolments, by ethnicity.

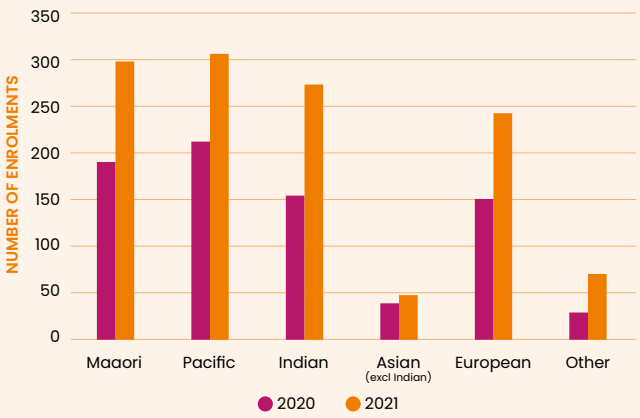
Table 20 sets out the continued breastfeeding rates for maamaa who engaged with Te Rito Ora in 2021[1].

Using whakawhanaungatanga and manaakitanga we contact and support women and whaanau in ways they value and prefer.

The number of contacts made demonstrates the amount of work Te Rito Ora staff undertake in engaging with women and whaanau, as shown in Figures 71 and 72.

FIGURE 70 ▼

Total Te Rito Ora enrolments, by ethnicity, 2020 and 2021



Breastfeeding

Te Rito Ora offers antenatal breastfeeding advice and education, practical breastfeeding support for new mothers, and lactation consultant input in complex breastfeeding situations. In response to the continuing impact of COVID-19 during the past year, we have developed online interactive group sessions, which we use in addition to email and text to contact mothers and whaanau. Our ZOOM, phone and video consultations have increased significantly, in order to help mothers prepare for, establish and continue to breastfeed during COVID restrictions. We have also continued to offer in-person kaitipu ora and lactation consultant visits when clinically required.

Nutrition

Our nutritional education and practical support help families create healthy first foods for weening. We also deliver adult cooking skills sessions for people on a budget. We promote healthy ingredients, adapting favourite foods to reduce fats, sugars and salts, and increase people's intake of vegetables and fruit. Due to COVID restrictions, we had to limit our in-person sessions during 2021. Practical sessions have taken place in partnership with the Grace Foundation during 2022.

TABLE 19 ▼

Total Te Rito Ora enrolments, by ethnicity, 2020 and 2021

ETHNICITY	2020	2021	INCREASE 2020 TO 2021
Maaori	190	297	56.30%
Pacific	210	304	44.80%
Indian	153	272	77.70%
Asian (excl Indian)	39	48	23.10%
European	149	240	61%
Other	30	71	137%

1 Ministry of Health breastfeeding definitions are available at: www.midwife.org.nz/wp-content/uploads/2019/05/Breastfeeding.pdf

Source of graphs and tables: Te Rito Ora generated statistics

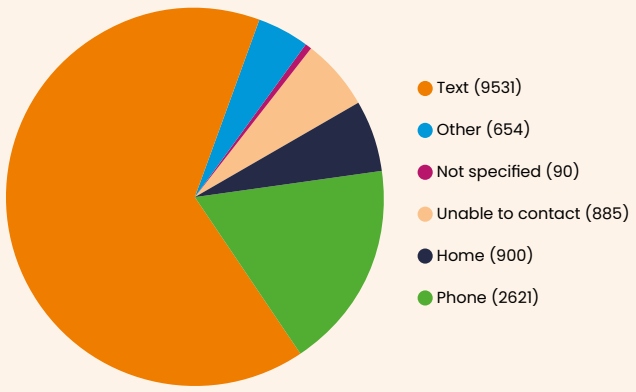
TABLE 20 ▼

Breastfeeding rates for women enrolled with Te Rito Ora, 2021

	EXCLUSIVE	FULL	PARTIAL	ARTIFICIAL	UNABLE TO CONTACT
3 WEEKS	80	49	92	16	31
6 WEEKS	57	36	70	13	27
3 MONTHS	20	12	16	7	4
6 MONTHS	3	5	8	7	7

FIGURE 71 ▼

Contacts with women and whaanau, by method, 2021



Starting solids

Our starting solids sessions provide practical skills and knowledge about baby's first foods on weaning, and aim to enable families to make healthy fresh choices instead of relying on pre-packaged baby foods. Due to COVID restrictions in 2020, we developed Zoom sessions on starting solids, which proved popular. We continued these sessions, to complement our in-person sessions, during 2021. In 2021, we held six Zoom sessions with 33 participants and integrated working directly with educators and pre-schoolers into our approach. This work has expanded during 2022 with online and in-person sessions being provided.

Janm aur Parvarish

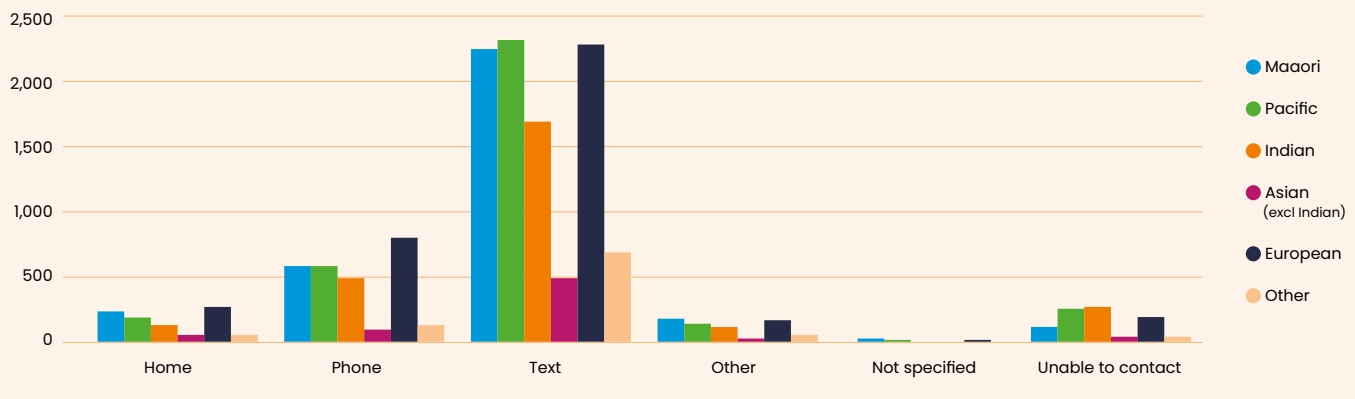
Janm aur Parvarish, meaning 'birth and parenting', was a new Te Rito Ora venture in 2021.

Janm aur Parvarish involves a series of Zoom information sessions, and was initially started to replace the Indian Women's Peer Support Group, which could no longer be run in person due to COVID restrictions. The information sessions cover topics that the kaitipu ora workers and lactation consultant were repeatedly asked about by women during breastfeeding and nutritional support sessions. In response to this co-design model, the content of all sessions is led by the women and a full question and answer session is included.

Janm aur Parvarish has been highly successful and more sessions are planned for 2023. See Janm aur Parvarish article, on page 88, for full details.

FIGURE 72 ▼

Contacts with women and whaanau, by ethnicity, 2021



8 Gynaecology

AUTHOR

SHARON RANSON
Service Manager,
Obstetrics and Gynaecology

Improving gynaecological health in Counties Manukau

The Gynaecology Service specialises in healthcare provision for female reproductive organs and genitalia. There are several areas of expertise (subspecialties) within gynaecology that make up the whole. This article provides an insight into some of the service's highlights between January 2021 and June 2022.

The past 18 months have continued to present the service with challenges in the provision of gynaecology care. COVID-19, of course, has in particular provided unique pandemic challenges that have at times limited our ability to provide gynaecological care. Recovery plans, due to these disruptions, are updated at frequent intervals and with each wave of the pandemic. Despite the advent of the pandemic, the Gynaecology Service has continued to strive to increase services and enable earlier engagement to assist in positive outcomes for the women who access this service. Some of those improvements are briefly described below.

As a result of working closely with Surgical Services, Gynaecology has obtained 11 additional theatre sessions at the Middlemore Hospital site, providing the potential for, on average, 52 additional complex surgeries per year. These surgical opportunities will be used to provide earlier access to surgery for women with cancer and life-debilitating conditions. In addition, the Gynaecology Service continues to access surgery via private providers to help provide earlier access to care. These measures have affected inpatient surgical waitlists, as shown in Figures 73 to 75.

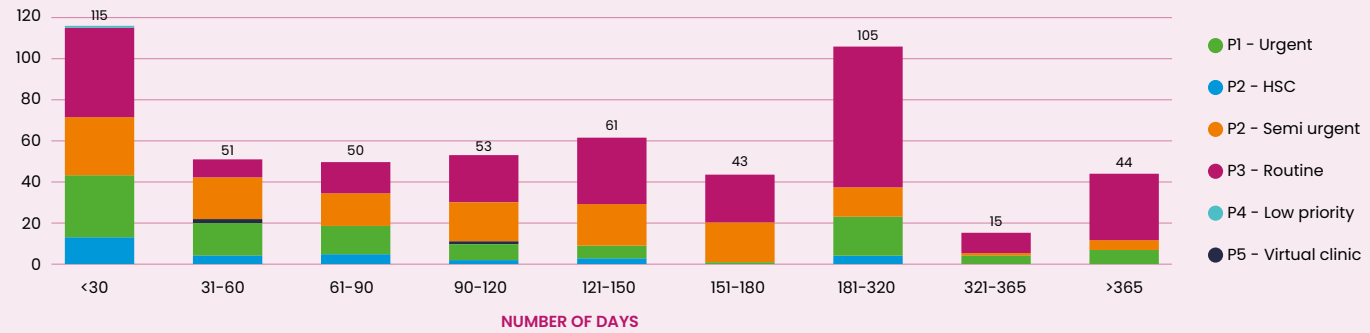
The waitlists for both first specialist appointments and surgery have increased over the past 12 months, both in terms of the number of people on the waitlists and the number of days they spend waiting. This is due to many factors, not least of which are the impact of the COVID lockdowns and staff sick leave, which result in cancelled clinic and theatre lists.

Various strategies have been employed to enable appointments for both lists to occur in a timelier manner. These include holding Saturday clinics, arranging leave cover to ensure clinic and theatre lists are not cancelled, and outsourcing patients to private providers for surgery where appropriate.

The Gynaecology Service was successful in July 2021 in securing additional Ministry of Health funding to provide clinical nurse specialist services for a fixed term of 1 year. A clinical nurse specialist has been appointed to assist women who engage with the service for pelvic pain and associated pelvic conditions. While in position, this nurse has also engaged with women with overdue appointments, enabling those who no longer require

FIGURE 73 ▼

Gynaecology inpatient surgical waitlist, by wait days – Counties Manukau Health 2021



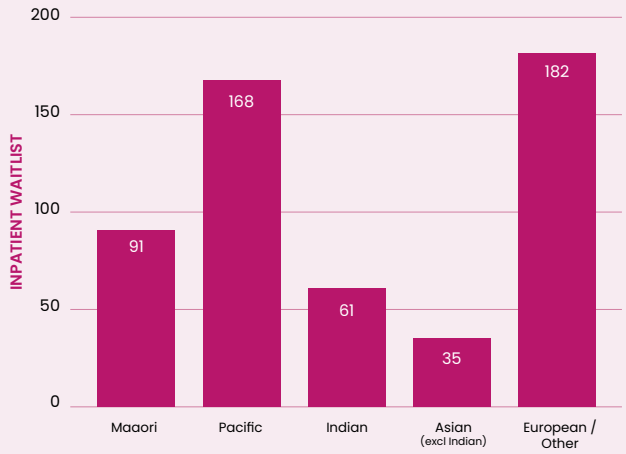
Key: HSC – High suspicion of cancer

specialist services to be discharged from the clinic. The nurse has also linked in with the specialist pain team and community organisations to help provide vital support earlier for women suffering from debilitating pain, which all too frequently impacts on their ability to work and interact with their whaanau.

The service has engaged with the Ko Awatea quality improvement team, and is working positively towards identifying, understanding and removing barriers, to enable women on the cancer pathway to access care earlier.

FIGURE 74 ▼

Gynaecology waitlist by ethnicity – Counties Manukau Health 2021



The Gynaecology Care Unit, as part of its care capacity demand management work, has identified that it is under-resourced for registered nurses. A business case has been presented, and funding awarded, to rectify this shortfall, enabling a recruitment programme to be run for registered nurses to support and improve the unit's model of care.

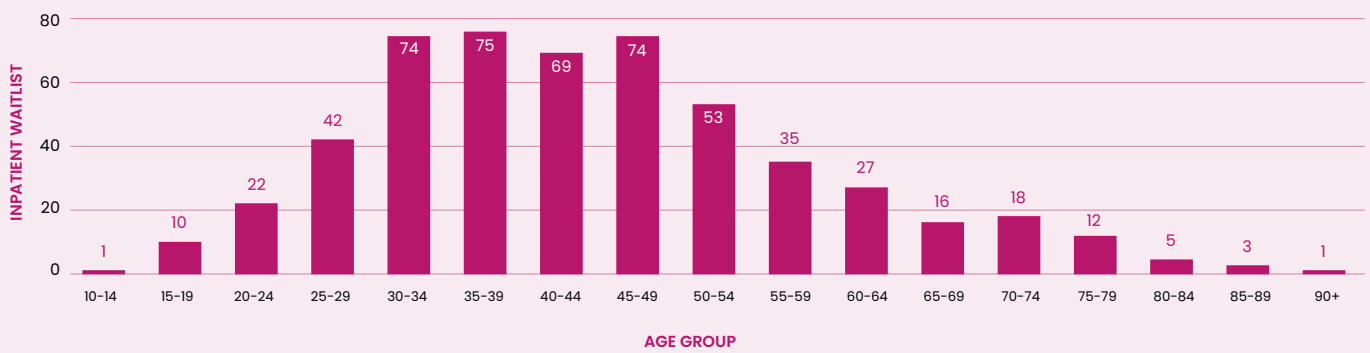
A successful recruitment programme has also been in place to secure five new consultant gynaecologists, who will also support the model of care and provide specialist care for women accessing the Gynaecology Service.

The Gynaecology Service has worked closely with our GP partners, providing training to enable better endometrial sampling to occur before a referral is made to the Gynaecology Service. This will provide women with an early, simple diagnostic test, which can help preclude endometrial cancer, and ensure that those women who require cancer services are able to access them earlier.

The past year has been a busy time for the Gynaecology Service, and the above initiatives are just a few examples of the work undertaken to improve access to the service, and keep women well and in the community. This work is ongoing, to ensure the service can continue to grow, and to support women to remain active and well members of their whaanau and community.

FIGURE 75 ▼

Gynaecology waitlist by age – Counties Manukau Health 2021



AUTHORS

LISA MCTAVISH
Perinatal Loss Midwife Specialist Team
Women's Health

ANNE MARINER
Perinatal Loss Midwife Specialist Team
Women's Health

Support for first and second trimester pregnancy loss

Although there are no formal national or international statistics available on the incidence of miscarriages, we estimate that pregnancy loss in the first or second trimester affects one in four pregnancies. The healthcare support provided to women and whaanau experiencing these losses must be respectful and responsive, acknowledging the individual's medical, psychological and cultural needs.

Previously Counties Manukau Health has split the responsibility for providing care for women experiencing pregnancy loss between two separate professional roles. Women with losses under 20 weeks' gestation were supported by the perinatal loss nurse specialist and women with losses over 20 weeks by the perinatal loss midwife specialist. At the end of 2021, both of these roles became vacant and the opportunity was taken to set up a new team whose responsibilities would encompass those of both the previous roles.

Subsequently, in February 2022, these two separate roles were merged into one team of two perinatal loss midwife specialists to allow for more consistent and equitable access to care for all women and whaanau experiencing a pregnancy loss at any gestation.

Scope of the midwife specialist role within the Gynaecology Ward

Within the Gynaecology Ward, the midwife specialists help to coordinate the management of care for women experiencing pregnancy loss, whether spontaneous or planned, providing support and information, and acting as a point of contact for women and their whaanau.

The midwife specialists provide women with the support of an additional professional who can walk alongside them, listening to their wishes and helping to advocate for them. The team also works with women to ensure they have all the required information around other available supports, such as memory making, financial assistance and grief counselling.

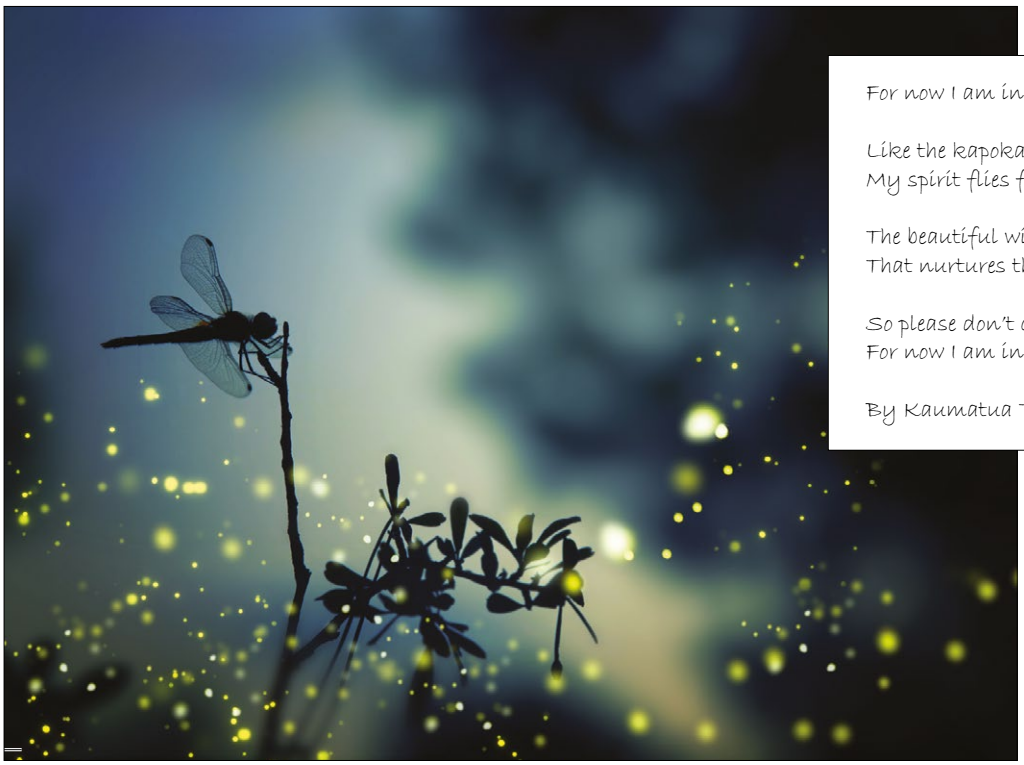
After discharge from hospital, the midwife team continues contact with the women through telephone and text follow up. They remain a point of contact for both the women and their midwives during the postnatal period, and are available to both answer questions and concerns, and to provide ongoing advice and referrals to support services.

Formal follow up with a senior medical officer is offered to women through the Second Trimester Loss Clinic, with these appointments arranged by the midwife specialist team. One team member (whenever possible, the midwife who has already formed a relationship with the woman and her whaanau) will also attend these meetings, where events can be debriefed, investigation results can be discussed, and plans and recommendations for future pregnancies can be made.

Staff education and development

The midwife specialist team aims to provide relevant and accessible training sessions for staff within the Gynaecology Ward through a variety of formats.

Short and sharp handover sessions have been developed, to provide education around pregnancy loss, bereavement support, and pharmacology and emergency management. These sessions come with additional written information to support the face-to-face sessions. Information and resource folders are provided for staff to help them support women with pregnancy loss; the folders are updated on a regular basis.



For now I am in the land of songs.

Like the kapokapowai, that flies quickly in the air,
My spirit flies free, I am almost there.

The beautiful wings which move back and forth,
That nurtures the flights course.

So please don't cry for me now I'm gone,
For now I am in the land of songs.

By Kaumatua Te Teira Rawiri

◀ *New Zealand's giant dragonfly or kapokapowai. The name means 'water snatcher' in Maaori.*

The spiritual meaning of a dragonfly is transformation. It is said the dragonfly appears before you when a life has gone, taking the wairua or spirit to a place of rest. The dragonfly represents the light of the departing one.

Ongoing compliance with interim standards for abortion services

As an abortion services provider, CM Health is expected to comply with the Ministry of Health's *Interim Standards for Abortion Services* (2020). These standards set minimum standards for referrals, accessible services and the information available to women looking to access an abortion service. The midwife specialist team helps continue the work initiated by the previous nurse specialist, alongside social work and medical colleagues, to ensure these standards are upheld and that all legal reporting requirements are met.

Areas for ongoing development

The provision of care for women and whaanau experiencing first and second trimester pregnancy loss continues to require review and improvement. Developing the perinatal loss midwife specialist team has gone some way towards ensuring that women with pregnancy loss, regardless of cause or gestation, receive equitable care. However, there is still work to do, including the following.

- Developing a single, more streamlined system to capture and process information for all women experiencing pregnancy loss. At present, data collection systems are gestation dependant. The development of a single, more accurate system would allow us to better understand our local population and guide service improvements.
- Creating multi-format patient information for all pregnancy loss, and ensuring it is accessible, appropriate and up to date.
- Using BadgerNet to document all pregnancy data and care in one place, and ensuring data collection is more robust, accessible and consistent.
- Streamlining the referral process for second trimester loss clinics to ensure appropriate and timely contact is made with women seeking follow-up support.

References

Ministry of Health. (2020). *Interim standards for abortion services.*

AUTHOR

JESSICA THORBURN
Social Worker
Acute Allied Health

Abortion as a health issue

In March 2020, the Abortion Legislation Act 2020 was passed, removing the procedure from the Crimes Act 1961 and treating abortion as a health issue. The purpose of the act was not only to decriminalise abortion, but also to better align it with other health services for women.

One of the changes made by the new act was the ability for women to self-refer for an abortion, without needing to see a health professional. In 2021, a self-referral email and phone number were set up to align with the new law changes. Although most referrals have continued to come through health professionals, such as GPs, there are an increasing number of self-referrals coming through, with 46 self-referrals received by women's health social workers in 2021, and 21 referrals received up to June 2022: see Figures 76 and 77.

Although no longer mandatory, pre- and post-abortion counselling are routinely offered as part of this service. The social worker's role is to provide women with information to assist in their decision-making. This includes the different options of abortion available to them, both surgical and medical, possible complications, fetal development and the possible psychological impacts of having an abortion.

Assessments conducted by the social worker are individualised, with the goal of better understanding the client and any additional challenges they may be facing, so that we can provide appropriate support, whether a woman decides to proceed with an abortion or continue with the pregnancy.

Women are referred to external agencies to provide any ongoing support that has been identified as needed during the assessment stage. Referrals can be for general community social work, family harm support, mental health or midwifery care for those woman who chose to continue their pregnancy.

Education and options around future contraception are routinely discussed as part of this service. Contraception can be provided at Middlemore Hospital, Epsom Day Unit and in the community, as requested by the women.

To strive for equitable health outcomes for Maaori and Pacific women, cultural considerations are taken into account at every stage of the abortion process. Understanding decision making in a cultural context is essential to be able to support women appropriately through this process. Options around taking home the products of conception are explored, along with cultural views on grief and loss. Promoting tino rangatiratanga within the abortion process is key in empowering women with the decisions they make around their health and wellbeing.

Ongoing challenges facing this service are difficulties in recruiting to the roles. At present, there are only two social workers working with the abortion service, for women seeking abortions due both to fetal abnormalities and social determinants. As abortion services become more accessible to women, so does the need for more health professionals to continue to deliver these services to a high standard.

FIGURE 76 ▼

Abortion referrals 2021

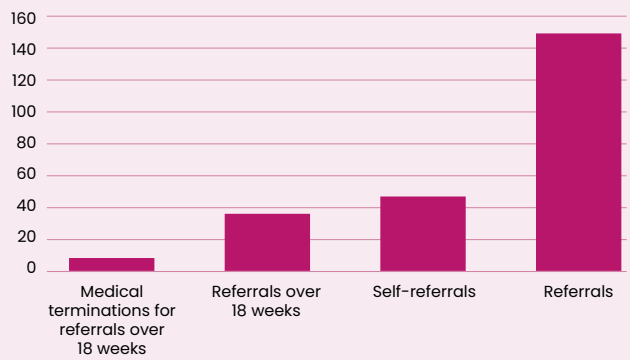
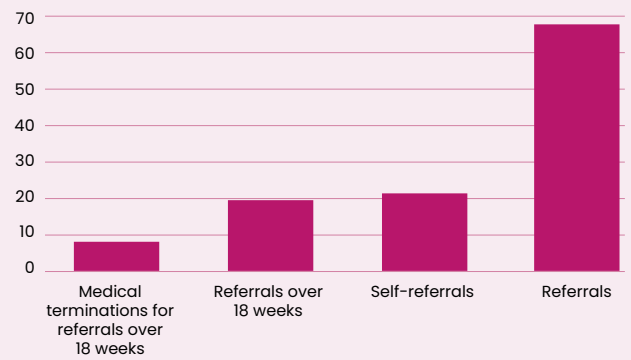


FIGURE 77 ▼

Abortion referrals January to June 2022



AUTHORS

SUE TUTTY
GP Liaison Primary Care
Ko Awatea

LUCY WONG
Improvement Advisor
Ko Awatea

Faster cancer treatment for endometrial cancer

Abnormal uterine bleeding

Multiple pieces of work happening at Counties Manukau Health have the potential to provide comprehensive care for women who experience abnormal uterine bleeding (AUB), reduce the burden of anaemia and endometrial cancer in the community, and reduce health inequity for Maaori and Pacific women. In particular, the implementation of an improved management model that trains and resources primary care clinicians to perform complete diagnostics in the community, has reduced referrals to secondary care, waiting times for first specialist assessments, and planned care treatments.

Other work includes the Ko Awatea Faster Cancer Treatment Project, a co-design project for community engagement, working with the Emergency Department and Patient Blood Management Service, to align regionally with the development of a Pipelle Biopsy Service at Waitemataa and Te Toka Tumai Auckland, a Northern Regional Alliance Endometrial Cancer Data Working Group, and a Pacific-led Endometrial Cancer Working Group.

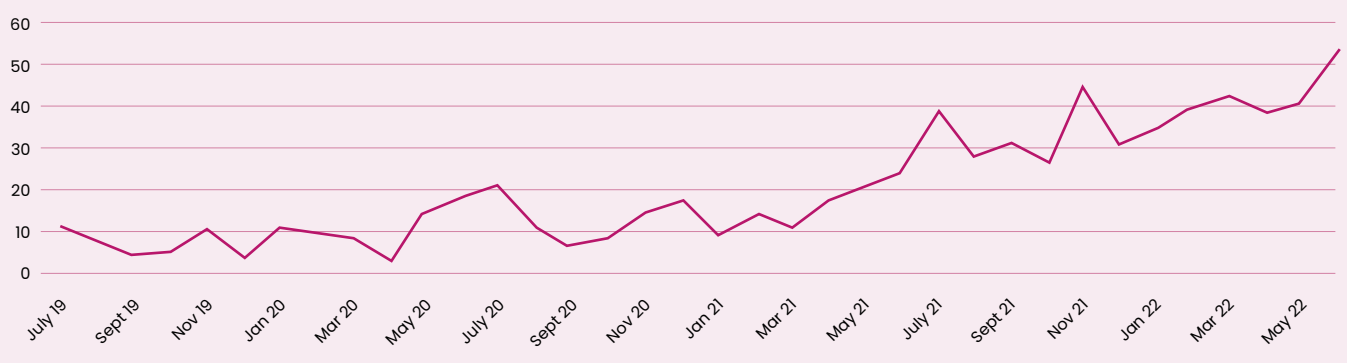
In 2015, a project was established for taking pipelles and accessing ultrasound scans in the community. However, it was not sufficiently resourced for general uptake. Additional funding was secured in 2020, with the roll-out of the refreshed project beginning in December 2020. By July 2021, sufficient capability had been developed in the community to provide this service, and the decision was made that, in future, all referrals to secondary care for women with AUB or endometrial cells on cervical screening would require a pipelle biopsy and ultrasound result to be included in the e-referral. This ensures women are fully investigated prior to their secondary care referral, so they can be triaged appropriately.

This requirement was relaxed during the lockdown periods in Auckland during the COVID-19 pandemic, when accessing healthcare was difficult, but has now been reinstated. Most patients with AUB, whose results are not suspicious for malignancy, are now able to be fully managed in primary care. This includes reversing any anaemia with a ferinject infusion if necessary, and the insertion of a Mirena intrauterine device to help control ongoing blood loss.

Training for clinicians was set up through the outpatient hysteroscopy clinics at Manukau Health Park. Clinicians with experience in performing pipelles could also be accredited through a sign-off conversation with a CM Health gynaecologist. Since February 2021, the number of providers accredited within primary care to perform pipelle biopsies has increased from 40 to 88. There has also been an increase in the number of interventions per month for women who have been treated in primary care for menorrhagia; from 11 in July 2019 to 54 in June 2022, as shown in Figure 78.

FIGURE 78 ▼

Number of patients with abnormal uterine bleeding seen in primary care, by month



Of the patients who were treated in primary care from July 2021 to June 2022, 26 per cent were Pacific and 16 per cent were Maaori (see Figure 79). This is similar to the ethnic makeup of the Counties Manukau population, with 16 per cent Maaori and 22 per cent Pacific, as per the 2018 Census.

Of the 459 patients who were seen in primary care for treatment of AUB or postmenopausal bleeding between 1 July 2021 and 30 June 2022, 184 (40 per cent) were living in Quintile 4 and 5 areas.

Further steps to address equity may need to be taken, such as increasing funding for interventions for Maaori and Pacific patients, and increasing awareness of AUB in the community.

Alongside this work, the pathway of care has been streamlined to ensure patients are not disadvantaged by care being delayed and that women are not lost to follow-up. A GP-to-GP pathway has been developed, with clear guidelines on the clinical responsibility for results and information transfer, and the Primary Options for Acute Care Service proposed as having a coordinating function. Negotiations with Primary Options for Acute Care are still underway.

FIGURE 79 ▼

Treatment for menorrhagia in primary care, by ethnicity

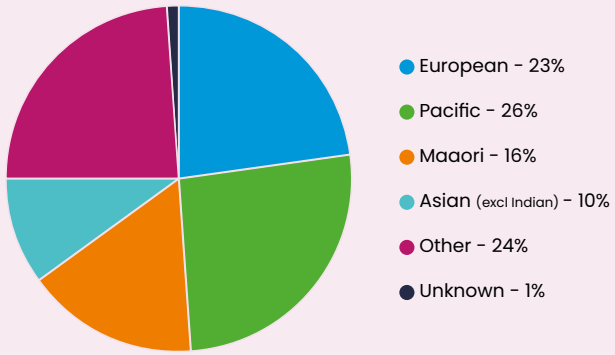
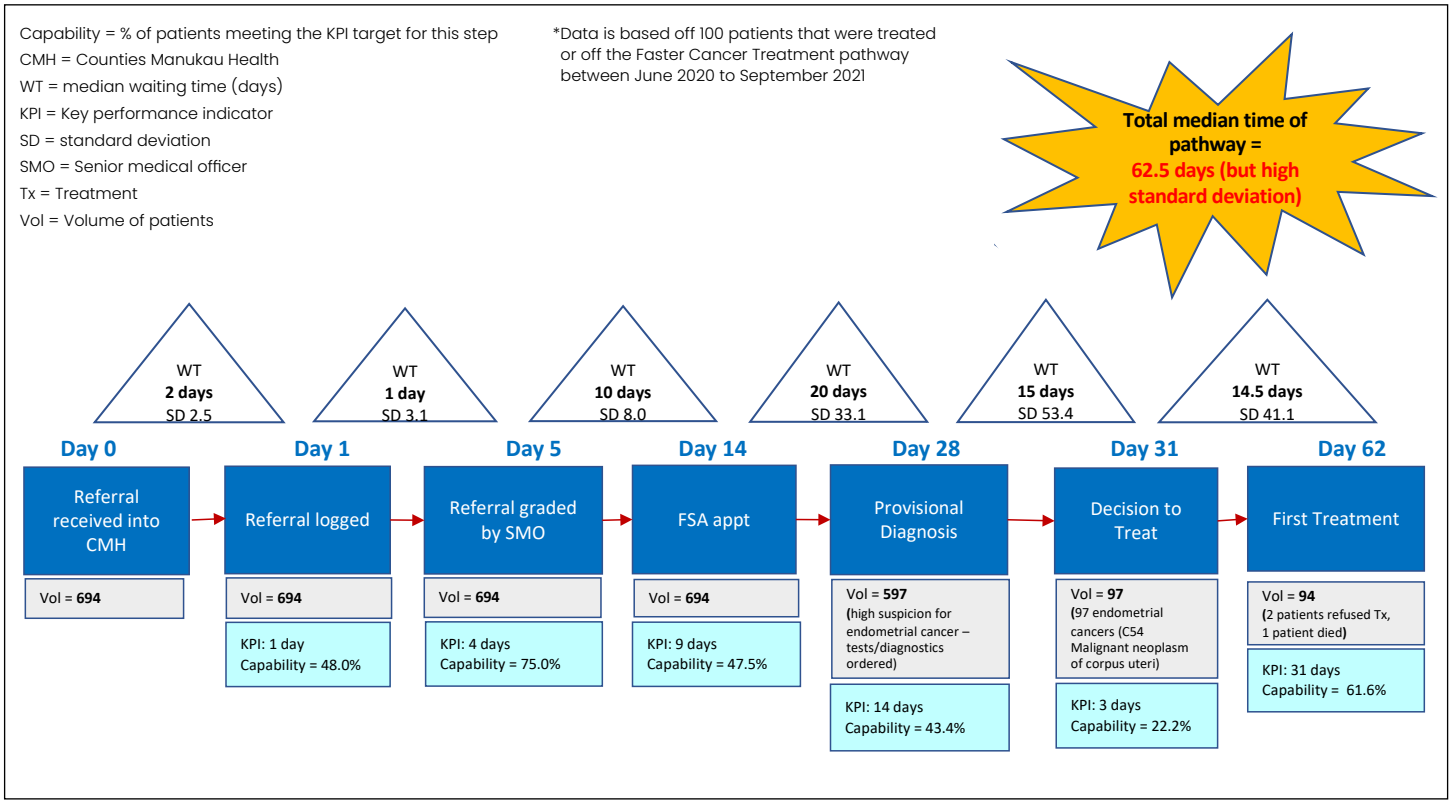


FIGURE 80 ▼

Median wait times on the cancer pathway for 100 women over a 15-month period (for first treatment or off the pathway), July 2020 to September 2021



There has been collaboration with the Ko Awatea innovation and improvement team, which is working on the Gynaecology Faster Cancer Treatment Pathway Project. The project's aim is to improve compliance with the current 62-day faster cancer treatment indicator (compliance is currently sitting at 41.5 per cent over the 15-months from July 2020 to September 2021), in order to meet the Manatuu Hauora target over the following 12 months.

The project began with mapping the patient journey, which helped the team understand where the longest wait times were in the cancer treatment pathway for patients (see Figure 80).

Three workshops were then held, which explored the delays between first specialist assessment and provisional diagnosis, provisional diagnosis and decision to treat, and decision to treat and first treatment. A root cause analysis was performed for each of these stages, and ideas for improvement generated. Four improvement ideas have been progressed so far, as shown in Table 21.

Rapid access clinics allow select patients to go directly to the Hysteroscopy Clinic, without needing a specialist appointment first. This helps ensure that women with a high suspicion of cancer are worked up quickly and allows the specialist resource to see other patients. These women are phoned by a nurse prior to the appointment to explain the procedure and have the opportunity to ask any questions they may have.

Ad-hoc additional pre-admission clinics ensure there is a pool of patients who have been clinically reviewed by the gynaecology team and are ready for theatre at short notice if there are cancellations.

Delays in women presenting for care are impinging on faster cancer treatment targets and create concerns for the women's health. Earlier engagement of the fanau ola nurse to support women, and the provision of transport support for specialist appointments and scans are two further initiatives that are being developed and tested.

A further increase in the number of pipelles performed in primary care, from 60 per month in November 2022 to a target of 100 per month by March 2023, could also help to improve compliance with the faster cancer treatment indicator, while also ensuring that, if appropriate, patient care will be managed in a primary care setting first.

The next step is to work with the co-design team at Ko Awatea to engage more with the Pacific community and raise awareness of AUB.

There is a great deal of work happening in the AUB space to improve outcomes for women with endometrial cancer. By providing care sooner and closer to home, there is also an opportunity to reduce some of the morbidity in the community from AUB and anaemia, and to intervene earlier with progesterone treatments, thereby reducing the risk of progression to endometrial cancer.

TABLE 21 ▼

Faster cancer treatment improvement ideas currently being implemented

IMPROVEMENT IDEA	AREA OF IMPROVEMENT	POTENTIAL BENEFITS
Rapid access clinics (hysteroscopy)	Grading → Hysteroscopy / diagnosis	↓ time on 62-day pathway ↓ do not attend (DNA) rate ↑ patient experience ↑ number of available first specialist assessment gynaecology clinics
One-off pre-admission clinics	Decision to treat → Treatment	↓ time on 31-day pathway (decision to treat to treatment)
Faster cancer treatment gynaecology transport support	Patient engagement and attendance	↓ DNA rate ↓ time on 62-day pathway ↑ patient experience
Earlier engagement of fanau ola nurse	Patient engagement and attendance	↓ DNA rate for patients in the faster cancer treatment pathway ↓ time on 62-day pathway ↑ patient experience

AUTHOR

DR ANNA BROWNSON
Minimal Access Surgery Fellow
Women's Health

The AirSeal system and women's health

Counties Manukau Health's Gynaecology Service has joined a growing number of surgical units throughout New Zealand to offer the AirSeal system. The AirSeal system aids major gynaecological surgery, particularly in the context of obesity, to be performed more safely than the traditional open approach, as a laparoscopic (keyhole) procedure.

The Gynaeocology Service offers laparoscopy as standard care for women undergoing major gynaecological surgery, particularly hysterectomy. Compared to traditional laparotomy (open or abdominal), laparoscopy has multiple well-established advantages, including decreased rates of wound complications (infection, sepsis and dehiscence), reduced postoperative pain, shorter hospital stays and higher individual patient satisfaction (Aarts et al., 2015; Walsh et al, 2009).

Laparoscopic surgery involves insufflation of gas (carbon dioxide) into the peritoneal cavity, creating a pneumoperitoneum that provides access to the abdomen and pelvis. AirSeal is an insufflation management system, which facilitates a stable pneumoperitoneum at lower intra-abdominal pressures of 7mmhg (as opposed to standard insufflation pressures of 15mmhg). An additional benefit of the AirSeal system is that it allows for smoke evacuation and specimen retrieval without compromising intra-abdominal pressure. This reduces procedure times and improves surgical efficiency, ultimately allowing more women to access much needed surgery in a timely fashion (Sroussi et al., 2017).

Although complications related of laparoscopy are low (compared to laparotomy), rare complications related to insufflation described in the literature include subcutaneous emphysema, mediastinal emphysema, pneumothorax cardiac arrhythmia, carbon dioxide retention, postoperative pain (shoulder tip pain) and air embolism due to venous injury (Pryor, Mann & Bates, 2022; Perrin & Fletcher, 2004). In addition, pneumoperitoneum, combined with the reverse Trendelenburg (head down) positioning required for pelvic surgery, alters an individual's cardiopulmonary physiology and presents a challenge, particularly in the context of obesity.

At CM Health, we serve a unique population, with disproportionally high rates of obesity, particularly among Maaori and Pacific communities. As a result, the Gynaecology Service is now offering the AirSeal system for all major laparoscopic gynaecology procedures at Middlemore Hospital, particularly for women with obesity and morbid obesity, as this population stands to gain the greatest differential benefit from a safer laparoscopic procedure.

References

Aarts, J., Nieboer, T., Johnson, N., Tavender, E., Garry, R., Mol, B., & Kluivers, K. (2015). Surgical approach to hysterectomy for benign gynaecological disease. *Cochrane Database of Systematic Reviews, 8*.

Perrin, M., & Fletcher, A. (2004). Laparoscopic abdominal surgery. *Continuing Education in Anaesthesia, Critical Care and Pain, 4*(4), 107–110.

Pryor, A., Mann, W., & Bates, A. (2022). Complications of laparoscopic surgery. *UpToDate*.

Sroussi, J., Elies, A., Rigouzzo, A., Louvet, N., Mezzadri, M., Faxel, A., & Benifla, J.L. (2017). Low pressure gynecological laparoscopy (7mmhg) with AirSeal System versus a standard insufflation (15mmhg); A pilot study in 60 patients. *Journal of Gynecology Obstetrics and Human Reproduction, 22*, 1–4.

Walsh, C., Walsh, S., Tang, T., et al. (2009). Total abdominal hysterectomy versus total laparoscopic hysterectomy for benign disease: A meta-analysis. *European Journal of Obstetrics and Gynecology Reproductive Biology*, 144, 3–7.

AUTHORS

SUE TUTTY
GP Liaison
Primary Care

LYDIA GILLAN
LARC Project Manager
Primary Care

Vaginal pessaries for prolapse

In 2020, the Vaginal Pessary Project was established to facilitate fittings for pessaries and follow-up care for women with prolapse in the community. The project was impacted by capacity issues related to COVID-19, but is starting to come back on track. There is a need to publicise the project now, if we are to see the expected benefits it could bring.

Funding for the project was part of a planned care initiative to reduce demand on secondary services and at the same time provide a service for women that was more convenient, timely and closer to home. Secondary care would then be able to prioritise more serious cases of prolapse that did not respond to a pessary, and would have increased capacity to see other conditions that require specialist intervention. Additional advantages of the project are to increase the competence of primary care in managing women with prolapse, and to reduce inequities by providing a timelier service for all women (the service was previously only available to those able to self-fund their care).

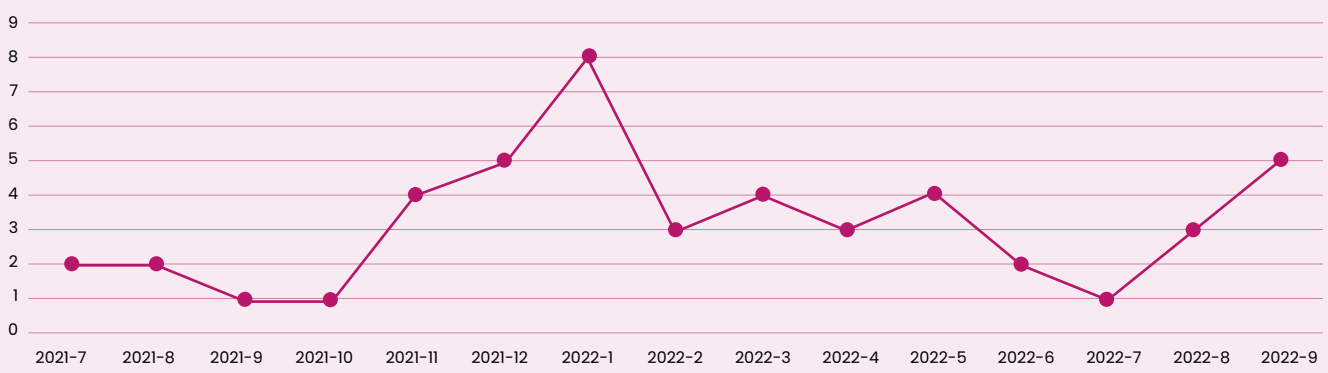
A pathway of care was developed, with an accompanying information booklet for healthcare professionals. Clinicians were able to gain experience fitting pessaries at outpatient clinics at the Manukau Health Park and fill out a self-assessment form to become signed-off to provide funded services.

Multiple COVID-19 lockdowns and the surge in Omicron cases in Auckland limited opportunities to engage with primary care providers and the community. General practices were prioritising testing and vaccinations, which impacted on the training for GPs. However, the pessary work remains relevant, as secondary care struggles to manage waiting lists further impacted by COVID-19 (when outpatient appointments were initially cancelled and later restricted to essential patients only), and by the ongoing increasing demand due to an aging population.

Completed pieces of work around this project include creating an information booklet for health professionals, organising an agreement with a funding agency to reimburse GPs for their work, running an educational session at a Women's Health Update Day attended by over 300 GPs, ensuring the process was documented in Auckland Regional Health Pathways and that the information aligned with the pathway, and sending out a MediNZ message to primary care to announce the project.

FIGURE 81 ▼

Number of pessaries inserted in primary care, by month



Currently there are 17 certified providers across 13 general practices at Maangere (two), Ootara (three), East Manukau (six), Manukau (one), Franklin (five) and outside the CM Health region (one). Forty-five patients were seen for ring pessary management in primary care from April 2021 to June 2022 (see Figure 81). Of these, 22 per cent were Pacific ethnicity and 9 per cent were Maaori.

In times of high workload and demand on the Gynaecology Service, non-cancerous conditions tend to be given low priority and, at times, are unable to be seen. This is inequitable for women who cannot afford to pay for private care.

The impact that this project has had on secondary care waiting lists is unable to yet be determined. The number of patients seen in CM Health secondary care pessary clinics was 239 for April 2021 to March 2022, compared to 374 for April 2020 to March 2021. However, the reason for this reduction cannot be determined, and could be due to less referrals to the service, reduced capacity or reduced attendance.

Increased communication with primary health organisations and general practices is needed to recruit clinicians, particularly those who have shown an interest in women's health through providing long-acting reversible contraception and pipelle biopsy services. The next step is to individually contact the 54 primary care clinicians who have been trained to insert intra-uterine devices (IUDs), to gauge their interest in providing this additional procedure.

In future, it would be useful to have an integrated approach to all women's health projects, so that when clinicians are being trained for contraceptive devices, they could also be encouraged to fit vaginal pessaries and provide pipelle biopsies, or vice versa, thereby supporting global up-skilling of the workforce. We are working with our primary health organisations to ensure all practices in Counties Manukau have access to a clinician who can provide women's health primary care for patients in their community.

The aim moving forward is to embed this project into the primary care portfolio as business-as-usual, so women can access pessaries and treatment for vaginal prolapse closer to home and in a timely manner.

AUTHOR

CHRISSIE SYGROVE
Clinical Nurse Manager

Module 10

The Women's Health Outpatients Service operates from the Manukau SuperClinic, located at the Manukau Health Park on Great South Road in Manukau.

The Manukau SuperClinic comprises 10 modules providing specialist outpatient appointments and day procedures.

Women's Health operates out of Module 10, which is a multifaceted module, as its staff and facilities are shared with the Urology Service.

Module 10 consists of 13 clinic consultation rooms, four dedicated procedure clinics, various workplaces, waiting rooms and a recovery area. The module works at its capacity most days.

Women's Health services delivered from Module 10 include antenatal, gynaecology and colposcopy clinics. These services, combined, provided 17,375 visits in 2021.

The antenatal clinics include the Diabetes in Pregnancy Clinic, where the obstetric team works alongside physicians, dieticians and the Retinal Screening Service. This clinic is demanding, complex and growing.

The other big busy antenatal clinic is the Obstetric Medical Clinic, where the obstetric team works with their antenatal general medical colleagues and the anaesthetic team.

When combined with the general antenatal clinics, these clinics recorded 7,556 visits in 2021.

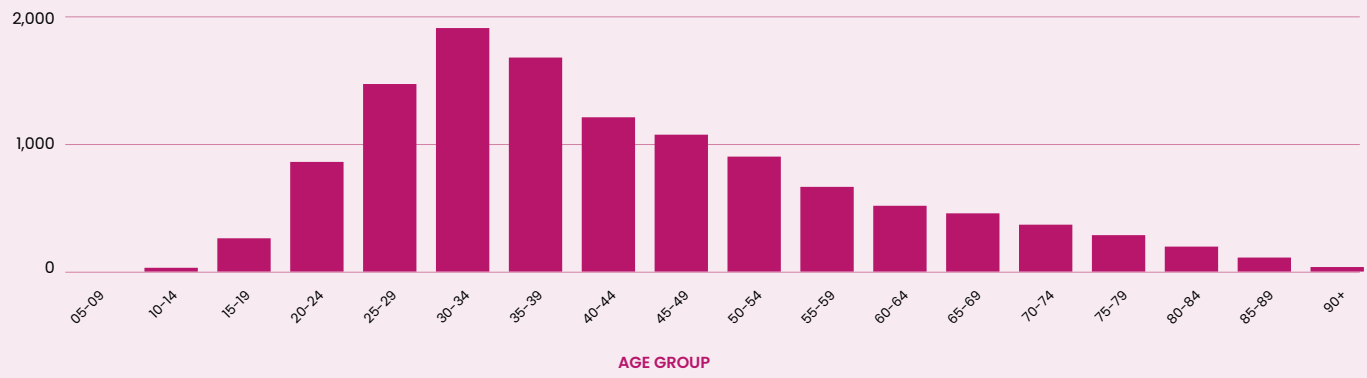
Gynaecology services provided from Module 10 include general gynaecology clinics, and urodynamic, pelvic pain, perineal tear, vaginal pessary, vulval, contraception, mesh and hysteroscopy services. There is also a specialist Faster Cancer Treatment team, with one of its current projects being a new hysteroscopy approach, which is optimistically showing improvements for endometrial cancers.

The gynaecology preadmission surgical clinics also run 2 days a week.

There were 7,845 gynaecology visits in 2021: see Figures 82 and 83.

FIGURE 82 ▼

Gynaecology outpatient visits, by age – 2021



Colposcopy is a separate service that uses a diagnostic procedure to visually examine the cervix using a colposcope. The main goal of colposcopy is to prevent cervical cancer by detecting and treating precancerous lesions early. The Colposcopy Service at Module 10 follows the *New Zealand National Cervical Screening Programme Policies and Standards*. In 2022, the service undertook a massive amount of work in order to complete a verification audit against the national policies and standards. The audit was carried out by the DAA Group, with recommendations and corrective actions identified.

Module 10's workforce is multidisciplined, representing a combination of nurses, midwives, patient care assistants, administrators, gynaecology and obstetrics senior medical officers, registrars, house officers, physiotherapists, dieticians, physicians, a health psychologist, GPs in training, and medical, nursing and midwifery students.

So far in 2022, 11.6 per cent of the women who had Women's Health service appointments at the module did not attend, up from 9.3 per cent in 2021. The main external factor for non-attendance in the past 2 years has been the COVID-19 pandemic. Many women were unable to attend their appointments due to sickness or needing to self-isolate. There was also a proportion of waahine who declined their appointments, due to fear of catching COVID-19 if they attended the module.

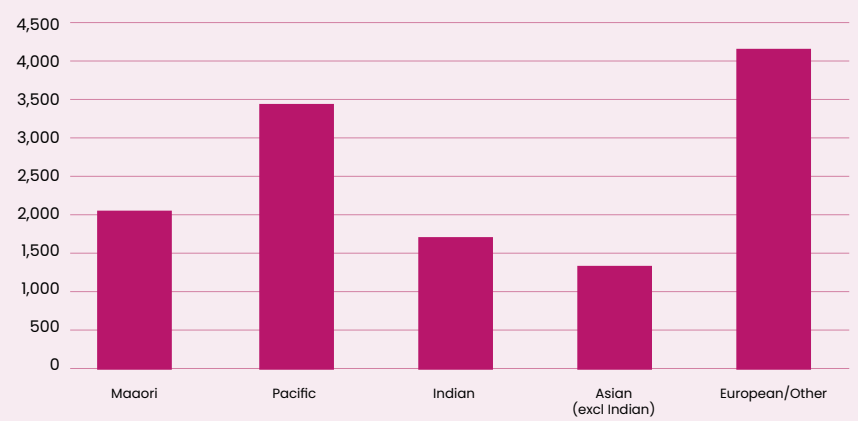
Consequently, clinic attendance was significantly impacted, as woman either did not attend or rescheduled their appointments. This added extra pressures to the backlog of appointments once restrictions were eased. The pandemic also led to delayed triaging time for referrals, and affected gynaecology theatre capacity through staff sickness and redeployment.

In addition, in 2021, there was a high turnover of clinic staff within the module, leading to a lack of continuity and loss of institutional knowledge. This, combined with continuous training of new staff, contributed to clinics not being booked or managed optimally in 2022. Overall, all these factors posed many challenges for the committed reconfigured Module 10 team. While measures are now in place to address these deficiencies, it will take time for them to reflect in the module's performance.

In summary, this quote from one of the colposcopy auditors captures Module 10's philosophy as it progresses forwards: "Module 10 staff were cohesive and supportive of each other and they put women at the centre of their work with a culture of supporting access for all women."

FIGURE 83 ▼

Gynaecology outpatient visits, by ethnicity – 2021



9 Newborn care

AUTHOR

SAMMY SUTTON-WALSH
Maternity and neonatal care consumer

Willow

If 2020 and a pandemic wasn't crazy enough, I was also pregnant with my second baby.

Everything was going along smoothly and it was like any other Monday morning. My 2 year old daughter, Addilyn, and I went for a walk to the park. Once we got back home, I started to feel what I thought were Braxton Hicks, so I ignored them. However, as the day went on, they got more uncomfortable and more regular.

In my gut I knew something wasn't right, but at 24+2 weeks pregnant I was trying to convince myself it was fine. Once the evening rolled around, I knew I had to call my midwife. Next thing, I was driving myself to the hospital. Addilyn was asleep and I told my husband, Thomas, to not wake her, and that I was fine and it was just a check up.

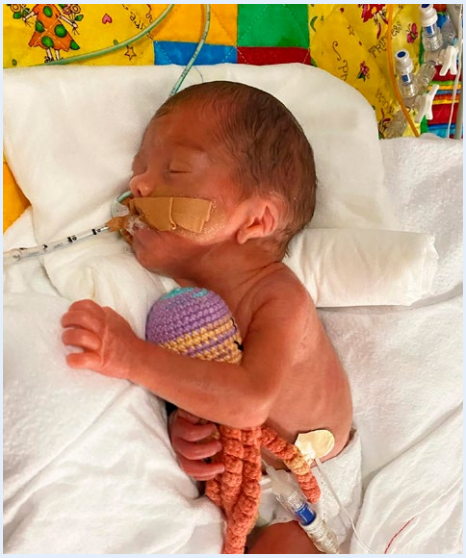
By the time they did all the checks, I was definitely in labour. My little one was wanting to come out. This was when the two-steps-forward one-step-back journey started. Somehow, I was lucky enough to keep baby in for two-and-a-half days, which allowed her to get magnesium and steroids.

I was 24+5 weeks, with some luck on my side. Baby moved into a better position, which meant she could be born vaginally and it was no longer a life-threatening situation, birth-wise, for me and her.

Just before she arrived, my husband Thomas and I named her Willow. We didn't know what the outcome of the birth would be, and I wanted to feel more bonded to her by talking to her and calling her by that name.

Willow was born just after lunch on 11 June 2020. It was the scariest moment of my life, not knowing what was to come after having a baby born so early. Unfortunately, Willow didn't take any of her own breaths and had to be ventilated straight away. That's when the reality set in.

From then on, Willow went through all the usual tests. They found she had grade 3 and grade 4 brain bleeds, and then, at 2 weeks old, she haemorrhaged in her lungs and we almost lost her. After this, she was put on an oscillator to help her lungs recover. Because it was such a critical time, we brought her sister, Addilyn,



to meet Willow. My heart could have exploded with so much love in that moment.

Willow was also a feisty baby, always trying to fight her tubes, so along with all the other medications, they had to increase her morphine and give her midazolam so she would stay still and let the machines do their jobs. She also had four blood transfusions. Being on the oscillator, meant there was no skin-to-skin contact, which was very unnatural and a hard feeling, as I had only had one cuddle at 8 days old.

At 4 weeks old, Willow started to turn a corner and moved to a CPAP machine. We made up for lost skin-to-skin time by holding her every day. We were on cloud nine.

Sadly, we then got the phone call that no parent wants. My heart sank. Her sister Addilyn had a relapse of cancer and had to undergo 6 months of chemotherapy when she was nearly 3 years old. If having a micro preemie wasn't hard enough, let's throw cancer at it too.

Through this time we had fantastic support from everyone close to us; people making meals was the biggest help of all. Between Thomas and I, our priorities were to do our best in the juggle between home with Addilyn and hospital with Willow. We made sure we were with Willow 12 hours a day. We read, sang, held her hand when we couldn't hold her, and when we could have skin-to-skin, it was for as long as our bladders would allow us! We truly believe that all this time spent with Willow helped her continue to do so well.

Willow was a fighter, just like her sister, and continued to hit her milestones. Some were incredibly early, like breastfeeding at 33 weeks, which was as soon as she went to high flow, then breathing on her own 34 weeks. We went home the day before Father's Day at 36+6 weeks, fully breastfeeding and with no oxygen.

To this day, both girls are doing amazing. Addilyn finished chemotherapy 1 year ago. She still has her incredibly cheeky personality, her hair is so beautiful and getting very long, and she loves to sing and dance. Willow is still defying so many odds. She is very, very confident, and obsessed with climbing. She is 20 months old and starting to walk 50 per cent of the time, and she has an infectious smile.

Despite all the challenges my girls have been through, they have brought more love and joy to our lives.

AUTHOR

GUY BLOOMFIELD
Clinical Leader
Kidz First Neonatal Care

Neonatal Unit

Kidz First Neonatal Care Unit is part of Counties Manukau Health's Kidz First Child Health Service and works closely with CM Health Maternity Services.

Overall, 2021 was an extraordinary year for Kidz First Neonatal Care. There was a 20 per cent increase in the unit's physical capacity, matched by a commitment to increased staffing to properly service our unit. While admission numbers have been stable, babies are staying under our care for longer.

The Neonatal Unit is adjacent to the Kidz First wards, operating theatres and the critical care complex at Middlemore Hospital. At the start of the year, the unit had 38 beds made up of an intensive care area with 18 beds and a special care area with 20 beds. During the year, the Special Care Service operated out of the Kidz First wards for 4 months. This allowed our special care area to be renewed and eight more beds to be added.

Highlights of the renewal include:

- more natural light
- subtle partitions between cot spaces to allow extra privacy for families
- fold-out beds for parents to stay
- a six-cot room for babies requiring a higher level of care, such as respiratory support
- two parent-rooms, to help families prepare for the transition to home.

The special care area will continue to focus on providing transitional care, to ensure neonates and their families receive optimal support. Transitional care supports mothers and babies being together, as a last step before going home.

There is a large and growing multidisciplinary workforce of dedicated staff within the unit, who provide services for around 1,200 neonatal admissions each year.

The nursing team comprises new graduates through to senior registered nurses. The latter include associate charge nurse managers, clinical nurse specialists, nurse practitioners, a nurse educator, clinical coaches, lactation consultants and a nurse manager.

The medical team consists of senior medical officers, a medical officer and rotating registrars, with various levels of experience.

A social worker, dietician, speech language therapist, physiotherapist, child protection services, play specialists, a pharmacist and the Kidz First home care nursing team support the immediate clinical teams. The allied health team is also integral to the care provided and plays a dynamic role within the multidisciplinary team.

Relationships with Women's Health are strong in both the primary and secondary maternity settings. The primary birthing units play a pivotal role in transitioning neonates closer to their homes, under the care of their community lead maternity carer (LMC) midwife or CM Health midwifery services.

Tertiary sub-specialty support and paediatric surgery is provided by Starship Children's Hospital, with which we have established bonds and communication. A strong research culture enriches our practice, with one senior medical officer holding a joint appointment with the University of Auckland and the Liggins Institute.

The articles of the Treaty of Waitangi underpin the model of care in Kidz First Neonatal Care. By promoting whaanau participation, we can nurture a solid foundation from which parents can independently care for their children. Our team expects to optimise the life potential of every baby in our care.

AUTHOR

GUY BLOOMFIELD
Clinical Leader
Kidz First Neonatal Care

Neonatal outcomes – Australian and New Zealand Neonatal Network data

An essential component of neonatal care is quality assurance, both in the short-term and when assessing longer-term outcomes, such as development.

We are participants in the Australian and New Zealand Neonatal Network (ANZNN). This collaborative network monitors the care of high-risk newborn infants by pooling data from all level 3 neonatal units in Australia and New Zealand, and all level 2 neonatal units in New Zealand.

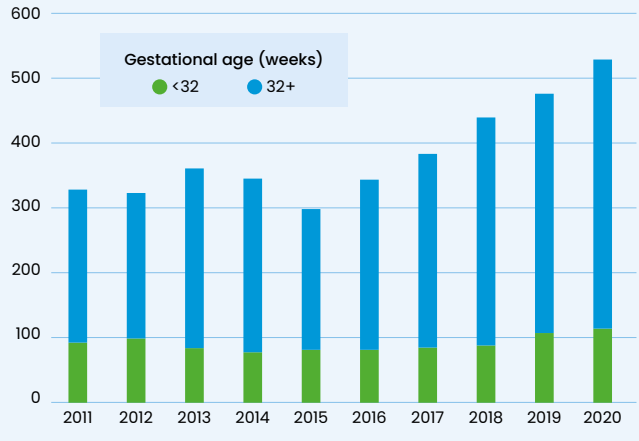
Participating in the network enables Counties Manukau Health to compare its survival and morbidity data with the Australasian region, with the most recent data currently available being from 2020.

Firstly, it is interesting to see the increased admission of these high-risk babies to Neonatal Care at Middlemore Hospital over the past 5 years (see Figure 84). The 2021 data, which has not been published yet by ANZNN, shows there were 597 admissions, representing a further increase.

CM Health's incidence of survival at 23 weeks' gestation remains low, compared to ANZNN survival rates. However, there are very few babies at 23 weeks' gestation admitted to Middlemore Hospital's Neonatal Care Unit. The survival rate at 24 weeks and above improves, and is similar to rates reported by ANZNN, as shown in Figure 85. Survival data is for babies admitted to the neonatal unit who survive until their discharge home.

FIGURE 84 ▼

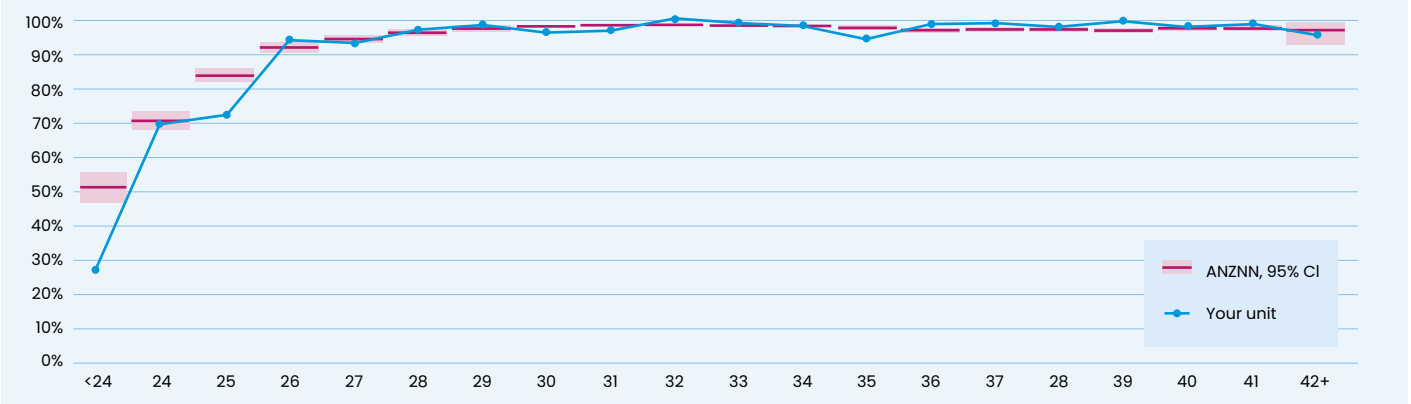
ANZNN registered babies admitted to Middlemore Hospital Neonatal Care Unit



Source: ANZNN

FIGURE 85 ▼

Survival by gestational age 2016–2020 (Middlemore Hospital compared to ANZNN)



Source: ANZNN

We are admitting more babies with extreme prematurity, and modifying our models of care to optimise their treatment. We have introduced a low-sugar protein solution, with the intention of reducing hyperglycaemia. We have also implemented a systematic review of the first 7 days of care for all very premature babies to optimise their management.

Admission temperature in preterm babies has been shown to be associated with mortality. Middlemore Hospital consistently has a higher percentage of babies within the normothermic range on admission, compared to ANZNN data, as shown in Figure 86.

We are continuing with quality improvement projects to maintain and increase the incidence of normothermia and avoid hypothermia on admission. A current initiative is to provide warmed humidified gasses for resuscitation and transport from delivery to the neonatal unit.

The incidence of chronic lung disease in babies with a gestational age of less than 28 weeks compares favourably to ANZNN data, as shown in Figure 87. We believe this relates to our use of non-invasive ventilation and minimally invasive surfactant therapy.

The incidence of late-onset sepsis for us is comparable to ANZNN data for babies of less than 28 weeks' gestation, albeit can be quite variable. We have launched a project to analyse and reduce these infections. There has been no incidence of late-onset sepsis in babies of 28 to 31 weeks' gestation in the past 3 years, as shown in Figure 88.

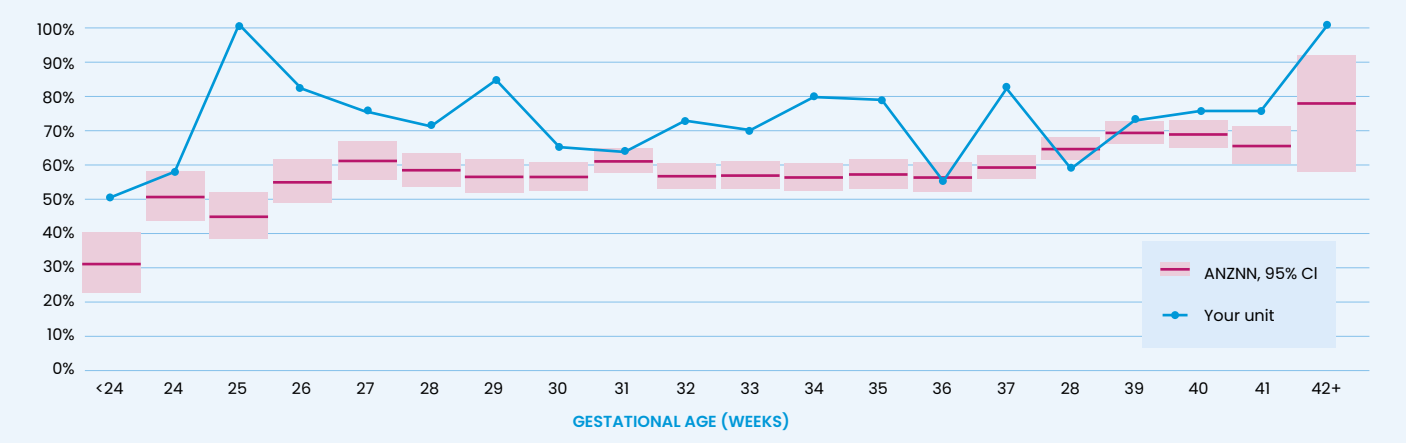
The incidence of necrotising enterocolitis has remained stable in recent years, as shown in Figure 89. When compared to ANZNN data, our results are similar to other units.

To date, we have reduced our rates of necrotising enterocolitis by introducing a standardised feeding protocol and probiotics in 2011. The Lactation Service has now introduced the use of screened unpasteurised donor breast milk for our babies most at risk of necrotising enterocolitis, when the mother's own milk is insufficient. The next step will be to establish a regional donor breast milk bank.

The incidence of severe intraventricular haemorrhage continues to be high, as shown in Figure 90. These results are based on a small number of babies, so even one extra case can significantly alter the percentage. We have a major quality improvement project underway to see whether there are any modifiable factors that we can change, to improve the intraventricular haemorrhage rates. Issues being studied include ensuring timely stabilisation during the first 60 minutes of life (the golden hour) and minimising handling.

FIGURE 86 ▼

Survival by gestational age 2016–2020 (Middlemore Hospital compared to ANZNN)

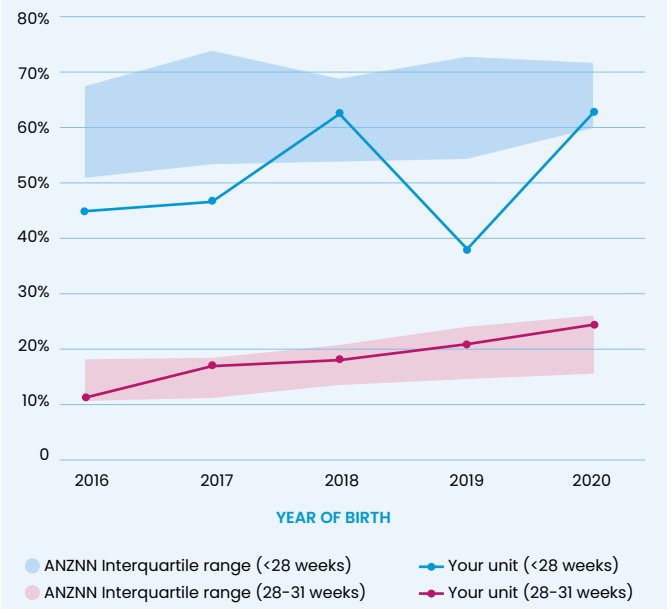


Source: ANZNN

Key: CI - Confidence interval

FIGURE 87 ▼

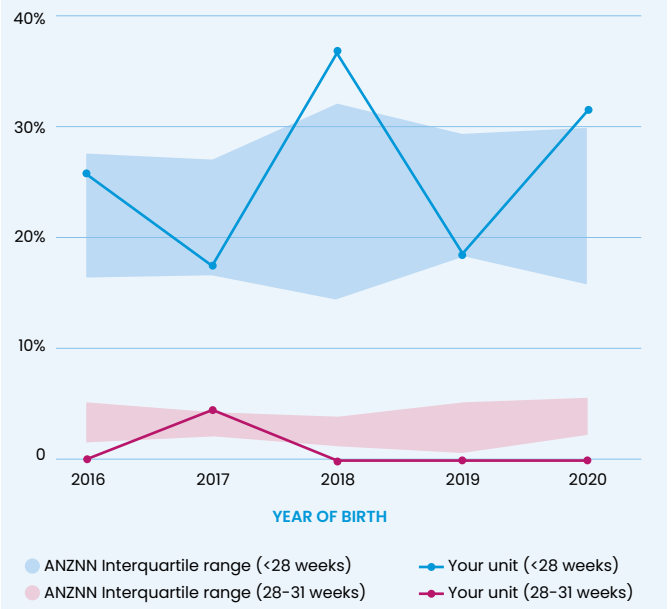
Incidence of chronic lung disease (Middlemore Hospital compared to ANZNN)



Source: ANZNN

FIGURE 88 ▼

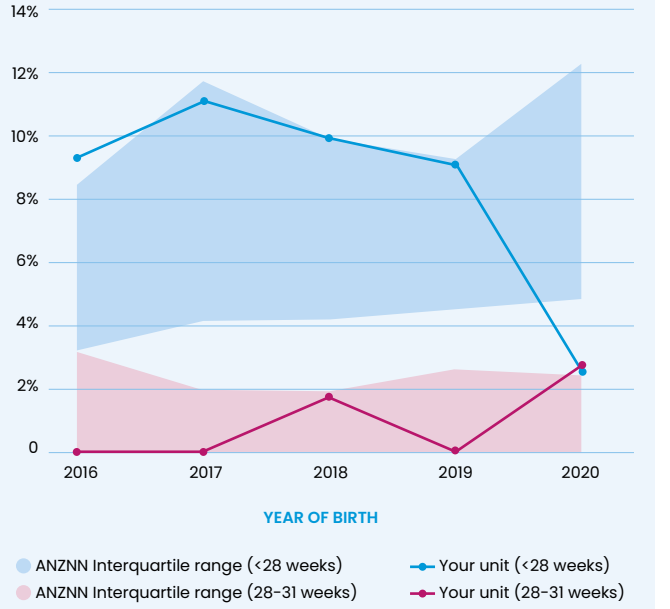
Late-onset sepsis in babies born at <32 weeks and survived to day 2 (Middlemore Hospital compared to ANZNN)



Source: ANZNN

FIGURE 89 ▼

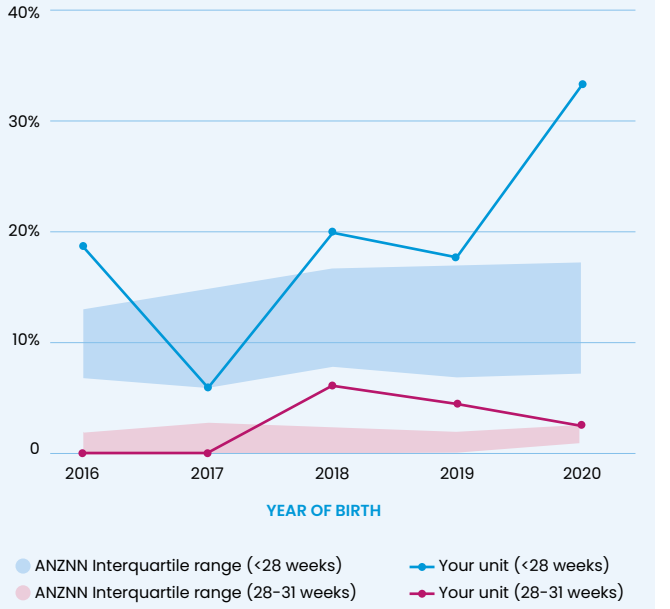
Incidence of necrotising enterocolitis 2016–2020 (Middlemore Hospital compared to ANZNN)



Source: ANZNN

FIGURE 90 ▼

Severe intraventricular haemorrhage in babies < 32 weeks from 2016–2020 (Middlemore Hospital compared to ANZNN)



Source: ANZNN

Severe retinopathy of prematurity continues to be high compared to ANZNN rates, as shown in Figure 91, especially in babies in the 28 to 31 weeks gestational age group.

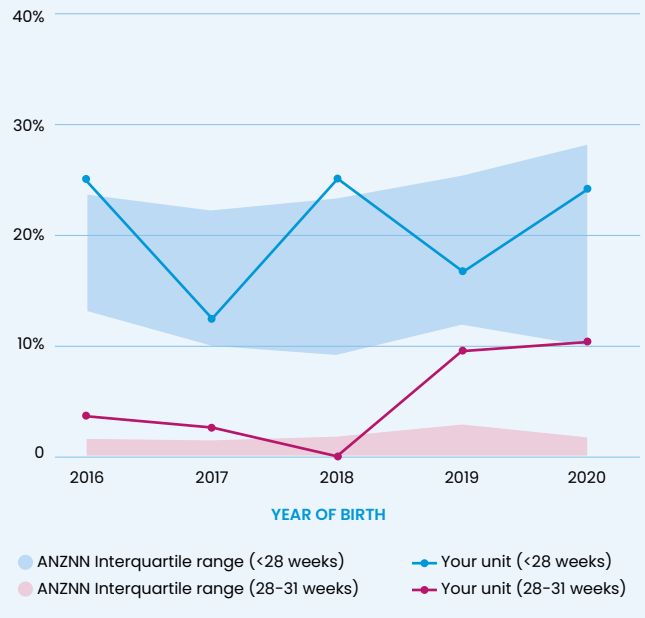
This may relate to the availability of better technology, with use of retinal cameras enabling greater ascertainment of retinopathy of prematurity. The rates for babies needing treatment for retinopathy of prematurity have been stable in recent years.

The incidence of hypoxic ischaemic encephalopathy is relatively stable, as shown in Table 22. These figures are for babies who have suffered some perinatal asphyxia. We monitor this closely in conjunction with Maternity Services.

This review has focused on clinical outcomes for neonates. It seems appropriate to conclude with a consideration for the babies and their families. As Figure 92 demonstrates, the most premature of our babies spend 4 to 5 months in hospital with us.

FIGURE 91 ▼

Severe retinopathy in babies born <32 weeks' gestation 2016–2020 (Middlemore Hospital compared to ANZNN)



Source: ANZNN

TABLE 22 ▼

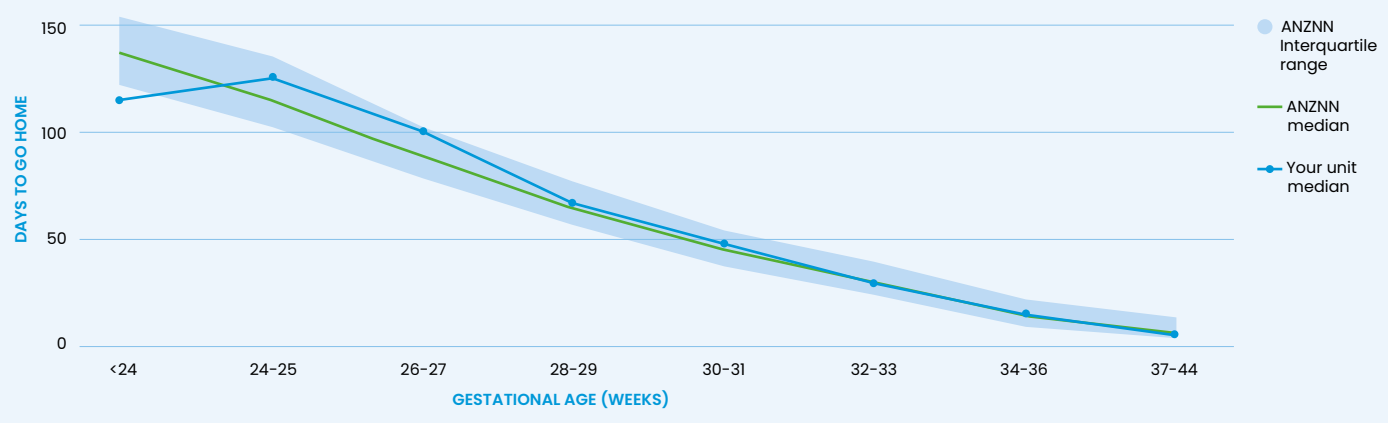
Incidence of hypoxic ischaemic encephalopathy 2012–2021 (Middlemore Hospital only)

	NUMBER	DIED	COOLED	GRADE
2012	16	2	15	3
2013	9	2	7	3
2014	4	0	4	0
2015	7	3	6	3
2016	7	2	7	2
2017	8	2	8	4
2018	6	2	6	2
2019	7	3	7	0
2020	10	1	10	1
2021	7	0	7	1

Source: Middlemore Hospital data

FIGURE 92 ▼

Days to go home for babies who survived



Source: ANZNN

AUTHORS

DR CHRISTINE MCINTOSH
General Practitioner Liaison CM Health and Senior Lecturer, Department of Paediatrics, Child and Youth Health, University of Auckland

TINA HIGGINS
SUDI Prevention Project Manager

Sudden unexpected death in infancy

Sudden unexpected death in infancy (SUDI) cases within New Zealand remain high. Within the Counties Manukau Health region, there has been a marginal reduction in the 5-year annualised SUDI rate from 2015 to 2019, by an average of 10 SUDI per year.

Despite this, the rate remains far removed from the Ministry of Health target of 0.1 SUDI per 1,000 livebirths by 2025 (which would equate to less than one SUDI per year in CM Health). Trends in the national rate in past years are shown in Figure 93.

SUDI continues to disproportionately impact on Maaori and Pacific people living in the CM Health area. In May 2022, the Ministry of Health published an analysis of coronial SUDI liaison reports from September 2018 to June 2020, which highlighted the need for cohesive work across the health and social services sectors (Ministry of Health, 2022). This will help ensure whaanau are well supported in a coordinated and culturally responsive way across all agencies to promote maternal and infant wellbeing and therefore provide SUDI protection.

Although COVID-19 has hampered some of our activities, our partnerships across the health, social, community and public service sectors have continued to build to enable an integrated, cohesive and strengths-based approach to SUDI prevention.

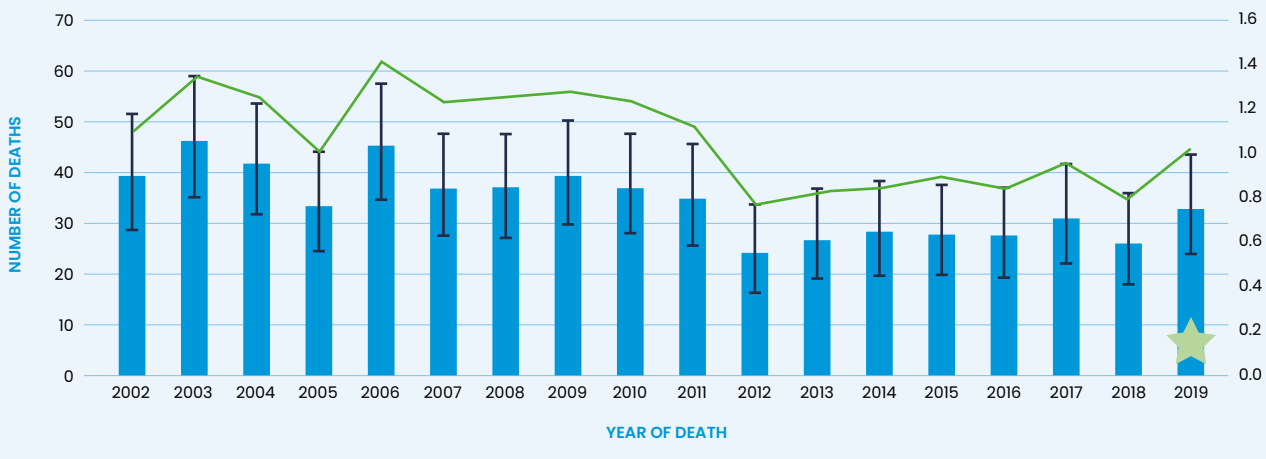
The Safe Sleep Programme

The past 2 years have been difficult for all sectors of health as we attempted to navigate the appropriate COVID-19 pandemic response. That said, the Safe Sleep and Smokefree champion groups have continued to grow from within the CM Health workforce and among our stakeholders in the community. The Safe Sleep Champions Group has strived to improve and maintain a cohesive and integrated approach for Maaori whaanau and Pacific people by meeting and collaborating regularly to help find solutions for those most affected and challenged by ensuring the safety and wellbeing of all peepi.

CM Health continues to provide baby beds (Pēpi Pods® and wahakura) for our vulnerable peepi, which can be accessed through our maternity units, KidzFirst departments, Safe Sleep champion networks and WellChild Tamariki Ora providers. The supply of wahakura has been strengthened by three kairaranga/weavers who produce and supply beautiful and uniquely woven wahakura (see photographs).

FIGURE 93 ▼

National oversight of SUDI, 2002–2019



Source: Child and Youth Mortality Review Committee, 2021

▲ *Top left: Puhi Nuku from Hawera, our most recent kairaranga of wahakura for CM Health whaanau*

▲ *Top right: Riwa wahakura, developed by kairaranga Riwa Wawatai from Hawkes Bay*

▲ *Above: Wahakura by Shelley Bell, our local kairaranga who has been supplying wahakura to CM Health whaanau since 2015*

▶ *Right: Local wahine hapuu learning to weave her own wahakura for her expected peepi*

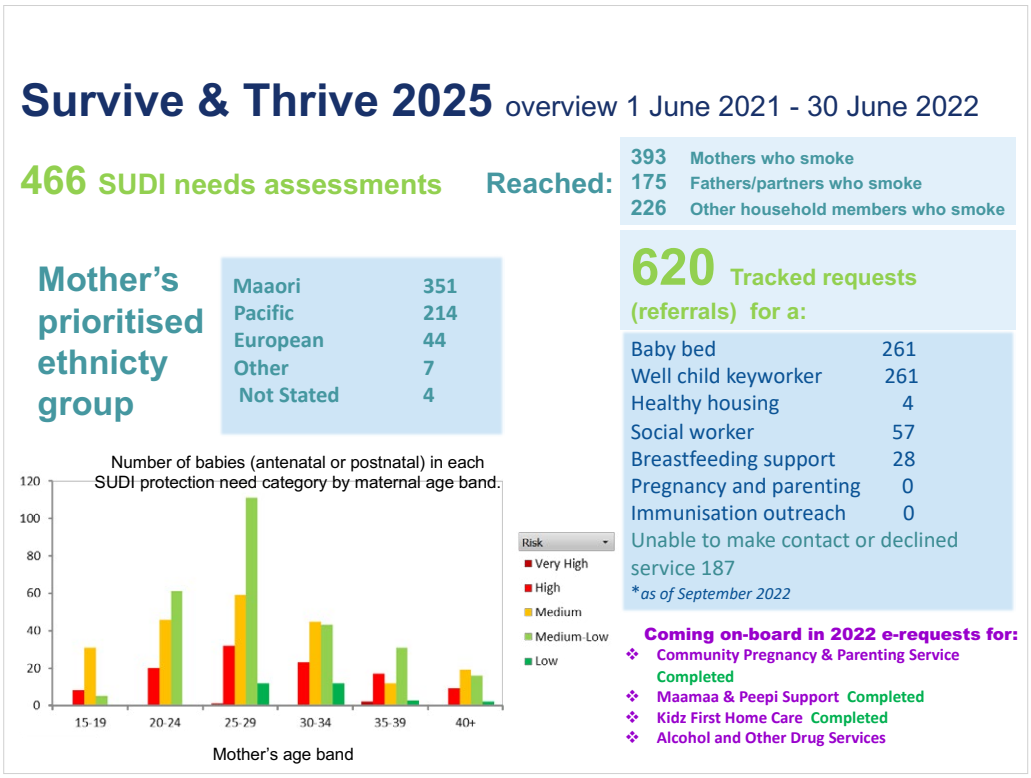


FIGURE 94 ◀
Survive & Thrive 2025 referrals, 1 January 2021–30 June 2022

Source: CM Health Survive & Thrive 2025 programme

Waananga wahakura

Despite the challenges of lockdowns, we were fortunate to achieve one wahakura weaving waananga in April 2021, with our local master kairaranga, Shelley Bell. The waananga was attended by hapuu maamaa, their whaanau and participants interested in supporting the weaving workforce by providing wahakura. The waananga is embedded in traditional skills and tikanga Maaori, while also promoting whaanau engagement in accessing health and social services to improve health outcomes for peepi, waahine and whaanau. For many participating Maaori whaanau, the reconnection to maatauranga Maaori was incredibly powerful and appreciated in addition to the experience of weaving their own safe sleep bed for their taonga. The waananga was held at Te Kaha o te Rangatahi in Manurewa.

Survive & Thrive 2025

Our partnership with the CM Health Smokefree team is flourishing, with many of the hapuu maamaa engaging with the Survive & Thrive 2025 approach (see Figure 94).

Survive & Thrive entails a SUDI assessment, with access to a safe sleep bed and referral to SUDI protection services, such as social services, AWHI, immunisations outreach, breastfeeding services, pregnancy and parenting waananga and oral health. For hapuu maamaa whose peepi are identified as having a greater need for SUDI wrap-around care, a keyworker model of care is provided by their chosen Well Child Tamariki Ora provider. This enables focussed support to be provided to whaanau, including providing a safe sleep bed and education, and support accessing and following up with SUDI protection services, to enable maternal, infant and whaanau wellbeing.

Building an integrated approach to enhance infant wellbeing in CM Health

The Child, Youth and Maternity SUDI Prevention team at CM Health acknowledges the mahi that all our partners do within their communities and organisations. Our collective goal is to empower whaanau with choices and decision making that ultimately protects peepi from the avoidable tragedy of SUDI. Our team is committed to expanding, strengthening, educating and resourcing all whaanau, social service agencies and government teams to enhance infant wellbeing in Counties Manukau.

References

Child and Youth Mortality Review Committee. (2021). *15th data report: 2015–19.* Wellington: Health Quality and Safety Commission. Available online at: https://www.hqsc.govt.nz/resources/resource-library/child-and-youth-mortality-review-committee-15th-data-report-201519-te-ropu-arotake-auau-mate-o-te-hunga-tamariki-taiohi-te-purongo-raraunga-15-201519/

Ministry of Health. (2022). *Sudden unexpected death in infancy: An analysis of coronial SUDI liaison reports from Sept 2018 to June 2020 with subsequent recommendations.* Wellington: Ministry of Health. Available online at: https://www.health.govt.nz/publication/sudden-unexpected-death-infancy-analysis-coronial-sudi-liaison-reports-sept-2018-june-2020

10 Maternity quality improvement work plan 2023–2024

Maternity quality improvement work plan 2023-2024

Tuuranga Hauora o te Mana Wahine / The Division of Women's Health Te Whatu Ora Counties Manukau is commited to working in partnership with tangata whenua to ensure the provision of culturally safe care and to achieve health equity for Maaori driven by our obligation to Te Tiriti o Waitangi as the founding document of Aotearoa.

	STRATEGY/ACTIVITY	MEASURE/OUTPUT
Kahu Taurima	Underpinned by the national Kahu Taurima (First 2000 Days Programme) of work, prepare and engage with iwi partners, the community, lead maternity carers, primary birthing units, community midwifery team and consumers. Identify priorities and enablers for our community that are driven by whaanau-centred engagement to address equity and improve outcomes for whaanau.	Agreed objectives with measured improved outcomes.
Pacific Health Strategy	Underpinned by the Pacific Health Strategy programme of work, prepare and engage with Pacific communities, leaders, relevant stakeholders, lead maternity carers, primary birthing units, the community midwifery team and consumers. Identify priorities and enablers for our community that are driven by Pacific fanau-centred engagement to address equity and improve outcomes.	Agreed objectives with measured improved outcomes.
Cultural safety workshops for all maternity staff	Engage an independent provider to deliver kanohi-ki-te-kanohi workshops and online content for maternity staff.	All maternity staff have engaged with this education over the next 2 years.

	STRATEGY/ACTIVITY	MEASURE/OUTPUT
Equity focus for all Maternity Quality and Safety Programme (MQSP) funding proposals	The MQSP webpage on Paanui has been updated to include a revised funding application form. The HEAT tool has been embedded in the funding application form to ensure that all MQSP projects focus on equity for Maaori and other priority groups, as defined by the MQSP Crown Funding Agreement.	All MQSP funded projects have an equity focus.
Consumer recruitment	Support the integration of Te Whatu Ora Counties Manukau consumer representatives in all working and project groups within Women's Health.	Successful recruitment and retention of consumers.
Consumer feedback	Increase the rate of consumer feedback gathered from women and whaanau to inform quality improvement initiatives.	Women and whaanau feedback, via various sources, increases by 5 per cent across Women's Health. Ongoing review of handwritten inpatient feedback. Following upgrade of the email feedback form (sent after discharge by the patient experience team), Women's Health will nominate questions to include on specific priority areas.
Consumer information	Implement the BadgerNotes App for consumers.	BadgerNotes rollout for consumers. Strategy in place to ensure equitable access to clinical records for consumers who are unable or unwilling to use BadgerNotes.
	Update all consumer information to enable digital delivery and align with Te Whatu Ora strategy.	Consumer information updated to enable digital delivery and align with Te Whatu Ora strategy.
Primary Birthing Project	Primary birthing project manager to lead a strategy and consultation project, with the goal of increasing birthing in and use of primary settings, and improving equity. Gather consumer feedback on the primary birthing units. Use feedback to drive improvements and renovations in the units' environments, with the aim of increasing the numbers of whaanau who choose to use them. Make the primary birthing units hubs for providing equity-driven wrap-around support that aligns with Kahu Taurima.	The total percentage of eligible women birthing in primary birthing settings (home births and primary birthing units) has increased. The total percentage of women who birth at Middlemore Hospital and are eligible to transfer to a primary birthing unit has increased. Antenatal clinic appointments increase. The primary birthing units have expanded to provide other services, eg immunisation, contraception, lactation and ultrasound clinics.

	STRATEGY/ACTIVITY	MEASURE/OUTPUT
Community collaboration	Te Whatu Ora Counties Manukau, in partnership with Pacific-led lead maternity carer midwives, to respond to the identified needs of the community, including through a MQSP project to provide community-based acute midwifery assessments and obstetrician clinics.	Qualitative and quantitative evaluation measures are scheduled for 12 months following implementation of the project.
Perineal care and protection	Run regular workshops on perineal protection and repair, as part of ongoing midwifery education. Use evidence-based perineal protection.	Education offered to all employed and lead maternity carer midwives. Pilot project run to use perineal hot packs for birthing people.
Whenua / placenta care	Ensure culturally appropriate care of whenua / placenta when not taken home by whaanau.	In collaboration with tangata whenua, processes for the care and disposal of whenua are changed to be culturally appropriate for Maaori.
Maintain Baby Friendly Hospital Initiative (BFHI) accreditation for all four facilities	Te Whatu Ora Counties Manukau district's four facilities maintain their BFHI accreditation.	Te Whatu Ora Counties Manukau district's four facilities maintain BFHI accreditation in May 2023.
Local implementation of the National Breastfeeding Strategy	Complete a gap analysis. Establish a steering group. Form working groups.	Completed. Workplan completed. Ongoing.
Induction of labour	Identify, refer and induce women requiring induction of labour in a timely manner. Develop an induction of labour booking system on BadgerNet, enabling ease of booking, education around the reason induction is required, and audit capacity.	Ongoing continuous audit of the booking system, and maternal and neonatal outcomes following induction of labour, to support equitable outcomes.
	Introduce misoprostol-based induction of labour.	Six-monthly audit of misoprostol induction of labour maternal and neonatal outcomes. External midwife consultant engaged to support introduction of misoprostol induction of labour. Results of the induction of labour and lower segment caesarean audit demonstrate equitable outcomes. This approach to a process change is evaluated from staff feedback.

	STRATEGY/ACTIVITY	MEASURE/OUTPUT
Postpartum haemorrhage	Reduce the incidence of postpartum haemorrhage.	Six-monthly postpartum haemorrhage rates audited.
Diabetes in pregnancy (DIP)	Produce education videos for consumers with DIP.	Videos created and shared.
	Engage a health psychologist to support the psychological needs of people using the DIP Service.	One-year pilot, with ongoing evaluation of impact. Engagement will become business as usual, funded and supported by the service, if it is determined that the pilot is successful.
Preterm birth	Improve the outcomes for women with a previous preterm birth at <37 weeks by: • ensuring counselling is available at the time of the preterm birth to outline strategies recommended for the next pregnancy • ensuring early registration in subsequent pregnancies to identify modifiable risk factors, e.g. smoking, sexually transmitted infections, urinary tract infections • ensuring referral for specialist consultation in the first trimester • promoting and supporting counselling around the signs and symptoms of preterm birth, and how to respond to optimise outcomes.	Audit of engagement with care against referral criteria. Audit interventions and outcomes compared with other centres.
	Participate in Taonga Tuku Iho, Knowledge Translation for Equity in Preterm Birth in Aotearoa Project. Identify the enablers and barriers to implementation of the Taonga Tuku Iho best-practice guide for preterm birth care and to the future use of the guide.	Barriers and enablers are identified by women, whaanau, healthcare professionals and maternity service providers through hui, fono and focus groups.
Routine antenatal anti-D prophylaxis	Provide appropriate and timely access to anti-D immunoglobulin for Rh(D) negative women at 28/40 and 34/40 weeks of pregnancy. Improve accessibility by supporting community pharmacists to administer anti-D from a midwife's prescription.	Evaluation in 2023 to determine if access to anti-D through community pharmacists should be funded as business as usual by the Women's Health Division.

	STRATEGY/ACTIVITY	MEASURE/OUTPUT
Increase detection of small-for gestational-age fetuses during pregnancy	Complete a Growth Assessment Programme (GAP) missed case audit every 6 months.	Ongoing detection of small-for gestational-age fetuses is increasing.
Workforce strategy – midwifery	Action strategies to address midwifery workforce challenges. Maintain our focus on enabling growth and supporting the retention of experienced staff for the midwifery profession. Ensure strategic workforce planning at a local level is informed by national initiatives. Maintain a strong commitment to growing and providing opportunities for the Maaori and Pacific midwifery workforce.	The goal of recruiting to fill the majority of vacancies will be achieved via the graduate midwife pipeline. Based on the predicted student midwives graduating in 2023 to 2026, the forecast shows it will be possible to correct the midwifery vacancies in Counties Manukau district within 4 years. Our commitment to growing the Maaori and Pacific workforce will be measured by enabling career development and through an increase in senior appointments for Maaori and Pacific midwives.
Workforce strategy - medical	Action strategies to address Maaori and Pacific obstetric workforce challenges in collaboration with the Royal Australian and New Zealand College of Obstetricians and Gynaecologists. Ensure strategic workforce planning at a local level is informed by national initiatives. Maintain a strong commitment to growing Maaori and Pacific obstetric opportunities; and foster a targeted approach to increase the number of Maaori and Pacific obstetrics and gynaecology trainees joining the workforce.	Our commitment to growing the Maaori and Pacific workforce will be measured by enabling career development and through an increase in the number of Maaori and Pacific trainees progressing through the obstetrics and gynaecology specialty in Te Whatu Ora Counties Manukau. Clinical pathway for training is clearly mapped out and visible for the Royal Australia New Zealand College of Obstetrics and Gynaecology, the Registered Medical Officer Unit (which allocates the Obstetric and Gynaecology runs), the University of Auckland (which provides the diploma course) and the Division of Women's Health.
Wellbeing and valuing staff	Support and value existing midwifery and nursing staff while the workforce grows. Make funding for external professional and cultural support available for midwifery and nursing staff.	Recruitment and retention of midwifery and nursing staff.

	STRATEGY/ACTIVITY	MEASURE/OUTPUT
Education	Ensure the education calendar provides accessible education for the lead maternity carer midwifery workforce. Provide guest facilitators and cover topics based on feedback from the lead maternity carer community.	Lead maternity carer community engages with and provides feedback on the updated education programme.
Communication	Develop an improved communication strategy, which uses multiple approaches to engage and communicate with our workforce and community in an equitable and meaningful way.	Gap analysis with community and workforce to measure engagement and communication avenues. Communication strategy developed to meet the needs of stakeholders.
Reporting	Report to the Ministry of Health, Perinatal and Maternity Mortality Review Committee, and National Maternity Monitoring Group.	Submission of *Tuuranga Hauora o te Mana Waahine Report*, inclusive of MQSP requirements. Achievement of district and national quality improvement recommendations demonstrated by activities undertaken and regular audits and evaluations of completed projects.
	Report to stakeholders and consumers.	Launch and socialisation of the *Tuuranga Hauora o te Mana Wahine Report*, inclusive of MQSP work.
	Devise an annual workplan that reflects the priorities of Te Whatu Ora, Te Aka Whai Ora, the National Maternity Monitoring Group, the Perinatal and Maternity Mortality Review Committee, and other organisations as appropriate.	Progress updates provided at regular intervals.
	Implement the Health Quality and Safety Commission maternal morbidity review toolkit and severity assessment code (SAC) rating (maternal and neonatal encephalopathy case review) for SAC rating 3 and 4.	Health Quality and Safety Commission maternal morbidity review toolkit and SAC rating (maternal and neonatal encephalopathy case review) developed and implemented as business as usual.

11 Appendix

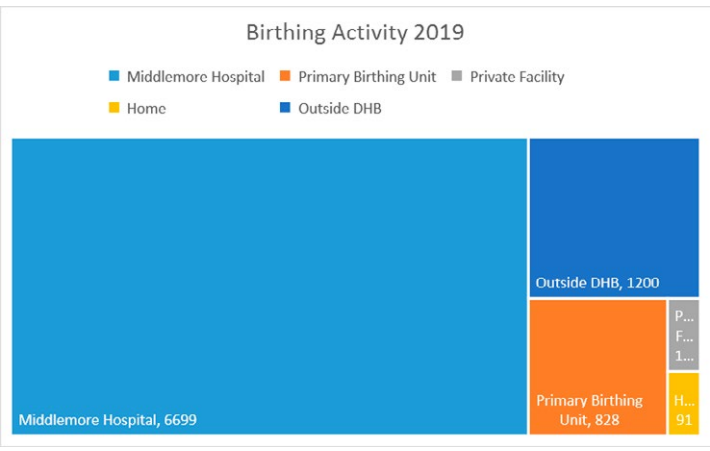
APPENDIX 1 ▼

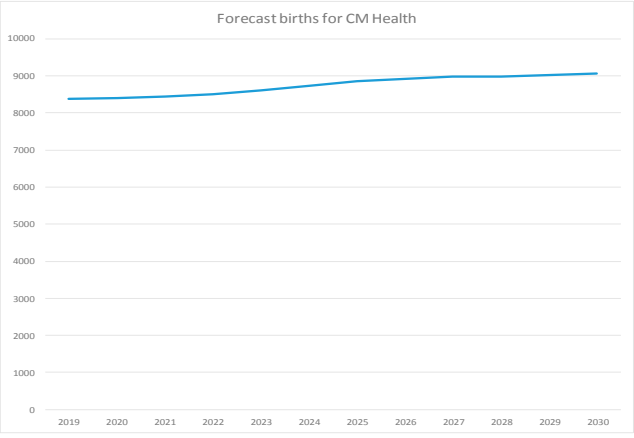
Women's Health clinical services plan

Maternity (Midwifery and Obstetric) services

Service Role	• Middlemore Hospital – primary, secondary and some tertiary birthing services including 24 hour acute obstetric care inclusive of emergency caesarean section and assisted deliveries; additional obstetric input due to rising complexity and midwifery shortage • Primary Birthing services provided at any of three birthing unit which provide antenatal, birthing and postnatal care • Antenatal – acute assessment, planned assessments/procedures, inpatient care including Obstetric Clinics at Module 10, Primary Birthing Units; second- ary inpatient care at Middlemore Hospital • Postnatal – inpatient care including secondary obstetric and neonatal care at Middlemore Hospital • Community midwifery – outpatient antenatal and postnatal visits • Perinatal loss services; Maternal and Fetal Medicine service including pre-term clinic; Diabetes In Pregnancy Service; Infant Nutrition – Te Rito Ora ser- vice; Community social support services – social work and community health; Contraceptive Services
Clinical Leads	Dr Sarah Wadsworth, Clinical Lead Obstetrics; Dr Sarah Tout, CD; Christina Mallon, Chief Midwife; Tanya Wilson, CND; Edith Padavatan, CD AH
Management Leads	Sharon Ranson, SM Obstetrics & Gynaecology; Debra Fenton, SM Maternity Middlemore & Community; Amanda Hinks, Maternity Service Development Manager; Mary Burr, GM

SERVICE TYPE		NOTES
Community	✓	Full primary birthing services provided at the primary birthing units at **Botany Downs, Papakura** and **Pukekohe**. Community services provided in the com- munity via the Community Midwifery team
Acute	✓	Primary, secondary and some tertiary acute services provided at **Middlemore Hospital**
Planned	✓	Secondary/tertiary birthing & obstetric services & planned Caesarean sections provided at **Middlemore Hospital**





APPENDIX 1 CONTINUED ▼

Maternity

BENEFIT	INTERVENTION / ACTION	CHANGE / ACTIVITY	ACCOUNTABILITY MEASURE
Is patient, whaanau & community centric	Develop & implement a Primary Birthing Strategy Develop culturally appropriate co-designed care delivery model Focus on postnatal contraception Improve access to midwifery services	Review existing Primary Birthing Units & design new service delivery models (SDMs) • Link new SDMs to culturally appropriate care • Raise cultural awareness through education programme for staff Develop & implement contraception plan • Develop recruitment and retention plan for midwifery workforce • Increase the number of Lead Maternity Carers and DHB employed midwives	• Primary birthing unit rates • Maaori & Pacific attendance rates • DNA rates • Consumer engagement score • Number of midwives
Is focussed on equity of access & outcomes	Improve access to acute theatres Improve access to high risk obstetric services Improve number of Maaori & Pacific midwives and trainees Implement recommendations of IOL & CS review	Explore facilities alternatives for theatres Ensure both LMC and SMO staffing is appropriate • Work with training institutions to increase Maaori & Pacific trainees • Explore scholarships/incentives for Maaori & Pacific trainees Project initiation and delivery	• Workforce ethnicity rates • Quintile 5 analysis • Caesarean/ assisted delivery rates • Induction/ augmentation rate
Supports safe, quality patient care	Match capacity to demand Enhance practice skills Ensure appropriate safe staffing Ensure access to Ultrasound for all women	• Use production planning to match workforce to demand & acuity • Develop maternity & gynaecology facility with additional theatre capacity on MMH site Updated guidelines & protocols to reflect latest evidence and current cultural considerations Develop workforce plan and enhance recruitment activity • Await recommendations from Sec88 maternity review & develop mitigation strategies • Increase access to pregnancy ultrasound scans	• Guideline currency • No's & outcomes of women engaged with DHB social work service • SUDI & perinatal outcomes • Incident rate • Gestation date of engagement
Supports planned and integrated care	Enable all LMC midwives to access DHB and other support systems Improve care of women with diabetes	Implement new Global MCIS application Continue whole of system project stages	• 100% of all LMC midwives have access to the DHB system

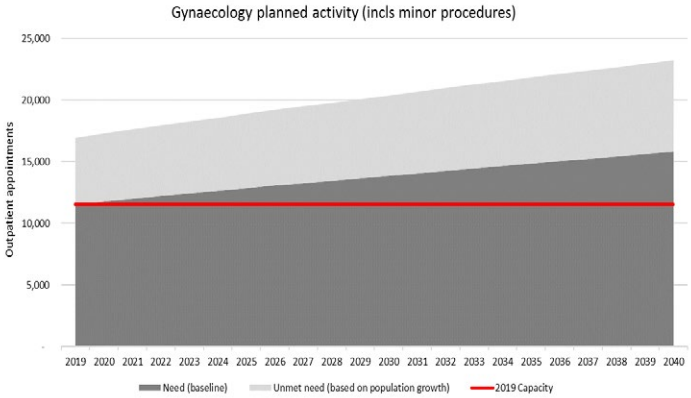
APPENDIX 1 CONTINUED ▼

Gynaecology Service

Gynaecological services for women

Service Role	Acute & Planned General Gynaecology (medical & surgical management); Early pregnancy complications and loss; Second trimester termination of pregnancy until 20 weeks gestation; Urogynaecology including Urodynamics; Colposcopy; Outpatient Hysteroscopy; Contraception
Clinical Leads	Dr Katherine Sowden, Clinical Lead Gynaecology; Dr Sarah Tout, CD; Tanya Wilson, CND; Edith Padavatan, CD AH
Management Leads	Sharon Ranson, SM; Mary Burr, GM

SERVICE TYPE		NOTES
Community		
Acute	✓	15 bed **Gynaecology Care Unit** & 8 beds **Ward 21 at Middlemore Hospital**
Planned	✓	Colposcopy and hysteroscopy for pre-malignant and malignant endometrial conditions; **Module 10** Gynaecology utilises 12 theatre lists per week with an average of 2.2 surgeries per list 436 procedures (2020) outsourced to private providers



APPENDIX 1 CONTINUED ▼

Gynaecology

BENEFIT	INTERVENTION / ACTION	CHANGE / ACTIVITY	ACCOUNTABILITY MEASURE
Is patient, whaanau & community centric	Improve cancer treatment	• GP access to pipelle and USS • More theatre access • Increase in nurse led colposcopy to reduce wait time	• 100% of women with suspected cancer will achieve their diagnosis within 62 days • Volume of patients through nurse-led clinics increased • ESPI 2, 5 and FCT compliance • P3 uro-gynaecology and pelvic pain service available
	Opening access for debilitating non-urgent gynaecological conditions	More theatre access	
	Improve gynaecology services	• Introduce nurse led follow up • Introduce nurse led conservative • management options for all gynaecological conditions	
Is focussed on equity of access & outcomes	Focus on Maaori and Pacific women and cancer	Develop educational package for Maaori & Pacific women	• Perinatal Loss service in place by 2021 • No. of Maaori & Pacific RN's in senior roles has increased from 2020
	Improve service delivery for women experiencing perinatal loss	Establishment of a Perinatal Loss team	
	Workforce better matches our population	Develop pathway for Maaori and Pacific Clinical Nurse Specialists	
Supports safe, quality patient care	Improve time patients seen by in the Emergency Department	Daily auditing and reporting to Clinical Director with plan	• All women seen in the Emergency Department are seen & assessed within 6hrs • Min of 2 innovation projects underway each year • Increased senior nurse FTE in services: Early pregnancy loss, gynaecology outpatients, hysteroscopy, colposcopy
	Active quality programme in place	Develop and implement quality programme	
	Streamline access through development of alternative care options	• Introduce nurse-led colposcopy and hysteroscopy • Introduce nurse-led conservative management options for all gynaecological conditions	
Supports planned and integrated care	Capacity meets demand	Module 10 expansion at Manukau Health Park by 2024	• 4 additional theatre lists per week compared with 2020 • MHP facility completed providing increased clinic capacity by 2024
	Improve access for high BMI and complex cases	Improve theatre access	
	Improve Allied Health services available to women	• Develop Allied Health workforce plan and implement • Increase Allied Health support	

Te Whatu Ora
Health New Zealand