Tuuranga Hauora o te Mana Waahine
Division of Women's Health

Counties Manukau Maternity Quality and Safety Programme Report

2023

Health New Zealand
Te Whatu Ora

1 Introduction

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Acknowledgements

On behalf of the Maternity Quality and Safety Programme Governance Group we would like to express our gratitude to the Te Whatu Ora | Health New Zealand Counties Manukau Tuuranga Hauora o te Mana Waahine |Division of Women's Health team for their many and varied contributions to this report.

Special thanks to the Counties Manukau whaanau who have generously shared their images:

- Roxanne and Tu Pouwhare with baby Atawhai
- Waipouri Thompson with baby Kaizen Michael Hirawani
- Kelly and Waylan Tupaea with baby Joffey, his sister Jersey (2) and big brothers Romey (3) and Archie (5)
- Noeleen, Lyrik, Bass, Aaliyah and baby Ayva Tuala
- Rachel Fisi and baby Tanginoa Jr
- Hannah Young and Todd Hurley with baby Maeve
- Erika Veysey and baby Theodore
- Renee and Shaun Millen with baby Teddie
- Ala Teu and Joe Pomelile with baby Samuel and nephew Siale
- Netanya, Kauatoa and baby Emerson Makaui
- Megan Pearce and Daniel Ravji with baby Chloe.

Completion of this report would not have been possible without the editorial support of Julia Hall and the design work of the team at MakeReady (makeready.nz).

▲ *Kelly Sinclair with new baby Joffey*

He waka eke noa
We are all in this together

Ngaa mihi nui,

Clare Senner
Maternity Quality and Safety Programme Manager
Te Whatu Ora | Health New Zealand Counties Manukau

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

The purpose of the *Tuuranga Hauora o te Mana Waahine* — Maternity Quality and Safety Programme Report for 2023 is to:

- demonstrate application of the principles of Te Tiriti o Waitangi as outlined in the Pae Ora (Healthy Futures) Act 2022
- 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 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 required information as set out by the Maternity Team.

▲ *Bass Tuala with baby niece Ayva*

Te Whatu Ora Counties Manukau Tuuranga Hauora o te Mana Waahine | Division of Women's Health acknowledges that not all 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 waahine, 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.

AUTHOR

SHARON ARROL
Lead Analyst,
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Data notes

The data in this report is from several sources. Please note that data within this report is valid at the point of data extraction. Volumes may change with data cleansing and vendor resolutions for data fixes. Data from earlier years is included for comparison purposes.

▲ *Hannah Young with partner Todd Hurley and baby Maeve*

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 contain 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 (NMDS) 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. The district-level analysis only captures births that occur in hospital, therefore homebirths and births that occur before arrival at hospital (eg, in a car or ambulance) are not captured. The NMDS 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 (MAT) data is derived from the National Minimum Data Set (NMDS), Lead Maternity Carer (LMC) 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 is able to provide both a facilities and domicile view, although there are limitations on the variables available for women receiving care from Counties Manukau Health services, compared to community LMC 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 the Casemix data and supplemented by the parity and neonate data provided by the health services. The Health Intelligence and Informatics Team provides data to the maternity submission on an annual basis.

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

2 Strategic direction and timing

AUTHORS

SENIOR LEADERSHIP TEAM
Dereck Souter, Clinical Director; **Chris Mallon**, Chief Midwife; **Sarah Nicholson**, Deputy Chief Midwife; **Lesa Freeman**, Clinical Nurse Director; **Alex Boersma**, General Manager

Senior leadership foreword

Welcome to the Tuuranga Hauora o te Mana Waahine Maternity Quality and Safety Programme report for 2023. Thank you to all who have contributed and for everything you do every day in caring for our community.

This report reflects dedicated work, in an ever-evolving clinical environment, seeking new initiatives across the breadth of care for women, pregnant people and their whaanau. Pictures and real-life stories from whaanau and Counties Manukau 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. There is 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. As part of our responsibility under Te Tiriti o Waitangi, we are committed to addressing the inequity that influences the health outcomes of the people who live here.

The report provides us with an opportunity to publish some of our outcomes and enables us to benchmark ourselves against other Te Whatu Ora districts, by way of clinical indicators.

The Maternity Quality and Safety Programme plays an important role in improving the care that women, pregnant people whaanau and peepi receive. We are proud of our quality improvement projects and the work undertaken by local multidisciplinary teams to identify and implement improvements for local maternity services; working with maternity consumers to improve outcomes for women, pregnant people and their whaanau.

The primary care chapter has a special focus on equitable access to contraception with approaches designed to meet the needs of whaanau in the Counties Manukau community.

Perinatal complexities such as maternal mental health, preterm birth, diabetes in pregnancy, induction of labour, postpartum haemorrhage and perinatal loss are also discussed in this report.

We are a strong, motivated team, working to deliver care within an environment of increasing demand and complexity. As a leadership team, we would like to acknowledge the hard work of our clinical and non-clinical staff, LMCs and community-based providers to improve the health of whaanau in our district. Our Women's Health Strategy is to continue to develop services that are accessible and reflect the needs of the Counties Manukau community while supporting the provision of quality care that is whaanau-centred, safe and equitable for all.

Division of Women's Health Senior leadership team
L to R: Alex Boersma (General Manager), Sarah Nicholson (Deputy Chief Midwife), Chris Mallon (Chief Midwife), Dereck Souter (Clinical Director), Lesa Freeman (Clinical Nurse Director Women's health)

AUTHOR

CLARE SENNER
Maternity Quality and Safety Programme Manager

Maternity Quality and Safety Programme 2023 — an overview

The Maternity Quality and Safety Programme (MQSP) continued to support a wide range of quality initiatives in 2023.

The Governance Group is chaired by the MQSP Manager. Membership includes the Chief and Deputy Chief Midwives, the Clinical Director and General Manager of the Division of Women's Health. The Clinical Lead of Obstetrics, the Service Manager for Inpatient and Community Maternity Services, the Service Manager for Maternity Development and Primary Birthing Units, Lead Clinical Maaori Midwife, Primary Birthing Unit Manager Representative, Clinical Nurse Director, Pacific Obstetric and Academic Representative, Lead Maternity Carer Midwife Representative, Quality and Risk Manager, Primary Health General Practice Liaison, Women's Health Project Manager and four consumer advisors. All the consumer advisors are recent users of the Te Whatu Ora Counties Manukau maternity services and are representative of Maaori, Pacific and African whaanau.

The Health Equity Assessment Tool (HEAT) is embedded in the MQSP funding application form. This ensures that all funding applications are considered by the applicant and the governance group through an equity lens.

Many of the projects mentioned here are described in more depth elsewhere in this report. Quality projects in 2023 included:

- Provision of four kanohi ki te kanohi Maaori health workshops for all Women's Health staff and LMCs facilitated by Public Health Physician Elana Curtis.
- Ongoing rollout and evaluation of the Routine Antenatal Anti-D Project
- Rollout of BadgerNotes to improve access to clinical records for whaanau
- A pilot project to provide whaanau with access to smartphones to allow access to BadgerNotes
- Ongoing support of a health psychologist in the Diabetes in Pregnancy Service
- Approval for rollout of heated towel warmers in all birthing rooms to reduce the risk of third- and fourth-degree perineal tears
- National Breastfeeding Strategy – working groups to support:
  - » a breastfeeding friendly workplace
  - » improved resources and accessibility for disabled whaanau
  - » whaanau who identify as gender diverse.
- The Primary Birthing Transfer Project
- Provision of consumer information and resources
- Northern region collaboration with MQSP midwives and consumers
- New Zealand Resuscitation Council Newborn Life Support education for midwives
- Rollout of the national SGA / FGR guideline including an update to the management plans in BadgerNet
- Work towards MEWS in non-maternity settings across Te Whatu Ora Counties Manukau
- Work towards the roll out of i-STAT blood glucose monitors in primary birthing units
- Work towards community-based breastfeeding classes
- Work towards community-based antenatal 'Move, Stretch, Breathe' classes
- Work towards te reo Maaori immersion for midwives
- Work towards gender diversity workshops
- Ongoing guideline updates and development.

Consumer engagement is an important priority of the MQSP Governance Group and the Division of Women's Health more broadly. The consumer advisors are well connected in their communities and are supported to engage in a variety of ways to ensure that there is consumer oversight on projects and patient information and service development.

▼ *Farewell and thank you to Luisa, Taffy and Maraea.*
From L to R – Clare Senner, Luisa Silailai, Taffy Mayambo, Claire Flavell-Kemp, Maraea Pipi-Takoko

In April 2023, we held a local consumer hui in response to Kahu Taurima. Kahu Taurima is a priority in Te Pae Tata, the interim New Zealand Health Plan 2022-2024 with a focus from pre-conception to the first 2000 days of life. To develop our ongoing workplan, the voices of consumers were sought. Several of the recommendations below have already been implemented.

Initial consumer recommendations suggested we should:

- work on strategies to make it easier to find a midwife
- make it easier to access care that fits with work and whaanau
- ensure that we collect data which reflects how whaanau are receiving care, including fragmented care and hand over for secondary care
- facilitate more opportunities to visit Middlemore Hospital and primary birthing units before the birth
- review maternal mental health care provision
- ensure partners or significant others can stay following the birth to provide support
- recognise the importance that technology plays in the lives of whaanau using our service by:
  - » developing educational resources that are available online
  - » supporting staff and whaanau to use the BadgerNotes app
  - » increasing access to BadgerNotes for other care providers
  - » identifying and sharing resources that are already available
- continue engaging with whaanau to develop and review any new services
- recruit more consumers with experience across the service who reflect priority populations within the Te Whatu Ora Counties Manukau community.

In October 2023, the Northern region MQSP midwives and consumer advisors gathered in South Auckland to explore the consumer role across the region and look towards ways of collaborating and supporting one another in the future (see page 66).

At the end of 2023 we farewelled consumer advisors Luisa Silailai, Maraea Pipi-Takoko and Taffy Mayambo. Luisa's tenure as a consumer advisor ended after several years of service following the birth of her baby. In early 2024 Maraea moved to Gisborne to be closer to whaanau and Taffy moved to the Gold Coast to pursue new opportunities with her family. The MQSP Governance Group is very grateful for the wisdom, insights and unique perspectives these people generously shared with us. Claire Flavell-Kemp continues in her consumer advisor role and in 2024 we have welcomed Ala Teu to the Maternity Quality and Safety Programme Governance Group (see page 65).

Te Whatu Ora Counties Manukau works with the organisational communication team to share updates and information to the wider community via social media platforms. The Women's Health Koorero Facebook page is designed to provide information and updates to staff and the LMC community. In 2023 the Primary Birthing Unit Facebook page was developed to promote and raise the profile of the primary birthing units in the community. In addition, an article was published in TANI — the Asian Network Incorporated newsletter — to promote primary birthing.

2023 was a busy and productive year for the Maternity Quality and Safety Programme in Counties Manukau. We look forward to ongoing work and developments in 2024.

Maternity quality improvement workplan 2023–2024

The 2023 Tuuranga Hauora o te Mana Waahine Maternity Quality and Safety Programme report was collated in mid-2024. At this time, we were in the middle of significant changes within the New Zealand health system.

The work plan below reflects our 2023 – 2024 priorities, however, we are currently awaiting regional governance decisions from Health New Zealand | Te Whatu Ora in relation to the development of a plan for the Counties Manukau District and the Northern Region.

These decisions may impact the Te Whatu Ora Counties Manukau district work plan.

	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 five percent 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 births, 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.	Appropriate processes for the care and disposal of whenua are adhered to and staff are educated about the importance of this process.
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.
Local implementation of the National Breastfeeding Strategy	Gap analysis. Establish a steering group. Develop workplan. Establish working groups.	Gap analysis completed. Steering group established. Completed. Completed.
	Action 1.2 Increase the bicultural competence and confidence of the maternal and child health workforce, with particular attention to understanding and responding to the breastfeeding information and support needs of Māori and Pacific people.	See article: Implementation of the National Breastfeeding Strategy for Aotearoa New Zealand | Rautaki Whakamana Whāngote pg 77.
	Action 1.7 Identify and action the breast/chestfeeding information and support needs of trans, nonbinary, takatāpui and other gender-diverse parents and whānau. Report actions and progress to address gaps to the Infant and Young Child Feeding Committee.	See article: Implementation of the National Breastfeeding Strategy for Aotearoa New Zealand | Rautaki Whakamana Whāngote pg 77.

	STRATEGY/ACTIVITY	MEASURE/OUTPUT
Local implementation of the National Breastfeeding Strategy	**Action 1.8** Identify and action the breastfeeding information and support needs of parents and/or infants with disabilities and their whānau. Report actions and progress to address gaps to the Infant and Young Child Feeding Committee.	See article: Implementation of the National Breastfeeding Strategy for Aotearoa New Zealand | Rautaki Whakamana Whāngote pg 77.
	Action 2.4 Consider innovative ways to provide breastfeeding information and support, including on digital and virtual platforms.	Web page developed. Awaiting launch of the Te Whatu Ora | Health New Zealand website.
	Action 7.2 Work collaboratively with national and regional providers to support the consistency and effectiveness of national and regional Breastfeeding Friendly Workplace (BFW) initiatives.	See article: Implementation of the National Breastfeeding Strategy for Aotearoa New Zealand | Rautaki Whakamana Whāngote pg 77.
Induction of labour	Identify, refer and induce women requiring induction of labour in a timely manner.	Ongoing continuous audit of the booking system, and maternal and neonatal outcomes following induction of labour.
	Introduce misoprostol-based induction of labour.	Annual audit of induction of labour and impact on maternal and neonatal outcomes.
Postpartum haemorrhage	Reduce the incidence of postpartum haemorrhage.	Annual postpartum haemorrhage rates audited.
Diabetes in pregnancy (DIP)	Engage a health psychologist to support the psychological needs of people using the DIP service.	Two-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.
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. Completed – BAU.

	STRATEGY/ACTIVITY	MEASURE/OUTPUT
Preterm birth	Improve the outcomes for women with a previous preterm birth at <37 weeks by: • screening and identifying risk factors for preterm birth • communicating risk of preterm birth in future pregnancies – development of an individualised communication tool which outlines future risk and prevention strategies • ensuring counselling is available at the time of the preterm birth to recommend strategies for whaanau for the next pregnancy • ensuring early registration in subsequent pregnancies to identify modifiable risk factors, eg, smoking, sexually transmitted infections, urinary tract infections • providing timely 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 proportion of people with risk factors for preterm birth who are appropriately identified and referred to the preterm birth clinic Audit counselling provided at the time of preterm birth with strategies recommended for a future pregnancy.
	Obstetricians and midwives join the Carosika Community of Practice. 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.
Increase detection of small-for gestational-age fetuses during pregnancy	Complete a Growth Assessment Programme (GAP) missed case audit every six months.	Ongoing detection of small-for gestational-age fetuses is increasing.
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.

	STRATEGY/ACTIVITY	MEASURE/OUTPUT
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.
Education	• Ensure the education calendar provides accessible education for the employed and LMC midwifery workforce. • Ensure new graduate midwives, employed and LMC are provided with the opportunity to attend targeted education in their first fifteen months of practice. • Provide New Zealand Resuscitation Council accredited Newborn Life Support (NLS) education for midwives at Middlemore Hospital and in the primary birthing units .	• Employed and LMC midwives engage with and provide feedback on the education programme. • Employed and LMC new graduate midwives engage in and provide feedback on the new graduate education programme and are supported to develop confidence in providing clinical care. • Midwives have the opportunity to regularly attend the NLS course and maintain confidence and competence in newborn resuscitation.
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 Te Whatu Ora | Health New Zealand on 2023 in 2024. Awaiting confirmation of reporting expectations for 2025.	Submission of Tuuranga Hauora o te Mana Waahine Maternity Quality and Safety Programme Report. 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 Waahine Report, inclusive of MQSP work.
	Devise an annual workplan that reflects the priorities of Te Whatu Ora, the National Maternity Monitoring Group, the Perinatal and Maternity Mortality Review Committee, and other organisations as appropriate.	Progress updates provided at regular intervals.

3 Demographics, outcomes and clinical indicators

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Demographics of whaanau who birthed in a Te Whatu Ora Counties Manukau facility in 2023

Te Whatu Ora Counties Manukau is responsible for providing maternity services for whaanau who live within the Counties Manukau health district.

The data in this section are from Qlik analytics software collected locally via Counties Manukau digital systems. Ethnicity has been prioritised, meaning that people were allocated to a single ethnic group in an order of priority if they identified with more than one ethnicity.

In 2023, there were 7554 births in Te Whatu Ora Counties Manukau facilities (Table 1). The majority (6987, 92.5%) of births were at Middlemore Hospital, while 567 births (7.5%) were in one of the three primary birthing units (Botany Downs, Papakura, and Pukekohe).

The proportion of births in the primary birthing units has decreased by around one third since 2016 (Table 2 and Figure 1). This finding is consistent with other New Zealand health districts and related to factors such as the increasing complexity of pregnancies, public perception of safety, and a reduction in the workforce of midwives providing community-based care. However, this decline has been successfully addressed in Papakura, with an increase in the number of births for the first time since 2015, following the introduction of a midwifery-led continuity of care team at the Papakura Birthing Unit in 2021.

Births to young mothers aged 15 to 19 years declined since 2016 (Table 3 and Figure 2). This is consistent with a nationwide reduction in births to women under 20 years of age, possibly related to better access and options for contraception. There has been little change in the proportion of births in Counties Manukau to women of Maaori and Pacific ethnicity since 2016 (Table 4). However, over this time, there has been more than a 6% increase in births to women of Asian ethnicity (of which nearly two-thirds are Indian) and a nearly 6% decrease in births to women of European and other ethnicities (Figure 3). Most births at Middlemore Hospital from 2016 to 2023 were to Pacific (35.9%) and Asian (25.4%) women, while 21% were to Maaori women and 17.7% to European and other ethnicities. In contrast, most births at the primary birthing units were to women of European and other ethnicities (36.7%), followed by women of Maaori (32.2%),Pacific (16.6%) and Asian (14.5%) ethnicities.

TABLE 1 ▼

Births in Counties Manukau maternity facilities, 2016–2023

FACILITY	2016	2017	2018	2019	2020	2021	2022	2023
Middlemore Hospital	6412 (88.1%)	6565 (88.9%)	6641 (89.8%)	6815 (90.5%)	6790 (91.9%)	7124 (92.0%)	6527 (92.4%)	6987 (92.5%)
Primary birthing units	862 (11.9%)	822 (11.1%)	758 (10.2%)	718 (9.5%)	598 (8.1%)	622 (8.0%)	535 (7.6%)	567 (7.5%)
Total	**7274**	**7387**	**7399**	**7533**	**7388**	**7746**	**7062**	**7554**

TABLE 2 ▼

Births in Counties Manukau primary birthing units, 2016–2023

PRIMARY UNIT	2016	2017	2018	2019	2020	2021	2022	2023
Botany Downs	322 (4.4%)	312 (4.2%)	270 (3.6%)	252 (3.3%)	204 (2.7%)	207 (2.7%)	183 (2.8%)	192 (2.5%)
Papakura	262 (3.6%)	257 (3.5%)	220 (3.0%)	201 (2.7%)	135 (1.8%)	131 (1.7%)	98 (1.4%)	159 (2.1%)
Pukekohe	278 (3.8%)	253 (3.4%)	268 (3.6%)	265 (3.5%)	259 (3.5%)	284 (3.6%)	254 (3.6%)	216 (2.9%)
Total births	**862 (11.9%)**	**822 (11.1%)**	**758 (10.2%)**	**718 (9.5%)**	**598 (8.0%)**	**622 (8.0%)**	**535 (7.6%)**	**567 (7.5%)**

TABLE 3 ▼

Births in Counties Manukau maternity facilities to young mothers aged 15–19 years, 2016–2023

YEAR*	<15 YEARS*	15 YEARS	16 YEARS	17 YEARS	18 YEARS	19 YEARS	TOTAL (% BIRTHS/YEAR)
2016	-	13	29	73	104	202	421 (5.6%)
2017	-	13	46	62	102	142	365 (4.9%)
2018	-	13	28	66	111	196	414 (5.6%)
2019	-	12	17	65	101	185	380 (5.0%)
2020	-	11	13	65	105	179	373 (5.0%)
2021	-	10	27	52	90	136	315 (4.1%)
2022	-	12	24	30	104	133	303 (4.3%)
2023	-	8	21	56	90	141	316 (4.2%)
Total	**24**	**106**	**222**	**504**	**881**	**1400**	**3137**

*Births to mothers <15 years are reported only as total due to small annual numbers.

TABLE 4 ▼

Births in Counties Manukau maternity facilities by mother ethnicity (prioritised), 2016–2023

PRIORITISED ETHNICITY	2016	2017	2018	2019	2020	2021	2022	2023
Maaori	1648 (22.7%)	1660 (22.5%)	1633 (22.1%)	1695 (22.5%)	1649 (22.3%)	1709 (22.1%)	1518 (21.5%)	1554 (20.6%)
Pacific	2450 (33.7%)	2548 (34.5%)	2542 (34.4%)	2605 (34.6%)	2568 (34.7%)	2468 (31.9%)	2402 (34.0%)	2659 (35.2%)
Asian including Indian	1575 (21.7%)	1687 (22.8%)	1777 (24.0%)	1789 (23.7%)	1812 (24.5%)	1953 (25.2%)	1765 (25.0%)	2118 (28.0%)
European and other	1601 (22.0%)	1492 (20.2%)	1447 (19.6%)	1444 (19.2%)	1361 (18.4%)	1616 (20.9%)	1377 (19.5%)	1223 (16.2%)
Total births	**7274**	**7387**	**7399**	**7533**	**7390**	**7746**	**7062**	**7554**

TABLE 5 ▼

Births in Counties Manukau facilities by mother ethnicity (prioritised) and location, 2016–2023

PRIORITISED ETHNICITY	MIDDLEMORE HOSPITAL	PRIMARY BIRTHING UNITS
Maaori	11300 (21.0%)	1765 (32.2%)
Pacific	19333 (35.9%)	908 (16.6%)
European & other	9549 (17.7%)	2012 (36.7%)
Asian including Indian	13679 (25.4%)	797 (14.5%)
Total	**53861**	**5482**

FIGURE 1 ▼

Births (%) in Counties Manukau primary birthing unit, 2016–2023

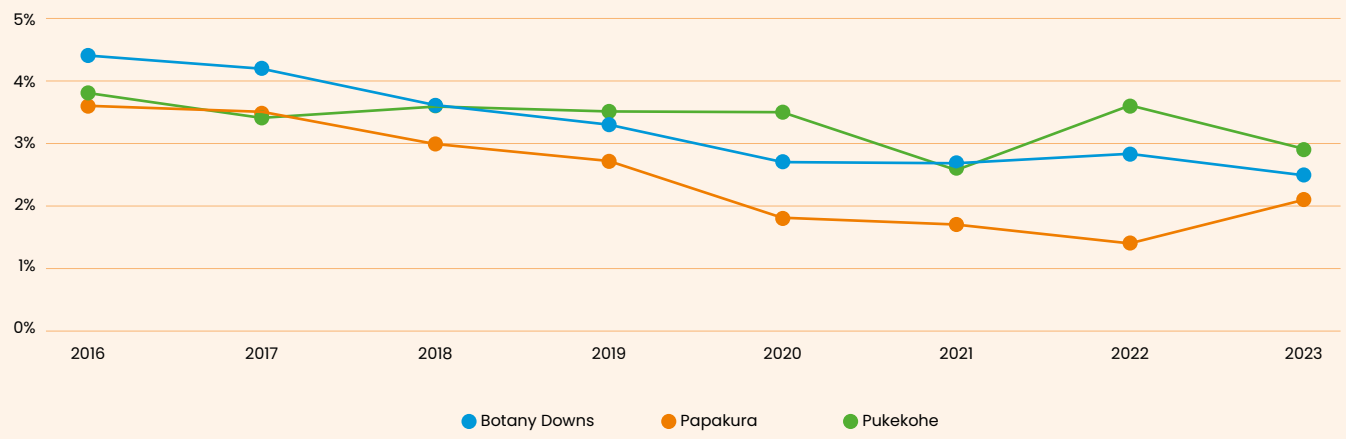


FIGURE 2 ▼

Births (%) in Counties Manukau maternity facilities to young mothers 15–19 years, 2016–2023

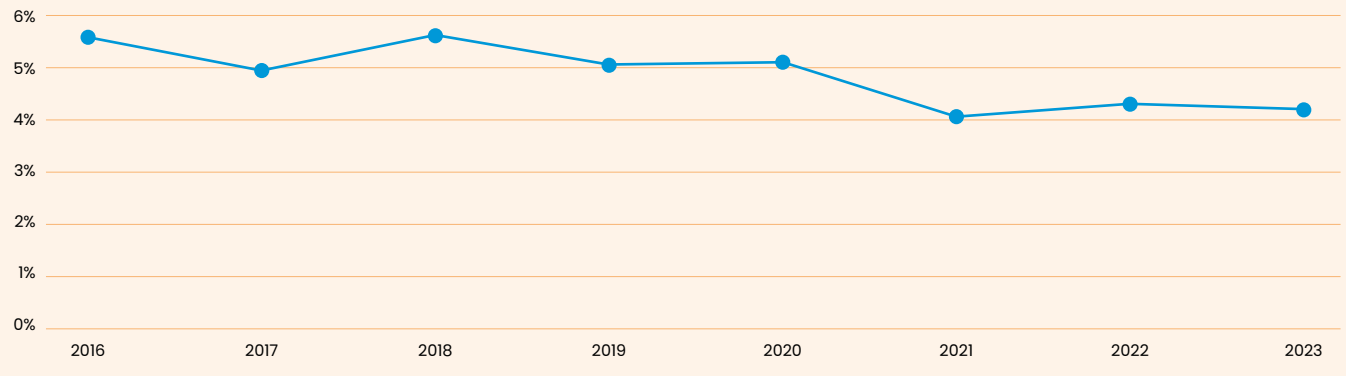
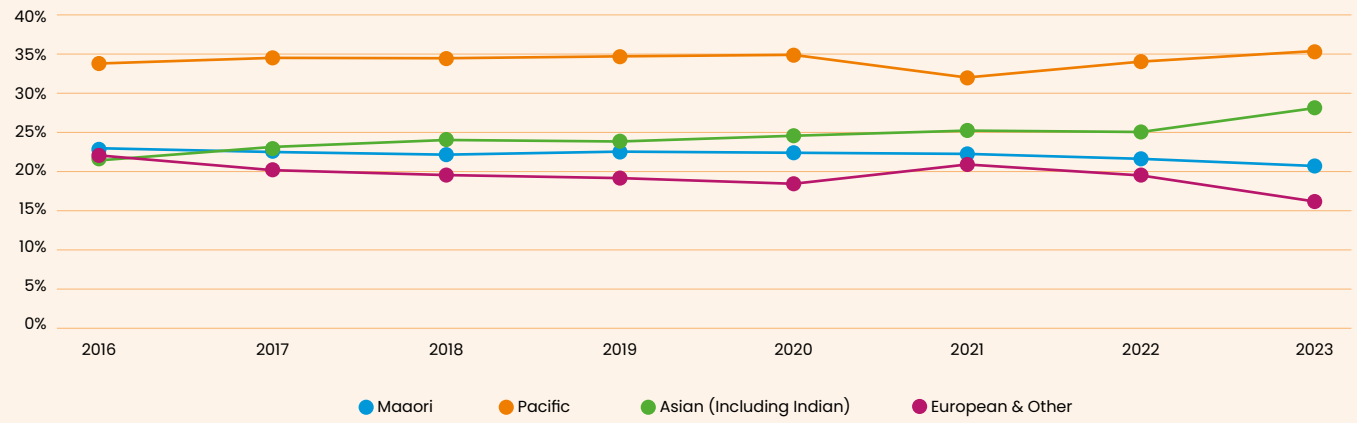


FIGURE 3 ▼

Births (%) in Counties Manukau maternity facilities by mother ethnicity, 2016–2023



The characteristics of women living in Counties Manukau who birthed in 2022 and 2023 are shown in Table 6. The data in this table are from the National Minimum Dataset and may differ slightly from the Qlik analytics software data collected via Counties Manukau digital systems. The most common ethnicity was Pacific (33.3% in 2022, 34.5% in 2023), with an increasing Indian birthing population (17.6% in 2022, 20.7% in 2023). The most common ages to give birth were 30 to 34 years of age (31.4% in 2022, 31.7% in 2023).

NZDep2018 measures the level of deprivation for people based on their address, using nine Census 2018 variables relating to income, home ownership, employment, qualifications, family structure, housing, access to transport and communications. Quintile 1 are the least deprived communities and Quintile 5 are the most deprived 20% of communities in New Zealand. Nearly six in every ten birthing women who were living in Counties Manukau in 2022 (59.5%) and 2023 (60.6%) were from the most deprived NZDep2018 Quintile 5 areas.

Manurewa was the suburb with the greatest proportion of birthing women (17.8% in 2022, 17.5% in 2023), followed by Franklin (13.5% in 2022, 12.1% in 2023), and Mangere (13.2% in 2022, 12.9% in 2023).

▲ *Rachel Fisi with baby Tanginoa Jr*

TABLE 6 ▼

Demography of women living in Counties Manukau who birthed in 2022 and 2023

ETHNIC GROUP	2022	%	2023	%
Maaori	1377	19.5%	1424	18.9%
Pacific	2349	33.3%	2604	34.5%
Indian	1245	17.6%	1566	20.7%
Asian (excl Indian)	580	8.2%	598	7.9%
European	1377	19.5%	1210	16.0%
Other ethnicity	134	1.9%	152	2.0%
Total	**7062**	**100%**	**7554**	**100%**
AGE GROUP	**2022**	**%**	**2023**	**%**
15-19	302	4.3%	322	4.3%
20-24	1250	17.7%	1300	17.2%
25-29	2057	29.1%	2092	27.7%
30-34	2220	31.4%	2392	31.7%
35-39	1009	14.3%	1218	16.1%
40+	224	3.2%	230	3.0%
Total	**7062**	**100%**	**7554**	**100%**
DEPRIVATION SCORE*	**2022**	**%**	**2023**	**%**
1 (least deprived)	424	6.0%	419	5.5%
2	932	13.2%	953	12.6%
3	603	8.5%	593	7.9%
4	902	12.8%	1013	13.4%
5 (most deprived)	4201	59.5%	4576	60.6%
Total	**7062**	**100%**	**7554**	**100%**

LOCALITY	2022	%	2023	%
Botany	188	2.7%	170	2.3%
East Rural	252	3.6%	261	3.5%
Franklin	955	13.5%	917	12.1%
Howick	177	2.5%	176	2.3%
Mangere	933	13.2%	975	12.9%
Manukau	317	4.5%	359	4.8%
Manurewa	1258	17.8%	1320	17.5%
Otara	594	8.4%	695	9.2%
Pakuranga	193	2.7%	197	2.6%
Papakura	620	8.8%	669	8.9%
Papatoetoe	625	8.9%	753	10.0%
Takanini	519	7.3%	586	7.8%
Otahuhu	197	2.8%	208	2.8%
Other districts	234	3.3%	268	3.5%
Total	**7062**	**100%**	**7554**	**100%**

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Clinical indicator view of whaanau birthing in Counties Manukau 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', which reflects low-risk women and therefore used as a comparison for outcomes across Te Whatu Ora health districts (Table 7). It has been produced to give us a clearer understanding of the women birthing in 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 to monitoring outcomes and making meaningful changes to guide quality and improvement of services and practice.

The Ministry of Health standard clinical indicators reports show either births at Middlemore Hospital or births of Counties Manukau domiciled women. However, these figures do not reflect all Counties Manukau facility births. We have chosen to report on all births in the Te Whatu Ora Counties Manukau district, which includes the outlying birthing units, to give a complete view of Counties Manukau birthing outcomes.

All data in this section is from the BadgerNet database, held by the Health Intelligence and Informatics Team at Te Whatu Ora Counties Manukau, which uses contemporaneous information entered in BadgerNet by the clinician. Using BadgerNet fields and narratives allows for more precise measurement by our clinical coders who interpret clinical documentation. The accuracy of information entered reflects the quality of the reports we prepare. We now have eight complete years of clinical information from BadgerNet.

We have chosen 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 in the graphs, there is variation across ethnic groups.

A 'standard primipara' is a woman expected to have an uncomplicated pregnancy. Standard primiparae are aged 20 to 34 years old, giving birth for the first time at term (37 to 41 weeks' gestation) to a single baby in a cephalic (head-first) position, with 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 districts. Standard primiparae are a sub-set of the general maternity population and are not representative of all birthing women, with only one in eight birthing women in Counties Manukau in this category.

Women birthing in Counties Manukau facilities

In 2023, 7,554 women gave birth in a Counties Manukau facility. Of these, 867 (11.5%) were in the category of standard primipara (Table 7). Most standard primipara (775, 89.4%) gave birth in Middlemore Hospital (Table 8), including most (136 of 138, 98.6%) with a BMI of 35 or greater (Table 9). In the 2023 year, 82.4% of standard primiparae birthing at Middlemore Hospital had a BMI under 35 (638 women), while 92.9% had a BMI under 40 (719 women).

TABLE 7 ▼

Women birthing at Counties Manukau facilities by parity category, 2016–2023

	ALL WOMEN	ALL MULTIPARAE	NON-STANDARD PRIMIP	STANDARD PRIMIP	% OF ALL BIRTHS
2023	7554	4627	2060	867	11.5%
2022	7044	4433	1858	753	10.7%
2021	7698	4739	2052	907	11.8%
2020	7322	4476	1905	941	12.9%
2019	7526	4627	1911	988	13.1%
2018	7384	4541	1807	1036	14.0%
2017	7361	4624	1689	1048	14.2%
2016	7230	4559	1598	1073	14.8%

TABLE 8 ▼

Birthing location for standard primiparae birthing at Counties Manukau facilities by calendar year, 2017-2023

	BOTANY BIRTHING UNIT	PAPAKURA BIRTHING UNIT	PUKEKOHE BIRTHING UNIT	MIDDLEMORE HOSPITAL
2023	32	24	36	775
2022	30	15	51	657
2021	31	11	56	809
2020	34	19	52	836
2019	55	30	55	848
2018	55	33	62	886
2017	62	46	57	883

TABLE 9 ▼

Body mass index (BMI) category at booking for standard primiparae birthing in Counties Manukau facilities by calendar year, 2017-2023

	BOOKING BMI	PRIMARY BIRTHING UNITS – NUMBER	MIDDLEMORE HOSPITAL – NUMBER	PRIMARY BIRTHING UNITS – PERCENTAGE	MIDDLEMORE HOSPITAL – PERCENTAGE
2023	<35	90	638	97.8%	82.4%
	35-39	1	81	1.1%	10.5%
	>=40	1	55	1.1%	7.1%
2022	<35	92	553	96%	85%
	35-39	3	63	3%	10%
	>=40	1	38	1%	6%
2021	<35	91	682	93.8%	84.5%
	35-39	6	84	6.2%	10.4%
	>=40	0	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%
2018	<35	146	771	98.6%	87.3%
	35-39	2	72	1.4%	8.2%
	>=40	0	40	0.0%	4.5%
2017	<35	153	777	93.9%	89.2%
	35-39	9	59	5.5%	6.8%
	>=40	1	35	0.6%	4.0%

Table 10 summarises the Ministry of Health clinical indicators for Counties Manukau for 2017 to 2023, alongside clinical indicator data for all New Zealand for 2021. This is followed by a series of figures showing the levels of each clinical indicator by ethnicity, by calendar year for 2017 to 2023.

TABLE 10 ▼

Ministry of Health clinical indicators: Summary of Counties Manukau data 2017-2023, and comparison with national data for 2021

	NZ 2021	CM 2023	CM 2022	CM 2021	CM 2020	CM 2019	CM 2018	CM 2017
CI 1: Registration with an LMC in the first trimester of pregnancy*	78.2%	61.0%	64.2%	67.3%	59.2%	55.0%	60.8%	55.3%
CI 2: Standard primiparae who have a spontaneous vaginal birth	61.5%	62.1%	58.4%	58.1%	58.2%	63.8%	63.7%	66.5%
CI 3: Standard primiparae who undergo an instrumental vaginal birth	19.2%	18.6%	18.7%	19.5%	18.6%	16.8%	16.9%	14.2%
CI 4: Standard primiparae who undergo caesarean section	19.1%	19.4%	22.8%	22.4%	23.2%	19.4%	19.4%	19.3%
CI 5: Standard primiparae who undergo induction of labour	9.1%	13.4%	14.6%	14.4%	14.5%	11.1%	10.3%	10.7%
CI 6: Standard primiparae with an intact lower genital tract (no 1st- to 4th-degree tear or episiotomy) – vaginal birth only	24.1%	6.7%	11.0%	7.8%	9.4%	12.4%	13.3%	15.1%
CI 7: Standard primiparae undergoing episiotomy and no 3rd- or 4th-degree perineal tear	26.7%	34.2%	36.5%	37.1%	36.1%	33.9%	34.9%	28.3%
CI 8: Standard primiparae sustaining a 3rd- or 4th-degree perineal tear and no episiotomy	4.1%	4.0%	4.0%	4.0%	4.9%	4.3%	4.8%	4.8%
CI 9: Standard primiparae undergoing episiotomy and sustaining a 3rd- or 4th-degree perineal tear	2.1%	2.0%	2.4%	3.4%	3.2%	3.4%	3.4%	2.2%
CI 10: Women having a general anaesthetic for caesarean section	7.5%	7.6%	8.8%	9.2%	10.6%	11.7%	10.5%	10.2%
CI 11: Women requiring a blood transfusion with caesarean section	3.8%	5.3%	4.6%	3.5%	4.0%	3.5%	3.6%	5.1%
CI 12: Women requiring a blood transfusion with vaginal birth	2.5%	3.7%	3.8%	3.2%	3.4%	2.7%	2.5%	3.2%
CI 13: Diagnosis of eclampsia at birth admission	0.03%	0.03%	0.07%	0.05%	0.0%	0.01%	0.05%	0.04%
CI 14: Women having a peripartum hysterectomy	0.04%	0.11%	0.07%	0.08%	0.05%	0.03%	0.12%	0.05%
CI 15: Women admitted to ICU and requiring ventilation during the pregnancy or postnatal period	0.02%	0.08%	0.11%	0.08%	0.04%	0.03%	0.04%	0.08%
CI 16: Maternal tobacco use during the postnatal period**	7.3%	No data	No data	No data	11.2%	13.3%	11.8%	12.3%
CI 17: Preterm birth	7.9%	9.9%	9.2%	9.3%	8.5%	8.5%	7.8%	8.0%
CI 18: Small babies at term (37–42 weeks' gestation) ***	2.9%	14.0%	14.1%	13.1%	12.5%	13.0%	13.1%	12.4%
CI 19: Small babies at term born at 40–42 weeks' gestation***	27.0%	32.7%	31.9%	34.8%	30.0%	30.6%	33.3%	35.8%

*Registration with Counties Manukau clinician or LMC

**Limited to smoking updates 1-14 days PN

***Counties Manukau uses BadgerNet birthweight centile <10

Figures 4 to 22: Clinical indicators by ethnicity, 2017-2023

FIGURE 4 ▼

CI 1: Registration with an LMC in the first trimester of pregnancy

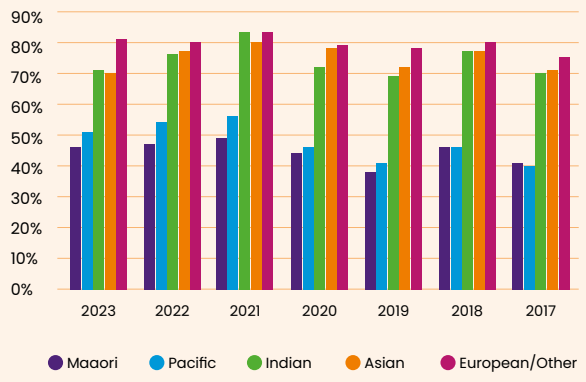


FIGURE 5 ▼

CI 2: Standard primiparae who have a spontaneous birth

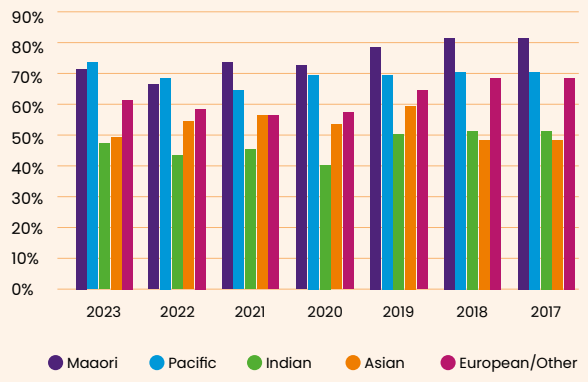


FIGURE 6 ▼

CI 3: Standard primipare who undergo an instrumental vaginal birth

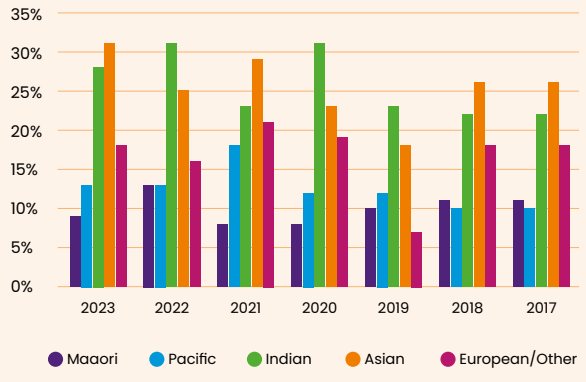


FIGURE 7 ▼

CI 4: Standard primipare who undergo caesarean section

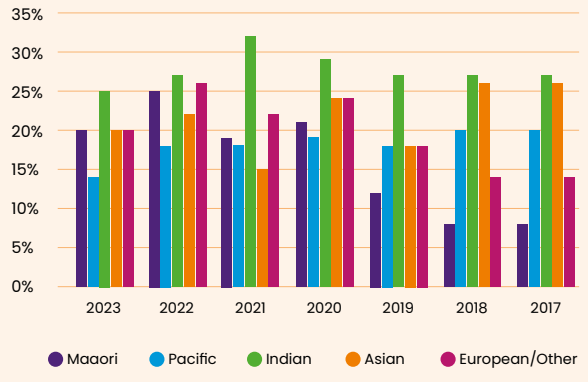


FIGURE 8 ▼

CI 5: Standard primiparae who undergo induction of labour

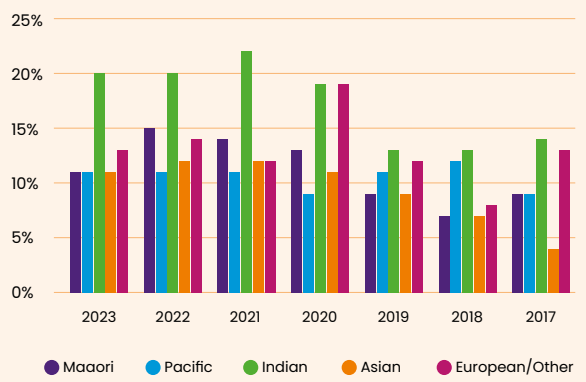


FIGURE 9 ▼

CI 6: Standard primipare with an intact lower genital tract

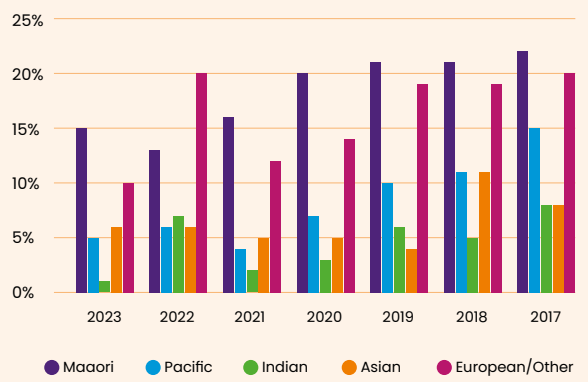


FIGURE 10 ▼

CI 7: Standard primiparae undergoing episiotomy and no third- or fourth-degree perineal tear

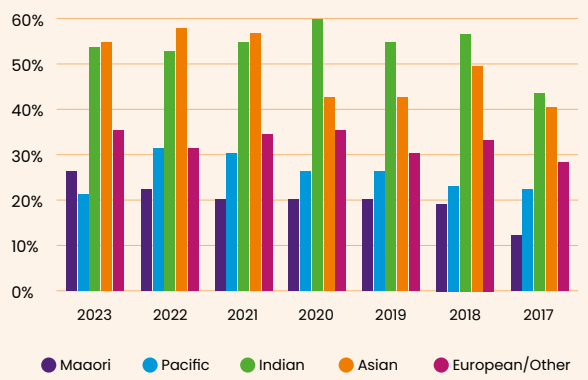


FIGURE 11 ▼

CI 8: Standard primiparae sustaining a third- or fourth-degree perineal tear and no episiotomy

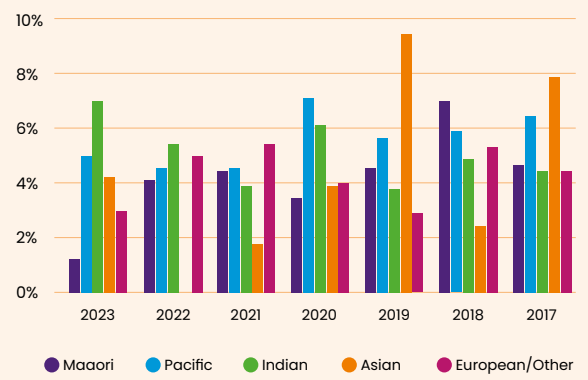


FIGURE 12 ▼

CI 9: Standard primiparae undergoing episiotomy and sustaining a third- or fourth-degree perineal tear

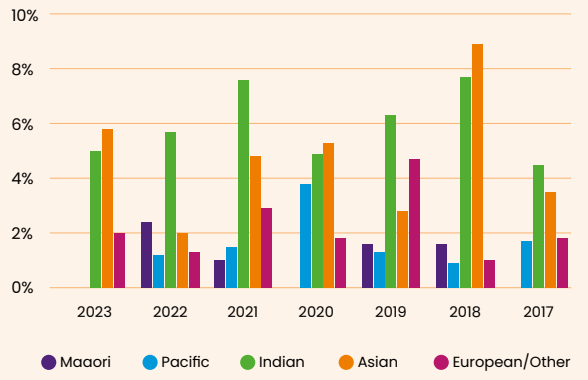


FIGURE 13 ▼

CI 10: Women having a general anaesthetic for caesarean section

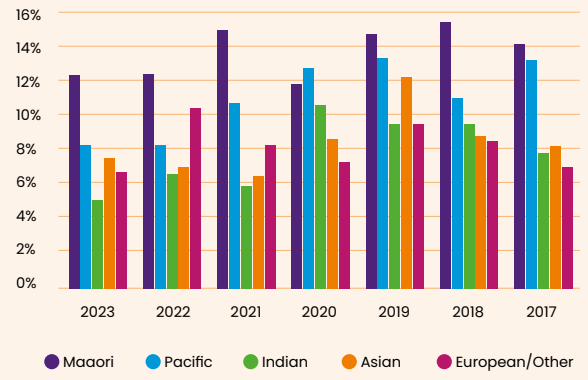


FIGURE 14 ▼

CI 11: Women requiring a blood transfusion with caesarean section

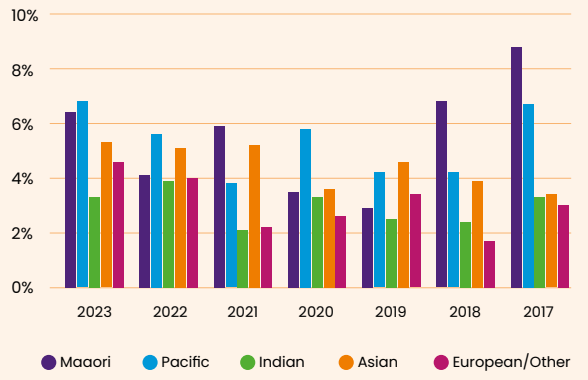


FIGURE 15 ▼

CI 12: Women requiring a blood transfusion with vaginal birth

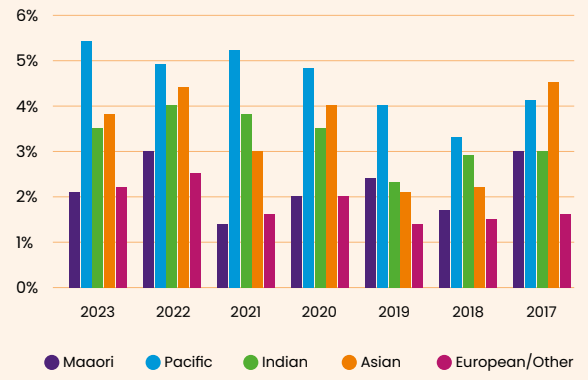


FIGURE 16 ▼

CI 13: Diagnosis of eclampsia at birth admission

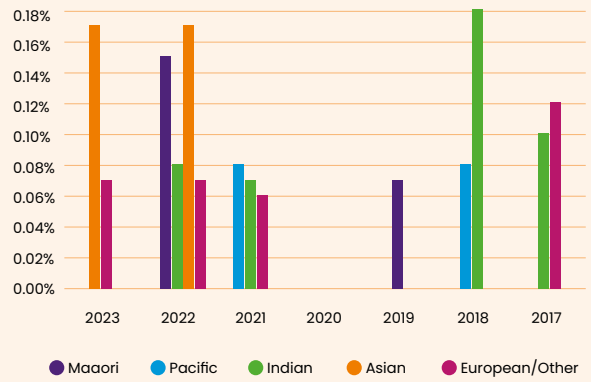


FIGURE 17 ▼

CI 14: Women having a peripartum hysterectomy

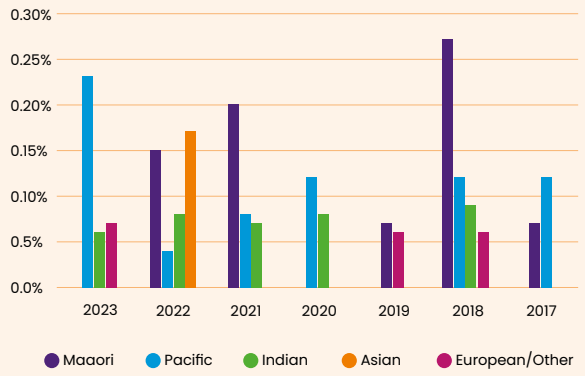


FIGURE 18 ▼

CI 15: Women admitted to ICU and requiring ventilation during the pregnancy or postnatal period

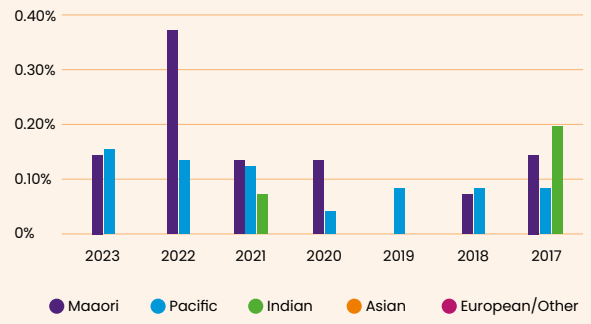


FIGURE 19 ▼

CI 16: Maternal tobacco use during the postnatal period (later data unavailable)

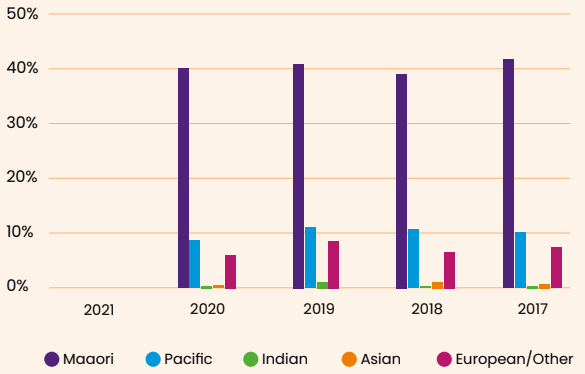


FIGURE 20 ▼

CI 17: Preterm birth (liveborn babies 20–36 weeks gestation)

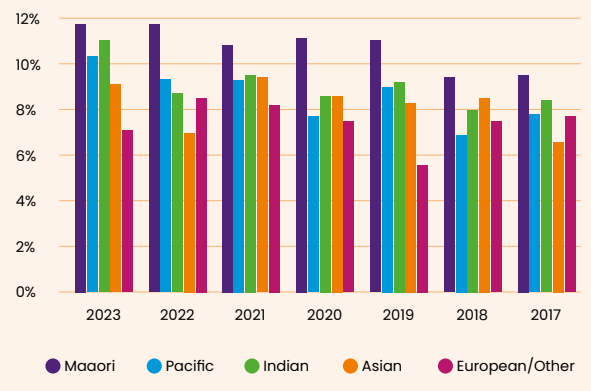


FIGURE 21 ▼

CI 18: Small babies at term (37–42 weeks' gestation)

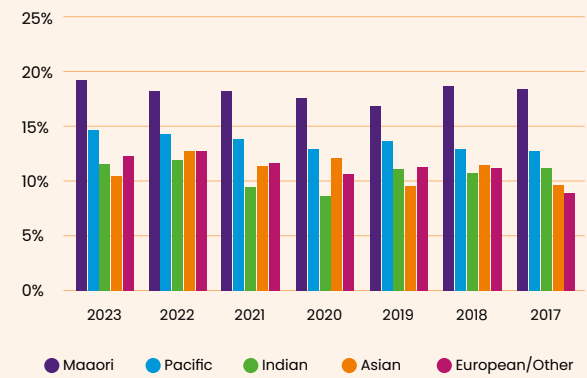
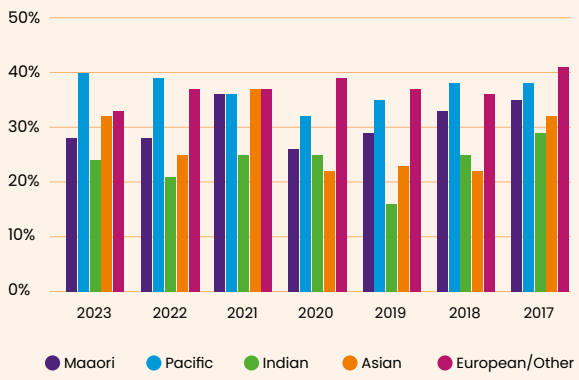


FIGURE 22 ▼

CI 19: Small babies at term born at 40–42 weeks' gestation



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Maternity services overview 2023

This article provides an overview of high-level maternity outcomes during 2023.

Maternity outcomes

The high-level summary in Table 11 covers the key measurable outcomes for the maternity service. Detail supporting these outcomes can be found elsewhere in this report or is available on request from the service. Table 12 shows the volume of services delivered by outpatient services during the year.

TABLE 11 ▼

Key measurable outcomes — Maternity Services			
MEASURABLE	**2023**	**2022**	**CHANGE**
Total women birthing in facilities	7554	7062	6.5%
Middlemore Hospital births	6987	6527	6.6%
Botany Downs Birthing Unit births	192	183	4.7%
Papakura Birthing Unit births	159	98	38.4%
Pukekohe Birthing Unit births	216	254	-17.6%
Percentage primary birthing	7.5%	7.6%	-1.3%
Normal vaginal birth all facilities	4364	4093	6.2%
Instrumental birth	717	606	15.5%
Emergency caesarean section	1710	1658	3%
Elective caesarean section	763	705	7.6%
Total caesarean section rate	32.7%	32.7%	0%
Induction rate	33.3%	33.3%	0%
Augmentation rate	18.9%	17.8%	5.8%
Epidural rate	42.9%	44.7%	-4.2%
Episiotomy rate	17.5%	15.4%	12%
Postpartum haemorrhage rate	24.2%	25%	-3.3%
Third- and fourth-degree perineal tear	3%	3%	0%
BMI > 29.9	46.9%	47.8%	-1.9%
Diabetes in pregnancy	955	939	1.7%
Preterm babies	728	628	13.7%
Antenatal stillbirths	57	40	29.8%
Intrapartum stillbirths	9	10	-11.1%
Neonatal deaths	37	23	37.8%
Exclusive breastfeeding at first discharge	75%	74%	1.3%
Registered with LMC midwife	81%	76.6%	5.4%
Average length of postnatal inpatient stay	62 hours 51 mins	60 hours 10 mins	2 hours 41 mins

TABLE 12 ▼

Outpatient antenatal services - volumes

ANTENATAL SERVICE PROVIDED	2023
Total Counties Manukau District antenatal referrals to community midwifery services	5545
Total Counties Manukau District community midwifery antenatal appointments	18181
Average antenatal visits for women under Counties Manukau District care	7.1
Counties Manukau obstetric virtual appointments	4028
Maternity Assessment Clinic appointments	2121
Birthing and Assessment Unit outpatient assessments (<3 hours)	2432

POSTNATAL SERVICE PROVIDED	2023
Total Counties Manukau District community midwifery postnatal visits	9659
Average postnatal visits for women under Counties Manukau District care (including inpatient visits)	6.9

Maternity workforce update

Midwifery vacancies remain high, and we continue to staff the inpatient postnatal wards with registered nurses. A workforce plan was implemented at the beginning of 2023, where graduate midwives were placed in areas where there are significant midwifery vacancies and where only midwifery skills can be utilised (ie, Birthing and Assessment Unit, inpatient antenatal ward). At the same time, senior midwifery roles were created to support the increased number of graduate midwives in these areas.

A maternity care assistant role was introduced in the midwifery collective agreement. Student midwives are employed into this role on casual contracts. Maternity care assistants work predominantly in areas where midwives require additional support. This role is an important recruitment strategy and we have welcomed colleagues as registered midwives who began their career at Counties Manukau as maternity care assistants.

Service improvement initiatives

2023 saw continued emphasis on the Baby Friendly Hospital Initiative (BFHI). The audit was initially undertaken in October 2022 and the service was given corrective actions to improve the number of staff receiving breastfeeding education in Maternity and Neonatal services and to further explore and correct falling exclusive breastfeeding rates at discharge from Middlemore Hospital.

Looking to the future

The focus for maternity services for the future will be on increasing quality initiatives in priority areas such as workforce and service delivery inequities, and to continue working towards improved outcomes for all whaanau with a particular focus on people who are at increased risk.

▼ *Baby Theodore with mum Erika Veysey*

Whaanau who birthed at a Te Whatu Ora Counties Manukau facility in 2023

Births

7,554 women birthed in Counties Manukau facilities

with **7,661** babies born

Birth by facility type

6,987 (92%) births were at Middlemore Hospital

567 (8%) were at primary birthing units

Primary birthing unit births

192	159	216
Botany Downs	Papakura	Pukekohe

Ventouse or forceps birth **9.5%**

LSCS Lower segment cesarean section **32.7%**

Normal vaginal birth at all facilities **57.8%**

33% Induction of labour rates

12.6% Gestational diabetes mellitus

An average of 21 babies were born a day

Standard primip

11.5% of births

Registration %

Registration for all women, LMC and DHB community midwives in first trimester **61%**

81.2% Registration with a community LMC midwife at some point during pregnancy.

Body Mass Index at booking

Underweight	1%
Healthy	26%
Overweight	25%
Obese	47%

Smoking %

8% at first registration were smoking

Of the 8%

92% were provided with brief advice and support to stop smoking

77% were referred to the stop smoking service

Age of birthing women/people

<20	4.3%
20-24	17.2%
24-29	27.7%
30-34	31.7%
35-39	16.1%
>40	3.0%

Deprivation NZ Quintile 5

61% of whaanau who birth in a Counties Manukau public facility **live in the most socio-economically deprived areas**

Ethnicity of birthing women/people

	DHB	LMC	TOTAL	% OF TOTAL
NZ MAAORI	365	1,059	1,424	19%
PACIFIC	403	2,201	2,604	34%
INDIAN	333	1,233	1,566	21%
ASIAN (EXCL INDIAN)	136	462	598	8%
EUROPEAN/ OTHER	469	1,695	2,164	29%
TOTAL	1,422	6,132	7,554	100%

Whaanau who birthed in Counties Manukau at home or at Nga Hau Māngere Birthing Centre in 2023

Births

74 Home births

294 Nga Hau Māngere Birthing Centre

ETHNICITY OF WOMEN/PEOPLE WHO BIRTHED AT NGA HAU MĀNGERE BIRTHING CENTRE	BIRTHS	%
NZ MAAORI	86	29%
PACIFIC	160	54%
INDIAN	8	3%
ASIAN	11	4%
NZ EUROPEAN	26	9%
OTHER	3	1%
TOTAL	294	100%

Te Whatu Ora data provided by Sharon Arrol and Andrea O'Brien, sourced from Counties Data Warehouse. Home birth data sourced from Maternity National Collections. Nga Hau Māngere Birthing Centre data provided by Tish Taihia and Expect Maternity.

4 Our maternity facilites

AUTHOR

CLARE SENNER
Maternity Quality and Safety Programme Manager

Our maternity facilities

Te Whatu Ora Counties Manukau has 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 locations. The Counties Manukau 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 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 Counties Manukau 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.

▼ *Netanya Makaui being supported in labour by husband Kauatoa before the birth of their first baby Emerson*

▲ *Emerson Makaui*

Counties Manukau Community Midwifery Service

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

The service offers a combination of approaches to providing antenatal and postnatal midwifery care to clients living within our geographical boundaries which stretch from Ōtāhuhu to Manurewa and include Papatoetoe, Maangere and the wider Manukau areas. Due to continued midwifery staffing shortages, we provide a range of midwifery service delivery models including telehealth, 0800 advice and care line, individual in-person 'named midwife' for those with higher clinical or social needs and an 'in-person' midwifery clinic-based team approach. All these models of care are underpinned by a Social Work Team and our Community Health Worker Team which supports clients and midwives in the delivery of individualised, culturally congruent and timely maternity care.

The Community Midwifery Service provides a 365-day service from 7.30am until 4pm. Both locality-based clinic services and home visiting services are offered in the antenatal and postnatal periods. The service is actively involved in supporting research and initiating quality improvement and service development work.

The Community Midwifery Service also provides a team of specialist midwives and community health workers who care for women with Type 1, Type 2 and gestational diabetes. During 2023 the Maternal & Fetal Medicine Community Midwifery Team were relocated to a hospital base and a new management structure.

Community midwifery care at the National Refugee Resettlement Centre

The Community Midwifery Service provides midwifery care to the National Refugee Resettlement Centre based in Maangere Auckland. Every five to six weeks there are new refugee quota entry groups to the country, many include people who are pregnant at point of entry. Generally, we provide care for around 12-15 pregnancies each year.

We provide one weekly antenatal clinic of eight hours midwifery time – more or less, depending on refugee quota entries. We also provide postnatal care when required. We are committed to providing a timely response as there are only five weeks from arrival at the centre until people move to one of the 11 permanent resettlement areas across the country. The midwife provides assessment, care, referral to specialist services and then transfer of maternity care to the permanent resettlement area.

Community midwifery care at the Auckland Women's Regional Corrections Facility (AWRCF)

We also provide midwifery care to Auckland Women's Regional Corrections Facility. This is a specialised and complex role fulfilled mostly by a clinical midwife manager who runs antenatal clinics up to twice weekly, plus all postnatal care in the Mother and Baby Unit within the prison. AWRCF is the only North Island facility taking women who are pregnant or who have babies under the age of two years with them during their custodial sentence. A minimum of 16 hours midwifery time per week is required to deal with new referrals, transfers, discharges and care provision.

Staff

	FTE	# OF PEOPLE
Midwife manager	1	1
Administrative staff who work 365 days a year (7 day on, 7 days off)	1.4	2
Clinical midwife managers	2.3	4
Clinical coach	0.8	1
Community midwives (CMW) Total community midwifery staffing 9-12 FTE throughout 2023, full FTE not achieved. 7-10 FTE vacant permanent CMW posts throughout 2023	17.5	
CMW working in person (mostly part-time)	6-9	8-13
CMW working digitally from home (part-time)	3	5-6

Specialist teams

DIABETES IN PREGNANCY SERVICE	
Total Number of referrals received 2023	1024
Gestational diabetes mellitus	754
Type 1 diabetes	20
Type 2 diabetes	265
GDM transferred care from Auckland	15

	FTE	# OF PEOPLE
Clinical midwife specialists	4.6	6
MATERNAL FETAL MEDICINE		
Clinical midwife specialists	2.6	3

Community Health & Social Work Team

ALL FULL TIME

	FTE	# OF PEOPLE
Community Health Workers 5FTE permanent, 3FTE fixed term	8	8
Social Workers vacancies across the year of 1FTE unfilled	2.4	2

Antenatal referrals

Antenatal referrals to Counties Manukau Community Midwifery Service 2023	2881
Referrals for primary care through Maternal Fetal Medicine and Diabetes in Pregnancy midwives	438

Maternity Assessment Clinic (MAC)

2023 First specialist appointments

808

2023 Follow up appointments

1313

This is a Monday to Friday outpatient clinic, located at Manukau Health Park and operating from 8.00am until 4.30pm. MAC offers assessment and monitoring during pregnancy for anyone experiencing an unexpected complication requiring additional care. MAC provides limited ultrasound scanning and cardiotocograph monitoring. Most ultrasound scanning is done through a community provider and the results are reviewed at MAC. The aim of MAC is to improve the experience and pregnancy outcomes for those facing complications.

Staff

	FTE	# OF PEOPLE
Senior midwife	1	5
Additional community midwifery staff (2-4 hours per day when required)	0.4	
Administrator receptionist/ patient care assistant	1	1

Birthing and Assessment

2023 Total births
6,987

2023 Assessments
2,054

Middlemore Birthing and Assessment (B&A), provides primary birthing services or women living locally. It also provides secondary maternity care where women or their babies experience complications that need additional maternity care involving obstetricians, neonatal care 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.

B&A integrates the care it provides with the community midwives and the three Counties Manukau primary birthing units. Middlemore birthing suite welcomed 7103 babies last year with the latter part of the year seeing over 600 births a month.

Staff

	FTE	# OF PEOPLE
Midwife manager	1	1
Deputy midwife manager	1	1
Personal assistant administrator	1	1
Associate clinical midwife managers	12.2	13
Employed midwives	27	42
Registered nurses	9.9	11
Health care assistants	10	11
Ward clerks	12	12
Bureau midwives *– midwives with casual contracts working across the Women's health division*	6	6
Community LMCs who actively birth at the unit		50

Facilities

Birthing rooms	12
Flexi rooms *– can be used as birthing rooms, and accommodation for women*	7
Assessment rooms – *total of 7 beds (2 doubles)*	7
Ultrasound room	1
Clinic room	1
Whaanau room	1
Negative pressure rooms *-this number is also included in the Birthing rooms total*	3

Botany Downs Birthing Unit

2023 Total births
192

Average length of stay
42.5 hours

2023 Antenatal assessments <3 hours
823

2023 Antenatal referrals to Botany community midwifery care
627

2023 Transfer for postnatal care
1,296

2023 Postnatal assessments <3 hours
43

Transitional care babies
88

Boarder mothers
77

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 was purpose-built in 1992 and is 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

	FTE	# OF PEOPLE
Community LMC midwives who provide care at the unit		25
Core midwives including charge midwife managers		28
Employed community midwives	3.6	6
Registered nurses	1.6	3
Clerical administrators	1.4	2
Health care assistants	4	4
Team caseloading midwives	5	5

Facilities

Resourced beds	12
Physical beds	15
Double-bed rooms	3
Three-bed rooms	1
Single postnatal rooms	6
Birthing rooms	4
Birthing pools	2
Clinic rooms	8

Papakura Birthing Unit

2023 Total births
159

2023 Transfers in
12

2023 Antenatal and postnatal assessments <3 hours
1,211

2023 Antenatal referrals to Papakura community midwifery care
1,194

Average length of stay
48.1 hours

2023 Transfer for postnatal care
651

Papakura Birthing Unit is the oldest of the three birthing units and celebrated 80 years of mothers and babies in June 2023. 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 referral.

Staff

	FTE	# OF PEOPLE
Community LMC midwives who provide care at the unit		8
Core midwives including charge midwife managers	13	11
Employed community midwives	9	8
Registered nurses	2	2
Clerical administrators	2	2
Health care assistants	2	6
Team caseloading midwives	6	6
Community health workers	1	1

Facilities

Resourced beds	12
Physical beds	11
Two-bed postnatal rooms	2
Single postnatal rooms	5
Birthing rooms	3
Birthing room with pool	1
Clinic rooms	5

Pukekohe Birthing Unit

2023 Total births
216

2023 Transfers in
473

2023 Antenatal and postnatal assessments <3 hours
1,304

2023 Antenatal referrals to Pukekohe community midwifery care
405

Average length of stay
43.7 hours

2023 Transfer for postnatal care
173

Pukekohe Birthing Unit has long-established roots within the community of the Franklin District and Northern Waikato, including as far east as Kaiaua. This is a region experiencing significant population growth. In the unit, women can be supported by their families, whaanau and staff in a warm, friendly environment for their birthing and postnatal stay.

Women with pregnancy concerns can often be reviewed at Pukekohe and avoid a trip to Middlemore. There is a part-time ultrasound clinic (midwife arranged only) on site too.

Pukekohe Maternity Resource Centre, on the same site, provides women with information on pregnancy-related issues and free pregnancy tests. Many community midwives hold their clinics at the unit, with an obstetric antenatal clinic running weekly to provide local care for women who require a consultation with a specialist. We have breastfeeding support and immunisation services on site too.

Staff

	FTE	# OF PEOPLE
Community LMC midwives who provide care at the unit		9
Core midwives including charge midwife managers	11.6	17
Employed community midwives	1	4
Registered nurses	1.2	2
Enrolled nurses	0.4	1
Clerical administrators	1.9	3

Facilities

Resourced beds	8
Physical beds	11
Double-bed room	1
Single postnatal rooms	8
Birthing room with pool	2
Clinic rooms	3
Maternity resource centre	1
Ultrasound clinic days (no clinic room)	3

Maternity North

Maternity North is a 23-bed postnatal ward caring for women and babies needing 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

	FTE	# OF PEOPLE
Midwife manager	1	1
Midwives	0.9	1
Midwife clinical coaches	1.3	2
Registered nurses	26.25	30
Health care assistants	4.55	5
Administrator	1	1

Facilities

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

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

	FTE	# OF PEOPLE
Manger	1	1
Clinical midwife manager	0.6	1
Midwives	2.7	4
Clinical coaches	1.1	3
Registered nurses	26.4	31
Health care assistants	3.3	6

Facilities

Beds	22
Single rooms	6
Double rooms	8

Ward 21

Ward 21 is a 30-bed ward providing care for pregnant women who have high risk pregnancies requiring inpatient care. We also care for women who have babies in the Neonatal Unit as well as women 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

	FTE	# OF PEOPLE
Midwives	28.2	34
Registered nurses	5.4	11
Health care assistants	5.2	7

Facilities

Beds	30
Single rooms	6
Double rooms	2
Four bedded rooms	5
Negative pressure rooms	2

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 starting breastfeeding. A broad range of health professional teams including visiting physicians, 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 given to women, babies and whaanau.

Shared Staff

	FTE	# OF PEOPLE
Ward clerks	6.1	8
Lactation consultants (including BFHI coordinator/team lead)	4.1	5
Breastfeeding advocates	3	3
Contraception nurses	2.9	4
Maternity care assistants		50
Security officers	2	2

Combined inpatients

Maternity North and South	
Antenatal episodes	3
Postnatal women birth and transfer episodes	5678
Total number of women	4749
% of all birth episodes discharged post caesarean section	44%
Total baby episodes	5591
Total post neonatal unit baby episodes	717
MATERNITY NORTH	
Total post neonatal unit baby episodes	372
Average length of stay	5.3 days
MATERNITY SOUTH	
Total post neonatal unit baby episodes	345
Average length of stay	4.9 days

Ward 21	
Antenatal episodes	1147
Average length of stay days	1.6 days
Postnatal episodes	294
Average length of stay days	3 days
Gynaecology hyperemisis episodes	106
Gynaecology episodes (excl hyperemisis)	524
Average length of stay days	1.9 days

5 Workforce

AUTHOR

SARAH NICHOLSON
Deputy Chief Midwife

Midwifery workforce

Across the Counties Manukau District midwives practice in diverse work settings and situations that require them to adapt their knowledge and expertise, to ensure the best care for whaanau before, during and after birth. In alignment with the national health workforce plan 2023/24, a key priority for midwifery across the Counties Manukau District during 2023 was addressing workforce vacancy and supporting the sustainability of the midwifery workforce.

The midwifery workforce shortage is a reality for the provision of maternity services across the district. The drivers of the shortage are multifaceted; primary workforce contributors include insufficient number of midwifery graduates, recruitment and retention of current workforce and an increasing number of midwives retiring from the profession. Clinical drivers include a rising number of complex cases creating increased demands on the workforce.

Growing pathways for Maaori and Pacific peoples in midwifery

All aspects of midwifery workforce growth across Counties Manukau District are underpinned by a strong commitment to grow Maaori and Pacific people's midwifery workforce opportunities. The establishment of the new leadership role, Clinical Midwife Director – Maaori Health, illustrates the district's commitment to lead innovations that will increase the number of midwives joining the workforce from cultures reflecting Counties Manukau birthing whaanau. Maaori-led approaches to care will enable culturally responsive care that improves maternity care and outcomes for all whaanau.

Driving local-led innovation in training

The midwifery workforce vacancy will predominantly be addressed through the graduate midwifery programme. Collaborative work between Auckland University of Technology (AUT) and Te Whatu Ora Counties Manukau continues to ensure the optimization of clinical placements and learning opportunities for student midwives. Prioritizing the needs of local Maaori and Pacific student midwives aims to increase the number of Maaori and Pacific midwives who choose Te Whatu Ora Counties Manukau as their preferred employer. The district forecasts 30 graduate midwives joining the employed midwifery workforce annually for the next five years.

The Midwifery Development Educational Services (MDES) midwife educator role (jointly funded by Counties Manukau and AUT) continues to support and coordinate the clinical teaching and learning requirements in the birthing and assessment area. This senior midwife role provides a pivotal link in bridging the theory - practice gap and driving the development of industry-ready graduate midwives.

Maternity Care Assistant (MCA) position

The Maternity Care Assistant (MCA) role emerged in Aotearoa New Zealand in response to midwifery shortages that were exacerbated by the COVID-19 pandemic in 2020. The MCA position offers student midwives enrolled in a Bachelor of Midwifery degree the opportunity for paid employment at a Te Whatu Ora maternity facility alongside their training.

The purpose of this role is to support the midwifery workforce, there may be short- and long-term benefits for the students, the midwives they work alongside, and the midwifery profession as a whole. Feedback from midwives and students working in the role continues to highlight the benefits of working in this role. Research to formally evaluate the impact of the MCA role in Aotearoa New Zealand has started. Counties Manukau maintains a casual pool of approximately 50 MCA student midwives.

▲ *Division of Women's Health Celebration day 2023*

Bolstering priority workforce groups

The Counties Manukau structured graduate midwife programme offers a strong, supportive foundation for locally trained midwives as well as attracting graduates from other regions and Australia. Feedback continues to highlight how much the early-career midwives value the programme's structure, support, and the wide variety of midwifery experiences that the 15-month rotation enables. Graduate midwives who begin their career in Lead Maternity Carer practice are welcome to join graduate study days and local support networks.

While we focus on growing our graduate workforce, it's also essential that experienced midwives are supported in their work. In alignment with the Midwifery Employee Representation and Advisory Service career pathway opportunities, we resourced several additional senior midwife positions in 2023. Midwife clinical coach roles now feature across all maternity areas and additional clinical midwife manager roles across the district support maintaining clinical experience and leadership as the workforce grows.

Future Focus

The national health reforms have created an environment that enables us to address workforce issues and to tackle the underlying drivers of workforce challenges. Workforce developments that started during 2023 represent the beginning of the ongoing sustained workforce growth required to provide midwifery care for birthing whaanau across the district.

AUTHOR

CHLOE TAYLOR
Clinical Midwife Director
— Maaori

Maaori midwifery

E ngaa mana, e ngaa reo, e ngaa hau e whaa, teenaa koutou katoa. Ka nui te mihi ki ngaa kahu pookai me ngaa neehi o 'Tuuranga Hauora o te Mana Waahine'. Nooku te honore ki te tuu hei Kaiwhakahaere Whakawhaanau Peepi Maaori ki Te Whatu Ora Counties Manukau. He uri ahau noo Te Hiku o Te Ika a Maaui, ko Te Rarawa raatou ko Ngaapuhi ngaa iwi. Ko Chloe Taylor tooku ingoa. Noo reira, teenaa koutou katoa.

I am honoured to have stepped into the role of Clinical Midwife Director – Maaori for Te Whatu Ora Counties Manukau. This role sits within Te Kaahui Ora Maaori Health and forms one part of the Clinical Leadership Team Maaori (Clinical Nurse Director Maaori – Carly Brown, Clinical Allied Health Director Maaori – Paora Murupaenga, and Chief Clinical Advisor – Maaori, Inia Tomash). The Clinical Midwife Director – Maaori role was born from positions previously held by my tuaakana Heather Muriwai and Annabel Johns and provides strategic and operational advice to Women's Health and other Hospital and Specialist Services (HSS). The past few months have involved a significant amount of learning and I feel privileged to be here contributing to improved experiences of healthcare for Maaori.

As the MQSP annual report predates my appointment to this role, I will share some of the future priorities for the Clinical Leadership Team Maaori. Our mahi is informed by feedback from whaiora | patients and whaanau are kept at the heart of the design and delivery of healthcare.

The establishment of the Clinical Leadership Team Maaori has led to the reinvigoration of the Maaori Health Advisory Committee (MHAC) at Te Whatu Ora Counties Manukau. The MHAC membership includes nominated experts in areas of Maaori Health, including tikanga Maaori, Maaori research and clinical leadership. The purpose of MHAC is to support Te Whatu Ora Counties Manukau to achieve health care excellence for Maaori. It aims to be the primary Maaori advisory committee for clinical and service-related kaupapa in Hospital and Specialist Services for the Counties Manukau rohe | district.

Key responsibilities for MHAC include embedding Te Tiriti o Waitangi into organisational policies, guidelines, services and strategies and providing cultural guidance to those conducting research in our rohe.

Accomplishing an equitable health service is an aspiration of the Clinical Leadership Team Maaori. Cultural safety requires us all to acknowledge our individual biases and attitudes and how these may be impacting the care provided to whaiora and whaanau. Maaori face unique challenges when trying to access and engage with healthcare services and these challenges are rooted in historical injustices, economic inequalities and ingrained systematic biases. Whaiora and their whaanau have the right to feel respected and valued during their interactions with health services. The Clinical Leadership Team is working with Te Whatu Ora Counties Manukau to develop the cultural safety of our workforce through local cultural safety education that will complement Tuuranga Kaupapa for kahu pookai | midwives and other education programmes.

Increasing the numbers of Maaori in the health workforce to accurately reflect the population and supporting our kahu pookai and neehi Maaori | Maaori nurses into leadership and decision-making positions are workforce priorities for Te Whatu Ora as outlined in Te Pae Tata. Pipeline initiatives are being explored to promote careers in healthcare. The kaimanaaki Maaori | Maaori patient navigator role was designed to offset the impact of inadequate numbers of Maaori healthcare professionals and general workforce shortages. Kaimanaaki support whaiora by facilitating early and culturally safe engagement with health services, improving access to healthcare and enhancing coordination of care between services. Kaimanaaki roles may also be used as a stepping stone into further healthcare study. We hope to see the kaimanaaki role embedded into Women's Health services in future.

Achieving health equity requires a collaborative approach. The Clinical Leadership Team Maaori is working in partnership with Te Whatu Ora Counties Manukau to ensure our services are aligned with Te Tiriti o Waitangi. Growing our Maaori workforce and promoting cultural safety throughout the health sector are essential to the development of an equitable health system that improves the health and wellbeing of all New Zealanders.

Naaku te rourou, noou te rourou, ka ora ai te iwi.
With my food basket and your food basket the people will thrive.

AUTHOR

SARAH WADSWORTH
Obstetrician, Clinical Lead Obstetrics

Women's Health medical workforce

Medical staffing in Women's Health is led by the Clinical Director, who is supported by a Clinical Lead for Obstetrics and a Clinical Lead for Gynaecology. We have a committed group of over 30 senior medical officers (SMOs) who work across Obstetrics and Gynaecology (O&G) to provide acute and elective services and who contribute to leadership roles within the department. We work alongside our GP Liaison Dr Sue Tutty and Obstetric Physicians Dr May Soh and Dr Linda Yen.

Te Whatu Ora Counties Manukau is a large training district for the Royal Australian and New Zealand College of Obstetrics and Gynaecology (RANZCOG) with a full-time allocation of five fellows, 21 registrars, eight SHOs and 11 house officers.

The senior medical workforce is involved in many initiatives within the hospital, nationally and internationally. Our SMOs sit on committees within the hospital including the Drug and Therapeutic Advisory Committee, and the Blood Transfusion Group. All SMOs are actively involved in training junior medical staff and the senior fellows and registrars are active in the teaching of their junior colleagues.

Recent clinical initiatives include a monthly gynaecology clinic at Papakura Marae (which includes a drop-in service) and a project with the Department of Anaesthesia. This project aims to increase accessibility for patients with a BMI more than 60 with endometrial cancer, so that curative surgery can be offered to those who would have previously been considered unsafe for surgery.

Through the Obstetric Medical service, thanks to the leadership of the obstetric physicians, we have implemented a regular cardiology family planning service for women with complex cardiac conditions (rheumatic heart valve replacements etc,) working alongside cardiologists and the contraception service. A renal physician has joined the Obstetric Medical Service to offer a monthly renal obstetric clinic and our obstetric physician offers a dedicated preconception counselling clinic for women with high-risk medical conditions.

Medical staff have been involved with national guideline development including the Te Whatu Ora Endometrial Hyperplasia and Cancer Guidelines, the National Abnormal Uterine Bleeding Guideline, and the Gestational Diabetes Guideline.

Two of our gynaecologists run a three-day laparoscopic simulation course five times per year for RANZCOG trainees, this is a compulsory training requirement attended by up to 16 trainees per year.

The Maternal Fetal Medicine Team hosted the Inaugural Cardio-Obstetric Symposium in October 2023, a multidisciplinary meeting with over 100 attendees from Aotearoa New Zealand and internationally.

Under the leadership of Dr Kara Okesene and Dr Charlotte Oyston we provide O&G undergraduate training for a steady stream of fifth- and sixth-year medical students offering clinical experience and a quality audit opportunity.

Members of the SMO staff sit on various RANZCOG committees including, but not limited to the following:

- Northern Regional Training Co-ordinator for RANZCOG (Sarah Tout)
- Deputy Chair of the Specialist International Medical Graduates Committee (Sarah Tout)
- Deputy Chair of He Hono Wāhine – a RANZCOG group who ensure that a Maaori voice/perspective is heard, and has influence on every aspect of RANZCOG's activities in Aotearoa New Zealand (Sarah Corbett)
- Member of RANZCOG National Committee (Sarah Corbett)
- RANZCOG Simulation Training Advisory Group (Doug Barclay)
- RANZCOG examiners for general and subspecialist training (Lynsey Hayward, Emma Ellis)
- RANZCOG Gynaecology Surgical Training Workshop (Sam Holford).

Internationally Dr Lynsey Hayward has been involved in the leadership of the International Urogynecological Association (IUGA) for many years (including as president) and is currently chair of the International Patient Advisory Council, among other roles.

In summary, the medical workforce is active in teaching and leadership locally and in the wider community.

AUTHORS

DR LESA FREEMAN
Clinical Nurse Director

PAAYAL LAL
Nurse Educator

Our Women's Health nurses

Te Whatu Ora Counties Manukau currently employs 132 full time equivalent (FTE) registered nurses (RN) and 34 FTE health care assistants who work in gynaecology and maternity services. This includes 22 senior nurses who work in lactation, contraception, cancer care, education, nurse led gynaecological clinics and managerial positions.

The ethnicity of our nursing workforce in Women's Health comprises Maaori 4.5%, Pacific 8%, Asian 64% and Other 23.5%.

In 2023, further nursing leadership and senior roles were established to improve equity and outcomes in Women's Health including:

- Clinical Nurse Specialist (CNS) Colposcopy
- CNS Hysteroscopy
- Gynaecology CNS Maaori
- Gynaecology CNS Pasifika
- Nurse Clinical Coach, Women's Health
- Nurse Clinical Coach, Gynaecology
- Nurse Lead Maternal and Infant Immunisation Service.

Professional development

Expanded scope of practice

Ten years ago, the Advanced Nursing Certification Committee approved advanced nursing certification with expanded scope of practice for Jadelle progestogen-only contraceptive implant insertion under local anaesthetic.

This allows us to provide women presenting to the service with timely and equitable access to contraception advice and support, with the option of another safe, funded and long-acting reversible contraception (LARC) choice.

There are currently eight nurses employed within Te Whatu Ora Counties Manukau (four of whom work within Women's Health) who have been credentialled to insert Jadelles and four nurses credentialled to insert intra-uterine contraceptive devices (three of whom are employed in Women's Health).

In April 2023, we applied to the Professional Practice Committee to obtain re-approval for these nurses to continue providing long-acting contraception services to women living in the Counties Manukau District. All eight nurses completed the expanded scope of practice competencies within their professional development and recognition programme (PDRP) portfolio. In September 2023, the Professional Practice Committee approved the application for the LARC expanded scope of practice activity and supporting guideline for a further two years.

Education and training

Neonatal Care Experience Programme

In collaboration with Neonatal Care, a six day Neonatal Care Experience Programme was developed to provide the opportunity for RNs working in maternity services to develop and gain further skills and knowledge in caring for babies. This experience comprises two days in Neonatal Intensive Care, two days in Special Care and two days with the Neonatal Care Resource Nurse developing skills in neonatal resuscitation. Since August 2023, six nurses have taken this neonatal care experience, another seven nurses plan to take it in 2024.

Special Care Baby Study Days

Neonatal Care opened up four places on each of their Special Care Baby study days (held four times a year) for the RNs working on maternity to attend. Fourteen RNs from Maternity North, Maternity South and Birthing and Assessment attended the Special Care Baby study days in 2023.

Women's Health Registered Nurses Education Programme

The Women's Health RN education programme is for RNs new to maternity services. In 2023, because some of the topics were already covered in orientation days and it was difficult for staff to attend the full course, the six-day programme was condensed to three days. The revised programme is run twice a year allowing nurses who were unable to attend all three days to complete them in the next programme.

Maternity Annual Update Study Days

A Maternity Annual Update Day for Registered Nurses was developed and scheduled six times during 2023. The goal of these annual update study days is to enable nurses to expand their clinical knowledge and spend time exploring different scenarios that they may face in the clinical space. The 2023 maternity update study day included Baby Friendly Hospital Initiative, BadgerNet, and TrendCare updates, postpartum haemorrhage management, and three hours of emergency skills simulation training.

Gynaecology Annual Update Study Days

A Gynaecology Annual Update Day for Registered Nurses was developed for RNs working in the Gynaecology Care Unit, Ward 21, and Module 10. This day includes three hours of emergency skills simulation training, violence intervention, contraception and sexual health presented by the CNS Contraception, cultural competency presented by the Gynaecology CNS Pasifika and Gynaecology CNS Maaori, and endometriosis and pain presented by the CNS Gynaecology. These eight-hour study days were scheduled four times a year with the inaugural launch held on 8 May 2023.

Professional Development and Recognition Programme (PDRP)

In accordance with the Nursing Council requirements, all nurses and senior nurses participate in the PDRP under Section 41 of the Health Practitioner Competence Act 2003 and maintain e-portfolios of their practice. Nurses are required to submit an e-portfolio every three years.

The Clinical Nurse Director Women's Health and the Women's Health nurse educators meet monthly to monitor the out-of-date portfolios. In June 2022, 42% of nurses working within Women's Health had out-of-date portfolios, 28% of whom were over one year out of date. The nurse educators and charge/clinical nurse managers and midwifery managers have worked closely with the nurses to support the development of their portfolios. The number of out-of-date portfolios decreased to 34% in December 2022, 17% in March 2023 and 15% in December 2023.

▲ *Back Row, L to R – Lesa Freeman (Clinical Nurse Director – Women's Health), Ashley Karan (Student Midwife), Jamie Panelo (Registered Nurse), Bala Naidu (Registered Nurse), Nica Dela Cruz (Registered Nurse), Simone Edwards (Contraception Nurse), Carmel Farmer (Contraception Nurse)*
Front row, L to R – Registered Nurses; Paea Taulanga, Della Varghese, Sunshine Vista, Imelda Alejandro Keoghan and Rebecah Deguit

AUTHOR

HAYLEY GILL
MCIS Midwife Specialist

BadgerNet

BadgerNet is an end-to-end electronic maternity system that replaced our paper notes in 2015. It is used for inpatient care at Middlemore Hospital and our primary birthing units and is also used by midwives in the community. There are a multitude of allied health professionals who also contribute to the record ensuring that all aspects of care are available in one place. It allows up-to-date pregnancy information to be available to multiple clinicians at different locations at the same time.

In 2023 the BadgerNet Maternity and Neonatal modules were mandated for use across New Zealand. This is an exciting development for us at Counties Manukau as we had been one of only three hospital sites, along with a Maternity Provider Organisation, using BadgerNet Maternity since 2015. We now have eight maternity sites live and four more due to implement before the end of 2024 with a national roadmap that should see all hospitals using both systems by 2027.

The recommendation for a national program is in line with the Te Pae Tata project that is committed, through the greater use of digital services to 'improve the interoperability of data and digital systems across the hospital network, and between primary, community and secondary care settings'. The use of a national system will mean that real-time maternity information will be available to anyone providing maternity care whether in the community as a Lead Maternity Carer or within a hospital setting.

Te Whatu Ora Data and Digital have set up a Maternity and Neonatal Data and Digital Steering Group whose brief is to oversee the roadmap for rolling out to new sites and co-ordinating the recommendations for system changes and configuration settings from the Expert Clinical Advisory (ECA) groups. This group consists of BadgerNet system experts, clinical leads, data specialists, consumers, Maaori and Pacific representatives and Data and Digital specialists.

There are three ECA groups, Midwifery and Obstetrics, Neonatal, and Anaesthetics. These are made up of clinicians who are both current and future users with a keen interest in BadgerNet as a national solution. 'The purpose of the ECA Groups is to collaborate and coordinate with clinical peers (with the aim of supporting clinical care provision and safe outcomes for whaanau) and provide clinical leadership on the utilisation of the BadgerNet platform and potential improvements to the system with the aim of supporting clinical practice to achieve optimal outcomes for whaanau.' In addition, they will work together with district BadgerNet specialists to ensure the application is used consistently across the motu. This will mean that no matter where in the country a clinician goes, the system will be used in the same way.

BadgerNotes is a portal that allows the woman/pregnant person to access any notes that have been shared with them by the clinicians providing care. We now have a significant number of consumers who are using this application supported by their midwives. Soon there will be the choice of a selection of languages including Maaori to enable greater access for our diverse communities.

The reality of a national maternity system in New Zealand is exciting and offers so many opportunities to provide better wrap around care to the pregnant population and their whaanau. One record for everyone regardless of where they live or move to, or who cares for them, is the catalyst for exemplary care and support in the maternity space.

AUTHORS

SOPHIE MCDIARMID
Midwife Educator

SANNE WESSELING
Midwife Coordinator

Midwifery education update 2023

Changes to the education landscape

The landscape for Women's Health education for this period was significantly different from that of the previous year when COVID-19 presented significant challenges to education delivery and attendance. A lot of education was either cancelled or was poorly attended. The education delivered was either affected by masking and social distancing rules or needed to be delivered via distance learning modalities.

In 2023 there was significantly less disruption to education. Only 10% of study days were cancelled for this period, less than half the number of the previous year.

On another positive note, we welcomed a new midwife educator to the team in September 2023, Priya Pillay. Priya began to facilitate elective education in 2023 and her portfolio will expand to include some mandatory midwifery education such as the Midwifery Emergency Skills Refresher Day in 2024.

Cultural competency education

We introduced four Maaori Health Workshops by Elana Curtis, Public Health Physician. This was funded by the Maternity Quality and Safety Programme (MQSP). There were 92 attendees at the workshops and the feedback was largely positive. This workshop provided an opportunity for multidisciplinary collaboration, as we welcomed all staff across Women's Health to attend. This included obstetricians, employed midwives, self-employed midwives, nurses and clerical staff.

Participants fed back that they felt their understanding of equity was improved and that the revision of Te Tiriti o Waitangi and deconstruction exercises were useful. Participants felt that they could apply their learning to practice. This thought-provoking workshop concludes with a call to action, and a discussion about practical pro-equity measures we can take personally and within the wider organisation.

These in-person workshops will be offered again in 2024, thanks to MQSP funding. We will also introduce an alternative eLearning option. This education is in addition to the Ministry of Health eLearning module 'Ngā Paerewa Te Tiriti o Waitangi' that all employed staff must complete.

▼ *2023 New graduate midwives welcomed to Te Whatu Ora Counties Manukau*

Neonatal resuscitation education

In 2022, both staff and educators identified neonatal resuscitation skills as needing improvement. This may have been due to COVID-19 related factors such as cancellation of education, staff being redeployed from education to the clinical floor, or education being delivered via Zoom instead of having hands-on practice.

To address this, the education team developed a two-hour hands-on learning exercise for all midwives at their Midwifery Emergency Skills Refresher Day. The feedback was positive, though assessments showed that more education was needed in this area. Sophie McDiarmid qualified as a New Zealand Resuscitation Council Newborn Life Support (NLS) instructor. She taught three NLS Immediate Courses in the primary birthing units, with support from our course director Annette Murphy (Neonatal Nurse Practitioner). The feedback was overwhelmingly positive, and we will be increasing access to these in 2024. We will also be offering the NLS Advanced Course at Middlemore. These courses were made possible due to MQSP funding.

Multidisciplinary education

The multidisciplinary education we had on offer includes nine PROMPT(Practical Obstetric Multi-Professional Training) days, four Maaori Health Workshops and one full-day Fetal Surveillance Education Program (FSEP) from RANZCOG. The FSEP workshop had 28 attendees, and a waitlist for people wanting to attend. We will be increasing access to this workshop by offering three sessions in 2024, thanks to MQSP funding.

Lead Maternity Carer engagement

Lead Maternity Carer (LMC) midwives were invited to attend all the Women's Health education workshops and short and sharp sessions. The education days are advertised to LMCs via emails, posters around the units and on the Women's Health Koorero Facebook page. To increase LMC engagement with education we ran two education days specifically for LMCs. These included a CTG and Oxytocin Augmentation Workshop and a workshop for new graduate LMCs. LMCs made up 16% of participants to all midwifery education, including 17% of the Midwifery Emergency Skills Refresher days. We hope to continue to increase this next year, by offering more education in the primary birthing units.

Midwifery Graduate Programme

Counties Manukau continues to run a well sought-after midwifery graduate programme. In 2023, 26 midwifery graduates were welcomed into the wider Women's Health Team. Five of these were previously employed by Counties Manukau as maternity care assistants (MCA). The MCA role enables student midwives to be employed in a casual capacity performing supportive tasks related to the care of pregnant people, new mothers, babies and their whaanau under the direction and supervision of a registered midwife.

Here is some feedback from midwifery graduates who were employed as MCAs as students:

> "I worked as an MCA in my final year of study as a midwife. I found it extremely beneficial, and the learning experiences were so valuable to my practice now. I was able to familiarise myself with the Women's Health facilities and environment making the transition here as a registered midwife 1000 times smoother".
>
> "The interpersonal relationships and connections created while in my MCA role has set the foundations allowing me to start my role as a midwife with confidence".
>
> "Being a student midwife and working a regular part time role is very difficult. Working as an MCA allowed me to work while prioritising my study. Earning money and gaining experience is a total plus!".
>
> "Working as an MCA alongside study in the last two years of my degree was extremely helpful. I always knew I wanted to do my new graduate programme here at Counties, so it enabled me to get a head start with familiarising myself with the ward. It also was great with increasing my clinical knowledge . The most valuable part I found of being an MCA was building relationships with all of the staff including midwives, doctors, ward clerks, cleaners, HCA's etc. It made starting work as a midwife slightly easier as I already felt supported by staff."

AUTHOR

JADE BARKER
PROMPT Facilitator and Clinical Coach

Practical obstetric multi-professional training (PROMPT) at Counties Manukau

Practical Obstetric Multi-Professional Training (PROMPT) has been successfully running in Counties Manukau since December 2009.

Over the years, we have diversified our course to support clinical staff who work in all women's health settings to attend. We run courses in the Birthing and Assessment Unit, on Ward 21 (antenatal and gynaecology overflow ward) and on the postnatal wards at Middlemore Hospital. Courses are also run in all three of the Te Whatu Ora Counties Manukau primary birthing units. In 2023 we ran our first course at Nga Hau Birthing Centre in Maangere. This is a privately owned birthing unit accessed by a growing number of Counties Manukau whaanau. Midwives and obstetric staff who work across all Te Whatu Ora Counties Manukau maternity settings are represented on the PROMPT faculty.

In 2023 PROMPT was attended by the full range of professional groups who provide care to pregnant whaanau across maternity settings in Counties Manukau.

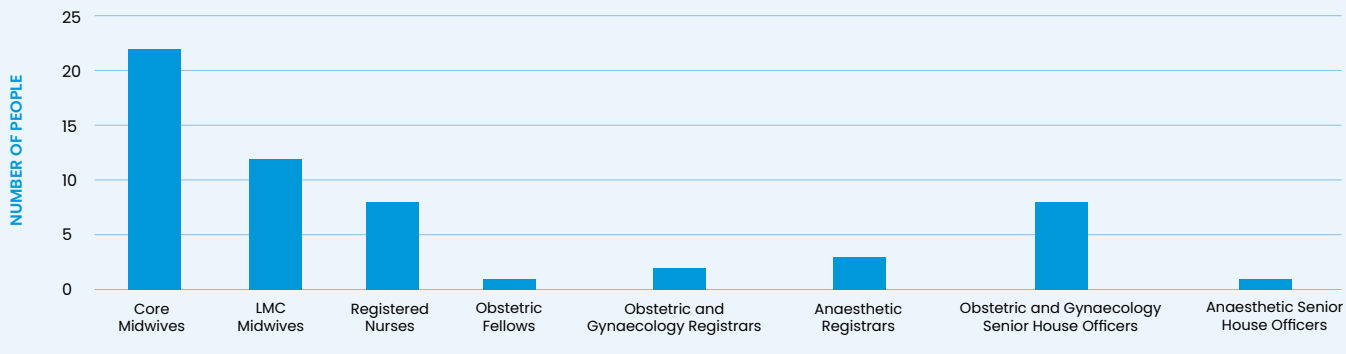
With the valuable support of midwifery educator and Newborn Life Support Instructor, Sophie McDiarmid, we successfully incorporated neonatal resuscitation into PROMPT in 2023. This allows our midwifery colleagues to attend PROMPT, in place of the compulsory midwifery emergencies refresher course, once in a three-year cycle. The neonatal resuscitation component has received positive feedback from the other disciplines who attend our days as they have little to no other opportunity to practice this skill.

The PROMPT course is tailored to cover the relevant emergencies of the work setting we are in. Emergencies are covered with a combination of skill stations and or talks and scenarios. At Middlemore and in the primary birthing units, we run scenarios for maternal collapse and postpartum haemorrhage/antepartum haemorrhage, alongside skill stations for basic life support and neonatal life support. Sepsis and the Sepsis Six, are covered in all areas with either a talk or a scenario depending on what is most appropriate for the setting and staff attending. In the hospital, we run a preeclampsia/blood pressure management scenario. In primary and birthing settings, we run a skill station on shoulder dystocia. In our primary units we run a skill station on filling the bladder in the incidence of cord prolapse.

Our courses are ever evolving and improving to ensure we are providing the best learning and covering concerns exposed by our incidents, along with the feedback we receive from our attendees. Our faculty regularly attend train the trainer courses to help learn and improve our skills with other PROMPT facilitators from across Aotearoa.

FIGURE 23 ▼

PROMPT attendance in 2023



AUTHORS

JULIETTE WOTTON
Midwife Manager

LEIGH ROBERTSON
Deputy Midwife Manager

Birthing and Assessment updates 2023

Highlights

- Birthing and Assessment (B&A) offers an exceptional environment to learn and gain necessary clinical skills that contribute to an individual's career pathway. COVID-19 affected the level of knowledge, skills, and confidence of all students due to lack of exposure in the clinical setting. In 2023 there were more appointments to Midwifery Development Education Service roles to support student midwives, and increased hours for clinical coaches to support new graduate midwives and midwives wishing to return to practice. These roles, with support of the clinical midwife managers (CMM) and core midwives, have nurtured the return of all students catching up on their much-needed clinical requirements. All new staff have a three-week orientation to B&A, with further orientation as individually needed.
- B&A is fortunate to have an onsite clinical educator who has been enthusiastic and proactive in supporting clinical education. Teaching has been targeted to themes of incident reporting, clinical interest, and mandatory learning.
- Obstetric Clinical Practice Group attendance by B&A CMM, who contribute actively to the review of guidelines and development of new procedures.
- Maternity care assistant (MCA) appointments continued to support the health care assistants and midwives in B&A. New graduate midwives reported that the benefits of previously working as an MCA included being familiar with the stressful B&A environment and building relationships with the team.
- Active retention of midwifery graduates by supporting rotation between B&A and other clinical areas including primary birthing units and community. The midwifery graduates report increasing confidence and competence with the midwifery skill set.
- Increasing midwifery attendance at professional and elective education. Of significance, 40% of staff completed the Maaori Health Workshop with Dr Elana Curtis in 2023.

Challenges

- B&A remained significantly short of midwifery workforce. We were understaffed by 27–30 midwives (up to 50%) during 2023. Australia & the UK were the most popular destinations for midwives who left B&A wanting an overseas experience. Midwives also moved out of Auckland to other regions for housing and lifestyle.
- In 2023, the birth numbers at Middlemore Hospital remained stable but a departure of Lead Maternity Carers from practice saw increased numbers of whaanau requiring care from the hospital team. The number of whaanau under hospital care increased significantly between December and February.
- Increasingly, pregnant people are presenting for care with no, or minimal, antenatal care from 20 weeks gestation to six-weeks postpartum. The largest number of people arrive between 36–42 weeks of pregnancy either seeking assessment or support in labour.

Change process

The B&A team collaborated to achieve change through several processes. The responsiveness and openness of the team is to be commended. Change can cause stress and fear but with support and regular communication with the wider team, several innovations have begun. During the last 18 months the Induction of Labour Guideline has imbedded into practice and become a routine process of the assessment unit.

Changes over the last 12–18 months

Blood gas analysing

B&A has had a major change in how we process cord gas samples. Cord blood gas analysis identifies the metabolic condition of a baby at the moment of birth and can be related to neonatal outcomes.

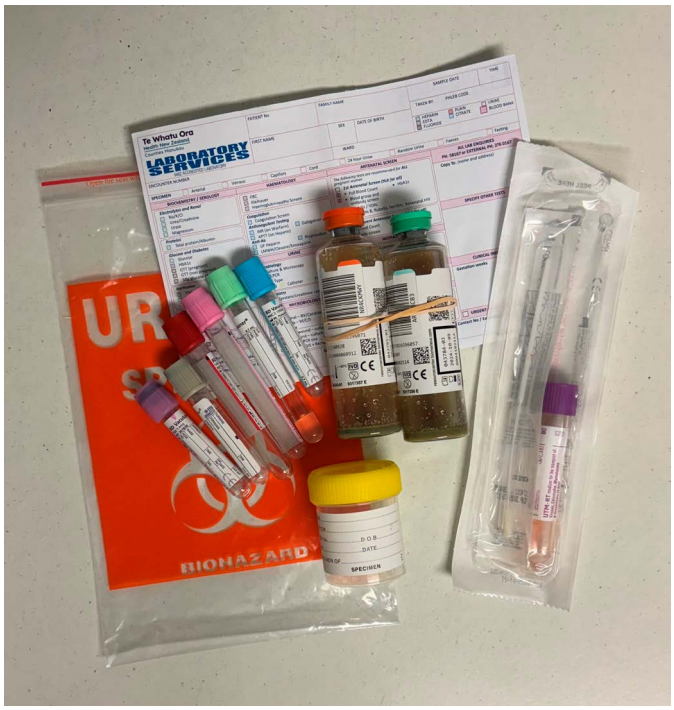
Babies that meet criteria such as metal scalp sampling performed in labour, operative birth, low Apgar scores, abnormal cardiotocography (CTG), shoulder dystocia or fresh/thick meconium should have their cord blood gases analysed. Previously, arterial and venous cord gas samples were sent to the laboratory for processing. Prompt cord blood gas analysis enables early recognition and cooling of babies with neonatal encephalopathy. The B&A analyser, which initially was only used to process and analyse neonatal capillary blood glucose samples, was updated to also analyse cord gas samples. This means that results are available more quickly and anecdotally seem to have fewer processing errors, possibly because staff have physically seen the importance of correct sample taking procedures to be able to run the sample through the machine.

▲ *Blood gas analyser in use*

Sepsis Six

The Sepsis Six bundle has been incorporated as an exercise in both the Counties Manukau Midwifery Emergency Skills Refreshers and PROMPT courses, allowing consistent management of maternal sepsis. Sepsis is a medical emergency and the first hour following diagnosis is crucial in achieving a successful outcome.

The Sepsis Management in Pregnancy and Postpartum guideline was updated in 2023 to promote the Sepsis 6 +2 bundle. In the event of sepsis being recognised, the guideline encourages Sepsis 6+2 to be started within the first hour of presentation, and then looking for the source of infection. To help achieve this B&A implemented fever packs. These packs have the recommended test tubes, swabs and culture pottles and are found in every birthing room. They are made up by our health and maternity care assistants and enable the midwife or nurse to promptly gather and send the samples required for sepsis diagnosis.



▲ *Sepsis pack*

New artwork for the Birthing and Assessment unit

L to R – Tok Vaetoru (Registered Midwife), Noeleen Tuala (owner of Pele baby and proud grandmother of baby Ayva), Juliette Wotton (Midwife Manager), Laura Barton (Registered Midwife), Brittany Williams (O & G Registrar), Evon Huang (Registered Midwife) and Emily Woodhouse (Registered Midwife)

Benzylpenicillin for Group B streptococcus

Te Whatu Ora Counties Manukau has updated the 'Group B Streptococcus- Prevention of Early Onset Neonatal Infection Guideline' to bring the benzylpenicillin dosage regime into line with worldwide recommendations. The previous regime was an intravenous loading dose of 1.2g benzylpenicillin followed by 600mg intravenously every four hours until birth. The new regime increased the dosage to a 3g intravenous loading dose followed by 1.8g intravenously every four hours until birth.

Due to cost and storage issues clinicians are still using the original 600mg vials of benzylpenicillin while higher dose preparations are being investigated. This has sometimes caused delays in starting the benzylpenicillin regime as it is now a lengthy process to prepare the doses, particularly the 3g loading dose. The administration of both the loading and subsequent doses also takes longer than the initial regime, due to the requirement to administer the loading dose as an intermittent intravenous infusion over 30 minutes with a pump, and the subsequent doses as a slow intravenous push over 6 minutes. Our B&A registered nurses have stepped up to help the midwives with the preparation and administration of this regime.

B&A, with help from the Women's Health pharmacist, has been looking into premade 3g infusions, which will allow for a timelier commencement of the benzylpenicillin regime. These bags are much larger than the current vials and must be kept in the fridge. The medication fridges at B&A are being replaced and the new fridges will be larger to better store medications, including the 3g dose infusions of benzylpenicillin.

Other changes in B&A include:

- neonatal pulse oximeter equipment is now available in every birthing room
- the creation of neonatal emergency trolleys for neonatal resuscitation
- installation of computer mounts in birthing rooms for patient facing care
- computerised CTG monitoring which can viewed remotely
- new artwork donated to B&A.

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Procedure: Cord Blood Gas. (2023). Women's Health Counties Manukau [Procedure]

Guideline: Sepsis Management in Pregnancy and Postpartum. (2023) Women's Health Counties Manukau. [Guideline]

Guideline: Group B Streptococcus – Prevention of Early Onset Neonatal Infection. (2023). Women's Health Counties Manukau. [Guideline]

AUTHOR

BRIDGET RAZEY
Midwife Manager
Women's Health Ward 21

Ward 21 — 2023 update

Since its establishment, Ward 21 has undergone regular expansion of the services we provide. In fact, constant change is one of the most consistent factors for those working on Ward 21. Last year to address the need for senior clinical support to help drive and manage expansion and change, we established two new senior roles: clinical midwife managers and midwife clinical coaches.

The establishment of these two important roles has meant that the senior midwives on Ward 21 can be recognised for work that they were already doing with both our Counties Manukau whaanau and for our service. We now have midwives leading who understand the complex needs and concerns of both our community and workforce. They now officially have opportunity to develop and lead the growth and direction of our service and be acknowledged for their expertise within our specialised area of care.

Since the opening of a Women's Health service on Ward 21 in 2019, the service has gone from a fifteen-bed inpatient antenatal ward, offering care to those needing hospital admission for monitoring of obstetric and fetal conditions, to having thirty beds open. These consist of a twenty-bed obstetric service monitoring high-risk pregnancy and induction of labour, and an external cephalic version outpatient clinic. We also provide postnatal care to whaanau with peepi in the Neonatal Unit and on occasion provide postnatal care for a mother and baby when baby is on a palliative care pathway. We use the other ten beds to care for women with gynaecological conditions except for whaanau experiencing pregnancy loss.

The ten gynaecology beds, while only a third of our ward, require our clinical midwife managers to be aware of events in the wider hospital services outside the Women's Health maternity setting. Due to these beds, Ward 21 interacts with other hospital services in a way that historically didn't occur and wasn't required by a maternity area. This regular communication and engagement have been a change in culture for us and has improved our appreciation of our wider hospital community.

It has raised our awareness of the inequities faced by women using Counties Manukau District inpatient services and how we approach women's needs.

We are starting with issues that directly affect the women in our care, such as championing a change to include the documentation of inpatient admissions for a pregnancy concern within the national maternity documentation system BadgerNet. Currently a pregnancy related admission is not recorded as a pregnancy related inpatient episode within the national maternity system unless the pregnancy is nineteen to twenty weeks gestation. This means early pregnancy events that may affect future or on-going pregnancy are not part of a woman's maternity notes. This disparity only occurs in the inpatient setting , supporting a change in this process is something that the clinical midwife managers and the midwife clinical coaches can facilitate. For example, ensuring that the midwives on Ward 21 have the opportunity and support to provide clinical care for inpatient women in early pregnancy when the workload allows. On Ward 21 anyone who is pregnant has observations and vital signs documented on the national Maternity Early Warning Score chart. This has allowed us to pick up issues that may affect an ongoing pregnancy which would not be identified on the general hospital electronic note system. Small steps but they can make a big difference.

We have many other areas that we need to explore and develop specific to what we do and our community. Two of the largest and most impactful areas being diabetes management and the misoprostol induction process. Having senior leadership in the form of clinical midwife managers and coaches allows us to divide up what could be quite overwhelming work into manageable pieces. It lets us apply our focus as midwives and nurses providing care, to what we and the women experiencing it may identify as important and champion it.

As stated at the beginning, change is ongoing for Ward 21 and is a necessity driven by the desire to optimise care within resource boundaries. The establishment of the two senior roles, clinical midwife manager and clinical midwife coach, is the practical expression of this.

AUTHORS

ROBYNNE HUBBARD
Midwife Manager

ANNE MARINER
Clinical Midwife Manager

Growing the community and caseloading teams at Papakura

The Papakura area received 35% more referrals for pregnancy care in 2023 than in 2022. Because of the increase in hapuu maamaa in the area, we have been able to grow the community midwifery team as well as the caseloading team at Papakura Birthing unit.

In 2023 Papakura received 1198 referrals for pregnancy care. This increase in referrals has required us to continue to grow the midwifery teams here at Papakura. A clinical midwife manager was appointed in 2023 to facilitate the growth and development of the community midwifery team in Papakura. The team went from five midwives (3.8 full time equivalent [FTE]) and one community healthcare worker to the present team of eight permanent midwives (6.1 FTE), one rotating new graduate midwife and one community healthcare worker.

In 2023, the community team provided antenatal and postnatal care for 568 hapuu maamaa in the Papakura area, 47% of all the referrals in the area. The Papakura community team had 4405 scheduled appointments with an overall 'did not attend' (DNA) rate of 15%. The DNA rate for Maaori and Pacific is 29% compared with a DNA rate of 5% for other ethnicities. In response to this, the team are developing strategies to reduce the DNA rate for our Maaori and Pacific hapuu maamaa. Papakura community team was able to support three new graduate midwives rotating through their primary placement with two of the new graduates choosing to join the Papakura community midwifery team permanently, working with a shared caseload.

The community healthcare worker and healthcare assistants have developed a series of wellbeing sessions to give hapuu maamaa information about the pregnancy journey as well as a visit to Papakura Birthing Unit to reduce barriers to care by familiarising whaanau with the unit.

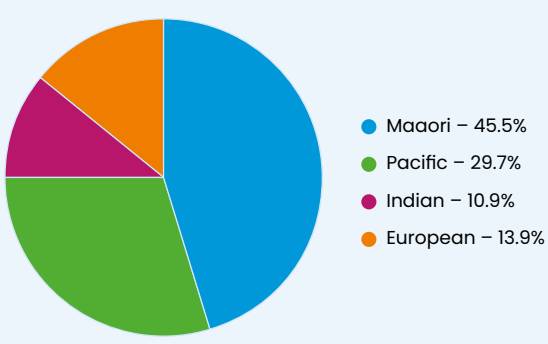
To accommodate the growth in the Papakura team, Papakura Birthing Unit now has six clinic rooms with one of those rooms dedicated to the immunisation team. We plan to add two more clinic rooms to meet the demand. We envisage creating a women's health hub for waahine in the Papakura area.

The Papakura caseloading team originally had two midwives but quickly jumped to six by mid-2023. It continued to provide continuity of care to the women of Papakura and surrounding districts. A total of 141 hapuu maamaa were booked in 2023 under this model of care. The caseloading midwifery team birthed 101 of these hapuu maamaa; 57.42 % at Papakura Birthing Unit and 42.57 % at Middlemore Hospital. The caseloading team demonstrates a commitment to Maaori and Pacific women ensuring they have equitable access to continuity of midwifery care. The team is made up of three Maaori and three paakehaa midwives. The team was able to support one fourth-year midwifery student in her long placement during 2023 and has since been able to support three midwifery students in 2024.

Both Papakura community and caseloading midwifery teams continue to provide midwifery care in a way that is suitable for the whaanau. We are always adapting and looking at ways to meet the demands of the growing population in Papakura and its surrounding areas.

FIGURE 24 ▼

Births by Papakura Caseloading Team broken down by ethnicity – Total births: 101



▶ *Papakura Caseloading Midwifery Team*

L to R – Tania Webb, Emma Allen with baby Aria, Sarah Bublitz, Naomi Siddall, Louise Goldstraw with Matteo, Chantelle Briggs, Marnel McGrath, Jamie Smith

▲ *Papakura community midwifery team*

L to R – Standing: Taylor Simanu (Community Midwife), Natalie O'brien (Community Midwife), Kim Rogers (Community Midwife), Rachel Wheeler (Community Midwife), Rose-anna Schurrkamp (Community Midwife), Kestean Saunders (Community Midwife)

L to R – Front row: Anne Mariner(Clinical Midwife Manager), Vanessa Batistich (Community Healthcare Worker), Rachel Sutton (Administrator)

AUTHOR

CLARE KIRBY
Midwife Manager

Accessibility to local care in Pukekohe

Pukekohe Hospital has been the primary birthing facility for Franklin and its surrounds since 1955. The unit has seen several changes in 2023 with strides being made to tackle inequitable outcomes for the most vulnerable in our population. Ideally every woman will have continuity of care and the unit has invested a lot of time on this objective. Much work has been aimed at improving the childbearing journey for all but also in reducing barriers to care.

In March 2023, a new midwife manager started at Pukekohe Birthing Unit. Coming most recently from Lead Maternity Care (LMC) practice in Franklin, she was aware of the challenges and the changing demographic.

Referrals to maternity services have been steadily increasing with local area growth. Women report wanting continuity of care but are frustrated by the need to contact multiple midwives. Some are simply unfamiliar with the process. Pukekohe Birthing Unit ensures women are aware of how to contact an LMC but also helps local LMCs to contact the women who self-refer or are referred by a GP. All women have a review of obstetric and medical history to ensure care is prioritised by assessed risk.

Antenatal hub

Creation of an antenatal hub has increased the range of care which can be provided at each visit including:

- ultrasound scanning
- midwifery antenatal care
- immunisation
- acute antenatal assessment in the second and third trimester
- cardiotocography (CTG) monitoring
- phlebotomy by staff
- antenatal anti-D (not prophylaxis)
- lactation support clinic
- unit tours every month to encourage primary birthing
- obstetric clinic.

Women find visiting multiple venues is prohibitive. The pressure to attend frequent appointments can result in attendance of none. Women who would normally be seen at specialist clinics in Manukau, where the 'Did Not Attend' rate can be high, are more likely to attend at Pukekohe. Keeping them closer to home while maintaining communication with specialist services/ visiting obstetrician appears to achieve better attendance. Remote visibility of CTG via BadgerNet has helped and the primary birthing units were the first to go live with this. Having a sonographer on-site ensures any concerning scan findings are communicated immediately and further assessment/planning can occur before the woman leaves the building.

If a woman cannot attend clinics she can present to the unit at any time for a routine appointment, if that better meets her needs. Taxis or the Hato Hone St John driver service are used for those without transportation.

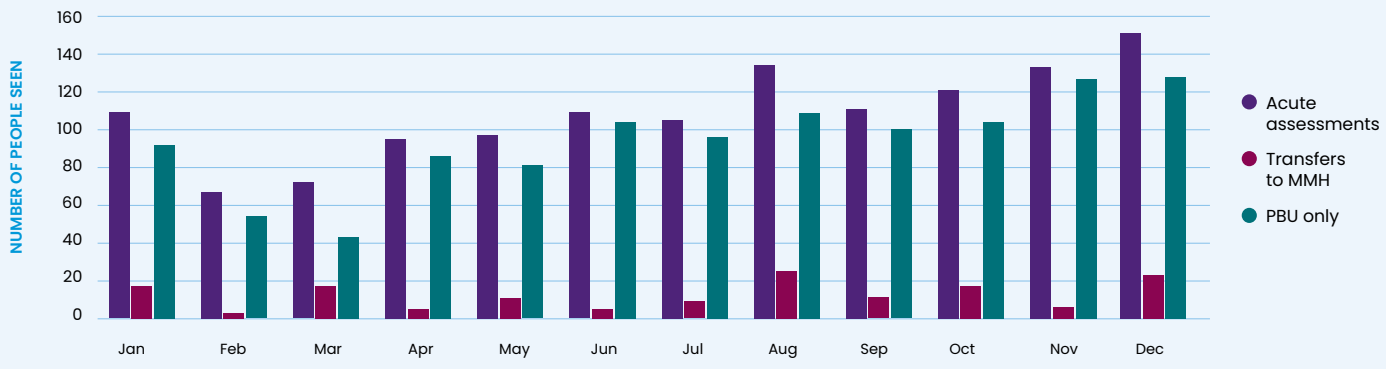
Many of these changes appear small, but together, supported by a positive staff attitude, have transformed the care provided in this small but vital unit. Each month many women do not need to be seen at Middlemore Hospital (MMH) because they were seen at Pukekohe. Avoidance of travel and time spent at MMH paired with fewer women being reviewed by Birthing and Assessment is mutually beneficial and is invaluable for those women who are time and resource poor, lack transport and have poor social supports.

Community support is high with an active Facebook page celebrating our successes and helping mothers with fewer resources. Midwives attended the Franklin High School Careers Expo for the first time to promote midwifery as a career.

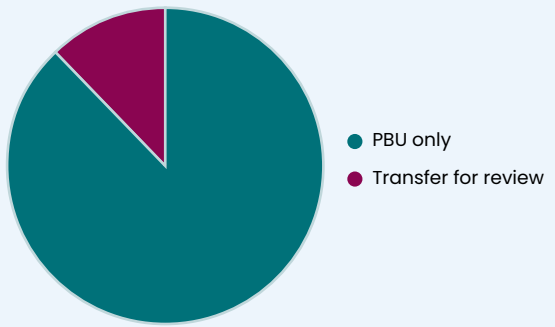
In 2023 there were 1304 women seen acutely (not in labour) in the birthing unit. Of these women only 153 (12%) needed transfer to Birthing and Assessment for further review.

FIGURE 25 ▼

Seen at primary birthing unit (PBU) only vs transfer to MMH not in established labour (NIEL)



Seen at primary birthing unit (PBU) only vs transfer to MMH not in established labour (NIEL)



▶ *Some of the Pukekohe team*
L to R – Kylie Harland (Registered Midwife), Donna Smyth (Registered Midwife), Jane Cunningham (Registered Midwife), Rhonda Peters (Registered Midwife) and Tania French (Registered Nurse & Lactation Consultant)

Postnatal care

Pukekohe has a well-established reputation for quality postnatal care and being a relaxed, positive environment. With several improvements in 2023, this reputation has increased.

Action	Outcome
Fewer posters and flyers on the walls	• feels more home-like and less clinical • reduces overstimulation
Welcome folders in the rooms (include QR codes to educational material)	• provide information previously on posters and notices
Partners/supporters staying • women can have someone of any gender stay all the time • yoga mats supplied • house rules included in welcome folder • breakfast provided	• increased rooming-in • teaches teamwork • reduced maternal anxiety • fewer discharges 'against advice' to be at home with partner
Postnatal Ferinject • administration of Ferinject onsite • use of electronic prescribing	If woman has a postpartum haemorrhage but is stable: • enables the woman to remain at Pukekohe or • allows the woman to transfer out from MMH more quickly
Range and flexibility of available care increased to include: • administration of IV antibiotics • Ferinject infusions as above • removal of urinary catheter • blood glucose monitoring • lactation clinic/home visits and frenotomy • transitional care – ex-NICU or late preterm babies • pets visiting (outside unit)	Promotion of earlier postnatal transfer from MMH to Pukekohe

What next?

2024 will see the arrival of sleeper chairs to improve the experience of partners staying at the unit. Glucose monitoring via i-STAT will increase accuracy of results. The changes already made will be continued and, with experience, improved to ensure we continue to meet the needs of those whose outcomes remain inequitable.

The creation of a mini maternity assessment clinic in the unit to coincide with the senior medical officer clinic day would be of benefit. This all contributes to keeping care for women local where possible. A caseloading team would support the local LMCs and address the increasing number of referrals who cannot engage with an LMC.

6 MQSP and quality improvements

AUTHOR

ALAPASITA TEU
Consumer Advisor MQSP
Governance Group

Introducing Ala

Malo e lelei and Talofa lava! My name is Alapasita Teu and I am of Tongan and Samoan heritage, raised in Maangere South Auckland and still live locally, right down the road from Middlemore Hospital. My husband Joe Pomelile and I have recently welcomed our first child, an energetic baby boy Samuel who is eight months old and thriving. As a first-time mama, I gave birth at Nga Hau Birthing Centre in Maangere but also got to experience maternity services at Middlemore.

My whole pregnancy journey was a turning point in my experience of our health system, in particular maternity and women's health services. I loved having a choice in where to birth and how to birth but obtaining information about birth, pregnancy, and the pros and cons of various birthing options was not always easy to access. I also got to see hardworking staff do their best to provide the best care for women, despite the challenges within our health system especially in one of the busiest regions and hospitals in the nation.

Parts of my pregnancy experience reminded me that making informed choices matters in anyone's journey through our health system. And that people are important and matter. Whether it is a patient, a health professional, or leadership to non-clinical staff, people should always be at the heart of our health system. When we begin to move away from treating every person with respect and with the knowledge that they have inherent value and dignity, this raises great concerns. This is where I believe my own lived experiences as a first-time mama combined with a background in public health research and public policy can advocate for women and help to ensure women's and maternity services be it in the local and national context deliver for all women and all communities.

▲ *Ala holding baby Samuel with Ala's husband Joe holding nephew Siale*

It is a wonderful privilege to serve in the consumer advisor role right at home and in my local neighbourhood. I look forward to supporting and adding to the wonderful mahi of the Maternity Quality and Safety Programme Governance Group to ensure women's and health services in the Counties Manukau region deliver for all waahine, their whaanau and communities.

AUTHORS

NORTHERN REGION MQSP MIDWIVES
Clare Senner, Denise West, Eve Kozeluh, Louise Rowden, Sian Evans, Suzy Longville

Northern region Maternity Quality and Safety Programme consumer partnership hui

Following the 2022 Maternity Quality and Safety Programme (MQSP) national hui, the MQSP northern region group was set up to provide support and collaboration across the Northern Region for the MQSP midwives. Early on we decided to bring the Northern Region consumer advisors together at a kanohi ki te kanohi meeting.

A meeting was planned in collaboration with the Northern Region MQSP consumers and was held at Nathan Homestead in Manurewa in October 2023. The final agenda was planned by the Northern Region MQSP consumers who met prior to the day to discuss activities that they would find useful.

One of the consumers opened the day with karakia and then facilitated whakawhanaungatanga through discussion and fun activities.

Annabel Johns, Senior Advisor from Te Aka Whai Ora led a session on Kahu Taurima. This discussion highlighted the importance of consumer participation in quality improvement. The remaining sessions were led by Northern Region consumers.

The focus of the day was to explore roles and responsibilities of the consumers in their district and work towards ways of collaborating and supporting each other in the future. Through our discussion we discovered the wide variation in the scope of consumer activities across the region. Activities included involvement in governance, engagement with whaanau on the wards and in the community, review of consumer information, service planning, and contribution to the annual report.

An outcome of the day, as requested by some of the consumers, was the development of district-based guidelines which clarify expectations of the consumer role. This work has been completed.

Feedback from one of the consumers summed up the day:

> "The regional consumer hui was a positive day for consumers and coordinators to reconnect and build networks across the region. The consumer role can feel lonely or overwhelming at times. The day enabled us to establish a foundation of frameworks for what the role involves. The hui was an opportunity to explore what can be done to improve in the space."

◀ *Northern region consumer representatives and MQSP midwives*

L to R – Standing: Isis Mackey (Te Toka Tumai Auckland Consumer), Natalie Allen (Te Tai Tokerau Northland Consumer), Maraea Pipi-Takoko (Counties Manukau Consumer), Taffy Mayumbo (Counties Manukau Consumers), Luisa Silailai (Counties Manukau Consumer), Eve Kozeluh (Waitematā MQSP Midwife), Natalya Harris (Te Toka Tumai Auckland – Midwife Manager Tamaki Ward), Claire Flavell-Kemp (Counties Manukau Consumer), Zjanika Aumau (Waitematā Consumer), Sian Evans (Waitematā MQSP Midwife), Clare Senner (Counties Manukau MQSP Midwife), Tash Wharerau (Te Tai Tokerau Northland Consumer)

L to R – Front row, sitting: Renee Kohere (Te Toka Tumai Auckland Consumer) with her tamariki, Amiria (4) and Te Houkura (1), Suzy Longville (Waitematā MQSP Midwife), Louise Rowden (Te Tai Tokerau Northland MQSP Midwife)

AUTHOR

CLARE SENNER
Maternity Quality and Safety Programme Manager

Maaori health workshops

Over several reports, the Perinatal and Maternal Mortality Review Committee (PMMRC) have highlighted the importance of prioritising the health of waahine Maaori to enhance the wellbeing of communities and society as a whole in Aotearoa New Zealand (PMMRC, 2022). As part of the strategy to achieve this, the PMMRC have recommended that cultural safety education should be mandated for everyone who is part of the maternity care workforce. Cultural safety within the context of healthcare can be defined as requiring:

> ...healthcare professionals and their associated healthcare organisations to examine themselves and the potential impact of their own culture on clinical interactions and healthcare service delivery. This requires individual healthcare professionals and healthcare organisations to acknowledge and address their own biases, attitudes, assumptions, stereotypes, prejudices, structures and characteristics that may affect the quality of care provided. In doing so, cultural safety encompasses a critical consciousness where healthcare professionals and healthcare organisations engage in ongoing self-reflection and self-awareness and hold themselves accountable for providing culturally safe care, as defined by the patient and their communities, and as measured through progress towards achieving health equity. Cultural safety requires healthcare professionals and their associated healthcare organisations to influence healthcare to reduce bias and achieve equity within the workforce and working environment (Curtis et al., 2019).

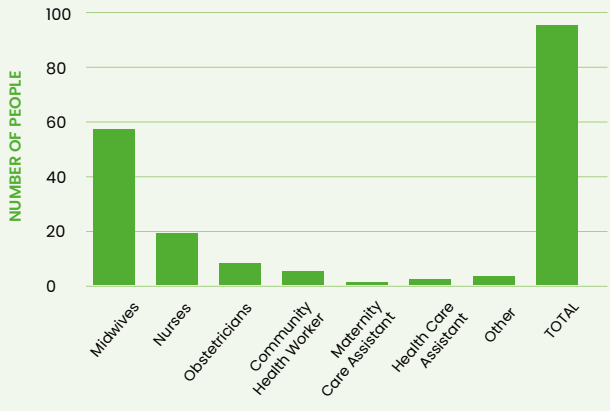
In 2023, the Tuuranga hauora o te mana waahine | Division of Women's Health collaborated with Dr Elana Curtis to offer multi-disciplinary cultural safety education for the Counties Manukau Lead Maternity Carer (LMC) community and the employed team. Dr Curtis is a public health physician with an extensive academic career as an Associate Professor, teaching, researching and advocating for Maaori health.

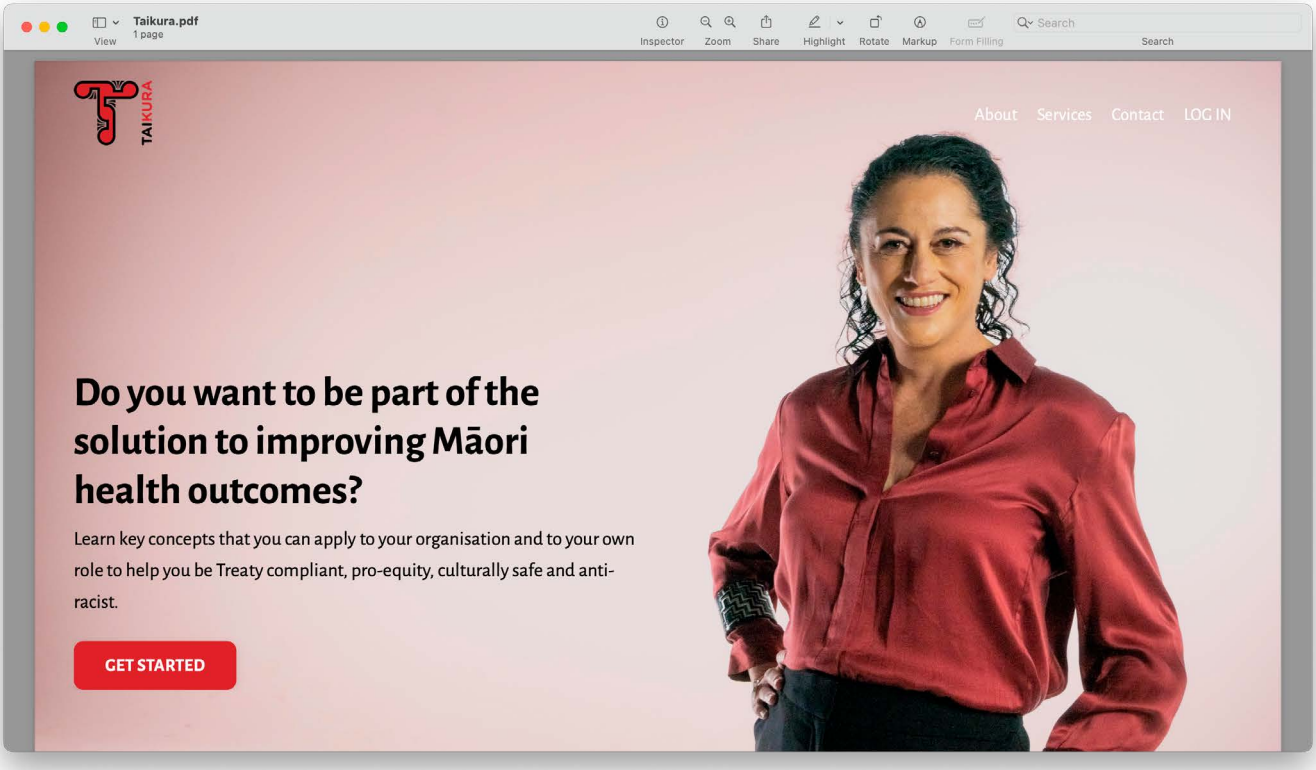
The MQSP provided funding for four kanohi ki te kanohi (face-to-face) Maaori health workshops. Ninety-five LMCs and staff members attended in 2023. The workshops provided an opportunity for participants to:

- reflect on the process of colonisation and the subsequent impacts on Maaori health outcomes
- identify mechanisms to intervene positively for Maaori health
- engage staff as change-agents for equity, Te Tiriti o Waitangi, cultural safety and antiracism.

FIGURE 26 ▼

Attendance at Maaori health workshops 2023





Feedback on the kanohi ki te kanohi workshops was overwhelmingly positive with clear themes that reflected a safe, non-judgemental and informative experience. People appreciated the opportunity to reflect on their bias and privilege, to explore the impact of colonisation on health outcomes and new tools to provide culturally safe care and have anti-racist conversations.

TAIKURA CONSULTANTS LTD

The MQSP is funding further kanohi ki te kanohi workshops in 2024. In view of workforce constraints, MQSP is also funding some online education opportunities through Dr Curtis' Taikura Consultants education programme.

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AUTHOR

AMANDA HINKS
Maternity Service Development Manager/
Service Manager Primary Birth Units

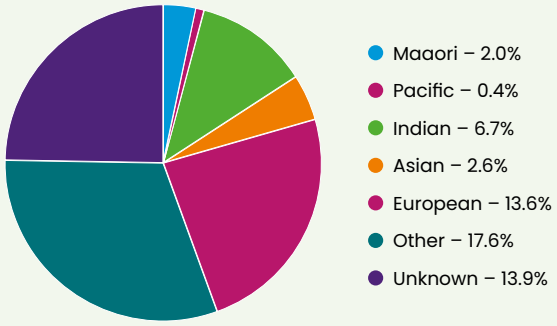
Routine antenatal Anti-D prophylaxis

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

In Counties Manukau District between 2020 and 2023 the Rh(D) negative blood group is present in the following ethnicities:

FIGURE 27 ▼

Ethnicity of people with the Rh(D) negative blood group



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

Giving Anti-D to a pregnant person 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.

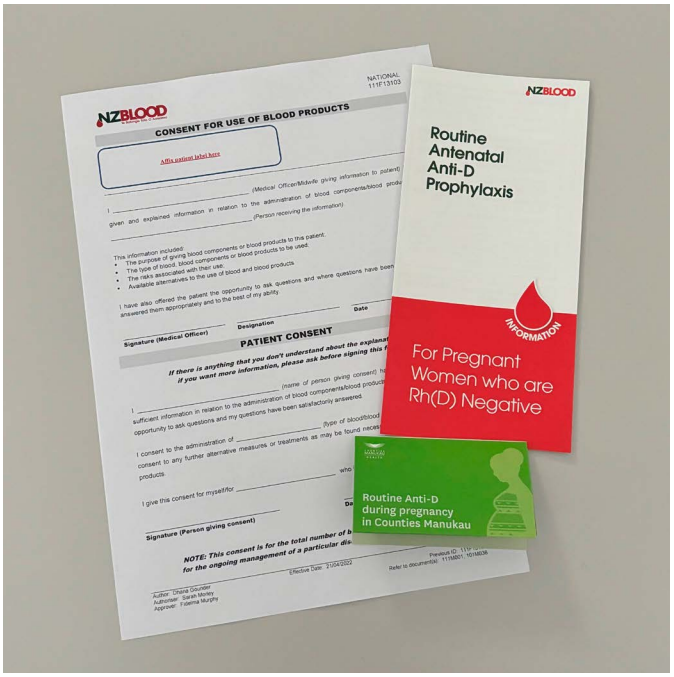
Counties Manukau Health data from pregnancies in 2019 revealed approximately 360 pregnant people (4%) using its services were Rh(D) negative.

In November 2020, Counties Manukau Health started scoping for a project to provide RAADP to pregnant people who were Rh(D) negative, with the first dose of Anti-D administered in September 2021 during a level four COVID-19 lockdown period.

To provide an equitable service close to people's homes and delivered by a trusted source based in primary care, it was decided to use pharmacies to administer the Anti-D doses. Pharmacists manage several medications (eg, immunisations), are physically equipped with the correct fridge requirements and due to their opening hours can offer a walk-in service.

The process is led by the community midwife, who discusses the prophylaxis with the pregnant woman/person, gains consent, explains the procedure, provides the prescription for the Anti-D and explains the contents of the associated information pack (see photo, page 70). The pack contains information about where to go for the antibody screen blood test and Anti-D.

Pregnant women/people are referred to a local pharmacy to have their Anti-D doses. The blood group and antibody status are confirmed by a blood test taken prior to presenting for their first dose. Two doses of Anti-D 625IU are available from 28- and 34-weeks' gestation for those 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.



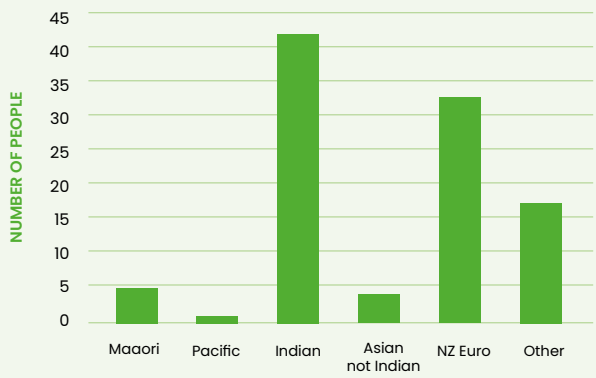
▲ *Contents of the NZ Blood's RAADP information pack*

The blood bank at Te Whatu Ora manages the stock levels of Anti-D directly with pharmacies. A courier service ensures the vials arrive safely and promptly. Information about administration of the Anti-D doses is entered onto Traceline, a software programme which links to the NHI, the clinical portal and Testsafe.

A total of 422 pregnant rhesus negative women/people accessed prophylactic Anti-D in 2023.

FIGURE 28 ▼

Ethnicity of people receiving RAADP in 2023



Evaluation

In August 2023 the sustainability and equity of the RAADP programme using selected pharmacies was evaluated to:

- understand the uptake and acceptance of the service, experiences of the people receiving the RAADP, barriers to access, any issues regarding the service for the stakeholders (midwives, pharmacists, blood services), and recommendations for improvements
- calculate the cost of the service delivered through pharmacies
- evaluate if service uptake is equitable.

This study used a comprehensive approach to evaluate the new service of RAADP in Te Whatu Ora Counties Manukau in which midwives prescribed RAADP and specially trained pharmacists at 11 selected community pharmacies administered it. Uptake increased over time to over 100 administrations of RAADP per quarter.

Uptake

The audit showed a 57% uptake for the whole period studied, increasing to 63% when considering the latest December 2022 to May 2023 period. An ethnic disparity was evident with Maaori uptake of 35% compared to 50% for Pacific, 56% for European, and 65-70% for Indian, Asian and other ethnicities. In the last six months of data audited, Maaori uptake increased to 44% compared with 57% for European.

TABLE 13 ▼

Update of RAADP in Counties Manukau by ethnicity

ETHNICITY	RECEIVED	NOT RECEIVED	TOTAL
Maaori	17	32	**49**
Pacific	4	4	**8**
Indian	92	49	**5**
Asian	10	5	**15**
European	161	125	**286**
Other	16	7	**23**
Total	300	222	**522**

RAADP uptake was greatest for those having their first baby and lowest for those with three or more previous live births. Uptake was lower in those with higher deprivation. RAADP uptake was greater in those who booked into the midwife early compared with those who booked in late (from 28 weeks). Maaori who booked early had a higher uptake (43%) than the overall rate (35%).

Timing of doses

Most doses were administered at the recommended time, although around a fifth of first doses were administered outside of the week 28 to 30 window and about a tenth of second doses and double doses were outside the recommended windows.

Satisfaction with the service and model

Satisfaction with the pharmacy service model was high across all survey groups. For service users, 93% would strongly recommend the pharmacy they used to others needing Anti-D. They particularly liked the staff, and some liked the convenience, lack of wait, or convenience to laboratory collection services. All survey groups preferred the existing model of availability at the pharmacy: 69% for service users; 68% for midwives; 76% for pharmacists; and 86% for Middlemore staff.

The second most popular model for most survey groups was to access the prophylaxis via midwives, except for the midwife group whose second most popular choice was an appointment at Middlemore Hospital, their nearest maternity hospital or Manukau Super Clinic. In most cases service users did not want improvements, but some wanted availability in more sites.

Midwives wanted more information about RAADP, particularly pharmacies providing the service, how to prescribe RAADP, blood test requirements and benefits and risks of RAADP. Some education opportunities for pharmacists were also identified. Communication between midwives and pharmacists was sometimes rated poorly by both midwives and pharmacists.

To our knowledge Te Whatu Ora Counties Manukau is the only region in Aotearoa New Zealand that is using this model at the time of the evaluation. So this evaluation is important both for Counties Manukau district and for consideration for roll-out at a national level or in other regions.

A substantial increase in uptake has been seen over time, with no plateau seen as yet, so growth is likely to continue as RAADP becomes better known and accepted by health care providers and people eligible for the service. Awareness and acceptance by midwives are likely to be aided by further communication to address knowledge gaps and answer their questions about the service.

Disproportionally low uptake in Maaori and Pacific people needs to be addressed. Our service user survey sheds little light on reasons for non-uptake. The midwife feedback, particularly that from Maaori and Pacific midwives, on reasons for lack of uptake is informative. The most common reason for refusal across all midwife respondents is because it had not been given in previous pregnancies, this reflects findings from NZ research on maternal vaccinations during pregnancy. Other reasons for declining included: a lack of understanding regarding sensitisation risk, needle phobia and not getting around to having it.

AUTHOR

LISA HOYLE
Consultant Health Psychologist

Health psychology in diabetes in pregnancy

This Maternity Quality and Safety (MQSP) funded project enabled waahine with diabetes in pregnancy (DIP) to see a diabetes health psychologist as part of their care at Te Whatu Ora Counties Manukau. Health psychology is part of the multidisciplinary diabetes team, however, was not available for DIP.

Health psychologists help people with diabetes manage their diabetes, needle anxiety/phobia, feelings of guilt/shame/blame and stigma that can come with a diagnosis of diabetes, stress, low mood/depression, anxiety, psychological trauma (such as previous stillbirths, miscarriages), disordered eating, diabetes distress, diabetes burnout and so on.

Meta-analyses (OuYang et al., 2021) have demonstrated that:

- mental wellbeing, such as anxiety and depression, can affect pregnancy outcomes for waahine, peepi and whaanau
- diabetes affects pregnancy outcomes
- waahine with DIP are much more likely to experience challenges with mental wellbeing than those without
- helping waahine with these challenges can improve outcomes for waahine, peepi and whaanau.

This project aimed to provide waahine with DIP access to see a diabetes psychologist as part of their multidisciplinary care to improve equity, access of care and meet the psychological unmet need in the Counties Manukau DIP population.

A diabetes psychologist worked one day a week in the DIP Service from 14 February 2023 for the duration of the year. Referrals were received from diabetes midwives, obstetricians, diabetes dietitians and diabetes doctors. Thirty-three waahine were referred during the period for reasons including needle anxiety, adherence, adjustment, anxiety, stress, diabetes distress, trauma, low mood and consultation. Waahine were seen at clinic, via telehealth or while in hospital. Five waahine were Maaori, 18 Pacific, eight Indian and two Paakehaa, reflecting the Counties Manukau community the DIP team serves. Twenty-two had type II diabetes, seven gestational diabetes and four type I diabetes. The mean age was 32 years old. The mean social deprivation score was nine with all but two waahine living in homes that had deprivation scores of eight and above.

All waahine who were referred to the diabetes psychologist service were contacted by a health psychology intern (not the diabetes psychologist working in the clinic) to obtain feedback to improve the service and better meet need. Those who used the service reported improved emotional wellbeing and being better at taking medications more regularly. Those who did not use the service said it was because they didn't want to see a psychologist. Most denied any barriers to seeing the psychologist, one stated their schedule made it difficult, but the psychologist was flexible. Mostly there were no recommended improvements; however, three reported were: that better communication about who they were seeing, and when, is needed to reduce confusion; linked appointments (more than one specialist appointment on the same day) would be helpful; and that seeing the psychologist should be mandatory.

Overall, the pilot has been successful in providing psychological care for hapuu waahine living with diabetes in South Auckland. This has included positive outcomes for needle anxiety, engagement with diabetes management tasks, emotional wellbeing and coping with trauma.

The successful pilot year has meant that MQSP has continued to fund another year of the project for 2024. The diabetes psychologist has continued to work in the DIP service, and this has increased to two days a week to enhance access to care and meet unmet psychological need.

Due to challenges with waahine having multiple appointments, being unwell with pregnancy, and having other commitments such as childcare, the diabetes psychologist has begun offering home visits as well as continuing with clinic and telehealth appointments as per waahine preference.

A research project is planned (currently developing protocol) to obtain lived experience feedback from the waahine and whaanau around their experience of working with a diabetes psychologist as part of the DIP service, as well as their suggestions for service development and improvements.

It is hoped that this will support an application to secure permanent funding to make diabetes psychology a part of standard multidisciplinary team care for the DIP service at Te Whatu Ora Counties Manukau. It is then hoped this would be a platform for all other districts to include psychology as part of their standard care to ensure access for all waahine and whaanau across Aotearoa New Zealand.

Reference

OuYang, H., Chen, B., Abdulrahman, A., Li, L., & Wu, N. (2021). Associations between gestational diabetes and anxiety or depression: *A systematic review. Journal of Diabetes Research, 2021, 1-10*. https://onlinelibrary.wiley.com/doi/10.1155/2021/9959779

▶ *Health Psychologist Lisa Hoyle working in the Diabetes in Pregnancy service*

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Supporting equitable access to ultrasound scans during pregnancy

Pregnancy ultrasound scanning services are an integral part of a pregnancy, as they can support clinical decision making and subsequent management, which are vital to supporting a healthy pregnancy and birth.

Pregnant people in Aotearoa New Zealand can choose whether to have certain ultrasound scans as part of their routine antenatal care:

- the screening scan for chromosomal abnormalities between 12 and 13 weeks plus six days of pregnancy (nuchal fold measurement alongside a maternal serum blood test for biochemical markers)
- an anatomy scan after 19 weeks of pregnancy to screen fetal structures.

Counties Manukau District'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, private providers are funded to provide the scans under the Primary Maternity Services Notice 2021.

The main challenges that Counties Manukau District has faced over the past four years has been attaining timely access and quality standards for pregnancy ultrasound scans in the context of a complex clinical environment and a changing society.

Funded co-payment scheme

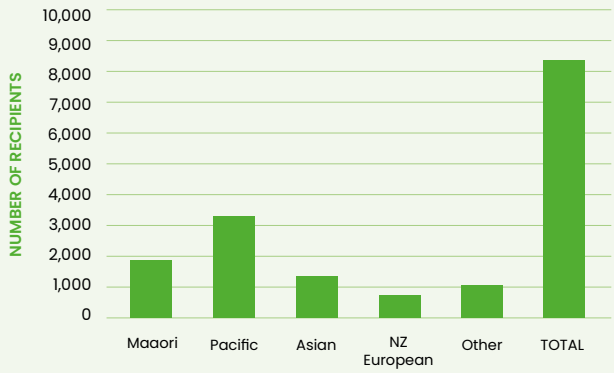
The Ministry of Health has not increased the payment that scan providers receive since 2007. To compensate, since 2016, private providers have been charging a top-up fee. Counties Manukau District pays this fee for those who are unable to afford the extra charge (referred to as a co-payment).

People eligible for a funded co-payment are those identified as in financial need, or those with a Community Services Card (CSC). The co-payment scheme was set up to address inequities in accessing scans that affected 63% of the birthing population, due to social and economic deprivation. It also addresses the need to improve equitable outcomes for whaanau, against a backdrop of a higher than national average perinatal mortality rate. Financial co-payment support has been attached to the first trimester nuchal screening, anatomy scans between 18 and 20 weeks, and scans for whaanau who need surveillance for previous or current pregnancy complications.

Of the 7566 births in 2023, 37% of pregnant people held a CSC and 61% of the births were to whaanau living in quintile 5 compared to 6% living in quintile 1. Pregnant women under the age of 18 are unable to claim for a CSC and are exempt from this requirement.

FIGURE 29 ▼

Numbers of recipients by ethnicity receiving funded co-pay vouchers 2023



From 1 January to 31 December 2023, 8612 vouchers for a funded co-pay were generated for pregnancy scans.

FIGURE 30 ▼

Overall percentage of women accessing a funded co-payment scan in 2023

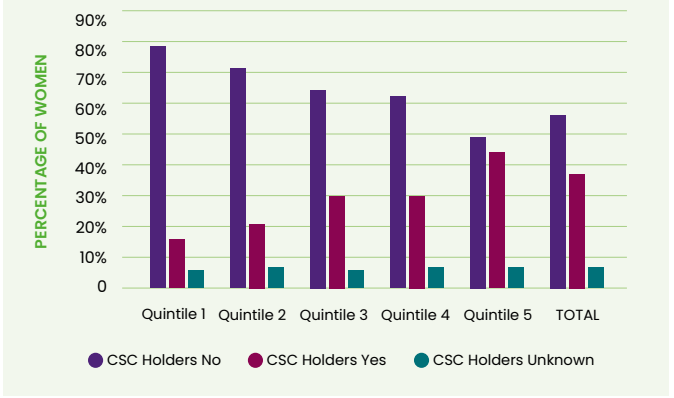
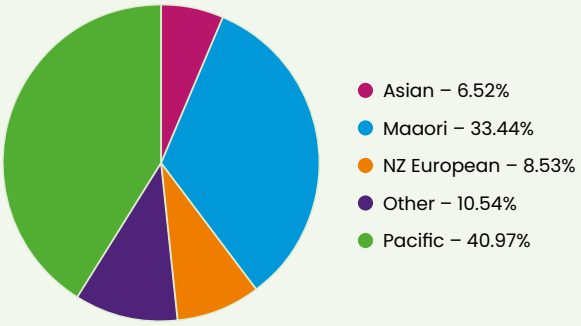


Figure 30 shows the number of women living in Quintile 5 areas who accessed funded co-payments for pregnancy scans under the scheme from 1 January to 31 December 2023. These people are among Te Whatu Ora Counties Manukau's priority groups for improving equity in access to healthcare.

FIGURE 31 ▼

Women living in a Quintile 5 area who accessed a funded co-payment scan, by ethnicity, 2023



Consecutive Perinatal and Maternal Mortality Review Committee (PMMRC) reports highlight inequities of ethnicity and socioeconomic deprivation continue to contribute to poor perinatal outcomes (PMMRC, 2022). There is an urgent need to remove financial barriers to pregnancy scanning used to improve perinatal outcomes.

Pregnancy scanning at Pukekohe Birthing Unit

Access to ultrasound scanning during pregnancy can be challenging for people living in rural areas, such as Franklin. The pilot pregnancy scanning service, operating out of Pukekohe Birthing Unit, started in May 2022 and has now been integrated as business as usual. This service supports those living rurally to access timely pregnancy scanning closer to home.

In 2023, 1426 people received a pregnancy scan at the Pukekohe Birthing Unit.

FIGURE 32 ▼

Number of pregnancy scans by year undertaken at Pukekohe Birthing Unit May 2022-December 2023

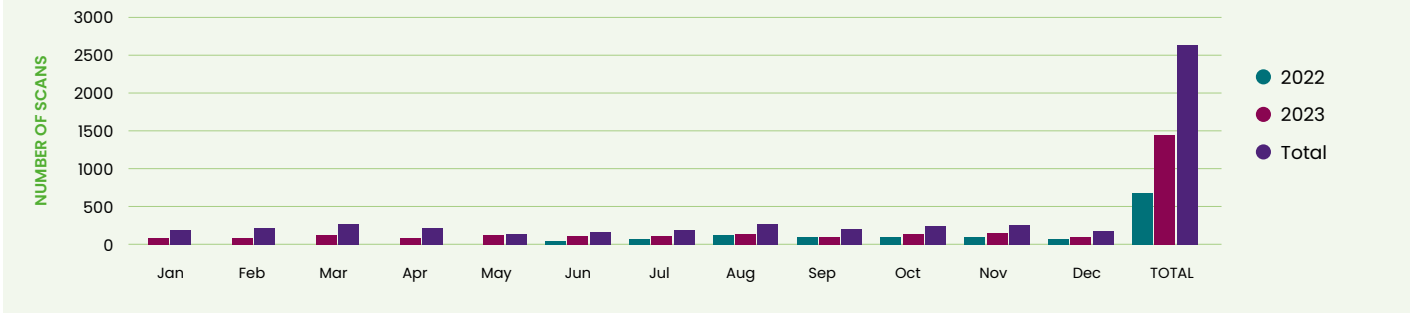


FIGURE 33 ▼

Number of scans by type undertaken at Pukekohe Birth Unit 2023

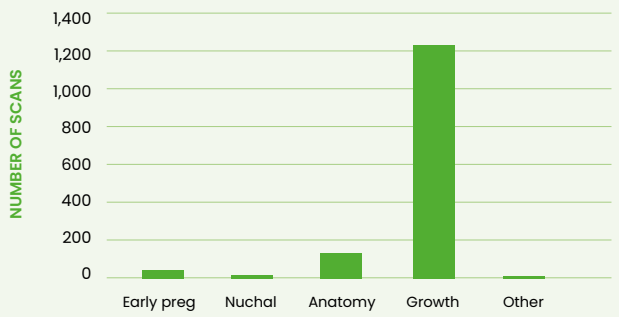


FIGURE 34 ▼

Quintile of service users at Pukekohe pregnancy scanning service 2023

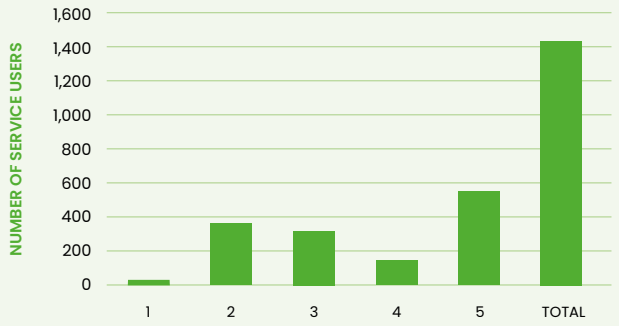
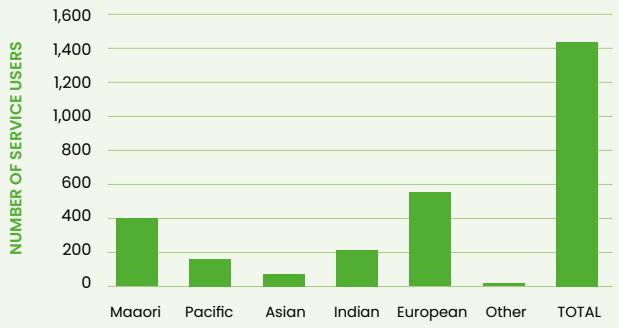


FIGURE 35 ▼

Service users by ethnicity at Pukekohe pregnancy scanning service



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 people in Counties Manukau still need to find transport to private ultrasound scan providers outside 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.

Quality

Women in Counties Manukau may need 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 NZ Ultrasound Scanning Guidelines (2019) 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 four years, Counties Manukau District has provided additional access to existing pregnancy ultrasound services against a backdrop of decreasing access and increased demand by service users. and those providing pregnancy care.

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Implementation of the National Breastfeeding Strategy for Aotearoa New Zealand | Rautaki Whakamana Whāngote

In August 2022, the Te Whatu Ora Counties Manukau Breastfeeding Strategy Steering Group was established to implement the National Breastfeeding Strategy for New Zealand Aotearoa | Rautaki Whakamana Whāngote.

Members included representatives from community breastfeeding organisations, Women's Health Action and Te Whatu Ora Counties Manukau. A gap analysis compared current practices against the key outcomes and actions of the National Breastfeeding Strategy. Nine actions were identified with opportunities for improvement. The steering group developed a work plan and set up seven working groups.

This report will discuss progress in relation to the following action points from the National Breastfeeding Strategy.

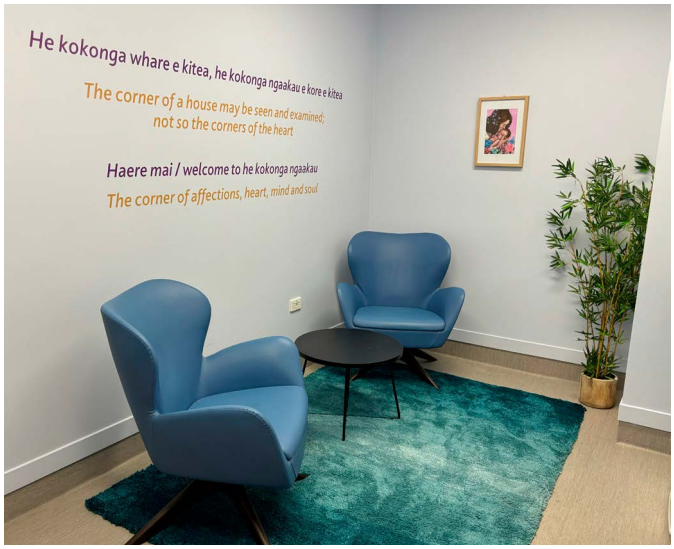
Action 7.1: Increase understanding of, and compliance with, the legislation protecting and supporting breastfeeding employees.

Action 7.2: Work collaboratively with national and regional providers to support the consistency and effectiveness of national and regional Breastfeeding Friendly Workplace (BFW) initiatives.

Action 1.8: Identify and action the breastfeeding information and support needs of parents and/or infants with disabilities and their whānau.

Action 1.7: Identify and action the breast/chestfeeding information and support needs of trans, nonbinary, takatāpui and other gender-diverse parents and their whānau.

▼ *One of the newly refurbished employee breastfeeding and infant feeding rooms.*



Breastfeeding friendly workplace

The breastfeeding friendly workplace (BFW) working group found that on 1 February 2023 there were 180 employees on parental leave and similar numbers planning to take parental leave.

Three surveys were developed to determine improvements needed to support breastfeeding and expressing breastmilk in the workplace. Surveys were aimed at staff prior to and on return from parental leave, and their managers. All employees and managers were invited to participate. Significant room for improvement was identified in:

- supporting staff and managers to access the Te Whatu Ora Counties Manukau Breastfeeding and Breastfeeding in the Workplace policies
- providing easy access to appropriate spaces for breastfeeding and expressing breastmilk.

In response to these findings, several changes have been implemented.

There are three dedicated employee breastfeeding and infant feeding rooms across two Te Whatu Ora Counties Manukau sites. Two at Middlemore Hospital and one at the Manukau Super Clinic. The breastfeeding rooms at Middlemore Hospital were refurbished in consultation with the Lead Clinical Advisor, Maaori Midwifery and the Maaori Cultural Team, to ensure changes met with tikanga principles of separating clean spaces for food preparation and areas for baby changing. Funding was provided from the Child, Youth & Maternity, Breastfeeding and Infant Nutrition budget.

All the breastfeeding spaces were gifted a new, inclusive name by the Maaori Cultural Team: He kokonga ngaakau | The corner of affections, heart, mind and soul, from the whakatauki: he kokonga whare e kitea, he kokonga ngaakau e kore e kitea.

The newly refurbished room in the centre of Middlemore hospital was blessed by the Maaori Cultural Team on the first day of World Breastfeeding Week. The theme for 2023 was Enabling breastfeeding: making a difference for working parents.

A Breastfeeding Workplace Liaison role was developed to provide support and assistance to all breastfeeding employees, fostering an organisational culture that supports breastfeeding. The Women's Health Lactation Support Service covers the breastfeeding workplace liaison role.

In addition to the breastfeeding liaison role and the refurbishment and renaming of the dedicated breastfeeding spaces, the parental leave letter, employees guide, and webpage were also updated.

Counties Manukau is committed to supporting its workforce to breastfeed and express breastmilk in the workplace by providing support and resources to employees going on and returning from parental leave. Refurbishment of the facilities, plus communication around what is available, will help to improve equity in terms of who gets to breastfeed, or be breastfed.

Breastfeeding support and accessibility

The Breastfeeding Support and Accessibility (BFS&A) Working Group identified gaps in the support available for disabled parents, particularly in the areas of birthing and breastfeeding within Counties Manukau. Research was conducted to explore whether other hospitals and non-profit organisations across the country had resources or initiatives in place for disabled parents. A lack of available support specifically tailored to this population was identified.

These investigations sparked broader conversations about accessibility needs that extended beyond the initial project scope. For instance:

- High-low baby bassinets were investigated to improve accessibility for disabled parents. It became clear that the use of the high-low baby bassinet could not be guaranteed as there is no storage space on the wards. To ensure equitable care for parents with disabilities this issue has been escalated to regional leaders.
- Another significant discovery was the shortage of sign language interpreters at Counties Manukau, and the need to book 48-hours in advance. The interpreting service have developed solutions for urgent and after-hours sign language interpretation requests.
- The group also saw accessibility challenges within the Birthing and Assessment Unit and the maternity wards. For example, inadequate doorframe widths and shower spaces to accommodate wheelchair access. While falling outside the scope of breastfeeding support, these accessibility issues need attention. A detailed report was prepared highlighting the necessary changes. The Accessibility Team are working with the Facilities Team to address these health and safety concerns and implement the necessary improvements.

To improve support for disabled parents within Counties Manukau Maternity Services, the BFS&A Working Group developed a comprehensive flip chart guide for staff along with an accompanying awareness poster.

The flip chart has information about types of disabilities, appropriate terminology, and support resources available, in the hospital and in the community. It will be accessible at staff hubs and through our communication channels, such as the local intranet, to ensure that every individual with a disability can access the support they need.

The collaborative efforts of the BFS&A Working Group have highlighted critical gaps in support for disabled parents within Te Whatu Ora Counties Manukau and have also spurred broader conversations about accessibility and inclusivity in healthcare. Through rigorous research and consultation, the group identified specific challenges, from the shortage of sign language interpreters to accessibility issues within healthcare facilities and initiated targeted actions to address them.

The development of the flip chart guide and awareness poster represents a tangible outcome of these efforts, aimed at empowering parents with disabilities and their whaanau to navigate the birthing and breastfeeding journey with dignity and support. Moving forward, sustained collaboration and advocacy will be crucial in ensuring continued progress towards a healthcare environment that prioritises equitable care for all individuals, regardless of ability.

> ***Disability is not something individuals have.***
>
> ***What individuals have are impairments.***
>
> ***They may be physical, sensory, neurological, psychiatric, intellectual or other impairments...***
>
> ***Disability is the process which happens when one group of people create barriers by designing a world only for their way of living, taking no account of the impairments other people have...***
>
> ***(Office of Disability Issues, 2016)***

Perinatal care and gender diversity

To ensure that perinatal care provided for gender diverse whaanau at Te Whatu Ora Counties Manukau is supportive, inclusive and culturally safe, a working group was established to work on Action 1.7 of the National Breastfeeding Strategy. The working group included members from Te Whatu Ora Counties Manukau, Women's Health Action and gender diverse consumer representation.

This initiative explored whether the Division of Women's Health is welcoming, safe and inclusive to gender diverse whaanau with particular focus on:

- the use of gender inclusive language in clinical records including BadgerNet, BadgerNotes and the Newborn Feeding Record
- gender inclusive images and language in consumer and whaanau information related to breast/chestfeeding
- the provision of education for staff to provide culturally safe care to whaanau who identify as trans, nonbinary, takataapui and gender diverse.

BadgerNet has made some progress towards inclusion by creating an opportunity for whaanau to specify their preferred pronouns at the booking visit. Additionally, a job was logged with the vendor to review and update the use of gender inclusive language more broadly in BadgerNet and BadgerNotes.

The Newborn Feeding Record has been updated to use inclusive language eg, breast/chestfeeding. This is currently being translated into Te Reo Maaori, Samoan, Tongan and Hindi.

Resources and images on the wards have been reviewed in relation to inclusivity of trans and gender diverse people.

In response to the 'Warming the Whare for trans people and whānau in perinatal care' report (Parker et al., 2023), the Maternity Quality and Safety Programme has funded two workshops in 2024 to support staff and lead maternity carers, to provide culturally safe and inclusive perinatal care to people who identify as gender diverse. These workshops will be facilitated by two of the 'Warming the Whare' report authors.

Te Whatu Ora Counties Manukau are committed to ensuring an inclusive environment for whaanau and the team. Work on this project is ongoing.

Artwork created by Huriana Kopeke-Te Aho for the cover of the Warming the Whare report

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Parker, G., Miller, S., Baddock, S., Veale, J., Ker, A., & Kerekere, E. (2023). *Warming the Whare for trans people and whānau in perinatal care*. Open Access Te Herenga Waka-Victoria University of Wellington. Report. https://doi.org/10.25455/wgtn.23918700

Te Whatu Ora | Health New Zealand., (n.d.). National Breastfeeding Strategy for New Zealand Aotearoa | Rautaki Whakamana Whāngote. National Breastfeeding Strategy for New Zealand Aotearoa | Rautaki Whakamana Whāngote – Health New Zealand | Te Whatu Ora

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BadgerNotes and smartphone pilot project

In mid-2022, a multi-disciplinary working group was established to plan for the roll out of BadgerNotes at Te Whatu Ora Counties Manukau. BadgerNotes provides access to the pregnant person's BadgerNet clinical record via an app. BadgerNotes is an alternative to handheld paper notes with the potential to enhance whaanau experience and reduce documentation time for clinicians.

In addition to the clinical record, BadgerNotes includes a gestation-specific weekly summary of pregnancy progress for maaamaa and peepi in English and Te Reo Maaori, and access to national consumer information and website links. The Te Reo Maaori in BadgerNotes was developed for Counties Manukau using Tainui spelling – double vowels instead of macrons.

BadgerNotes was rolled out in late 2022, uptake has continued to increase. Community Health workers from the Kerrs Road Community Midwifery Service have played a vital role in supporting whaanau to upload and access BadgerNotes for their service. The community midwives at the Primary Units have enabled those under their care to access the application and ensure their notes are published so they are visible to the pregnant person.

The BadgerNotes rollout included education and support for midwives and obstetric staff provided by the Counties Manukau BadgerNet Team. Additionally, the BadgerNet Team provide ongoing BadgerNotes IT support for whaanau.

One of the working group's concerns was equity of access to mobile phones. A sub-working group was established to look at barriers and find solutions to ensure that all whaanau who wanted access to BadgerNotes would have the opportunity.

Based on a study completed in 2021 within the Diabetes in Pregnancy Service, it was estimated that approximately 4% of the Counties Manukau birthing population may not have access to a smart mobile phone. The Maternity Quality and Safety Programme Governance Group worked with the Data and Digital team to review how we could support access to a mobile phone and data package. Criteria for funded phone access were developed which included whaanau who could not afford a phone, those who were not eligible for the Ministry of Social Development phone subsidy and those with domestic circumstances where phone access was restricted or shared. Phones were provided for the duration of the antenatal and postnatal period and collected after. Upon collection phones are redistributed. A referral system was set up in BadgerNet for midwives to apply for access to mobile phones for pregnant people. In 2023 this initiative gave 38 whaanau access to a mobile phone: 23 Maaori and 15 Pacific pregnant people.

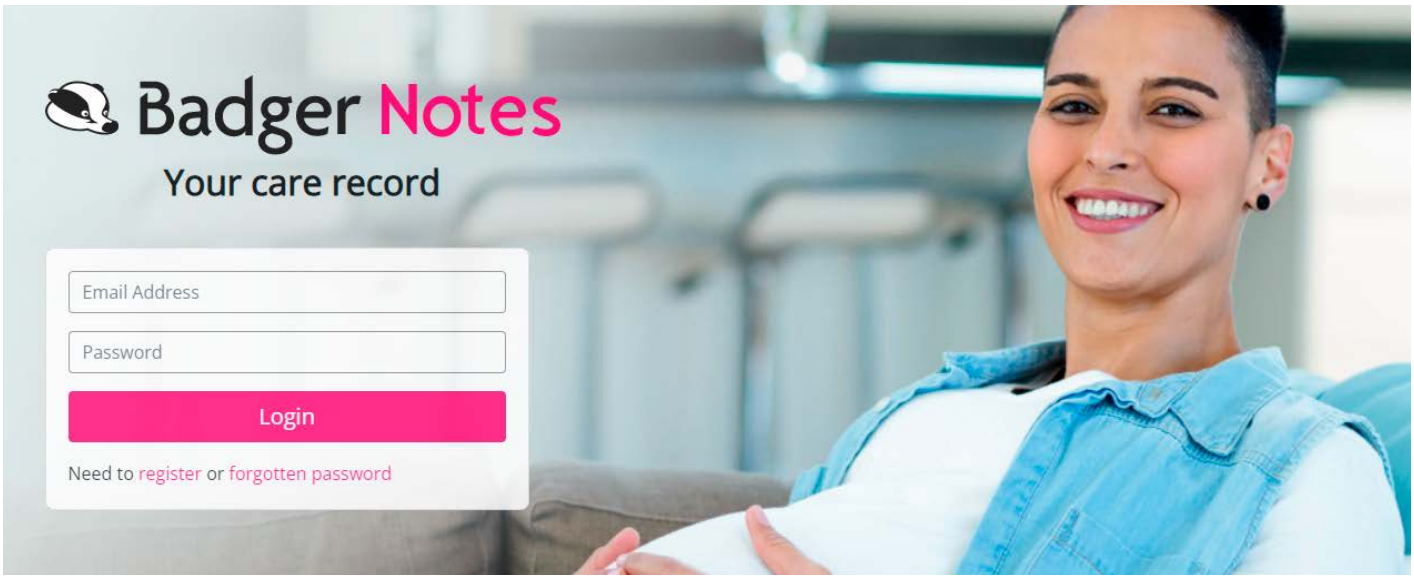
Feedback from whaanau who have been loaned phones has been overwhelmingly positive. Identified benefits included:

- easy to set up
- access to BadgerNotes
- access to pamphlets
- access to test results
- being able to complete pre-booking questions
- enrolling in haapuu waananga
- being able to make and change appointments with midwife
- being able to email midwife
- making ultrasound scan appointments
- contacting WINZ and other social support agencies
- finding a house
- being able to look at the timeline
- being able to see Te Reo Maaori on the BadgerNotes pregnancy information timeline.

Midwives also identified benefits:

- access to BadgerNotes for whaanau
- easier communication with whaanau
- more frequent engagement with whaanau between appointments
- ability to report blood sugar results to Diabetes midwives
- easier access for whaanau with WINZ and other social support agencies.

The Te Whatu Ora Counties Manukau Phone pilot project has enhanced the experience, and reduced inequity for some whaanau through their pregnancy journey. Identified benefits extend well beyond access to BadgerNotes. A decision around continuation of this project will be made in 2024.



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Postnatal transfer project

The Postnatal Transfer Project was designed to increase the number of postnatal transfers of maamaa and peepi from Middlemore Hospital to the primary birthing units (PBU). The PBUs are located at Botany Downs, Papakura and Pukekohe and are often closer to the parent's home and whaanau.

PBU's play a significant role in Te Whatu Ora Counties Manukau's maternity service and are intended to enable local women/pregnant people with low-risk pregnancies to birth their babies in a non-medicalised environment with a strong primary care focus. PBUs are midwife-led and support antenatal care, primary birthing, and inpatient postnatal care.

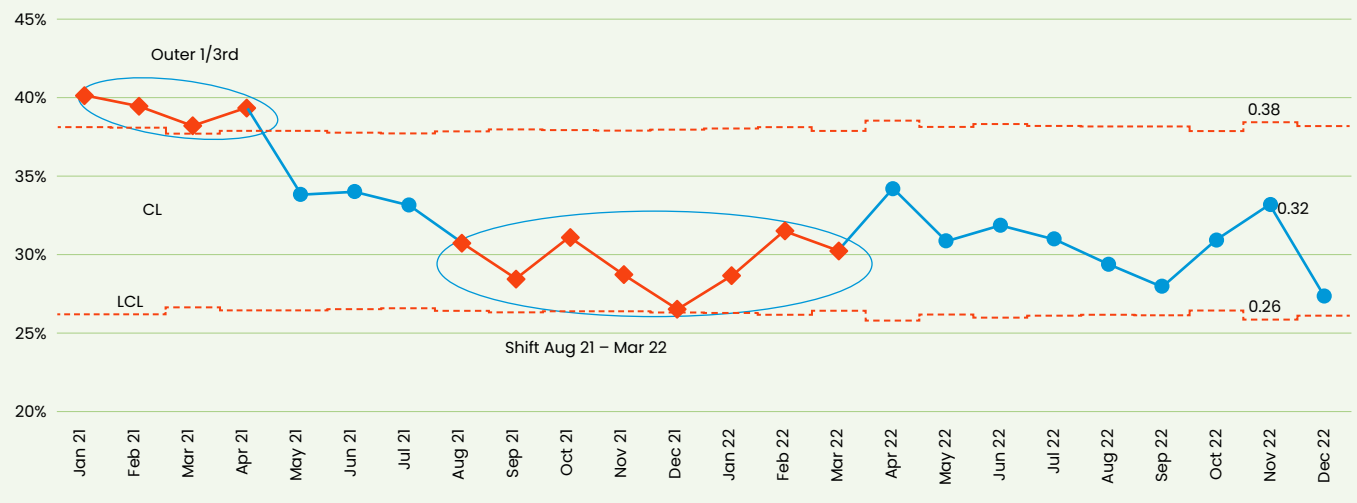
Many people birth at Middlemore Hospital but may transfer to a PBU as soon as possible. Feedback provided by consumers who experienced a postnatal stay in a PBU was resoundingly positive.

> "This magical place allows mothers the peace and quiet space to rest and bond with their new-born"

Despite positive feedback, the number of whaanau choosing to transfer to a PBU postnatally was declining.

FIGURE 36 ▼

Percentage of women who birthed at Middlemore Hospital and transferred to a Primary Birthing Unit in 2021-2022



The project started in late January 2023. The key aim of the project was to increase the percentage of postnatal transfers from Middlemore Hospital to a PBU from 31% to 41% by 30 September 2023. Several strategies were implemented to increase transfer rates:

1. Improve communication between Middlemore Hospital and the PBUs:
   - All midwife managers from Middlemore and the PBUs attended daily staffing and safety briefing meetings so everyone had a clear picture of current occupancy and staffing levels in the maternity service
   - Daily staffing and safety briefing meetings were introduced on weekends and public holidays
   - Middlemore staff were given the correct direct dial phone numbers to make it easier to contact the charge midwife at the PBU and to improve handover efficiency
   - Electronic whiteboards installed in the PBU's allow staff to view inpatient status, improving transfer efficiency.
2. Update, publish and socialise the guideline 'Transfer to a Primary Birthing Unit for Postnatal Care' to ensure:
   - clear understanding of who can transfer to a PBU
   - a standard approach at the PBUs.
3. Respond to consumer feedback:
   - Whaanau wanted support people to be able to stay overnight in the PBUs. All PBUs have purchased fold-out sofa beds. Botany and Pukekohe Birthing Units have also installed a queen-sized bed.
4. Promotion of the PBUs:
   - A poster reminding whaanau of the possibility of transferring to a PBU was displayed in the postnatal wards at Middlemore Hospital
   - A Te Whatu Ora Counties Manukau Primary Birthing Units Facebook page was developed to raise the profile of the PBU's in the community.

Throughout the project we monitored:

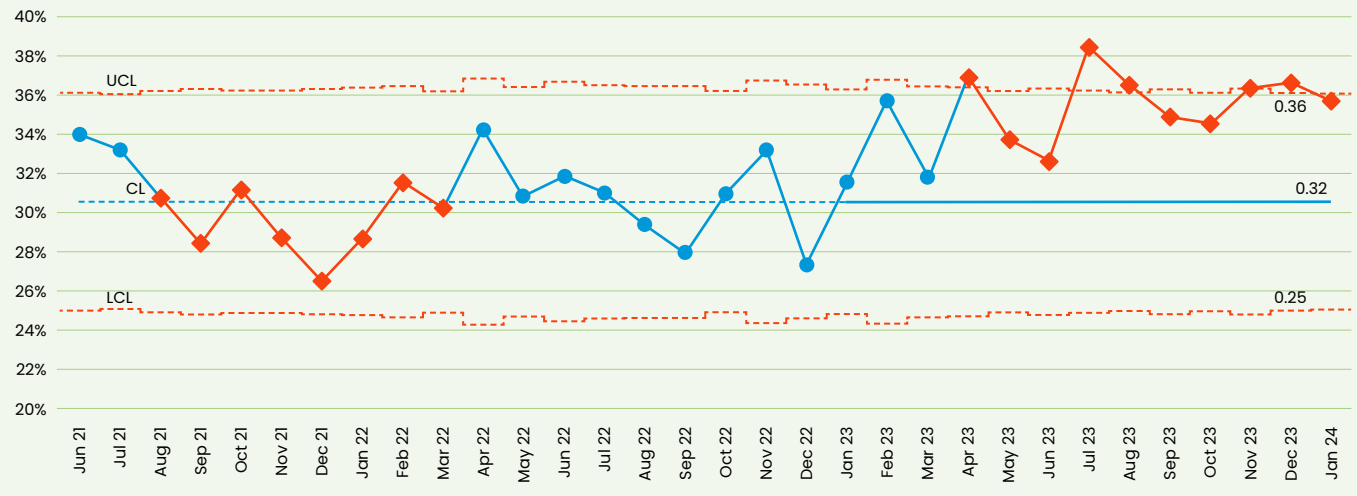
- percentage of whaanau readmitted to Middlemore Hospital after being transferred to a PBU for postnatal care
- staffing levels at the PBUs
- consumer feedback.

While the project did not reach the percentage increase aimed for by September 2023, the project has had an impact as shown by the shift in Figure 37.

> "The birthing unit is a gem of a place. I've had incredible care after the birth of my daughter."

FIGURE 37 ▼

Percentage of women who birthed at Middlemore Hospital and transferred to a primary birthing unit from June 2021 to January 2024



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Accurate blood glucose monitoring in primary birthing units

In late 2023, the Maternity Quality and Safety Programme Governance Group approved the purchase and rollout of i-STAT Alinity Blood Glucose Analysers in the Te Whatu Ora Counties Manukau primary birthing units (PBUs).

The key objectives and benefits for purchasing the Abbots i-STAT Alinity Analysers were:

1. To obtain laboratory accurate blood glucose measurements ensuring improved quality of care for the neonate and whaanau
2. To ensure there are no negative clinical outcomes at the PBUs because of inaccurate neonatal glucose measurements
3. To have neonatal blood glucose meters connected to the patient's electronic record, allowing data to be captured within the patient's electronic record. This allows other medical services to monitor individual patients from a distance. It also supports a full audit trail
4. To enable earlier postnatal transfers from Middlemore Hospital (MMH) to a PBU, releasing bed space at MMH.

Previously, the PBUs used Nova Biomedical StatStrip Xpress glucose meters which have an uncertainty of +/-19%. This means that if a known neonatal glucose of 2.3 mmol/L is measured with the glucometer then the true result will lie somewhere between 1.9 mmol/L and 2.7 mmol/L. Therefore, any concerning neonatal glucose result obtained at a PBU requires confirmation with a transfer back to MMH. This is sometimes unnecessary and may delay care and cause undue stress to mother, baby, whaanau and staff.

Assessment of blood glucose is critical in the care of neonatal patients. Hypoglycaemia (low blood glucose) is a common metabolic problem in neonates. Prolonged or repeated hypoglycaemia in newborns can affect brain development and function. Recent evidence suggests that even mild transient hypoglycaemia, if untreated, may be associated with specific cognitive deficits and decreased educational achievement.

Risk factors for neonatal hypoglycaemia are divided into standard risk and high risk.

Infants identified as standard risk:

- preterm infants - born before 37 weeks gestation
- small for gestational age (SGA) – birthweight less than the 10th centile on a customized calculator (or less than 2.5kg if customized birthweight is not available)
- large for gestational age (LGA) – birthweight greater than the 90th centile on a customized calculator (or more than 4.5kg if customized birthweight is not available)
- infants of parents with diabetes or diabetes in pregnancy (DIP)
- infants with physiological stress/elevated Newborn Early Warning Score.

Infants identified as high risk:

- three or more risk factors from above list, e.g., SGA, GDM and preterm
- type I diabetes
- type 2 diabetes AND medical team confirm poor blood glucose control.

Between 1 September 2022 and 31 August 2023, 43% of babies born below the 10th customised birthweight centile in PBUs were Maaori, significantly higher than other ethnicities. Maaori have the second highest rate of babies born above the 90th customised birthweight centile in a PBU.

TABLE 14 ▼

Percentage of SGA and LGA babies born at Counties Manukau primary birthing units by ethnicity

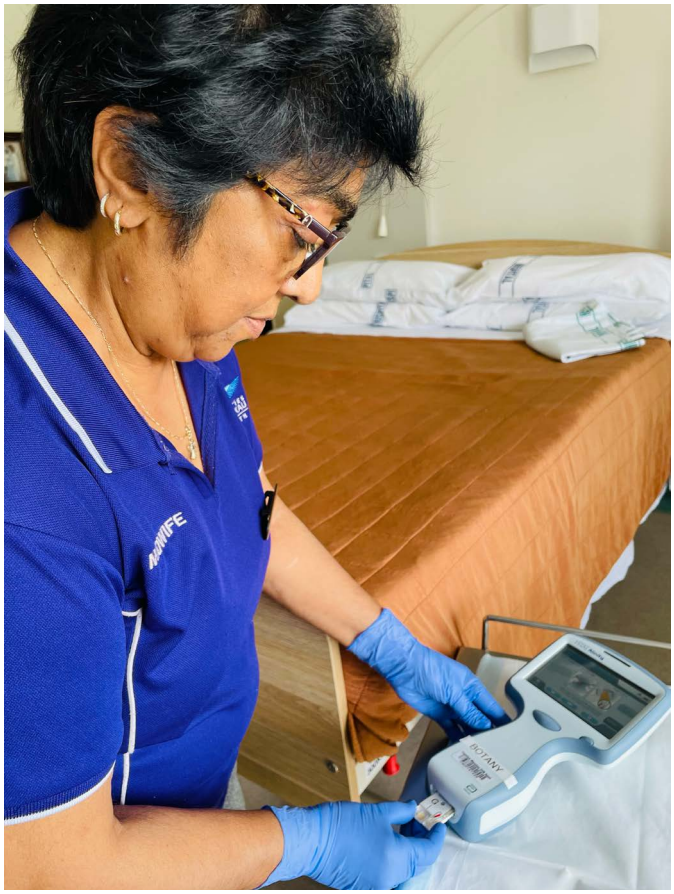
ETHNICITY	<10TH CENTILE	>90TH CENTILE	TOTAL
Maaori	43%	32%	32%
Pacific	16%	7%	16%
Indian	4%	13%	7%
Asian	9%	8%	8%
European	28%	37%	35%
Other	0%	3%	2%

SGA/LGA babies need blood glucose testing one hour after the first feed and within two hours of birth. Testing should continue 2-4 hourly before feeds for the first 12 hours after birth. Neonates with hypoglycaemia should be tested for a minimum of 24 hours and until there are three consecutive normal blood glucose measurements without supplementation. Because the current glucometers are inaccurate, when an unexpected SGA/LGA baby is born in a PBU the baby and mother may be transferred to MMH unnecessarily.

Counties Manukau has the highest estimated rate of diabetes in 2021 at 70.4 per 1,000 population. The growing number of pregnant women with diabetes at Te Whatu Ora Counties Manukau has seen a significant increase in the number of babies who require blood glucose monitoring. Between 01/09/2021 and 31/08/2023, 13.1% of women birthing in Counties Manukau District had some type of diabetes.

Although DIP is an indication to birth at MMH, access to accurate blood sugar monitoring will increase the numbers of whaanau who can transfer to a primary birthing unit after birth.

i-STAT blood glucose monitoring will improve accuracy of readings which will in turn support safer decision making and care with the potential to reduce transfers to MMH for blood sugar analysis.



▲ *Midwife Shanthie Nandlal checking a baby's blood sugar on the iStat at Botany Downs Primary Birthing Unit*

TABLE 15 ▼

Percentage of people with diabetes in pregnancy in all Counties Manukau facilities

	MAAORI	PACIFIC	INDIAN	ASIAN	EUROPEAN	OTHER	TOTAL
DIP	8.9%	15.6%	20.0%	13.6%	6.3%	11.9%	13.1%

AUTHORS

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Maternity Early Warning System and the Newborn Early Warning System audit updates

The National Maternity Early Warning System (MEWS) went live on BadgerNet in 2019 and has been audited within Counties Manukau's clinical auditing platform Care Compass (CC) since 2021.

MEWS auditing is performed in a similar way to other CC clinical audits undertaken within Counties Manukau. All maternity wards and community birthing units complete five MEWS audits per month on women who have been on the ward or unit for six hours or more. Ward staff enter these audit records electronically into CC.

Individual ward and unit reports are available for the charge midwife managers and Women's Health leadership team to view via the QLIK dashboard in real time. This information informs quality improvement activities.

In 2023, a programme of work commenced to roll out MEWS in non-maternity settings. The aim is to complete this work in 2024.

The National Newborn Early Warning System (NEWS) was piloted in BadgerNet in Counties Manukau in late 2021. The ACC funded audit revealed the need to update our newborn observation guideline. This work was completed shortly thereafter. The audit also revealed a reporting issue within BadgerNet which has subsequently been fixed to ensure that first observations of all newborns are captured within the Baby NEWS chart.

The CC program in Counties Manukau is undergoing a significant upgrade to address three key challenges:

1. **Outdated questions:** The current platform lacks flexibility, making it difficult to update questions. This has resulted in irrelevant information cluttering data analysis
2. **Limited data insights:** The outdated analytics framework hindered clear understanding of the program's effectiveness
3. **Duplication of effort:** Paper-based auditing required manual entry into the electronic platform, creating unnecessary work.

The CC upgrade aims to streamline the program by:

- **Transferring audits to Qualtrics:** Similar to SurveyMonkey, Qualtrics offers a user-friendly platform for conducting audits
- **Enhanced analytics with Qlik:** This tool provides in-depth data analysis capabilities which are significantly more accessible as there are fewer license barriers.

While the upgrade is ongoing, the integration of Qualtrics and Qlik is yet to be completed. This means:

- **Limited user access:** Wards are currently using the old CC model for audits until integration allows viewing through the new system
- **Trial wards testing Qualtrics:** Four wards are successfully piloting the new auditing platform to ensure functionality.

The MEWS and NEWS audits have been revised and updated with relevant questions. They are ready for widespread implementation on Qualtrics as soon as the integration with QLIK is finalised.

Selected areas are currently trialling the new audit format in Qualtrics. While widespread rollout awaits full integration, trial wards will receive manual results to ensure data utilisation continues.

AUTHOR

FLORELLA KEEN
GAP Champion, Clinical Midwife
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Growth Assessment Programme (GAP) at Counties Manukau

The Growth Assessment Programme (GAP) was developed in the UK by the Perinatal Institute [1] and has been adapted for New Zealand. GAP was implemented in Counties Manukau Health in 2016 with the aims of improving:

- antenatal detection of small for gestational age (SGA) and fetal growth restriction (FGR) babies (who are at increased risk of morbidity and stillbirth)
- neonatal outcomes for SGA babies, through evidence-based monitoring of fetal growth and timing of the birth.

Key elements of GAP:

- evidence-based SGA risk assessment at booking and throughout pregnancy
- education and accreditation for all maternity care providers
- use of customised antenatal growth (GROW) charts
- regular reporting on SGA detection rates and periodic auditing of missed cases.

Two missed-SGA case audits of 30 randomly selected maternity records were completed in 2023 by the Counties Manukau GAP champion. The audits closely examine babies born with a birth weight centile below 10% to identify potential reasons why they may not have been detected antenatally to be SGA and the factors which contributed to these being missed.

Data from the 2023 audits showed that the top three reasons identified were:

- failure to recognise normal growth pattern and when this deviated refer the woman for a growth scan
- not completing fundal height measurements as per GAP guidance (starting earlier than 26 to 28 weeks or measuring closer than every 14 days apart)
- time between recognising abnormal fetal growth and the woman receiving a growth scan exceeding three days due to limited scan availability in our region.

These findings were reported back to our GAP users and educational material was displayed on our Women's Health Koorero Facebook page as a refresher for staff.

Furthermore, if there was a large discrepancy (20% or more) between estimated fetal weight (EFW) on ultrasound scan and actual birthweight (if the birth was within one week of the ultrasound scan), these findings were communicated to the community scanning provider, with the intention of identifying further learnings and the opportunity to review the images from this scan to see if there was overestimation of the fetal biometric measurements which ultimately determines EFW.

The 2023 collated data (Table 16 and Table 17) shows that the number of babies born SGA at birth in Counties Manukau (15.3%) is similar to the national average (14.3%). The number of babies born at or below 3rd centile (5.3%) is also comparable to the national average (4.9%).

Antenatal referral is defined as the proportion of babies SGA at birth that had been suspected antenatally by fundal height measurement to be SGA or FGR, resulting in referral for scan EFW and/or doppler. The Counties Manukau antenatal referral rate for SGA and FGR is lower than the national average and this is reflected in our antenatal detection of SGA and FGR (the proportion of babies SGA at birth that had an ultrasound EFW below the tenth centile). The data for 'antenatal referral' is based on referral for ultrasound scan due to fundal height. The lower rate for antenatal referral for ultrasound scan for suspected SGA/FGR is based on fundal height and this could be a consequence of 28% of our birthing population having a BMI of 35 or more. These women/pregnant people do not fit the criteria for routine fundal height measurement. The lower rate of antenatal referral could also be attributed to data entry inaccuracy at the time of generating the customised birthweight centile. We have planned a trainee intern audit to identify if there is a need to further educate staff.

TABLE 16 ▼

2023 collated data for babies born ≤10th centile (Perinatal Institute, 2023)

2023 (DATA BASED ON 7209 BIRTHS)						
10TH CENTILE		Q1	Q2	Q3	Q4	AVERAGE
SGA at birth (%)	Counties Manukau	15.8	14.3	15.0	16.0	15.3
	National GAP Average	14.3	14.2	14.2	14.5	14.3
Antenatal referral for SGA (%)	Counties Manukau	39.0	31.2	34.6	35.2	35.0
	National GAP Average	44.7	45.8	45.2	44.3	45.0
False positive antenatal referral for SGA (%)	Counties Manukau	5.7	5.6	5.5	7.0	6.0
	National GAP Average	8.2	8.3	7.7	8.1	8.1
Antenatal detection of SGA (%)	Counties Manukau	39.0	36.1	36.2	35.7	36.8
	National GAP Average	42.9	43.1	42.5	40.1	42.2
False positive antenatal detection of SGA (%)	Counties Manukau	4.6	4.9	4.5	5.0	4.8
	National GAP Average	5.2	5.6	4.8	5.0	5.2

TABLE 17 ▼

2023 collated data for babies born ≤3rd centile (Perinatal Institute, 2023)

2023 (DATA BASED ON 7209 BIRTHS)						
3RD CENTILE		Q1	Q2	Q3	Q4	AVERAGE
FGR at birth (%)	Counties Manukau	4.8	4.6	5.7	5.9	5.3
	National GAP Average	4.6	4.7	5.2	5.1	4.9
Antenatal referral for FGR (%)	Counties Manukau	59.8	42.9	44.9	50.6	49.6
	National GAP Average	62.4	60.0	60.5	62.7	61.4
Antenatal detection of FGR (%)	Counties Manukau	59.8	58.2	50.0	49.4	54.4
	National GAP Average	63.4	62.2	60.1	60.4	61.5

The GROW app was upgraded to version 2.0 at the end of November. The web-based charts are accessible to the midwives, obstetricians and sonographers providing care to an individual whaanau, reducing the risk associated with duplicate GROW charts. The new 2.0 charts now can calculate the change in growth rate between consecutive scans or fundal height measurements. This new feature enables staff to precisely determine the change in growth rate in EFW, which in turn accurately identifies slowing of fetal growth (Figure 38). During the roll out of GROW 2.0, Counties Manukau employed sonographers were all given a BadgerNet login and attended a training session, enabling them to plot the ultrasounds they perform in real time. If they show slowing of growth, they can perform doppler studies concurrently. The aim of this was to minimise delays and repeat scanning for Doppler assessment. Additionally, GROW 2.0 supports the plotting of twins' growth and can highlight twin to twin growth discordance. In 2023, 7209 records (a GROW chart with a corresponding birthweight centile) were completed. This is less than the actual birth numbers of 7554 due to data loss associated with the transition from GROW version 1.5 to version 2.0 in November 2023 (Table 16 and Table 17).

FIGURE 38 ▼
GROW 2.0 CHART SHOWING CHANGE IN FETAL GROWTH RATE BETWEEN CONSECUTIVE SCANS

In July 2023, the national Small for Gestation Age / Fetal Growth Restriction Guidelines were updated. Slowing of fetal growth is defined as a decline in EFW over 30 centiles from 28 weeks gestation or a decline in abdominal circumference (AC) over 30 centiles from 28 weeks' gestation (Te Whatu Ora, 2023). The SGA risk management plans within BadgerNet were updated to align with the new national guideline.

We hope that with the recent improvements to the GROW chart, antenatal detection and referral for SGA will be more accurate allowing for more timely care for our most at risk babies. The increased data set in GROW 2.0 has the potential to better reflect what is happening in our district and for the Perinatal Institute to analyse the data based on variables such as BMI etc. Ongoing consistent application of the Growth Assessment Programme is vital so that we can continue to improve outcomes for mothers, babies and their whaanau.

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Midwife-led early medical abortion clinic

Historically Counties Manukau District did not provide a first trimester abortion service for women/pregnant people living within the Counties Manukau area. All referrals would be directed to one of the two central Auckland providers who offered face-to-face medical and surgical abortion services. The inequity of this situation was reported on repeatedly through the years in government reports as well as in the local and national media. After changes to abortion law and the Midwifery Scope of Practice, Counties Manukau have now addressed this equity concern by establishing a Midwife-Led Early Medical Abortion (EMA) Service.

The change in the Abortion Legislation Act 2020 enabled people to self-refer for abortion services to all practitioners covered under the Health Practitioners Competence Assurance (HPCA) Act 2003. In 2023 the Midwifery Council endorsed a non-compulsory education package that enabled the provision of early medical abortions by midwives for pregnancies under 10 weeks gestation.

The Counties Manukau Midwife-Led EMA Service is managed and staffed by two midwife specialists, Lisa McTavish and Maggie Walker, who run face-to-face clinic days two days a week at Manukau Health Park. Referrals are accepted directly via self-referral by email or 0800 number, or via E-referral pathways through Clinical Portal or Primary Health GP referrals. All referrals are triaged by one of the midwife specialists who make initial telephone contact and offer a full telephone triage appointment to ensure people are directed to the right service.

If the woman/pregnant person is ineligible for EMA, needs more time to consider, or prefers a surgical option, they are referred to the appropriate service. After the phone triage and consult, women/pregnant people will be offered a face-to-face appointment for their EMA.

Pre-existing abortion services in central Auckland offer free ultrasound as part of their current EMA services. However, prior to May 2024, EMA-seekers in South Auckland had to source, book and self-fund their own ultrasound scans within existing community ultrasound services. This was a significant inequity in care for women/pregnant people within the district.

In late 2023, the Midwifery Council endorsed a training package which enables midwives to provide point-of-care ultrasound (POCUS) in early pregnancy. In May 2024 both midwife specialists at Counties Manukau EMA Clinic completed the credentialing programme and are now able to provide POCUS as part of their EMA care.

To further address access and inequity concerns, the Counties Manukau EMA clinic also offers sexually transmitted infection screening, human papillomavirus self-swabbing facilities, and contraception care including LARC, during face-to-face EMA appointments.

The provision of this service within the Counties Manukau area has reduced the inequity for women/pregnant people wishing to access early medical abortion. The provision of POCUS within the clinic has also reduced the need to use community-based dating ultrasound services, which can be both potentially traumatic for someone who is not planning to continue with their pregnancy, as well as an unnecessary drain on already stretched ultrasound resources.

Referrals to the service are slowly increasing as awareness of this local service increases with the hope that the clinic will be working close to capacity by the end of 2024.

AUTHOR

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Baby Friendly Hospital Initiative

In New Zealand, all maternity services are required to achieve and maintain Baby Friendly Hospital Initiative (BFHI) accreditation.

The standards of care and services provided are audited by the New Zealand Breastfeeding Alliance (NZBA) every three to four years. The service follows WHO/UNICEF Ten Steps to Successful Breastfeeding while caring for mothers and their babies before, during and after birth. A baby-friendly hospital also agrees not to accept free or low-cost breastmilk substitutes (baby formula), feeding bottles or teats. Baby friendly services work to see that all women, regardless of their feeding method, receive unbiased information, support, and professional advice in their decision to feed their babies.

In May 2023, Pukekohe and Papakura Birthing Units achieved their BFHI reaccreditation after a resubmission of data for the steps not achieved in the initial 2022 assessment. Middlemore Women's Health and Kids First Neonatal continued to work on increasing education hours for staff and raising the exclusive breastfeeding rate on discharge.

In December 2023, when Middlemore resubmitted data to NZBA, the exclusive breastfeeding rate at discharge for 2023 was 76.1%, exceeding the required standard of 75%.

BFHI requires 80% of our staff to have completed the specified education hours. At resubmission 96% of our nonclinical staff, 82% of our midwifery and nursing staff and 89% of our lactation specialists had met their education requirements. Further work is needed to lift the education rate for the medical staff (obstetricians and paediatricians).

To maintain the number of education hours for BFHI accreditation, when planning for 2024 we changed the education schedule to increase the number of opportunities for staff to attend, while still considering staff shortages.

We increased the number of breastfeeding clinics at the primary birthing units. This gave opportunity for lactation specialist support for women antenatally to better prepare women for breastfeeding and to increase the exclusive breastfeeding rate on discharge. Postnatal support in the clinic continues for maamaa and peepi needing support with complex feeding issues.

Our aim is to empower every maamaa to achieve their own individual breastfeeding goals.

▲ *Photo by @lianehelena for @breastfeedingnz*

AUTHOR

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Botany Downs Birthing Unit

Frenotomy and lactation services at Botany

Botany Downs Birthing Unit has offered breastfeeding support and education in a clinic setting for women discharged from hospital since the unit was Baby Friendly Hospital Initiative accredited in 2003.

The clinics, run by a lactation consultant, aim to provide breastfeeding education and support from birth until six weeks postpartum and antenatal breastfeeding education. This is especially important if the woman has struggled with breastfeeding with a previous baby or has a health issue which may affect lactation or breastfeeding. At these appointments, a breastfeeding plan can be developed so that the woman has strategies in place when baby is born.

The clinic also assesses for ankyloglossia (tongue tie). We have recently moved from using the Hazelbaker Assessment Tool for Lingual Frenulum Function to the Bristol Tongue Assessment Tool. These assessment tools have a scoring system, the score is a guide as to whether a frenotomy is needed.

A frenotomy is a minor procedure to cut the frenulum. No anaesthetic is needed in a baby up to six weeks of age. Following a frenotomy, the baby will be encouraged to latch to the breast. Most women notice a difference with a stronger suckle and a more comfortable feeding experience. These babies are followed up a week later to assess the wound site and to check on breastfeeding. For those tongue ties where the frenulum is very tight or thick, a referral is made to the ORL clinic for treatment.

Clinics are held at Botany twice a week, on Wednesdays and Fridays. Twelve months ago, a clinic was also set up at Papakura Birthing Unit to provide the same services to women and babies, they run a full day clinic on Wednesdays.

The clinics are well used by women, with all clinics seeing on average eight to nine women, the maximum number that can be seen is 10.

Future development and outreach of the clinic is important. More support is needed for people to access the clinic for antenatal education and the development of feeding plans before the birth of their baby. This is now even more important as many women have difficulty accessing antenatal education, and also present with health complexities.

▲ *Hannah Young feeding Maeve*

AUTHOR

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Women's Health Research and Audit Committee

Research at Te Whatu Ora Counties Manukau

All health research studies that require Counties Manukau consumers' health data, or access to consumers or staff of Te Whatu Ora Counties Manukau are registered with the Counties Manukau Research Office. Before any research can start, the study must have ethical approval, and endorsement by the Women's Health Research and Audit Committee.

In 2023, there were 29 ongoing research studies involving Women's Health, eight with a gynaecology focus, and 21 with an obstetric focus. All studies active in 2023 are summarised in the table. Approximately half of the studies had a lead investigator from within Counties Manukau. Many of the studies underway have a focus on health equity, and/or conditions that are health priorities for the Counties Manukau population, such as diabetes, endometrial cancer, and reducing perinatal mortality.

A wide range of research studies are in progress at Counties Manukau. These studies will help providers better understand consumer's experience and needs, identify trends and risks for poor health outcomes, and help us understand what treatments or interventions might help the Counties Manukau population.

TABLE 18 ▼

Gynaecology studies at Te Whatu Ora Counties Manukau

GYNAECOLOGY STUDIES	LEAD INVESTIGATOR	TYPE OF STUDY
Evaluation of the implementation of the rapid access clinic at Counties Manukau	**Julia Coffey** Te Toka Tumai	Observational
Maaori and Pacific women's view of endometrial cancer microbiome research	**Roimata Tipene** Waitematā	Observational
Determining equity gaps in endometrial cancer pathways	**Karen Bartholomew** Waitematā	Observational
Outpatient hysteroscopy – patient experience with the rapid access clinic	**Catherine Askew** Counties Manukau	Observational
Endometrial sampling in pre-menopausal abnormal uterine bleeding - is our current endometrial thickness cut off sufficient?	**Nicole Song** Counties Manukau	Observational
Maaori and Pacific women's pre-diagnostic experiences of uterine cancer	**Georgina McPherson** Waitematā	Observational
Opioid prescription and use after surgery	**Andrew McCormack** Counties Manukau	Observational
Human papillomavirus self-testing for cervical screening in an Auckland primary health care network	**Karen Bartholomew** Waitematā	Observational

TABLE 19 ▼

Obstetric studies at Te Whatu Ora Counties Manukau

OBSTETRIC STUDIES	LEAD INVESTIGATOR	TYPE OF STUDY
The BEAD feasibility study: a baby head elevation device at full dilation caesarean section	**Jordon Wimsett** Te Toka Tumai	RCT
C*STEROID	**Katie Groom** The University of Auckland	RCT
Protect ME a randomised controlled trial of antenatal melatonin supplementation in fetal growth restriction for fetal neuroprotection	**Christopher McKinlay** Counties Manukau	RCT
The link between interpregnancy weight change and the onset of gestational diabetes in the second pregnancy	**Rosemary Hall** University of Otago	Observational
What are the social stressors needs amongst people with diabetes in pregnancy	**Charlotte Oyston** Counties Manukau	Observational
Mode of birth and indications for caesarean amongst pregnant patients with diabetes at Counties Manukau	**Silabhakata Livirya** Counties Manukau	Observational
Gestational diabetes mellitus: developing a new model of care	**Jacob Morton-Jones** Counties Manukau	Observational
Views and attitudes of South Auckland women to using smartphone application in the management of their diabetes in pregnancy	**Jasveen Kaur** Counties Manukau	Observational
Impact of COVID-19 on pregnant South Auckland population	**Aimee Brighton** Counties Manukau	Observational
The impact of the COVID-19 pandemic on maternity services in Te Whatu Ora Counties Manukau: A review of maternal and neonatal outcomes before, during and after the pandemic	**Nimisha Waller** AUT University	Observational
Te Tini Roto, Te Tini Ora: waahine perspectives of maternal mental health	**Diana Wepa** AUT University	Observational
The use of sFlt-1/PlGF to guide decision making in the management of preeclampsia	**May Soh** Counties Manukau	Observational
Understanding the placenta	**Larry Chamley** The University of Auckland	Basic science
Enablers and barriers to implementation of the Taonga Tuku Iho best practice guide for preterm birth care	**Judith McAra-Couper** AUT University	Observational
Maternal hypothermia during caesarean section	**Thomas Milne** Te Toka Tumai	Observational
Maternal psoriasis and infant neurodevelopmental outcomes study	**Hannah Jones** Te Toka Tumai	Observational
Perinatal mortality at Te Whatu Ora Counties Manukau	**Lynn Sadler** Counties Manukau	Observational
Screening and assessment of decreased fetal movements in Aotearoa	**Robin Cronin** Counties Manukau	Observational
Has implementation of the fetal pillow at Middlemore reduced maternal morbidity?	**Lynn Sadler** Counties Manukau	Observational
Midwifery research interest project in Counties Manukau Region	**Robin Cronin** Counties Manukau	Observational
Estimating the prevalence of screening positive for and testing positive for sleep apnoea during pregnancy among a sample of people birthing in and around Auckland	**Kathleen Antony** The University of Auckland	Observational

*RCT = Randomised clinical trial AUT University = Auckland University of Technology

7 Primary care and equitable access to contraception

AUTHOR

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Integration with primary care

The Women's Health Team at Counties Manukau recognise the importance of working with primary care in a supportive and integrated fashion. Areas of collaboration include first trimester care, preterm birth, mental health, and access to contraception.

First trimester care

We continue to provide pregnancy packs for all whaanau/people at the beginning of their pregnancy to our hospital services, midwives, and primary health organisations (PHOs) for distribution to practices. These pregnancy packs have pamphlets in them covering many of the essential topics to be discussed at a comprehensive first antenatal visit.

During 2023 the Best Start Pregnancy Tool was amended to become more user friendly and fit for purpose. It was trialled in several practices and is now available for use across all PHOs and practice management systems and is available to midwives. This tool is part of a suite of tools called the Best Start Kōwae that are being developed by National Hauora Coalition; a Maaori PHO supporting the Gen2040 project which aims to provide equity for Maaori by 200 years after the signing of Te Tiriti o Waitangi. The tool helps to ensure the consultation is comprehensive and supports decision making by providing links to other resources. Maaori maamaa and their health care providers receive additional funding when this tool is used. As it is cloud-based, data can be sourced from it to drive quality improvement.

Previously we had been encouraging our GPs to ensure women were booking with their midwife by 10 weeks to get their first trimester screening at the appropriate time, discouraging GPs from ordering the 12-week scan themselves. However, in 2023, with the shortage of midwives in the Counties Manukau area, the communication has changed to please discuss the 12-week screening and, if the woman consents, order the scan and ensure the blood test is completed as well. This information was disseminated during a regional webinar in October 2023.

Initiatives running in primary care to ensure women are booked with a midwife include:

- Midwives integrated into the practice team
- Charge nurses in the primary birthing units are acting as a conduit between waahine/people and Lead Maternity Carers (LMCs), and particularly those LMCs who work in the birthing units or work locally. This not only helps waahine/people find a midwife but provides place-based care and supports the consideration to birth at a primary birthing unit
- The Early Pregnancy Midwifery Care Service (EPMCS) is a group of midwives who provide first trimester care and a navigation service for waahine/people. They take referrals from several groups of GPs and from the community. This service is available in Maangere which is an area of high social complexity
- One PHO is providing a support/navigation service for waahine/people under 20 to ensure they are engaged in care and attend all their appointments, scans, and immunisations up to six weeks post birth
- If a waahine/person is unable to find a midwife an e-referral is sent to Women's Health where Maternity Administration will try to find an LMC or will make a booking with a community midwife.

Preterm birth

Preterm birth is a leading cause of perinatal mortality and morbidity and many of the interventions likely to reduce rates of spontaneous preterm birth need to happen early in the pregnancy. The Carosika Collaborative held an online education session in 2023 and in 2024 will be presenting and workshopping on first trimester enrolment and the first antenatal visit in Counties Manukau. This collaborative has a major focus on equity and whaanau voice and the outcome of this work is expected to affect ongoing care. All the above strategies that improve the quality of the first antenatal visit, the provision of high-quality care until it can be transitioned to a midwifery service, and that support that transition, are likely to reduce preterm birth.

Mental health

Waahine/people who present to primary care with severe depression, severe anxiety or psychosis during pregnancy or after birth are referred to Maternal Mental Health, using the e-referral system, or to the mental health crisis team if more acute care is needed.

Multiple mental health services are available within primary care for waahine/people who present with mild to moderate mental health problems.

The Integrated Primary Mental Health and Addiction programme provides Health Improvement Practitioners (HIP) and health coaches to many of the practices in Counties Manukau. The HIPs are people trained in mental health consultations and the health coaches provide support and nonspecific advice.

In Counties Manukau the Wellness Programme funds primary care for multiple consultations with either a general practitioner or a nurse. These consultations include an assessment, a variety of interventions, such as activity planning or breathing exercises, and medication if needed. The programme also provides psychological counselling if required after three practice visits, or sooner if considered appropriate. Much of the counselling uses cognitive behavioural therapy.

In those practices that work closely with midwives the referral process can be seamless, however there can be barriers to accessing this care depending on systems within practices.

Contraception

In Counties Manukau the Contraception Access Program (CAP) developed six workstreams. One of these was within maternity services and it has been described elsewhere. The other workstreams were Youth health, Primary Care, Training, Evaluation, and Community awareness raising.

The Counties Manukau Contraception Service worked with "Protected and Proud" from the Bay of Plenty to further develop their website which has now become a national resource. The website has been codesigned and has contraception information along with a map of the Auckland region showing every practice where there is a free contraception service available. Postcards are available with a QR code to link to the website.

The 2019 to 2022 evaluation of the Long-acting Reversible Contraception (LARC) Programme had 46 different recommendations to provide improvements on a variety of levels including nationally. These recommendations were considered through 2023 and some of the suggested changes have been instituted. Providing a culturally safe service is an ongoing concern.

Training for LARC inserters has continued with a full day at Maangere on a Thursday and some clinics also being held on Saturday mornings at Manukau Health Park and Botany SuperClinic. Fourteen clinicians were trained in 2023 to provide 19 different procedures. This training is provided for GPs, nurses, and midwives in IUCD insertion, contraceptive implant insertion and contraception implant removal.

In 2023 it was found that clinicians presenting themselves for clinical training were not skilled in having contraception conversations and this was affecting the time trainees could spend on their clinical skills in the clinic. A training session was run, separate to the clinical training opportunity, where health professionals could practice having contraception conversations in a culturally safe way, regardless of whether they wanted to progress becoming a LARC inserter. These training sessions are now being held quarterly and include opportunities to practice on models for those who want to progress to clinical training. Ongoing education is required, particularly to encourage health professionals to initiate contraception conversations early, so waahine/people are aware of their options and can have their contraception needs met promptly after giving birth.

There are 84 LARC inserters in the Counties Manukau area, made up of 61 doctors, 22 nurses and one midwife. Further work is needed to ensure the distribution of health professionals reflect the areas of need in the community so all waahine/people can access LARC.

The training clinic accepts many of their referrals from the post-natal ward contraception service, made prior to discharge from the ward, and from midwives. There is about a two-week wait to be seen. The training clinic also accepts referrals from women in the community who self-refer and from primary care practices who do not provide a LARC service. Alternatively, waahine/people can access a free service in primary care.

Aside from CAP there is funding available in Counties Manukau for all post-natal women to access free contraception in primary care within six months of giving birth.

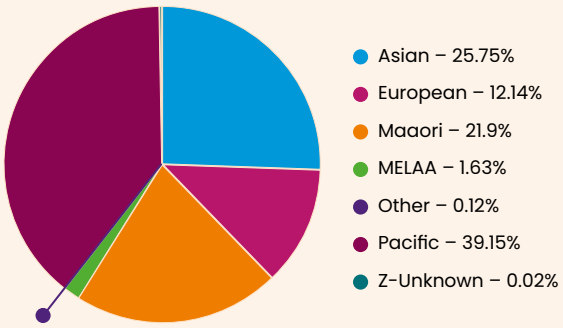
The services provided under CAP in 2023 are given below, including data on ethnicity and age:

FIGURE 39 ▼

Maternity Services CAP activity

TOTAL	CONVERSATIONS	INSERTIONS	REMOVALS	JADELLE REMOVAL	MIRENA REMOVAL	IUCD REMOVAL	UNSPECIFIED 'DOUBLE' PROCEDURES
SELECTED	5161	632	241	7	1	1	232

LARC activity by ethnicity



LARC activity by age

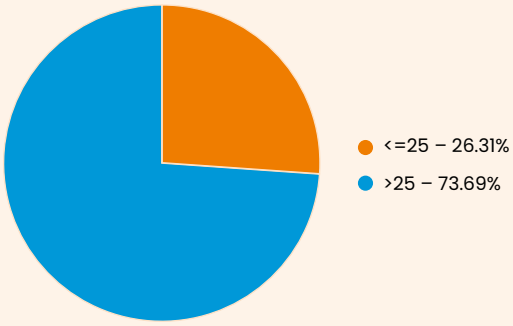
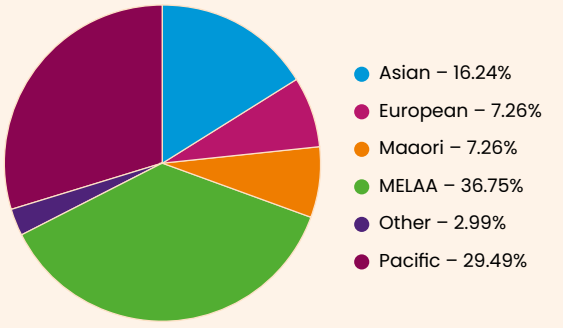


FIGURE 40 ▼

CAP activity at community (training) clinics

TOTAL	CONVERSATIONS	INSERTIONS	REMOVALS	JADELLE REMOVAL	MIRENA REMOVAL	IUCD REMOVAL	UNSPECIFIED 'DOUBLE' PROCEDURES
SELECTED	234	109	26	15	8	3	0

LARC activity by ethnicity



LARC activity by age

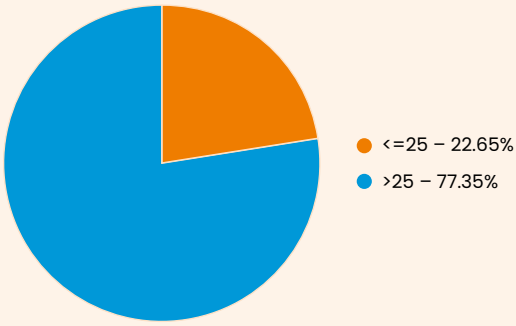
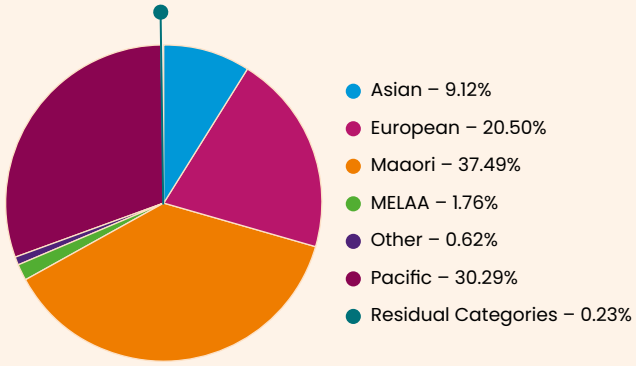


FIGURE 41 ▼

CAP activity at schools

TOTAL	CONVERSATIONS	INSERTIONS	REMOVALS	JADELLE REMOVAL	MIRENA REMOVAL	IUCD REMOVAL	UNSPECIFIED 'DOUBLE' PROCEDURES
SELECTED	1783	144	8	5	0	1	2

LARC activity by ethnicity



LARC activity by age

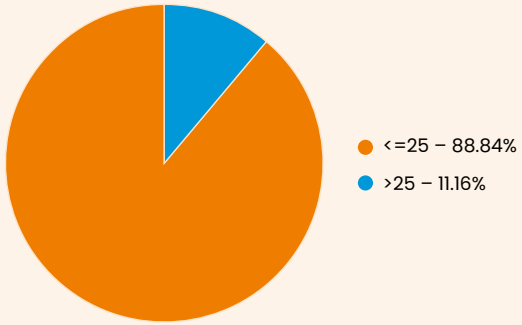
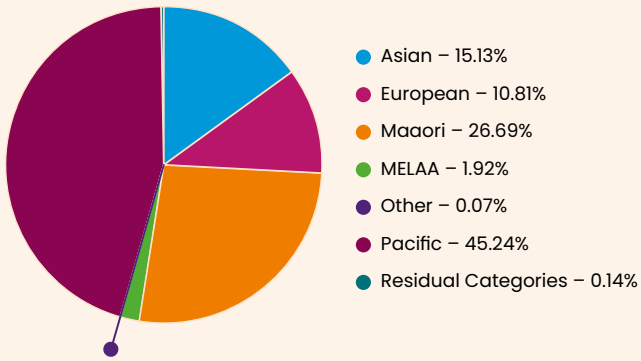


FIGURE 42 ▼

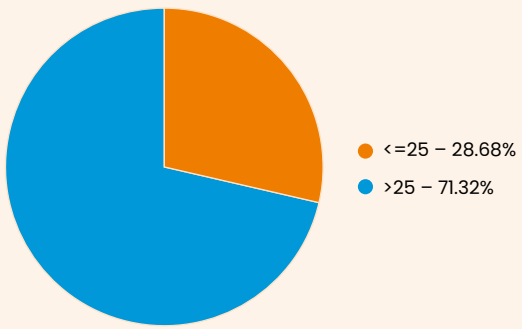
CAP activity at PHOs

TOTAL	CONVERSATIONS	INSERTIONS	REMOVALS	JADELLE REMOVAL	MIRENA REMOVAL	IUCD REMOVAL	UNSPECIFIED 'DOUBLE' PROCEDURES
SELECTED	1461	365	661	391	31	162	77

LARC activity by ethnicity



LARC activity by age



The opportunity to work closely between Women's Health in Hospital and Specialist Services and Primary Care has produced multiple opportunities to synchronise activities and share learnings. For example, while our SMO colleagues are often our subject matter experts on our health pathways, they are now at times using these pathways in their guidelines. Working in an integrated and collaborative manner will improve outcomes for the community we serve.

AUTHOR

AMANDA HINKS
Maternity Service Development Manager/
Service Manager Primary Birth Units

Increasing access to contraception during the postnatal period

Access to effective and timely contraception helps women | waahine and whaanau to plan their pregnancies, and so provide the best 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 service at Middlemore Hospital. Funded vasectomies are available for men | taane who seek this method of contraception after the birth of a baby or termination of pregnancy.

The nurse-led service is provided by 2.7 full-time equivalent (FTE) staff positions, filled by two registered general nurses and a clinical nurse specialist (contraception). The service has employed an enrolled nurse who speaks Samoan and helps with conversations. The service aims to support this role to further develop skills to support the service. One registered nurse can speak Hindi which again helps supports the kaupapa of the service. All three registered general nurses are skilled subdermal implant inserters, two can remove implants and two can undertake cervical smear tests. The clinical nurse specialist role prescribes in the community, provides cervical screening, diagnoses, and treats sexual health conditions for those who attend the clinic.

Together, the contraception nurses provide a seven-day service based on the postnatal floor at Middlemore Hospital, and outreach clinics at two of the three Counties Manukau birthing units. The clinical nurse specialist role provides the service at the birthing units and at a Pacific-led midwifery clinic.

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 provide information to build on health literacy where applicable, and support decision-making that is tailored to the individual whaanau and waahine.

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.

FIGURE 43 ▼

Ethnicity of people receiving postpartum sub-dermal implants at Middlemore in 2023

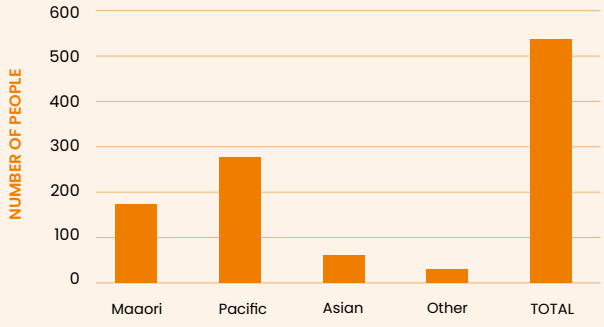


FIGURE 44 ▼

Quintile of people receiving postpartum sub-dermal implants at Middlemore in 2023

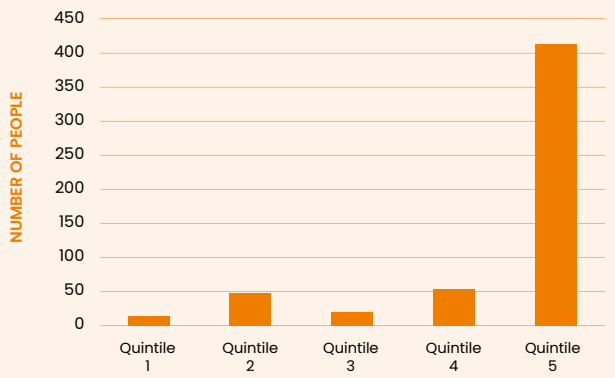


FIGURE 45 ▼

Ethnicity of people accessing LARC at a contraception clinic in 2023

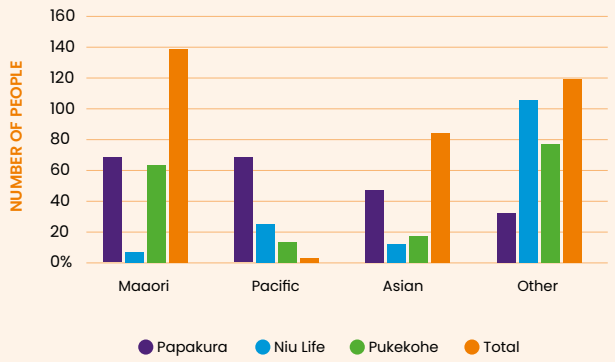


FIGURE 46 ▼

Quintiles for people accessing LARC at a contraception clinic in 2023

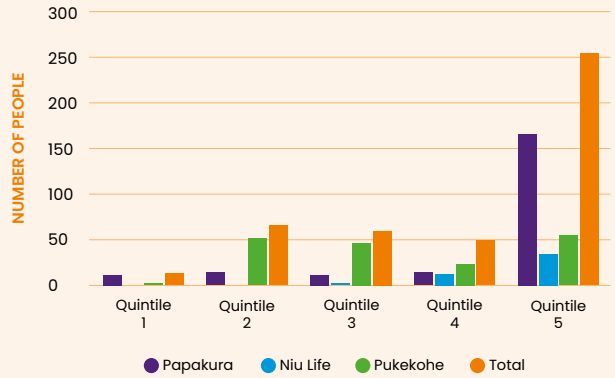
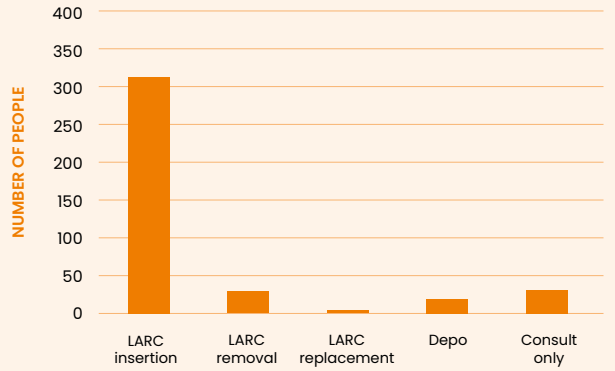


FIGURE 47 ▼

Procedures undertaken at outpatient clinics in 2023



Access to funded vasectomy

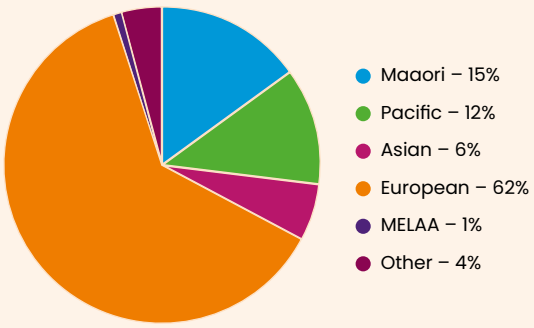
Vasectomy has been available as a funded contraception option at Counties Manukau Health since 2015. Vasectomy is recognised as a safe, effective, and timely option for people who have completed their family.

By providing this service we are supporting waahine who might otherwise need 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 waahine and their partners a vasectomy is more acceptable.

From January 2023 to December 2023, 150 funded vasectomy procedures were undertaken on eligible taane. Taane receiving the funded procedure must live in the Counties Manukau 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 six months have received, care under Counties Manukau maternity services; or be seeking a termination of pregnancy; or be seeking a tubal ligation.

FIGURE 48 ▼

Funded vasectomies by ethnicity in 2023



Strategies to reduce barriers and support access to contraception

The growth and development of the nurse-led contraception service since its start in 2019, shows that we are more effectively meeting the needs of people seeking contraception information and methods. The service shows that actively reducing barriers to care has increased equitable access to contraception.

For the future, we intend to use the following strategies to continue to reduce these barriers and enable more waahine and whaanau to access effective timely contraception that suits their needs:

- hiring people who support the kaupapa of the service
- taking a 'no door is the wrong door' approach to how people access the service
- continuing to embody whakawhanaungatanga
- making greater use of electronic referrals and acknowledgements
- providing clerical support for nurses, including making calls, negotiating appointment times and handling triage queries.

AUTHOR

MAGGIE WALKER
Midwife Specialist

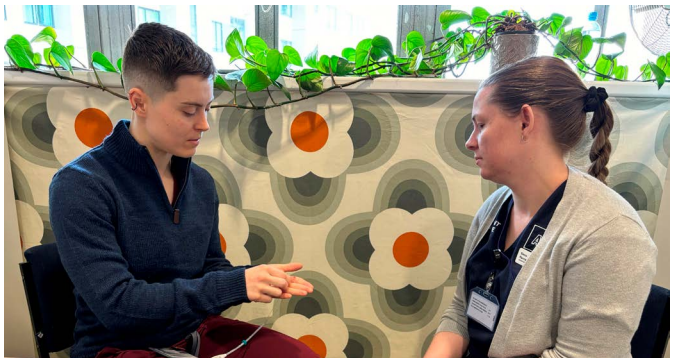
Community long-acting reversible contraceptive (LARC) training programme

In July 2023 I began working with Counties Manukau Community LARC Training program and was welcomed into the small team of GPs and nurses working across different sites in South Auckland to provide LARC clinics to train and accredit providers.

Contraception has been a focus of my midwifery practice since 2019 in Canada. I have learned and practiced contraception provision in several contexts: as a Lead Maternity Carer for my own clients, in a humanitarian context in Latin America, and here in Counties Manukau in Women's Health. Upon starting work at Middlemore in 2022, I noticed that individuals who are discharged to a birthing unit or home from the birthing unit often miss out on thorough contraceptive counselling and provision. I gained my Te Whatu Ora Jadelle insertion/ removal and IUCD insertion/removal certificates via the "experienced clinicians" pathway to be able to provide this care opportunistically on the birthing unit.

I began to run a trainer LARC clinic once per month on Saturday mornings. During this clinic I attend LARC-seekers during their postnatal period and supervise clinicians learning how to insert and remove LARC devices. Trainees may be general practitioners, nurses, or midwives. To become accredited to provide these methods, trainees must complete a recognized program and supervised insertions/removals. Some clinicians train to provide just contraceptive implants (Jadelle) while others train in both contraceptive implant and intrauterine device insertion (Mirena, Copper IUDs). Though a LARC insertion itself often only takes a few minutes, each appointment is allotted at least 45 minutes to allow time for detailed counselling and for the training clinician to practice their new skills. Choices around family planning are complex and effective counselling helps individuals make the best choices for themselves and their whaanau.

Maggie Walker discussing contraception with student midwife Siana Harris



In Aotearoa it is estimated that around half of all pregnancies are unplanned (Thomas et al., 2023). Around the world, human rights groups and medical societies recognize the right to be informed and have access to safe, effective, affordable, and acceptable methods of contraception.

In Aotearoa, contraceptive needs of Maaori and Pacific peoples are less likely to be met than those who are non-Maaori and non-Pacific (Thomas et al., 2023). The community LARC program is free for those who meet one of the following eligibility criteria: Maaori or Pacific, under 25 years old, live in a quintile five (most deprived) area, hold a Community Services Card, or are at high risk of unplanned pregnancy and poor health or social outcomes (Protected and Proud, 2024). Providing free contraceptive counselling and LARC insertions to individuals while also capacitating other clinicians is satisfying, necessary work.

References

Protected&Proud - Me aro koe ki te hā o Hineahuone. (2024, May 23). *Home - Protected&Proud*. Protected&Proud. https://www.protectedandproud.nz/

Thomas, C., Braund, R., Bowden, N., Hobbs, M., Kokaua, J., & Paterson, H. (2023). Disparities in utilisation of combined oral contraceptives in Aotearoa New Zealand: A cross-sectional whole-of-population study. *The Australian and New Zealand Journal of Obstetrics and Gynaecology, 63*(3), 441–447. https://doi.org/10.1111/ajo.13672

8 Perinatal complexities

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Perinatal loss service and perinatal outcomes

Women's Health at Counties Manukau has continued to report on perinatal related mortality (perinatal losses) to the Perinatal and Maternal Mortality Review Committee (PMMRC) through 2022 and 2023. This information contributes towards an understanding of the differences in perinatal loss rates over time and across Aotearoa New Zealand. We have also (since 2022) started to collect and review our data locally, in order to more fully understand the outcomes that standout from the rest of the country.

A perinatal loss is the death of a baby, either in the womb or as a liveborn, from 20 weeks gestation until 28 days of life. It includes termination of pregnancy for any indication.

We acknowledge the mothers, their whaanau and especially their peepi whose lives and loss have contributed to this report.

Figure 49 demonstrates perinatal mortality rates from 2008 to 2023.

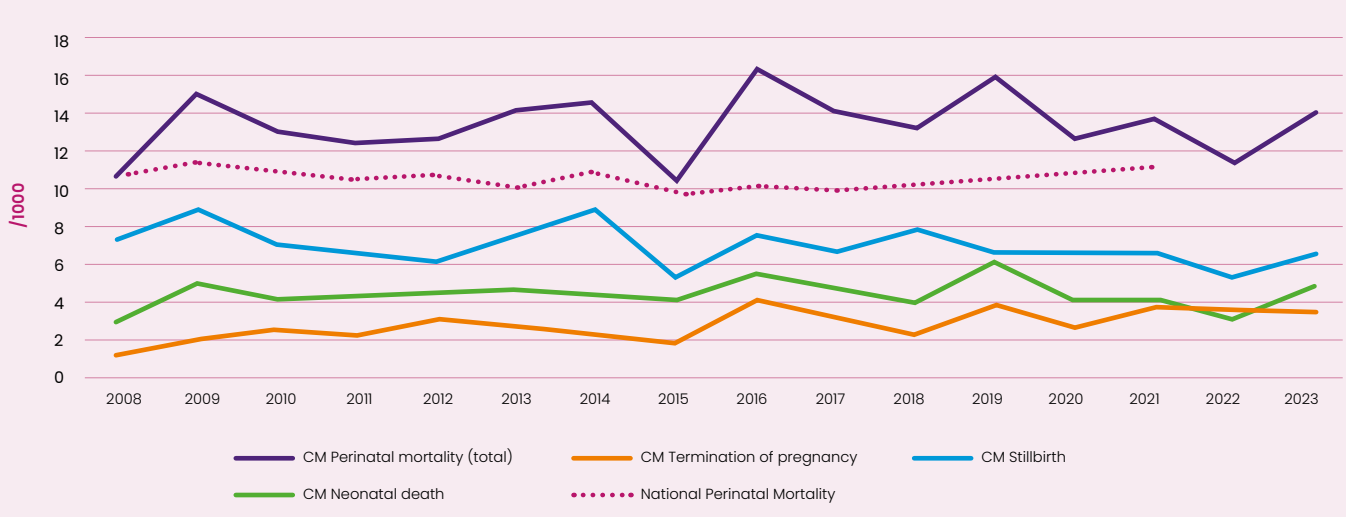
As shown in Figure 49, the overall Counties Manukau perinatal loss rate has been above the national rate since 2008 but has not risen or dropped significantly over this time.

There has been a rise in termination of pregnancy from 1/1000 to 3/1000 live births. This may be partly attributed to the legislation changes around abortion care in 2020.The stillbirth rate is trending down while the neonatal death rate has remained stable.

All perinatal deaths in Australia and New Zealand are classified according to the Perinatal Society of Australia and New Zealand (PSANZ) Classification system for stillbirth and neonatal deaths. This allows for comparison within and between regions. Figure 50 shows the rates of perinatal loss at Counties Manukau, compared to the average national rate, against major classifications for cause of death.

FIGURE 49 ▼

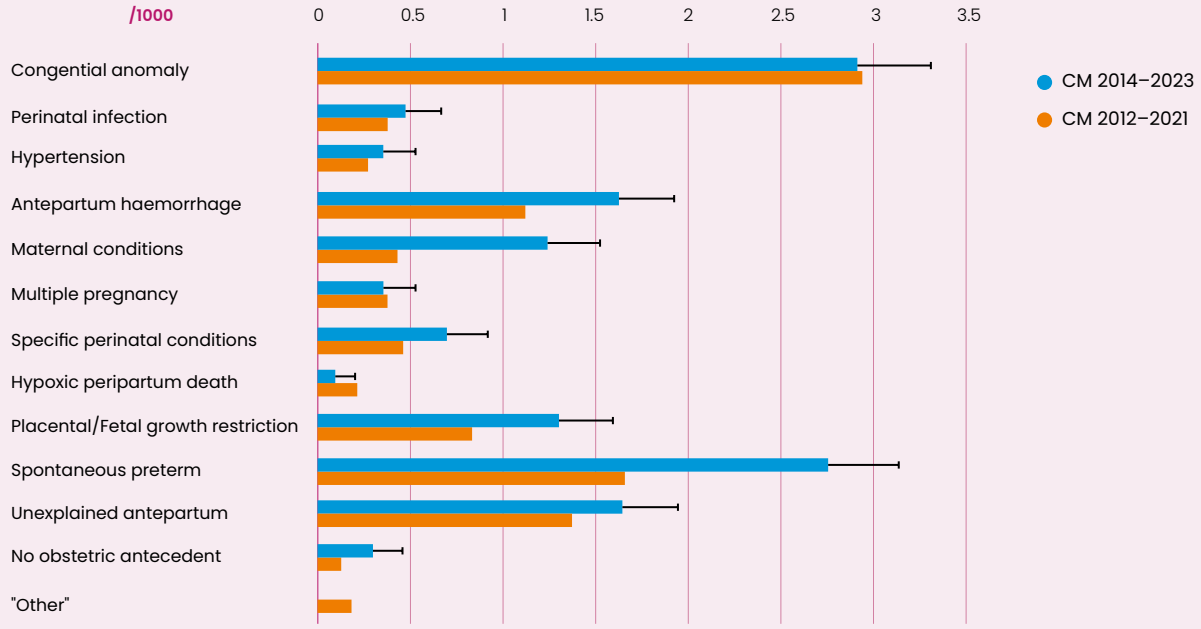
Annual perinatal-related mortality at Counties Manukau facilities compared to national rates



Source: PMMRC data; CM Health BadgerNet

FIGURE 50 ▼

Counties Manukau and national perinatal-related death rates, by Perinatal Society of Australia and New Zealand cause of death classification (95% confidence intervals around Counties Manukau rates)



As in 2021, Counties Manukau continues to report similar or higher rates for all classifications when compared to the national rates except for hypoxic peripartum death. Antepartum haemorrhage, maternal conditions and spontaneous preterm birth continue to be significantly increased when compared with national rates. Spontaneous preterm birth and congenital anomaly are the two equal leading causes of perinatal loss.

Spontaneous preterm is defined as labour or rupture of membranes prior to 37 weeks gestation.

Further analysis of this data for 2022 and 2023 identifies that 17 of 36 (47%) of women experiencing a spontaneous preterm birth were in their first ongoing pregnancy. Reviewing the gestational age at birth for these babies, 18 (50%) were born between 20- and 22-weeks' gestation, with a further 12 (33%) born at 23-24 weeks.

Prediction of preterm birth is difficult, although a history of prior preterm birth is a recognised risk factor. Our Preterm Birth clinic offers care for women with defined risk factors, including a prior preterm birth, from the start of the second trimester. The clinic has defined criteria and is unable to meet demand.

Modifiable risk factors for preterm birth include maternal cigarette smoking, substance misuse and infection (asymptomatic bacteriuria and sexually transmitted infection).

Demographic risk factors, such as socioeconomic disadvantage are more difficult to modify but are of high importance in our community.

We are excited to be part of the Carosika Collaborative, a national transdisciplinary group which works across the maternity sector to improve the care and outcomes for preterm birth, focusing especially on equity for all whaanau.

Recommendation Two from the 15th Annual PMMRC report (March 2024) is for: *Government agencies to recognise and address the impact of socioeconomic deprivation on perinatal death, specifically on preterm birth, which is the leading cause of perinatal death after congenital abnormality*.

Other contributions in this report describe the work that Counties Manukau Women's Health is undertaking to try and alleviate the impact of these risk factors in our community.

The perinatal loss team is a multidisciplinary team consisting of midwives Lisa McTavish and Maggie Walker, supported by the Maternal Fetal Medicine Team (Renuka Bhat, Dereck Souter, Emma Ellis and Christina Tieu) and obstetricians Charlotte Oyston and Sarah Wadsworth. We acknowledge and thank Dr Lynn Sadler for her assistance in preparing the data for this report.

AUTHORS

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Acting Clinical Head of Perinatal Mental Health Services

YAHNINA HUTCHINGS
Team Manager Mental Health and Addictions

CHAITALI TAILOR
Clinical Coordinator and Registered Nurse

Maternal mental health — secondary services

The Maternal Mental Health (MMH) service receives referrals from various care providers including midwives, GPs and Plunket. Historically, midwives were not able to refer directly to Maternal Mental Health. To try and support equity, particularly for Maaori and Pacific whaanau, referrals are accepted from midwives rather than requiring all whaanau to access a GP prior to review.

The Te Whatu Ora Counties Manukau Adult Mental Health Service has a central triage system. All routine, non-acute referrals are triaged by Referral Management System (RMS) and acute presentations with risk concerns are triaged by Intake and Assessment (I&A).

Referrals that meet the criteria for secondary mental health care (70-80%) are sent to the MMH team for review. When a referral is received by MMH from RMS or I&A, all cases are reviewed and either accepted for secondary care or referred to the care of the GP with recommendations of available support in the community. MMH accepted 261 referrals in 2023.

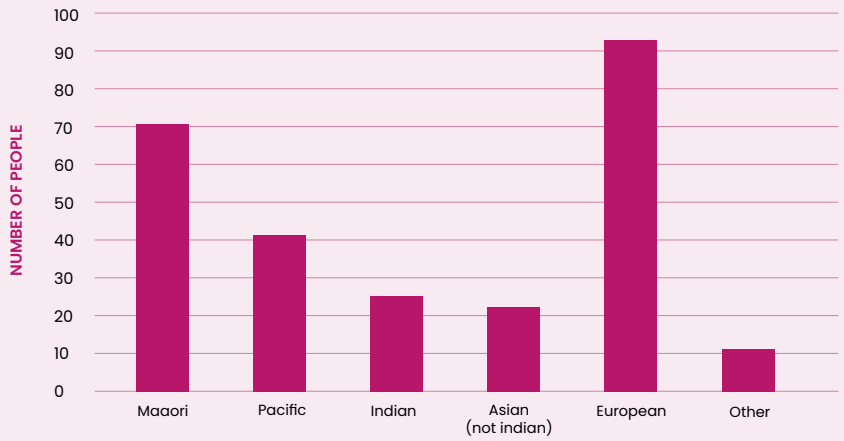
▲ *Maternal mental health team*

L to R – Standing: Letta Etimani (Social work student), Alayna Brooks (Registered Nurse), Cathy Laing (Social Worker), Joy Hodgson (Psychiatrist), Anna Hawkins (Clinical Psychologist), Marianne Trebett (Social Worker), Katrina Bal (New Graduate Registered Nurse)

L to R – Front row: Chaitiali Tailor (Registered Nurse Clinical Coordinator), Lorraine Perino (Peer support specialist), Meggan Lam (Infant Clinical Psychologist), Nicola Rikys (Registered Nurse), Yahnina Hutchings (Team Manager)

FIGURE 51 ▼

Maternal Mental Health 2023 accepted referrals by ethnicity



MMH accepts referrals usually in the first trimester of pregnancy and in the postnatal period. Sometimes referrals for fathers whose mood is affected following the birth of a baby are also accepted. MMH usually looks after people until their baby is a year old, then either discharges them to the care of their GP, usually in conjunction with support from primary care and/or non-government organisations. If secondary mental health care is still indicated, the person is transferred to the Adult Mental Health Service.

The complexity of care provided by the MMH service is increased by the impact of other social determinants of health which affect many Counties Manukau whaanau. The MMH team work closely with several providers across the region eg, Mahitahi Trust, Penina Trust, Family Success Matters, Ohomairangi Trust and Well Women Franklin. They have built close relationships with these providers and work together to support and meet the social needs of whaanau under their care. The aim of working with community providers is to improve integrated care. Community providers are also challenged by staff turnover and staff shortages.

In 2023 a peer support worker was employed to support clients within the MMH service. Peer support workers use their lived experience to foster trust and understanding of the service. The goal of peer support is to improve engagement specifically with Maaori and Pacific peoples where there is more stigma and resistance towards acceptance of mental health services.

Peer support workers provide valuable input into tailored treatment plans and are an important voice within the multi-disciplinary team. There are plans to include the peer support voice in service design and service delivery to ensure a more responsive and culturally safe service.

The MMH team does not have access to data related to whaanau who were declined by RMS/I&A at the first triage.

Anecdotal evidence of improved MMH outcomes is discussed and reviewed regularly by the multi-disciplinary team. The MMH service discharged 311 whaanau from its care in 2023. Although discharges include people who decline care, are lost to follow up, are transferred to the Counties Manukau Adult Mental Health Service or move to another Te Whatu Ora district, most were discharged following an improvement in their mental health.

AUTHORS

CHARLOTTE OYSTON
Obstetrician and Gynaecologist

HEENA LAKHDHIR
Senior Lecturer

Preterm birth – audit in 2023

Preterm birth is birth that occurs before 37 weeks' gestation. The earlier a baby is born, the more likely they are to experience serious and/or long-term health complications or die from complications relating to being born too early. Preventing preterm labour and birth and ensuring that whaanau at risk of preterm birth get the best, gold-standard care is important for improving outcomes.

Spontaneous preterm birth is a major contributor to perinatal mortality at Te Whatu Ora Counties Manukau.

In 2023, we conducted an analysis of all perinatal mortalities (stillbirths and neonatal deaths) that occurred amongst babies born at a Counties Manukau facility between 2008-2021 . Spontaneous preterm birth was the second most common cause of perinatal related mortality. Perinatal related mortality due to spontaneous preterm birth at Counties Manukau was 1.6 times higher than the national average - 2.6 vs 1.6 /1,000 births. Most of these deaths occurred in babies born before 25 weeks' gestation. Rates of perinatal related loss due to spontaneous preterm birth increased over time for whaanau Maaori but remained the same among people of Pacific, Indian, and all other ethnicities. The differences observed are not caused by ethnicity as such but result from systemic issues that affect social determinants of health and accessibility of care, resulting in advantage of some groups over others (Oyston, Cronin et al, 2024).

Audit in pre-term birth

We have conducted a set of audits focussing on prevention of preterm birth, best practise care in preterm birth, and postpartum counselling of those who have had preterm birth. These are summarised in table 20. All audits relate to the period of 1 January 2023 – 31 December 2023 and were undertaken by sixth year medical students (University of Auckland) as part of their Obstetrics & Gynaecology rotation, supervised by Dr Charlotte Oyston.

These findings lay out a challenge for the Women's Health service at Counties Manukau and other care providers for whaanau Maaori. There is an urgent need to ensure that there is equitable access to best practice care, and to develop and invest in models of care that provide equitable outcomes for hapuu maamaa.

Audits show achievements by Counties Manukau in the high proportion of those administered of antenatal corticosteroid and magnesium sulphate prior to preterm birth and high rates of postpartum contraception counselling. Areas for quality improvement which should be prioritised include early screening for urinary or cervical infections, improving rates of cord clamping after 60 seconds following preterm birth, and improving postpartum review and counselling of those who have experienced a preterm birth.

References

Oyston C, Cronin R, Wadsworth S, Yates L, Okesene-Gafa K, Davies D, Bollard S, McKinlay C, O'Brien A, & Sadler L. (2024). Perinatal Mortality at Te Whatu Ora Counties Manukau. Oral. *Journal of Paediatrics and Child Health*, 60: 4-38. https://doi.org/10.1111/jpc.16525

TABLE 20 ▼

Preterm birth research	
ARE THOSE AT HIGH RISK OF PRETERM BIRTH BEING OFFERED EARLY SCREENING FOR VAGINAL/CERVICAL AND INFECTIONS?	
Authors	Darrian Pearse, Nyasha Chileshe
Rationale	Bacteriuria and cervical/vaginal infections are risk factors for preterm birth. Delayed recognition and treatment may lead to worse outcomes.
Target	100% of women at high risk of preterm birth should receive screening with vaginal swabs and mid-stream urine samples sent, prior to being seen in specialist clinic.
Findings	A random sample of 103/169 women who were seen in preterm birth clinic in 2023. Only 58% of those seen had had vaginal swabs and urine samples sent prior to their appointments. Screening rates were highest for persons of Maaori (62.5%) and Asian (62.7%) ethnicity.
Commentary	Urine/cervical infections are easily identified and treated. Reported rates of early screening are very low in this high-risk group. Screening prompts as part of the referral may improve rates.
ANTENATAL CORTICOSTEROIDS AND MAGNESIUM SULPHATE USE PRIOR TO LIVEBIRTH <30 WEEKS' GESTATION	
Authors	Ravishka Arthur, Jamie Cornes
Rationale	Administration of antenatal corticosteroids before preterm birth is crucial for reducing neonatal morbidity and mortality. Administration of magnesium sulphate prior to preterm birth before 30 weeks' has been shown to reduce the risk of cerebral palsy and death in newborn infants.
Findings	In 2023 there were 54 births before 30 week's gestation eligible for inclusion. 72% of women received a full course of corticosteroids within seven days prior to giving birth. Most (73%) of those who did not receive a full course of steroids gave birth after one dose (before a full course could be completed). 78% of women received at least a loading dose of magnesium sulphate within four hours of birth. Administration was similar across all ethnic groups.
Commentary	The proportion of those receiving steroids and magnesium sulphate is higher than previous audits at Counties Manukau and is commendable.
USE OF ANTIBIOTICS FOR PEOPLE IN PRETERM LABOUR <32 WEEKS' GESTATION	
Authors	Olivia Ray, Yeomans Vaamainuu
Rationale	Group B streptococcus (GBS) is the leading cause of severe neonatal infection. Use of appropriate antibiotics during preterm labour reduces the likelihood of early onset infection
Target	95% of people who go into labour before 32 weeks' and intend to delivery vaginally, should be provided with IV antibiotic prophylaxis in labour to prevent GBS infection in the neonate
Findings	In 2023, there were 25 women who were in labour at less than 32 weeks,' with the intention of delivering vaginally. Most (21/25, 88%) received appropriate antibiotic coverage.
Commentary	An antibiotic protocol which is time consuming to administer may contribute to inadequate GBS prophylaxis. The department is exploring alternative preparations to improve compliance.

ARE INFANTS BORN <32 WEEKS' GESTATION HAVING >60 SECONDS DEFERRED CORD CLAMPING?	
Authors	Samantha Taveras, Casey Mansson, Soana Motuhifonua
Rationale	Deferring cord clamping until more than 60 seconds after birth has significant benefits for preterm babies.
Target	85% of babies born before 32 weeks' have the umbilical cord clamped more than 60 seconds after birth.
Findings	There were 86 live births of babies before 32 weeks' gestation in 2023. Of 71 births meeting inclusion criteria, deferred cord clamping of 60 seconds, or more was only performed in 56% (40/71 cases). Rates of deferred cord clamping of more than 60 seconds were similar amongst ethnic groups.
Commentary	The rates reported in this audit are similar to those reported in Te Toka Tumai in 2021 and 2022. There is opportunity for improvement. Education on deferring cord clamping should be provided to staff attending preterm births.
POST-PARTUM COUNSELLING FOLLOWING PRETERM BIRTH <32 WEEKS' GESTATION	
Authors	Carolyn Matthew, Cavaghn Prosser
Target	100% of those giving birth before 32 weeks' should be seen by a consultant or registrar postpartum and counselled on their future risk of preterm birth.
Findings	In 2023, 79 women gave birth before 32 weeks' who could potentially conceive again. Only 34/79 (43%) were reviewed by an SMO/registrar postpartum. All received counselling on pregnancy interval and contraception, but only 15/79 (19%) received advice regarding preterm birth clinic referral.
Commentary	It is commendable to see high rates of contraception and pregnancy spacing information being provided. The proportion of persons receiving advice on preterm birth clinic referral has risen from 7% in 2019. Ways of improving postpartum counselling and information sharing are required to better inform those at risk of preterm birth.

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Diabetes in pregnancy services

The Counties Manukau diabetes in pregnancy service provides healthcare to pregnant people living with pre-pregnancy diabetes (type 1 or type 2 diabetes), and people who develop gestational diabetes during pregnancy.

Workforce in 2023

Our service is run by staff across several disciplines, and currently includes physicians (0.4 full time equivalent [FTE]), a health psychologist (0.1 FTE), diabetes in pregnancy midwife specialists (4.6 FTE), dieticians (0.4 FTE), and community health workers (2 FTE). It is noted that these are significantly below the workforce recommendations for diabetes in pregnancy care, which for Counties Manukau are equivalent to 1.9 FTE for physicians, 6.6 FTE for midwives, 5.7 FTE for dieticians, 2.3 FTE for psychology, and 1.7 FTE for social work (HSE Diabetes in Pregnancy Model of Care Working Group, 2024).

▼ *Diabetes midwives*

L to R – Diane Selves (Diabetes specialist midwife), Kathy Frank (Diabetes specialist midwife), Sarah Vaafusuaga (Diabetes specialist midwife), Carmensita Sauni (Community health worker), Mele Fakaosilea (Community health worker), Jolene Morel (Diabetes specialist midwife), Lynn Cui (Diabetes specialist midwife)

Summary of pregnancy outcomes in 2023

In 2023, the diabetes in pregnancy service provided care for 955 pregnancies that went on to deliver at Middlemore Hospital or an associated birthing unit. There was a total of 976 births to mothers with diabetes in pregnancy, including 21 sets of twins and 934 singleton births. Almost three-quarters of people receiving care by the diabetes in pregnancy service had gestational diabetes (GDM: 696/955, 73%). Maternal and neonatal outcomes are summarised in the following tables.

TABLE 21 ▼

Birth interventions and outcomes among people with diabetes delivering at Middlemore or an associated unit, 1 January–31 December 2023

	GDM N = 696	PRE-PREGNANCY DIABETES N = 259	TOTAL N = 955
Induction of labour	421 (60%)	125 (48%)	546 (57%)
Preterm birth			
Gestation at birth <32 weeks'	7 (1%)	12 (5%)	19 (2%)
Gestation at birth <37 weeks'	76 (11%)	82 (32%)	158 (17%)
Mode of birth			
Spontaneous vaginal birth	302 (43%)	92 (35%)	394 (41%)
Operative vaginal birth	73 (10%)	18 (7%)	91 (10%)
Caesarean section – emergency*	114 (16%)	51 (20%)	165 (17%)
Caesarean section – elective*	207 (30%)	98 (38%)	305 (32%)

*emergency = booked as category 1 or 2, to be completed within 60 minutes, elective = booked as category 3 or 4, to be completed within 24 hours, or at a time in the future

TABLE 22 ▼

Neonatal outcomes of babies born to people with diabetes delivering at Middlemore or an associated unit, 1 January–31 December 2023

	GDM N = 715	PRE-PREGNANCY DIABETES N = 261	TOTAL N = 976
LGA >90th centile	147 (21%)	64 (25%)	219 (22%)
SGA <10th centile	79 (11%)	39 (15%)	119 (12%)
Perinatal related loss (Per 1,000 births)	3 4/1,000	7 27/1,000	10 10/1,000

Audit – pregnancy readiness

Audit conducted by medical students from The University of Auckland: Jasmine Druskovich, Ella Birch, Elena Edgar-Nemec and Mia Kelly, supervised by Dr Charlotte Oyston.

Rationale

Pre-pregnancy care for those with known medical diseases, such as diabetes, is an area of focus for Te Whatu Ora. To achieve best outcomes for pregnancy, blood glucose levels should be within target range before pregnancy. National and international guidance is that women with diabetes who are planning a pregnancy should have HbA1c levels monitored 1-3 monthly, with a target of less than 48 mmol at the time of conceiving.

Findings

Between 1/1/22 and 30/6/2023, 266 patients with diabetes gave birth after 20 weeks' gestation. Of these, 55% had any HbA1c testing within three months prior to conception, 16% had a level below the target (less than 48 mmol).

Conclusion

There is an urgent need to improve pregnancy readiness in those with pre-existing diabetes. It is expected this will lead to improved outcomes.

Improving care – research in diabetes in pregnancy at Te Whatu Ora Counties Manukau

In 2023, two research studies were completed that highlight the experiences of women who had care through our Diabetes in Pregnancy Service.

- The first study emphasised the importance of midwives in diabetes pregnancy care, but also identified need for better birth preparation (Bradford et al., 2024).
- The second described a desire for flexible, culturally appropriate and family/whaanau inclusive care (Morton-Jones et al., 2023).
- Both studies identified the need for more culturally appropriate diet and lifestyle information and expanded postpartum diabetes support.

What will be new in 2024?

- Continuous glucose monitors are a wearable patch that measure blood glucose levels. These devices will be funded for people with type 1 diabetes from October 2024. Their use is likely to improve pregnancy outcomes for people with type 1 diabetes.
- Updated guidelines for the diagnosis and management of diabetes will balance best evidence with priorities to improve equity – due for release in 2024.
- Informed by Counties Manukau research, a co-designed service will be piloted at Counties Manukau in 2024, supporting mothers who have had gestational diabetes or type 2 diabetes, and their whaanau.

Diabetes affects approximately 1 in 8 pregnancies within Counties Manukau, which is higher than elsewhere in New Zealand. Despite staffing being below workforce recommendations, those who have been through the service speak highly of the care they receive, particularly from midwives. There is an ongoing need to improve access to culturally appropriate information and support, both before, during and after pregnancy.

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Counties Manukau and induction of labour

There is a rising rate of induction of labour (IOL) and caesarean births across high-income nations, including Aotearoa New Zealand. This includes Te Whatu Ora Counties Manukau, with an IOL rate of 16% in 2010, more than doubling to 37% in 2022, and a caesarean rate of 18% in 2010 climbing to 34% in 2022. Factors associated with these increases include the growing complexity of pregnancies with rising rates of maternal obesity and diabetes of pregnancy, with increasing maternal age.

To ensure the best possible outcomes for women having an IOL, in 2022, Te Whatu Ora Counties Manukau implemented changes to the IOL booking process and to the medications used for IOL. This was based on evidence from a 2021 Cochrane review (Kerr et al., 2021) reported that low-dose oral misoprostol compared to other standard IOL methods (eg, vaginal prostaglandin, oxytocin and balloon catheter) may decrease the caesarean rate. One year later, we undertook a pre-planned audit, with a sample of the 2320 women who had IOL and gave birth at Middlemore Hospital 6 June 2022 – 06 June 2023.

Summary of main findings

- Since the roll-out of low-dose oral misoprostol for IOL in 2022, it was reassuring that the overall proportion of women giving birth by emergency caesarean at Middlemore Hospital was relatively unchanged. In addition, indications for IOL at Middlemore Hospital aligned with the NZ Ministry of Health recommendations (Ministry of Health., 2019) supported by a robust booking and audit process.
- Midwives and women reported that the change from vaginal prostaglandin gel to oral misoprostol for IOL has improved women's experience of the process, because of a reduction in vaginal examinations and more frequent midwifery reviews of women during administration of oral misoprostol.
- Women with a booking BMI ≥30 accounted for over half (54%) of those having IOL.
  - The greater the BMI, the higher the likelihood of caesarean birth. This was more pronounced for women with a BMI ≥40 who had IOL, consisting of 12% of those having their first baby and 20% of those having a subsequent baby)
  - The greater the BMI the longer the interval from the start of IOL to giving birth. This began with a BMI ≥30 and was greater for women having their first baby and for those with a BMI ≥40.
- There was small reduction in the use of epidural pain relief since the change to oral misoprostol. This is related to IOL with oral misoprostol resulting in some women, especially those having their second or subsequent baby, experiencing a short interval between established labour and birth.
- Advice for women about the expected interval from the start of IOL-to-birth can include:
  - The majority (67%) of women pregnant with their first baby can expect to have given birth by 36 hours from the start of IOL, although around 2 in 10 may take 48 hours or more
  - The majority (64%) of women giving birth to their second or subsequent baby can expect to have given birth by 24 hours from the start of IOL, although around 1 in 10 may take 48 hours or more.

Characteristics of women having induction

Of the 2320 women who had IOL, 80% were ≥38 weeks' gestation, 54% had a BMI ≥30 (in the obese range), 49% were pregnant with their first baby, 36% Pacific ethnicity, 28% Asian, 19% European and other, and 17% were Maaori.

Induction and mode of birth by parity

Vaginal birth after IOL was more likely for those giving birth to their second or subsequent baby (83%) compared to their first baby (59%). Spontaneous vaginal birth increased with increasing number of subsequent births (Figure 52: Induction & mode of birth by parity).

Method of induction

Two-thirds of women (66%) had IOL with oral misoprostol (Figure 53: Method of induction), 61% had oral misoprostol only, 5% had oral misoprostol followed by Cook's balloon catheter ± artificial rupture of membranes (ARM) and IV oxytocin infusion. Another third (33%) had IOL with ARM or Cook's balloon catheter or IV oxytocin infusion.

FIGURE 52 ▼

Induction & mode of birth by parity (N=2320)

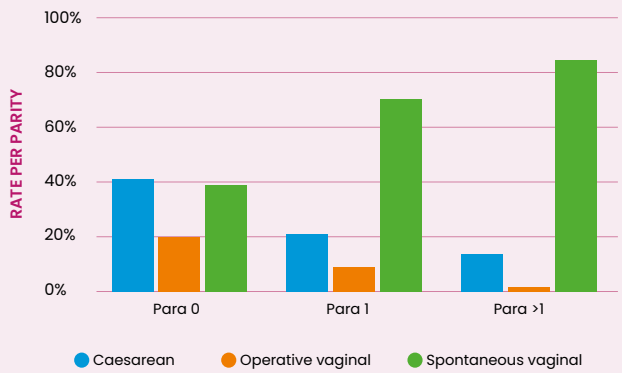
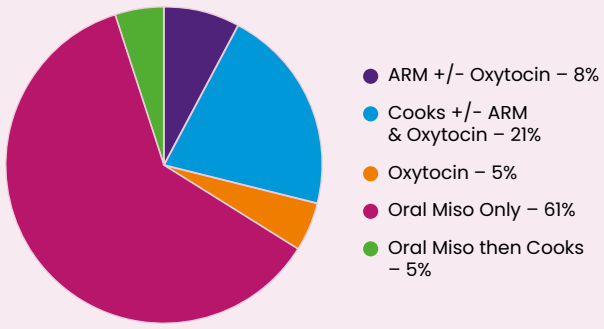


FIGURE 53 ▼

Method of induction (N=2320)



Miso= oral misoprostol; Cook's= Cook's balloon catheter; ARM=Artificial rupture of membranes; Oxytocin=IV oxytocin infusion

Reasons for induction

The most common reasons for IOL aligned with the Ministry of Health recommendations (Ministry of Health., 2019). These included pre-labour rupture of membranes (17%), diabetes (16%), suboptimal fetal growth (15%), prolonged pregnancy/postdates (11%), reduced fetal movements (9%), and hypertension/pre-eclampsia (9%). Many women had more than one reason for IOL recorded, such as diabetes and suboptimal fetal growth, or reduced fetal movements and prolonged pregnancy/postdates. The bookings for IOL are made electronically via BadgerNet and these are monitored by senior staff. If there are any queries about the reason or timing of induction, these are managed appropriately to ensure the best possible outcome for mother and baby.

Baby outcomes following induction

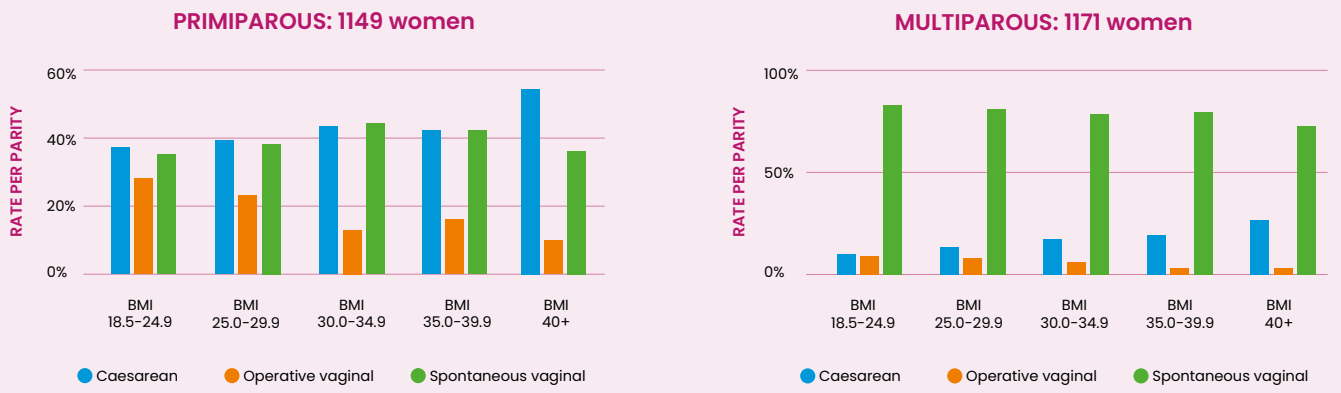
The method of induction made no significant difference to the likelihood of the baby having an Apgar score <7 at five minutes of age (3%) or being admitted to the Neonatal Unit (11%).

Induction and BMI by mode of birth

The greater the BMI at booking the higher the likelihood of caesarean birth following IOL. This was most evident in those with BMI ≥40, consisting of 12% pregnant with their first baby and 20% pregnant with their second or subsequent baby (Figure 54).

FIGURE 54 ▼

Induction and BMI by mode of birth by parity (N=2320)

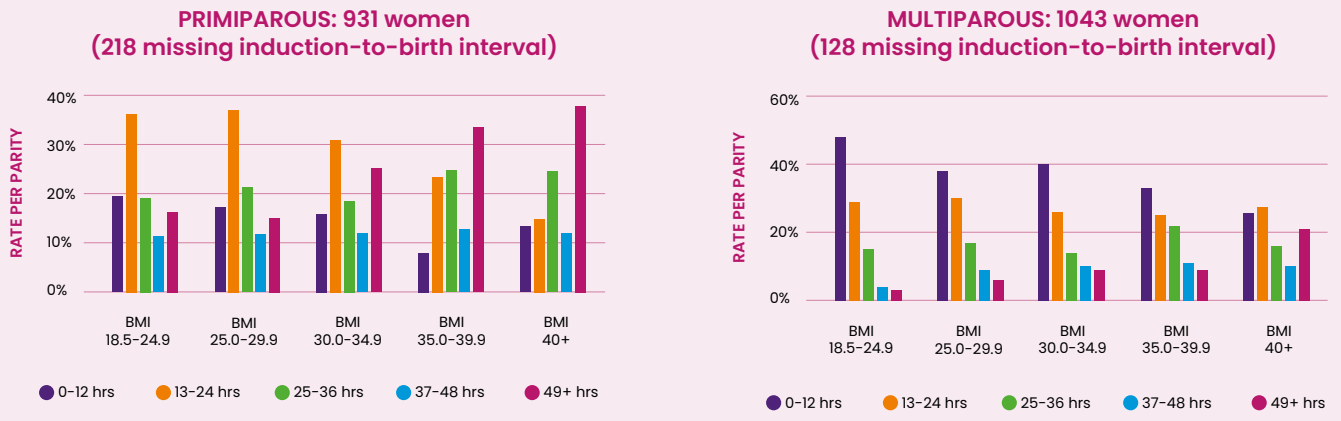


Induction-to-birth interval by BMI

As BMI increased over ≥30, so too did the number of hours until birth (Figure 55). This was most pronounced in women pregnant with their first baby and in those with a BMI ≥40.

FIGURE 55 ▼

Induction-to-birth interval by BMI (N=2320)

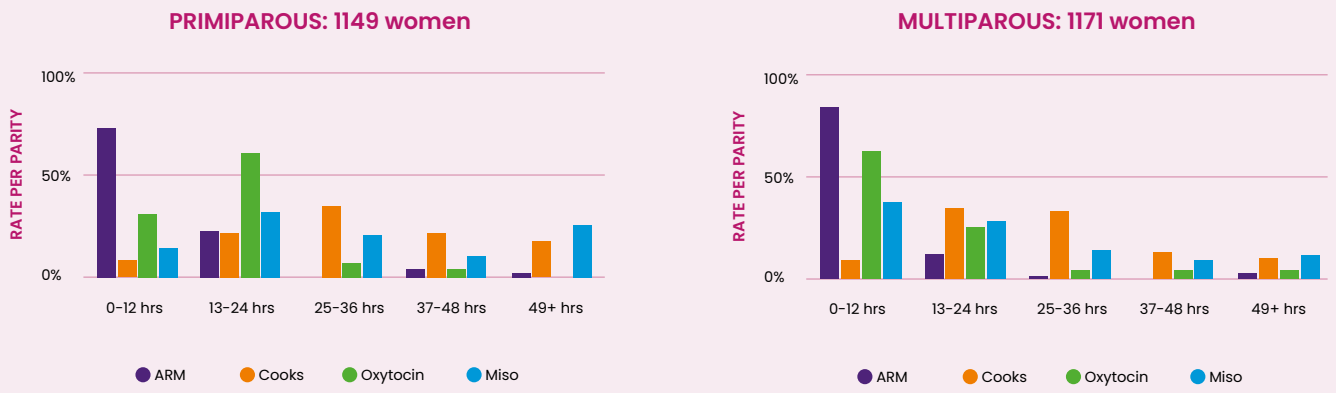


Induction-to-birth interval by method of induction

At 48 hours after the start of IOL, 84% of women had given birth (first baby: 16% by 12 hours, 46% by 24 hours, 78% by 48 hours; second or subsequent baby: 37% by 12 hours, 64% by 24 hours, 90% by 48 hours) (Figure 56). The fastest methods were ARM and IV oxytocin infusion, indicating that this was offered to women with a more favourable cervix. IOL with Cooks balloon catheter was the slowest method. For IOL with oral misoprostol, 24% gave birth by 12 hours, 53% by 24 hours, and 81% by 48 hours.

FIGURE 56 ▼

Induction-to-birth interval by method of induction (N=2320)



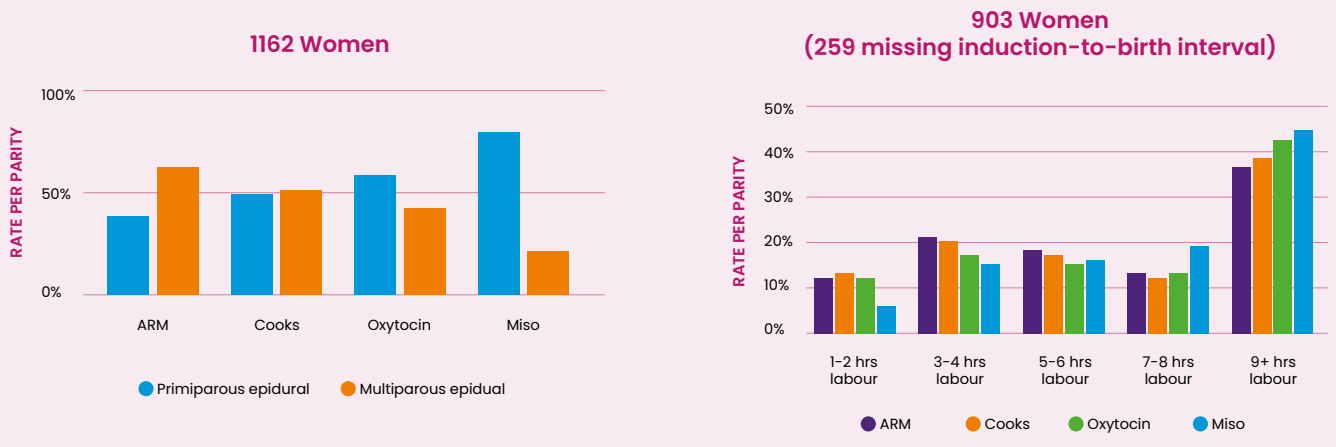
Miso = oral misoprostol; Cook's = Cook's balloon catheter; ARM = Artificial rupture of membranes; Oxytocin = IV oxytocin infusion

Epidural and induction

Epidural pain relief was used by half of all women during IOL and was twice as common for women pregnant with their first baby (68% of 784) compared to second or subsequent baby (32% of 378). It was also more likely with IOL using Cook's balloon (60%) and IV oxytocin infusion (55%) compared with oral misoprostol (48%) and ARM (42%) (Figure 57) and less likely with a short labour-to-birth-interval.

FIGURE 57 ▼

Epidural by method of induction and parity and labour-to-birth interval (n=1162 of 2320)



Miso = oral misoprostol; Cook's = Cook's balloon catheter; ARM = Artificial rupture of membranes; Oxytocin = IV oxytocin infusion.
Primiparous=pregnant with first baby, multiparous=pregnant with second or subsequent baby

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Postpartum haemorrhage

Postpartum haemorrhage (PPH) is a common obstetric emergency that requires prompt and effective management to reduce PPH-related mortality and morbidity for birthing women. Concerningly, the incidence of PPH is increasing, particularly in high-resource settings (Phan & Weeks, 2024), due to factors such as increasing maternal body mass index (BMI), induction of labour, and caesarean section.

At Middlemore Hospital, the relationship between high BMI (>=35) and PPH at vaginal birth is apparent (Figure 58).

Women of non-European ethnicities, living in communities with greater deprivation, are more likely to be affected by postpartum anaemia (Calje et al., 2023) and PPH. In Counties Manukau, 61% of birthing women live in the most deprived communities, while 84% identify with non-European ethnicities. The impact on the incidence of PPH can be seen for Pacific and Asian-non-Indian women following vaginal birth at Middlemore Hospital (Figure 59).

Strategies have been implemented to support the management of PPH within Birthing & Assessment at Middlemore Hospital during 2022 and 2023 (Figure 60). These included updating the clinical guideline, 'Third Stage Active Management and Primary Postpartum Haemorrhage (PPH) at Middlemore Hospital following Vaginal Birth,' with high-level evidence (Oladapo et al., 2020; World Health Organization, 2020). Additionally, the arrival of long-awaited equipment to improve care for women experiencing PPH has facilitated proactive and collaborative responses from hospital staff and Lead Maternity Carers.

FIGURE 58 ▼

PPH 500+mls at vaginal birth by BMI, Middlemore Hospital 2016-2023

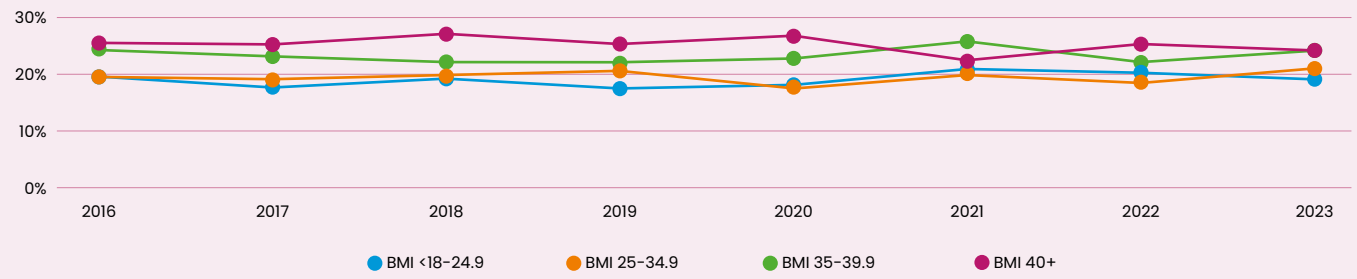
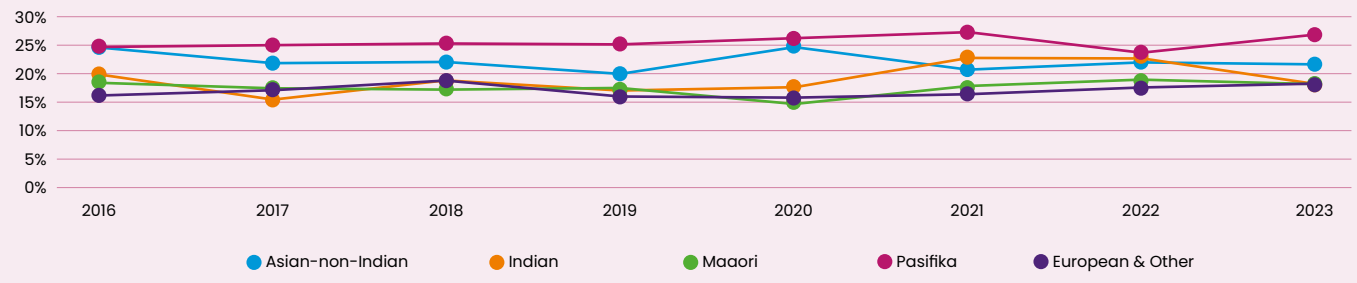


FIGURE 59 ▼

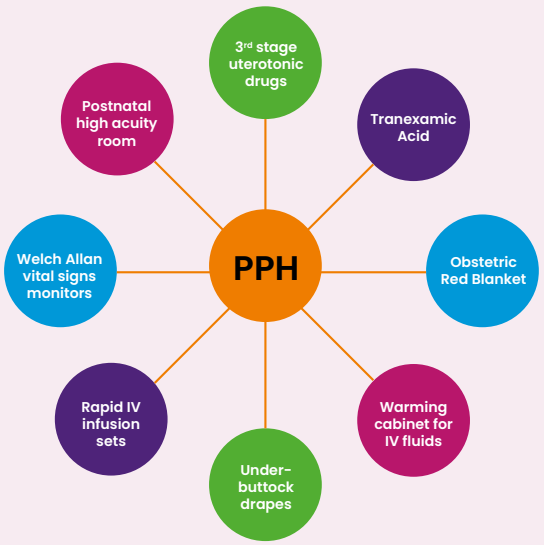
PPH 500+mls at vaginal birth by prioritised ethnicity, Middlemore Hospital, 2016-2023



Data from Qlik analytics software collected via Counties Manukau digital systems

FIGURE 60 ▼

PPH management strategies implemented in Birthing & Assessment, Middlemore Hospital



- **Uterotonic drugs for active management of third stage:** A slow push intravenous (IV) bolus of 10 units of oxytocin for women at risk of PPH, has replaced intramuscular Syntometrine for active management of the third stage of labour at vaginal birth.
- **Tranexamic acid (TXA) at point of care:** Tranexamic acid has been made available in birth packs, enabling an effective immediate response for management of PPH, regardless of the underlying cause.
- **Obstetric Red Blanket:** The Obstetric Red Blanket guideline has facilitated rapid transfer to theatre for women with severe PPH (>=1000mls) and those who are haemodynamically unstable with ongoing bleeding.
- **Warming cabinet for IV fluids:** Installation of a warming cabinet to enable warmed IV fluids to be administered during a PPH has supported a reduction in the risk of hypothermia and coagulopathy.
- **Under-buttock 'bucket' drapes at operative vaginal birth:** Access to under-buttock drapes during operative vaginal birth has enabled accurate collection and estimation of blood loss.
- **Rapid IV infusion sets:** IV infusion sets with a wider lumen for rapid access for fluid resuscitation has become standard care for women in labour at risk of PPH.
- **Welch Allyn vital signs monitors:** A Welch Allyn vital signs monitor has been installed into every birth room, enabling prompt assessment of the Maternity Early Warning Score during and after PPH.
- **Postnatal high acuity care room:** A postnatal high acuity room has been created in Birthing and Assessment to facilitate close monitoring of women requiring high acuity care, including post-PPH care, for 12 to 24 hours.

PPH audit at Middlemore Hospital

A PPH audit was undertaken to evaluate the effect of the PPH management strategies for women having a vaginal birth at Middlemore Hospital. The data showed that PPH (500mls or more) at vaginal birth, which has been increasing year by year, appears to be stabilising at around 25%. There has also been a decrease in PPH at operative vaginal birth in the past two years (from 50% in 2021 to 45% in 2023). Importantly, there has been a decrease in severe PPH (1000mls or more) at operative vaginal birth (from 23% in 2021 to 18% in 2023) and normal vaginal birth (from 10% in 2021 to 9% in 2023) (Figure 61).

There have been no adverse effects reported related to change in uterotonic drugs. In addition, women at risk of PPH with IV access, report that IV drug administration reduces the apprehension and pain of an intramuscular (IM) injection. Women also report a welcome decrease in the side effects of nausea and vomiting that are common following administration of IM Syntometrine during the third stage of labour.

Findings from an induction of labour audit, looked at PPH in relation to the induction-to-birth interval for 937 women who were induced between June 2022 and June 2023. It was found that the likelihood of a PPH increased as the hours between the start of the induction process (with oral misoprostol, balloon catheter, or oxytocin infusion) to birth increased (Figure 62). These results allow whaanau to be informed of the association between PPH and induction of labour, with anticipation and preparation crucial in minimising PPH.

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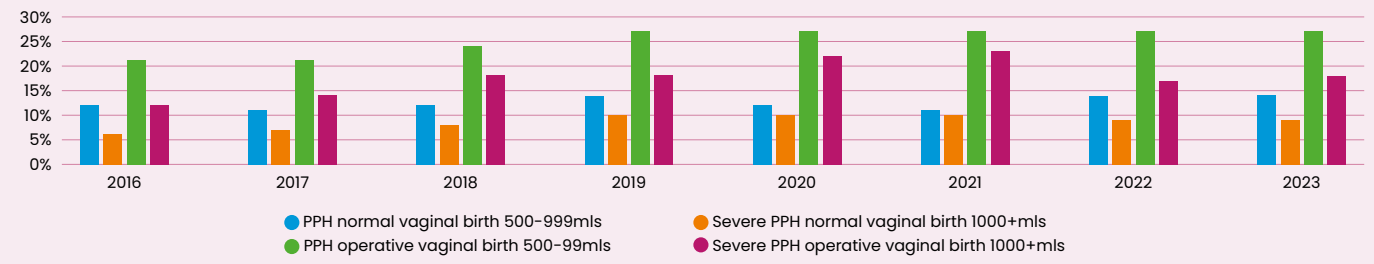
FIGURE 61 ▼

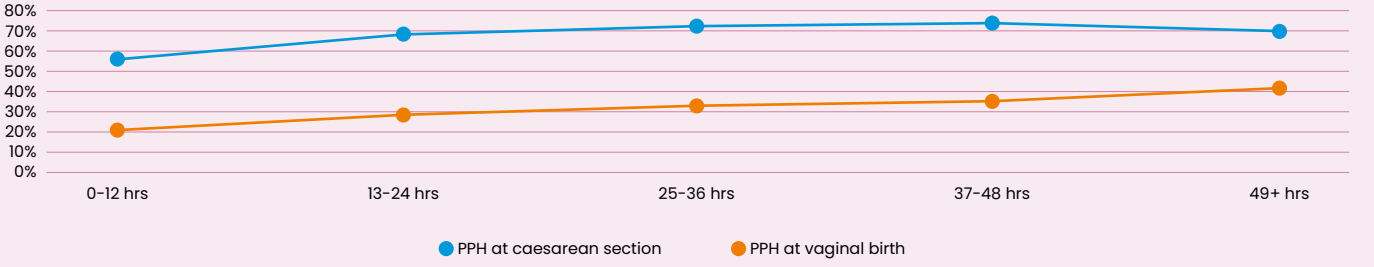
PPH at vaginal birth, 500-999mls and 1000+mls, Middlemore Hospital, 2016-2023



Data from National Minimum Dataset

FIGURE 62 ▼

PPH 500+mls by induction-to-birth interval at caesarean and vaginal birth, Middlemore Hospital.



Data from Qlik analytics software collected via Counties Manukau digital systems

Health New Zealand
Te Whatu Ora