



2021/2022

Te Pae Hauora o Ruahine o Tararua | MidCentral

Annual Maternity Report



Pēpi Quinn | Born August 2021 to Monique and David Bennett

Cover page photo:

Pēpi Jireh Tobias snuggling with parents Maylie and Ezra Meehan | Born January 2022

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- **Lewis Young**, Senior Communications Advisor.

It is with genuine appreciation that we thank our workforce, consumers, Lead Maternity Carers (LMCs) and wider healthcare partners and communities.

Thank you also to all the whānau and staff who kindly let us use their images to illustrate our report.

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Introduction

Ahakoā he iti he pounamu

Although it is small it is a treasure

Senior Leadership Foreword

Our report features pictures and stories from our maternity services and from our local community. We value the growing involvement of wāhine as consumers of our service as they become part of all aspects of planning and service delivery. We welcome this partnership, and we are strongly focused on a deeper understanding of our whole rohe and rurality, and the culturally diverse needs of those communities. We acknowledge our commitment to Te Tiriti o Waitangi as the founding document of our nation.



Pictured from left: Celina Eves, Per Kempe and Sarah Fenwick.

Welcome to the Maternity Quality and Safety Programme 2021/2022 Report from MidCentral and thank you to all those who have contributed to this report.

As we reflect on the preceding two years, COVID-19 has been a large part of our work and we would like to take this opportunity to thank our team for their flexibility and valued mahi as we worked through difficult circumstances of short staffing and varying levels of COVID-19 lockdowns.

The pandemic has made us think very differently about the care we give to our māmā, pēpi and whānau. It has highlighted the need to look after one another and the important role our community plays in our care partnership. This report reflects the dedicated work of our team within an ever increasing and demanding clinical environment. Alongside this, sits the response to COVID-19, which has challenged both our facilities team and the clinical teams.

As part of our commitment to improving health outcomes and equity for Māori we have recruited an Equity Lead to drive and challenge our thinking and assumptions. This will ensure the cultural shift required to affect the system change needed to achieve equity for Māori.

The Maternity Quality and Safety Programme (MQSP) is key for us in raising the profile of the quality and safety of our maternity services that māmā and whānau receive and so ensuring the best possible outcomes for their pēpi. You will see an update on our current projects, and the work of the multidisciplinary team to identify and implement improvements to our maternity services.

The report also gives us the opportunity to publish some of our outcomes and enables us to compare these to previous years, as well as benchmark ourselves against other units nationally and internationally. Thanks to our continuous audit of all labours and births we are able to share knowledge about our outcomes with the multidisciplinary team, our wāhine and whānau and continuously improve quality of care.

We are working hard to be a strong motivated team caring passionately and striving to deliver care within an environment of increasing demand and complexity. Our Health and Wellbeing Strategy is interwoven, displaying our commitment to provide quality care which is wāhine-centred, safe and equitable. Recognising that the first 2000 days form the foundations for lifelong health and wellbeing.

Thank you all for your incredible commitment to our maternity services during this challenging year.

Sarah Fenwick
Operations Executive

Per Kempe
Medical Lead Obstetrics & Gynaecology

Celina Eves
Executive Director Nursing & Midwifery

Our Population

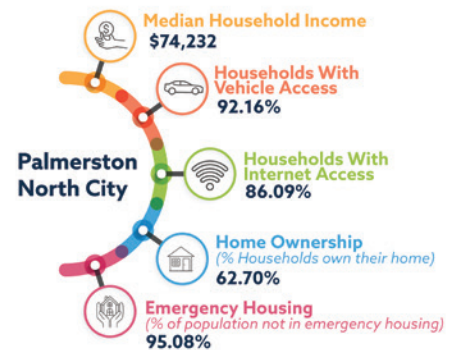
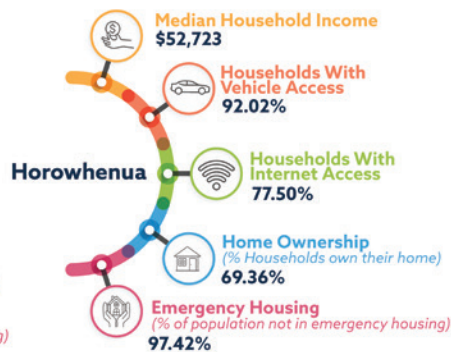
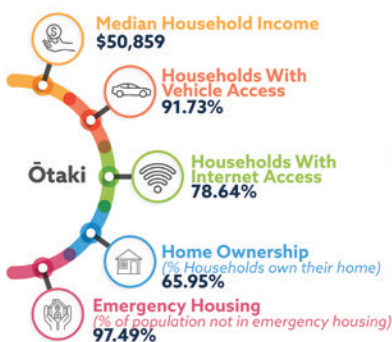
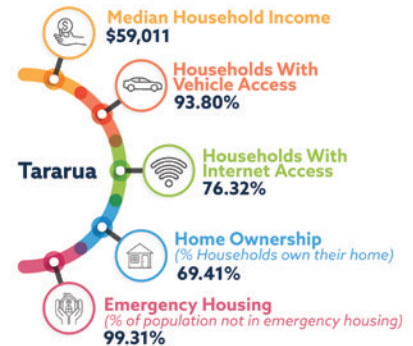
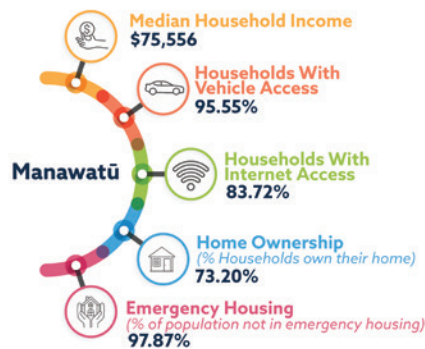
MidCentral sits within the central region health division of Te Whatu Ora. We provide health and wellbeing services to an estimated 190,300* people who reside across five local authority districts. These include Horowhenua, one of the prototype areas to roll out the locality approach under Te Whatu Ora as well as Palmerston North City, Manawatū, Tararua and the Ōtaki ward of Kāpiti Coast.

Our area has a large Māori population compared to the national average and eight iwi exercise kaitiakitanga across the district. MidCentral also has a growing refugee population with both Palmerston North City and Levin being towns for refugee resettlement.

Across our rohe, there are large disparities in both health and resources. Nearly a quarter (24.6 percent) of our people live in areas of high socioeconomic deprivation (NZDep2018 quintile 5**), compared to a national average of 18.6 percent.



Social determinants of health DOT loves data, locality focus



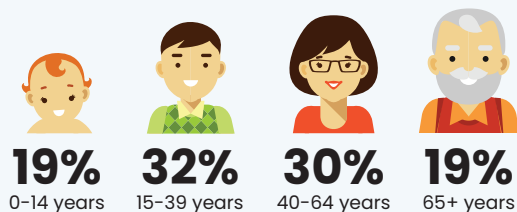
*Unless otherwise referenced, population data is sourced from subnational population estimates for DHB by Statistics NZ based from the 2018 Census results.

**New Zealand Index of Deprivation (NZDep) is an area-based measure of socioeconomic deprivation. It measures the level of deprivation for people in each small area, based on nine Census variables. Quintile 5 represents people living in the most deprived 20 percent of these areas.

Ministry of Health. 2022. PHO Enrolment Demographics as at November 2022. Wellington: Ministry of Health. Enrolment with a general practice and primary health organisation | Ministry of Health NZ <https://www.health.govt.nz/our-work/primary-health-care/about-primary-health-organisations/enrolment-general-practice-and-primary-health-organisation>

MidCentral Statistics

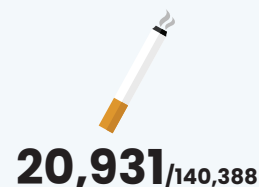
Regional age breakdown



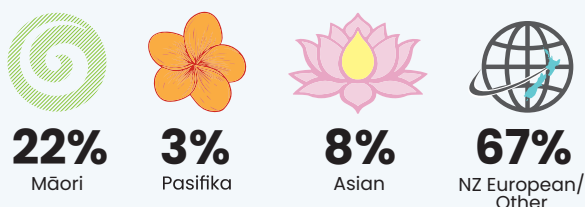
Prevalence of hazardous drinking^{##}



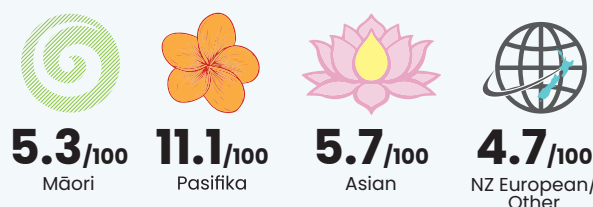
Adults smoke



Ethnicity

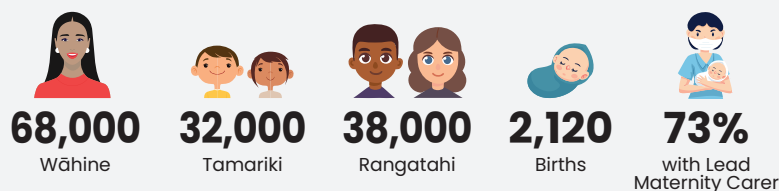


Diabetes prevalence[#]

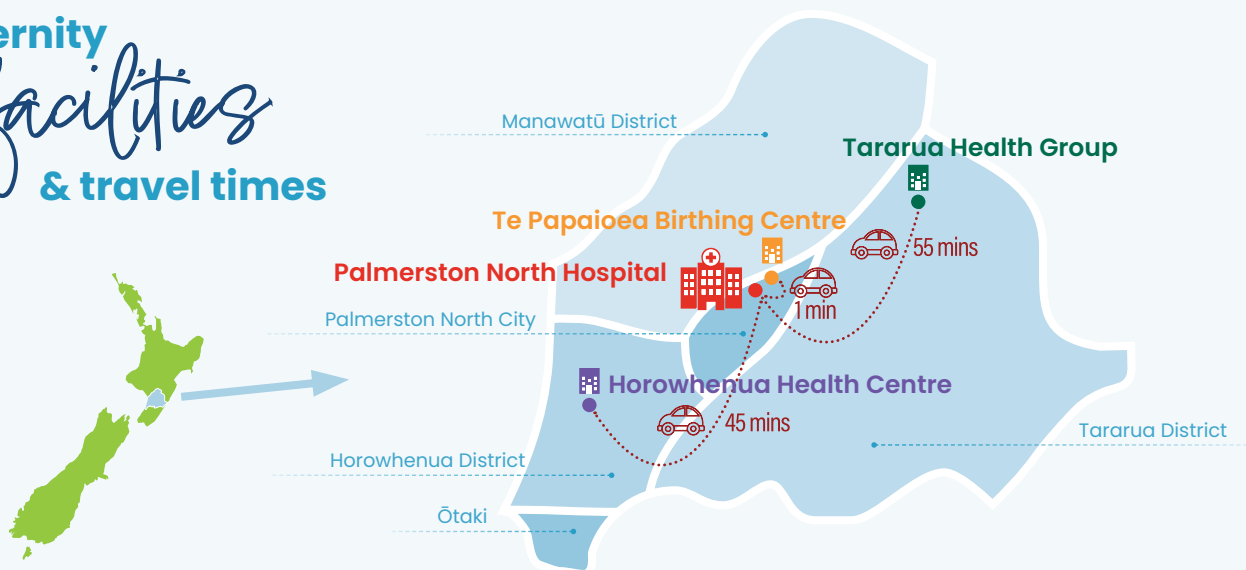


Understanding the communities we serve

Understanding the communities we serve



Maternity facilities & travel times



[#]Health Quality & Safety Commission. 2022. Measures Library (online resource). Wellington: Health Quality & Safety Commission. <https://reports.hqsc.govt.nz/measureslibrary/>
^{##}Ministry of Health. 2017. Annual Data Explorer 2016/17: New Zealand Health Survey [Data File]. <https://minhealthnz.shinyapps.io/nz-health-survey-2016-17-annual-update>



Māmā Wairua Te Mataki and her beautiful whānau | November 2022

2

Our Maternity Services

He kākano ahau i ruia mai i Rangiātea

I am a seed which was sown in the heavens of Rangiātea



Vision

Te Uru Pā Harakeke

Te Uru Pā Harakeke has a very clear vision for the future of our district's population – the first 1000 days lay the foundations for lifelong health and wellbeing.

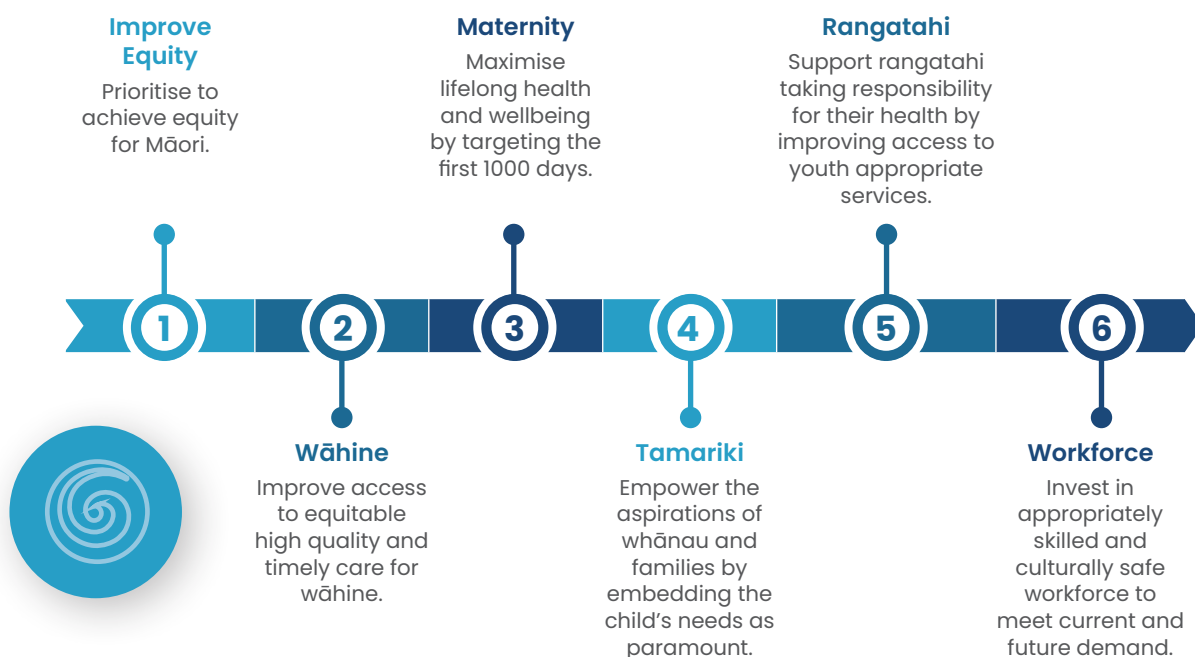
A focus on the first 1000 days will drive a generational change, recognising that social determinants of health affect all health needs and outcomes. We will work to develop strong inter-cluster and even stronger iwi and inter-sectoral partnerships to accelerate integrated and appropriate service models. We will maintain excellent hospital-based services embracing patient and whānau-centred care, while co-designing with our iwi and communities the best access to the most acceptable care as close to home as feasible. This may mean making courageous decisions in disinvesting in services to reinvest in services that meet the population's needs and recognising the need to ensure robust fiscal management.

We will build our focus on equity at the centre of our Health and Wellbeing Plan, which was prioritised through our engagement workshops.

We will be respectful and supportive of the organisation's financial situation and will work to maintain financial stability.

Our staff will be consistently culturally competent and safe, professionally skilled, empowered by technology and outcomes data, and supported in their own wellbeing.

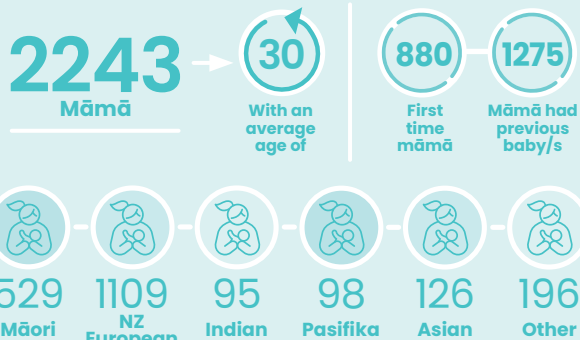
We have goals guiding our plan to drive this generational change honouring
Te Te Tiriti o Waitangi in everything we do.



Birthing Population

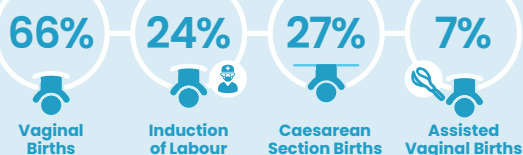
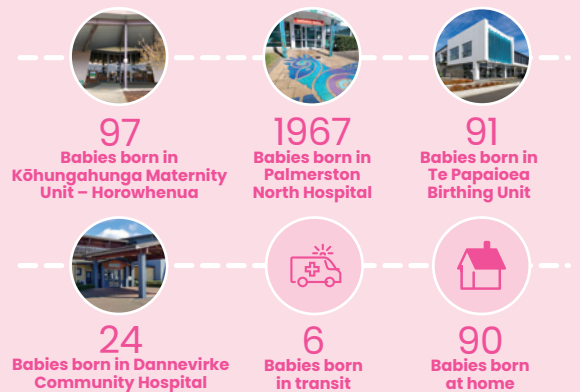
The Wāhine We Serve

YEAR 2021



*Total figure includes homebirths in the rohe, but breakdown of statistics (ethnicity/parity) unavailable for these births.

2275
total pēpi born



Average births per day

5.9



With most births occurring on a morning shift

34%

BMI over 30

6%

BMI over 40

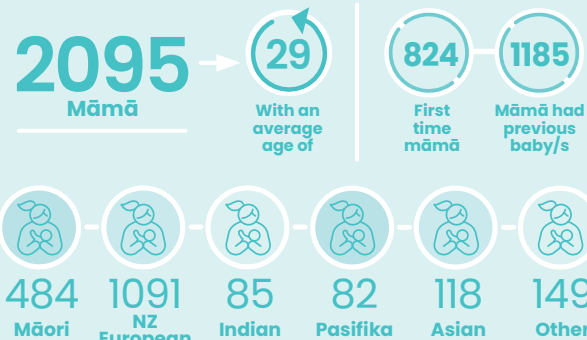
6.3%

Diabetics

15.8%

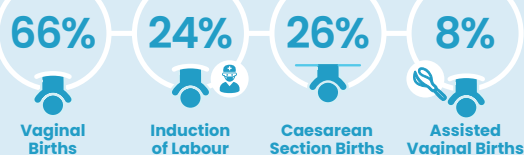
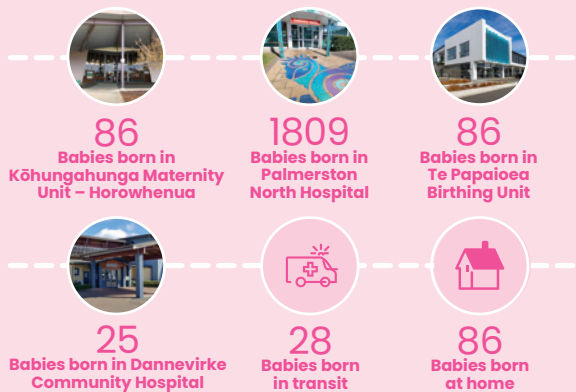
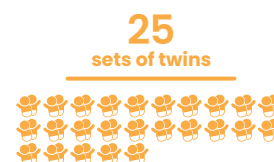
Smokers

YEAR 2022



*Total figure includes homebirths in the rohe, but breakdown of statistics (ethnicity/parity) unavailable for these births.

2120
total pēpi born



Average births per day

5.5



With most births occurring on a morning shift

42%

BMI over 30

9%

BMI over 40

6.8%

Diabetics

11.2%

Smokers

The graphic features a background image of a pregnant woman in profile, wearing a black long-sleeved top, standing by a body of water. In the background, there are rolling hills and several wind turbines under a cloudy sky. A large, semi-transparent circular logo with the text 'MidCentral' in a script font and '2021-2022' in a bold sans-serif font is positioned in the upper right. Two white rectangular boxes with rounded corners on the left side contain the statistics for 2021 and 2022. The overall color palette is dominated by blues, greys, and earthy tones from the landscape.

MidCentral 2021-2022

2021

2243

Māmā

and

2275

total pēpi born

2022

2095

Māmā

and

2120

total pēpi born

Māmā Monique Bennett hapū with pēpi Quinn | Born August 2021

Our Maternity Facilities

MidCentral maternity facilities are comprised of a secondary maternity service located at Palmerston North Hospital and primary units at Horowhenua and Palmerston North. MidCentral also has a partnership with Tararua Health Group enabling the provision of a further primary birthing facility at Dannevirke.

Palmerston North Hospital

Hine te Iwaiwa – Birthing Suite

Hine te Iwaiwa provides secondary maternity care services for wāhine and whānau who experience complications that require additional support from the secondary care team, including obstetricians, paediatricians, and other specialist services. Hine te Iwaiwa, Birthing Suite also provides primary services for wāhine and their whānau who wish to birth there.



Facilities

- 8** Birthing rooms
- Maimai Aroha suite (for those whānau experiencing stillbirth or neonatal death)
- 1** Four-bed assessment room

**Staffing:
Across Birthing
and Maternity**
(Total FTE contracted
54 vs budgeted FTE
62.29, excluding
medical team)

- 1** Midwife Manager
- 4** Clinical midwife managers
- 1** Clinical Midwife Coordinator
- 27** Midwives
- 65** Lead Maternity Carers (LMCs) who have access agreements at Palmerston North

Combined Inpatients Statistics

- 1967** Total births 2021
- 1809** Total births 2022
- 1.9 days** Maternity average length of stay
- 139** Transfers in from primary units over two-year period
- 1500** Estimated assessments per annum through Antenatal Day Unit

Te Aotūroa – Maternity Ward

Located on Level Two of the Women's Health Unit, this 20-bed ward provides care for wāhine with complications in pregnancy who require inpatient care, and also postnatal inpatient care for wāhine and pēpi under primary or secondary care.

A broad range of health professional teams including other hospital specialist services, paediatricians, social workers, the pain team, physiotherapy, dieticians and maternal mental health services are available to provide input to the care on both wards, ensuring comprehensive and holistic care is provided.

Due to current midwifery shortages, registered nurses have been employed into midwifery FTE and provide the majority of care in Maternity.



Facilities

- 20** Beds
- 4** Double rooms
- 12** Single rooms
- 1** Whānau room

- 1** Specialist Nurse – Maternity
- 21** Nurses
- 3** Lactation consultants
- 4** Ward clerks
- 9** Health care assistants
- 9** Casual maternity care assistants
- 7** Obstetricians
- 8** Obstetric registrars
- 7** House officers

Te Whare Poipoi – Neonatal Unit

Located adjacent to Hine te Iwaiwa, Te Whare Poipoi provides Level 2A neonatal intensive and special care to preterm and unwell term pēpi.



Facilities

- 5 High dependency level beds
- 12 Specialty care beds
- 4 Parentcraft rooms
- 1 Clinic room

Staff (28.2 employed FTE vs 30.7 budgeted FTE)

- 1 Charge nurse
- 2 Senior nurses
- 36 Registered nurses
- 1 Enrolled nurse
- 1 Lactation consultant
- 1 Administrator
- 4 Health care assistants

Statistics

- 464 Number of admissions 2021
- 441 Number of admissions 2022
- 110 Number of clinic assessments 2022
- 7.9 days Average length of stay

Te Whare Tangata – Gynaecology Assessment Unit

Operating within our Women's Health Clinic, the Gynaecology Assessment Unit runs weekdays, from 8am to 4.30pm, to see wāhine with urgent gynaecological problems or complications in early pregnancy. This allows them to be diverted away from the Emergency Department. Presentations include but are not limited to miscarriages, ectopic pregnancies, hyperemesis, acute pelvic pain, dysfunctional uterine bleeding and problematic pessaries. Referrals come from both LMCs and GPs and the unit also provides follow-up care from wāhine who have previously come to

the Emergency Department. In 2023, we are planning to extend the hours to 24/7 and move the location to be within our Women's Assessment and Surgical Unit.



Facilities

- 1 Consultation room

With the ability to flex Gynaecology Clinic rooms as needed

Staff

- 1 Registered nurse
- 1 Shared administrator

Primary Care Team – Encompassing Kohungahunga Maternity Unit, Te Papaioea Birthing Centre and MidCentral Community Midwives

Two of our midwives work across both primary units and our Community Midwifery Team can flex across areas to support continuity of service delivery.

Staff

- 1 Full-time Midwifery Manager
- 15 Permanent midwives
- 9 Casual midwives

Kohungahunga Maternity Unit

Kohungahunga Maternity Unit is onsite at Horowhenua Health Centre in Levin, is approximately 50 km south of Palmerston North. The unit is staffed by one experienced midwife over each 8-hour duty, seven days per week, who work cohesively with local LMCs in supporting wāhine to birth locally. The unit also accepts postnatal transfers for wāhine to gain access to midwifery care to further support their matrescence, close to home.

A weekly obstetric-led Antenatal Clinic is held on the premises and offers

outpatient appointments to wāhine to ensure ease of access with attendance, without the need to travel to Palmerston North for their specialist appointment.



Facilities

- 4 Single rooms for birthing and postnatal stays
- 1 Birthing pool

Staff (Total FTE contracted 5.64 vs budgeted FTE 6.4)

- 7 Permanent midwives
- 6 Casual midwives
- 5 Community midwives who actively birth at Kohungahunga

Statistics

- 97 Total births 2021
- 86 Total births 2022
- 81 Postnatal transfers in over two years

Te Papaioea Birthing Centre

Te Papaioea Birthing Centre is a sole-charge, midwifery-led primary birthing facility, currently staffed Monday 7am to Friday 5pm. Outside of these hours, the birthing facility remains accessible to wāhine, supported by their LMC. We are working towards recruiting midwives to support reopening of the centre 24/7 in 2023, to continue to offer this wonderful facility to low risk, well wāhine of our rohe.

Te Papaioea Birthing Centre is utilised by community groups on a regular basis. The Milk Café is a weekly two hour drop-in breastfeeding support session Wednesday 10am–12pm, facilitated by a Lactation Consultant. Whāngai Ora Milk Bank is located onsite, providing a pasteurised human donor milk service to whānau and pēpi. Keeping Babies Safe Pēpi Haumaru Nurse Coordinator utilises space at the unit by arranging distribution of wahakura, and the MidCentral Audiology Department holds a weekly hearing screening clinic, offered to recently born pēpi. Te Papaioea Birthing Centre also acts a base to the Midwifery Professional Support Coordinator and the MidCentral Community Midwifery Team.



Facilities

- 5** Rooms currently dedicated for birthing and postnatal stays, each room containing a large bath
- 1** Dedicated assessment room
- 3** Dedicated clinic rooms
- 3** Dedicated offices

Staff (Total FTE contracted 5.44 vs budgeted FTE 13.6)

- 4** Permanent midwives
- 2** Casual midwives
- 22** LMCs who actively birth at Te Papaioea

Statistics

- 91** Total births 2021
- 86** Total births 2022
- 26** Postnatal transfers in 2021
- 4** Postnatal transfers in 2022 (stopped in March 2022)

Antenatal Clinic

In 2023, the Antenatal Clinic will occupy permanent space on the ground floor at Te Papaioea Birthing Centre. The new facility currently being configured will include four spacious consulting rooms including one room with cardiotocography (CTG) and scanning facilities, and one other multi use room which will be utilised by the Clinic Midwife, Diabetes Midwife and other multidisciplinary specialities.

The Antenatal Clinics held both within Te Papaioea Birthing Centre and in the satellite clinics in Feilding, Dannevirke and Horowhenua see around wāhine for around 3,300 appointments each year for a variety of obstetric and medical complications.

Staff (Total FTE contracted 1.8 vs budgeted FTE 2.6)

- 1** Permanent midwife
- 1** Casual nurse
- 1** Clerical administrator

Dannevirke Maternity Unit

This primary birthing facility is owned and operated by the Tararua Health Group out of Dannevirke Hospital. It provides a maternity hub for wāhine of Tararua District. Tararua Health Group employ the midwives, using the facility as their base and an obstetric-led antenatal clinic, ultrasound services, hearing screening clinic, childbirth educators and lactation consultants also use the premises to help serve the need of the surrounding community.



Facilities

- 1** Room dedicated to birthing
- 1** Clinic room
- 1** Room dedicated to postnatal stays
- 1** Assessment room that is flexed to needs
- 27** Total births 2021
- 25** Total births 2022
- 7** Postnatal transfers in over the two years

Staff

- 5** Case loading midwives

Services

available in MidCentral

Hospital/Specialist Services Available in MidCentral

Obstetric Antenatal Clinic	Obstetric Antenatal Clinics run from the birthing centres in Palmerston North, Horowhenua and Dannevirke and Feilding Health Care, for wāhine referred in by their LMC.
Diabetes in Pregnancy Service	A specialist diabetes clinic is run weekly for wāhine with previous or newly diagnosed diabetes (Type I or II or gestational). This multidisciplinary clinic includes Obstetrics, Endocrinology, Dieticians and Midwifery. Our Diabetes Midwife acts as a resource midwife for LMC midwives and core staff providing staff education and informal teaching.
Antenatal Day Unit	Located just off Hine te Iwaiwa Birthing Suite, the three bedded unit is staffed by a midwife Monday to Friday 9am–4.30pm. The unit provides planned assessments for wāhine with high-risk pregnancies, ultrasound reviews, administration of iron infusions and anti-D immunoglobulin.
Maternal Mental Health Services	A specialised Maternal Mental Health Nurse works alongside the Maternity and Mental Health teams to provide assessment, support and advice for wāhine who experience moderate to severe mental health illness during both pregnancy and the first year after the pēpi is born.
Social Work Services	Navigate wāhine and whānau towards social services in the community based on their identified needs. The role also facilitates liaison between various services, such as Oranga Tamariki, Non-Governmental Organisations (NGOs), infant and maternal mental health and our community maternity services.
Pāruru Mōwai	Pāruru Mōwai is a multidisciplinary forum and inter-agency network that facilitates coordination and care provision for hapū māmā with complex health and social issues.
Pae Ora Paika Whaiora Hauora Māori	Provides advice, advocacy and support to wāhine, partners and wider whānau while they are receiving care at MidCentral and into the community.
Lactation Support Services	MidCentral employs four lactation consultants to work along staff and support wāhine in establishing breastfeeding and meet Baby Friendly Hospital Initiative requirements.
Acute Pain Service	The Acute Pain Service works closely with other disciplines to customise pain management plans to suit individual needs. They monitor all wāhine who have received anaesthetics (epidural, spinal or general anaesthesia) to ensure the pain relief was effective and side effects are controlled.
Gynaecological Specialist Clinical Nurse	The Women's Health Clinic, Clinical Nurse Specialist supports wāhine with urinary, faecal or prolapse symptoms, particularly focusing on postnatal wāhine who have sustained 3rd or 4th degree tears during birth.

Community Services Available in MidCentral

Community LMC Midwives	Community LMC midwives provide antenatal, labour and postnatal care to wāhine. Also referred to as self-employed or independent midwives, they are contractors to Te Whatu Ora and predominately work using a continuity of care model. Community LMC midwives work in a variety of locations including client's homes, independent clinics as well as MidCentral facilities.
MidCentral Community Midwives	Based at Te Papaioea Birthing Centre, Palmerston North, the community midwives provide a whānau-centred approach to midwifery care and offer continuity of antenatal and postnatal midwifery care to wāhine of the region. The service operates from 8am to 4.30pm, seven days a week. Both locality-based clinic services (Horowhenua and Manawatū), and home visiting services are offered to wāhine in the antenatal and postnatal periods.
Specialist Māori Midwife	The Kaiaraara Te Ora, the Specialist Māori Midwife role was created in 2022 to facilitate individualised support pathways from primary care to specialist services for hapū māmā and whānau. The midwife strives to achieve optimal engagement of whānau Māori to improve outcomes for māmā and pēpi.
Childbirth Educators	There are two main local providers of pregnancy and parenting education in the rohe. Barnardos, which is funded by MidCentral to provide free services and Parent's Centre who operate privately.
Community Birth Services (CBS)	CBS promotes, protects and supports breastfeeding by providing free community Kaiāwhina support groups and lactation support services to whānau in the MidCentral rohe. Support is offered in a variety of settings including digital consults, over the phone, in clinics, home visits and parent groups.
Mokopuna Ora	Weaving together Māori culture, pregnancy and parenting information to support whānau to achieve optimal health and wellbeing. Mokopuna Ora run regular wānanga across the rohe for hapū māmā, partners and their whānau.
Pasifika Services via THINK Hauora	A team of Pasifika Nurses, Lifestyle Coaches and Community Support Workers work with Pasifika families to reduce barriers to healthcare and increase Pasifika access to health services. Although the Pasifika Health Team work with a range of health needs, one of their focus areas is in pregnancy, breastfeeding support and child health.
Te Tihi	Te Tihi is an alliance of nine iwi, hapū, and Māori organisations who work collectively to deliver whānau-centred services based on the Te Ara Whānau Ora process. Their Whānau Ora Kaiwhakaaraara (Navigators) work across the wider rohe and can provide support for Māori wāhine and whānau.
RIMA (Refugee, Internally displaced person, Migrant and Asylum seeker) via THINK Hauora	RIMA health coaching helps our former refugee community to access better healthcare services within the MidCentral rohe by reducing the barriers faced for this population group.
Te Ara Rau via THINK Hauora	Te Ara Rau provides packages of care for wāhine with mild to moderate mental illnesses during pregnancy and the postpartum period. Te Ara Rau has a close working relationship with Mother's Helpers, a charitable organisation that solely focuses on maternal mental health and provides mental health assessments, counselling and group therapy.



Te Whare Poipoi – The Neonatal Unit

Te Whare Poipoi is part of Te Uru Pā Harakeke. Our Neonatal Unit is located adjacent to the Hine te Iwaiwa – Birthing Suite and on the same level as the theatres at Palmerston North Hospital. The unit is resourced for 14 beds but has bed space for 17 beds, five in high dependency level care and the remaining 12 beds in specialty level care. Together they provide care for our premature and unwell pēpi. Within the unit, we have four rooms for parents to stay when their pēpi is close to discharge.

Our unit is supported by a large multidisciplinary workforce of dedicated staff who provide services for around 450 neonatal admissions per year. Our nursing team ranges from new graduates to senior registered nurses with over 30 years' experience in this very unit. The latter group includes a charge nurse, nurse educator, lactation consultant and speciality clinical nurse. The medical team consists of paediatricians, paediatric registrars and house officers.

Our allied health team includes a dietician, speech language therapists, social workers, child protection services, visiting neurodevelopmental therapist, Pae Ora Paiaka Whaiora Hauora Māori and our homecare team, who provide ongoing care to our neonates in the community. Other support staff includes one full-time receptionist and health care assistants.

Tertiary support and paediatric surgery is provided by Wellington Neonatal Intensive Care Unit (Capital, Coast and Hutt Valley) whom we have established bonds and communication with.

Te Whare Poipoi practices a whānau-centred care model. This model embraces Te Tiriti principles of tino rangatiratanga and partnership. The primary strength and support for pēpi is provided by parents and whānau members. We acknowledge this and encourage full participation in all aspects of care. At the heart of whānau centred care is the belief that the parents, whānau and healthcare providers are partners, working together to best meet the needs of pēpi.

The increased use of muka ties for occluding the umbilical cord at birth has meant our staff have had to increase their own knowledge and skill to support this initiative. This has been a fantastic chance to look at how we provide culturally safe care.



The medical team in Te Whare Poipoi.



Neonatal nursing staff.

Whāngai Ora Milk Bank kindly supplies our Neonatal Unit with Pasteurised Donor Human Milk (PDHM). We receive on average 40L per month. PDHM allows us to protect the immune system and fragile gut of our most vulnerable pēpi while their māmā establishes their milk supplies.

Our community continues to amaze us with their kindness and support. Our unit receives donated knitted baby clothes and blankets all year round that help to keep our pēpi warm. Many pēpi arrive in our unit unexpectedly and early, catching their whānau out unprepared. These donations are so well received and become treasured mementoes of their time in our unit. We are especially grateful to Kind Hearts who donate snacks, toiletries and baked goodies for our whānau. Additionally, the Little Miracles Trust continue to support us in many ways including gifts for parents and their pēpi such as earlybird books that talk about the prematurity journey in a way children can understand and enjoy.

Our main foyer walls are full of beautiful photos and amazing stories of the various neonatal journeys. The stories and photos provide hope and encouragement to the new families in the unit and help to set the scene for whānau receiving neonatal tours in pregnancy.



Pēpi Haumaru, Keeping Babies Safe Programme

Safe Sleep and SUDI Prevention

MidCentral's Pēpi Haumaru Programme, established in 2014, focuses on four key modules of safe sleep, power to protect (shaken baby prevention), smokefree environments and breastfeeding.

Priority areas of our work include the procurement and distribution of wahakura or pēpi-pods which provide a safe sleep environment for pēpi.

Throughout 2021/2022 we have distributed:



To assure continuation of the service during the COVID-19 restrictions many LMC practices became kaitiaki and distributors of wahakura and pēpi-pod. Distribution is audited to ensure that our target populations of Māori, Pasifika and smoke-exposed pēpi, as well as those with the highest needs, are being served.

Our Pēpi Haumaru Coordinator has worked closely with Mokopuna Ora in establishing wahakura wānanga in the region and the education delivered during each wānanga. Efforts have also been put into workforce development and education through breastfeeding and neonatal unit staff training days, Well Child forums and during wahakura wānanga. Community promotion and awareness across the whole region ensures all people working with hapū māmā and whānau are kept informed.

Following involvement in developing the "MidCentral Breastfeeding Strategy 2020-2025" the Pēpi Haumaru Coordinator chairs the steering group and works in partnership with the steering group to implement the strategy. A current focus is designing a Breastfeeding Peer Support programme along with supporting Whāngai Ora Milk Bank to achieve their aspirations and sustainability long term.

The upcoming year will see the Safe Sleep/SUDI work programme continuing to work towards increasing the spaces and opportunities where health professionals can gain knowledge about keeping pēpi safe and where whānau can access support to keep their babies safe and well.





Mokopuna Ora

Mokopuna Ora are a collective of individuals and organisations located in the MidCentral rohe, committed to supporting whānau in their health and wellbeing during pregnancy, birth and parenting. We promote health and wellbeing through supporting whānau to weave their own wahakura as a vessel of whānau mātauranga and aspirations for creating a safe and healthy environment to welcome pēpi.

Mokopuna Ora creates space to engage with whānau and communities in weaving hauora of māmā and pēpi. We are passionate about supporting whānau and creating pathways to wellbeing. Health professionals are invited to participate in a kaupapa Māori approach that works alongside whānau to share and learn together.

Kaitiaki wahakura training has been developed in partnership with our Pēpi Haumaru - Keeping Babies Safe Programme. We encourage kaimahi across the rohe to become distributors of wahakura. Our training includes learning the principles of sudden unexpected death in infancy prevention and safe sleep; how to connect and engage with whānau; accessing Te Ao Māori; the mana and mauri of wahakura; the handover process of wahakura to whānau; and the role and responsibility of becoming a 'Kaitiaki Wahakura'. We have also partnered with Hapai Te Hauora to enable wahakura weavers to engage with our Mokopuna Ora model, with a focus on how to teach whānau to weave their own wahakura.

Teaching whānau how to make their own wahakura depends on weaving expertise often located in Māori communities and involves sharing mātauranga about the pā harakeke, whānau, rārangā, and Hineteiwaiwa. Wahakura have their own mana and mauri created by Papatūānuku, Hineteiwaiwa, the weavers and the whānau involved in weaving it.

Like every other rohe, COVID-19 brought new challenges and changed the way in which wānanga were offered. However, in 2022 eight wahakura wānanga were still held, supporting hapū māmā and whānau to weave their own wahakura. Learning weavers and health professionals also attended, building their capacity of knowledge and skills. Our Kairāranga also supported a wahakura wānanga in Tararua.

Mokopuna Ora partnered with Massey University to explore the experiences of whānau within wahakura wānanga. Findings illustrated positive engagement with Māori whānau during the antenatal period and experiences within Te Ao Māori were meaningful.



Some positive experiences we have received from whānau. Our aim is to further extend wānanga into the antenatal and postnatal space.

"It put me on my journey, in touch with my Māoritanga. This is a new space for me."

"A transformational experience."

"My expectations exceeded, blown away with depth and breadth of mātauranga Māori."

"I don't want it to end, it's emotional thinking about how baby will sleep in there. I made that and can't wait for her to arrive."



Obstetrician Gynaecologist, Dr Phil Suisted
with his completed wahakura.

"When I thought about giving to this event by taking time in my weekend, I had NO IDEA how much the opposite was true. Truth is, that this wānanga has given so much to me – why would I not want to go?! There seems to be no limit to the number of threads woven into this experience. Tau kē."



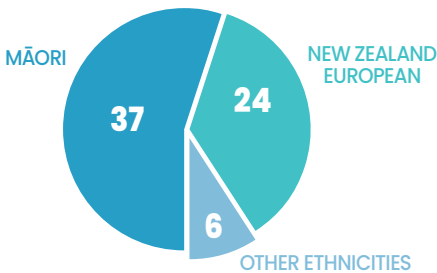
Pāruru Mōwai

Pāruru Mōwai is a multidisciplinary forum that facilitates coordination and care provision for hāpu māmā with complex health and social needs who require input from multiple organisations and providers due to complex health and social issues. We aim to ensure that wāhine with the greatest needs receive the greatest levels of support and that through service collaboration all their needs are met.

During the period 1 January 2021 to 31 December 2022 there were 67 referrals to the service. Throughout this time, we have noted a significant increase in the complexity of needs for those wāhine referred, with many requiring greater integration of services to optimise care and address social, housing, economic and mental health needs.

Comprehensive plans are developed for each wāhine and whānau to address health and social needs, as well as any care and protection concerns. The plans have been supported by robust discussion and enabled clear communication between the statutory agencies, MidCentral and community groups. Collaborative discussion has been positive in engaging wāhine who can sometimes be reluctant to receive support for social needs. It enables them to exercise rangatiratanga and decide how health services might be provided for their benefit. Innovative ideas have been explored and engagement has resulted.

Number of Referrals to Pāruru Mōwai
by Ethnicity 2021–2022



The collaboration of the inter-agency network has seen wāhine and pēpi connected with supporting agencies across the rohe including Family Start, Whānau Ora, ACROSS (Anglican and Catholic Social Services) Postnatal Depression Group, Pahiātua Community Services Trust, ARCS (Abuse and Rape Crisis Support), Te Aroha Noa, Homes for People, Barnardos, Bridge Programme Wellington (Alcohol and Drug Support); MASH Mental Health and Addiction Services, Te Ara Rau, Whakapai Hauora, Community Law, and Manchester House. All wāhine who have been discharged from Pāruru Mōwai



Pēpi Matilda being lovingly held by
whānau members | Born September 2021

are enrolled with their chosen Well Child provider. This is usually done early to help establish whānaungatanga and to provide a seamless transition once discharged from midwifery care.

Honouring Te Tiriti o Waitangi and Equity

Pāruru Mōwai receive referrals for a disproportionately high number of Māori wāhine. This is one factor of great consideration as we review how to improve service delivery, add value to whānau wellbeing and better utilise resources for hāpu māmā who need wrap-around support. Our review implements He Korowai Oranga frameworks and has included representation from Pae Ora Paiaka Whaiora Hauora Māori, our Tikanga and Cultural Facilitator and Tumu Kaitokeke Ai Me Kaitikanga Rua/Equity and Bicultural Practice Programme Lead, as well as Māori and Pākehā LMCs, social workers, Pasifika Child Health Nurse, well child providers, maternal mental health, and midwife managers. The review is expected to be completed by June 2023.



Pasifika Health Team

The Pasifika Health Team service offers support to hapū māmā with prenatal medical issues such as diabetes and hypertension. Healthcare barriers can be reduced by working alongside our women. This can be through simple actions such as assistance in transportation to the more complex facilitation of better communication, ensuring understanding and active participation in care plan formulation.

All the team has basic breastfeeding training which has helped increase knowledge and skills needed to better support Pasifika breastfeeding wāhine and fanau. This was a result of the collaboration between the service and the MidCentral Breastfeeding Steering Group. The Team Lead attends the monthly breastfeeding hui and gives Pasifika cultural input and suggests ways to increase engagement with Pasifika fanau to reduce barriers and achieve equitable outcomes.

Every Pasifika māmā or pēpi referred to the service receives education regarding safe sleeping practices. Some wāhine that are new to New Zealand, and have had other pēpi, find this concept difficult to comply with. They are used to co-sleeping with their pēpi from birth, as in many Pacific cultures, the practice of co-sleeping is encouraged as a way of facilitating breastfeeding. Education is given to wāhine why we promote having a safe space for pēpi. Knitted woollen clothes, including blankets, vests, socks, and beanies are donated to the Pasifika service and distributed to fanau during these visits.

The Pasifika team also plays a strong role in encouraging māmā to get their pēpi immunised on time through support to book appointments with a general practitioner, accompanying them and utilising services by the THINK Hauora Immunisation Team when families are not enrolled with a general practitioner in the region. The service also supports the Community Child Health Team to assist Pasifika children with eczema, ensuring parents understand the importance of treatment plans and are supported with appointments.

Over 2021/2022 the Pasifika team has been involved with the COVID-19 response work in supporting MidCentral in its delivery of the vaccination programme to Pasifika communities. With our aim to provide quality and culturally appropriate services to the Pasifika population, we have worked closely with the Pasifika Lead for the vaccination rollout work, using our existing networks and platforms to reach out to our people and fanau impacted by COVID-19. We supported fanau with high health and social needs



when they tested positive, to ensure they had access to the right support and the right information in a timely manner. The support included delivering care packs and doing virtual clinical assessments on the COVID-19 Clinical Care Management dashboard to unenrolled Pasifika individuals. Fanau with children were provided with woollen blankets and clothes together with the care packs and ongoing education given to māmā and fanau about the COVID-19 vaccine. Our partnership with Pasifika Trusts in the rohe enabled the provision of food and financial support to fanau in need.

Referrals to the service predominately come from community midwives. However, they remain low in comparison to the number of Pasifika births per month in the region. This may be due to several reasons: disruptions from COVID-19, midwives and Pasifika wāhine not being aware of the service, wāhine engaging late with a midwife, and Pasifika wāhine declining the referral. Over 2022, the team has made efforts reconnecting with midwives and related professionals through local New Zealand College of Midwives meetings, staff at the hospital and attending the opening of the new childbirth education space at Te Papaioea Birthing Centre.



Pasifika Health Nurse, Zina Foon.



Childbirth Education

Barnardos



Barnardos' Childbirth Educators Lisa Palatchie (left) and Natasha Apperley. Photo: Alecia Rousseau, Manawātū Guardian.

Barnardos' Bumps to Babies programme has been running for 6.5 years now and covers the MidCentral rohe. Classes are run in Ōtaki, Levin, Palmerston North, Feilding, Pahiatua and Dannevirke.

Over the 2021 period we saw 520 hapū māmā with their support person over 52 sets of classes. The ongoing COVID-19 pandemic and restrictions resulted in many changes to our education provision. Much more administration time was needed to source bigger classrooms to enable social distancing, update attendees and enable the option of course delivery via Zoom. Registration numbers remained consistent throughout the year resulting in the majority of classes being full. In 2022, we ran 50 courses and had over 450 registrations.

In 2018, we added a postnatal course to our education – Babies and Beyond. In 2022, this was well attended with approximately 270 registrations from our Bumps to Babies attendees – around a 60 percent uptake. Our courses cover a range of topics that are required by the Manatū Hauora to be provided within an antenatal education framework.

One to one delivery of education and support is provided for variety of reasons such as high risk pregnancies, social anxiety, sickness, family circumstances or lack of transport to ensure that the education reaches all who need it.

There is a high number of Māori wāhine who access this kanohi ki te kanohi service, highlighting that the addition of this service allows a culturally appropriate service delivery option to take place where multiple whānau can be involved in the education process, supporting hapū māmā in preparing to welcome mokopuna into Te Ao Marama and upholding our commitment to whānau ora principles.



Bumps to Babies
Parenthood is a journey



We also disseminate information and pregnancy tests across the rohe. In 2022, we distributed nearly 500 pregnancy tests with relevant information about our courses, local resources and pregnancy. We are able to achieve this with collaborations across the region with providers such as SuperGrans in Levin, The Trust Tararua in Pahiatua (now Anglican Care Waiapu) and Feilding Health Care.

The Bumps to Babies team consists of four part-time Childbirth Educators, an Administrator and Team Leader. We have had quite a few changes in the team in 2022 with three of the 'founding members' moving on to other things and three new team members starting – two of them are starting in early 2023.

We have built and continue to build lasting and relevant relationships throughout the community which enables us to reach the people that may not have ordinarily accessed antenatal education. These collaborations also help us provide things like knitted baby clothes and blankets in our course packs for attendees, the provision of pēpi pods and wahakura through Mokopuna Ora. We are able to offer education in the Teen Pregnancy Units (Freyberg and Waiopahu), where we do one to one teaching and sometimes group sessions for the hapū students.

We also have growing relationship with Te Wakahuia and Te Aroha Noa Community Services and have attended (and helped plan) community events with them. We remain committed and passionate about giving the whānau we work with the knowledge and tools to help them achieve their vision for their labour and birth and early parenting journeys.



Community Birth Services

CBS is a Registered Charitable Trust contracted by MidCentral to protect, promote and support breastfeeding throughout the MidCentral rohe. Our service is comprised of a team of lactation consultants and peer counsellors who all provide breastfeeding support and education.

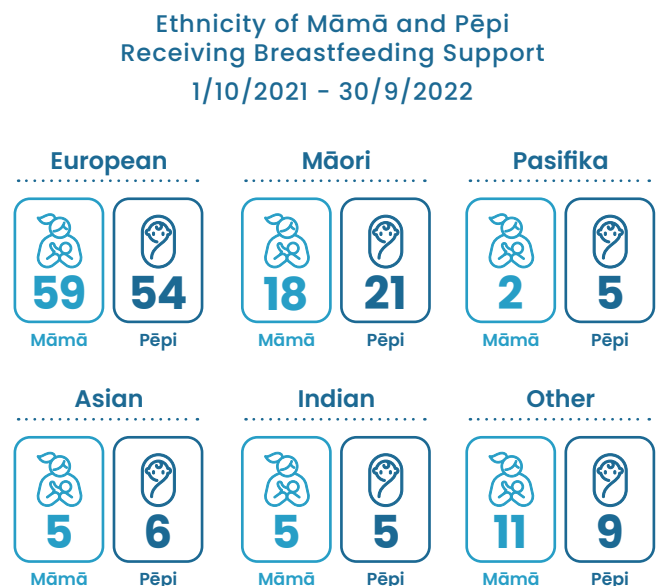
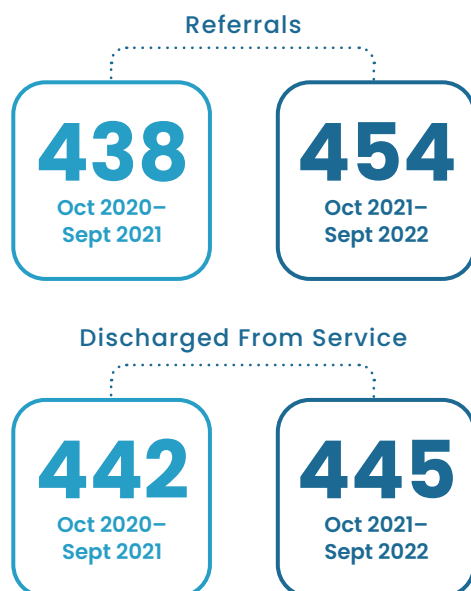
We aim to reduce health inequities by increasing breastfeeding rates in Māori, Pasifika, rural and lower socio-economic populations, increasing the number of infants exclusively breastfed from 0-6 months of age and increasing the proportion of infants breastfed up until two years of age or more.

Breastfeeding support and information are offered via the website and phone, digitally via Zoom, drop-in clinics, kaiāwhina led support groups and by appointment in kanohi e te kanohi (face-to-face) clinics. Home visits are provided to those that have complex breastfeeding support requirements.



Māmā breastfeeding at the Big Latch On 2021.

Since the cessation of the COVID-19 Protection framework in September 2022, CBS has been focused on building community breastfeeding resilience through Kaiāwhina networking and establishing Kaiāwhina-led breastfeeding support groups in rural areas within the MidCentral rohe.



During the COVID-19 restrictions our team were deemed as non-essential health workers and all 'in person' breastfeeding support ceased. Service provision quickly shifted to using digital platforms to continue offering support until 'in person' support could recommence.





Breastfeeding Services and Initiatives



Pēpi Amelia | Born October 2021

Lactation Service

Lactation Consultancy Services operate within Maternity Services at Palmerston North Hospital. The service is designed to assist wāhine to realise their breastfeeding goals, and to provide staff with the skills needed protect, promote and support breastfeeding. The service is available 8am-8pm, 7 days a week and is staffed by



Hospital Lactation team from left: Ivy, Ali, Chris and Michelle.

International Board-Certified Lactation Consultants (IBCLCs). During 2021/2022, the service has seen several staff changes and changes to our FTE, increasing from daytime service to now including afternoon/evening cover. Increased FTE has led to improving equity of the service we provide by improving accessibility and ensuring wāhine who are here on weekends and holidays do not miss out on support.

The maternity-based lactation consultants also offer support to women at the Te Papaoiea Birthing Centre and Palmerston North Hospital General Wards. They help with any complicated breastfeeding problems, ideally with the staff member present, so they too can upskill and learn techniques to help wāhine under their care in the future.

An IBCLC works within Child Health, and is employed 24 hours each week, with a focus on supporting staff and māmā of unwell or premature pēpi in the Neonatal Unit, Children's Ward, Children's Assessment Unit and Paediatric Homecare Team. This role enables consistent specialised lactation support to our most vulnerable infants.

All community follow-up and support has been contracted through CBS, where free support could be accessed via self-referral or referral by another health professional.

In addition to working clinically, our lactation consultants collaborate to ensure the promotion, protection and support of breastfeeding. All staff within Te Uru Pā Harakeke are provided with targeted breastfeeding education. We ensure that we have evidence-based pēpi feeding policies and practice development and we maintain quality improvement strategies such as auditing and reporting statistical trends.

The Baby Friendly Hospital Initiative (BFHI)

BFHI is a key quality improvement tool that supports pēpi, māmā and whānau to achieve their pēpi feeding goals. Through BFHI, MidCentral has built a solid foundation that protects, promotes, and supports breastfeeding in our rohe. This work is aligned to the National Breastfeeding Strategy, Outcome 4: All maternity facilities achieve and maintain BFHI accreditation.

BFHI Accreditation was achieved for Kōhungahunga Birthing Centre in Horowhenua in January 2023. The audit was finished June 2022 but required some remedial action before it could be completed. Feedback from New Zealand Breastfeeding Alliance (NZBA) was positive noting, "how capable your team are" and "detailed education curriculum and resources viewed. Very impressive, well done to the education team."

BFHI Accreditation for both Palmerston North Hospital and Te Papaioea Birthing Unit are both due in 2023.

BFHI Education for 2021/2022

2021/2022 saw a large engagement from staff for breastfeeding education despite COVID-19 restrictions and ongoing staffing shortages. Maternity staff (excluding Child Health staff) completed a total 1018 breastfeeding education hours (including 59 hours of Māori specific and 266 hours of clinical breastfeeding education) between 2021/2022. All staff who work in maternity are required to maintain levels of breastfeeding education dependent on their role, for core nursing and midwifery staff this is a minimum of four hours annually. On average, maternity staff completed five hours per annum; a huge achievement demonstrating a real commitment to breastfeeding, meaning all staff are fully trained.

BREASTFEEDING STUDY DAYS

Our breastfeeding study days accounted for 60 percent of all breastfeeding education hours achieved by our staff. The team of Lactation Consultants ran seven study days during the 2021/2022 period, with only one study day cancelled due to the impact of COVID-19. Attendance of these days was high with 114 attendees over the two-year period. Maternity and Child Health staff made up 93 percent of the attendees.

Topics covered in the breastfeeding study day included:

- BFHI update and breastfeeding definitions
- Development of the infant microbiome and the importance of breastfeeding
- The late preterm infant in postnatal ward, co-morbidities and the importance of breastfeeding
- Ankyloglossia (tongue tie)
- Breastfeeding complications
- Safe sleep
- Whāngai Ora – Milk Bank Manawātū
- Competence based assessments focusing on hand expressing, feeding via cup, syringe and supplementary line as well as paced feeding and supporting non-breastfeeding infants.

We had up to six different presenters on the study days, predominately hospital employed IBCLCs and also Pēpi Haumaru Coordinator and Whāngai Ora Milk Bank Coordinator. The feedback we received from those who attended the study days was very positive, especially regarding the range of topics and presenter engagement.

LOOKING FORWARD

Breastfeeding study days continue in 2023 with another two-year rotation and a new curriculum. The focus of these study days will include:

- Indian culture and breastfeeding
- How we will prepare for level 3 BFHI accreditation
- Speech language therapist presentation
- Cultural responsiveness when supporting whānau Māori and Breastfeeding
- The impact of bias on clinical practice
- The non-latching pēpi.

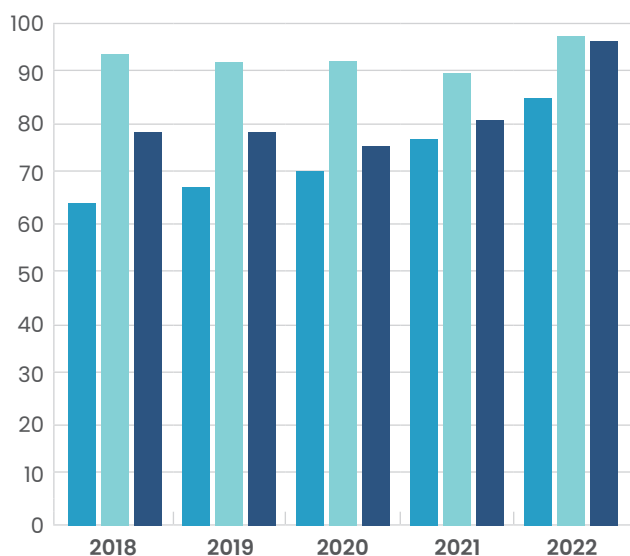
Exclusive Breastfeeding Rates

Exclusive breastfeeding rates have been on the rise in 2021/2022 across our maternity services. A large proportion of this is directly related to the increased use of PDHM within our maternity and neonatal facilities.

2021 saw the exclusive breastfeeding rate for Palmerston North Hospital meet the national standards for the first time in over six years at 76.94 percent. This upwards trend has continued with 2022 seeing an even higher rate of 85.27 percent.

Both our primary units continue to have high exclusive breastfeeding rates on discharge. Kōhungahunga has also shown a marked improved since the introduction of PDHM. Te Papaioea has also improved their rates, however PDHM is less of a factor for this as often the infants are short stays due to restrictions in opening hours.

Exclusive Breastfeeding at Discharge Rates of MidCentral Maternity Facilities (%)



KEY:



Palmerston North Hospital



Te Papaioea Birthing Unit



Kōhungahunga Maternity Unit



Māmā Chloe with her twin pēpi Marlin and Logan | Born August 2021

PDHM

The growth in use of PDHM within our facilities has had a positive effect on our exclusive breastfeeding rates but has also meant a lot of work around education for staff and ensuring processes are being followed correctly. Our lactation team has worked very hard alongside the team at Whāngai Ora Milk Bank to ensure this process flows well. We are especially grateful for the ongoing passion and commitment of the Whāngai Ora Milk Bank Coordinator Jacquie Nutt. Jacquie has continued to supply PDHM throughout many difficult times including COVID-19 restrictions, staffing changes and equipment failures.



Whāngai Ora Milk Bank (WOMB)



WOMB is one of just two pasteurised milk banks available in New Zealand. It was founded by Jacquie Nutt, Alex Wood and Amie Brown in 2020 who saw the need for an easily accessible, quality-controlled space where parents and whānau could access PDHM for their pēpi in the Manawatū rohe.

With support from the Wright Family Foundation and MidCentral, WOMB starting dispensing milk from November 2020. In the past two years WOMB has received 2019 litres of milk from 91 donors, and dispensed 1890 litres of milk to 919 pēpi. The donors are a small but amazing group, and they have had huge impact on our region.

WOMB services Te Whare Poipoi, (Palmerston North's Hospital's Neonatal Unit) as a matter of priority; then assist the māmā staying on Te Aotūroa, (Maternity Ward). Our priority in the community are for pēpi discharged from the Te Whare Poipoi whose māmā may still need help establishing a supply. Part of our work in 2022 was to make sure that community recipients were referred to a lactation consultant as well, even if WOMB had to pay a private consulting fee.

Any extra milk is then further dispensed to struggling community parents unpasteurised. This service came about after identifying a need from the MilkSharing Manawatū Facebook page. All donors have completed screening blood tests recently and completed a lifestyle screening form, ensuring milk is safe to be donated. There is great need in the community for donor milk with māmā experiencing an inexplicable low milk supply, māmā with cancer or undergoing emergency operations for health reasons and adoptive pēpi amongst other reasons.

By following the use of PDHM on Te Aotūroa, WOMB is hearing both positive and negative personal accounts. On one hand, many māmā have told us how it gave them huge peace of mind as their supply was built up, and 22 percent of 2022 donors have been past recipients – a huge return on investments. On the other hand, two māmā felt that having the PDHM supplement slowed down their own milk supply coming in, and they had to work harder at getting it back. WOMB try to act not as a supplier of milk, but as

a wrap-around support for the recipient whānau with the aim of maximising the supply of the māmā. This has identified the need for a closer working relationship with the Lactation Consultants service on-site at the hospital and will be a focus for 2023.



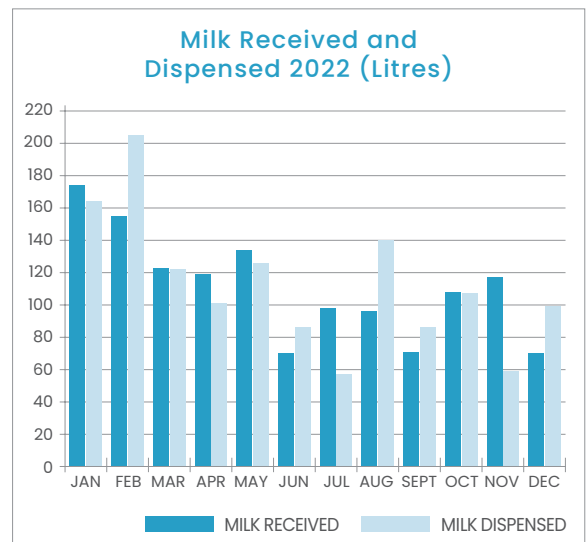
Another aim for 2023 is to work on funding streams to enable a pasteurising technician to be hired to work four or five days per week to keep up with demand. Current volunteer workload of pasteurising is on average 145 hours per month in addition to the 10 hours of paid work per week the WOMB Coordinator currently works.

Current ideas for funding streams include applying for more community funding grants, or having regular sponsorship. Alternatively, we could begin to charge a fee for the PDHM by the litre to recipients which the Christchurch Women's Neonatal Unit Human Milk Bank has had to do to offset costs.

So far we have managed to provide this wide-ranging service with minimal cost allowing it to be accessible to all, and will endeavour to keep providing to those of greatest need.



Jacquie Nutt,
Lactation Consultant
and founder of WOMB.





Newborn Hearing Screening Service

Te Mātai I te Rongo a Pāpi

The New Zealand Newborn Hearing Screening Programme is designed to identify moderate or more severe permanent congenital hearing loss, which affects approximately 1 in 1000 pēpi.

The core goals of the Newborn Hearing and Early Intervention Programme are described as the '1-3-6' goals which are based on international newborn hearing screening programme benchmarks.

- All pēpi to be screened for hearing loss by one month of age.
- Audiological diagnostic assessment for pēpi who refer from screening will be completed by three months of age.
- All pēpi identified with a hearing loss will begin receiving family centred intervention services by six months of age.

An effective newborn hearing screening programme will identify pēpi with permanent congenital hearing loss soon after birth. It will also initiate medical and education intervention between 0-3 years of age, the most important period of language development. Evidence shows that pēpi who begin to receive appropriate intervention before the age of six months can maintain language, social and emotional development commensurate with their physical development.



Hearing Screening Team from left to right: Sarah, Catherine and Rosemary.

The Universal Newborn Hearing Screening and Early Intervention Programme (UNHSEIP) at Palmerston North Hospital, provides screening services in both the Te Aotūroa (Maternity Ward) and the Te Whare Poipoi (Neonatal Unit). Wards are visited Monday to Saturday mornings with the flexibility to return at other times if required. The team also look for any unscreened pēpi who may be inpatients in the Children's Ward and offer the service while they are there.

Our team is comprised of one full-time screener/coordinator and two part-time screeners. A third screener joined us in March 2022 allowing us to introduce Saturday morning screening within the hospital, thus decreasing the community clinic numbers, and increasing our screening from 93 percent to 95 percent. All screeners have completed and passed the Annual Competency

Exam (ACE) and are peer-monitored weekly. This is an important component of assuring quality and to identify areas for screener development.

Outpatient clinics are held in the Audiology Department of the hospital in afternoons from Monday to Thursday, with community clinics held at Te Papaioea Birthing Unit, Horowhenua Health Centre, and Dannevirke Community Hospital. Offering screening at community clinics helps to reduce geographic health inequities and we plan to expand our community clinics to enable ease of access to our service. We will also continue to explore ways that we can work with families who do not or are unable to attend these clinics.

Pēpi booked into the outpatient clinics are generally around two weeks of age, to ensure that if a second screen is required, this will be completed by the time they are a month old. This is in keeping with the Manatū Hauora guidelines. During the past two years COVID-19 restrictions required RAT testing of parents/caregivers before each outpatient appointment, increasing appointment times. Some whānau chose to postpone appointments until this was discontinued, causing many pēpi to miss being screened by one month of age.

If pēpi do not pass the second Newborn Hearing Screen, they are referred to Audiology for diagnostic testing. Pēpi at higher risk of having hearing loss from birth; or developing a hearing loss in early childhood also have Audiology follow up based on their risk factors.

The Newborn Hearing Screening pamphlets are available in a variety of languages, to enable whānau to have equal opportunity to make an informed decision about our service, ensuring that all parents of eligible pēpi are offered the screening. An interpreter can also be brought in to liaise with us at the screening if required.

The MidCentral Newborn Hearing Screening service was externally audited in May 2022, as part of the quality evaluation of the programme delivery at MidCentral. This was a positive day and overall, the provision of services for the screening programme met requirements with only having three low corrective actions to complete. The service is currently in the process of introducing updated screening equipment. This has been in the planning for the last 12 months and is part of a nationwide rollout.

Our focus for 2023, is to further reduce health inequities. We will do this by striving to provide our service in a culturally appropriate manner; and to expand our community clinics to both outer regional areas and more community-based locations within the urban locations to enable ease of access to our service to all whānau.





Antenatal Diabetes Clinic

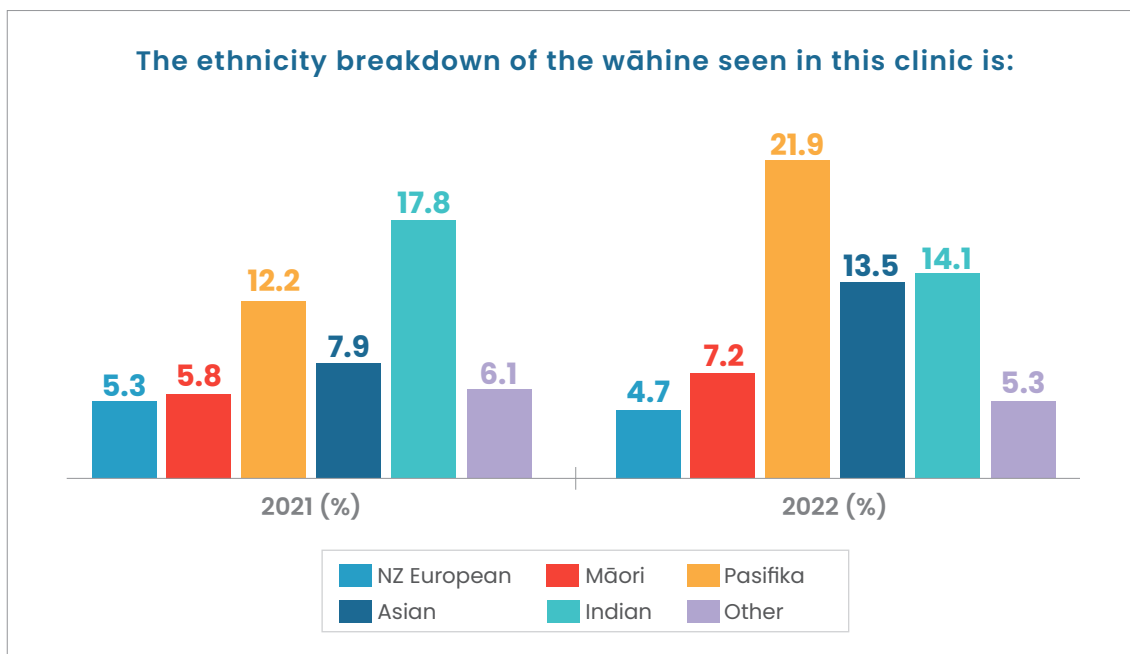
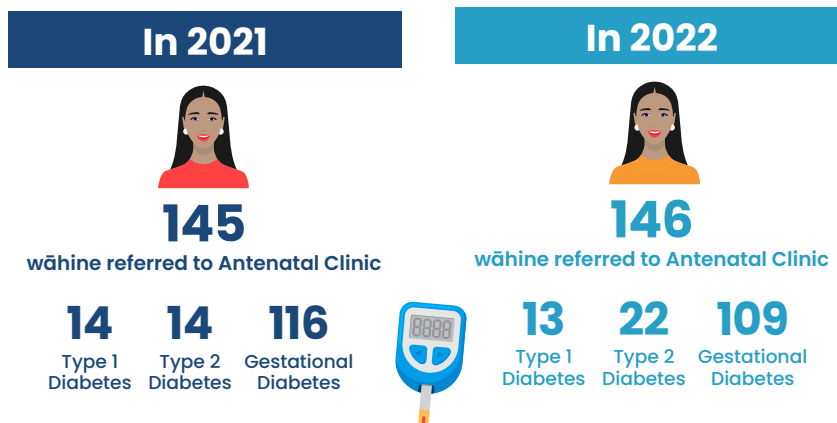
The Antenatal Diabetes Clinic is run by a multidisciplinary team consisting of a consultant obstetrician, an obstetric registrar and a diabetes midwife specialist. It is at Te Papaioea Birthing Centre, until mid-2023 when it will move to the permanent location.

The Antenatal Diabetes Clinic sees all wāhine referred to their service for Type 1 diabetes, Type 2 diabetes and gestational diabetes. While these wāhine do have a higher rate of caesarean sections and admissions to the Neonatal Unit, most are still able to retain their LMC midwife for their pregnancy, labour and birth, and postpartum journey.

Education is given in the Diabetes Antenatal Clinic to all hapū māmā about antenatal expression of colostrum to assist their pēpi adjust to life after birth.

The midwifery and nursing staff, using the NEWS tool, identify and monitor at-risk pēpi. Early initiation of breastfeeding is a top priority to help to stabilise blood sugars. Together we are successful in keeping 70 percent of pēpi born to māmā with either pre-existing or gestational diabetes with their māmā, with only 30 percent of these pēpi admitted to Te Whare Poipoi (Neonatal unit) for additional care.

In 2023, the Diabetes Specialist Midwife has scheduled education sessions for all maternity staff to learn more about pre-existing and gestational diabetes.



*Percentages given reflect the portion of wāhine within their ethnic group that have diabetes, although the numbers for some groups are small, it highlights the over representation of certain ethnic groups with a prevalence of diabetes.

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SANDS (Stillbirth and Neonatal Death Charity, including pregnancy, baby and infant loss) is a parent-run, non-profit network supporting whānau who have experienced the death of a pēpi. All of the people in SANDS give their time voluntarily, and in Manawatū–Horowhenua we have a committee of five with two support coordinators – Rebecca and Dana and one coordinator in training.

The service that SANDS offer is an incredible support to whānau experiencing any loss of a pēpi, regardless of the situation. It is inclusive and non-judgemental. They offer empathy and understanding to give bereaved whānau the opportunity to share their experiences. The volunteers are on-call to come to the hospital when a bereaved whānau needs immediate support. They sit and listen and offer services such as photography, hand and footprints and memory boxes to become treasured mementos. The team are currently learning how to do hand and feet castings to be able to offer another memento service to whānau.

The SANDS Manawatū–Horowhenua team stock the cupboard in the Maimai Aroha room on site at Palmerston North Hospital, with resources such as knitted and swan clothing, coffins and anything else that may be needed to farewell the tiniest of pēpi. These resources are often donated by whānau who have been through the service themselves, or by other volunteers or community groups.

The SANDS Manawatū–Horowhenua team also host regular online support meetings such as Open Support Meetings: supporting all bereaved whānau no matter the gestation of pēpi when they died or how they died, Empty Arms: supporting bereaved whānau with no living tamariki; and Pregnancy After Loss: supporting whānau who are experiencing a pregnancy after a loss. SANDS Manawatū–Horowhenua offer support through kanohi e te kanohi (face-to-face), over the phone, emails or messages to all.

They work to promote awareness of pregnancy and neonatal loss, and offer ongoing support to whānau with events such as the Christmas Service, an event where bereaved whānau could come and create a decoration to be hung on the Christmas tree to remember the pēpi who have left too soon; and Baby Loss Awareness week which falls in October each year which is commemorated with the Wave of Light lantern ceremony, where the clock tower in Te Marae o Hine (The Square) is lit up pink and decorated lanterns were lit and released into the small pond.

Events such as these become a treasured part of the journey for bereaved whānau as they live their life after the loss of a pēpi.



Thanking Birthing Suite staff on
Baby Loss Awareness Week |
October 2022.



Family Violence



The Violence Intervention Programme is delivered nationally in all Te Whatu Ora regions and it “recognises intimate partner violence and child abuse as important health issues, because they are significant precursors of a range of poor health outcomes and long-term conditions¹.”
(Ministry of Health, 2016)

Victims of family violence use health services at a significantly higher rate than others. Adult victims can present up to three times as often to the Emergency Department and are two times as likely to have visited a healthcare provider in the previous four weeks².

The Adverse Childhood Experiences (ACE) Study suggests that being a victim of child abuse and/or witnessing partner abuse is linked to serious health problems in adulthood³. The increase in the compounding number of ACEs is also correlated with an increased likelihood of intimate partner violence and non-partner violence exposure⁴.

As health harm from family violence and sexual violence is cumulative, early intervention is instrumental for improving physical and mental health outcomes.

MidCentral's approach is about wanting to make a positive difference in the lives of individuals, whānau and communities. One way of doing that is ensuring that Te Aorerekura – The Enduring Spirit of Affection | The National Strategy to Eliminate Family Violence and Sexual Violence 2021 is integrated in to practice.

Te Aorerekura is underpinned by and gives effect to Te Tiriti o Waitangi. It's moemoeā (dream and vision) for change is that:

“All people in Aotearoa New Zealand are thriving; their wellbeing is enhanced and sustained because they are safe and supported to live their lives free from family violence and sexual violence.”

To support staff to be able to screen, they are required to complete the Intimate Partner Violence and Child Abuse and Neglect core training. This training provides the foundation of knowledge and skills for screening for Family Harm.

In 2021, 14.29 percent of the Maternity Ward staff had completed the training and this has increased to 33 percent by the end of 2022. For Birthing Suite staff, 42.9 percent had completed training in 2021, increasing to 44 percent in 2022. The Neonatal Ward, 79 percent had completed the training in 2021 raising to 83 percent by the end of 2022.

When looking at the training rates, this information tells us the percentage of staff who are trained to be able to undertake the family violence screening has increased in each of the maternity areas. This is however not reflected in the screening rates, which at last audit completed in July 2022 had Maternity screening 20 percent of patients; Birthing screening 12.5 percent of patients and the Neonatal Ward screening 33 percent of patients.

The National goal for screening is 80 percent in each of the areas.

When reviewing what has been completed and what the focuses have been in the past to support increased rates of screening, the Family Protection Team has identified that increasing the training rates has not equated to

increased screening. There needs to be support within the wards to support those trained to screen all wāhine that come into the service. The focus for the Family Protection Team is to support managers and leaders within the Maternity area to complete the training themselves; to identify Family Violence Champions within the wards so that the staff know where to go to for support in their everyday work; and following up with staff that have completed the training within a week of their training to make a plan on how they are going to implement screening in to their everyday practice.

Family Violence and Child Abuse is everyone's business and through screening there is the opportunity for whānau to receive support, to become and lead a violence free lifestyle.

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¹Ministry of Health. (2016). Family Violence Assessment and Intervention Guideline.

²Fanslow, J., & Robinson, E. 2004. Violence against women in New Zealand: prevalence and health consequences. The New Zealand Medical Journal, 117(1206), 1-12.

³Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards,

⁴Fanslow, J., Hashemi, L., Gulliver, P., & McIntosh, T. 2021. Adverse childhood experiences in New Zealand and subsequent victimization in adulthood: Findings from a population-based study. Child Abuse & Neglect, 117(1), 1-16.

V., Koss, M. P., & Marks, J. S. 1998. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. American Journal of Preventive Medicine, 14(4), 245-258.

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Smokefree

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In the MidCentral rohe over the past two years, the rate of hapū māmā that smoke has reduced from 15.8 percent to 11.4 percent. Our continuous data audit has enabled a closer look at the ethnic breakdown of these māmā so we are able to provide targeted education to the most affected groups.

New Zealand Māori have the highest smoking rates of any ethnicity with 29.3 percent (in 2021) of the total number of hapū māmā smoking, decreasing slightly to 26.6 percent (in 2022). The next affected ethnicities have seen bigger decreases in their smoking rates over the past two years, with Pasifika wāhine recording 20.4 percent of their hapū māmā as smokers in 2021, dramatically dropping to just 8.5 percent in 2022; and New Zealand European wāhine recorded 14.1 percent smokers in 2021, decreasing to 8.5 percent in 2022.

It is the intention that every hapū māmā is asked about smoking upon each admission to Te Uru Pā Harakeke and offered brief advice and support to quit. Admission screening rates sit over 90 percent, however the number of māmā wanting a referral made to our Quit Smoke Team is minimal.





Krysta and Phillip Fallen with pēpi Colton |
Born December 2022



3

Our Midwifery Workforce

Nāku te rourou, nāu te rourou ka ora ai te iwi
With your basket and my basket the people will live



Recruitment and Retention

Recruitment and retention of midwives has remained a risk for MidCentral throughout 2021 and 2022.

A robust midwifery workforce action plan was created in 2020 and covered the following areas:



Updates against actions were reported to the MidCentral Board six weekly throughout 2021 and 2022 and are now reported to Te Uru Pā Harakeke Governance Group.

Recruitment of Midwives

In 2021/2022, we maintained a strong emphasis on midwifery recruitment and retention. Initiatives focused on areas such as incentivising midwives to work full-time or increasing their hours and valuing those who are continuing to work long hours. We continued to try and recruit midwives nationally and internationally despite COVID-19, as midwifery is an essential workforce. We have one international midwife commencing work early 2023. Recruitment remains a priority focus for the leadership team.

Since the commencement of the Return to Practice programme in 2021, two midwives have successfully graduated, one in 2021 and one in 2022. One of these graduates is currently working in a senior midwifery position as the Kaiaraara Tu Ora Midwife – Specialist Māori Midwife, the other is a valued core staff member. MidCentral continues to actively support midwives wanting to return to practice.

MidCentral remains on the Te Whatu Ora Voluntary Bonding Scheme for Midwifery which offers financial incentives to newly qualified new graduate midwives who work in the MidCentral rohe. We took a different approach to our three new graduates in 2022, ensuring that they were supported in practice by our newly appointed Clinical Coach. We have one new graduate midwife commencing work in 2023 and continue to support local midwifery students with placements in Birthing Suite, Maternity, Neonatal Unit and the wider Women's Health Service.

Retention

During 2020, a national Midwifery Career Pathway framework for was developed with Midwifery Employee Representation Advisory Service (MERAS) and we implemented this into our unit in 2021. This initiative will help midwives direct their career development to areas of interest. Midwife Managers for primary and secondary are in place to support this development.

The pathway recognises the unique way that midwives work and their ability to transition relatively smoothly from employed to self-employed practice and vice versa. Having a clear professional pathway enables midwives to achieve their career goals, support retention of experienced midwives and supports a more engaged and motivated workforce.

Supporting midwives to stay in practice has involved a multifactorial approach. Working with midwives to enable sustainable working arrangements has been a key priority for us and we have undertaken an enormous piece of work to improve our culture. We often eat kai together and socialise at special times in the year, celebrating special occasions and making a conscious effort to be kind to each other in challenging times. A wide variety of professional opportunities have continued fostering learning opportunities and career development for midwives.

In January 2021, the Te Uru Pā Harakeke leadership team at MidCentral requested a site visit by Emma Farmer, Director of Midwifery for Waitematā DHB, to understand the local stressors caused by a chronic shortage of midwives and make recommendations to assist the service going forwards.



Reflection on My Return to Practice Journey



As a former core midwife of Palmerston North Hospital, I was interested to hear from a LMC friend that MidCentral District Health Board was holding a Return to Midwifery Practice information day at the end of 2020.

The Midwifery Director explained that “to support the return to practice, MidCentral is offering a supportive programme that will assist in updating any required knowledge and skills so nurses and midwives can return with competence and confidence. We want to boost our midwifery workforce with experienced staff who have done this before and are ready to return to a supportive working environment.”

The return to practice programme, set by Midwifery Council, is for midwives who have taken a break from midwifery practice in New Zealand. Having had a six year break due to growing my family, the programme would be something I would need to undertake if I were to return to midwifery. For me, it would include a combination of education and courses run through MidCentral, Otago Polytechnic, Ara and the Manatū Hauora as well as supervision and monitoring.

Meeting with a Senior Midwife and the Midwifery Educator, it was lovely to be so warmly welcomed to the day, and it felt as though they would be happy to have me come back to work. I was offered full collegial support, as well as supervision during my progress through the return to practice programme. MidCentral offered a family friendly FTE and to pay for all of my required education and courses. It was these factors that resulted in me accepting the offer of employment as a return to practice core midwife.



Throughout 2021, I felt greatly supported by my midwifery colleagues during shifts, who were always willing to answer questions and provide guidance when needed while I regained my confidence. The education was, at times, challenging to manage around work and home commitments, but vital to update my knowledge, and ensure my competence as a practitioner.

Monthly meetings with my return to practice supervisor, assisted me greatly in ensuring that I met all of the Midwifery Council's requirements in a timely manner, as well as providing an invaluable safe space for debriefing and professional guidance.

It is satisfying supporting wāhine and whānau through pregnancy and birth, when they are needing to engage with our services at Palmerston North Hospital. I feel privileged to be able to work in this extremely rewarding career again, and with such wonderful fellow midwives. I strongly encourage any midwives considering returning to practice to get in contact.

Thanks again to MidCentral for the opportunity and support provided to me to return to practice, as well as to the midwifery team for being there for me throughout my journey so far. Bring on 2023!

The Midwifery Workforce Retention action plan was developed with MERAS incorporating feedback from hospital employed Midwives and patient satisfaction surveys and the recommendations from the external Director of Midwifery site visit.

Introducing a 24/7 Clinical Midwife Manager to provide senior midwifery supervision and minimising clinical risk was a key plan to improve clinical safety. Implementation of this has been challenging due to unsuccessful recruitment efforts but this remains a high priority.

FTE for auxiliary roles of administration and health care assistants were increased allowing midwives to concentrate more on clinical care. Hours were also increased for lactation consultants to enable continuation of specialty breastfeeding knowledge in Te Aotūroa.

Supporting professional wellbeing continues to be a priority. Midwifery professional supervision has been developed to increase pastoral care for staff. We also try to optimise education and training opportunities over and above minimal Midwifery Council Requirements. In 2021, a Midwifery External Education and Development Fund was established; however further work is needed to encourage staff uptake.

MidCentral introduced retention payments to permanently employed midwives contracted 0.4 FTE and above in June 2021 as part of the retention strategy. Payments are pro-rated to FTE with full-time staff receiving payments of \$2500 each six months. Staff who increased their contracted FTE for at least 12 months received further payments.

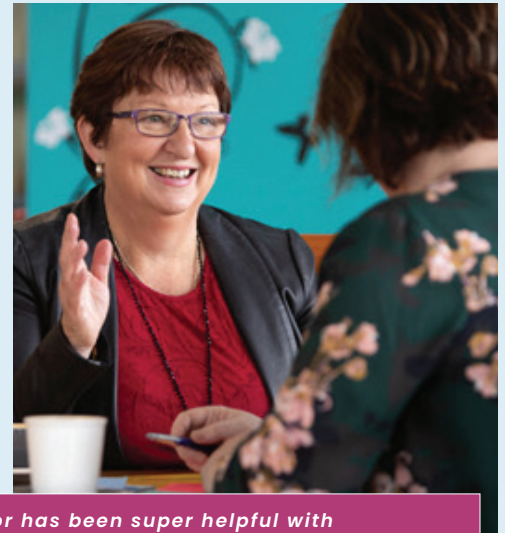
Employee Engagement Survey

MidCentral undertook employee engagement surveys with all employees. The survey's purpose was for the leadership team to understand retention and to fully engage with our staff to understand the workforce issues, workforce development and workforce culture and employee wellbeing initiatives. Additionally for Women's Health a culture survey was completed. The leadership team worked with Francis Health to develop plans for fostering a working environment where employees in all positions are welcomed and feel safe. This has occurred with the senior midwifery team to date.





Midwifery Professional Support



"Our facilitator has been super helpful with any questions throughout the course and has developed a learning environment for us that we feel comfortable asking about anything we aren't sure of."

The Midwifery Professional Support (MPS) Pilot Programme began July 2021 with the aim of improving the wellbeing of our midwifery workforce. MPS provided this through two approaches offering both professional and cultural supervision as well as provide life and career coaching. Objectives of the MPS programme were to facilitate and provide support and a safe environment where midwives could debrief, maintain perspective and develop strategies to overcome any issues they faced.

At the time the pilot programme was approved, it was agreed a survey would be done of the midwives participating in the programme to evaluate its effectiveness. Key indicators expected from the support programme included improved midwifery wellbeing, workforce retention and the quality of maternity services.

Fifteen midwives completed the MPS pilot programme between July 2021 and May 2022 and survey results indicate that they found the sessions supportive, reflective, and helped with giving direction. Support and reflection are key components in helping to build and create increasing self-awareness and resilience.

The MPS sessions enabled the midwives to find perspective at work (81 percent), feel they were more able to manage their work and the job pressures (79 percent), and 76 percent believed that receiving MPS improved the quality of care they provided. The sessions reduced the time they thought about work after a normal shift and after an adverse event.

In September 2022, the programme was extended to our maternity nursing staff as Nursing Professional Support (NPS). There are currently eight nurses enrolled in NPS.

Our Maternity Service plans to continue with MPS/NPS throughout 2023 with a few enhancements planned for the programme. A focus will be on ensuring cultural supervision is available for all midwives and nurses, not just limited to those who identify as Māori. There is going to be a focus on identifying staff who have a passion for support and training them so that staff have a choice of who they can approach for support. The MPS Coordinator has created a Rapid Response document in conjunction with the Psychological Response Team. This document is to streamline the response time for staff involved in critical incidents and will be finalised in early 2023.

Comments from Midwives

- "Having the time to sit and discuss issues with someone who understood my role as a core midwife and the issues we face on a day-to-day basis. I'm more empowered as a midwife through these sessions. I have more belief in myself and find joy in daily tasks again."
- "I can move on from the negative challenges from work much quicker now. I now think about one challenge but counter it with three positives. It makes me feel better about myself and my work."
- "The feeling of support and acknowledged for how I was feeling. Unbiased support. Good tools to assist with change needed."

Safe Staffing

In 2018, the Care Capacity Demand Management (CCDM) Programme was introduced to the maternity service. This programme aims to match a person's need for care with the right staffing. The programme is based on data regarding patient cares over the length of their stay. This tool enables midwives to measure staffing levels against acuity and use the data for acuity-based staffing. CCDM is a significant process change from the way we have historically managed workloads and staffing.

The latest CCDM calculations for Hine te Iwaiwa and Te Aotūroa were completed and signed off in November 2021. This work was supported by both MERAS and New Zealand Nurses Organisation (NZNO). The total budget for both areas increased by 8.8 FTE (to a total of 59.95). The FTE calculations showed a significant increase in both areas.

We have been unable to complete further calculations due to poor data quality. Ongoing efforts to improve this are of priority quality before the next calculations are done in 2023.

Due to ongoing national shortages of midwives, MidCentral has found it necessary to employ Registered Nurses (RNs), to cover the vacant midwifery positions. The resulting shift in skill mix has created challenges. It is envisaged that as the midwifery workforce grows, natural attrition of RN positions will be replaced by midwives.

Students

Within our maternity services we were delighted to offer nine midwifery students Maternity Care Assistant (MCA) positions within our team in 2022. The establishment of MCAs, who are all enrolled in a New Zealand Bachelor of Midwifery Programme, is to ensure that the health and wellbeing of whānau is supported by a therapeutic environment that is clean, welcoming and safe. MCAs work in a supportive role to the midwifery team and provide additional help and support to new māmā under the direct supervision of a midwife. Being able to perform tasks relating to the care of pregnant wāhine, new māmā, pēpi and their whānau, MCAs help to create an environment that is welcoming and supportive of whānau. The role also provides the opportunity for midwifery students to have paid work and become familiar with the hospital and ward settings and develop relationships within the multidisciplinary team.



Maternity Care Assistants.

Gateway Programme.

The Gateway Programme provides a pathway for local students in year 12 and 13 considering a career in health. We welcomed two students interested in midwifery to participate in placements in the Community Midwifery Team and Maternity in 2022.

We work very closely with Otago Polytechnic – Te Pukenga and have healthy cohorts of midwifery students for the next few years. Students have numerous placements across their programme in both the Birthing Suite and our Maternity Ward.



Clinical Coach



New graduate midwives with midwife Robyn Roy who started employment at same time.



New graduate midwives that started in 2022 at their graduation, with Clinical Coach Jade Wratten.

In February 2022, MidCentral recruited to the position of Midwife Clinical Coach, a speciality midwifery position and initiative created out of the Midwifery ACCORD and supported by the Manatū Hauora.

Working within Te Uru Pā Harakeke, the role was designed to support midwifery staff to develop and maintain clinical skills and knowledge. Since appointment, the clinical coach has been working closely with existing midwifery staff, three new graduate midwives and one return to practice midwife; and has been instrumental in recruitment efforts, both nationally and internationally to boost our midwifery workforce.

Our clinical coach meets regularly with the new graduate midwives for debriefs and guidance, as they navigate their way through their first year of practice. She has supported a midwife completing her return to practice, supervising

her through the competency requirements set by Te Tatau o te Whare Kahu Midwifery Council which resulted in her successfully graduating the programme and remaining on staff.

The clinical coach also meets all new midwives, both employed and LMCs to orientate them to our primary unit and busy secondary unit. This ensures new staff and LMC midwives are familiar with MidCentral's systems and processes, allowing a smooth transition to our rohe.

Student midwives have also benefited from the existence of a Clinical Midwife Coach as she acts as a contact person for tauira regarding their placements at MidCentral. Working closely with the Midwifery Educator, our clinical coach also supports staff to complete the Quality Leadership Programme to nurture our future leaders in the midwifery space.

The role and new approach to supporting staff has been a welcome addition to Te Uru Pā Harakeke, providing much needed support and direction to our midwives, both new and existing.

Primary Secondary Interface

The interface between primary and secondary care relies on robust communication and processes ensuring both quality in and safety of maternity care services, consistency of consultation and transfer of care arrangements, and the promotion and support coordination of care across maternity care providers. We have multiple active mechanisms to allow communication and feedback between providers to improve the care pathways wāhine and providers can expect at the interface.

Access Holders Meetings

This forum has provided a professional interface between the service and Access Holders. Held generally monthly, either by Zoom or in person as able, operational updates are provided by the Midwife Managers and Operations Lead.

Maternity Newsletter

Distributed to midwifery, nursing and medical staff as well as LMCs. The newsletter shares updates for education, quality updates, breastfeeding and the wider service.

Midwifery Forums

Hosted by the midwife managers, the midwifery forums have a professional focus for midwives to share feedback and areas of concern with the midwifery leaders. Although not well attended, valuable feedback and insight has been shared.

Primary/Secondary Interface Group

Established following a Midwifery Forum which identified the need for a document outlining expectations of parties working in the interface between primary and secondary care. This work has been placed on hold pending the release of the updated Guidelines for Consultation with Obstetric and Related Medical Services (Referral Guidelines).



The Māori Nursing and Midwifery Forum.



Midwives Brooke and Jenny providing antenatal care.



Māmā Melissa Verhoeven supported by LMC Midwife Suzanne Saunders prior to her elective caesarean section for the birth of pēpi Addison | May 2021.

Supporting Māori and Pasifika

MidCentral had an overarching Māori Health Workforce Development Implementation Plan developed in consultation with Pae Ora Māori Health Directorate and Mana Whenua to enhance our Māori workforce that came to a close in 2022.

In October 2021, Te Uru Pā Harakeke created and recruited into the Kaiaraara Tu Ora, Specialist Māori Midwife role. This was an action in the Midwifery Action Plan, created in response to discussions held at a partnership workforce meeting. The Kaiaraara Tu Ora works alongside members of the Social Work and Pae Ora Paiaka Whaiora Hauora Māori team to assist the maternity team in providing a wraparound service to wāhine identified as high risk in need of additional supports.

We have supported Kia Ora Hauora as a workforce development programme from inception in 2009 to help us implement He Korowai Oranga. Kia Ora Hauora aims to promote careers for Māori in the health and disability sector and increase Māori health workforce capacity. During this time period there have been significant increases in Māori students and graduates. Recent works of priority have been strengthening the transition from tertiary study to the workplace and building networks between students and alumni for mentoring as well as amongst clinicians for career development.

Within MidCentral we have a regular Pasifika nursing and midwifery forum to connect the Pasifika nurses within the rohe, raise any issues or challenges faced and enable advocacy for our Pasifika workforce.

Te Uru Pā Harakeke directorate has a deliberate recruitment policy to increase the number of Māori staff across all areas of the directorate and will contribute to MidCentral's Māori workforce goals.

- The service has commenced utilising the Māori recruitment agency Ahu Jobs, who specialise in connecting Māori with our vacancies with the aim to increase our Māori maternity workforce. To date no applications have been received.
- The service supports rangatahi from Pūhoro STEMM Academy (Science, Technology, Engineering, Mathematics and Maturanga academy) with placements within the Te Uru Pā Harakeke directorate. Launched in 2016, Pūhoro was developed in response to national low engagement of Māori in STEM-related career pathways that subsequently leads to lower numbers of Māori representation in science and technology industries in Aotearoa. During the summer period of 2022 to 2023, MidCentral hosted six students into summer internships. This resulted in the completion of projects in the maternity sector such as "Mokopuna Ora - Capture the evolution of the wahakura design since the inception of Mokopuna Ora wānanga", and "Whangai Ū - Gain and insight into the barriers and challenges māmā face in achieving their breastfeeding goals".



Pūhoro STEMM Academy placements.



Te Ara ō Hine – Tapu Ora



National Te Ara ō Hine – Tapu Ora Hui at Maraeroa Marae, 2022.

Te Ara ō Hine – Tapu Ora was launched at Auckland University of Technology on 30 March 2021 stemming from the Midwifery Accord and an initiative supporting Whakamaui, the Māori Health Action Plan and Ola Manuia, the Pacific Health and Wellbeing 2020–2025 Action Plan.

Te Ara ō Hine – Tapu Ora will help address the serious workforce shortage of Māori and Pasifika midwives, as well as midwifery educators, academics and researchers in New Zealand. This shortage has created challenges in terms of appropriate and equitable service provision for Māori and Pasifika whānau who are at the highest risk of serious adverse maternity outcomes*. Recruitment of Māori and Pasifika taura midwives is considered one of the most important strategies in addressing these inequities. To meet the needs of wāhine and whānau and have a workforce that is reflective of the needs of the population, we need to increase the number of Māori and Pasifika midwifery graduates significantly over the next five years.

All five of New Zealand's midwifery education providers have collaborated on this government sponsored project to provide wrap around pastoral, academic and financial support to Māori and Pasifika taura midwives.

Funding is dedicated to recruit Māori and Pasifika into midwifery programmes, as well as new hardship grants available to all taura midwives to alleviate acute financial pressures during training.

Te Ara ō Hine – Tapu Ora enables appointments of Māori and Pasifika liaison midwives for each midwifery school to provide pastoral and academic support to Māori and Pasifika taura midwives. In 2022, two local representatives were appointed to the Māori and Tapu Ora Pasifika liaison roles.

In addition, Māori and Pasifika taura midwives will receive funding to support membership of midwifery professional bodies, such as New Zealand College of Midwives, Nga Maia and Pasifika Midwives Group, and money towards the costs of attending annual taura midwifery hui/fono.

We are hopeful Te Ara ō Hine – Tapu Ora will make a real difference to the recruitment of Māori and Pasifika taura midwives into midwifery, and to their successful graduation as midwives at the completion of their training. Importantly this will improve the experience and outcomes of Māori and Pasifika whānau.

*Perinatal and Maternal Morbidity Review Committee, 2022. *Fifteenth Annual Report of the Perinatal and Maternal Morbidity Review Committee* | Te Pūronga ā-Tau Tekau mā Rima o te Komiti Arotake Mate Pēpi, Mate Whaea Hoki. Reporting Mortality and Morbidity 2020 | Te Tuku Pūrongo mō te Mate me te Whakamate 2020. Wellington: Health Quality & Safety Commission.



Te Ara ō Hine – Tapu Ora Māori Liaison



Māmā Kala Engand in labour with pēpi Evelyn Luce | Born June 2021

Ko Mamaru te waka
Ko Whaakangi te Maunga
Ko Pakiri te awa
Ko Taemaro te Moana
Ko Ngati Kahu ki
Whangaroa te iwi
Kei te noho au ki
Kawakawa (Aorangi)
Ko Kayla Burnes toku ingoa

In this role I tautoko our tauira Māori enrolled in the midwifery programme through Te Pukenga Otago Polytechnic. This is a Government funded project to increase our Māori midwifery numbers, which we all know is much needed.

In this role I am very grateful to have the support of Te Ara ō Hine and Tapa Ora liaisons, local Māori midwives, my practice partners and our amazing enthusiastic midwifery tauira Māori.

Working with Te Pukenga Otago Polytechnic we aim to implement Te Ao Māori birthing practices into the curriculum for all midwifery tauira and encourage attendance at local Māori initiatives, such as wānanga wahakura.

This year we will have another National Te Ara ō Hine hui a tau for all Midwifery tauira Māori in Aotearoa. We are also planning a regional hui. This is to establish whakawhānaungatanga, Te Ao Māori spaces, iwi connections and further support networks for tauira Māori.

Kayla works alongside Esther Manville whose focus is supporting Pasifika midwifery students.



Tauira Midwifery Reflection

The midwifery degree is intense, and doing the degree as a distance student can make you feel isolated sometimes, especially as a Māori tauira trying to find others who share the same whakaaro.

Ko Tongariro te maunga
Ko Rotoaira te roto
Ko Te Arawa te waka
Ko Ōtūkōu te marae
Ko Okahukura te whare
He uri ahau nō Ngāti
Tūwharetoa
Ko Nikita Karl tōku ingoa



Nikita and her whānau.

My first placement shift at the hospital was very daunting; however, on that same shift, I had Māori midwives engage with me and let me know if I ever needed any support with anything to make contact. I appreciated the interaction as I felt safe and welcomed, which encouraged my self-confidence. Each shift after that, I felt confident to ask questions and interact with all midwives and nurses. Throughout my placement, the support I received from midwives and the nursing staff was outstanding; all staff took me under their wings and taught me skills and life lessons needed to become a fantastic midwife, with women's health and wellbeing at the forefront.

As a Māori Midwifery student, many supports are available, and I was lucky enough to attend the Te Ara ō Hine hui a tau in 2022. The chance to meet and kōrero with Māori midwives around Aotearoa is something not many would get to experience. Learning about the different ways in which they support Māori wāhine and whānau and incorporate Te Ao Māori in their working environment ignited a passion within me to continue to learn and engage with Māori birthing traditions. Being surrounded by

wāhine who all shared the same whakaaro, dreams, and aspirations has been uplifting and empowering and ignited that mauri.

Connecting with fellow Māori midwifery students and midwives is essential for Māori midwifery students. Mid-year Kayla Burnes was appointed Te Ara ō Hine liaison. The support I received from Kayla was terrific. Kayla would go above and beyond to read last minute essay drafts, make phone calls to check in, and see how we were tracking academically and personally. Kayla assisted and encouraged us as a cohort to connect with our fellow Māori midwifery students. My peers' support guided me through the tough times and encouraged me to reach out when I felt overwhelmed.

"Ehara taku toa i te toa takitahi, engari he toa takitini" - Success is not the work of an individual, but the work of many.

Due to COVID-19 restrictions at the start of 2022, we could not travel to Dunedin for orientation, so all communication was online via Teams. The Māori Support team, Te Punaka Ōwheo, offers a massive range of support for Māori students. However, it is much harder for me, as a distance student, to feel comfortable making contact. If I had the opportunity for kano ki te kano (face-to-face) interaction, I would have established a relationship and accessed these services throughout the programme. However, the team is open to engaging online, and I did use the service to help with my scholarship applications.

Peer tutoring is free for all students; although I was not struggling with biology, I felt I needed extra support. I contacted Student Success, enquired about peer tutoring, and received five free biology lessons, all individualised to my learning needs. Student Success offers an extensive range of support and is always willing to help when needed.

If I can offer any advice to present and up-and-coming student midwives, it would be to build relationships with peers, kaiako, and colleagues to help you work through challenges and help when you are put in vulnerable settings when you lack confidence. The relationships I established and built last year guided me through the hectic first year of the Bachelor of Midwifery and enabled me to smash my goals and achieve things I never thought were possible.



Kaiaraara Tu Ora, Specialist Māori Midwife

*Ko Tapuae o Uenuku te Maunga,
Ko Kurahaupo te Waka,
Ko Te Hora te Marae,
Ko Te Hoiere te Awa,
Ko Rangitāne o Wairau te iwi
Kō Ngāti Kuia te Hapū*

Kia ora koutou, Ko Julie Renwick ahau.

Kaiaraara

A term used to describe a person whose role it is to support and encourage others and build strong, stable relationships of trust and confidence together.

Tu Ora

Refers to activating wellness and is connected to a traditional practice often used in childbirth in order to preserve health and wellbeing.

Kaiaraara Tu Ora

A role that embodies these concepts and is culturally grounded using holistic approaches to improving and maintaining wellbeing of the whānau.

This role was created mid 2021 with the above philosophy as the grounding focus. The purpose is to support maternity services and whānau Māori. This role is supported by our Māori Health Directorate, Pae Ora Paiaka Whaiora Hauora Māori team who are responsible for lifting the level of clinical and culturally relevant care. The aim is to facilitate, assist, and support seamless pathways for whānau from primary care, through hospital services, and back out to the community. The desired outcome is to achieve engagement of whānau Māori to improve outcomes for hapū māmā and whānau.

My own passion for this role has come from dedicating my career to working alongside whānau Māori that carry hurt. This hurt affects their wairua, whānau, tinana, and hinengaro. The mamae that these whānau carry can manifest in many different ways and can include, but are not limited to, drug and alcohol dependency, mental health concerns, housing, medical conditions including diabetes, lack of engagement with services/agencies/networks, poor outcomes for pēpi, and alienation within the whānau, hapū and iwi.

Over the last year, this position has continued to evolve as the variation and complexity of needs of whānau have risen. The integration of a multidisciplinary team approach has been crucial in providing relevant, and individualised, care for whānau. I work closely with the Whānau Care Team; Maternity Social Workers; Equity and Bicultural Practice Programme Lead; and Pou Tikanga. The response has been an increase in engagement, a higher level of communication with whānau and the healthcare system, an increase in whānau understanding what we can do for them and how we can facilitate their needs, and an ongoing relationship with members of the whānau in our community. This has also resulted in a decrease in midwifery and obstetric staff allocating extra time trying to locate and engage whānau, a decrease in complaints, and a decrease in the levels of mistrust amongst whānau.

This role has highlighted areas that require more focus and action for 2023:

A recruitment drive for Māori midwives within the primary care team.

Ongoing cultural education for all staff within the Maternity Service to gain cultural competence, such as pronouncing whānau names, using Te Reo greetings, using the gifted names our facilities have when answering phones, and offering a tikanga based care model.

Whānau accessing the diabetic clinics continue to face inequities resulting in reduced confidence in the service.

A need for recruitment within Maternal Mental Health, ideally Māori.

A more cohesive approach with our addiction services and the maternity sectors.

The aim for this role is to continue to work alongside whānau and being guided by them as to where this role is effective in implementing change to improve outcomes.



Education

Throughout 2021/2022 we continued to prioritise our essential education to ensure that our staff are on schedule with Midwifery Emergency Skills Refresher days, Practical Obstetric Multi-Professional Training (PROMPT) and Newborn Life Support. These days provide an opportunity for hands-on practice with adult and newborn resuscitation, obstetric emergencies and evidence-based practice updates. They are well attended by both core and LMC midwives from across the rohe.

The Midwifery Emergency Skills Refresher Day courses are held eight times a year. They are presented in a mix of lecture style, hands-on and informal teaching of the prescribed syllabus set out by Te Tatau o Whare Kahu Midwifery Council. The one day course covers newborn life support, adult life support, as well as a range of obstetric emergencies. This is mandatory education for all midwives to enable them to get their annual practising certificate so all current midwives are up-to-date in this education.

Midwives can alternate in their training cycle between the midwifery emergency skills refresher and the Newborn Life Support course also offered by MidCentral. This is a scenario-based training course focusing only on newborn life support. As this is covered in the midwifery emergency skills refresher, it is not as well attended by midwives.

Over the two year period



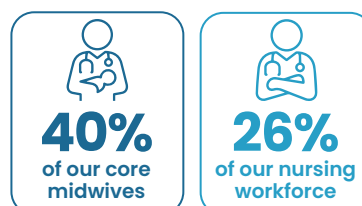
completed advanced
Newborn Life Support courses



Midwifery and Obstetric staff working together with our actress Kat on the PROMPT education day, November 2022.

PROMPT days are consistently fully subscribed and give our team an opportunity to carry out simulations in real time, in a working environment with their colleagues from across a range of professions (midwifery, obstetrics, anaesthetics and nursing). Participants are given a range of realistic actor-led scenarios to help them practice communication and team building as well as familiarising themselves with emergency protocols. We aim to hold 4-5 PROMPT days each year.

Throughout 2021-22



completed PROMPT



A fake blood scenario set up for PROMPT participants to evaluate blood loss, August 2022.

PROMPT

(feedback from participants)

"Great day! Good mix of practical and theory."

"Multidisciplinary teamwork is so beneficial! Thank you."

Midwifery Emergency Skills Refresher

(feedback from participants)

"Relaxed and non-judgemental."

"Enjoyed the variety of content and ways of learning."

Specialist Education Courses

Midwives and the wider maternity team appreciate taking time away from their clinical work to upskill and connect. With easing COVID-19 restrictions we made efforts to increase the diversity of education on offer in our area. Our area welcomed multiple specialist educators, this has included:

Te Ata Kura (Society for Conscientisation)

A two day external Te Tiriti o Waitangi cultural workshop was gifted by the educators to the midwives of the Manawātū and run through of our regional chapter of the New Zealand College of Midwives in 2021.

Spinning Babies

Focusing on optimal birth positioning in pregnancy and labour with the aim of facilitating normal birth. We held two one-day workshops that were well attended by 38 midwives from across the rohe.



Midwives at Spinning Babies Education, 2022.



Breech Without Borders Education Day, 2022.



Maternal Mental Health

Partnering with our primary care provider THINK Hauora and maternal mental health charity Mothers Helpers, MidCentral hosted an education day aimed to all health professionals working with expectant and new māmā covering how we can better identify and support wāhine with mental health needs.

Breech Without Borders

An international non-profit dedicated to breech training, education, and advocacy. An interactive workshop was held in conjunction to online education focusing on breech manoeuvres, mechanisms, evidence and risks as well as recognising and correcting the abnormal. This was attended by both midwives and obstetric doctors.

Methcon

Methamphetamine awareness training providing insight into what methamphetamine use can look like in pregnancy as well as the wider effects on whānau and the community.

Fetal Loss

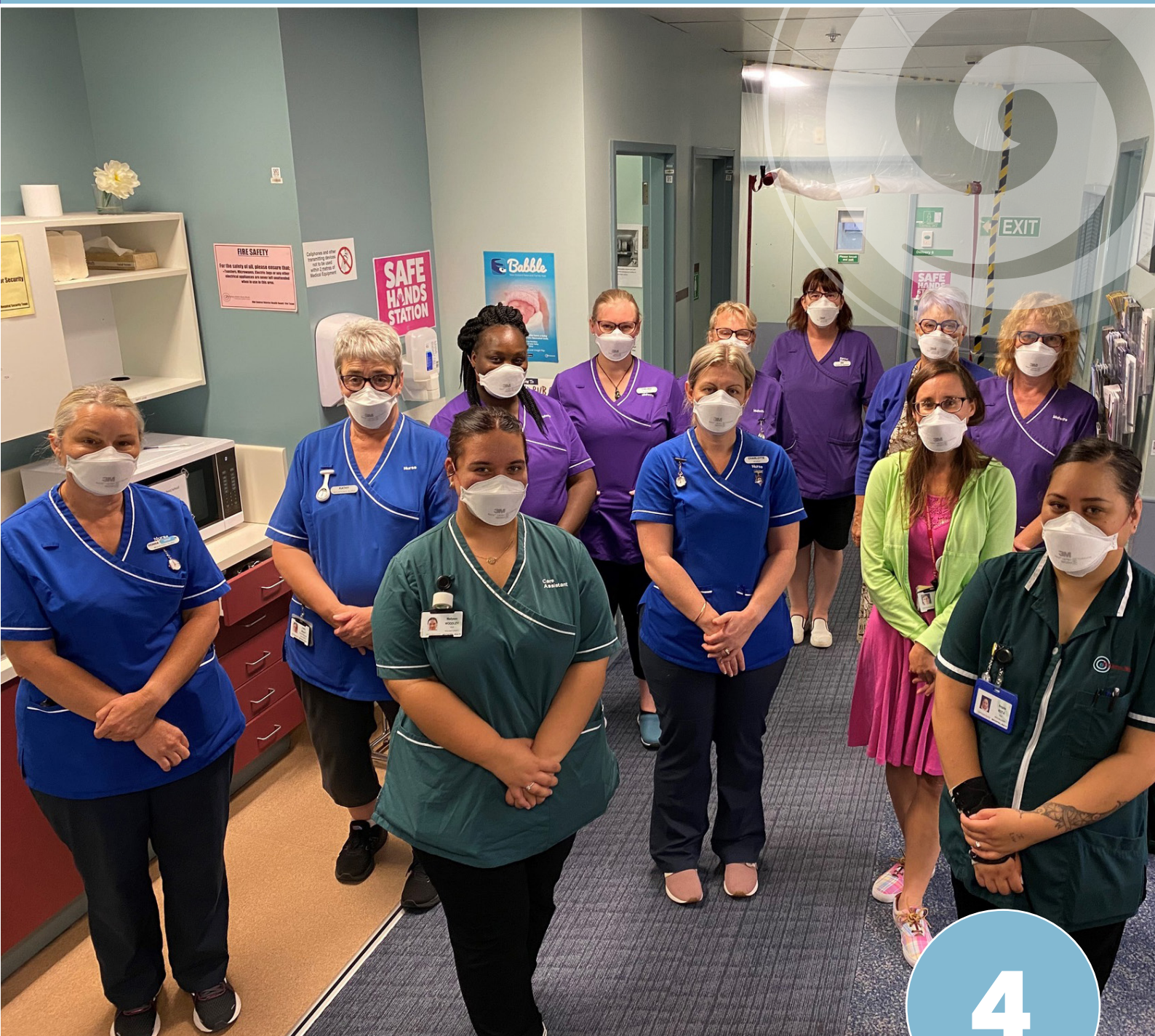
A half day course provided by our Perinatal Midwife who shared her expert knowledge base to 12 midwives to better equip them in caring for wāhine experiencing a loss or seeking a termination of pregnancy.

In 2023, we plan to run our core education days along with days focused on diabetes, perinatal care and home birth.

Quality and Leadership Programme

The Quality Leadership Programme (QLP) has been in place since 2005 for midwives working in a core setting. All midwives automatically will start the competent domain, after completion of the new graduate year midwives can apply for the confident domain. Once midwives have a significant amount of midwifery experience and take a lead role in quality improvement, innovation and practice development they can develop a portfolio and apply for the leadership domain.

MidCentral currently has four midwives who hold the leadership domain for QLP, and two in the confident domain. During performance appraisals or midwifery standards review, experienced midwives are encouraged to identify an area that requires quality improvement, innovation or practice development and start working on a project and a portfolio. Midwifery staff are supported by the senior midwifery team to gain their QLP and it will be a focus going forward to ensure more of our midwives engage in QLP.



Quality in Maternity

Ehara taku toa, he takitahi, he toa takitini

*My success should not be bestowed onto me alone,
as it was not individual success but success of a collective*



Quality and Safety Structure

Our maternity services are underpinned by the New Zealand Maternity Standards which are overseen by the National Maternity Monitoring Group (NMMG). They consist of three high-level strategic statements to guide the planning, funding, provision and monitoring of the maternity services.

Standard One:

Maternity services provide safe, high-quality services that are nationally consistent and achieve optimal health outcomes for all māmā and pēpi.

Standard Two:

Maternity services ensure a wāhine-centred approach that acknowledges pregnancy and childbirth as a normal life stage.

Standard Three:

All wāhine have access to a nationally consistent, comprehensive range of maternity services that are funded and provided appropriately to ensure there are no financial barriers to access for eligible hapū wāhine.

MidCentral's quality assurance activities include measuring and reporting our unit's care and outcomes against key clinical indicators, maintaining certification and audit processes, keeping clinical practices and controlled documents current and optimising patient safety.

The lynchpin in the work undertaken in quality and safety is the continuous audit of labour and birth, a piece of work that enables us to report on up-to-date data. This audit utilises a reporting mechanism in BadgerNet Global, our clinical information system, to pull data on patients

in our service, combined with the manual auditing of all notes to produce a spreadsheet that is used in a variety of quality activities.

A key aspect of the continuous audit of labour and birth is the use of the Ten Group Classification System (Robson Groups) as recommended by the World Health Organization. We have been a leader in New Zealand for exploring our data in this manner and it has been a valuable tool in various quality initiatives. Such as the launch and subsequent auditing of the oral low-dose Misoprostol method for induction of labour; analysing the reasons for emergency caesarean sections in our unit with practice recommendations in how these can be reduced; and how body mass index (BMI) over 30 affects induction of labour with low dose misoprostol. The statistics are used by all midwifery staff for their Midwifery Standards Review, by our specialist teams such as the diabetes team, the Quit Smoke team, and our consumer liaison when planning quality initiatives in terms of the birth outcomes for Māori māmā in our service, and as a raw data set for the preterm birth audit.

MidCentral has committed to the national MQSP which as well as working on local and national quality improvements, provides a mechanism to monitor maternity services, and brings together voices of consumers and the wider maternity sector.

Engaging in wider hospital quality initiatives, appointing to roles that support quality improvement and safety initiatives and facilitating regular meetings and working groups keep the National Maternity Monitoring Group standards at the forefront of our practice. MidCentral and Te Uru Pā Harakeke are striving for the best possible standard of care for the wāhine and whānau of our rohe.

GROUPS

Guidelines Group

A monthly forum run by MQSP coordinators that assesses and revises all documents that need updating or are due for review. Attended by both midwifery (core and LMC) and obstetrics (consultants and registrars) a multidisciplinary lens is cast over all documents before they are shared for consultation with wider staff and stakeholders.

Multidisciplinary Case Reviews

Using a modified version of the Health Quality and Safety Commission's Maternal Morbidity Review Toolkit and the Health Equity Assessment Tool (HEAT), cases with significant maternal or neonatal morbidity are reviewed with the goal of learning and service improvement. Monthly meetings are attended by a group with midwifery, obstetric, paediatric, anaesthetic, quality advisors and consumer representatives.

Women's Health Quality and Safety Group

The Women's Health Quality and Safety Group meets bi-monthly and is responsible for safe, effective and sustainable women's health services. It focuses on quality improvement objectives of the women's health service in line with a national direction and local needs. The group has the responsibility of ensuring a culturally responsive workforce and workplace implementing He Korowai Oranga.

The group is multidisciplinary and includes consumers. It acts as the governance group for MQSP overseeing a comprehensive programme for quality improvement in maternity services that aligns with Te Whatu Ora | Health New Zealand's priorities, equity and local needs.

Te Uru Pā Harakeke Governance Group

This group gives accountable and collective business leadership for the directorate providing a governance over all elements of service provision and ensuring strategic workforce planning is occurring. The group oversee risk management across the directorate and work to achieve financial accountability and responsibility. They provide a quality lens over all elements of service provision and reported previously to the Board and

since the inception of Te Whatu Ora in July 2022, to the Organisational Leadership Team.

Perinatal Case Review Meetings

The monthly MidCentral Perinatal Case Review meeting is well attended by midwifery, nursing, obstetric, anaesthetic, paediatric and related specialties. The meeting is facilitated by the Perinatal Midwife who is supported by obstetric, midwifery, paediatric and pathology staff to present recent, often complex cases where the outcome has usually been poor; to provide a learning opportunity for all attendees. This is also the space to review recently completed Severity Assessment Code 1 and 2 events to disseminate the findings and action plans to clinicians.

Access Holder Meetings

These meetings are held monthly, usually before the local New Zealand College of Midwives meeting to encourage attendance. It is facilitated by the Midwifery Managers and the Medical Lead and is a space for information sharing and for LMCs to raise concerns. We have seen declining attendance from the LMC community in 2022, so re-establishing connections will be a focus for 2023.

SPECIFIC QUALITY ROLES

Maternity Quality and Safety Programme Coordinator

This role supports the management and implementation of the Maternity Quality Safety Programme across the MidCentral rohe. The position involves leading and coordinating projects stemming from both the national objectives and local needs. The role extends beyond the hospital setting into the wider primary rohe and covers service development, clinical leadership and communication of initiatives that improve maternal quality and safety. MidCentral has two coordinators who work to a combined 1.0 FTE. The MQSP Coordinators report quarterly to Te Whatu Ora | Health New Zealand, and annually in the form of the Maternity Annual Report.

Perinatal Midwife

This role is currently 0.4 FTE and provides support and education to staff providing care to wāhine in our rohe who have experienced a fetal loss and still need to birth their pēpi; and those wāhine who are choosing to terminate their pēpi for medical or social reasons and require support to birth. The Perinatal Midwife

completes reporting to the Perinatal Maternity Morbidity Review Committee (PMMRC) and Te Whatu Ora | Health New Zealand.

Quality Facilitator

The Quality Facilitator supports the Te Uru Pā Harakeke directorate to achieve a high standard of quality and safety by having an established connection with the senior maternity team. They aim to achieve a learning culture within the directorate and help staff identify clinical risk to mitigate; they provide a wider quality lens to case reviews; and support all staff in the review process with critical incidents and adverse events.

Lead Maternity Carer Midwife Liaison

This role encompasses professional leadership across the rohe and is focused on building collaboration and greater integration across primary and secondary maternity; whilst striving to improve clinical outcomes for wāhine and pēpi. It is a 0.2 FTE position and is currently vacant and advertised across a variety of channels.



Te Tumu Kaitokeke me Kaitikanga rua

E ki ana te kōrero, tūngia te ururua, kia tupu whakaritorito te tupu o te harakeke

Kei aku nui, kei aku rahi
tēnā koutou katoa
E rere ana te mihi matakuikui ki te iwi kaenga ki
a Rangitane i runga i ngā tini āhuatanga o te wā
nō reira, tēnā koutou, tēnā koutou, tēnā koutou katoa

The position of Te Tumu Kaitokeke me Kaitikanga rua is a new role to Te Urū Pā Harakeke which I was appointed to in June 2022. The role is focused on equity, improving health outcomes for Māori and the application of Te Tiriti o Waitangi across the directorate. The role has recently transitioned to Te Aka Whai Ora but I will continue to work closely with the directorate and its goals to prioritise initiatives to achieve equity for Māori and grow a culturally responsive workforce.

Over the last six months the focus has been on building relationships, developing the role, whilst navigating and adapting to the establishment of Te Aka Whai Ora and the introduction of Te Pae Tata, the interim New Zealand Health Plan 2022.

The directorate has solid goals and aspirations that align well with He Korowai Oranga and Te Pae Tata. There is a joint understanding that to achieve equity for Māori, key features must be present; we must be intentional in our design, resources may need to be refocused and we will need to be prepared to do things completely differently.

Below are some examples that demonstrate a shift toward equity focused service delivery and outcomes.

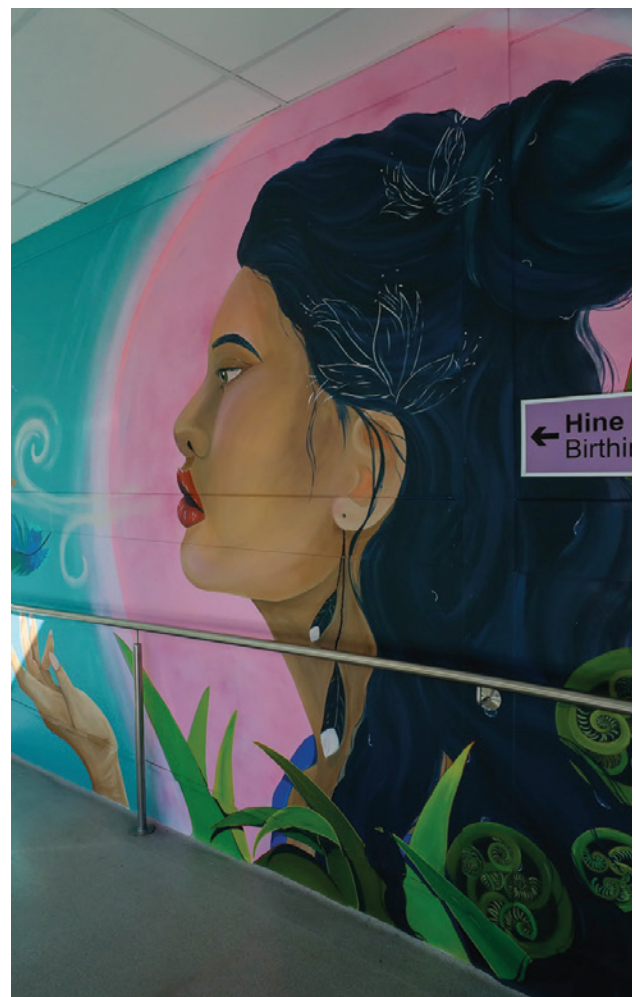
- The establishment of roles with a specific focus on improving outcomes for Māori.
- Strengthened relationships with key Māori stakeholders Pae Ora Paiaka Whaiora Hauora, iwi-Māori Partnership Boards and Ngā Maia (Māori midwives).
- Participation in new ways of engaging whānau such as the whakataumahatanga process – a resolution process based on mātauranga and tikanga.
- Participation of some key leadership roles at wānanga wahakura.
- Beginning to normalise Māori representation in the interviewing process of key senior and leadership roles across the directorate.
- Advocating for the standard practice of advertising key and senior leadership roles with a recruitment agency that specialise in connecting Māori talent to employment opportunities.

Ko Hikurangi te maunga
Ko Waiapu te awa
Ko Ngāti Porou te iwi
Ko Leandra Wetera tōku ingoa
Ko te Tumu Kaitokeke me Kaitikanga rua tāku tūnga

As we look ahead towards the next 6–12 months we will sustain momentum by keeping our eyes on our goals and focusing on what is possible:

- increasing Māori capability
- improving cultural responsiveness
- growing equity literacy and the implementation of tools and processes that demonstrate pro-equity decision making and accountability.

Nō reira, kāti ake i konei.
Ngā manaakitanga o te wā.





Consumer Engagement

In the Consumer Liaison Role for Te Uru Pā Harakeke – Healthy Women, Children and Youth at MidCentral, I have been privileged to represent the voices of wāhine and their whānau. Within Te Uru Pā Harakeke we are working to improve the experiences of whānau within our facilities through more effective community engagement. The voice of our community is fundamental to all the work we do and this is key to capture varying perspectives to different initiatives and quality improvement.

An ongoing consumer survey supports our understanding of what is happening for whānau during their time in our facilities. This feedback enables us to inform the services we provide and support the quality programmes we put in place. An example of this is supporting wāhine to have greater autonomy over their pain relief during their stay. We recognised the growing amount of feedback from wāhine and their whānau who utilised our facilities for postnatal support and the issues they were having accessing analgesia quickly. The Patient Controlled Oral Analgesia Project (PCOA) was created and rolled out, enabling māmā to regain autonomy over their own pain relief.

Acknowledging our survey has a low response rate, further engagement with our communities has included attending wānanga, play groups and community events where wāhine and whānau are able to share their stories and experiences. The value in these spaces is the ability to join in organic discussions that stem naturally from sharing experiences and stories. From this we have been able to better understand maternal mental health engagement, breastfeeding support availability and barriers to attending antenatal education, clinics and appointments. Having this greater understanding of whānau experience has assisted various quality initiatives and steering groups designed to improve service delivery.

COVID-19 brought many changes to the level of support whānau had available when in MidCentral facilities. What has been emphasised by whānau who have birthed in MidCentral facilities over the past two years is the importance of having your own people with you. For those who were able to have such support, the presence of their whānau was emphasised as a key part of their experience. For those who couldn't, this limitation was felt deeply. As a new reality and various restrictions were navigated, we ensured that the whānau voice was continuously heard and relayed the importance of support to new māmā and pēpi, advocating for the continual presence of a support person as well as visiting.

"Having my partner stay made a huge difference in terms of making me comfortable to stay in hospital and feeling supported as well as him having the opportunity to bond with baby from birth and learn about her and how best to support me. I probably wouldn't have stayed if he wasn't able to and I think following my first child it was important to spend that time in hospital supported by the midwives"

Consumer feedback is regularly discussed with key members of staff such as midwife managers and operational and clinical executives, which has been significant to maintaining the consumer voice as a priority in everyday planning. The consumer voice is also represented at our Women's Health Quality and Safety Group, the Breastfeeding Steering Group and Maternity Case Review Meeting. Other working group the liaison role supports are Maternal Mental Health Pathways, Ultrasound Focus Groups, First 1000 Days Localities, Tūngia te Ururua, Mahitahi, Together Project, COVID-19 Communication Planning and Primary-Secondary Interface Group.

We wish to thank all those individuals and whānau who have provided feedback. We value the opportunity to improve through the inclusion of the experiences of all the people we support through their pregnancy, birthing and postnatal period. This feedback enables us to action positive change for all and celebrate the enjoyable experiences also shared.



Riley George Meyrick (Nga Rauru) |
Born July 2022 at home in Palmerston North



Jasper's Birth

Pēpi Jasper | Born August 2022, Palmerston North Hospital

Our beautiful boy was born in August 2022 at Palmerston North Hospital.

We arrived during the night into a calm, dimly lit room that was already set up for us. From the get-go, the care from both our LMC Midwife and the hospital staff was respectful of our space, our needs and our wishes. One of the core midwives even brought in an essential oil massage balm to help with the labour pain! I ended up having an epidural and that worked really well for me. I was glad to have the option of using the peanut ball to keep baby in a good position for birth. We had an emergency with our baby's heart rate at the end of labour. It was handled calmly and I completely trusted the midwives looking after us to ensure the safe arrival of our son. My partner used a muka tie provided by the hospital to tie off his cord and I was able to keep my baby skin-to-skin with me for a couple of hours while he had his first breastfeeds. We had a brief 12-hour stay in Maternity Ward where I was thankful for the opportunity to catch up on some sleep. The nurse who looked after us was on a 12-hour shift and we loved the continuity. She checked in on us a few times over the day, making sure that we were doing okay. I had my own pack of pain relief given to me, which was perfect as I could keep track of this myself and did not have to ring my bell for any. I enjoyed having this independence. Overall, we had a really positive experience. Thank you to all the staff involved in our care.

Core midwife Jane Moses working with a hapū
māmā in the Antenatal Day Unit.



5

The Maternity

Quality and Safety Programme (MQSP)

Whāia te iti kahurangi ki te
tūohu koe me he maunga teitei

Seek the treasure you value most dearly: if you bow your head, let it be to a lofty mountain

Local Project 1: Patient Controlled Oral Analgesia (PCOA)

Completed

AUTHOR:
INEZ MCCAUGHAN
MQSP Coordinator



The aim of this local project was to enable wāhine in our Maternity Service to retain control of their pain management.

A growing theme in our consumer feedback was in relation to wāhine having to ask for, or experience long waits for analgesia. Our wish is for wāhine to be able to take pain relief regularly to maintain a therapeutic level of analgesia and not allowing the pain to get out of control.

The packs were initially trialled to include paracetamol, ibuprofen and tramadol to be given to post caesarean section māmā; however based on feedback from both LMCs and consumers, the decision was made to remove the tramadol and alter the size of the blister packs. We now have two packs on offer, one with three days of medication available and one with seven. Both the packs contain 1g paracetamol and 400mg ibuprofen, to be taken four to six hourly – no more than four doses in a 24-hour period.

Māmā who have had a caesarean or an extensive perineal tear have opioid medication charted which is dispensed by staff when required, for additional pain management.

There is a patient information brochure handed out with the PCOA packs to educate māmā and whānau about the medication contained in the packs and the frequency they should be taking the doses. This contains a recording tool on the back for them to keep track of the doses taken.

Since this project was rolled out in September 2021, there has been a reduction in the number of negative comments regarding pain relief in consumer feedback. There has also been some positive comments about the packs. Feedback from LMCs is also positive, resulting in a good uptake in the packs.

"The postnatal pain relief pack is very convenient and easy to self manage. All the midwives and nurses were very considerate and helped build māmā's confidence when caring for her baby. The nurse assistants have been very lovely and accommodating."

The future for the PCOA project is to work with other hospitals within the Te Whatu Ora central rohe who are wanting to adopt this project, potentially working together to share resources.

PATIENT INFORMATION
Good pain relief after delivery of your baby is very important. As well as improving your comfort, it ensures that you are able to sleep, can move around and care for your new baby.

SELF ADMINISTERING PAIN RELIEF
PATIENT INFORMATION

MEDICATION
Depending on your needs, your doctor or midwife may prescribe one of two packs. Both packs contain the medications Paracetamol and Ibuprofen. There is a three day pack for women that have experienced a normal vaginal birth, or the seven day pack for women who have experienced a caesarean section or have sustained a tear that requires more analgesia. If you need extra pain relief, then your midwife or nurse will bring you some.

FREQUENTLY ASKED QUESTIONS
Do I need to take my medication if I'm not in pain?
When you take medication regularly, it means there is always a baseline level in your system to have an effect. If doses are missed, you are more likely to have breakthrough pain which can be more difficult to manage, often requiring stronger pain medication and increasing the risk of side effects. After a few days, you may not require as much pain relief.

What should I do if I miss a dose?
Leave the missed tablets unopened and carry on with the next appropriate dose. Your midwife or nurse will check daily to see what you have and have not taken from your pack.

What if I am still in significant pain despite taking the medication?
You should be able to walk around comfortably, take a deep breath and cough. If after 30 minutes of taking your medication you are still in pain, talk with your midwife or nurse as you may require additional pain relief.

Are the medications safe?
Paracetamol is a very safe drug with minimal side effects. Ibuprofen is also well tolerated and side effects are uncommon. It should be taken with food to reduce the chance of an upset stomach. It may not be suitable for you if you have other health conditions.

Will these medications affect my baby?
When breastfeeding, a small amount of any medication you take will pass into your baby through your breast milk. With the pain relief medication you are taking, this will be a small amount and should not affect your baby. If you are worried you can ask one of our staff Lactation Consultants, a member of our nursing or midwifery staff, your LMC or a doctor about this.

If at any time you are unsure of what to do, please ask your midwife or nurse.

Women's Health Unit
Pomeroy North Hospital
Phone: (06) 350 8410

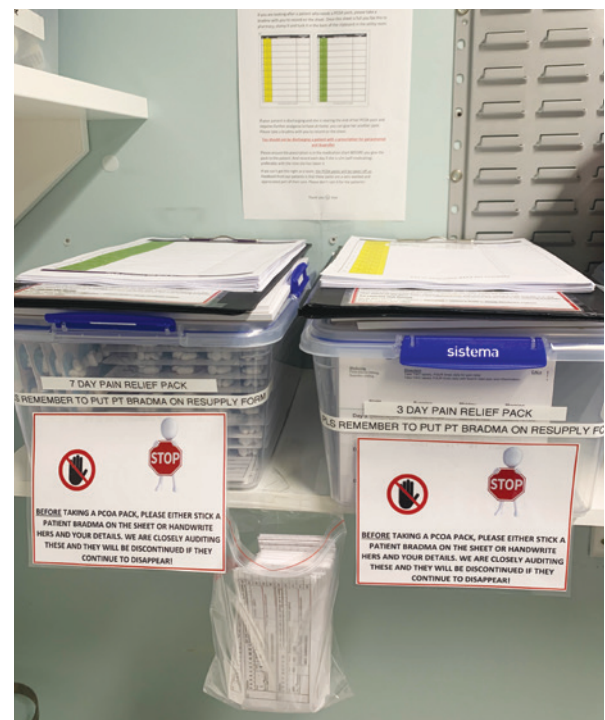
WOMEN'S HEALTH UNIT
SELF ADMINISTRATION RECORD SHEET

Patient name: _____ NH No: _____
Dispensed by staff member: _____
LMC/Midwife: _____ Date: _____

Please complete this form with the date and the time you take your medication.
This form remains the property of MidCentral DHB and will be filed in your notes on discharge.

Date of administration:														
MEDICATIONS:	SUGGESTED TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME
Paracetamol 1g + Ibuprofen 400mg Instructions: Take tablets in the pack every 6 hours with food.	Breakfast													
	Lunch													
	Dinner													
	Bedtime													

MidCentral DHB | Ver 1.0 2022 | This form remains the property of MidCentral DHB | Printed on 10/06/2022



PCOA boxes in Birthing Suite utility.

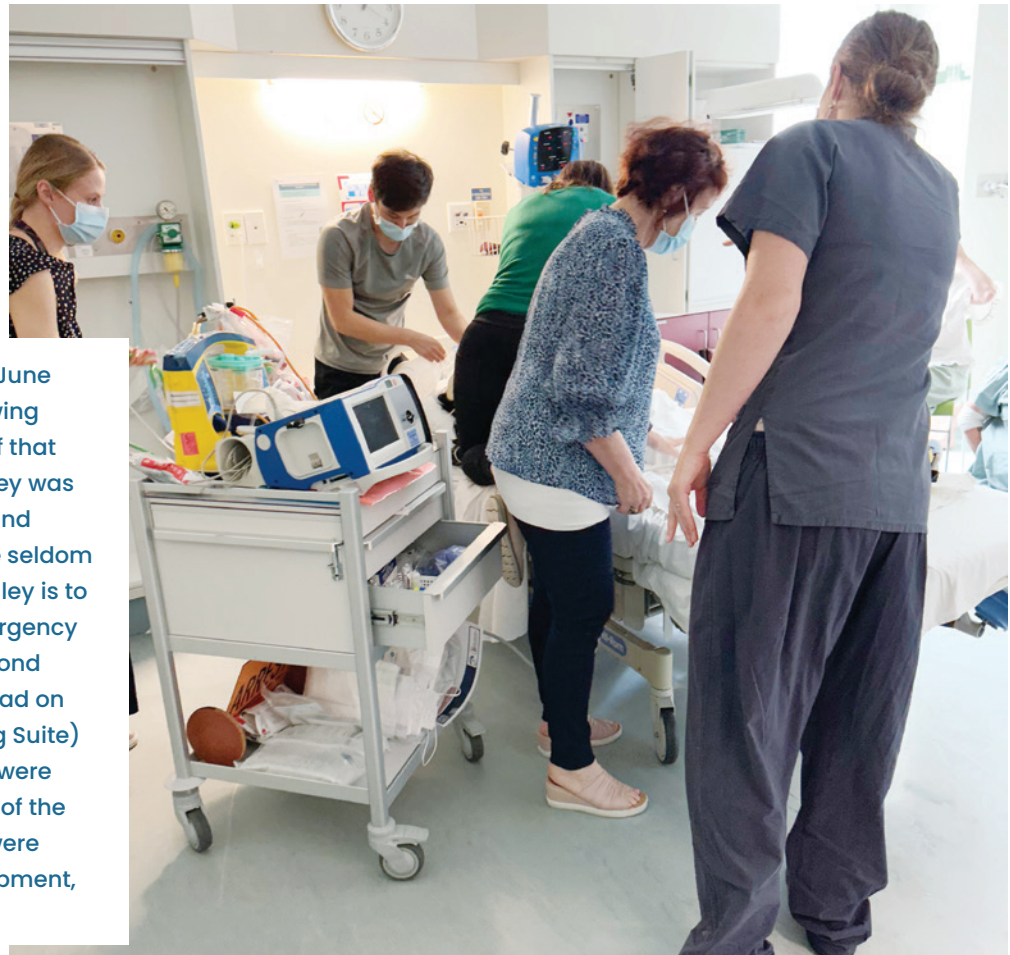
Local Project 2: Emergency Trolley Upgrade

Completed

AUTHOR:
INEZ MCCAUGHAN
MQSP Coordinator



This project commenced in June 2021, and was created following ongoing feedback from staff that the existing emergency trolley was difficult to use, overloaded and clunky – meaning they were seldom used. The purpose of the trolley is to be used by the Medical Emergency Team (MET) when they respond to MET calls. The trolley we had on both Hine te Iwaiwa (Birthing Suite) and Te Aotūroa (Maternity) were not standardised to the rest of the hospital, meaning the MET were not accustomed to our equipment, increasing clinical risk.



New emergency trolley in action on the PROMPT education day, December 2022.

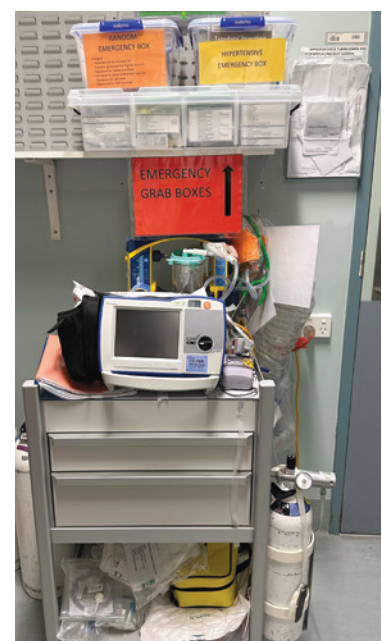
The aim of the project was to standardise the adult resuscitation trolley to the rest of the hospital. Equipment and medication for obstetric emergencies was to go into 'grab boxes'.

Shelving was installed in both utility rooms and grab boxes were created in collaboration with Pharmacy. Grab boxes were separated out into the type of obstetric emergencies you may face. The boxes contain the medication and any equipment needed to give it, along with a quick guide on how to draw up and administer the medication. Once the kit is used, the box is to be returned to pharmacy for restocking and replaced with a ready-to-go box from the pharmacy supply.

The grab boxes are used a lot on our PROMPT courses to familiarise staff with their location and contents.

The feedback from staff has been positive since rolling out this project – staff are using the grab boxes much more than they ever used the original emergency trolley. They lessen the response time and allow staff to get the much-needed medication into the patient much quicker.

Staff also gain familiarisation with the standardised emergency trolley on PROMPT courses. Feedback indicates that the updated trolley is much easier to use, with more bench space to document and draw up medication.



Emergency trolley and emergency grab boxes on Birthing Suite.

Neonatal Encephalopathy Taskforce Projects

On Track

AUTHOR:
CHARLOTTE GODBAZ
MQSP Coordinator



AUTHOR:
ALI BIGWOOD
Speciality Clinical Nurse, Neonatal Unit

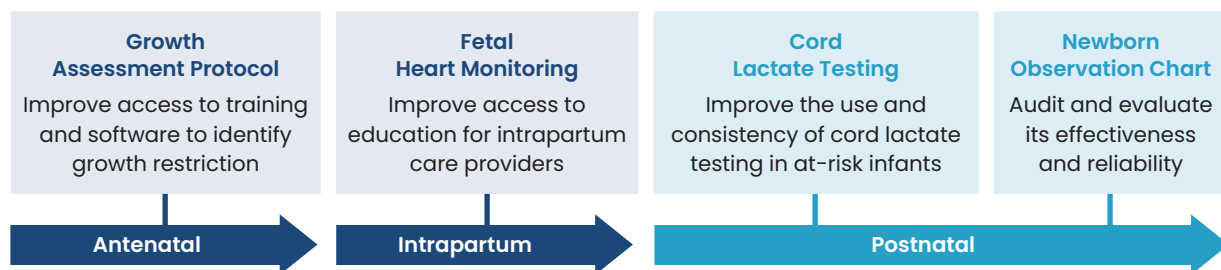


Neonatal Encephalopathy (NE) is a "clinically defined syndrome of disturbed neurological function within the first week of life, manifested by difficulty in initiating and maintaining respiration, depression of tone and reflexes, subnormal level of consciousness and often seizures".

NE remains a leading cause of brain injury in term infants despite the advances in obstetric and neonatal care. Unfortunately, 10–60 percent of infants who are affected by NE will die and of those who survive, over 25 percent will have long-term neurological complications. These complications can result in chronic conditions such as neurodevelopmental delay, cerebral palsy, hearing deficits, epilepsy and blindness.

As part of an Accident Compensation Corporation initiative in 2015, the NE taskforce was set up to look at ways of reducing harm.

The taskforce's prevention programme is focused on four priority areas:



¹ Health Quality and Safety Commission New Zealand. (2023, February 8). Reducing neonatal encephalopathy in Aotearoa New Zealand. <https://www.hqsc.govt.nz/our-work/mortality-review-committees/perinatal-and-maternal-mortality-review-committee/perinatal-morbidity-and-mortality-information/reducing-neonatal-encephalopathy-in-aotearoa-new-zealand/>

Growth Assessment Protocol

AUTHOR:
MEGAN HOOPER SMITH
Midwifery Educator



AUTHOR:
JOYCE COWAN
New Zealand GAP Lead Educator



The aim of the Growth Assessment Protocol (GAP) programme is to improve safety in maternity care and outcome of pregnancy, including perinatal mortality and morbidity, with the predominant focus on improving antenatal recognition of pregnancies at risk due to fetal growth restrictions.

There are four main elements to this programme:

- Training and accreditation of all staff involved in clinical care
- Adoption of evidence-based care pathways and risk assessment algorithms
- Implementation of customised GROW (Gestation Related Optimal Weight) chart and audit tool
- Rolling audit and benchmarking of performance.

It is imperative a midwife is appointed as designated clinical lead to ensure these elements are acted upon in each district.

At MidCentral, the GAP Midwife collaborates with the National GAP Lead to support local implementation of the GAP programme. All hapū wāhine in our service have a customised growth chart generated in pregnancy on the maternity clinical information system BadgerNet to plot fundal height and any growth scans on. This also calculates a birthweight centile at birth for pēpi.

Quarterly reporting tracking detection of small for gestational age (SGA) pēpi through fundal height measurements or ultrasound measurements.

Small for Gestational Age/Fetal Growth Restriction Under the 10th Centile Referral and Detection Rates 2022

Looking forward to 2023, the GAP programme plans to expand the hours allocated to the designated GAP midwife in each district. This will give the GAP midwife further scope to collaborate with relevant health professionals to ensure education needs are met and work on local guidelines.

		MidCentral				National GAP Average			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Completed records [1]	n	517	527	531	551	-	-	-	-
	%	95.8	97.6	98.4	102.1	-	-	-	-
SGA at birth [2]	n	70	71	70	74	-	-	-	-
	%	13.5	13.5	13.2	13.4	14.0	13.8	14.6	13.7
Antenatal referral for SGA [3a]	n	38	27	36	33	-	-	-	-
	%	54.3	38.0	51.4	44.6	43.7	47.4	49.2	46.4
False positive Antenatal referral for SGA [3b]	n	68	61	93	108	-	-	-	-
	%	15.2	13.4	20.2	22.6	8.1	8.1	8.7	8.8
Antenatal detection of SGA [4a]	n	34	21	27	19	-	-	-	-
	%	48.6	29.6	38.6	25.7	39.9	44.8	45.2	41.6
False positive Antenatal detection of SGA [4b]	n	37	31	35	29	-	-	-	-
	%	8.3	6.8	7.6	6.1	5.4	5.5	6.0	5.9

Fetal Heart Monitoring

Ensuring interdisciplinary fetal surveillance education for all clinicians involved with intrapartum care is one of the priorities for the MQSP. MidCentral regularly hosts The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) Fetal Surveillance Education Programme and view it as mandatory education for our employed midwives and doctors.

Cord Lactate Testing

AUTHOR:
SIKHAR SIRCAR
Obstetrician Gynaecologist



Paired umbilical cord gases provide feedback on the stress level of a pēpi prior to birth. Current RANZCOG Fetal Surveillance Education Program (FSEP) guidelines recommend paired umbilical cord gas or lactate analysis should be taken at delivery either routinely or where any of the following are present²:

- Apgar score <4 at one minute
- Apgar score <7 at six minutes
- Fetal scalp sampling performed in labour
- Operative delivery undertaken for fetal compromise.

Currently, the practice in Palmerston North Hospital is to take paired cord gases at every caesarean section delivery (both acute and elective), and it is taken in an ad-hoc manner when the birth has been operative or there have been signs of compromise during the labour and birth. Testing is most accurate when samples are taken as soon as possible after birth because pH levels gradually decrease over time, therefore we record time of birth and time of collection on the lab form to account for this variable when we interpret results.

A retrospective analysis of cord gas data from births at Palmerston North Hospital from November 2020 to February 2022 was undertaken. The audit was able to look at paired cord gases from all caesarean sections comparing them to the documented caesarean section category (priority level) and the subsequent neonatal outcome.

Our results replicate what has been found in other centres, raising the question as to why we are not routinely

performing this low-resource, high-specificity test, when it has the potential to show an abnormal result when it is least expected, improving outcomes.

Following this audit, and the updated guidance from the RANZCOG FSEP a practice change was recommended to routinely take paired umbilical cord gases following every birth. Other units that have implemented this change have noted a decrease in the number of severe range arterial pH results (<7.1), severe range lactate results (>6.1 mmol/L) and a reduction in neonatal admissions³.

It is our aim as a service, that in looking at these results we can provide feedback and critically analyse our CTG interpretation. It also offers insight into potential alterations to our overall management of labour. In order to know how we are doing as a unit, it is important that as many births as possible are captured, even where things have gone well.

Work is in progress to analyse the data further and continue to encourage universal paired cord blood sampling.

² The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (2019). Intrapartum Fetal Surveillance, clinical guideline fourth edition. Retrieved from <https://fsep.ranzcog.edu.au/FSEP/media/FSEP/IFS%20Clinical%20Guideline/FINAL-RANZCOG-IFS-Clinical-Guideline-2019.pdf>

³ White CR, Doherty DA, Henderson JJ, Kohan R, Newnham JP, Pennell CE. Benefits of introducing universal umbilical cord blood gas and lactate analysis into an obstetric unit. Aust N Z J Obstet Gynaecol. 2010 Aug;50(4):318-28. doi: 10.1111/j.1479-828X.2010.01192.x. PMID: 20716258.

Our Management of NE

Therapeutic cooling is used to treat secondary insults in cases of moderate to severe NE. Therapeutic Hypothermia is the use of hypothermia (core temperature 33.5°C–34.0°C for 72 hours) to achieve a reduction in the risk of death or long-term disability. At MidCentral therapeutic cooling can be commenced but infants are transferred to a tertiary centre, predominately Wellington Regional Neonatal Intensive Care Unit (NICU), for hypothermic therapy to ensure the correct monitoring can be completed.

Data is gathered by The Perinatal and Maternal Mortality Review Committee to identify the number of newborn infants with moderate to severe NE in New Zealand and possible predictors and trends in management of these infants.

Rates of Infants Born in MidCentral Facilities who Received Therapeutic Cooling



During the period from October to December 2020, nine pēpi met the requirements for Therapeutic Hypothermia due to varying degrees of NE at MidCentral. This unexpectedly large cohort over three months prompted an audit and report to evaluate care, identify themes and recommend any actions to improve clinical practice.



Several actions or changes followed, these included:

- Reviewing and updating to our local NE protocols and method of encephalopathy scoring to match Wellington NICU
- Upskilling of Paediatric Registered Medical Officers (RMOs) and Senior Medical Officers (SMOs) with new guidelines and encephalopathy scoring
- Launching Newborn Observation Score/Newborn Early Warning Score at Palmerston North Hospital
- Drives to improve documentation across disciplines particularly surrounding resuscitation and reference to meconium in liquor. This has including further staff training in both our neonatal and maternity BadgerNet systems as well as reviewing our initial assessment at birth form
- Improving documentation of the criteria that lead to the decision to commence therapeutic hypothermia and record the time when target body temperature reached (rather than just when cooling started).
- Evaluating transfer processes from our primary units and agreeing on transfer plans that ensure protective measures are engaged for the duration of the transfer
- Reviewing urgent access to theatre for emergency caesarean sections
- Promoting cord lactate testing for all births
- Considering a lower threshold for fetal scalp sampling to provide additional information on fetal wellbeing particularly in the presence of meconium liquor and during second stage of labour
- Reinforce 'fresh eyes' CTG interpretation
- Provide further fetal scalp electrode training
- Have ongoing audits with collaboration between midwifery, obstetric and paediatric teams for all term infants that require neonatal admission.

The last two years has seen a reduction in infants receiving therapeutic cooling for NE. We continue to prioritise achieving positive neonatal outcomes through practice improvement.

Implementation of Newborn Observation Chart and Newborn Early Warning Score (NOC/NEWS)

In Progress

AUTHOR:
CHARLOTTE GODBAZ
MQSP Coordinator



Early warning systems tools are used as part of standard practice across hospitals. The national NOC/NEWS provides a standardised observation system for newborns, especially those with risk factors, such as sepsis, meconium aspiration, and fetal distress at birth. The chart is used for monitoring and recording vital signs and assessments, leading to greater recognition and response to a declining newborn.

MidCentral rolled out the NOC/NEWS chart mid-2021 as part of the national implementation of the chart following recommendations from ACC's NE Taskforce. Staff education began June 2021 comprising of a mix of online learning modules, face-to-face education sessions across departments and user groups. In addition, a presentation was shown at the regional New Zealand College of Midwives meeting to inform LMC midwives. The tool was implemented at MidCentral in July 2021 and intense on the floor support was provided to staff during the initial rollout by our Midwifery Educator, Specialist Clinical Nurse and MQSP Coordinator. Point of care lactate meters were introduced to the Maternity Ward to enable staff to check lactates on the ward rather than the test being carried out in the Neonatal Unit.

The NOC/NEWS rollout was also the prime time to resocialise management pathways for babies at higher risk of hypoglycaemia or NE which were updated earlier in the year. Individual education sessions were provided to the majority of staff with practical scenarios and demonstrations of how to document and utilise NOC/NEWS. Our Specialist Clinical Nurse, who had been recently appointed to our Maternity Services in recognition of our growing nursing workforce and the need to support upskilling of nursing staff in infant care and management played a pivotal role in this. Feedback from staff has been that the NOC/NEWS chart is an easy visual tool to use in daily practice. The chart is clear, reduces multiple documentation points, and it facilitates swift identification of issues and when to escalate their care.

An average of
32%
of babies trigger an escalation of care

Escalations range from repeating the set of observations to an immediate paediatric review and transfer to the neonatal unit. Staff are consistently good with clinical documentation of these episodes with 80 percent of episodes being appropriately documented.

One of our major challenges has been in ensuring appropriate frequency of monitoring. This challenge was first approached by trying to ensure that the risk assessments were being completed, followed by pushes relating to completing both the 0-2 hour and 24-hour observations. Despite efforts, appropriate frequency of monitoring only occurs for 40 percent of babies. Improving this remains a priority and NOC/NEWS chart usage continues to be audited fortnightly with feedback relayed to staff. All new staff members, access agreement holders and students are given education on the practicalities of using this tool during their orientation.

Next steps

While the chart is used in our primary centres the escalation plan needs to be formally adapted to these areas. NOC/NEWS has also been developed in Badgernet so consideration is needed as to whether we implement use of an electronic format.

NOC/NEWS		OBSERVATION REQUIREMENTS		COMPLETE RISK ASSESSMENT BELOW FOR ALL BABIES	
<p>0-24 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>24-48 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>48-72 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>72-96 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>96-120 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>120-144 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>144-168 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>168-192 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>192-216 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>216-240 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>240-264 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>264-288 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>288-312 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>312-336 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>336-360 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>360-384 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>384-408 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>408-432 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>432-456 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>456-480 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>480-504 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>504-528 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>528-552 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>552-576 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>576-600 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>600-624 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>624-648 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>648-672 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>672-696 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>696-720 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>720-744 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>744-768 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>768-792 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>792-816 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>816-840 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>840-864 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>864-888 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>888-912 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>912-936 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>936-960 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>960-984 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>984-1008 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>1008-1032 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1032-1056 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1056-1080 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>1080-1104 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1104-1128 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1128-1152 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>1152-1176 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1176-1200 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1200-1224 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>1224-1248 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1248-1272 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1272-1296 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>1296-1320 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1320-1344 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1344-1368 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>1368-1392 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1392-1416 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1416-1440 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>1440-1464 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1464-1488 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1488-1512 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>1512-1536 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1536-1560 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1560-1584 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>1584-1608 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1608-1632 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1632-1656 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>1656-1680 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1680-1704 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1704-1728 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>1728-1752 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1752-1776 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1776-1800 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>1800-1824 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1824-1848 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1848-1872 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>1872-1896 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1896-1920 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1920-1944 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>1944-1968 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1968-1992 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>1992-2016 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>2016-2040 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>2040-2064 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>2064-2088 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>2088-2112 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>2112-2136 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>2136-2160 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>	
<p>2160-2184 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>		<p>2184-2208 HOURS</p> <p>Respiratory rate (bpm)</p> <p>Work of breathing (WOB)</p> <p>Temperature (°C)</p> <p>Heart rate (bpm)</p> <p>Colour</p> <p>Behaviour</p> <p>Feeding</p> <p>Parental expression</p> <p>ALL BABIES NEWS SUBTOTAL</p>			

Encouraging low-risk women to birth at home or in a primary facility

On Track

AUTHOR:
INEZ MCCAUGHAN
MQSP Coordinator



Promotion of primary birthing facilities

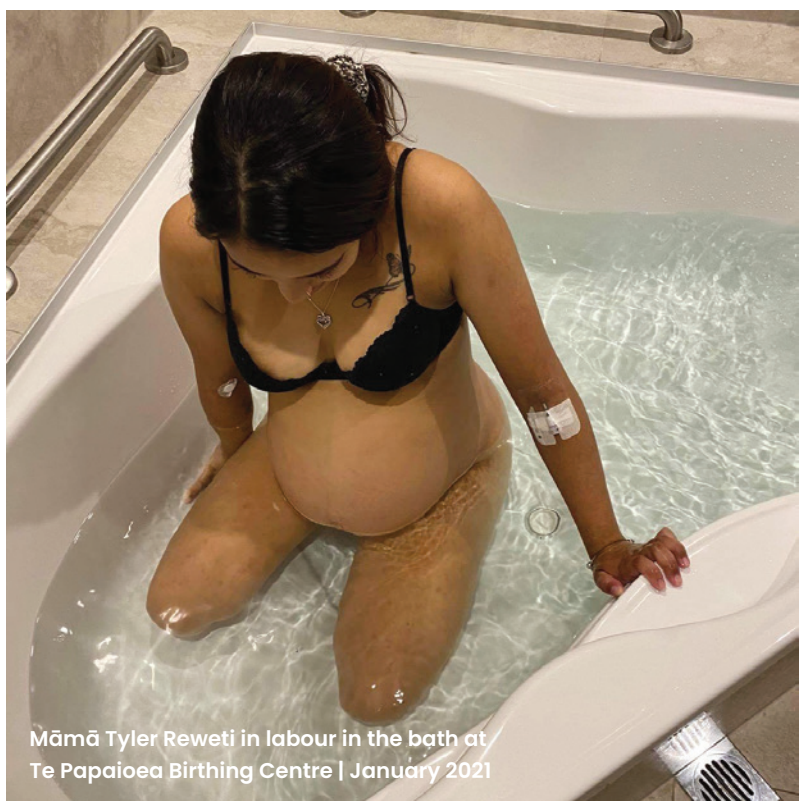
Primary birthing in the MidCentral rohe is facilitated through three primary birthing units – Kohungahunga Maternity Unit in Horowhenua, Te Papaioea Birthing Unit in Palmerston North and Dannevirke Maternity Unit in the Tararua District. We also have a number of LMCs that offer homebirth.

In May 2021, MidCentral needed to reduce operational hours at Te Papaioea due to ongoing staffing pressures and the facility was available for birthing only. From May 2022, staffing improvements enabled the unit to be staffed 24 hours a day from Monday 7am to Friday 5pm, resulting in an increase in birthing numbers for the unit.

The MQSP has supported primary birthing by funding the ‘Spinning Babies’ workshops in June 2022. The course was facilitated by a midwife who teaches optimal positioning for māmā and techniques to assist pēpi through the pelvis during birth. The course was fully booked over the two days offered, and feedback received was positive. MQSP has also funded a course specifically for home birthing LMC midwives called “Bringing Birth Home” for March 2023. This course is already fully booked with LMC midwives, childbirth educators and doulas who provide additional support to birthing māmā.

In 2023, we wish to enable childbirth educators in our rohe to attend a two-day Spinning Babies course to enable them to disseminate the information directly in childbirth education classes in the MidCentral rohe.

Janet and Meguias with their new pēpi Nash |
Born May 2021 at Te Papaioea Birthing Centre



Māmā Tyler Reweti in labour in the bath at
Te Papaioea Birthing Centre | January 2021

Equitable access to postpartum contraception

Off Track

MidCentral currently offers access to both regular and long-term postpartum contraception both within Palmerston North Hospital and in THINK Hauora. Every wāhine should be offered either a prescription for oral contraception, condoms or have had a Long-Acting Reversible Contraception (LARC) offered and/or inserted for them at the hospital before discharge after birth, by either the medical team, core midwives or their LMC midwife.

Wāhine who identify a desire to have long-term contraception before or during birth are assessed for suitability and either offered a mirena (intrauterine) or jadelle (subcutaneous in the arm). These are inserted by our obstetric team, while the wāhine is an inpatient. THINK Hauora provide the outpatient service for wāhine seeking a LARC in the community. Insertion and removal are fully funded for eligible service users, with priority given to wāhine who meet criteria such as Māori or Pasifika, community service card holders, those living in socioeconomic quintile 5, wāhine at a high risk of unplanned pregnancy, those with poor health, poor social circumstances or users of the community alcohol and drug services (CADS).

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THINK Hauora insert around 540 LARCs (either intrauterine copper device, jadelle or mirena) each year to our wāhine of birthing age. MidCentral has inserted 179 in 2021 and 131 in 2022.

In early 2021 an expression of interest (EOI) was circulated for midwives who would like to be trained to insert jadelle implants. This would broaden the service MidCentral provide out into the community. There was a lot of interest, however plans got paused due to COVID-19 disruptions.

The plan for 2023 is to reinvigorate the EOI focusing on midwives who work in the primary setting (Te Papaioea Birthing Centre, Kohungahunga Maternity Unit and Dannevirke Community Hospital) as well as core midwives in the hospital setting to train in jadelle insertion and run the programme as a quality initiative. This will enable all wāhine to have time to consider their options and if they decide a jadelle is right for them, it can be inserted in their closest primary centre. It also removes barriers of access for wāhine who don't meet the THINK Hauora criteria.

Reduce preterm birth and neonatal mortality

Off Track

Preterm births rates in MidCentral over the past three years has remained steady between 7.2–8.6 percent of total births, with 70 percent of these being between 34 and 36¹ weeks gestation. Our raw data set obtained over the past three years can be analysed by whether māmā was a smoker in her pregnancy, her age, and ethnicity – all documented risk factors for pre-term birth¹.

Our data mirrors national trends and shows Māori and Indian māmā, wāhine under the age of 20 years, over the age of 35 years or wāhine who smoke are more likely to experience a pre-term birth. Looking at data from 2020–2022, wāhine who smoke have a 11.6 percent change of having a preterm birth compared to the non-smoking rate of 6.2 percent. When smoking rates are broken down by ethnicity health inequities are further highlighted. Further action is needed to help change this modifiable risk factor.

A more comprehensive analysis of this data is comparing it with national data, planned for 2023 so we can better understand why hapū māmā are experiencing preterm birth. This will enable us to plan targeted initiatives to hopefully have an impact on this in the future.

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MQSP Coordinator



Māmā Mareaa having a kangaroo cuddle with her pēpi Monty | Born at 32 weeks in November 2021

¹ Perinatal and Maternal Mortality Review Committee. 2022. Fifteenth Annual Report of the Perinatal and Maternal Mortality Review Committee: Reporting Mortality and Morbidity 2020. Wellington: Health Quality & Safety Commission.

Equitable access to primary mental health services maternal mental health referral and treatment pathway

Off Track

AUTHOR:
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In late 2021, a focus group comprised of mental health care providers, referring clinicians and consumers met to discuss their experiences with the current pathways and discuss what was and was not working for them. The group concluded our Maternal Mental Health Service was failing to support wāhine. Services were hard to navigate and it was unclear where to send someone for help. Many wāhine were passed between services with little follow up, adding to the chances that they would not receive the care they needed. The pathway particularly failed those who did not have the means to pay for GP appointments or private therapy.

At the same time a stocktake of local providers of support services for māmā and whānau was completed. The focus was to identify existing referral and treatment pathways for maternal mental health. However, as different services would be accessed depending individual need, it was best to encompass a holistic approach to supporting wellbeing; these included services that:

- reduce isolation and link wāhine into networks and support groups
- provide advice and education opportunities
- assist with navigating government agencies for financial support
- provide support services.

The stocktake picked up underutilisation of Te Ara Rau Access and Choice, a primary mental health and addiction programme run by our Primary Health Organisation THINK Hauora that is integrated with GPs and community organisations. Mātanga Whai Ora (Health Improvement Practitioners) who are qualified and

experienced mental health professionals, offer short consultations that are focused on evidence-based brief interventions. Kaiwhakapuaka Waiora (Health Coaches) are also available to promote and provide whānau-centred support and holistic monitoring of wellbeing needs.

Te Ara Rau Access and Choice began a partnership with specialist provider Mother's Helpers in 2021. Mother's Helpers deliver care for wāhine experiencing perinatal depression and anxiety; and as a specialist provider, receive funding packages to cover initial assessments, counselling sessions and group therapy. Wāhine who are referred to the service are contacted within 48 hours, with appointments offered within one week.

To better utilise Te Ara Rau Access and Choice, a collaborative approach between the primary services of THINK Hauora and the secondary services of MidCentral was co-designed, to further enhance the accessibility of maternal mental health service to those experiencing mild to moderate mental health issues.

A centralised pathway for primary and secondary referrals was started in February 2022. A dual service approach captured shared philosophy that every door is the right door when asking for help and a joint triage process has enabled service collaboration and helped to ensure that referrals were followed up with the most suited provider.

The services identified in the stocktake were then included with the centralised pathway in an easy-to-use document that was distributed widely to health professionals. An education day was also run by MidCentral, THINK Hauora and Mother's Helpers to increase knowledge of maternal mental health and awareness of the pathway. The education day was well attended by a variety of health professionals involved in maternity and infant care, within the rohe.

Maternal Mental Health Pathway – Services & Support Available for Pregnant Wāhine

Self and Whānau Support		
Barnardos	0508 247 8433	Regionwide. Funded childbirth education classes.
ACROSS	0800 227 677 06 356 7486	Palmerston North. Community support service providing social work and counselling.
Family Start Plunket (Manawatu/Tararua) Raukawa Whānau Ora (Otaki/Horowhenua)	021 518725 06 3688678	Intensive home visiting parenting support that focuses on the parent-child relationship and child development from pregnancy until 3 years of age; also supporting families to access welfare, health, education, and other necessary services.
Raukawa Whānau Ora	06 368 8678	Feilding, Bulls, Manawatu, Horowhenua and Otaki. Provides information and education support for parents from conception to 2 years. Ideal for those who have limited support networks.
Alcohol and Other Drug Service	06 350 8184	Regionwide. Provides information on options and services relating to alcohol and drug use.
SANDS	06 356 9715	Regionwide. Support for those experiencing pregnancy, baby or infant loss and support for wāhine after experiencing loss.
Te Aroha Noa	06 3582255	Provides family/whānau community and counselling services.
Te Wakahuia a Manawatu Hauora	06 357 3400	Provides Tamariki Ora, whānau care and support services.
Best Care Whakapai Charitable Trust	06 353 6385	Provides whānau-focused care, including Tamariki Ora, and Whānau Ora Navigator services, also a mental health coordination service.
Manawatu Supporting Families in Mental Illness	06 355 8561	Offers support, advocacy, education and services for all people, and the community affected by mental illness and addiction, including depression and anxiety programme and Go Kids.
Maternal Mental Health Concerns		
Refer to THINK Hauora. Email referral@thinkhauora.nz or send via Healthlink EDI: tkhauora. Use DHB referral form MDHB 4525- on intranet or THINK Hauora referral form (search referral form on THINK Hauora website) or via link https://thinkhauorawebsite.blob.core.windows.net/websitespublished/0-Home/THINK%20Hauora%20Referral%20Form-2020.pdf Referral will be triaged to primary service providers or hospital maternal mental health service. Or wāhine can self-refer via THINK Hauora website		
Wāhine in Crisis Needing Urgent Assessment		
Crisis Resolution Service/Unplanned Care	0800 653 357	Triages, supports, provides advice and a mobile service that provides specialist assessment and treatment for people experiencing urgent mental health care.



AUTHOR:

ROBYN WILLIAMSON
Operations Lead, Te Uru Pā Harakeke



Secondary care mental health services are available for any wāhine living in the region who fulfill all of the criteria below.

- Who are pregnant or in the first 12 months post-partum
- Who are experiencing an acute deterioration in their mental health or are the most severely affected by a mental health disorder or have a history of or are suspected of serious mental health problems risking disruption of the mother infant relationship
- Requires a greater intensity and/or frequency of treatment and support options
- Are the primary carer of the infant or is likely to become the primary carer of the infant.

The service also provide a consultation service to wāhine with major mental illness who are considering pregnancy.

Referrals to secondary mental health predominately come from the centralised pathway via THINK Hauora. The exception to this is inpatient referrals from Te Uru Pā Harakeke which go directly to the service. All referrals are received by our Maternal Mental Health Speciality Nurse.

The Maternal Mental Health Speciality Clinical Nurse's role is to provide wrap around support for wāhine in the home through a maternal mental health package of care, which includes using a support worker who can go into the home to assist. For example, this could be to assist the wāhine in getting into a routine or to support the māmā and pēpi dyad. Our nurse will also liaise with psychiatrists and social workers as required to ensure that wāhine receive the right level of support.

Our adult mental health ward, is available to wāhine in acute mental distress, however currently pēpi are not allowed to stay. It is anticipated with the mental health and addiction acute inpatient new build that there will be the flexible space to enable māmā and pēpi to stay together if required.



The systems we have in place to ensure midwives are well supported to care for wāhine with complex mental health needs, such as suicidal tendencies include:

- Ability to liaise and consult with mental health and addiction care coordinators and the maternal mental health clinician to discuss referrals/cases/concerns
- Ability to attend health professional and/or whānau meetings
- Access to Unplanned Care/Crisis Resolution Services
- Paruru Mōwai.

We are currently assessing the best way to support Māori and Pasifika mental health in the primary environment and how to best utilise our current 1 FTE vacancy. This position, once the role is confirmed, is planned to be advertised early 2023.

Meeting the needs of women under 20 years

Off Track

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MQSP Coordinator



Bumps to Babies Manawatū has been working with young hapū māmā in a variety of ways over the past few years.

They have a social worker that spends three mornings a week at the teen parents unit at Freyberg High School. The manner of these visits is informal and the focus of conversation is tailored to those present. Currently one morning a fortnight, a Bumps to Babies Childbirth Educator visits the teen parents unit at Waiopahu College to offer information sessions in group settings or in one-to-one sessions. Similarly, conversations are individualised, ranging from pregnancy, birth, postnatal care or how to care for your toddler.

Ongoing audit and review of MEWS and trigger tool

On Track

Maternity Early Warning Score (MEWS) has been in use throughout Palmerston North Hospital since 2019. The chart is stocked in Hine te Iwaiwa, Te Aotūroa and our primary units as well as the Emergency Department and our Women's Assessment and Surgical Unit, the other most common wards for pregnant or recently pregnant wāhine.

MEWS incorporates a standardised maternity vital signs chart with an early warning score and localised escalation pathway.

Intense work was undertaken by the MQSP Coordinator in early 2021 to tackle the ongoing issue of compliance. Auditing was recommenced and looked at all aspects of chart usage with results feedback weekly to staff in newsletters and posters, focusing on one area of performance at a time. Education was delivered to staff on a one-on-one basis tailored to cover areas they needed.

Education for MEWS is now business as usual. New staff utilise online education modules through Ko Awatea with follow-up in-person training if needed once they have settled into their role.

Education is also provided on student orientation. Update education is given at each Midwifery Emergency Skill Days and PROMPT multidisciplinary training.

Reviews of care escalation and routine chart usage are continually monitored through routine auditing as well as during case reviews. Our case review process enables us to more thoroughly look at care escalations, documentation and ongoing management.



Auditing shows an average of **80%** of women receiving the appropriate frequency of vital sign monitoring in 2022

Failure to repeat sets of observations as per the escalation plan when they fall just outside the target range has impacted on this number. This is a place for future improvement efforts as not doing this means that early signs of deterioration may be missed.

Auditing has also shown slight differences in the care we provide

to European women compared to those of Māori or Pasifika ethnicity. Māori and Pasifika wāhine were slightly less likely to receive appropriate frequency of monitoring 79 percent vs 84 percent. While the difference is slight, it is representative of the need for continual efforts in cultural competency and recognition of unconscious bias in our workforce.

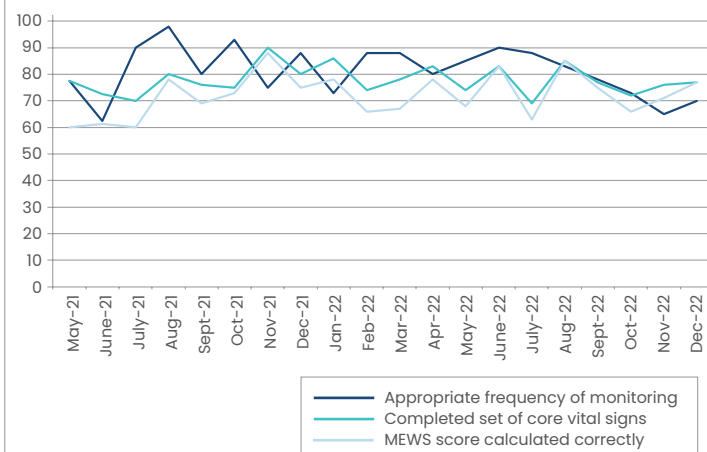
AUTHOR:
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Next steps

- Explore moving to electronic MEWS within BadgerNet rather than using paper-based format.
- Looking at embedding a MEWS question into the EWS audit to track use in other wards and raise wider awareness of using the correct chart.

MEWS Chart Usage Within Palmerston North Hospital



Co-design models of care to meet the needs of Indian women

Off Track

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MQSP Coordinator



Aneesha hapū with pēpi Joana
| Born July 2022

Within Midcentral rohe, just over four percent of our birthing māmā identify as Indian ethnicity. Compared with the general population, these wāhine experience a higher than average caesarean section rate (between 36–45 percent, compared with 26–27 percent for all other ethnicities) and those that birth vaginally are 90 percent likely to experience a perineal tear. Of the caesarean sections, 48–60 percent of these are deemed elective; the vast majority are for either a previous caesarean section or a previous severe perineal tear.

Locally, the MQSP team has not had the capacity to engage this directive. However, regionally we have discussed working together in 2023 to replicate or try to access a project that is currently being run at Counties Manukau. This project involves antenatal education and postnatal support being delivered by Indian health professionals, specifically for Indian wāhine. It is currently delivered over zoom so it could be accessible to Indian wāhine in the MidCentral rohe.

Looking forward we hope to strengthen community relationships to potentially gain further insights into what our local Indian population needs.

Use of the Health Equity Assessment Tool (HEAT) to assess services for the impact of health equity

On Track

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MQSP Coordinator



The use of a HEAT is being used at many levels in quality and safety in Te Uru Pā Harakeke.

The Guidelines Group, who work on the documents that guide clinicians in their practice as well as hospital processes, routinely ask the ten questions when developing and updating documents.

Our multidisciplinary case review team discuss the cases with equity at the forefront of the discussions. In 2023, we will be formally including this in the meeting terms of reference as they are due to be updated.

Projects developed and rolled out by the MQSP team are put through the ten questions of the HEAT when they are in development and implementation stages.

In 2022, Te Uru Pā Harakeke directorate recruited to the Equity Lead position. Now that they have been in their role for seven months, the MQSP team are looking forward to a closer working relationship with our Equity Lead in challenging the status quo and working further to reduce existing inequities.

Questions:

What inequalities exist in relation to the health issue under consideration?	Who is most advantaged and how?	How did the inequalities occur? What are the mechanisms by which the inequalities were created, maintained or increased?	Where/how will you intervene to tackle this issue?	How will you improve Māori health outcomes and reduce health inequalities experienced by Māori?
How could this intervention affect health inequalities?	Who will benefit most?	What might the unintended consequences be?	What will you do to make sure the intervention does reduce inequalities?	How will you know if inequalities have been reduced?

Maternity indicators by ethnicity

On Track

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Standard Primiparae:

A group of women considered to be clinically comparable and expected to require low levels of obstetric intervention. This report defines standard primiparae as women recorded in MAT who meet all of the following criteria:

- Gave birth at a maternity facility or had a home birth
- Are aged between 20 and 34 years (inclusive) at birth
- Are pregnant with a single baby presenting in labour in cephalic position
- Have no known prior pregnancy of 20 weeks and over gestation
- Give birth to a live or stillborn baby at term gestation: between 37 and 41 weeks inclusive (based on gestational age recorded for the baby and exclusion criteria)
- Have no recorded obstetric complications in the present pregnancy that are indications for specific obstetric interventions.

Clinical Indicator	MidCentral	Māori	Pasifika	Indian	Asian	NZ European/ Other	National
1. Women who have given birth – registration with a lead maternity carer in the first trimester	81.2%	70.5%	67.3%	91.0%	83.8%	88.8%	74.1%
2. Standard primiparae who have had a spontaneous vaginal birth	67.3%	73.6%	76.9%	9.1%	57.9%	68.0%	62.1%
3. Standard primiparae who undergo an instrumental vaginal birth	15.8%	12.3%	15.4%	36.4%	21.1%	16.2%	19.1%
4. Standard primiparae who undergo a caesarean section	16.2%	14.2%	7.7%	54.5%	15.8%	15.7%	17.6%
5. Standard primiparae who undergo an induction of labour	8.1%	3.8%	7.7%	45.5%	5.3%	8.6%	9.2%
6. Standard primiparae with an intact lower genital tract (no 1st to 4th degree tear)	34.1%	41.8%	56.0%	0.0%	31.2%	30.1%	26.7%
7. Standard primiparae undergoing episiotomy with no 3rd or 4th degree tear	22.4%	16.5%	16.7%	60.0%	18.8%	25.3%	26.1%
8. Standard primiparae sustaining a 3rd or 4th degree tear and no episiotomy	3.1%	1.1%	0.0%	20.0%	0.0%	4.2%	4.3%
9. Standard primiparae undergoing episiotomy and sustaining a 3rd or 4th degree tear	1.4%	2.2%	0.0%	0.0%	6.2%	0.6%	2.1%
10. Women having a general anaesthetic for caesarean section	6.4%	5.3%	7.1%	4.8%	0.0%	8.4%	7.8%
11. Women requiring a blood transfusion with caesarean section	2.6%	2.6%	7.1%	0.0%	5.1%	2.4%	3.4%
12. Women requiring a blood transfusion with vaginal birth	1.4%	1.0%	2.3%	0.0%	3.7%	1.7%	2.4%
13. Diagnosis of eclampsia at birth admission	0.1%						0.0%
14. Women having a peripartum hysterectomy	0.0%						0.0%
15. Women admitted to ICU requiring ventilation during the pregnancy or postnatal period	0.0%						0.0%
16. Maternal tobacco use during postnatal period	11.7%	22.0%	6.5%	0.0%	0.0%	7.6%	8.6%
17. Preterm birth	6.5%	6.7%	3.2%	9.3%	7.3%	6.2%	7.9%
18. Small babies at term (37–42 weeks gestation)	2.8%	2.8%	2.2%	7.1%	4.3%	2.2%	3.0%
19. Small babies at term (40–42 weeks gestation)	31.6%	36.4%	0.0%	14.3%	33.3%	35.0%	29.6%
20. Babies born at 37+ weeks gestation requiring respiratory support	3.3%						2.7%

Te Whatu Ora. (2022, October 5) Maternity Clinical Indicator Trends. <https://tewhaturora.shinyapps.io/maternity-clinical-indicator-trends/>

Interdisciplinary fetal surveillance education for all clinicians involved with intrapartum care

On Track

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MQSP Coordinator



MidCentral annually hosts the RANZCOG FSEP. Stemming from Perinatal and Maternal Mortality Review Committee (PMMRC) recommendations, MidCentral employed clinicians are expected to attend the FSEP face-to-face course every second year and completing the online FSEP training on alternating years.

To ensure the greatest number of staff have access to the FSEP education, MidCentral collaborates with Whanganui District, so clinicians have an option of two study days available to them, free of charge. LMC midwives are welcomed at all education days. In 2022, plans were made to ensure that fetal surveillance education would be offered to all maternity care providers free of charge.

Over 70 percent of midwifery staff are up to date with their FSEP training, with the remaining booked to attend in April and May 2023. All of our RMOs and SMOs are up to date with FSEP training. While it is not compulsory for Senior House Officers (SHOs) to complete training, we recommend they do so and support them to attend if possible.

To ensure all clinicians are completing the online FSEP training in alternate years a focus for 2023 is on re-socialising the module for clinicians to complete on suitable shifts.



Establish a clinical pathway for women with identified placental implantation abnormalities

Business As Usual

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In MidCentral, wāhine with abnormal placentation are usually identified on a routine ultrasound and referred through the obstetric antenatal clinic. Wāhine with placenta accreta, placenta increta and placenta percreta are referred to Coast and Coast and Hutt Valley's Maternal Fetal Medicine specialists for consultation.

Care plans are then individualised with the Maternal Fetal Medicine specialist team and the MidCentral Obstetric Team to plan the most appropriate location for the antenatal and birth care for each wāhine referred.

If a transfer to Wellington Hospital is recommended, the wāhine and her whānau are consulted with, and risks and benefits discussed so they are able to make an informed decision. If care continues to be managed within our region cases are reviewed at our monthly high-risk meeting to ensure team input and awareness.

Regionally the MQSP coordinators have been working on a guideline, to be published by Capital and Coast and Hutt Valley, to establish the link between secondary and tertiary services.

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INEZ MCCAUGHAN
MQSP Coordinator



New graduate midwife Stacey Graham with
māmā Aileen Rongokea and her new pēpi

In the 12th Perinatal and Maternal Mortality Review Committee report (2018), an urgent recommendation was made that regulatory bodies require cultural competency training of all individuals working across all areas of the maternity and neonatal workforce. Training should address awareness of, and strategies to reduce and minimise the impact of, implicit bias and racism.

In 2020, 5 percent of our workforce (midwives and nursing) had completed a two-day Te Tiriti o Waitangi workshop. In 2021 this number sat at 7 percent. In 2022, additional workshops were held and now 38 percent of our staff have completed the two-day course over the last two years. This continues to be a priority, with all new staff completing cultural training within the first six weeks of employment.

MidCentral also offer the Māori Cultural Responsiveness in Practice (MCRiP) course, which delivered either in a series of four modules, each two hours in length, or as a one-day course to make it more accessible to a wider range of staff. Midwifery staff that have commenced these modules have described the course as “fun and interactive whilst learning about culture and local history; an informal, enjoyable two-hour session”.

As well as the MidCentral cultural education on offer, the maternity medical team also have the MIHI 501 RANZCOG course: Application of the Hui Process and Meihana Model to Clinical Practice course available to them. For trainee registrars who are enrolled on the RANZCOG pathway (working towards specialist qualification) this was made compulsory in 2020. This course comprises of online learning modules, attendance at a one-day Hauora Māori Workshop held in Christchurch and a Transformative Practice module.

The objective of the RANZCOG course is to support health practitioners to feel confident in the application of Hauora Māori competencies with a special focus on the application of the hui process and Meihana model. The course is tailored to assist learners apply these models within their practice alongside Māori patients and/or whānau. The hui process and Meihana model promote positive engagement, appropriate care/treatment and health advocacy that supports Māori health equity.

Within our medical team, four of the seven SMOs have completed the MIHI course, with the remaining three registered to attend the next available course in August 2023. All the RMOs on the RANZCOG training programme have either completed MIHI or are booked to attend MIHI in 2023.

Implementation of Health Quality Safety Commission (HQSC) Maternal Morbidity Review Toolkit and Severity Assessment Code (SAC) rating (Maternal & NE case review)

On Track

The Quality and Innovation Team in MidCentral coordinate and support patient safety across all hospital services. Since the implementation of the National Serious Adverse Event policy and SAC by the Health Quality and Safety Commission (HQSC) in 2012, MidCentral has participated in this process.

Our team report all SAC 1 and 2 incidents and any “always report and review” events to HQSC as per the national policy, providing notification of events and de-identified final reports through the adverse event brief process. Root cause analysis is undertaken on all SAC 1 and 2 events and our team supports departments in case reviews for SAC 3 and 4 incidents. Our patient safety management system known as ‘RiskMan’ has been adapted to support the notification of SAC events as well as any “always report and review” events which are part of the national policy.

MidCentral uses Taproot as the methodology to complete SAC 1 and 2 and always report and review events.

Multiple staff throughout the organisation are trained in this methodology and are supported by the Quality Assurance Team who peer review all events before they

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are presented to our Serious Adverse Event Governance Group. The governance group is made up of senior executives from across the hospital as well as professional leads, Pae Ora Paiaka Whaiora Hauora Māori and has a consumer representative. The recommendations that come from any report, are made into an action plan and this is followed up with the relevant service by the Quality Assurance Facilitators to ensure that all recommendations are completed.

We maintain a ‘no blame’ culture of reporting and regularly provide training and education on how to complete incident reporting and what the purpose of completing these are. Training is given on what to report and how to ensure that a no blame culture is maintained. MidCentral staff report well and feedback from recent certification audits completed by HealthCert (regulatory service of the Manatū Hauora) indicate that MidCentral’s adverse event reporting process is well embedded and managed.

Implementation of hypertension guideline, with a review/re-stock of medications to ensure easy availability and administration in acute care settings

Completed

The local hypertension and pre-eclampsia guideline was updated to align with the national document in 2021. The draft was widely circulated with a lengthy consultation period to ensure that we not only maximised feedback and input from all stakeholders but also disseminated information from the updated national guidance.

Work was completed in collaboration with pharmacy to move towards pre-made magnesium sulfate bags. This included reprogramming our BD Alaris Pumps and utilisation of their bolus feature to give the loading dose of magnesium sulfate then once completed automatically starting with the maintenance dose. This simplifies the process for clinicians and reduces waste by using the same pre-made bag for both doses.

Updating staff with a new way of administering intravenous magnesium sulfate was challenging due to the infrequency of having a patient who requires

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magnesium sulfate. As familiarisation would take some time, step-by-step pictorial guides were made detailing everything from how the medication should be charted on the medication chart, to how to set up a pump and reminders of the level of ongoing monitoring needed. Information was circulated to staff via email and newsletters and placed with the magnesium sulfate bags. Education was delivered one to one by the MQSP Coordinator for senior midwives and those with higher FTEs to try to ensure that someone on each shift knew the new process. Ongoing collaboration with our Midwifery Educator and PROMPT team ensured that they were also able to reflect updated practice in their teaching days.

Minor revisions were completed to our local guideline following the updates to the national guideline in 2022.

Establish septic bundle kits to address human factor components, such as stress in high-acuity settings

Completed – Business As Usual

Establish clinical pathways across primary and secondary/tertiary care to enable earlier recognition and treatment of sepsis

Completed – Business As Usual

Sepsis in pregnancy and the postnatal period

Sepsis is the leading cause for maternal morbidity and mortality worldwide. During pregnancy and the postnatal period, wāhine are particularly susceptible to a rapid deterioration in condition if they develop an infection. Each hour that antibiotic treatment is delayed creates a measurable increase in the risk of maternal mortality.

The 'Sepsis Six' is a name given to a bundle of medical therapies designed to reduce mortality in patients with sepsis. It was drawn from international guidelines that emerged from the Surviving Sepsis Campaign, a global initiative to bring together professional organisations in reducing mortality from sepsis. The tools were adapted to the local New Zealand setting by the Sepsis Trust New Zealand and each hospital or district has adapted them to suit their locality.

To educate all staff and LMC accessing the facilities on sepsis, a guideline, tools and resources were created and rolled out as a project by the MQSP Coordinator. The guideline covers the signs and symptoms of sepsis, the tools developed by The Sepsis Trust New Zealand, use of the MEWS chart and the pathways clinicians must follow to identify acutely deteriorating patients and provide prompt medical care. The project was successfully rolled out in MidCentral facilities in June 2022.

The adaption of the screening tools designed by The Sepsis Trust NZ, to be used in both primary and secondary settings has meant that tools are available for all practitioners to utilise in any potential setting to identify and access medical treatment for unwell patients. The primary (out of hospital) form is to be used by LMCs either seeing a client at home or in a primary unit, and the secondary (in-hospital) form is to be used in Palmerston North Hospital.

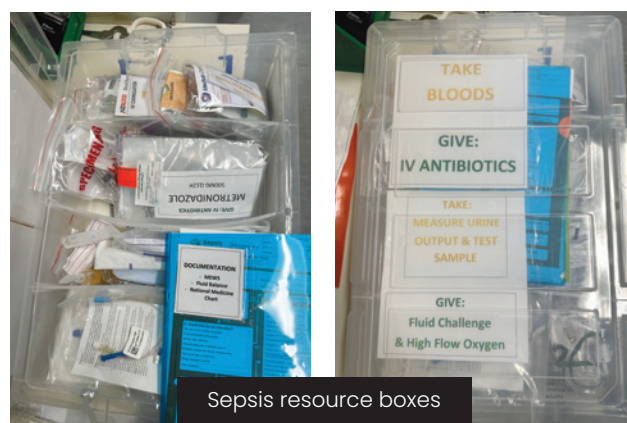
An information leaflet was also developed for patients called "Could it be sepsis?" which explains the signs and symptoms a wāhine or her whānau may experience, and emphasises the urgency required in seeking medical care. This is being distributed in the antenatal period through LMCs, antenatal education classes and the obstetric clinics, and in the postnatal period in the Well Child books.

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Information card for māmā and whānau.

Along with tools and clinical guideline, five resource boxes were created with the aim to ensure efficient care could be given to any patient suspected to be developing sepsis.



The resource boxes are a large clear plastic tub with four sections. The sections contain everything in the 'Sepsis Six' bundle used to identify and treat the first "golden hour" after sepsis has been suspected. It was designed this way to minimise the amount of time the clinician needed to spend away from the patient gathering equipment and treatment medication.

The five boxes are located on Hine te Iwaiwa and Te Aotūroa in Palmerston North Hospital, at Kohungahunga Maternity Unit, at Te Papaioea Birthing Centre and in Dannevirke Community Hospital. Tools, posters and patient information brochures are in each of these sites and on-site training was delivered to the nurses and midwives who work in these units in how to use the boxes, access the guideline, how to use the tools, how to check the boxes to ensure all equipment and medication is within use-by date; and how to restock the boxes after each use.

The MQSP Coordinator has also incorporated the 'Sepsis Six' training for all staff on PROMPT courses by including a lecture on sepsis and two sepsis scenarios in our regular multidisciplinary team training sessions. It is also included in the Midwifery Emergency Skills refresher day. Staff here valued

this education as it highlights the speed in which a patient can deteriorate with sepsis and the importance of the first hour of identifying and treating sepsis.

Since the rollout of this dual-focused project in November 2021, staff have completed 24 Maternal Sepsis Screening and Action Tools, with 16 of these commencing on the sepsis pathway using the kit, and receiving the complete sepsis package in a timely manner.

Posters currently displayed in all wards and clinics.

Maternal Sepsis

KNOW THE SEPSIS 6+2 TO SAVE LIVES

KNOW THE SIGNS

For women who are pregnant or have recently been pregnant, consider sepsis if any of these signs are present.



Temperature
≥38°C or <36°C
Shivering, fever or very cold



Altered mental state or behaviour
Confusion or disorientation



Respiratory rate ≥25 breaths/min
Short of breath



Heart rate ≥100 beats/min
High heart rate



Systolic blood pressure <90mmHg
Clammy or sweaty skin



New onset of pain
Extreme pain or discomfort

KNOW WHAT TO DO

Start maternal sepsis pathway and maternity vital signs chart (MEWS).

Contact the MDHB Obstetric Registrar (on-call) or consider:

- **In hospital:** Call 777 obstetric emergency
- **In the community:** Call 111 emergency ambulance transfer.

TAKE 3

- Take appropriate cultures
- Measure lactate
- Measure urine output

GIVE 3

- Give IV antibiotics
- Give a fluid challenge
- Give high-flow oxygen

CONSIDER 2

- Assess fetal state and consider delivery or evacuation of retained products of conception
- Consider thromboprophylaxis



We would like to thank Capital & Coast DHB for the use of this information
Oct 2021 Commis: 3010

Maternity Quality Safety Programme in 2023

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At the completion of this MQSP Annual Report, Te Uru Pā Harakeke Leadership Team has planned a hui to present the report to key stakeholders, staff and public. Two leaders in the obstetric and midwifery fields have been invited to offer a critical lens over the report and provide feedback on the service. The aim of this is to be transparent in the service we are providing and to get together to discuss ideas for future MQSP local projects that are meaningful to the communities we serve.

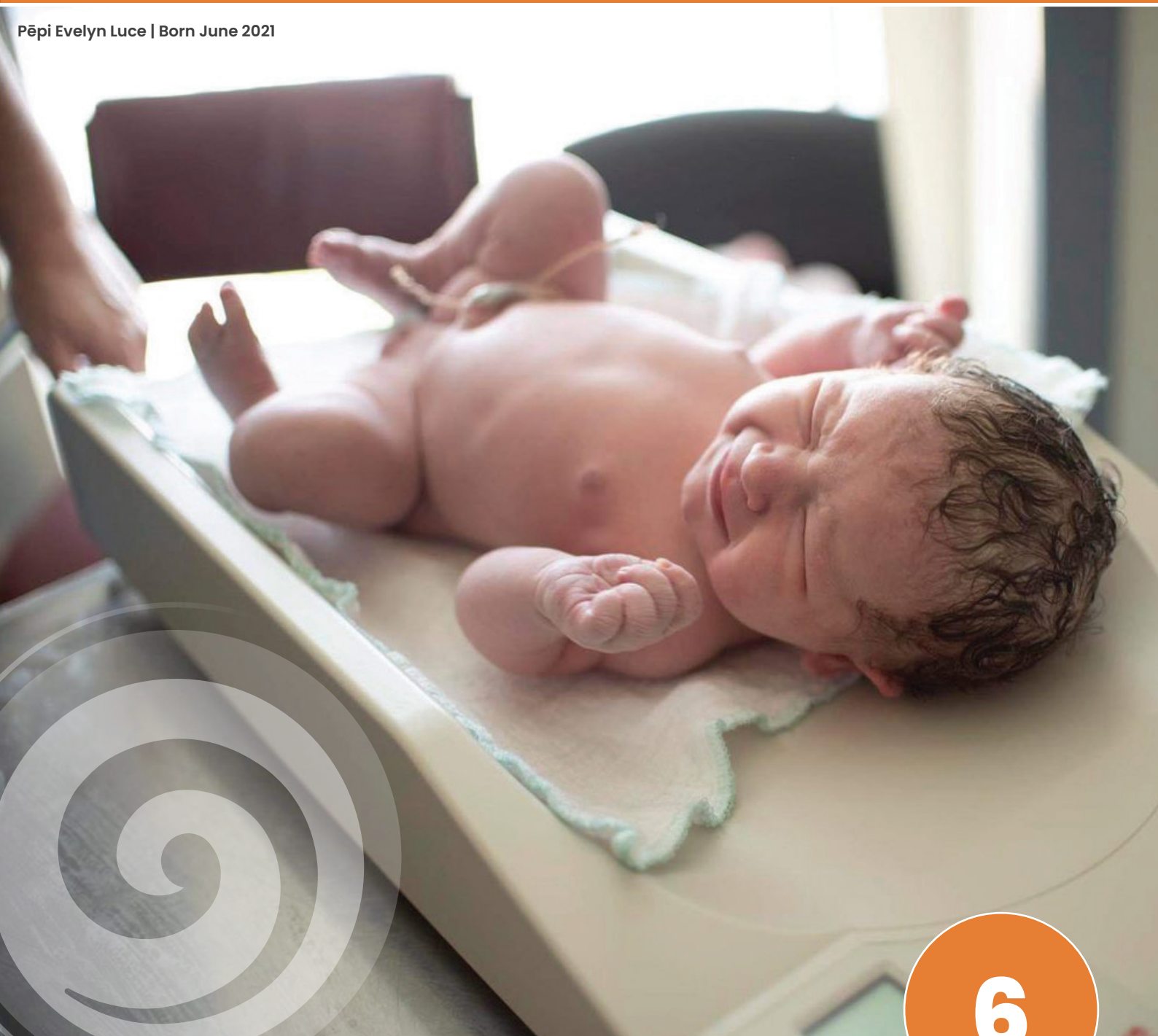
The MidCentral MQSP Team is also working closely with the wider regional MQSP Coordinators to collaborate on future policies and projects to enable improved equity across the wider rohe.

We plan to continue to work to the MQSP objectives, work with others in the central rohe to begin to standardise guidelines as well as support other districts in our regions to implement the global BadgerNet system.

Our hui will also give us a chance to further explore the needs of all our stakeholder groups.



Dr Sarah Cashen holding pēpi Freya during her caesarean section birth | January 2022



6

Quality Improvement

Kua takoto te manuka
The leaves of the manuka tree have been laid down



Continuous Labour and Birth Audit

The continuous audit of labour and birth was initiated in early 2017, starting with a retrospective collection of demographic data as well as labour and birth events and outcomes for the previous year. From August 2017, the data has been collected monthly.

The audit is based on the use of the Ten Group Classification System¹ (TACS) which classifies all wāhine into one of ten categories that are totally inclusive and mutually exclusive, thus completely comprehensive. The categories are based on six obstetric characteristics: parity (the number of times a wāhine has given birth to a pēpi at 24 or more weeks gestation); number of fetuses; previous caesarean section; onset of labour; gestational age; and fetal presentation.

Such classification enables assessment of our clinical management practices by analysing outcomes by groups. It also allows for meaningful data comparison between other units both nationally and internationally.

Our audit findings are discussed in staff meetings, presented to wāhine and whānau in the form of posters in the Birthing Suite and disseminated wider at scientific meetings and in the annual MQSP report. A better understanding of our outcomes has also helped us design and drive several quality improvement initiatives, which is an essential part of our continuous quality improvement process. The MCIS – BadgerNet provides the foundation for the data source which is then manually checked by a MQSP Coordinator to get a reliable and accurate dataset.

2016 was the first year of our audit and formed the baseline data. That year we had 1944 wāhine give birth at MidCentral

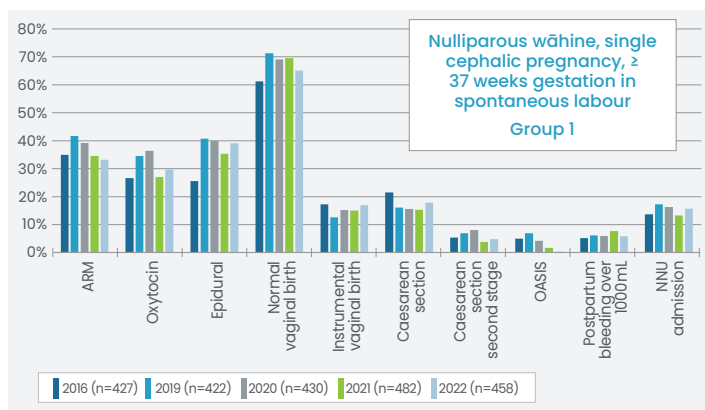
with an overall caesarean section (CS) rate of 30.5 percent. Like most maternity units around the world that have access to an obstetric theatre, groups 1–5 make up the majority of the birthing wāhine. Groups 6–10 have high CS rates but do not greatly impact the overall CS rate due to having relatively smaller numbers of wāhine falling into these categories.

When comparing our data to comparable European units^(2,3), our CS rates for groups 1, 2A and 4A were significantly higher. This increases the size of group 5 in the future when wāhine return for subsequent births.

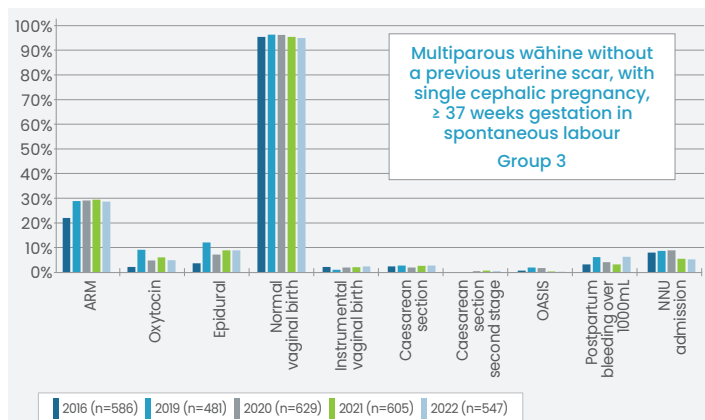
In 2017, we decided to look at our management of wāhine in groups 1, 2A and 4A to better support wāhine to achieve a safe vaginal birth. To do this we looked at changing our induction of labour process and revisited our labour dystocia guideline.



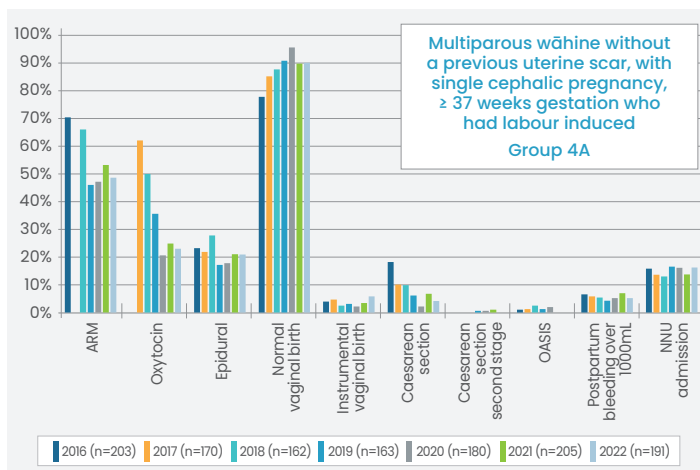
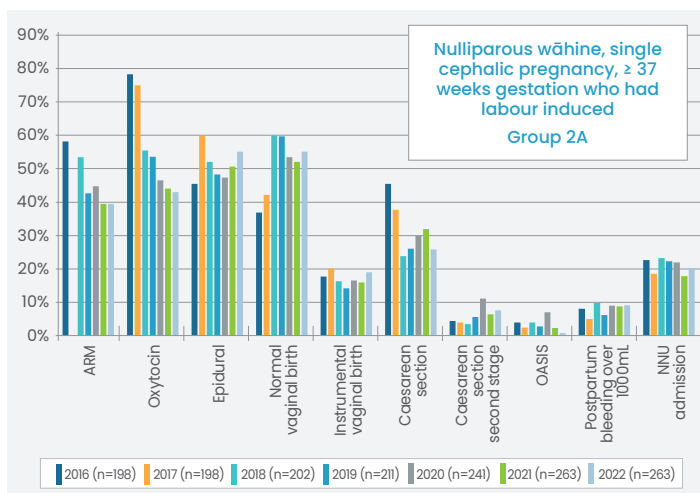
On examination of group 1 (nulliparous wāhine, with a single cephalic (head first) pregnancy, ≥ 37 weeks gestation who go into spontaneous labour) we can see that the percentage of wāhine experiencing obstetric anal sphincter (OASIS) injuries (3rd and 4th degree perineal tears) reached 6.9 percent in 2019. In response to this we rolled out an OASIS project in 2020 focusing on perineal care and protection and have since seen a significant decrease to 0.4 percent in their occurrence.



Wāhine in group 3 (multiparous, without a previous uterine scar, with a single cephalic pregnancy, ≥ 37 weeks gestation in spontaneous labour) have a high likelihood of a normal vaginal birth, low rates of events in labour and low rates of complications for the wāhine or their pēpi. The outcomes for wāhine in this group are usually similar both over time and when comparing with other units. This is because labour management for these wāhine does not change the outcomes significantly.

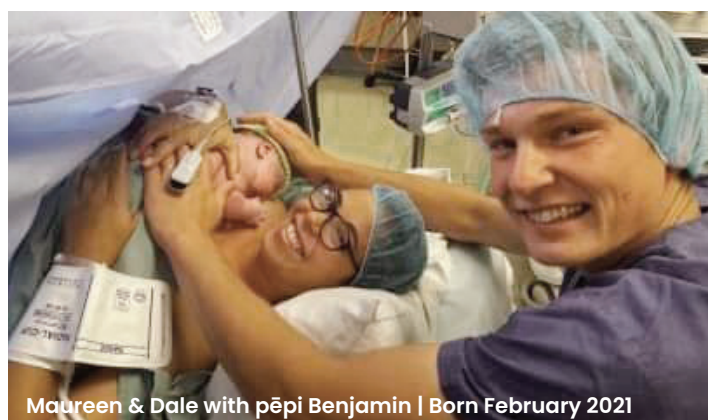


From early 2018, we commenced using low-dose oral misoprostol instead of vaginal dinoprostone for induction of labour. Subsequently we have had significant reductions in CS rates for groups 2A and 4A. The likelihood of a nulliparous wāhine with a cephalic fetus having a CS when she had an induction of labour decreased from 45.5 percent in 2016 to 25.9 percent in 2022. Similarly, the likelihood for multiparous wāhine having a CS when having an induction of labour decreased from 18.2 percent in 2016 to 4.2 percent in 2022.



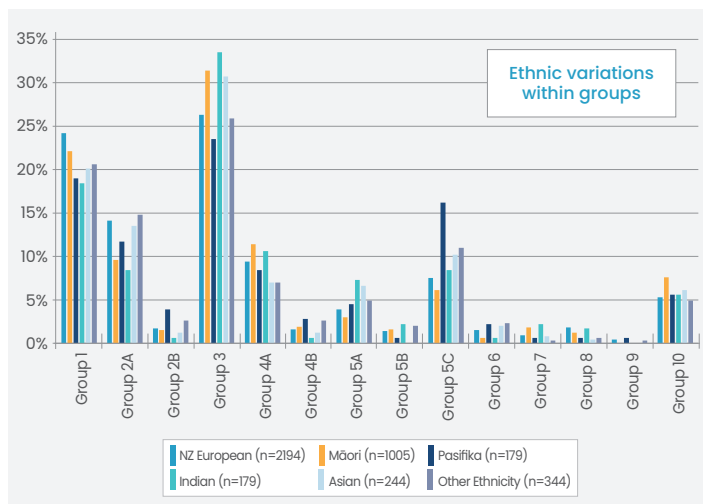
While collecting data on various labour and birth events, we have also seen that after the change to low-dose oral misoprostol for induction of labour there has been a reduction in the percentage of wāhine needing an artificial rupture of membranes or oxytocin augmentation during their labour. There has also been no adverse impact on our rates of post-partum haemorrhage or pēpi being admitted to the Neonatal Unit.

Our continuous data audit also allows us to explore ethnic differences and consider equity. There are differences in the distribution of ethnicities between the ten groups. Looking at all wāhine birthing in 2021 and 2022, we can see that more of our multiparous wāhine identify with Māori or Asian ethnicities (groups 3 and 4A). Similar to national data, Māori wāhine are overrepresented group 10 (single cephalic pregnancy <37 weeks). For Pasifika wāhine, group 3 is relatively small and group 5C is large,



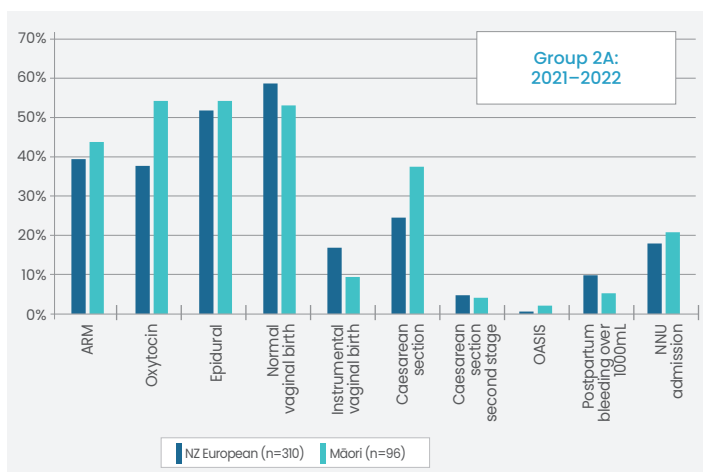
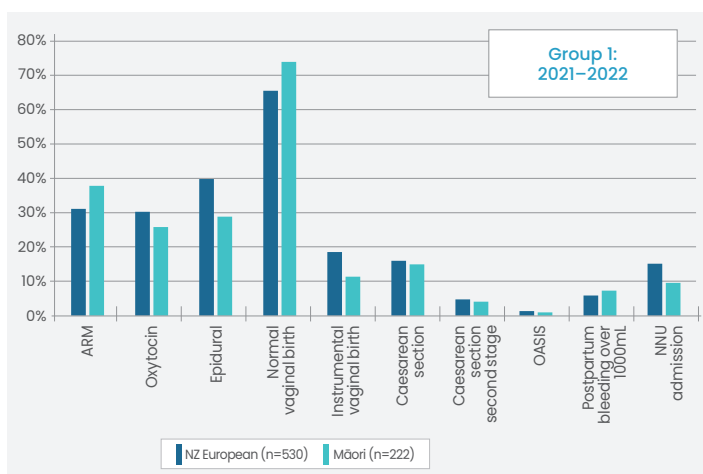
Maureen & Dale with pēpi Benjamin | Born February 2021

meaning that this group of wāhine more commonly has had a previous CS and have an elective CS.



Māori wāhine in group 1 (nulliparous, single cephalic pregnancy, ≥ 37 weeks gestation in spontaneous labour) have higher rates of normal vaginal births, with lower rates of oxytocin augmentation, epidurals and neonatal admissions compared to NZ Europeans. However, when labour is induced (group 2A) Māori wāhine are more likely than their NZ European counterparts to end up with a CS, with higher rates of oxytocin, epidurals and neonatal admissions.

The other ethnic groups are too small to present yearly outcomes within the Ten Group Classification System.



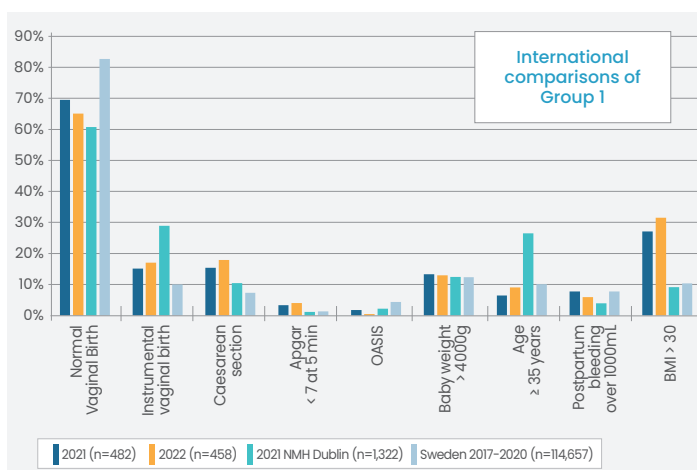
Body Mass Index (BMI) is another variable that we have examined and appears to be a factor of significance for nulliparous wāhine, in terms of birth interventions and outcomes, with a 9.6 percent increase in caesarean rates for wāhine in group 1 with a BMI >40 . Differences are less significant in this comparison for wāhine in group 3.

Examining variable of BMI within groups on labour and birth events and outcomes

	Group 1		Group 2A		Group 3		Group 4a	
	BMI <40 (n=906)	BMI >40 (n=31)	BMI <40 (n=479)	BMI >40 (n=47)	BMI <40 (n=1083)	BMI >40 (n=61)	BMI <40 (n=347)	BMI >40 (n=50)
ARM	33.8%	38.7%	39.0%	42.6%	29.1%	31.1%	49.6%	62.0%
Oxytocin	27.8%	41.9%	42.0%	59.6%	5.4%	6.6%	23.3%	28.0%
Epidural	37.0%	38.0%	53.1%	51.1%	9.0%	8.2%	19.6%	30.0%
Normal Vaginal Birth	68.0%	48.4%	54.5%	44.7%	95.1%	95.1%	90.2%	88.0%
Instrumental Vaginal Birth	15.8%	25.8%	18.0%	12.8%	2.3%	0.0%	4.9%	2.0%
Caesarean Section	16.2%	25.8%	27.6%	42.6%	2.6%	4.9%	4.9%	10.0%
OASIS	1.1%	0.0%	1.7%	0.0%	0.3%	0.0%	0.3%	0.0%
Postpartum Bleeding > 1000 mL	7.0%	0.0%	9.5%	4.3%	4.7%	4.9%	6.1%	6.1%
Admission to NNU	13.9%	29.0%	19.5%	14.9%	5.5%	4.9%	15.6%	12.2%

Our use of the Ten Group Classification System enables us to be able to compare our results to other units internationally. Comparing our figures in Group 1 to the National Maternity Hospital in Dublin, Ireland as well as National Swedish data shows MidCentral has higher CS rates and higher rates of APGAR less than seven at five minutes. Also, the percentage of wāhine with a BMI over 30 is significantly higher at MidCentral than in the European units.

We will pursue in collecting data to enable us to identify trends that will guide the quality and safety work here at MidCentral, to try to minimise inequities for and strive to achieve the best outcomes for wāhine and pēpi.



Caesarean Section Rates Within the Ten Group Classification System

Classification Group		Size of Group NB in Group/ Total NB Births			CS Rate CS Births in Group/ Total Births in Group			Contribution of Each Group to CS Rate		
		2016	2021	2022	2016	2021	2022	2016	2021	2022
					30.4% (591/1944)	28% (600/2144)	27.4% (548/2000)			
1	Nulliparous wāhine, single cephalic pregnancy, ≥ 37 weeks gestation in spontaneous labour	21.8%	22.5%	22.9%	21.5%	15.4%	17.9%	4.7%	3.5%	4.1%
2	Nulliparous wāhine, single cephalic pregnancy, ≥ 37 weeks gestation who had labour induced or a CS before labour	10.8%	13.7%	15.3%	48.6%	39.1%	35.9%	5.2%	5.3%	5.5%
2a	Group 2 those with labour induced	10.2%	12.3%	13.2%	45.5%	31.9%	25.9%	4.6%	3.9%	3.4%
2b	Group 2 those with CS before labour	0.6%	1.4%	2.1%	100%	100%	100%	0.6%	1.4%	2.1%
3	Multiparous wāhine without a previous uterine scar, with single cephalic pregnancy, ≥ 37 weeks gestation in spontaneous labour	30.1%	28.2%	27.7%	2.4%	2.6%	2.7%	0.7%	0.7%	0.8%
4	Multiparous wāhine without a previous uterine scar, with single cephalic pregnancy, ≥ 37 weeks gestation who had labour induced or a CS before labour	11.7%	11.3%	11.4%	26.7%	20.7%	33.1%	3.2%	1.4%	2.2%
4a	Group 4 those with labour induced	10.4%	9.6%	9.6%	18.2%	6.8%	4.2%	1.9%	0.7%	0.4%
4b	Group 4 those with CS before labour	1.3%	1.7%	1.8%	100%	100%	100%	1.3%	1.7%	1.8%
5	Multiparous wāhine with previous uterine scar, with single cephalic pregnancy, ≥ 37 weeks gestation	13.6%	13.7%	13.4%	73.4%	75.8%	77.2%	9.8%	10.3%	10.4%
5a	Group 5 with spontaneous labour	4.1%	4.2%	4.0%	31.6%	41.6%	43.8%	1.3%	1.7%	1.8%
5b	Group 5 with labour induced	1.5%	1.5%	1.3%	46.7%	40.6%	38.5%	0.7%	0.6%	0.5%
5c	Group 5 with CS before labour	7.9%	8.0%	8.1%	100%	100%	100%	7.8%	8.0%	8.1%
6	All nulliparous wāhine with a single breech pregnancy	1.5%	1.5%	1.2%	93.1%	84.4%	100%	1.4%	1.3%	1.2%
7	All multiparous wāhine with a single breech pregnancy (including those with previous caesarean sections)	1.8%	1.1%	1.1%	82.9%	87%	86.4%	1.5%	0.9%	1.0%
8	Wāhine with multiple pregnancies (including those with previous caesarean sections)	1.6%	1.6%	1.3%	64.5%	61.8%	64%	1.0%	1.0%	0.8%
9	Wāhine with a single pregnancy with a transverse or oblique lie (including those with previous caesarean sections)	0.3%	0.2%	0.3%	100%	100%	100%	0.3%	0.2%	0.3%
10	Wāhine with single cephalic pregnancy <37 weeks (including those with previous caesarean sections)	6.8%	6.2%	5.6%	35.3%	38.3%	23.2%	2.4%	2.4%	1.3%

References:

- ¹ Robson M. Classification of caesarean sections. Fetal and Maternal Medicine Review. 2001;12(01):23–39.
- ² Rossen J, Lucovnik M, Eggebo TM, Tul N, Murphy M, Vistad I, et al. A method to assess obstetric outcomes using the 10-Group Classification System: a quantitative descriptive study. BMJ Open. 2017;7(7):e016192.
- ³ Kempe P, Vikström-Bolin M. The continuous audit of events and outcomes of labour and birth using the Ten Group Classification System and its role in quality improvement. European Journal of Obstetrics & Gynecology and Reproductive Biology. 2019;237:181–8.



Effect of Obesity on Induction of Labour with Oral Misoprostol

International research shows wāhine with BMI >40 (class 3 obesity) are less likely to have a successful Induction of Labour (IOL) and tend to have longer active labours and higher rates of caesarean section. The continuous audit of labour and birth data was used to investigate this.

Data was analysed from the four-year period 28 February 2018 to 31 December 2021 to see if our local data shared similar findings to the international data, indicating obese wāhine may require more doses of misoprostol than the two cycles of eight doses in each which is our current practice.

All wāhine from group 2A (nulliparous wāhine at term with a singleton cephalic presentation having an induction of labour) birthing during this timeframe who underwent an IOL with oral misoprostol were analysed. Wāhine were excluded if they had an artificial rupture of membrane (ARM) or had commenced on oxytocin without having misoprostol prior to either of these. The number of doses received was calculated; as well as the length of time from first dose of misoprostol to established labour* and time of first dose of misoprostol until birth.

A total of 838 wāhine were included in the primary analysis and their BMIs were split into two groups <30 and ≥ 30. The median bishop score at start of IOL was three in both groups and there was no difference in median age.

Our analysis showed that wāhine with BMI ≥ 30 needed seven doses compared to six doses for those BMI < 30. When the BMI ≥ 30 group was examined further just over 50 percent of wāhine with a BMI ≥ 40 needed a second day of misoprostol. Whereas only 22 percent of those with a healthy BMI of 20–25, need second day.

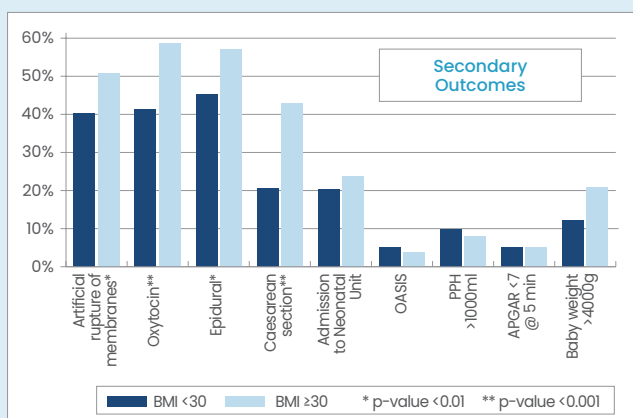
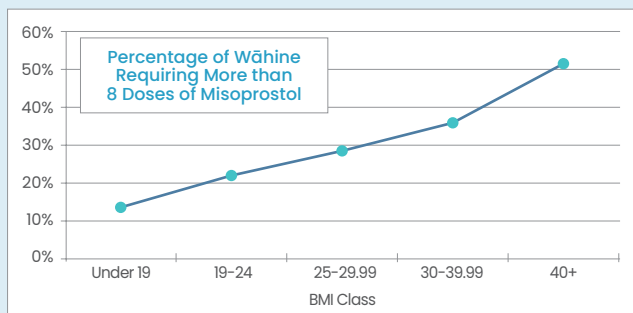
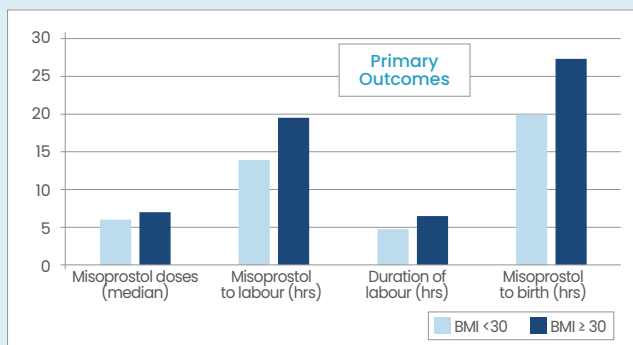
Both mean and median doses and the time frame until active labour was achieved were both statistically increased across the increased BMI categories.

Secondary analysis of these groups showed that wāhine with a BMI ≥30 had higher rates of oxytocin use (58.8 percent versus 41.3 percent), epidurals (57.2 percent versus 45.4 percent) and caesarean section (42.8 percent versus 20.6 percent) compared to the <30 group. There was no statistical difference in admissions to the Neonatal Unit, frequency of postpartum haemorrhage over 1000mL, OASIS or APGARs <7 at five minutes.

*Time of established labour is based on local guideline: MDHB-7446 "Guideline for Management of Labour Dystocia"

The overall caesarean rate for wāhine with a BMI ≥30 was 43 percent, which was 12 percent higher than all Group 2A wāhine.

With approximately 64 percent of the wāhine birthing in the MidCentral rohe being overweight or obese, this is important information for our clinicians to refer to when counselling wāhine for induction of labour as it can help establish appropriate shared expectations and goals. Further research would be required before making a decision to increase the number of doses we offer to wāhine with a BMI >30.



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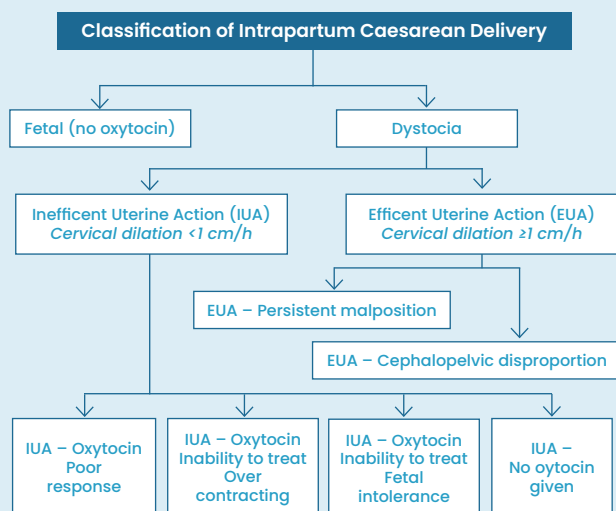


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Classifications of Caesarean Sections

A classification of indications for intrapartum CS delivery has been developed to be used within the Robson TGCS to enable deeper understanding of reasons for changes. This classification of indications for caesarean section (CICS) has been applied in several centres in Europe (Dublin Maternity Hospital, Ireland and national data from Norway), and gives us a method of comparison between units and over time.



*Diagram adopted from Robson et al, 2015⁴

A retrospective analysis was undertaken by Dr Lyon, of data over the period April 2020 to March 2022 from births at Palmerston North Hospital. Prior to commencing this study, it was thought that there would be differences in distribution of indications for CS in different centres, reflecting differences in management of labour. We use a high dose oxytocin regime for labour augmentation (as defined by Cochrane), which may be expected to show more foetal heart rate (FHR) abnormalities than a low dose regime. Conversely, there may be less CS for poor response to oxytocin.

Dr Lyon analysed 151 births that resulted in a CS of wāhine who fit into group 1 (spontaneous onset of a term cephalic fetus to a first-time māmā, and 159 births that resulted in a CS of wāhine who fit into group 2A (the same as group 1 but with an induced onset of labour).

The results showed that 83.4 percent of births resulting in an emergency caesarean section for wāhine in group 1 (which has a 16.0 percent overall CS rate) were performed for labour dystocia, with most of these labours progressing at <1cm/hr. Of these a third were performed for fetal intolerance of oxytocin which limits the treatment of dystocia. In 2.1 percent of these, oxytocin was not prescribed, despite the labour dystocia.

For wāhine in group 2A (which has a 30.5 percent overall CS rate) the reasons for the caesarean section were mainly for fetal intolerance of labour (with or without labour dystocia). The higher CS rate when compared with group 1 was expected as the population is a higher risk one, with higher rates of small for gestational age (SGA), intrauterine growth restriction (IUGR), post-term, and maternal complications including pre-eclampsia (PET) and diabetes.

Practice implications taken away from this analysis were:

- Ongoing reflection on who we perform in labour caesareans for, and why, are an important part of practice improvement for obstetricians. This is particularly important for Robson Group 1, as performing the first CS is the factor most likely to influence subsequent mode of delivery. We have identified the need to improve our management of Group 1 labours. Developing our policy of labour management to include management of FHR abnormalities while on oxytocin could be of use, along with ongoing education around CTG interpretation to avoid unnecessary CS for foetal indications only, while not compromising on foetal outcomes.
- These results help to inform us when talking to wāhine in our unit around induction of labour. This analysis does not tell us whether the increased CS rate is secondary to the induction process, or due to the underlying conditions for which labour is being induced. The high rate of CS for fetal reasons prior to established labour indicates that there may be a need to separate high and low risk inductions and to have different models of fetal surveillance during the induction process between the two.

⁴Robson, M., Murphy, M. and Byrne, F. (2015), Quality assurance: The 10-Group Classification System (Robson classification), induction of labor, and cesarean delivery. International Journal of Gynecology & Obstetrics, 131: S23-S27. <https://doi.org/10.1016/j.ijgo.2015.04.026>



Maternity's Response to COVID-19

Birthing Suite and Maternity Facilities

Preparations for the Omicron wave of COVID-19 in late 2021 highlighted areas of improvement needed with airflow in Block C which accommodates Hine te Iwaiwa and Te Aotūroa, as well as Te Whare Poipoi, Children's Ward and Women's Assessment and Surgical Unit. Temporary solutions within other areas of the hospital were initially identified but these were abandoned due to impracticalities of effectively operating services in two locations. Plastic zip walls and high efficiency particulate air (HEPA) filters were installed to provide a contained cohort environment. Permanent building alterations are planned for 2023 which will see three rooms in Hine te Iwaiwa and two in Te Aotūroa converted to be able to provide a negative pressure environment.

The impact of the support person restrictions during the first lockdown in 2020, was felt negatively by wāhine and whānau. Acknowledging this, we worked with the wider facility team including engineers, the Infection Prevention and Control Team and Clinical Leaders to decrease visiting restrictions as quickly and safely as possible.

Antenatal Care

Our Obstetric Service arranged staff into two teams comprising both senior and junior staff to minimise risk of exposure. Medical staff rostered to clinics undertook these by telehealth and were largely able to do these from home, reducing the number of clinical staff accessing hospital facilities.

A pathway was developed from the national guidance for referral and management of COVID-19 positive hapū wāhine. A local database was established for all wāhine who tested positive to track our case numbers and their recoveries. Included in the pathway was a phone consultation with a designated midwife. Feedback was very positive regarding this aspect. For many wāhine, this was the only 'personal' contact they had from a health professional while unwell. After national guidance on consultations for COVID-19 positive pregnancies

changed, this process was no longer indicated and was discontinued. COVID-19 positive hapū wāhine are now managed via community pathways and receive obstetric referral on hospitalisation or if they have additional risks.

Antenatal Day Unit

The Antenatal Day Unit continued to operate throughout Alert Level 4 providing ongoing monitoring for wāhine requiring planned assessments. All wāhine were screened before entering, initially with verbal screening questions then also by rapid antigen tests (RAT) when these became available.

Lead Maternity Carers and Community Midwifery

Midwives working in the community were encouraged to provide antenatal and postnatal visits with reduced face to face contact. Systems were established for efficient distribution of personal protective equipment to LMC Midwives through a direct ordering system with equipment couriered to midwifery practices.

Communications

Feedback from our colleagues in Auckland and overseas hospitals highlighted the importance of regular communication with the wider maternity team. Email updates were distributed on a weekly basis rather than ad hoc and Zoom forums were also provided for staff to ask questions and remain up to date with processes. Wider communications to the public were managed through the hospital communications team.

What We Learned

The Omicron wave showed we can adapt to change at a rapid rate with good communication and teamwork. Technology has become an integral part of our team with virtual meetings, telehealth and remote access via Citrix used widely on a daily basis. Our facility required modifications to safely care for māmā with COVID-19 or similar infections into the future. Caring in a pandemic is tiring, and with the existing midwifery workforce shortage, it placed increased pressures on our team.





Clinical Information Systems/BadgerNet

MidCentral was one of the first in New Zealand to adopt the clinical information system (CIS) known as MCIS (maternity)/NCIS (neonatal) or BadgerNet. It has been used in all facilities within MidCentral for the past eight years and in June 2021 the newer Global BadgerNet system was rolled out to take over the existing programme.

The implementation of the Global BadgerNet system was a major upgrade of the system with increased functionality, led by a multidisciplinary project team. Initially planned for October 2020 this was paused due to COVID-19 restrictions making planning increasingly difficult. The project team had a multi-pronged approach to the rollout, factoring in not only functionality of the system and the testing that was required, but a huge education rollout was required to upskill all practitioners. All health practitioners who use BadgerNet were offered four hours of kanohi e te kanohi (face-to-face) teaching to learn the new system. An online teaching component was also offered to allied staff who use BadgerNet in a limited capacity.

The rollout in June 2021 was a success with no major obstacles encountered by the project team and end users over the 24-hour rollout period.

Since the global rollout, any changes or bug-fixing is undertaken in bi-monthly releases. The coordination team are required to test both the proposed changes or fixes, and the interaction between interfacing systems such as WebPAS our Web Patient Administration System or Regional Clinical Portal another electronic platform for managing health documentation.

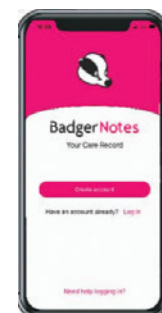
MCIS has two coordinators who work to a combined 0.6 full-time equivalent (FTE). They not only complete work required with each bi-monthly release but are working with day-to-day issues and queries from staff, training of new staff and work closely with the Data and Digital Team at Te Whatu Ora and the vendor Clevermed to work through identified issues and plan for improvements in the system. NCIS has one coordinator who works a 0.2 FTE, upskilling the nursing and medical staff who work in neonates.

In 2022, the CTG implementation project was rolled out with the aim to link the CTG machines used in Hine te Iwaiwa (Birthing Suite) to the BadgerNet record. This was to not only safeguard the care provided but also to have a complete digital record for the wāhine. This project encountered some issues with technology after an upgrade to the wireless access points which resulted in messaging being blocked. We are currently still navigating this issue with the aim to re-roll the project early 2023.



Left to right: NCIS Coordinator Ali Bigwood, and MCIS Coordinators Inez McCaughan and Charlotte Godbaz.

The focus for other work in 2023 is to roll out the Badgernotes interface, enabling wāhine to have contemporaneous access to their own digital record. This will require some work in testing and re-education for staff in terms of their documentation responsibilities. In the second half of 2023, the project plan is to begin the paperless project rollout where we will aim to increase functionality within the global system and decrease the use of paper forms still in use within the hard copy notes. Examples of this are the MEWS/NEWS chart and the fluid balance chart. Both have digital capability in BadgerNet.



Towards the end of 2023, the other hospitals within the central rohe are scheduled to roll out BadgerNet Global. The aim will be to have regional cohesion between the sites in terms of how it is used by frontline staff. Patients who move within the region will have notes that can be accessed and utilised easily wherever care is taking place. Work is already starting with two hospitals to assist them with guidance in their planning phases.

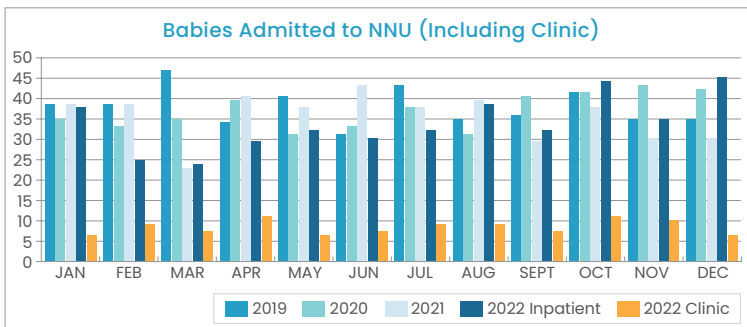
The MCIS Coordinators will also continue working on the development of the Perinatal Spine project, designed to link all the various maternity clinical information systems currently in use across New Zealand.



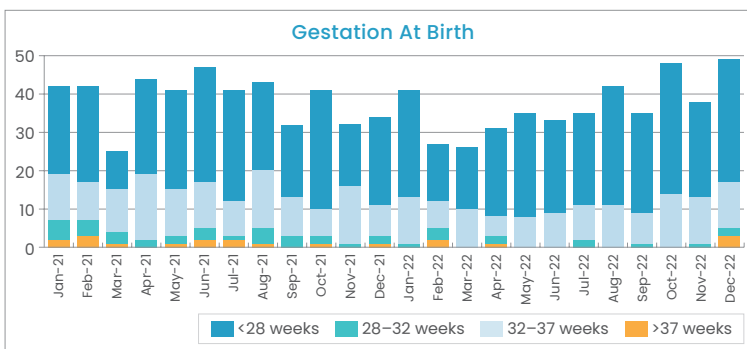
Quality in Te Whare Poipoi

Admissions to Neonatal Care

Although the total number of admissions to the unit appears to be falling, near the end of 2020 the classifications of admission changed due to the development of our Neonatal Unit (NNU) clinic. The clinic room space is separate to the main unit and was developed for community pēpi to be assessed before admission to unit or another area in the hospital. The clinic data also includes pēpi who require less than four hours of care in the unit.



In December 2020, we decided to look closer at the gestations of infants admitted to the unit and began collecting data on different gestation groups from January 2021. Our aim is that we can use this data to guide service improvement.



Quality Improvement

An infection control focus in 2021 led to improvements to workspaces in the unit and the movement of equipment to be stored outside the patient area.

In 2022, nursing cannulation was rolled out as a skill accessible for all registered nurses in our neonatal unit. Currently 45 percent have completed the competency requirements and several staff are part way through completion. This project aims to have all staff cannulation certified by end of 2023 with the aim of reducing attempts and wait times for intravenous access.

It has also been a big year for the Unit when it comes to new technology. We have, along with the rest of MidCentral, adopted the point of care blood sugar machines and Mindray patient monitoring to display clinical measurements, and replaced both our ventilators with newer models. The newest technology in our

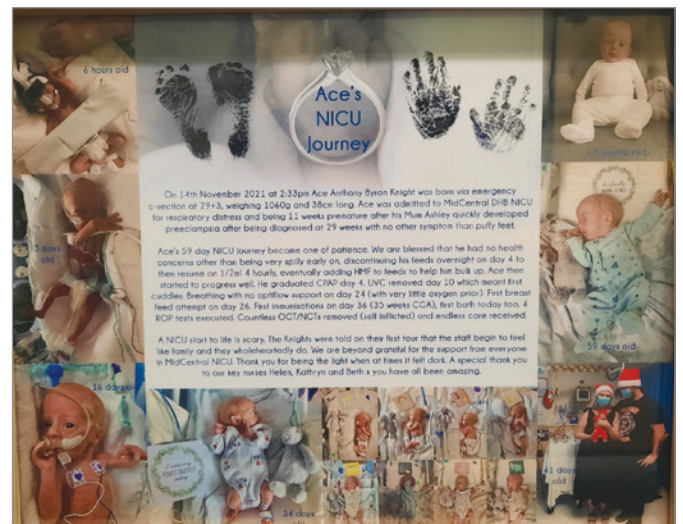
unit is our video laryngoscope. This show real time footage of intubation and is an incredible asset for both improving patient care and staff education.

Research

Our Neonatal Unit has been involved in several research projects. Recently we worked with the Auckland University Liggins Institute, and supported pēpi to be participants in the DIAMOND study. The DIAMOND study – Different Approaches to Moderate and late preterm Nutrition: Determinants of feed tolerance, body composition and development, looked at different ways of providing nutritional support to premature pēpi who are learning to feed. The study aims to find out if the way nutrition is provided affects the way pēpi grow, the amount of fat in their bodies and their brain development. These are all things that can influence their chance of becoming obese later on in life.

We are members of Australia New Zealand Neonatal Network (ANZNN) and continue our commitment of providing data for all pēpi who meet their criteria. This data contributes to large studies both in New Zealand and internationally.

In 2023, we have a new research opportunity with our unit beginning to get involved in the 'LATTE dosage trial'. This trial is investigating the most effective and best tolerated dose of caffeine to reduce intermittent hypoxaemia in late preterm infants. We are also working with Massey University Researcher, Dr Ying Jin, who is interested in potential research into outcomes for pēpi receiving PDHM in Manawātū.



Ace's journey, one that features in the main foyer in Neonates.



The Together Project

The together project is centred around the importance of keeping whānau together with a particular focus on the importance of the māmā and pēpi dyad. We know that by keeping māmā and pēpi together during those initial moments we can help to improve attachment and support positive social, emotional and neurological development of pēpi. The focus of the Together Project has been to reduce the number of preventable admissions of term pēpi to Te Whare Poipoi (our neonatal unit), particularly around admission with hypothermia and hypoglycaemia.

The impact of the international midwifery shortage has meant that we have had to be adaptable in our approach to postnatal care. We are fortunate to have a growing nursing team who are passionate and motivated to provide excellent clinical care to both wāhine and pēpi during their postnatal stay. The nursing team has been supported by the development of a new role; Speciality Clinical Nurse Maternity.



This specialist role provides the nursing staff with support, coaching and upskilling to increase the team's knowledge and scope of practice, in areas that have traditionally been the role of midwives or neonatal nurses. This allows our nursing team to have the knowledge and clinical expertise to recognise early issues such as hypoglycaemia and hypothermia and treat appropriately which is supported by evidence-based practice. Ultimately this helps to enhance the māmā and pēpi dyad, increasing whānau connectedness.

Prioritising care that support the māmā and pēpi dyad are key and these include skin to skin and promotion of breastfeeding. Maternity has purchased thermablankets which can be used in the treatment of hypothermia while still allowing skin to skin. Pasteurised donor human milk is also promoted over the use of formula, especially in our preterm pēpi while breastfeeding is established.

A six-month audit of neonatal term admissions with the primary issue of hypoglycaemia and hypothermia was undertaken in 2022 and compared to a previous audit from 2020. This showed a 2 percent decrease in total term pēpi admissions in 2022 when compared to 2020 data. It also showed that significantly fewer pēpi were admitted to with a blood sugar of less than 2.0mmol/L. In 2020, 60 percent of admissions to the neonatal unit with hypoglycaemia had a blood sugar of less than 2.0mmol/L. By 2022, this had decreased to 20 percent, demonstrating positive steps taken to identify and treat hypoglycaemia in pēpi. In the last three months of 2022, no term pēpi were admitted to the Neonatal Unit with hypothermia.

The aspiration is to continue this project with a multidisciplinary approach to identify further preventable admissions. In particular identifying initiatives that focus on improving the health of our Māori and Pacific pēpi and whānau.

Leila born to parents Shania and Ethan | At Palmerston North Hospital. Photo credit: Birth Beheld Photography.



Muka Tie

The passion for the Muka Tie Project stemmed from a personal experience after the birth of my second pēpi. My LMC had gifted our whānau the taonga of a muka tie and the experience of using it was a stark contrast to that of the plastic cord clamp we had used with our first pēpi. This experience made me question the standardised practice of plastic cord clamps and research the natural alternative of a muka tie. This was something I felt should be accessible to all. The muka tie project saw this idea become a reality.



How to tie a muka

1. Place the muka 5-10cm from the base depending on the umbilical cord length, velocity and thickness of the pito.
2. Ensure the muka is tight and secure from the first tie.
3. Tie the muka around the umbilical cord/pito. Five separate ties and knots is best practice. However, this number can be adjusted depending on the length of muka being used.
4. Ensure the knot is secure and strong around the pito before cutting with a sharp edge, for example with goumies or scissors.
 - Muka can be tied by whānau, dad, midwife or support person.
 - A local weaver has gifted long muka to enable many ties.
 - Whānau may bring their own muka. You will be supported to use the muka you have provided (even if it is shorter).
 - Muka tie can be tied in the bath for a water birth - like a cord clamp.

The postnatal period

Muka is an amazing natural resource that will aid in the drying and healing of your baby's cord. It is crucial that you check your muka at every nappy change to ensure it is still tight and there is no fresh blood. If you feel the muka is getting loose, you can tie another loop and knot to secure it. Muka can get wet - pēpi is able to bath with this still attached. Please do not use anything other than water around the healing cord. If you have any concerns about your muka tie in the postnatal period, talk to a midwife.

Māmiā says about Muka

"We used muka tie for our prem and very small baby while in Neonates. The staff were interested and supportive of our choice and keen to know more. Using muka gave us the opportunity to reclaim a really difficult experience and bring something natural into our new baby's environment which was really medicated. I felt it offered protection for our baby."

Māmiā says about Muka

"Having been away from my whānau in Christchurch and not having them over to provide our kōwhiri for pēpi, a sponge offered lovely from a weaver to our muka tie (muka) felt like home. Kōwhiri, you and muka felt like we upheld our pēpi's mana, in a time we felt alone."

Māmiā says about Muka

"We chose to use a muka tie for our fourth baby, having the muka sourced through a local midwife who recognises and supports muka being used as an important aspect of our decision. The muka tie was clean, and dry and our baby was comfortable - this was one of the best bits - no getting tangled on clothing. By day two our pēpi's cord looked amazing. The muka is a gentle alternative that can afterwards be buried with pēpi's pito and whānau, thus giving back to Papatūmāku. As a Pākehā whānau we felt honoured and privileged to be able to use this Taonga with our baby. There is so much that we can learn from Te Ao Māori and traditional birthing practices."

December 2020 © 2021

Muka Tie

for your pēpi

Muka tie has been a common Te Ao Māori practice for centuries. It takes the inner fibres of harakeke/ New Zealand flax (muka) to create a strong tie. Muka is known for its healing and antibacterial properties. It is also a sustainable resource and is soft against newborn skin.

The project was rolled out December 2020 with the support of local weavers Jenny Firmin and Janine Pokiha. In 2021 there were 1100 muka tie used by our birthing māmā. The limited data we were able to collect gave us the insight that 24.8 percent were used by Māori whānau, 22.9 percent used by NZ European whānau, 1.7 percent used by Asian whānau and 2.3 percent used by those identifying in the 'other' ethnic group.

A key success indicator has been education around this traditional Māori birthing practice. Prior to the project both core maternity staff did not see many muka ties used, leading to gaps in staff competency or confidence when working with muka. A year after the muka tie project was launched, staff were surveyed and 75 percent of the core staff felt their competence and confidence had increased as a result of education sessions and frequent use of muka. Following the launch, positive feedback has been received from whānau who are feeling more culturally supported by staff.

Muka tie

The umbilical cord is vital when your baby is growing inside as it supplies all of their nutrition - it also recycles the waste byproducts back to the whenua/placenta. Once your baby is born, the job of the placenta and umbilical cord is complete.

At birth your whānau, support people and midwife will guide you in clamping and cutting the cord.

MidCentral DHB are excited to now offer all women in our region this choice.

Muka tie for your pēpi

Muka is the inner fibres extracted from harakeke. It is extremely strong, has antibacterial properties and is a sustainable natural resource - meaning less plastic waste. Muka is prepared as a taonga (treasure) and is used to tie off the umbilical cord of a newborn pēpi. Some whānau are gifted their own muka tie to use and we encourage māmā to continue to use their own if they are able to. We are now able to extend the opportunity for māmā and whānau to choose between using a plastic clamp or muka tie.

Muka	Clamp
<ul style="list-style-type: none"> Traditional Māori birthing practice for umbilical cord clamping. Sustainable natural resource. Safely occludes baby's umbilical cord. Contains antibacterial properties which aids in healing. Māmā report there to be faster at drying and coming away at day 4-6. Muka is softer on baby's skin. Muka can be buried with the whenua/placenta (breaks down). 	<ul style="list-style-type: none"> Rigid and plastic. Clamp for the umbilical cord. Safely occludes baby's umbilical cord. Normally ready to come away between day 7-10.

Is using a muka tie safe?

Yes.

Can anyone choose muka tie?

Yes. If you don't have your own, one can be provided for you.

What should I do now?

Talk to your whānau, support people and midwife or other health care professionals as you prepare for labour and birth.

If you have your own muka, we encourage you to use your own. If you would like the opportunity to use muka, but need support in choosing one, they are now available as an option at Te Papiaioia Birthing Centre, Palmerston North Hospital and Horowhenua Health Centre.

Muka tie continues to be available on Hine te Iwaiwa (Birthing Suite) at Palmerston North Hospital, Te Papiaioia Birthing Centre and Kōhungahunga Maternity Unit in Horowhenua and are now used by the majority of pēpi born within our units. Information pamphlets have been created for staff to give hapū māmā so they can make an informed choice to use an organic, Te Ao Māori practice within a hospital setting.

In recognition of the wonderful work she has achieved, Monique Bennett was the winner of the Midwifery Evidence-Based Practice Research Award at MidCentral, sponsored by the Palmerston North Medical Trust.

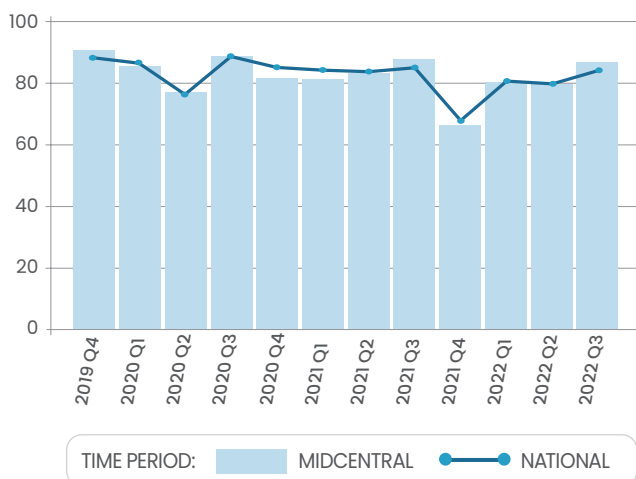


Newborn Metabolic Screening Test

The Newborn Metabolic Screening Programme is a national programme to enable early identification of pēpi with metabolic disorders to enable timely treatment. This is to reduce the chance of illness, disability and even death in pēpi with metabolic disorders such as hypothyroidism and phenylketonuria. The heel prick blood samples are taken as soon as pēpi is 48 hours old. The sample is dried and couriered to LabPlus, Auckland for analysis.

While the programme's standard is that 95 percent of blood spot samples will reach the laboratory within four calendar days of the pēpi being screened, ongoing transportation issues over weekends continue to make this a challenging target. COVID-19 alert level changes in 2021 also caused significant delays nationwide.

Percent of Samples that Reached the Laboratory in Four Days or Fewer



As a national screening programme there is continual monitoring to ensure ongoing quality. In May 2022, MidCentral welcomed an external one-day verification audit of the programme. The onsite audit included interviews and documentation reviews. As we are committed to continuous quality improvement, we have subsequently improved our documentation practices and now include the courier tracking number in notes of each pēpi to enable tracking of each sample.

The National Screening Unit announced a change in December 2022 that the blood samples could be taken in pēpi from 24 hours of age, instead of 48 hours. The earlier collection will help ensure early diagnosis and would help to increase the number of samples getting to the laboratory within the four calendar day transit time



Pēpi Arlo | Born June 2021

standard, as more samples can be taken on Fridays and still be sent via courier. It also means it is more likely the test can be taken while wāhine and pēpi are still in our facilities. Te Uru Pā Harakeke will continue to follow the trends reported by the National Screening Unit to see if this change has had a positive impact.



Supporting families through loss

The service that is offered to the bereaved families of the Manawatū, has evolved each year with new research, insights from listening to the voices of those that have been through this journey and the learnings of those health professionals that are involved.

"Grief never ends, but it changes.
It is a passage, not a place to stay.
Grief is not a sign of weakness nor a
lack of faith.
It is the price of love."

Queen Elizabeth I

We use the values and the lens of:

Awhinatangi

Love and care is what we value at this service

Manakitanga

*We show respect generosity and
care towards each other and our wāhine*

Kia tika te mahi

Integrity and honesty are paramount in this relationship

Kaitiakitanga

We look after our health and wellbeing

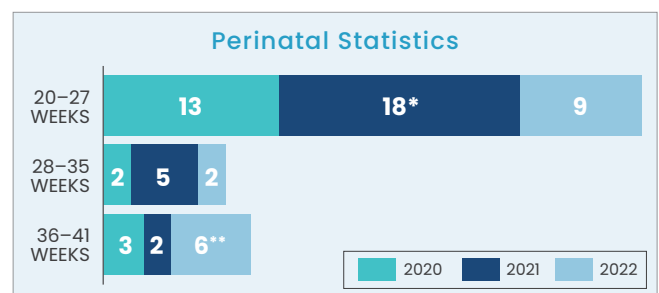
Our service listened when wāhine wished to have as few people as possible involved in their care, as telling one's story repeatedly is harrowing. What is often needed is for their carer to walk the journey with them, to stay until they have birthed, complete and oversee paperwork and be accessible as a point of contact particularly for follow-up. This has been achieved as much as possible, with the Perinatal Midwife being involved in all 40 cases during the past two years.

Additionally, we have a dedicated space of the Maimai Aroha room located close to Hine te Iwaiwa (Birthing Suite) that wāhine and their kaimanaaki can use during their time of grief and sadness. It has been used with each of the 40 whānau in our service in the last two years for varying lengths of stay.

Every whānau also has follow-up care offered and provided by the Perinatal Midwife. This is often a phone call as a check in and all wāhine are offered an appointment to debrief their experience. For those who wish to have the appointment this can be either in a clinic setting or in their own home. The Perinatal Midwife also supports staff to provide care to bereaved wāhine and whānau, whenever required. Sometimes a phone call is all it takes to be of assistance; other times education is appreciated by staff so they can improve their caregiving skills.

During the COVID-19 lockdowns, as with other areas of healthcare, difficulties were faced in keeping kanohi e te kanohi (face-to-face) healthcare accessible to those experiencing loss. Many wāhine found this distressing and were at times further affected with restrictive hospital visiting policies such as only having one kaimanaaki present during their inpatient stay. Siblings and wider whānau were unable to come and be physically present for the hospital part of the grieving process. This feedback has given the Te Uru Pā Harakeke perinatal service a chance to reflect and plan for any future disruptions should they occur.

The Perinatal Midwife hosts a monthly Perinatal Case Review meeting which is always well attended by a large group of multidisciplinary healthcare clinicians. Cases are reviewed and discussed so that all the expertise of all present in the meeting can be drawn on. Findings are then disseminated to the reviewer and passed down to the whānau when appropriate. This process ensures we are learning from the undesirable outcomes that wāhine and whānau are experiencing so we can improve our practice.



*The biggest increase in 2021 has occurred in the 20-27 weeks gestation, of those nine had diagnostic abnormalities and two were terminations for maternal choice.

**The biggest increase in 2022 has occurred in the 36-41 weeks' gestation although there is no one cause that links any of the cases.

New Initiatives

- 2022 saw the introduction of a formal education programme for all new nurses in and midwives in the Women's Assessment and Surgical Unit (WASU) and Maternity. This has enabled more staff to be trained in caring for wāhine in the unit experiencing a pregnancy loss. It is a specialised area of care and one that little undergraduate training prepares you for. This will be repeated annually or when the need arises with new staff.
- A new guideline for the Management of Fetal Demise or Termination of Pregnancy more than 20 weeks was implemented.
- A new educational pamphlet has been created to be given to wāhine and whānau who experience a miscarriage to better educate them on miscarriage and the process offered at MidCentral.
- An education session on fetal loss was provided for maternity staff and was well attended. This will be repeated as the need arises with new staff.
- All learnings from our monthly perinatal meetings are published, each presenter is sent a copy of the learnings their presentation evoked and midwifery and medical leads also receive these learnings to disseminate.

*"E kore rawa e warewaretia te pouri o te mate wawe ohorere."
The grief of a sudden untimely death, will never be forgotten.*

AUTHOR:

SARAH FENWICK

Operations Executive, Te Uru Pā Harakeke



Equitable Access to Ultrasounds

Co-payments for obstetric ultrasounds were introduced by local private providers in 2021, due to escalating operational costs and static funding in the Primary Maternity Services Notice 2021. This, coupled with the global and general trend towards increased scanning as part of maternity care, especially following the introduction of GAP, has created a barrier to accessing scans for some hapū māmā, either due to cost or availability of appointment.

In addition, the introduction of co-payments has created additional pressure on the local secondary care Radiology Department, a risk for the Obstetric Service which has in turn perpetuated inequities.

As a result of this, a joint meeting was held, and plans agreed with local providers to mitigate the risk of the new co-payments. In 2022, MidCentral commissioned Synergia to engage with stakeholders, analyse data and recommend solutions regarding the overall provision of radiology services across the MidCentral rohe. Given the continuing risk seen around obstetric ultrasound, maternal scanning obstetric and maternal ultrasound were included in the commissioned radiology report. The report identified that the current demand on hospital ultrasound service poses a significant risk to maternity care and that current levels of co-payments are inequitable for wāhine.

Work is underway to develop a plan to mitigate the risk and ensure wāhine from across the rohe have timely affordable access to maternal scanning.



Maternity on Social Media

MidCentral's social media channels continued to see growth during 2021 and 2022. There are four main platforms used to promote MidCentral on social media – Facebook (Te Whatu Ora – Te Pae Hauora o Ruahine o Tararua MidCentral and Palmerston North Hospital), Instagram (@tewhatuoramidcentral), LinkedIn (Te Whatu Ora MidCentral) and Twitter (@HNZMidCentral). This year also saw the relaunch and use of the Te Papaioea Birthing Centre Facebook page in collaboration with Pēpi Haumaru Coordinator and the Breastfeeding Steering Group.

Combined, our three Facebook pages have a following of over 21,000 community members; Instagram with a following of 871 members; Twitter with 2,138 followers; and LinkedIn with over 3,500 followers. All pages are experiencing an increase in engagement with more human and relatable content being posted, including showcasing staff, services and feedback.

Return to Practice

The platforms were also used to promote the return to nursing and midwifery initiative. A campaign was created to promote information around returning to nursing, as well as an Open Day where potential returnees could find out more. Facebook posts with images and branding were created, along with an online event.

#FeelGoodFriday

A regular campaign for social media has been the #FeelGoodFriday campaign, where a piece of positive feedback received is shared on social media. Several pieces of feedback have been promoted in support of the services in maternity. One from 2021 read:

"Recently my wife and I have been in and out of Palmerston North Hospital for the birth of our new daughter. There were some complications, meaning multiple visits and staying overnight. Every single person who we dealt with was wonderful and supportive. They made us feel welcome and met our every need. Considering we were dealing with complications, the lovely staff were helpful in us getting through the situation positively. We appreciate all their hard work."

#MidCentralStaffMondays

Social media campaign #MidCentralStaffMondays takes the opportunity to showcase staff members across MidCentral, sharing with the community what work they do, and educating them about services and whats available at MidCentral. In May 2022, Clinical Midwifery Coach Jade Wratten was showcased and received a lot of love about her role within midwifery. We look forward to introducing our communities to more of our midwifery team.

Monthly Maternity Statistic

With inspiration from Hawke's Bay Maternity social media pages, we decided to introduce a monthly social media tile that highlights maternity statistics in MidCentral. The information we are sharing is the number of pēpi born, number of boys and girls, where they were born, smallest and largest baby and how the baby was delivered. The community loved the stats, and we will implement this as a regular monthly post.

International Day of the Midwife

On Thursday 5 May 2022, midwives across the globe were celebrated for their incredible efforts and contribution to health. On our social media channels, we posted some recent photos taken of the midwifery team at Palmerston North Hospital, including a photo of a pēpi with her māmā and midwife. The community shared their heartwarming compliments and stories of their experiences with midwives in our rohe.

COVID-19

During the COVID-19 Alert Level Changes, social media was used to effectively convey maternity visiting and admission information to members of the public who may be due to give birth during COVID-19 Alert Levels. This information was also supported with the production of posters and media. Engagement was high for these pieces as it was a key topic for discussion for many of the community.

Social media posts

Te Papaioea Birthing Centre
Published by Hootsuite • May 5 •

Te Rā Whakanui i ngā Tapuhi Whakawhānau o te ao / International Day of the Midwife 🌟

Kia whakanuia ngā tapuhi whakawhānau me ā rātou mahi miharo ki te āwhina i te whānautanga mai o ngā uri whakaheke. We are celebrating our amazing Midwives and the work they do to assist birthing our future generations.

Thank you for everything you all do for our hapū māmā and pēpē ❤️ 🙏



See insights and ads

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Te Papaioea Birthing Centre
Published by Hootsuite • May 5 •

Te Papaioea Birthing Centre Update 🌟

As we celebrate our amazing midwives, we've also got a very special announcement to make this Te Rā Whakanui i ngā Tapuhi Whakawhānau o te ao / International Day of the Midwife. From Monday next week, Te Papaioea Birthing Centre will be extending its hours to open hours a day from 7am on Mondays through to 5.30pm on Fridays for primary birthing. 🌟

Lead Maternity Carers will still be able to access the facility with labouring māmā outside hours but will need to arrange their own second midwife support (as they do at the moment). While we won't be open 24 hours on the weekend yet, we are working to increase our hours so that this can happen as soon as possible.

A big thank you to all our midwives who have helped make this possible, and who work to support our amazing community ❤️



We're still here to help care for you and your baby before, during and after your delivery.



Our little boy has been here for a week and everyone has been so amazing to him and us!

Nothing was an issue for you, always being supportive and accommodating our boy and ourselves and it has truly been an eye opener!

I've never seen so much dedication in hospital anywhere close to this so I think you so much for all your help!

We have been blessed to have you all around us and wish you all the best.

#FeelGoodFriday

Shout out to the Maternity Ward at Palmerston North Hospital!

#FeelGoodFriday

MidCentral Maternity Stats

October 2022



97
Females



100
Males

197
total babies born



1400g
Smallest Baby



5300g
Largest Baby

👶👶👶 three sets of twins



1
Baby born in transit



11
Babies born in Te Papaioea Birthing Unit



172
Babies born in Palmerston North Hospital



4
Babies born in Kōhungahunga Maternity Unit



2
Babies born in Dannevirke Community Hospital



7
Babies born at home

121
Vaginal

18
Assisted Vaginal Births

50
Caesarean Section Births

Busiest Days of the month

3 7 11

with 11 babies born

Recently my wife and I have been in and out of the Palmerston North Hospital for the birth of our new daughter. There were some complications meaning multiple visits and staying over night.

Every single person who we dealt with was wonderful and supportive. They made us feel welcome and met our every need.

Considering we were dealing with complications, the lovely staff were helpful in us getting through the situation positively. We appreciate all their hard work.

#FeelGoodFriday

Te Papaioea Birthing Centre
Published by Hootsuite • May 30 •

#MidCentralStaffMondays

Jade Whitten is the new Midwifery Clinical Coach – Kaiwhakaako Kaiwhakawhānau Haumanu. Her role sees Jade working closely with new graduate midwives, international midwives, midwives returning to practice and with any midwife who needs to refresh their clinical skills and knowledge.

'I love that my role can contribute to supporting the team with the important mahi that midwives do. I started in January and the best thing is being part of an amazing team dedicated to supporting women and whānau during their childbirth experience.'

'I've been working at MidCentral DHB, Jade worked as the Principal Lecturer for Otago Polytechnic's School of Health – and still lectures one day a week.'

'It's super exciting working with students and seeing them transition into competent rock star midwives. I'm passionate about strengthening equity in maternity care and in the provision of culturally competent care provision to whānau and coordinate post-graduate courses in a safe area for registered midwives.'

'I'm not at work, Jade is typically with family and her dog Shakespeare (you can find him on gram at @Shake_a_speare!). She loves travelling, fishing and seafood and her dream is to hike one of the Great Walks of Aotearoa. 'Just need to get fit first' she says!





"I would like to thank all the staff here for taking such good care of me. Everyone was so caring, patient and showed the utmost love. Everyone that I had, treats this job much more than just a job. They really do care about other patient's health and mental health."

Te Whatu Ora **Health New Zealand**

Te Pae Hauora o Ruahine o Tararua
MidCentral