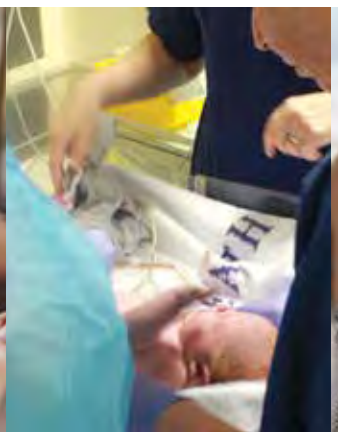
Waikato District Health Board

Maternity

Quality and Safety

ANNUAL REPORT
2019/20






“Mehemea ka moemoeā ahau,
ko au anake.
Mehemea ka moemoeā e tātou,
ka taea e tātou”

“If I am to dream, I dream alone.
If we all dream together, then we will achieve”

Te Puea Herangi (1883-1952)

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Foreword

Tenā koutou katoa

The Maternity Quality and Safety Programme (MQSP) is firmly established across the maternity sector in Waikato, and we are continuing to make improvements to services and the experiences of women and whānau we care for.

As with all maternity services, we have not had the year we expected as we were challenged by the COVID-19 pandemic to make changes in the way we provided care. We had to reduce the number of people in our physical environment for significant periods of time to ensure safe distancing. The changes impacted both women, whānau and staff and for some women it was a very different pregnancy and birth experience than they expected.

However there have been some bright spots and good news stories and we have continued to move forward. At the end of 2019 our pregnancy and maternity webpage went live and is providing women across the Waikato region with trusted information about keeping well during pregnancy and the services available.

During 2019, Waikato Hospital and all maternity facilities have met the Baby Friendly Hospital Initiative (BFHI) accreditation standards to support breastfeeding. A number of forums have been set up to coordinate wrap around care across local health and social care for vulnerable pregnant women and their whānau. More women have had postnatal access to Long Acting Reversible Contraception (LARC) in maternity settings. In 2020, we commenced a postnatal follow up clinic for women who experienced severe morbidity/birth trauma. Waikato supports low risk women, who do not need hospital level care to birth in an environment most suited to their needs and we are pleased that we continue to have the highest number of primary births in the community. Our maternal smoking rate is reducing and will continue to be a focus in the coming year.

We are improving our quality systems and risk management structures, including the process to review and learn from complaints, adverse events and near misses. We are continuing to meet the recommendations to avoid and reduce the rate of neonatal encephalopathy and we are increasing our detection of reduced fetal growth which will improve outcomes for those babies. From a system improvement perspective, with our colleagues in mental health services, we have developed a maternal mental health pathway which will be launched in 2021. We continue to review our data by ethnicity to identify areas for equity improvement, or to demonstrate where improvement has been made.

Our colleagues in Te Puna Oranga (Māori Health) continue the safe sleep programme and distribution of Pēpi Pod® and offering wahakura wānanga on marae. The Hapū Wānanga programme is going from strength to strength with all classes across Waikato being fully booked, as are the Plunket Whirihia Te Korowai Aroha service antenatal classes. This has resulted in the majority of pregnant Waikato Māori women and their whānau attending pregnancy and birthing education in 2019/20 that acknowledged their experience and embraced their Māori culture.

Our data demonstrates good rates of women accessing early antenatal care and we have a lower than national rate of interventions with more women in Waikato having a normal birth, however this data within Waikato varies when viewing it with an equity lens.

From a staffing perspective our medical team is fully recruited and lead maternity carer (LMC) coverage has increased. We continue to have midwifery vacancies in Waikato Hospital and difficulty with LMC coverage in remote rural areas.

Finally, we would like to acknowledge the women and whānau who have provided valuable feedback about our maternity services. We would like to thank our MQSP governance representatives, our clinicians (employed and self-employed), administrators, and other leaders from across the primary, secondary and tertiary maternity sectors who have engaged with MQSP in Waikato over the last year.

Ngā mihi nui

Michelle Sutherland
Director, Women's and Children's Health
Chair, MQSP Governance Board

Ruth Galvin
Manager, Maternity Quality and Safety

Introduction

1

He kai kei aku ringa

There is food at the end of my hands
– *signifying resilience, empowerment and hope*

1.1 Our vision and objectives

Our vision

Providing quality care for women and their families

He aronga mahi ngātahi; he manaaki tōtika i ngā wahine me a rātou whānau

Each District Health Board (DHB) in Aotearoa New Zealand has had a MQSP in place since 2012 with a mandate to raise the profile of maternity quality and safety, putting in place governance structures to make improvements, enhance clinical leadership and ensure better engagement with maternity consumers.

Waikato DHB's MQSP objectives are to:

- bring together the voices of the wider maternity sector
- provide a framework to increase quality improvement in maternity services
- be a mechanism to monitor maternity services

1.2 Alignment with our DHB strategy and values

Waikato MQSP aligns with the Waikato DHB strategy and is underpinned by the DHB values Te iwi Ngakaunui – People at heart.

1.3 Alignment to Rapua Te Ara Matua, Waikato DHB Equity Report

The mighty Waikato River runs through our DHB area, and holds significance for many Waikato people, as a place to relax, to provide life for the community (food and water) and supports people economically and spiritually.

Rapua Te Ara Matua report uses the metaphor that our lives flow and ebb like a journey along the river. On our life's journey, at times we find ourselves in the main current, moving effortlessly and harmoniously, where everything is achievable and travelling is easy and safe.

Other times we find ourselves away from the strength and protection of the main current. We may find ourselves in eddies and whirlpools, seemingly going in circles and using all our precious energy just to stay afloat, or we may have come across an obstacle or undercurrent. At these times we can struggle to find our way to the main current and we are in need of help and support.

In te ao Māori the main current of a river is referred to as Te Ara Matua. While some may think it flows in the middle of the river, it actually flows from bend to bend. Those familiar with the river know intuitively where Te Ara Matua is, how to get to it and stay there. The same is in life. As we journey many know where and how to live our "best lives" while for others this is not so and navigation is needed.

Waikato's Rapua Te Ara Matua report describes a picture of life's journey along the river for those in our community that are travelling on Te Ara Matua and those in our community that are in need of help and support. The current we gain most benefit from travelling on. The distance we are from the main current, is likened to an equity gap.

In Aotearoa New Zealand, people have differences in health that are not only avoidable but unfair and unjust[1]. The most persistent of these equity gaps exist between ethnic groups, especially between Māori and New Zealand European groups. The lack of equity between Māori and European/Other is greater than the equity gap between the most versus the least wealthy, between rich and the poor, and can be seen in almost every health and wellbeing measure.

Rapua Te Ara Matua focuses on those for whom equity gaps have been most persistent i.e. Māori and Pacific people. The Maternity Quality and Safety Annual Report aligns with this by using an equity lens, were possible, to review the quality and safety of maternity services. It also acknowledges other population groups in the Waikato DHB region experience equity gaps. These include people living in more distant rural communities, other ethnic group especially migrant groups who do not speak English fluently.

A key quality focus for Waikato maternity services is to improve equity. This report not only reports on quality improvement activity but also illustrates the equity gaps, where information is available, it outlines actions to reduce the gaps and celebrates where women have been supported to move from the whirlpools and eddies, passed the under currents and obstacles and on to Te Ara Matua.

[1] Ministry of Health. 2019. Achieving Equity in Health Outcomes: Summary of a discovery process. Wellington: Ministry of Health

2 Our maternity population

He aha te mea nui o te ao?
He tāngata! He tāngata!
He tāngata!

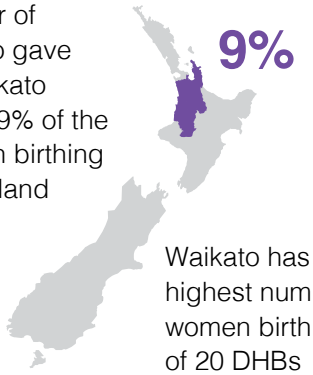
What is most important thing in the world?
It is people! It is people! It is people!

2.1 Overview of Waikato's birthing population 2019

The following gives a snapshot of women who gave birth in the Waikato in 2019 and compares them against the New Zealand average.

Percentage of births 2019

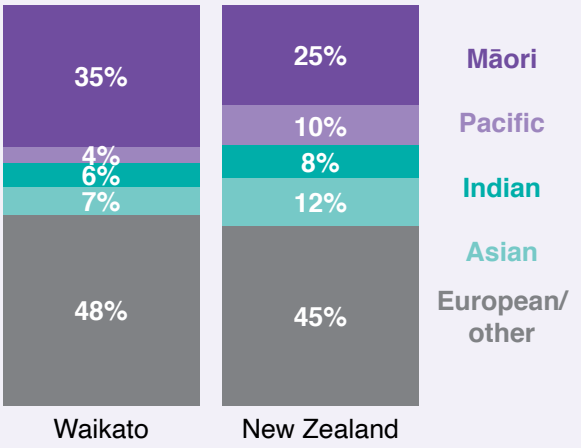
The number of women who gave birth in Waikato equates to 9% of the total women birthing in New Zealand



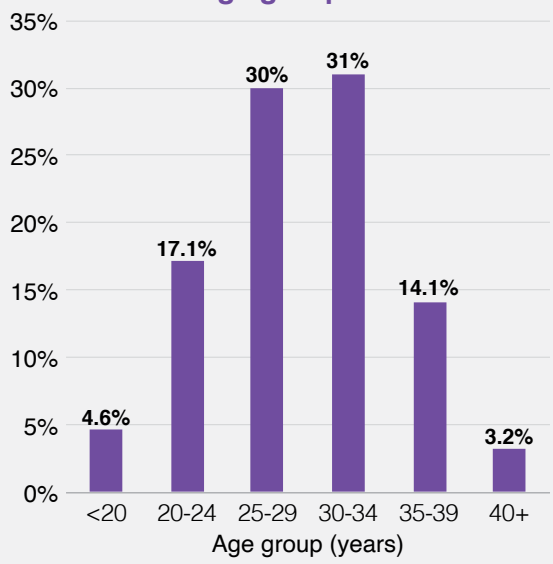
Waikato has the fifth highest number of women birthing out of 20 DHBs

Percentage of women giving birth by ethnicity 2019

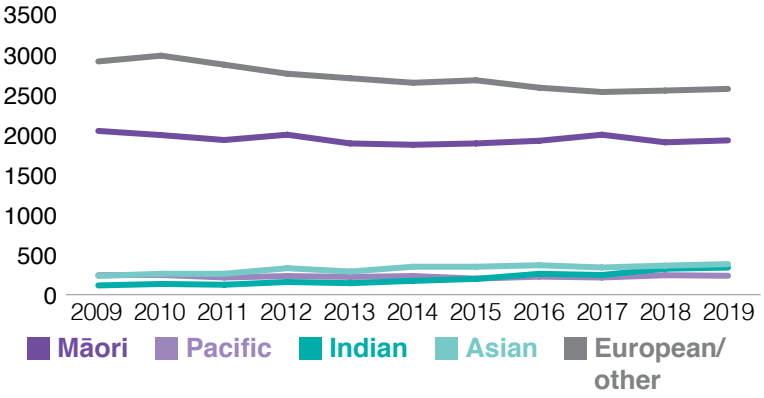
Waikato has a higher rate of Māori birthing than the New Zealand average with a slightly higher rate of European other and lower rate of Pacific Asian and Indian women.



Age groups

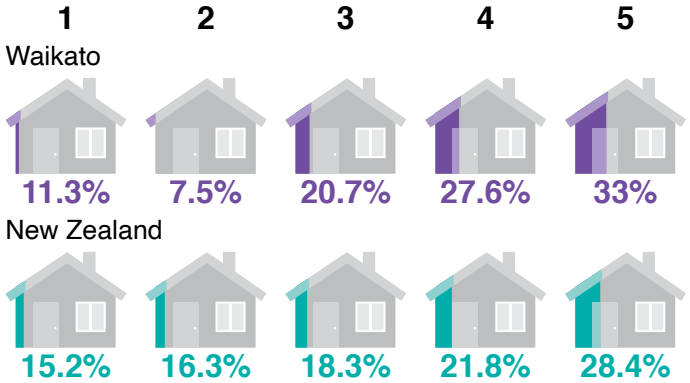


Number of women giving birth 2009-2019 domicile in Waikato DHB by ethnicity



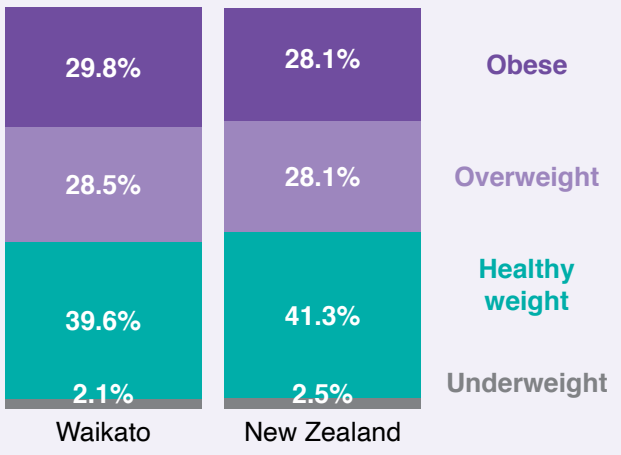
Deprivation 2019
Percentage of women giving birth by quintile*

*Quintile 1 (least deprivation) to 5 (most deprivation).



Higher number of women are from the most socio economic deprived areas in Waikato compared with the New Zealand average.

Healthy weight and pregnancy 2019



Waikato has a lower percentage of women at a healthy weight and higher percentage of obese women compared to the New Zealand average.

2.2 Overview of interventions by ethnicity in 2019

The following gives an equity snapshot of interventions by ethnicity in 2019.

Table: Waikato ethnicity group vs Waikato DHB all ethnicities

Key:

- Statistically better than Waikato DHB all ethnicities rate
- Statistically within Waikato DHB all ethnicities rate
- Statistically worse than Waikato DHB all ethnicities rate

Clinical indicator The indicator is shaded to show if each ethnicity outcome is statistically better (green), worse (red) or the same as the Waikato DHB rate (orange). The ideal is for the indicators within each Waikato ethnicity to be within the Waikato DHB range (orange).	New Zealand	Waikato	Waikato					
			Māori	Pacific	Indian	Asian	European/other	<20 years
Spontaneous vaginal birth %	60.1	64.7	74.2	72.4	42	52.3	61.9	71.8
Induction of labour (IOL) %	23.7	20.8	19.5	20.2	26.1	15.4	21.9	22.7
Caesarean section (c-section) deliveries %	28.8	24.3	18.7	18.1	38.2	32.6	25.8	16
Instrumental deliveries %	9	9.7	5.6	8.2	19.2	14.4	10.8	15.5
Third and fourth degree tears %	2.9	2	0.6	2	5.1	5.6	2.2	2.5

Data source: Qlik database access March 2021. Note 2019 used as it is a complete set of data. 2020 is provisional. Denominator is all women giving birth. Except for third and fourth degree tear rate where the denominator is all women who had a vaginal birth.

Overall Waikato has a higher rate of spontaneous vaginal birth and lower rates of interventions compared to the national rate.

It is pleasing to see the IOL rate across all Waikato ethnicities statistically fall within the DHB rate. There has been an ongoing improvement focus on IOL with information for women and updates to health professional's guidelines including a clear criteria for IOL and guidance on gestation of IOL depending on the clinical indication.

The data demonstrates a higher rate of interventions for Indian and Asian women. Further analysis is required to review reasons for the higher rates.

European/other women's rates all fall within the DHB rate. Māori and Pacific women have statistically lower rates of interventions.

In 2021 a wider range of indicators will be reviewed to get a fuller picture of interventions and outcomes by ethnicity including looking at maternal morbidity, admissions to Newborn Intensive Care Unit (NICU) and perinatal deaths.

2.3 Knowledge about our population

Ethnicity

There is a higher rate of births to Waikato Māori women and slightly more births to European women than the national average with a lower rate of births to Pacific, Indian and Asian women. Births to Pacific and Māori women have remained static, births to Indian and Asian women are increasing and births to European women are decreasing.

Age

Women birthing in Waikato are younger than the national average, although our births to women under 20 years are decreasing.

Socio-economic impacts

The majority of women birthing in Waikato live in lower socio-economic areas. Women in these areas often have a higher burden of poor health, have a higher rate of maternal smoking and a higher rate of being overweight and obese at first registration with a midwife.

Registration with a LMC and place of birth

There is a reasonably good registration rate with a LMC in the first 12 weeks of pregnancy and more Waikato women birth in the community than any other DHB.

Obstetric interventions

Women in Waikato have higher rates of normal birth, lower rates of c-section and IOL. There are similar rates of instrumental deliveries, third and fourth degree tears and preterm births to the New Zealand rate.

Equity

Within these statistics there are equity gaps through the population, although Waikato DHB may have a better rate than the national rate for a health or outcome indicator there may be a wide difference of experience and equity within the indicator.

Our challenge

Of key importance is to decrease our equity gaps. We have a diverse population, and a large geographic area with urban and rural areas. Focusing on key groups and making quality improvements that will make a difference to their experience and outcomes and improving equity is our challenge going forward.

2.4 Celebrations and the challenges

Celebrating	The coming together of mental health services, maternal mental health services and the maternity team to discuss issues and gaps in services and drafting out a new Maternal Mental Health Pathway.
Challenge	Keeping the momentum in 2021 and beyond, implementing the maternal mental health recommendations of the National Maternity Monitoring Group.
Celebrating	Making improvements to the hospital maternity quality structure, including case review processes, and implementation of improvement actions from adverse events, complaints and audits and sharing the learnings with the maternity sector.
Challenge	Ongoing MEWs auditing and feedback. Systematic use of trigger tools to identify maternal morbidity and embedding the use of the Health Equity Assessment Tool in case reviews.
Celebrating	Quality engagement of maternity health professionals in conversations with pregnant women about maternal smoking with an increasing rate of women accessing smoking cessation services.
Challenge	Although the numbers of Māori women smoking is reducing, there continues to be a significant equity gap and the focus needs to continue.
Celebrating	Significant engagement of Māori women in Hapū Wānanga (pregnancy and birth education).
Challenge	Antenatal care for Māori and Pacific women: registration with a LMC in the first trimester for these two groups is significantly lower than the DHB average.
Celebrating	Full recruitment to the obstetric medical team and the relatively good LMC coverage across the Waikato.
Challenge	Recruitment to midwifery gaps in Waikato Hospital maternity services and the difficulty of LMC coverage in remote rural areas.
Celebrating	Choice available to Waikato women to birth at home, in a primary birth facility or hospital. Continuing strengthening of primary birthing services through updated and new facilities and the birthing facilities as a hub for maternity health professionals in the community.
Challenge	Even through Waikato has the highest number of births in the community the rate has reduced over the last 10 years. The challenge is making sure low risk women are supported to birth in the community and the nine primary birth units continue to be sustainable.
Celebrating	Establishment of the vulnerable unborn forum to improve care and wraparound services for women and her whānau.
Challenge	Take a quality improvement approach to specific groups of women to improve outcomes for example Indian women and women under 20 years.
Celebrating	Success of Growth Assessment Protocol (GAP) programme, implementation of actions to reduce preterm birth and the focus on availability of LARC in maternity services.
Challenge	Continuing the momentum for these improvement activities while initiating new ones.

2.5 Equity and access to services

Waikato has a diverse birthing population. With a higher than the national average number of Māori women birthing in the DHB (35% vs 25% nationally). Waikato has a small number of Pacific, Indian and Asian women birthing and a slightly higher than the national average number of European women birthing. Waikato has higher than the national average of pregnant women living in low socio economic areas and a large number of pregnant women who live in rural and remote rural areas.

As outlined in section 1.3 of Rapua Te Ara Matua report, for some women there are physical, economic and cultural barriers to accessing care which is consequently played out in poor outcomes. Presenting a challenge to change services or implement different services to reduce this equity imbalance and reflect our population needs.

The following pages highlight services that are working to improve equity. The end of this section has a table that references pages in this report which illustrate data and information that raise equity issues for future projects or outlines quality improvement activity to reduce inequity.

2.5.1 Data and information

In order to assess the equity gap, where possible, data for MQSP activity, is now broken down by ethnicity. This highlights that even if we are doing well at a particular indicator on a DHB level, granulating the data further enables us to see if there are any significant equity gaps within the indicator and act on those gaps.

Services and programmes to reduce the equity gap

2.5.2 Hapū Wānanga – **Te Puna Oranga**

Before this service was established in 2015, very few Māori women benefited from pregnancy and birthing education classes with low attendance, as the provision and presentation did not resonate or acknowledge Māori women's experiences or world view. Hapū Wānanga are a kaupapa Māori pregnancy and parenting programme delivered by Māori midwives for all whānau. Whānau explore mātauranga Māori (traditional knowledge) underpinned by evidence based practice. The expert team with a combined experience of 52 years are aware of the access barriers women face and go to great lengths to resolve these with whānau.

The team champion the Mana Wahine model of care that is to innovate the western maternity system by creating enablers for wahine hapū to achieve their health goals. The team seek to enrich whānau linkages with the broader Māori health services by involving them in the wānanga giving whānau the opportunity to establish whānaungatanga kanohi ki te kanohi (face to face relationships) with services such as Tamariki Ora (Well Child), Whānau Ora Navigators, Whare Ora (healthy homes assessors), Oranga Niho (oral health), as well as Fire Safety services, Family Planning and Family Start.

Despite lock down and ongoing precautions **40 wānanga were hosted** across Waikato DHB catchment area in partnership with hapū, iwi and primary maternity services. **1024 wahine hapū and their whānau completed wānanga between July 2019 and June 2020**.

2.5.3 Whirihia Te Korowai Aroha

– Service within Waikato Plunket for Māori whānau provided by Māori health professionals

The focus of the service is to improve outcomes for Māori whānau by providing full wraparound services for the first 1000 days of a child's life. With pregnancy and parenting education designed to empower, enrich and support hapū mama and whānau to learn the stages of hapūtanga (pregnancy) whakawhānau (birth) and parenting support.

Whānau who participate in this service receive a wahakura, and other taonga to support their pregnancy journey. The team links in with all community services in the region and work collaboratively with many, for the successes and love for whānau

Whirihia Te Korowai Aroha has engaged with over **600 wahine hapū** and 2000 whānau face to face annually and well over 200,000 whānau on social media.

The Whirihia service includes women having a kaitiaki to support throughout the whole pregnancy, Māori Plunket nurse and kaiāwhina who meet whānau face to face postnatally, provide smoking cessation, GP and midwife referrals, and assist whānau to easily navigate health and social sectors, transport to appointments, lactation consultants and providing food and nappies. Their Māori Plunket nurses, kaitiaki and kaiāwhina stay with the woman from pregnancy though to the seven Tamariki Ora core visits post birth and additional visits if required.

2.5.4 Safe Sleep Programme – Te Puna Oranga

All women who birth in Waikato DHB receive safe sleep information and messages in the postnatal period to reduce the rate of Sudden Unexplained Death in Infants (SUDI). The Ministry of Health report "Ngā mana hauora tūtohu: Health status indicators" demonstrates a significantly higher SUDI rate among Māori infants. Thus creating Safe Sleep champions throughout the region is a priority. Te Puna Oranga are actively working with the nine Waikato birth facilities, hapū and iwi providers. The focus is for all priority whānau to have access to education and safe sleep devices as required during the antenatal and postnatal period.

Te Puna Oranga are committed to innovating the dissemination of Safe Sleep messaging to priority whānau with activities such as wahakura wānanga in marae, social media campaigns, the evolution and expansion of the Hapū Wānanga programme to online and remote access.

2.5.5 Support services for Pacific families

Four percent of Waikato birthing women identify as Pacific with 243 women birthing in 2019. Although there are no defined maternity services for pacific families in Waikato there are two main organisations that provide wrap around support for Pacific families including support of pregnant women, new mothers and young families offering Whānau Ora and Tamariki Ora among a number of health and social services.

- **South Waikato Pacific Islands Community Services (SWPICS)** is based in Tokoroa and covers the South Waikato area
- **K'aute Pasifika Trust** is based in Hamilton and is the lead provider for the Midlands pacific provider collective Aere Tai. Providing services across the Midland region.

2.5.6 Tamariki Ora

There are seven health providers who run well child tamariki ora services across the whole Waikato DHB area reaching across urban areas and rural areas. Five are Māori led services and two Pacific led service.

2.5.7 Remote rural services

Waikato has seven birth centres located in rural towns serving rural and remote rural populations. Rural birth centres support a high proportion of Māori women who have a higher rate of birth in primary birth facilities than any other ethnicity.

In addition to providing birth and postnatal care close to home for rural women they also host a range of pregnancy and parenting related services.
From providing a base for local LMCs for antenatal clinics to hosting pregnancy and parenting classes, newborn hearing services, new parent groups, lactation services and family planning services.

You can read more about birth centres in section 6.5 Place of birth.

There is also a Maternity Resource Centre in Te Kuiti a small town servicing a rural and remote rural population. The centre has visiting health care professionals such as LMCs, newborn hearing screening and lactation consultants and connects women with services and resources including smoking cessation, car restraint clinics, parenting education, cookery classes and buy, sell swap days, babyfood classes, toilet training advice, baby massage classes and baby CPR/choking workshops.

2.5.8 Table of quality improvement activity with a focus on equity

The following topics in this report involve one or more of the following:

- focus on in the data by ethnicity and outline potential to reduce inequity
- outline where quality improvement activity is taking place that is reducing inequity

Section		Topic
2	Our maternity population	2.1 Overview of Waikato's birthing population
		2.2 Overview of Waikato's birthing population outcomes
6	MQSP programme of work highlights	6.1 Reducing maternal smoking
		6.3 Maternal mental health
		6.5 Place of birth
		6.6 Increasing Māori and Pacific women's registration with a LMC
		6.7 Improving outcomes for Indian women
		6.8 Improving outcomes for women under 20 years
		6.9 Reducing the rate of preterm birth
7	MQSP improving quality systems	7.5 Learning from women's and whānau feedback at Waikato Hospital
		7.6 Providing care for vulnerable whānau
		7.7 BFHI: System approach to support breastfeeding

3 Waikato maternity services

He waka eke noa

The canoe which we are all in without exception
– *working together*

3.1 Overview of Waikato's maternity services

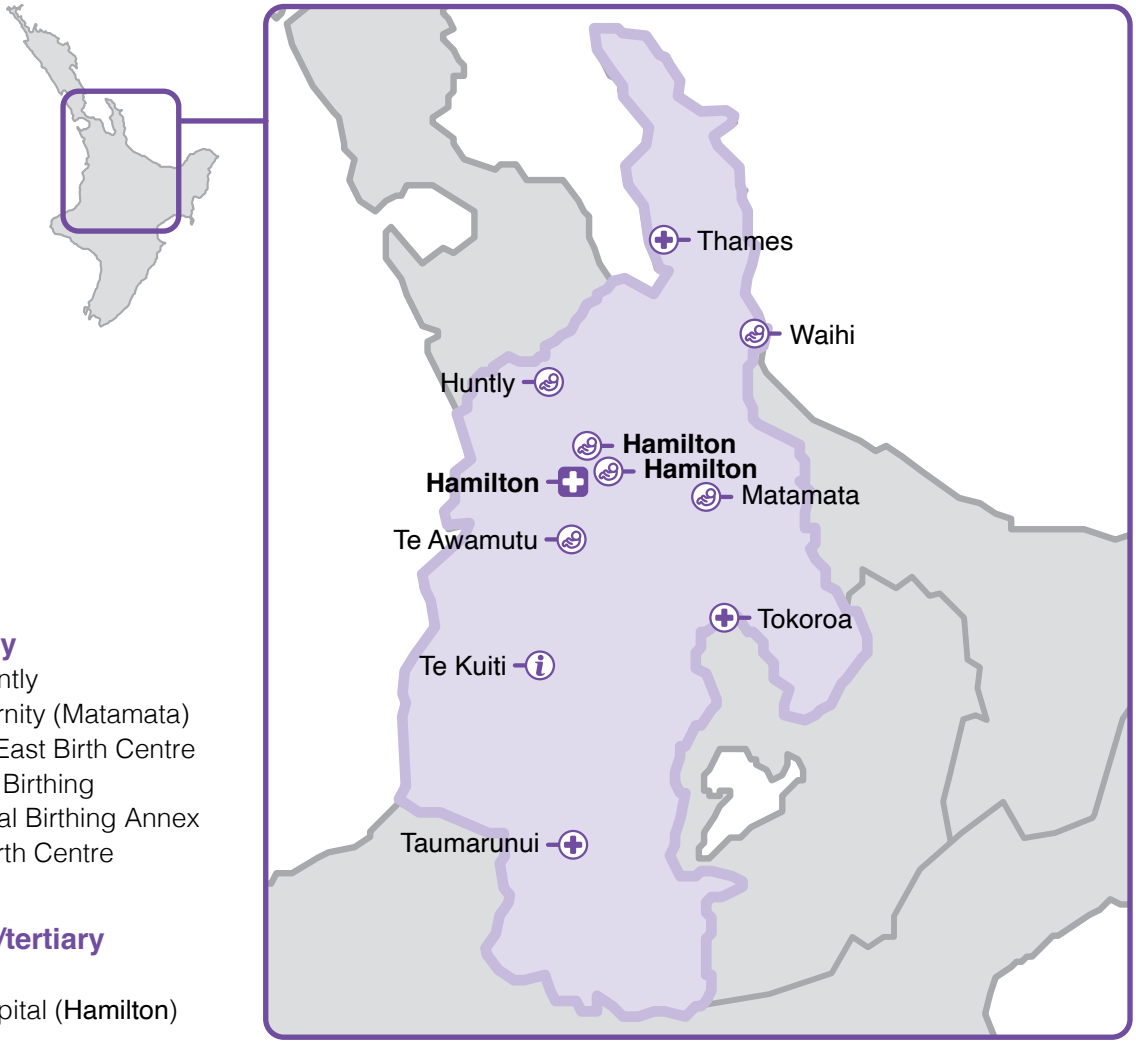
From Mokau and Taumarunui in the south to Meremere and Coromandel in the north, the Waikato DHB region covers an area of more than 21,000km^2. Situated in the centre of Te Ika-a-Māui (the North Island), the region is the corridor for travel to the north and south.

The DHB has an estimated 458,202 people in the region, with between 5200 and 5500 births each year.

Waikato has 11 choices for place of birth and postnatal stay in Waikato. This includes home, nine primary birth/postnatal stay facilities situated across the Waikato and Waikato Hospital. In addition Waikato has a maternity resource centre in a rural town.

Iwi in the Waikato DHB region include Hauraki, Maniapoto, Raukawa, Waikato, Ngāti Tūwharetoa and Whanganui. A significant number of Māori living here affiliate to iwi outside the district.

The map shows the location of maternity facilities in Waikato.



Birth facility
Birthcare Huntly
Pohlen Maternity (Matamata)
River Ridge East Birth Centre
Te Awamutu Birthing
Waihi Hospital Birthing Annex
Waterford Birth Centre (Hamilton)

Secondary/tertiary hospital
Waikato Hospital (**Hamilton**)

DHB rural hospital birthing unit
South Waikato Birthing Unit (Tokoroa)
Taumarunui Birthing Unit
Thames Birthing Unit

Maternity resource centre
Te Kuiti Maternity Resource Centre

Iwi rohe
Hauraki, Maniapoto, Raukawa, Waikato, Ngāti Tūwharetoa and Whanganui

3.2 Maternity services in Waikato

1 secondary / tertiary maternity service Waikato Hospital

Specialist pregnancy clinics
Planned outpatient clinics for women experiencing complex pregnancy

Women's Assessment Unit (WAU)
24 hour assessment unit for acute pregnancy conditions

- 2 triage rooms
- 4 single assessment rooms
- 1 bereavement room
- 4 procedure rooms

Newborn Intensive Care Unit (NICU)

- 41 cots across levels 1-3
- 6 rooming in parent rooms

30 Inpatient maternity beds
For women requiring inpatient care either in pregnancy or immediately postpartum

- 6 induction of labour beds
- 24 antenatal/ postnatal beds
- 24 well baby cots

Delivery Suite

- 7 birthing rooms
- 3 post anaesthetic care beds
- 1 operating theatre
- 2 high dependency beds

3 Waikato DHB primary birthing units located on rural hospital sites

- 5 birthing rooms
- 11 postnatal rooms

6 non-government organisation (NGO) primary birthing centres

- 13 birthing rooms
- 39 postnatal rooms

1 Rural maternity resource centre

192 Lead maternity carers (LMCs)

with an access agreement with Waikato Hospital (LMCs are community based midwives)

Perinatal (maternal) mental health services

8 Tamariki Ora / Well Child service providers

Lactation consultant breastfeeding support service

Urban and rural

3.3 Tertiary services in Waikato

Waikato Hospital is the tertiary maternity referral centre for Te Manawa Taki (the midlands region). This is a large geographical area covering the central North Island from northern Coromandel to Taranaki, Bay of Plenty, Lakes and Tairāwhiti. Referrals for tertiary level services are received from LMCs, other primary healthcare providers and secondary level services from within the region. Obstetric services are available 24 hours a day to respond to these needs.

Tertiary level services are provided for women experiencing severe complexity in the pregnancy, labour and birth or the postpartum period. Entry to the service is via referral or emergency presentation. Care is provided under the clinical responsibility of the specialist obstetric team, while maintaining continuity of care with the LMC when the LMC chooses to remain involved. Midwives employed in the unit are trained to manage complexity to support the LMC to ensure the woman remains engaged with her primary carer when she is discharged.

In addition to tertiary level maternity care Waikato DHB also provides level 3 newborn intensive care beds.

About **Te Manawa Taki**

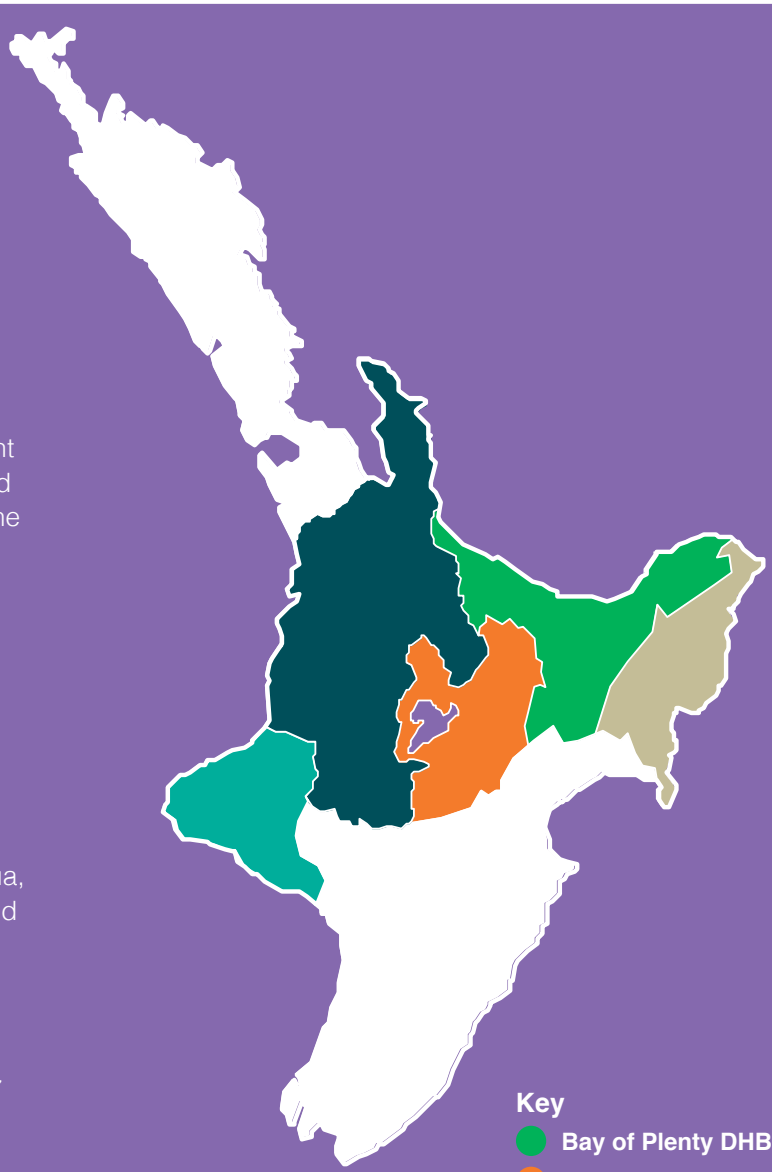
21% Te Manawa Taki covers an area of 56,728km², or 21 percent of New Zealand's land mass.

Stretches from Cape Egmont in the west to East Cape and is located in the middle of the North Island.

5 DHBs Five DHBs: Bay of Plenty, Lakes, Hauora Tairāwhiti, Taranaki, and Waikato.

Includes major population centres of Tauranga, Rotorua, Gisborne, New Plymouth and Hamilton.

985,285 people (2020/21 population projections), including 265,360 Māori (27 percent) and 43 local iwi groups.



Some of the members of the midwifery flight team in 2020

3.4 Flight team

Waikato DHB has a team of experienced tertiary service midwives who are trained members of the flight team. When the call for retrieval is received, midwives come from their hospital duty or respond to a text requesting a flight midwife.

The flight team retrieve women from remote rural areas of the Waikato DHB as well as women in neighbouring Midland DHBs. They also take women from Waikato to Auckland DHB for specialist care services.

Although the flight service is not called upon daily, staff are trained ready to go and the service makes a significant difference to the woman, her baby and whānau.

Alongside the impressive skill of the midwives, they bring a very compassionate and caring nature that is naturally displayed. This goes a long way for an expectant mother's stress levels, as flights can have a negative effect on people, let alone being under a potential amount of distress already.

When I am in the helicopter with a pregnant woman, I am always glad that there is a midwife present with her competence, calm confidence and resourcefulness to cope with whatever may happen – they are a very important part of our transport teams in the air! **– Bill, helicopter crewmember**

Flight team midwife

3.4.1 Jahbon's story

Emergency flight from Taumarunui

A phone call came through to Delivery Suite from a Waikato DHB remote rural hospital regarding a pregnant woman (Jahbon) who was 28 weeks pregnant with very high blood pressure and other symptoms of pre-eclampsia.

A decision was made to retrieve Jahbon by helicopter, as her blood pressure was so high that she needed urgent care at Waikato Hospital.

The helicopter crew consisted of the pilot, crewmember, paramedic and myself as flight midwife. The flight down from Waikato Hospital was smooth despite the cloud, mist and drizzle, which obscured the view at times.

When we arrived Jahbon was on intravenous medications helping to bring down her blood pressure and stabilise her condition. I assessed Jahbon, and we needed to get her quickly to Waikato Hospital so that she could receive the speciality midwifery and obstetric care that her condition required, in the Delivery Suite High Dependency Unit.

The medications Jahbon received in Taumarunui Hospital and continued to receive in the helicopter meant that her blood pressure remained stable and she was safely transported to Waikato Hospital.

Jahbon's pre-eclampsia continued to be monitored and medications were given, but nine days later the decision was made to deliver her baby.

Kruza entered this world, born by c-section 11 weeks early and was transferred to the NICU.

Baby Kruza continued to recover well, and I was able to visit Jahbon and Kruza.

After some time in NICU care he went home with his mum to his whānau in Taumarunui.
– Christine, flight midwife

Jahbon and Kruza with flight midwife Christine

Baby Kruza strong and doing well at home

3.4.2 Rachael's story

What midwives mean to me

At the 20 week scan of my second son, it was found that he had a Congenital Diaphragmatic Hernia (CDH). Walking out of the appointment not knowing what that meant, I was feeling pretty shell-shocked but within 10 minutes I received a call from my midwife who explained basically what it meant and how things would proceed. She gave immediate support and between her and her midwifery partner, they provided great emotional support over the next few months. Our care was then transferred to a specialist in Auckland as it was decided that my son would need to be born at Starship Hospital.

It was advised that we move up to Ronald McDonald House three weeks prior to my due date so that we were in Auckland for my son's birth. We were packed and ready to go the night before our move, but then my son decided to come in the early hours while we were still at home. We called the ambulance and after we explained the situation, they requested the chopper to get us to Auckland.

When the chopper arrived with the flight midwife, she checked me over and explained that I was already pretty far along, and it could be risky to go all the way to Auckland. We had been given pretty grim odds of his survival to start with and believed that Starship was his best shot. I know that it was a hard call for her to make, and there are so many times in my life that I find myself thinking back to that moment and silently thanking her for the call she made to do her best to get me there.

Rachael's son

The care and support she gave me through not only the physical pain but the emotional anxiety I was going through was next level. So after some drugs to slow the labour, I was boarded onto the chopper. My memories from that night are a bit spotty, but one thing I remember clearly from the flight was the warmth of her hand as she held mine during the flight, and the comfort it gave me through my fear and pain. This memory will stay with me for the rest of my life.

It's been a bumpy road, but my son turned two recently and he is a tough and determined little dude with a bunch of character and cheek. I know that there was a team of people and their actions are what gave him a chance to fight - my flight midwife is one of those amazing people.

I'm forever grateful. **– Rachael**

3.5 Maternity workforce

3.5.1 Our team at Waikato Hospital

The maternity workforce in Waikato is a multidisciplinary team comprising of midwives and nurses, some of whom work in clinical specialist roles.

The medical team continues to remain fully recruited following the improvements in 2018/2019.

There is a consistent number of LMCs with access agreements to Waikato Hospital. Due to the large geographical area of the Waikato this number remaining stable is important for access to care for women in the community.

Lactation services have expanded further with the rural lactation consultants now part of the Women's Health service. This service provides access to lactation services to the rural areas in the Waikato.

In addition to the current midwife specialists in roles such as early pregnancy assessment and perinatal specialist, an appointment of a clinical midwife specialist was made in 2020 to develop the termination of pregnancy pathway. This was a direct result of the changes to the legislation relating to abortion in New Zealand. This is a growing piece of work to provide improved access for women requiring this service.

3.5.2 Year of the midwife and the nurse

International Year of the Midwife and the Nurse was 2020, although it was overshadowed by the COVID-19 pandemic.

We celebrated within the hospital with monthly display areas exhibiting the work of midwives. This was an opportunity to share that midwives have important and varying roles, with the rest of the DHB and the public.

The displays were also shared as a presentation at the monthly Midwifery and Nursing round table.

All midwives were invited to be part of this project and each month a different team, supported by the midwife educators produced a visual example of midwifery with New Zealand.

The displays included

- history of midwifery in New Zealand
- flight retrieval team
- lactation consultant service
- midwifery students and Wintec
- varying roles of midwives
- Delivery Suite service.

3.5.3 Hospital midwifery

There has been ongoing work into midwifery recruitment and retention at Waikato. Midwifery at Waikato Hospital is presented to both Wintec and AUT graduates with an emphasis on the new graduate support programme that is offered at Waikato. A new graduate allowance to encourage midwives into core midwifery has been implemented to attract new graduate midwives to join the team at Waikato Hospital.

Recruitment to address the midwifery deficits within the hospital are continuing and have expanded to include a recruitment agency working in partnership with the director of midwifery. The Waikato communications team is producing resources for this recruitment campaign to help promote hospital midwifery. This will include promotional photos and videos introducing some of our wonderful team telling their own stories about why they love living and working in Waikato.

Also new in 2020 is an initiative to support experienced midwives who work shifts in the acute and higher acuity areas of midwifery. This includes a retention allowance and a peer support network of midwives trained to support their colleagues. Supporting midwives working in these settings is imperative to maintaining a healthy workforce and providing a fulfilling environment.

Peer support

Occasionally staff are faced with events that can cause a negative impact on their wellbeing, emotionally and physically if not addressed. It is appreciated by the peer support team that each person's experience is different and as such each person may require a different approach. Peer support exists to minimise the impact of a particularly upsetting event and acknowledge the feelings that are present.

The women's health peer support team utilises the perioperative peer support team for defuse and debrief sessions while the women's health team remains involved by connecting with staff after the session. A small team dedicated to providing peer support have been trained to discuss experiences with team members requiring support.

Peer support is separate from EAP however can offer practical assistance to understand the emotional impact of a stressful event by someone who also understands the maternity environment first hand.

3.5.4 Collaborative care within the hospital

There is a focus on developing and maintaining women centred care that is a result of collaborative care across the primary to secondary interface.

National guidelines and service specifications are being used as the guiding documents to align the service in the DHB appropriately. The outcome is to develop the services to support the LMC to provide continuity of care for the women registered in her care while they are within the hospital setting.

As part of making these improvements there has been the validation that a LMC is the responsible clinician unless there is a transfer of clinical responsibility to the Obstetric team. This is a practice change for Waikato as previously all women admitted to delivery suite were admitted under the responsibility of the obstetric team. Stakeholder meetings and consultation regarding this has taken place and will continue to ensure that the service meets the needs of the women of the Waikato while maintaining the requirements of the service specifications. This work will continue into 2021.

3.5.5 Community midwifery

Waikato has had increasing numbers of LMC access agreements reaching a total of 192 at the end of 2020. Although a cohort of LMCs are not working full time or are offering second midwife services only, there has been an increase in LMC numbers compared to previous years.

It is important to acknowledge that the large geographical area and the remote locations of the Waikato impacts on the availability of LMC care for women in some regions. The DHB continues to work with these communities to improve this.

Community midwifery merges with hospital midwifery in quarterly Collaborative Midwifery Forums. The intention is to develop working relationships to support the respective roles that the members have.

This is also a forum to discuss changes and have open consultation and feedback to ensure that midwifery care is developed in a way to enhance midwifery across the continuum of normal to complex.

3.5.6 Midwifery practice in primary birthing facilities in Waikato

Across the nine primary birthing facilities in the Waikato, women are provided with education and hands on support from core midwives and nurses while care planning and continuity is provided by their LMC.

The staff are skilled practitioners in normal, non-complex care and provide expert level care for women transitioning to motherhood or bonding with their new baby. Whānau are encouraged to be part of the journey, partners are encouraged to stay over with the mother and new baby to learn as a family.

Breastfeeding support and education is provided to all women who require this from the staff.

Core staff complete education aligned with the BFHI and support the ten steps to successful breastfeeding. In some facilities there is access to trained lactation consultants to provide additional care for mothers and babies who require it.

3.5.7 Supporting midwifery in the rural and remote areas

Primary birthing facilities provide the lynchpin to sustaining LMC practice in rural and remote areas. They are a focal place for LMCs to meet, to host training sessions, to hold clinics with their clients and receive support.

Thames Birthing Unit, South Waikato Birthing Unit and Taumarunui Birth Unit cover areas at the end of Waikato's geographical extremes with travel distances to Waikato Hospital between one and three hours. In Thames and South Waikato birthing units there has been a turn around to the shortage of LMCs practicing in the area.

In Thames a number of LMCs exited practice in the area around the same time. The remaining LMCs were becoming burnt out which led to it being difficult to attract LMCs to work in the area. A package was initially put in place to fund a DHB midwifery caseload team for women unable to register with a local LMC, due to the reduced number in the area. The area subsequently increased the LMC numbers to a degree the caseload team was no longer required. Ongoing financial support from the DHB continues to provide locum services for 48 hours per month to the LMCs in this area and also provide a consultation room free of charge in the Thames Birthing Unit.

The remote southern rural town of Taumarunui continues to be challenged by the lack of midwives in the region. Work continues to support the midwifery community in this area.

The new upgraded primary birthing unit in Tokoroa with 24/7 maternity staffing has seen a boost in LMC coverage and women choosing to birth at the unit. This refurbished unit was co-designed with midwives and key members of the community including Raukawa and South Waikato Pacific Island Community. The unit is modern, much brighter and better suited to the needs of women with two delivery rooms – one with a birth pool, three large postnatal rooms for partners to stay and a large whānau space. The facility also has an antenatal room for women to see their midwife during antenatal visits.

Having a new birth unit to work in and a team midwifery behind them plus support from Tokoroa Hospital emergency team has attracted LMC's to move to practice in the area.

3.5.8 Local Māori LMC talks about practicing midwifery in Tokoroa

Why South Waikato Birthing Unit is a good choice for local women:

Our beautiful new refurbished birthing unit is servicing our community well. Prior to this upgrade wahine and their whānau were often choosing to travel out of area to birth in the more modern primary facilities than Tokoroa or the hospital. Since June 2019 95 percent of our primary birthing whānau are choosing to stay and use South Waikato Birthing Unit in Tokoroa. They are well supported with dedicated midwives caring for them postnatally. The kai is made on site and delicious. All their needs are met. Feedback is often that it's like being in a hotel. It's also fabulous for women who have birthed in Waikato and are then able to come back for their postnatal stay. Breastfeeding support is so important in the first few days and women are able to go home feeling confident with this. The midwives are amazing.

What attracts me to care for women in this community and birth them in Tokoroa:

I have returned home after living away for 19 years. The karanga to be closer to whānau was the initial reason, and being able to support, care and be a part of the haputanga of my whānau, hapū and iwi is such an honour. I feel very blessed to work alongside such amazingly strong, resilient wahine. South Waikato wahine and whānau have to travel for scans and other maternity services, and they just take everything in their stride. They are hearty rural women.

How the primary birth facility supports me and the women choosing to birth there:

We have a wonderful, supportive team at the unit. The core staff definitely make working here a pleasure. During a midwifery emergency the team work is top notch. We also have the extra support from Tokoroa Hospital nurses and ED doctors. We have recently started doing professional training together and have found that this has improved the overall management of emergency situations. Sue, the midwifery manager for the birth unit is so supportive. She makes sure we have what we need and always checks in with us if we have any issues arise, both professionally and personally. She genuinely cares about us and understands the pressures of LMC workloads. As a team we meet once a month and are able to go through how the unit is running and any updates. We also have lots of fun and laughter. As a LMC it is a very supportive environment. Teamwork is key and this adds to the safety for all our whānau.

I love living and working in this area. Being a midwife has so many highs and some scary lows, and working alongside competent, phenomenal midwives in a supportive unit makes it so much better.

3.6 COVID-19

When COVID-19 first emerged in New Zealand it was an uncertain and unprecedented time for maternity health care workers, pregnant women and their whānau. Each different COVID-19 level brought challenges for women and maternity care, this had a significant impact on the way services were delivered and utilised by women.

People had a general fear of going to places where there would be interactions outside of their "bubbles". For some; hospitals were perceived as unsafe and a potential place to come into contact with the virus.

Despite local and national communication to women and via their LMCs about the safety of maternity services, Waikato's Women's Assessment Unit was very quiet, with lower demand in Delivery Suite and on the wards. Women were not seeking care, that they would in ordinary times, and there was a higher interest in birthing in primary birth facilities and home birthing.

In addition women travelling to Waikato from rural areas for secondary or tertiary care or women transferring from the Midland region to Waikato Hospital for tertiary care services, found many difficulties. Some women were alone without partners or whānau. For others whānau and partners travelled and waited in their cars outside of hospital grounds for the call that their partner was being moved to Delivery Suite and they could join them.

3.6.1 Communication across the maternity sector in Waikato

Initially bi-weekly updates were sent to LMCs with information about what services were in place, what changes were happening in each area and providing updates from the Ministry of health maternity team and the wider DHB/ hospital information. If there was no update – the communication also added this.

This information was greatly appreciated by the LMC and primary birthing facilities to keep them in touch with what was going on.

Staff in the hospital received updates via the DHB incident management team bulletins and their line managers via email or in person.

It was then decided to make the LMC update the maternity update and all maternity staff and LMCs in the hospital would gain the same information at the same time.

Online midwifery forums were also commenced in place of the midwifery collaborative via WebEx.


Unite against COVID-19

COVID-19 Bi-weekly LMC Update 1 Thursday 9 April

Due to the pandemic and the current fluid situation with changes and updates to processes we have decided to send a twice weekly update to all LMCs in Waikato. This will be in the same format with the same headers. If there is no change to the situation it will simply say NO UPDATE under the header.

Reminder:

- Women to attend WAU alone with no support people.
- Exception for women cared for in Manaia room – one support person with same restrictions as DS support people.

Elective C-Sections:

- After careful consideration Theatre Leadership have decided that LMCs can attend elective LSCS. They will need to be screened and negative for covid19 screening questions. This will occur at the front door when they arrive. NO entry to delivery suite as a thoroughfare.
- Reminder to inform woman and partner/support person of elective C/S clients that the woman is to be dropped off at 32 and to come into 82 WAU/DS reception. The support person is to park up and wait in the car to be called to attend theatre.

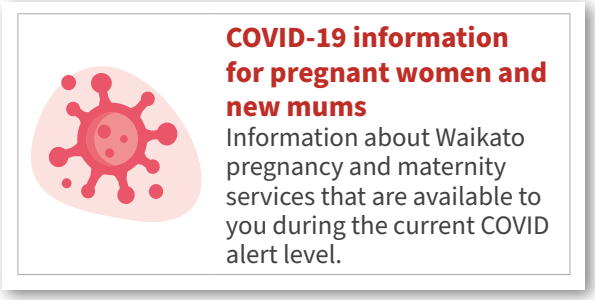
NO UPDATE

- No visitors or support people are allowed on the ward.
- Very occasional exceptions may be made but this needs to be planned in advance and approved at Director level (Michelle Sutherland via Jo Clarke or Sarah Powell). A recent example has been a client with hearing impairment / intellectual disability. Please make contact if you wish to discuss a request for exception but please be advised that the bar is set high to protect staff and other patients from unnecessary exposure.

3.6.2 Communication to pregnant women across the Waikato

The communications team developed a dedicated COVID-19 information page on the DHB website. Within this there was a section on pregnancy and COVID-19 and maternity services during COVID-19.

In addition the Waikato pregnancy and maternity webpages had a specific section on COVID-19 which was updated as the DHB moved through the COVID-19 levels.



The DHB posted COVID-19 information social media posts and links on its Facebook and Instagram pages which had high viewing rates in the community and were shared across other local organisation pages and peoples personal social media pages.

3.6.3 Changes to maternity services during COVID-19

To enable safe care protecting women, infants, whānau and staff.

Services and the way we worked	COVID-19 level		
	2	3	4
Health screening at point of entry for women and support people (hospital and primary birth centres)	✓	✓	✓
Contact tracing and health screening for all visitors at point of entry (hospital and primary birth centres)	✓		
Hand hygiene: Stronger focus on hand washing for staff and for women, whānau and visitors (hospital and primary birth centres)	✓	✓	✓
Home births: Free birth packs for LMCs to support them to enable women to have home births if they wished		✓	✓
Hospital antenatal clinic: If the woman did not require a scan, they would have their appointment by telephone (following consultation if it was felt they needed to be seen, an appointment would be made for them)		✓	✓
Antenatal clinic and WAU: Women who were attending in person were requested to attended without support people (exceptions were allowed in some cases)		✓	✓
Antenatal appointment at birth centre: If being seen in person the woman was requested to ring her LMC on arrival in the car park. She then attended the appointment on her own		✓	✓
Births: One support person only who had to leave when the woman was transferred to postnatal care (hospital)		✓	✓
Births: Primary birth centre one support person only who could stay postnatally as the rooms were ensuite – the support person was requested to stay in the room for the duration and not go home and return (some variation at birth centres)		✓	✓
Births: Two support people; only one can stay with the woman transferred to postnatal care (hospital and primary birth centres)	✓		
Elective C-section: one support person attend but could not stay on the ward prior to C-section or return to the ward		✓	✓
Ward visitors and support people: No visitors or support people staying (except in exceptional circumstances)		✓	✓
Ward visitors: One visitor per women staying on the ward (in addition to their support person)	✓		
Community lactation consultants: Virtual consultations		✓	✓
Bereavement services: Services and volunteers who provide support and memory making (such as photographs, hand and foot casts) were unable to enter the hospital at this time. Maternity staff took on support for whānau who experienced a loss until the alert levels reduced		✓	✓
Hapū Wānanga courses were run online, with contactless delivery of information and packs to women's door steps in preparation for the courses		✓	✓
Once and For All stop smoking service for hapū mama continued online using video calls, text and phone calls to support women to be smokefree. Contactless delivery of nicotine replacement therapy (NRT) to women's homes if they required it		✓	✓
Staff training: Although some staff training was cancelled during this time, "none practical" staff training moved online to either online learning or to an online course via Zoom or WebEx	✓	✓	✓
Staff education presentations: Took place online to reduce the numbers of people in the auditorium together. Staff could login at home or at work on their computer, tablet or phone	✓	✓	✓

Note: Level 1 – increased hand hygiene awareness, health screening at point of entry to health care and COVID-19 tracer app scanning when entering the building.

3.6.4 Key lessons learnt

- The importance of consistent and constant communication to staff in the maternity team, primary birthing facilities and LMCs about changes and actions related to COVID-19.
- Website and social media communication to the community is the best vehicle to reach pregnant women and continued updated information is important.
- We can provide services differently and flex to the situation.
- Staff can work differently, some staff carrying out non clinical activity can work remotely from home. Training can be delivered virtually and online. Communication to staff and LMCs can take place remotely online as well as face to face.
- In lock down situations we need to identify and react quicker to the needs of partners/support people waiting outside the hospital to join women for the birth of their baby, especially Māori whānau. Particularly critical for the small number travelling long distances to bring their partner to secondary/tertiary care and potentially waiting in cars overnight to be called in. The service did not anticipate the demand to give access to toilet and washing facilities, and overnight facilities.

3.6.5 Changes we are going to continue to use in business as usual practice

Finding	Action we are implementing as business as usual
Remote consultations worked well Given Waikato DHBs large geographical area this will make a significant difference to women.	Prior to COVID-19 some activity had already commenced on telehealth consisting of remote consultation with women attending rural primary maternity facilities with their LMC/or primary facility midwife and having a telehealth consultation. This is suitable for women who still require blood pressure measurement, urine analysis etc. on the day. Short electronic face to face consultations between women and lactation consultants, followed up by text, email, phone call proved to be popular during “lock down” restrictions. This “electronic service” continues alongside in person consultation in clinic.
Quiet time on the wards was appreciated by women, they and their babies were more rested and staff had more opportunity to interact with women. This was particularly noticeable in the shared space areas and four-bedded ward areas.	A support person is welcome on the ward at all times. Although there are set visitor times during the day this was not always kept to. At COVID-19 level 1 the service has been more **protective about quiet time** with no visitors to the wards at this time.
Communication with LMCs during lockdown consisted of electronic email updates and some zoom-type forum question and answer sessions.	There is already in place electronic email / newsletter updates and the experience during COVID-19 lockdown proved that these are vital tools to keep LMCs and birth facilities up to date. After COVID the **Webex/zoom forums** could continue as an effective way of interacting with LMCs in-between the quarterly collaboration forum meetings.
Support for births in the community Waikato DHB has the highest number of births in the community. However, our primary facilities have capacity to increase birth numbers. Lockdown demonstrated that more low risk women who would normally choose to birth in hospital were contemplating birth in a primary facility or at home.	**Increasing consumer awareness** for low risk women to birth at home or in a birthing facility. This will be achieved by adding further information to our consumer maternity and pregnancy webpage and social media, including who to contact for more information and stories from women who have experienced home birth or a primary facility birth **Support LMC** by having a system in place for LMCs to access free home birth packs in Waikato.
Staff education presentations	These have continued to be online for the convenience of staff unable to come into the hospital auditorium to attend in person.

3.6.6 Waikato maternity consumer story

My lockdown labour

We were preparing for the birth of our son (Jiraiya), when suddenly our lives became all about bubbles and hand sanitiser; which in hindsight sounds a lot nicer than it actually was.

Luckily for us, we had chosen River Ridge East Birth Centre for Jiraiya to make his grand entrance into this world.

Jiraiya's three older sisters were also born at River Ridge East Birth Centre or as I like to call it "my postnatal hotel".

I can say hand-on-heart that the excellent service we received in 1999, 2001 and 2006 remains in 2020.

Where the COVID-19 pandemic and lockdown period brought so much uncertainty and anxiety to our situation, and the situation for many pregnant māmā around New Zealand, our LMC Clare, and the amazing staff at River Ridge East Birth Centre provided an oasis of reassurance and calm.

Both Des and I feel so lucky to have been welcomed into the River Ridge East Birth Centre bubble for two days and three nights, where we enjoyed delicious kai, excellent postnatal assistance, and most importantly the first days of our son's life.

We cannot thank Clare, and the River Ridge East Birth Centre team enough for all that they do and are.

– Aroha TINO NUI no Anna, Desmond, Jayleigh, Maitland, Georgie-Belle and Jiraiya

Maternity clinical indicators 4

Titiro whakamuri, kokiri whakamua

Look back and reflect,
so you can move forward

New Zealand Maternity Clinical Indicators 2018

The New Zealand Maternity Clinical Indicators consist of 20 indicators. Of the 20 indicators three apply to women who registered with a LMC, seven apply to standard primiparae women*, six apply to all women giving birth in New Zealand and four apply to all babies born in New Zealand.

On their own each clinical indicator does not demonstrate if a service is good or not, but they do flag up variations and where maternity services may need to carry out further investigation, implement improvement or continue to closely monitor an indicator.

The latest indicators are for the year 2018 and were published by the Ministry of Health in October 2020.

4.1 Overview of Waikato rate vs New Zealand rate

Seventeen of the 20 indicators are comparable. The severe maternal morbidity indicators have small numbers and cannot be meaningfully compared. Section 4.3 has more information about these indicators.

Overall the Waikato DHB area has a better than average rate for five out of the 17 comparable indicators:

- Standard primipara (SP women) in Waikato; have a significantly lower rate of c-section (indicator 4) and induction of labour (indicator 5). This aligns with the data we have on the relatively lower rate of c-sections and inductions for all women in Waikato
- Waikato SP women have higher rates of intact perineum (indicator 6) with lower third and fourth degree tears (indicator 7). This aligns with the data we have on all women in Waikato
- There is a lower rate of women resident in Waikato requiring a blood transfusion following vaginal birth (indicator 12).

For three indicators Waikato was statically worse than the national rate:

- The rate for a general anaesthetic for c-section (indicator 10) showed an increase in 2018. This indicator impacts European ethnicity women who have higher rates of c-section
- Maternal smoking rates is an ongoing theme for improvement in Waikato (section 6.1 for further information.)
- Small babies born at term (indicator 18).

The table enables us to identify how different ethnicity groups compare to those in the national average. It is pleasing to see for each ethnicity there are few indicators where Waikato DHB is statistically worse.

This year we have included a column with data on Waikato Hospital National Clinical Indicator rates. When reading this column keep in mind two key points:

- Waikato DHB has the highest number of births in the community. Therefore approx. 30 percent of low risk women who have a spontaneous birth are not counted in the hospital statistics denominator. As a result Waikato Hospital will have higher proportion of local women who require secondary/tertiary level care and a lower proportion of low risk women birthing in the hospital compared with other hospitals
- Waikato Hospital is a tertiary service and the hospital data includes women and babies from other regional DHB areas transferring in for tertiary level care.

This means that Waikato Hospital potentially has women with higher clinical needs and therefore corresponding clinical interventions. As a result it is pleasing to see 11 out of the 17 indicators are statistically within the national range for hospitals in New Zealand.

**A 'standard primipara' (SP women) is a woman aged between 20-34 years, giving birth for the first time to a single baby at term with no record of obstetric complications during pregnancy. Intervention and complication rates for such women should be low and consistent across DHBs. Comparing data about standard primiparae (rather than all women giving birth) controls for differences in case mix and increases the validity of comparisons of maternity care.*

The table compares Waikato vs the New Zealand rate. The first column compares Waikato DHB to the New Zealand rate for all ethnicities and then compares each ethnicity in Waikato against the New Zealand rate for the same ethnicity, for example comparing Waikato Māori women with New Zealand Māori women. The final column compares all women who birth in Waikato Hospital compared to all women who birth in hospitals in New Zealand.

Waikato vs New Zealand average

Key:
- Statistically better than NZ rate
- Statistically within NZ rate
- Statistically worse than NZ rate

	Clinical indicator	Waikato DHB						Hospital
		All ethnicities	Māori	Pacific	Indian	Asian	European or other	All ethnicities
1	(All Women) 1st trimester registration with a LMC	●	●	●	●	●	●	●
2	(SP Women) Spontaneous birth	●	●	●	●	●	●	●
3	(SP Women) Instrumental birth	●	●	●	●	●	●	●
4	(SP Women) C-section	●	●	●	●	●	●	●
5	(SP Women) Induction	●	●	●	●	●	●	●
6	(SP Women) Intact perineal	●	●	●	●	●	●	●
7	(SP Women) Episiotomy and no third or fourth degree perineal tear	●	●	●	●	●	●	●
8	(SP Women) third or fourth degree perineal tear and no episiotomy	●	●	●	●	●	●	●
9	(SP Women) Episiotomy and sustaining a third or fourth degree perineal tear	●	●	●	●	●	●	●
10	(All Women) GA for c-section	●	●	●	●	●	●	●
11	(All Women) Blood transfusion with c-section	●	●	●	●	●	●	●
12	(All Women) Blood transfusion with vaginal birth	●	●	●	●	●	●	●
16	(All Women) Maternal tobacco use during postnatal period	●	●	●	●	●	●	●
17	(All Babies) Preterm birth	●	●	●	●	●	●	●
18	(All Babies) Small babies at term	●	●	●	●	●	●	●
19	(All Babies) Small babies at born at 40-42 weeks	●	●	●	●	●	●	●
20	Babies born 37+ weeks requiring respiratory support	●	●	●	●	●	●	●

4.2 Equity

The table below examines the same data through an equity lens for Waikato. This table looks at the Maternity Clinical Indicators, comparing each ethnicities data against the DHB statistical average. In terms of increasing equity in the clinical indictors areas; focusing on improving the indicators which are worse than the DHB average will make a difference to the outcomes and experiences of women of that ethnicity, it will in turn show an improvement overall for Waikato against the national rate.

The ideal picture in the box would be the majority of the indicators in the clinical indicator column would be shaded green (better than the national rate) and for equity in Waikato no ethnicity boxes containing ● "Statistically worse than DHB average". Most ethnicity boxes containing ● "within DHB statistical average".

Table: Waikato ethnicity group vs DHB average

Key:

- ● Statistically better than DHB average
- ● Statistically within DHB average
- ● Statistically worse than DHB average

	Clinical indicator The indicator is shaded to show if it is better (**green**), worse (**red**) or the same as the national rate (**orange**).	Waikato				
		Māori	Pacific	Indian	Asian	European or other
1	(All Women) First trimester registration with a LMC	●	●	●	●	●
2	(SP Women) Spontaneous birth	●	●	●	●	●
3	(SP Women) Instrumental birth	●	●	●	●	●
4	(SP Women) C-section	●	●	●	●	●
5	(SP Women) Induction	●	●	●	●	●
6	(SP Women) Intact perineal	●	●	●	●	●
7	(SP Women) Episiotomy and no third or fourth degree perineal tear	●	●	●	●	●
8	(SP Women) third or fourth degree perineal tear and no episiotomy	●	●	●	●	●
9	(SP Women) Episiotomy and sustaining a third or fourth degree perineal tear	●	●	●	●	●
10	(All Women) GA for c-section	●	●	●	●	●
11	(All Women) Blood transfusion with c-section	●	●	●	●	●
12	(All Women) Blood transfusion with vaginal birth	●	●	●	●	●
16	(All Women) Maternal tobacco use during postnatal period	●	●	●	●	●
17	(All Babies) Preterm birth	●	●	●	●	●
18	(All Babies) Small babies at term	●	●	●	●	●
19	(All Babies) Small babies at born at 40-42 weeks	●	●	●	●	●
20	Babies born 37+ weeks requiring respiratory support	●	●	●	●	●

4.3 Improvement areas identified by the national clinical indicators

- From the information demonstrated in the table, one of the main MQSP goals is to continue to focus on smokefree pregnancy to **dramatically reduce maternal smoking for Māori** women. This indicator for the DHB is worse than the New Zealand average, with the full burden resting on Māori women. Gains have been made to reduce the maternal smoking rate for Māori women. This will continue until Māori women's rates are as low as the other ethnicities in Waikato, bringing significant improvement to Māori women and babies outcomes. See section 6.1 for more information
- During 2018 there was reduction in the number of local LMCs; leaving gaps in some areas and women finding it difficult to make a timely **registration with a LMC in the first trimester**. This impacted on all ethnicities into 2019, after this time LMC numbers began to recover. However for **Māori women and pacific women** the equity gap continues to be significantly greater. As a result this topic is an area of focus and more information can be found in section 6.7
- It is pleasing to see the equity statistics for **Pacific women** in Waikato (a small group of the birthing population at 4 percent) for the national clinical indicators compare relatively well against the New Zealand average for Pacific women and within Waikato's equity focus
- **Indian women** are a smaller group in the Waikato birthing population (6 percent of birthing women). For SP women they have a statistically lower rate of spontaneous vaginal birth and intact perineum impacted on by **instrumental delivery** which is also higher than the DHB average for Indian women and requires further investigation. There is also a **higher rate of small babies born at term**. The Perinatal Maternal Mortality Review Committee (PMMRC) have identified that Indian women have poorer outcomes and higher rates of still birth and neonatal death. For further information please see section 6.8
- **Asian women**, are also a small group and make up 7 percent of Waikato birthing women, for SP women they have a lower spontaneous birth rate and higher rate of c-sections and lower rate of intact perineum's than the DHB average. Which is also higher than the DHB average for Asian women and requires further investigation
- There is also a higher rate of third and fourth degree tears for SP **European women** compared to other ethnicities, however the rate for overall for all European women is within the DHB average. Of concern is a **higher rate of GA for c-section** compared to all women who have a c-section. The GA rate for Waikato women has been higher than the national average over all, and the last clinical indicator report showed a lowering rate, there will be further investigation of local data.

4.4 Highlight indicators 13-15 severe maternal morbidity

The impact of severe morbidity is significant and long term, of high personal cost to a woman and her family and of high financial cost to the health system. The National Maternity Clinical Indicators 13-15 for severe maternal morbidity include:

- indicator 13: Eclampsia
- indicator 14: Peripartum hysterectomy
- indicator 15: Mechanical ventilation

The number of cases per year are small and as appropriate these cases are all reviewed. As with all serious case reviews even where the finding does not point to anything making a difference to the outcome, there are still often findings that could improve processes.

The clinical indicators for Waikato demonstrate eight cases of severe maternal morbidity cases occurring in women domiciled in the Waikato area in 2018. There were two cases of eclampsia, three cases of peripartum hysterectomy, and three cases of women requiring mechanical ventilation in ICU for more than 24 hours.

For more information about serious case reviews see section 7.1

5 MQSP in Waikato

Mā whero, mā pango ka oti ai te mahi

With red and black the work will be complete
– *working together and collaboration*

5.1 New Zealand Maternity Standards

Underpins the Waikato MQSP programme of work:

Standard one: Maternity services provide safe, high-quality services that are nationally consistent and achieve optimal health outcomes for mothers and babies.

Standard two: Maternity services ensure a women-centred approach that acknowledges pregnancy and childbirth as a normal life stage.

Standard three: All women 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 women.

5.2 Membership of the Maternity Quality and Safety Governance Board

The majority of the group is made up of community practitioners from primary care, primary birthing, rural services and LMCs, with representatives from Waikato Hospital midwives, Waikato Hospital obstetrics team and neonatal services plus one consumer representative. Six members of the governance group identify as Māori.

MQSP

- Consumer member
- Manager
- Midwife coordinator

Primary care

- GP
- LMCs (x2)
- PHO Hauraki – Nurse manager
- PHO Midlands Health Network – Director of nursing
- PHO National Hauora Coalition – Nurse manager

Primary birthing facilities

- Birthcare Huntly (NGO) – Manager / midwifery leader
- Pohlen Hospital Birth Centre (NGO) – Manager
- River Ridge East Birth Centre (NGO) -– Manager and midwifery leader
- South Waikato Birthing Unit and Taumarunui Birthing Unit – Midwifery leader
- Te Awamutu Birthing (NGO) – Manager / midwifery leader
- Waihi Hospital Birth Unit (NGO) – Manager
- Waterford Birth Centre (NGO) – Manager / midwifery leader

Strategy and funding

- Funding and relationship manager, Child Youth and Maternity
- Service development manager, Child Youth and Maternity

Te Puna Oranga / Population Health

- Hapū Wānanga midwife coordinator
- Public Health physician
- SUDI and Safe Sleep midwife coordinator

Waikato Hospital maternity services and child health

- DHB hospital midwives (x2)
- Women's and Child Health director
- Clinical director NICU / neonatologist SMO
- Obstetrics clinical director
- Clinical midwife director / associate clinical midwife director (also representing Thames birth unit)
- Newborn Hearing services manager
- Specialist midwife – vulnerable families

5.3 Engagement with stakeholders across Waikato – electronic engagement with the maternity sector

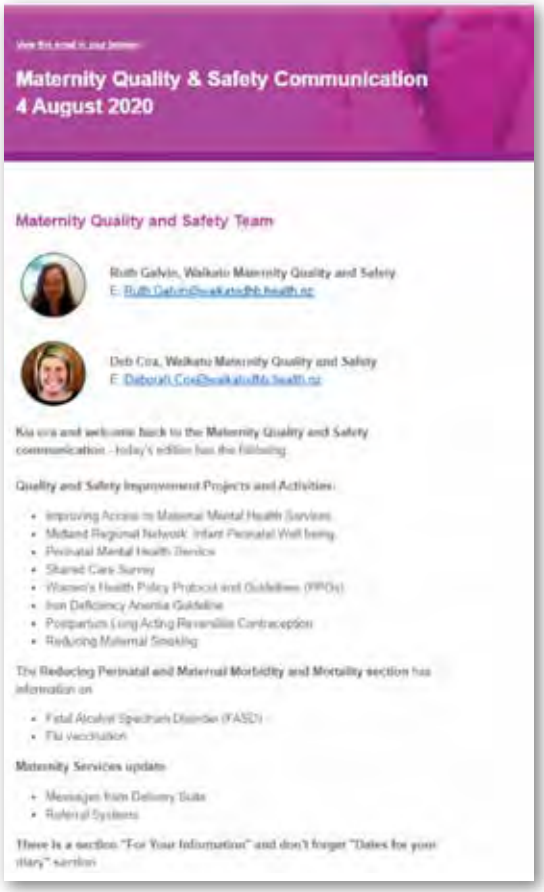
The Maternity Quality and Safety e-communication has been in place since 2016/17.

It is a monthly update to the whole of the maternity sector on quality improvement news, reducing morbidity and mortality, links to pages of interest and dates for diaries.

The purpose of the communication is to keep all maternity health professionals connected and informed about quality and safety projects and local and national issues; particularly for health professionals based in rural areas.

The communication is compatible to scroll through on desktop computers, tablets, ipads and smart phones.

We also have an electronic Sharing the Learning newsletter which is distributed to a similar membership. The newsletter shares findings and improvement actions and recommendations from adverse events, morbidity and mortality reviews near misses and audits.



Maternity Quality & Safety Communication
4 August 2020

Maternity Quality and Safety Team

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Kia ora and welcome back to the Maternity Quality and Safety communication - today's edition has the following

Quality and Safety Improvement Projects and Activities:

- Improving Access to Maternal Mental Health Services
- Midland Regional Network: Infant Perinatal Well being
- Perinatal Mental Health Service
- Shared Care Survey
- Women's Health Policy Protocol and Guidelines (PPGs)
- Iron Deficiency Anemia Guideline
- Postpartum Long Acting Reversible Contraception
- Reducing Maternal Smoking

The Reducing Perinatal and Maternal Morbidity and Mortality section has information on

- Fetal Alcohol Spectrum Disorder (FASD)
- Flu vaccination

Maternity Services update

- Messages from Delivery Suite
- Referral Systems

There is a section "For Your Information" and don't forget "Dates for your diary" section

5.4 Maternity sector face to face engagement in quality and safety activity

- Monthly Morbidity and Mortality meeting takes place where all health professionals in the maternity sector are invited to join and share learnings from case reviews. This meeting is teleconferenced to Thames, Tokoroa and Taumarunui rural hospitals where rural and remote rural DHB midwives and LMCs can join in
- Weekly medical team education takes place which is open to the whole medical team, in addition to DHB employed midwives and LMCs. This meeting is also teleconferenced to rural hospitals for local midwives to attend as appropriate
- Monthly journal club alternatively led by a midwife or a doctor and open to the whole maternity sector
- Weekly CTG teaching alternatively led by a midwife and a doctor
- Monthly audit presentations take place which are open to the whole maternity sector. The audit topic presented is advertised in advance to enable those interested in the topic to plan to attend.

MQSP highlights

6

Ehara taku toa i te toa takitahi engari, he toa takitahi

My successes are not mine alone, they are ours
– the greatest successes we will have are from working together

Highlights from the MQSP programme of work

The following section outlines highlights from the MQSP programme of work. These are highlights of some of the key areas of MQSP activity, which may be identified as a locally driven piece of work or a recommendation from the PMMRC or the National Maternity Monitoring Group recommendations (NMMG)

To view progress against all PMMRC and NMMG recommendations and locally identified priorities please see section 8.

6.1 Reducing maternal smoking

Goal: Every woman has quality support for a smokefree pregnancy and motherhood

Smoking is one of the greatest modifiable risk factors in pregnancy. Reducing the rate will reduce poor outcomes for mothers and infants.

Waikato has a high rate of maternal smoking, particularly young Māori women and women living in low socio economic areas. Improving the quality of how the topic of maternal smoking is raised and discussed with pregnant women in their interactions with health professionals and increasing support and referral to stop smoking services is a key part of Waikato MQSP.

During 2019/20

- Worked closely and supported the new smoke free communities coordinator in public health who is implementing an action plan working with local LMCs, GP practices and ultrasound services to change their practice and increase their knowledge to support and refer pregnant women to stop smoking services
- We found that 8.4% Waikato women in 2018 did not have a smoking status recorded two weeks following birth. The information has been compiled to a geographical and ethnicity level to communicate to stakeholders about these gaps and the importance of recording a status to enable us to have an accurate picture of smoking rates
- We have continued to share information about maternal smoking rates and referral rates to maternity health professionals in face to face forums and the MQSP communication
- "Once and For All" the local stop smoking service continues to have a focus on Māori women and the service has an incentive scheme for all pregnant women who enrol
- Hapū Wānanga classes and Plunket Whirihia classes have stop smoking advisors who support women to be smokefree following registration with the class.

"Our data showed mortality rates were statistically significantly higher in babies of mothers who smoked, compared with those who did not smoke"

Source: Perinatal Maternal Mortality Review Committee Report

Consumer feedback

The smokefree community's coordinator has undertaken hui's with Māori women in Huntly and Tokoroa to capture their experiences of brief intervention and how they think conversations can be improved. This information will be used as a key driver in feedback and training and to support maternity care professionals to offer quality brief advice and referral to cessation services.

"They need to have robust knowledge of the service they want to send you to"

"Don't tell me what smoking can or does do to me, share with me how I can start a smokefree journey"

"Feel a lot of shame, embarrassment, not wanting to smoke, but having a hard time quitting. Last thing you want is to also be feeling judged on top of that"

In addition a knowledge and confidence baseline survey has been developed and completed with several groups of LMCs working in areas of high maternal smoking. This allows the assessment of LMC knowledge and confidence in supporting clients to be smokefree, especially Māori whānau, which will be a keystone in developing training resources and planning support strategies going forward. As well as raising awareness of cessation services and the importance of smoking cessation interventions early in pregnancy.

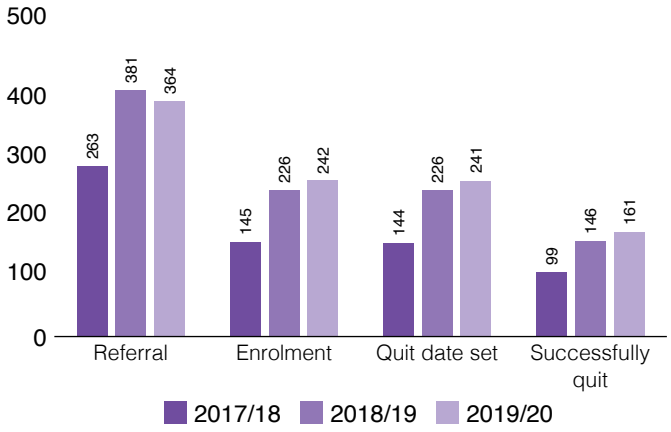
Measure: With a focus on Māori women

- Increase in women referred to stop smoking services
- Year on year decrease in the number of women smoking two weeks following birth

Results: Increase in women referred to stop smoking services

The data shows referral continues to be high and most importantly the number of women setting and quit date and successfully stopping smoking increases each year.

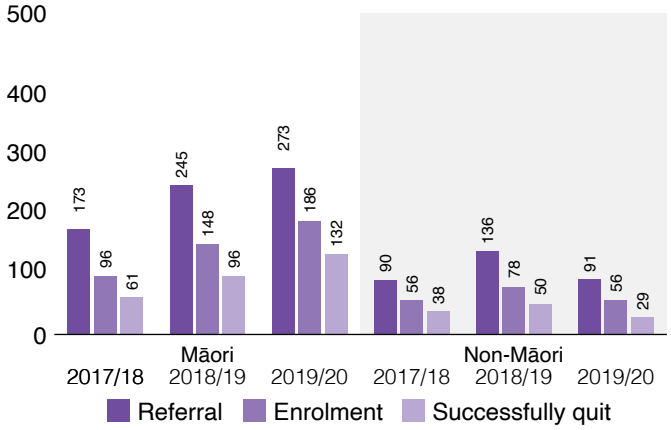
Maternal smoking referral numbers to Once and For All stop smoking service



Source: Once and For All – Midlands Health Network 2021

Māori women have the highest rate and numbers of women smoking. The stop smoking service data demonstrates the focus on the support to reduce maternal smoking in Māori women. There is a higher rate of referrals for Māori women, and higher numbers of Māori women stopping smoking.

Stop smoking service data Māori women vs non-Māori women in Waikato

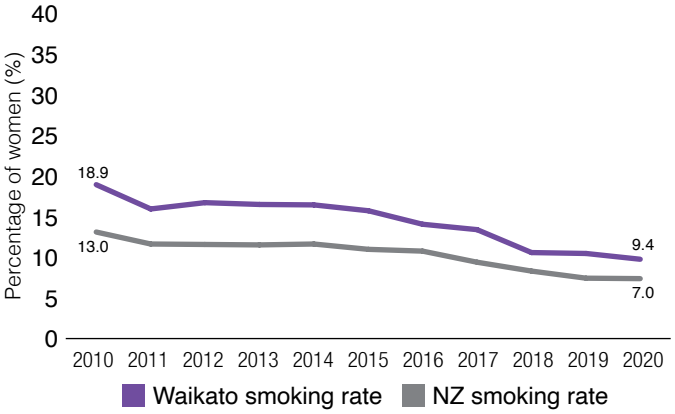


Source: Once and For All – Midlands Health Network 2021

Results: Year on year decrease in maternal smoking

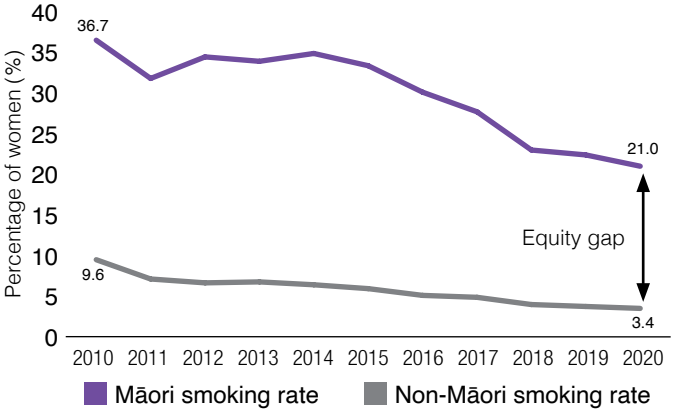
Maternal smoking charts below demonstrate a decreasing trend over 10 years. This data will not only include those women who stop smoking through "Once and For All" support services, and other support, but will also include the cumulative effect of women who stop smoking, who are then smoke free in a subsequent pregnancy. The data below shows a year on year decrease in maternal smoking. Waikato are beginning to close to close the gap between the Waikato rate and the New Zealand rate.

Maternal smoking rate Waikato DHB vs New Zealand



Source: Ministry of Health Qlik accessed March 2021 – 2020 data is provisional

Maternal smoking rate Waikato Māori women vs Waikato non-Māori women



Source: Ministry of Health Qlik accessed March 2021 – 2020 data is provisional

Māori women have the highest rate of smoking and while the rate has reduced since 2014, the gap is still significant, compared to the non Māori rate in Waikato.

Note: In 2020, 5% of non-Māori women and 10.1% of Māori women giving birth had no smoking status recorded (reduced from 17.4% in 2010). Those with no status recorded are not included in the data for graphs.

6.2 Pregnancy and maternity webpage

www.waikatodhb.health.nz/pregnancy

In consumer feedback local women said they would like a place to go to find out what services are available to them in Waikato during pregnancy, childbirth and the postnatal period. Other women have fed back that they wanted a trusted place to go to find out about pregnancy conditions and information that had been written by local health professionals that they trusted.

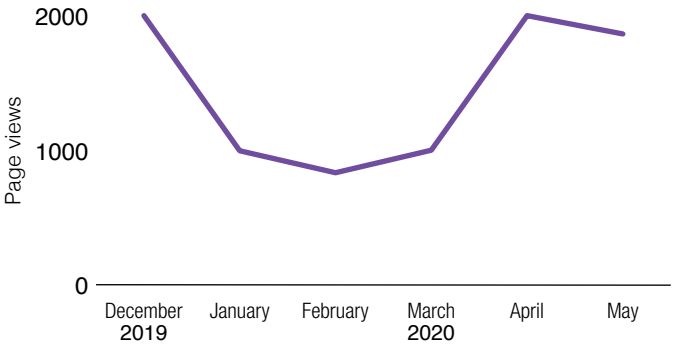
From a service point of view we want to move away from leaflets and move to a digital format to share information with women. A number of recommendations have been outlined in local case reviews complaint and PMMRC to develop and make information availability to women for example information for women about recognising the signs of preterm birth, pre-eclampsia warning signs etc all of which are now made available on the website.

A list of the webpage sections and topics can be found in appendix 3.

Website traffic

The following graph is website usage. The page went live in December with 2000 views, following promotion and then dropped down to 1000 views a month.

It then shot up again to 2000 views in a month during the emergence of COVID-19 and the lockdown period. A COVID-19 section was built onto the webpage as women were looking at information about maternity services and how to access them during level 4 and level 3.



The page also provides information about mental wellbeing, staying healthy and links to key webpages for support.

We are encouraging clinical staff to use the website during consultations and point women to key information before they leave their appointment.

We developed wallet card handouts that women can take away with them as prompts or reminders to visit the webpage for more information and share the information with their whānau.

Next steps

We are developing Waikato pregnancy and maternity Facebook and Instagram pages, where we can post topical information and link to the website for example breastfeeding week, updates about services, alerting women to new topics on the website webpage.

Continue to update the webpages particularly the hapū māmā and pēpē pages.

Pregnant or a new mum?

www.waikatodhb.health.nz/pregnancy

Our Waikato DHB website has some helpful and straightforward information about pregnancy and the maternity services that are available to you in the Waikato.

Planning for your pregnancy

Important things you can do to help give your baby the best start in life.

Just found out you're pregnant?

What to do at the start of your pregnancy, including finding a midwife and early pregnancy care.

Having a healthy pregnancy

How to stay healthy during pregnancy and the services available to you in the Waikato.

Pregnancy complications

Information about the most common pregnancy complications and how to help you achieve the best possible outcomes.

Hapū māmā and pēpē

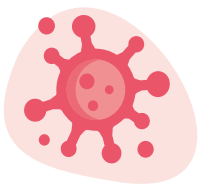
Kaupapa Māori information and services to support you during your pregnancy, birth and after your pēpē is born.

Preparing for labour and birth

Labour and birth options in the Waikato, including where to birth, pain relief choices and information about going into labour.

After your baby has arrived

Information about postnatal care, feeding your baby, contraception, mental health and a range of services available to you and your baby.



COVID-19 information for pregnant women and new mums

Information about Waikato pregnancy and maternity services that are available to you during the current COVID alert level.

Providing quality care for women and their families
He aronga mahi ngātahi; he manaaki tōtika i ngā wahine me a rātou whānau

6.3 Maternal mental health

There have been a number of activities at different levels focused on maternal mental health during 2019 and 2020.

6.3.1 Maternal mental health services in Waikato

Services are complex in Waikato with the following providers:

- DHB mental health service provides inpatient and community mental health services for pregnant/ postnatal women with existing severe mental illness (e.g. schizophrenia, bipolar affective disorder), and women with postpartum psychosis who need hospital admission
- The DHB also has a Perinatal Mental Health service who provide care for women who have moderate mental health conditions that have an onset during/following pregnancy or women who have had mental health conditions onset in a previous pregnancy
- Hauora Waikato kaupapa Māori NGO mental health service provide care for pregnant/postnatal women with severe existing mental health illness and also has a perinatal mental health service for women with mental health conditions that have an onset during pregnancy/postnatal period
- DHB Community Alcohol and Drug Service (CADS) provides care for pregnant women with Alcohol and or drugs addictions
- A number of NGO services provide DHB funded mild to moderate mental health services in the community.

6.3.2 What we know about maternal mental health service activity

At present we do not have a full picture of maternal mental health service usage in Waikato. We have the following data:

	Number seen in perinatal mental health services	Percentage of Māori women
2019	460	25%
2020	415	18%*

Source: Ministry of Health Qlik data accessed January 2021
**In 2020 Hauora Waikato had not code perinatal mental health separately*

The data only includes those classified as seen by perinatal mental health services.

This includes perinatal mental health services in Waikato DHB or another DHB.

The data is also made up of women seen in NGO services and coded as perinatal mental health services. This would cover the following services:

- Te Korowai Hauora o Hauraki (Thames/ Coromandel)
- Hauora Waikato Māori mental health service NGO provider
- Plunket Postnatal Adjustment Programme
- or an NGO outside of Waikato DHB

The data does not include women with care provided by Waikato mental health services for women with existing mental health conditions or women being cared for by CADs alcohol and drugs service.

At present we do not have data on referral rates and referrals accepted.

6.3.3 Primary and community services for women with mild to moderate mental health needs

A survey of maternity health professionals and primary care professionals revealed that they did not know about community services that they could refer women to for mild to moderate mental health needs.

For some health professionals there is a reluctance to use the Edinburgh postnatal scale as they are unsure what to “offer” women who “score” with mild to moderate mental health needs.

As a result a stocktake of all the DHB funded and other community services that can provide support to women and their whānau has taken place.

A directory is being produced for services/health professionals to utilise. This will be a significant part of the launch of the maternal mental health pathway.

6.3.4 Needs of women with severe maternal mental health

A project took place in 2018/19 focused on supporting maternal mental health needs of women admitted to Waikato DHB inpatient mental health services. The project involved feedback from:

- women who had been inpatients of the mental health unit and mental health community services during the postnatal period
- mental health service staff
- maternity service staff and LMCs

Significant improvements have taken place since the project to implement recommendations and make changes to services

- ✓ There are improved relationships between the obstetric service and the mental health services for women with severe mental health diagnosis during pregnancy and improved communication between the two services. This is assisted by the implementation of the vulnerable unborn forum (see section 7.5 for more information)
- ✓ An admission to the mental health inpatient ward is avoided for postnatal women if possible (depends on the woman's acute needs). By providing care for the woman at home or a preferred admission to the Awhi Mai inpatient community facility where the baby can stay with mum in the day and sometimes overnight (depending on bed capacity/ staff ratio and involvement of Oranga Tamariki to enable "Griffin Care" to oversee and assist parenting of the baby during their stay)
- ✓ There is now improved relationships between mental health inpatient services, alcohol and other drugs services and postnatal ward for care of the small number of women who are staying in the postnatal ward who have severe mental health issues. Both services plan and work together for the women's requirements during her stay.

The launch of the pathway and guideline (outlined) will improve linkages further and the maternal mental health subgroup will continue to review.

6.3.5 Development of maternal mental health pathway in Waikato

There have been a number of internal and external factors for developing a maternal mental health pathway in Waikato:

- It has been highlighted by the vulnerable unborn forum that linkages could be improved both ways between mental health services and maternity services
- Project focused on improvements for women with severe mental health needs in 2018/19 demonstrated that there was inconsistent knowledge in maternity services and primary care about the pathway and services for women with severe mental health conditions
- The NMMG recommended that all DHBs have clear maternal mental health pathways
- Survey of maternity health professionals and primary care professionals asked what knowledge they had of local services for mental health, and how confident were they were about the referral process for the providers. The majority were unsure about services and how to access them. Many stated they needed information and guidance.

Led by the vulnerable unborn midwife with mental health service leaders in Waikato a draft pathway and guideline has been developed.

The group who developed the pathway will increase its membership to represent the breadth of services in Waikato and will turn into a subgroup of the Waikato MQSP governance group. Its focus will be finalising the pathway and guideline.

Following communication and implementation of the pathway and guideline, in 2021 the group will focus on the maternal mental health recommendations outlined in the NMMG 2019 Annual Report (published in December 2020).

The group will also review the recommendations from previous PMMRC reports related to maternal mental health.

6.4 Contraception following birth

A stocktake of contraception services available to postnatal women was undertaken and has demonstrated wide availability across the Waikato DHB region. This information has been shared with local LMCs and included on the Waikato pregnancy and maternity webpage for local women to be informed about the choices available to them.

6.4.1 Sterilisation through Waikato Hospital maternity services

Postpartum permanent sterilisation, 48 hours following vaginal birth, is available for women who fulfil all of the criteria below and discussion with consent has taken place during the antenatal period. Criteria is:

- ✓ The woman has completed her family and does not wish to have any further pregnancies
- ✓ The woman has a history of poor compliance with contraception or has difficulty with access and engagement with the health system to access contraception.
- ✓ Future pregnancies may result in significant physical health and psychosocial risks to herself, future baby and/or family.
- ✓ Current pregnancy is likely to/has delivered a healthy baby

Permanent sterilisation is also available during c-section for women who have consented antenatally.

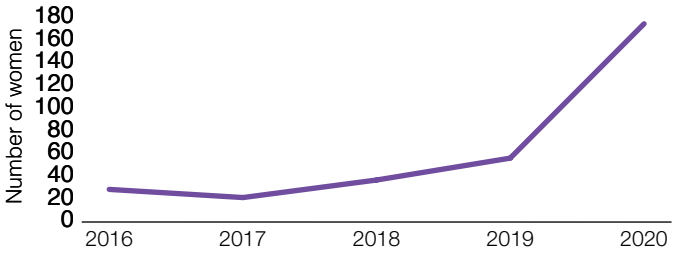
On the day of the procedure, women need to reiterate their wish for permanent sterilisation before the procedure is undertaken.

For both procedures a consultation aid has been developed in order to ensure consistency. It includes the irreversibility of its nature and the risk of regret. Surgical risks and potential failure of the procedure, plus other contraceptives and different options available, including filshie clips, partial and risk-reducing salpingectomies.

6.4.2 LARC in the postnatal period in Waikato Hospital

LARC Intra-uterine Contraceptive Device (IUCD) is available to women having a planned c-section, information is given at their antenatal appointment about the importance of space between pregnancies and contraception is outlined, including the offer of IUDC. This is a recommendation following a case review of a woman who had a c-section, who became pregnant again in a short space of time and went on to have a high risk pregnancy.

Women receiving LARC at Waikato Hospital who had a casearean section

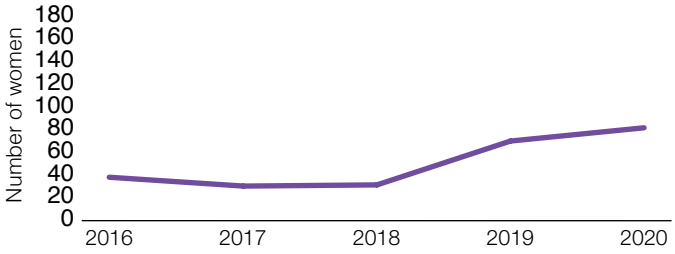


Source: Costpro Waikato DHB 2021

Jadelle implants (given in the postnatal ward) and IUCD immediately following vaginal birth are available at Waikato Hospital for women who meet the criteria:

- Woman has a history of poor compliance with contraception or has difficulty with access and engagement with the health system to access contraception.
- Future pregnancies may result in significant physical health and psychosocial risks to herself, future baby and/or family.

Women receiving LARC at Waikato Hospital who had a vaginal birth



Source: Costpro Waikato DHB 2021

Both graphs demonstrate the increase in offer of LARC in Waikato for eligible women since a focus on LARC contraception commenced.

6.4.3 LARC in the postnatal period in the community

- All contraception including LARCs are available via Waikato Family Planning Clinic in Hamilton and the outreach clinic in Birthcare Huntly primary birthing facility. The Waka Tautoko (community health shuttle) is available to bring local women to the birth centre who do not have transport. Family Planning services are free to women under 22 years, low cost $5 appointments for women who hold a community service card and $35 appointments for all other women. LARC Jadelle implants are available to all women postnatally at South Waikato Primary Birthing Unit (Tokoroa), this is a significant service for women as it is free, accessible and close to home (as the nearest family planning service is over an hours' drive away)
- Following the success of the initiative in the South Waikato Primary Birthing Unit and the well-received Family Planning services in Birthcare Huntly (both areas with high population of Māori women who have barriers/difficulties accessing contraception services), there will be a view to plan rolling out LARC contraception in other primary birthing facilities
- Most GP practices offer implants and some offer IUCD. In GP practices, with LARC trained practitioners the appointment(s) are free to women aged 15-44 years who are within one of these categories:
  - Live in a quintile 5 area
  - Hold a community service card
  - Are at high risk of poor health and social outcomes

There remains appointment costs for all other women.

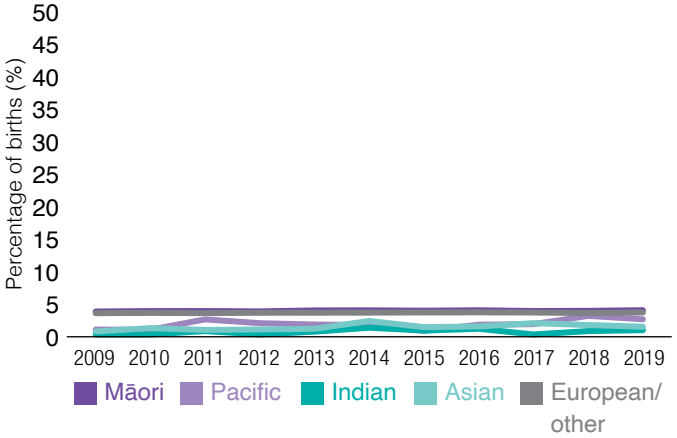
"In practice as a midwife, I saw how invaluable LARC was for women who wanted to take control of their fertility, so I undertook Jadelle training. In April 2020, I set up the Jadelle clinic with the support of the primary birth unit midwife manager. 30 women have been referred to the clinic by LMCs in the area, and 23 women have chosen to have the Jadelle (10 month period). A one week phone follow up call is made to check on healing." **– Staff midwife South Waikato Primary Birthing Unit (Tokoroa)**

6.5 Place of birth

Waikato DHB covers a large geographic area and has 11 places to birth ranging from home, Waikato Hospital, three primary birthing units that are part of Waikato DHBs rural hospitals and six standalone primary birthing centres in rural and urban areas.

6.5.1 Births at home

Percentage of home births in Waikato by ethnicity 2009-2019



Source: Ministry of Health Qlik accessed March 2021

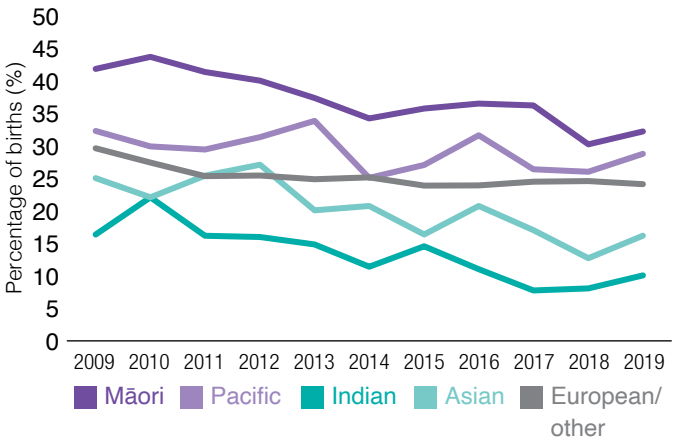
Waikato's home birth rate is slightly above the national average, which demonstrates that despite other alternatives to birthing in hospital there is a consistent group of women in Waikato who choose home birth.

This is also reflective of remote rural locations where well women may prefer to plan a home birth. The rate has remained steady increasing from 3.1% in 2009 to 3.7% in 2019.

Māori women continue to have the highest rate of home births followed by European/other women. Pacific, Asian and Indian rates are lower and have moved up and down more due to small numbers of birthing women.

6.5.2 Births in primary facilities

Percentage of births in primary birth facilities in Waikato by ethnicity 2009-2019



Source: Ministry of Health Qlik accessed March 2021

Although Waikato continues to have the highest primary facility birth rate in New Zealand, births at primary facilities have steadily reduced from 34% in 2009 down to 26% in 2019.

There is anecdotal evidence that the rate increase in 2020 was driven up by COVID-19 however we do not have a full data set to demonstrate this.

As with home births Māori women have the highest rate of women birthing in a primary facility followed by Pacific women then European women. Both Asian and Indian women have a lower rate.

Our primary birthing facilities in rural areas

The birth centres in Matamata, Taumarunui, Te Awamutu and Tokoroa, Thames and Waihi continue to be the centre of rural midwifery care as with the birth centres outlined above they provide a place of support for local LMCs and the hub for the local community for maternity care whether they birth in the facility or birth at Waikato Hospital.

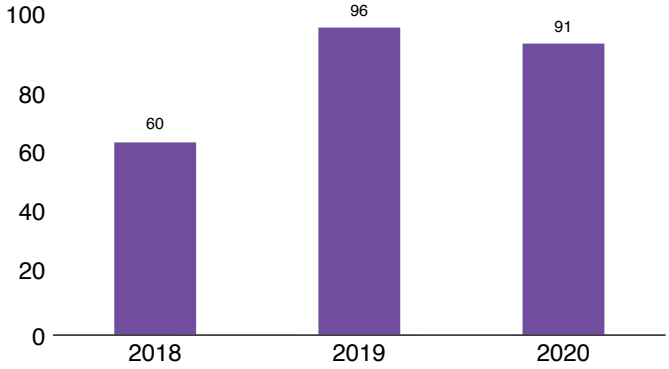
The DHB supported midwifery in the Thames, Hauraki, and Coromandel area to increasing LMC coverage to enable well women to birth in their own primary facility. Further information can be found in Section 3.5.2.

Waihi birthing annex in the Hauraki district was refurbished to a modern clean environment for women and LMC to enjoy, however utilisation of this unit remains low as many women choose to birth in Thames or in the Bay of Plenty.

As a result of the primary birthing unit relocation and renovations in Tokoroa in June 2019 utilisation has improved. The unit being more welcoming it has also attracted more LMCs to move to practice in the area and support women to birth in the unit, many who previously would have chosen to birth out of the area. More information can be found in Section 3.5.2.

In addition, women who have birthed in Waikato Hospital for clinical reasons are now returning to Tokoroa to have their postnatal care closer to home.

Number of births at South Waikato Birthing Unit in Tokoroa 2018-2020



Source: South Waikato Primary Birthing Unit

The southern rural town of Taumarunui continues to be challenged by the lack of midwives in the region, both as hospital staff and LMCs.

Thames Birthing Unit

Waterford Birth Centre (Hamilton)

The maternity unit has nursing staff to provide postnatal care while the DHB funds a LMC to provide on call services for the unit.

The maternity ward has now been refurbished to an inviting space for women and their whānau to attend midwifery appointments. The two birthing environments were updated, one with a birth pool ensuite and the other with wet room ensuite. The maternity ward is now user friendly for both staff and whānau. The highlight of this refurbishment is a separate easily identifiable entrance to the maternity ward where previously women had to enter through the emergency department. The DHB will continue to work with local providers to find solutions to attract more LMCs.

Primary birthing units in urban areas

Within the Hamilton city limits there are two urban birthing units, which provide facilities for women with a normal pregnancy to birth and receive postnatal care. The two urban birthing units are staffed 24 hours 7 days a week by registered midwives providing care in collaboration with the LMCs.

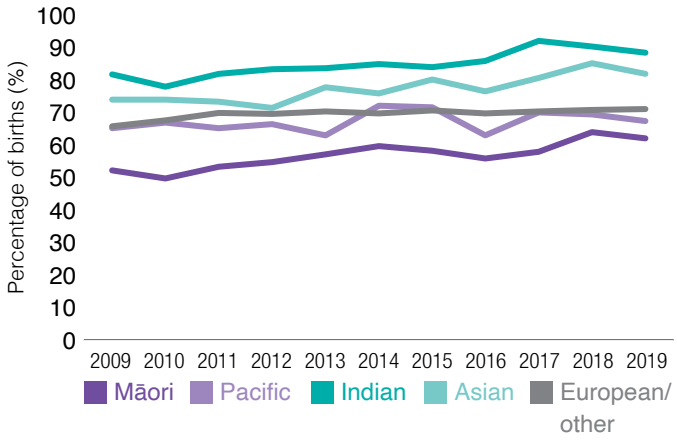
The birthing centres are also used as consulting rooms for LMCs, which enables women and whānau to be familiar with the facility.

Women who have complexity during pregnancy or birth (that resolves following the birth) may also transfer to the birthing units for postnatal care. In 2020 there was a change to how this was managed to support women who required a longer stay in the secondary service for complexity. It was recognised that some women were disadvantaged by restrictions on transfer times from the hospital to primary birthing units.

Now women who have required a longer stay in the hospital for complexity are able to transfer to the primary birthing unit if there is clinical need for ongoing postnatal care, which can be provided in a primary facility.

6.5.3 Births in the hospital

Percentage of hospital births in Waikato by ethnicity 2009-2019



Source: Ministry of Health Qlik accessed March 2021

Births in Waikato Hospital have increased from 61% in 2009 to 70% in 2019.

The majority of Indian and Asian women birth in Waikato Hospital. European/other women's rate is the similar to the DHB average and increased by 5% in the 10 year period. Māori women have the lowest rate of births in Waikato Hospital however their hospital birth rate has increased by 10% in the 10 year period.

6.5.4 Place of birth next steps

- The DHB will continue to support home birth and primary facility births as an option for low risk women who would like the choice. This includes MQSP increasing information for women on the DHB pregnancy and maternity webpages about choices of place of birth, women's stories and who to contact.

6.6 Increasing Māori and Pacific women's registration with a LMC in the first trimester

Overall Waikato DHBs registration rate with a LMC in the first trimester increased year on year and has remained above the national rate. However there is an equity gap between Māori and Pacific rates in Waikato DHB compared to other ethnicities.

Initial MQSP work on this topic included breaking the data down by ethnicity, geographical area, parity and age group. It was found that Māori and Pacific women had a lower rate of first trimester registration and typically appeared to be younger women, and older women who had previously had children. The MQSP governance group wrote to GP practices in areas with lower registration advising them to support women to find a LMC when they attended for a free pregnancy test. LMCs were given updates and an overview of the data. Local activity took place in areas with higher rates of second trimester registration. The rate for Māori and Pacific women increased however did not close the equity gap and correspondingly the rate for other ethnicities also increased.

More recently information about the importance of registration in the first trimester and how to find a midwife has been added to the Waikato pregnancy and maternity webpages.

6.6.1 LMC coverage

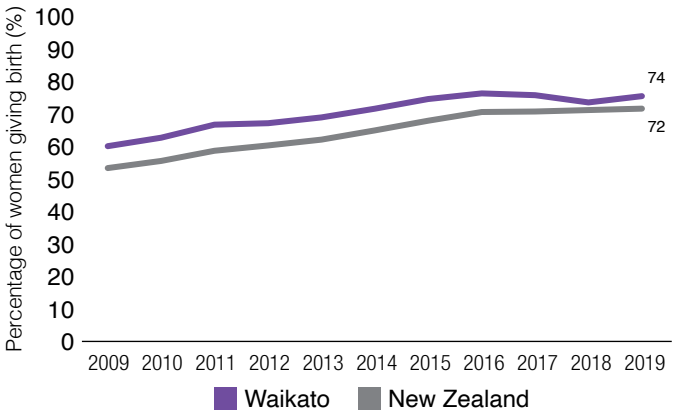
Rural areas have had a lower LMC coverage. A loss of LMC coverage in the Hauraki, Thames and Coromandel areas in 2017/18 meant many women were unable to register with a LMC for antenatal care. A DHB caseload midwives team was brought in to support local LMCs and new LMCs relocating in the area. LMC coverage is once again steady.

The refurbishment of South Waikato Birthing Unit and 24/7 DHB midwifery cover in the unit attracted LMCs to work and live in the area, and LMC coverage is now good. There are still ongoing issues for coverage in the remote rural areas of King Country.

A large number of LMCs left practice in the Hamilton area during 2017/18 leaving significant gaps in coverage, with women finding it more difficult to find a midwife. First trimester registration rates dipped at this point for all ethnicities. LMC numbers have more recently recovered.

6.6.2 The latest local data

Percentage of women registering with a LMC in the first trimester Waikato DHB vs New Zealand



Source: Qlik database accessed in March 2021. Denominator: Women giving birth who register with a LMC in the first trimester. Numerator women giving birth who registered with a LMC and trimester of registration is recorded. Note in 2019 2.6% of Waikato women had a blank record for this indicator vs 4.6 in New Zealand demonstrating good accuracy for this indicator.

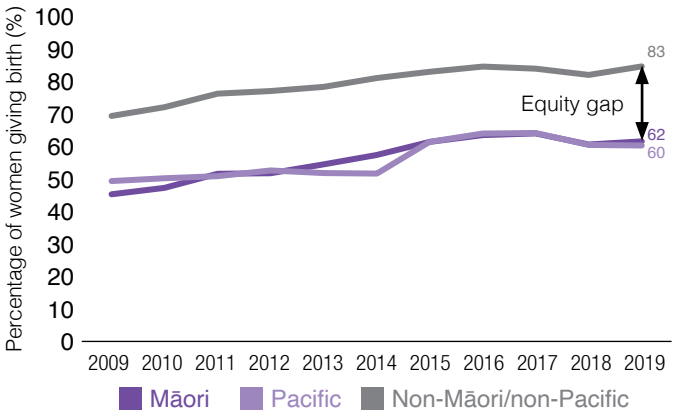
The chart demonstrates that Waikato DHB has a better rate than New Zealand. The chart also shows recovery from the dip that started in 2017 due to lower LMC coverage at that time.

However when you look at Waikato DHB data with an equity lens the data shows where the gaps are. The table below highlights 2019 by ethnicity.
(Red statiscally lower than the DHB rate, orange within the DHB range, green statistically higher than the DHB rate).

Registration with a LMC in the first trimester %

New Zealand	Waikato	Waikato				
		Pacific	Māori	Asian	European/ other	Indian
72	76	60	62	80.3	84.4	87

Percentage of women registering with a LMC in the first trimester Māori and Pacific women vs non-Māori/non-Pacific women in Waikato



Source: Qlik database accessed in March 2021 based on number women giving birth who registered with a LMC in the first trimester of pregnancy.

In 2019 the rate was 62% for Māori women and 60% for Pacific women, leaving an equity gap of 23% (Māori) and 25% (Pacific) between other ethnicities in Waikato who have a combined first trimester rate of 85%.

Additional measures and activities are required to improve the registration rate and reduce the equity gap.

Note: this data is slightly different to the registration with the LMC data reported in the National Maternity Clinical Indicators which is base on the denominator of live births not all women birthing.

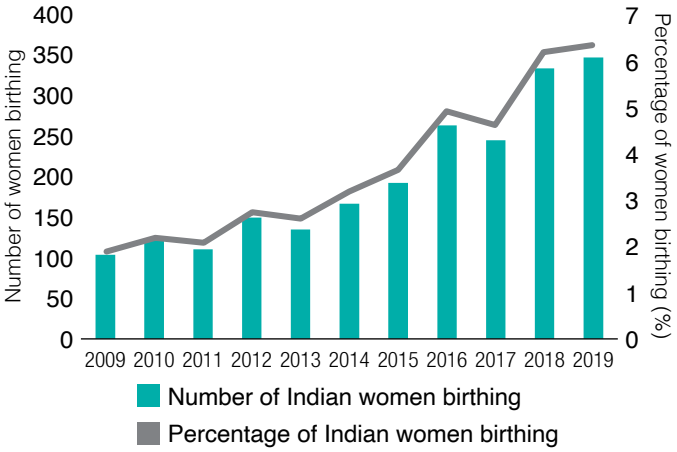
6.6.3 Activity to increase early registration rates

- For Māori and Pacific women there are multifactorial reasons for later engagement with antenatal care than LMC coverage alone and further work with women in those communities and in tandem with planned activity for the first 1000 days is needed to address the issue.
- Locally there is feedback that women do go to their GP in early pregnancy for free pregnancy testing. Rather than writing to individual GP practices MQSP will work with our PHO colleagues on strategies they can use to encourage women to register with a local LMC as soon as possible following a positive pregnancy test.

6.7 Improving outcomes for Indian women

There is an increasing rate of births to Indian women in Waikato DHB. In 2019, Indian momen make up 6% of women birthing in the DHB area equating to 348 women.

Indian women birthing in Waikato DHB 2009-2019



Source: Ministry of Health Qlik accessed Feb 2021

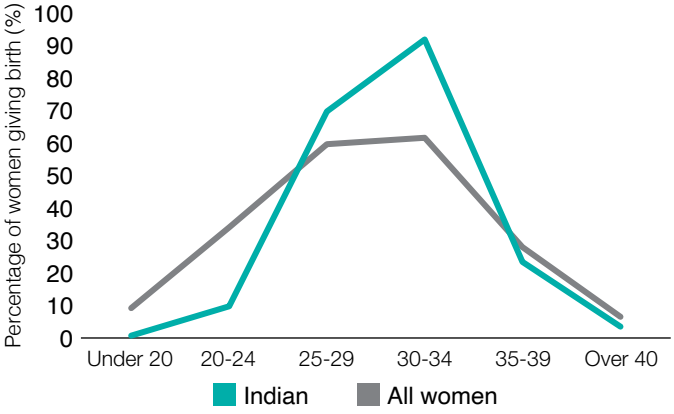
The PMMRC has found there is a higher morbidity rate for Indian women and a higher risk of serious adverse outcomes for infants of Indian women. The report recommends that DHBs should demonstrate that they have co-developed and implemented models of care that meet the needs of Indian women.

6.7.1 What we know about Indian women

In 2019 Indian women had the highest rate of registration with a LMC in the first trimester at 87% compared to the DHB rate of 76%.

The age groups of Indian women birthing is a very different profile to all ethnicities in Waikato DHB. With less women falling in the 'high risk groups' aged under 20 years or aged over 40 years. With the majority of the women between 25 years and 34 years of age.

Percentage by age Indian women in Waikato vs all Waikato women 2019



Source: Ministry of Health Qlik accessed Feb 2021

Maternal health

Indian women have an extremely low rates of smoking, however they are over represented in rates of gestational diabetes.

Very few Indian women birth in a primary facility or at home with 88.5% birthing in a tertiary/secondary facility, significantly higher compared with 69.5% of the DHB birthing population.

Interventions and outcomes for Indian women

In 2019 Indian women had significantly lower rates of spontaneous vaginal birth than the DHB rate and higher rates of c-section, 38.2% compared to DHB rate of 20.8%, plus a higher rate of instrumental deliveries and third and fourth degree tears.

6.7.2 What is the data telling us about maternal and infant outcomes and health in Waikato?

From the data Waikato Indian women have a number of "protective" factors as they virtually have a zero rate of smoking and a very high majority engaging with a LMC within the first trimester, with less women in higher risk age bands under 20 years or over 40 years.

Yet national data shows a higher rate of still birth and local data demonstrates higher rates of diabetes and higher intervention rates, with more third and fourth degree tears and lower rates of breastfeeding.

In 2019/20 there were slightly higher than expected rates of complaints, from women with an Indian ethnicity related to care in Waikato Hospital.

Further work is required to review the data and with this information engage Indian women and health professionals on what models of care will make an improvement to services and outcomes for this growing birthing population group.

6.7.3 The next steps

- Given the information in PMMRC we will examine the local reviews of perinatal death of babies of Indian women in Waikato and theme contributing factors. We will also review cases of severe maternal morbidity related to Indian women. The information will be used to inform local clinical education and give further insight for areas of improvement
- Implement the recommendation of the PMMRC and follow a co-design process to make improvements in outcomes for Indian women. This includes the following:
  - We will talk to health professionals: LMCs, doctors, DHB midwives who provide care for Indian women and gather their feedback related to the outcomes for Indian women, and what they think could be changed to improve services for Indian women
  - Get feedback from Indian women who have used Waikato maternity services asking what matters to them, what they think is good, what could be improved and what changes they would like to see
  - Pulling this data together and inviting a group of Indian women and health professionals involved in the feedback to look at and discuss the clinical data, the feedback from women and the feedback from health professionals and consider/outline what changes could be made
  - Final session with the same group, outlining models of care and putting this into an action plan with implementation goals
  - During 2021 implement these changes.

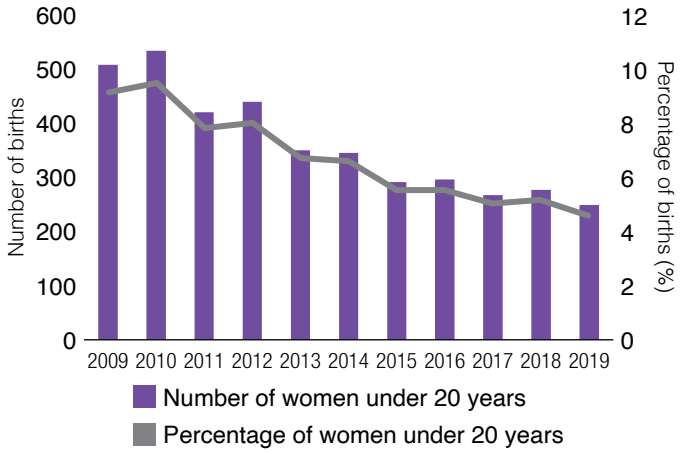
6.8 Improving outcomes for women under 20 years of age

The PMMRC has found that infants to women under 20 years are at risk of serious adverse outcomes and recommends that DHBs should demonstrate that they have co-developed and implemented models of care that meet the needs of women under 20 years. This section will describe what we know about our population of women birthing under 20 years, what developments and actions have been put in place to improve outcomes and what further activity we have planned.

6.8.1 What we know about women under 20 years

Similar to a trend in New Zealand there is a declining rate of births to women under 20 years in Waikato DHB, from just over 500 births in 2009 to 250 births in 2019. This equals 4.6% of the total number of women who birthed in the DHB a drop from 9.2% in 2009. Waikato's rate is higher than the national rate of 3.1% of births to women under 20 years in New Zealand.

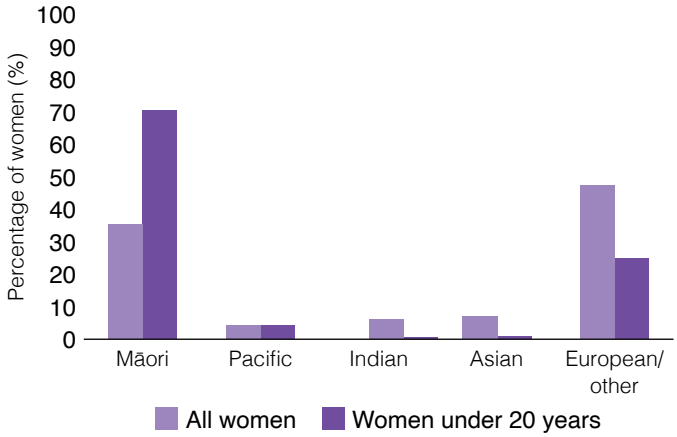
Births to women under 20 years in Waikato DHB 2009-2019



Looking at the data by ethnicity in 2019 there was a significantly higher rate of births to Māori women under 20 years over all and in comparison to births by ethnicity. Followed by European/other women.

Pacific women under 20 had the same birth rate as all Pacific women in Waikato.

Percentage ethnicity of women birthing under 20 years in Waikato vs all women in Waikato 2019



Women under 20 years have a low first trimester registration rate with and LMC; at 55% compared to the DHB rate of 74% in 2019.

Interventions and outcomes for women under 20 years

Women under 20 years have a higher rate of spontaneous vaginal birth, a similar rate of inductions and third and fourth degree tears. A significantly lower rate of c-sections, however a higher rate of instrumental deliveries.

6.8.2 What has happened in Waikato to improve outcomes for younger women?

- A number of this younger group of women will fall within the scope of vulnerable unborn forum. The team review the woman's needs and plan with the woman, her LMC and whānau support, to enable better outcomes for mother and baby
- The DHB pregnancy and maternity website has information for younger pregnant women
- Hapū Wānanga courses have gone from strength to strength and have a focus on this group of young women and their needs, linking young women with services that can support them in pregnancy, during the postnatal period and into early motherhood
- As part of first 1000 days development in 2019/20 the Strategy and Funding team ran three large hui in urban and rural Waikato with young Māori women and their whānau about early pregnancy care, engagement with a midwife, care after their baby is born, linking into Tamarki Ora services and health and wellbeing of babies and toddlers.

6.8.3 What further work do we need to do?

- Given the information in PMMRC we will re-look at local reviews of perinatal death of babies for this group in Waikato and theme contributing factors. This will be used to inform local clinical education and give insight for areas of improvement
- Together with the national research and locally found information we will put together risk factor information/education to be shared locally with LMCs, midwives and the medical team
- In 2020/21 MQSP will review the data gathered about women under 20 years and gather feedback from younger women who have used secondary services. This information will be pulled together to co-design with younger women how we can improve when a woman under 20 years:
  - is referred for secondary antenatal care
  - arrives at Waikato Hospital for birth care
  - post-partum care on the hospital ward
  - MQSP will link in with planned first 1000 days activity.

6.9 Reducing the rate of preterm birth

Preterm birth is defined as babies born alive before 37 weeks of pregnancy are completed. There are subcategories of preterm birth based on gestation age:

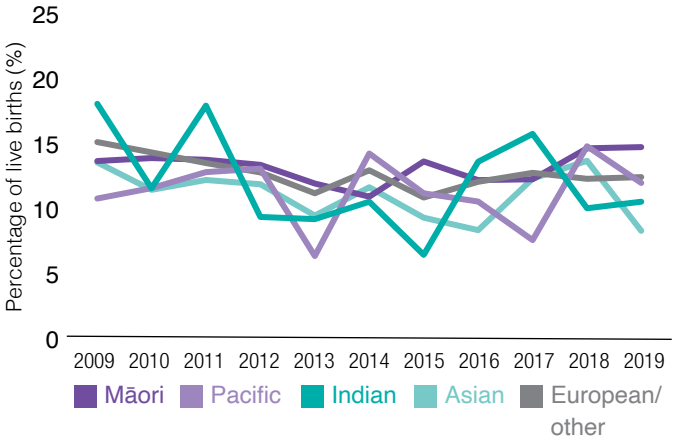
- Moderate to late preterm – born at 32 to 37 weeks
- Very preterm - born at 28 – 32 weeks
- Extremely preterm – born less than 28 weeks

6.9.1 Preterm birth rate in Waikato

Waikato's preterm birth rate in 2019 was 7.7% the same as the New Zealand rate. When looking at Waikato's data by ethnicity, those with smaller birth numbers may have a rate that can move up and down as one or two extra or less preterm births than the previous year can make a big change to the rate.

(See chart – compare the line for Indian women which has a rate moving up and down more dramatically against to the line for European/other women which has less erratic changes each year).

Percentage of live births before 37 weeks gestation in Waikato DHB by ethnicity



Source: Qlik database access April 2021. Note the rate is based on live births

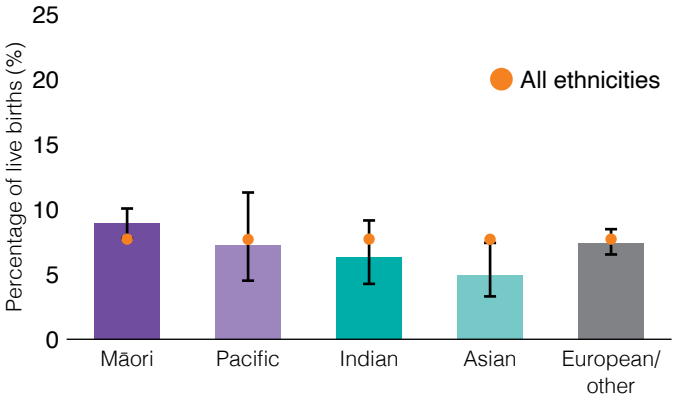
In order to look at equity when dealing with small numbers, the data has been analysed to look at whether each ethnicity rate is statistically higher or lower than the DHB range using confidence interval bars.

The chart demonstrates that in 2019 the preterm birth across ethnicities is within the DHB range (the confidence interval bars are within the range of the dots).

Except for Asian women who just fall within a statistically lower range (the top of the confidence bar is just visibly lower than the DHB range dot).

The preterm birth rate for Māori women has increased and is now only just within the DHB range.

Total number of live births under 37 weeks' gestation in Waikato



Subcategories of preterm birth

There may be differences in rates across ethnicities looking at the data by subcategories of gestational age. This piece of work will be undertaken in 2021.

6.9.2 Preventing preterm birth in Waikato

For some women there can be no cause found for a preterm birth. However there are groups of women who have higher risk factors, particularly women who have had a previous preterm birth. The PMMRC have recommended that women who have had a previous preterm birth are given information on reducing the risk factors in their pregnancy, have early referral for specialist consultation for treatment options and are given information about the signs and symptoms of preterm birth and how to respond to these to optimise outcomes.

Information for women

The DHB pregnancy and maternity webpages have information for women that includes:

- In the Just found out you're pregnant? section:
  - information for women who have had a previous preterm birth giving advice on what they should do during their pregnancy to reduce risk factors of another preterm birth
  - information for women under 20 years which outlines a higher risk for spontaneous preterm birth and advice on reducing risk factors
- In the "Having a health pregnancy" section there is information for women who have had a previous preterm birthing including "Reducing the risk of early labour" and "Know the signs and symptoms of preterm birth" and what to do.

Preterm birth clinic

A preterm birth clinic was established in 2019 in the hospital antenatal clinic. At the clinic the team discuss with the woman her treatment options and care plan.

Actions

- Continue to ensure that LMCs are aware of the Maternity Referral Guidelines, for women who have had a previous preterm birth earlier than 35 weeks, to be referred to Waikato Hospital ideally before 12 weeks gestation
- Monitor clinic referrals by ethnicity and audit.

Multidisciplinary consultations

Improvements have been made to the high risk pregnancy multidisciplinary team (MDT) consultations. NICU clinician's also attend the meeting, there is a focus on working together to prevent prematurity and its consequences.

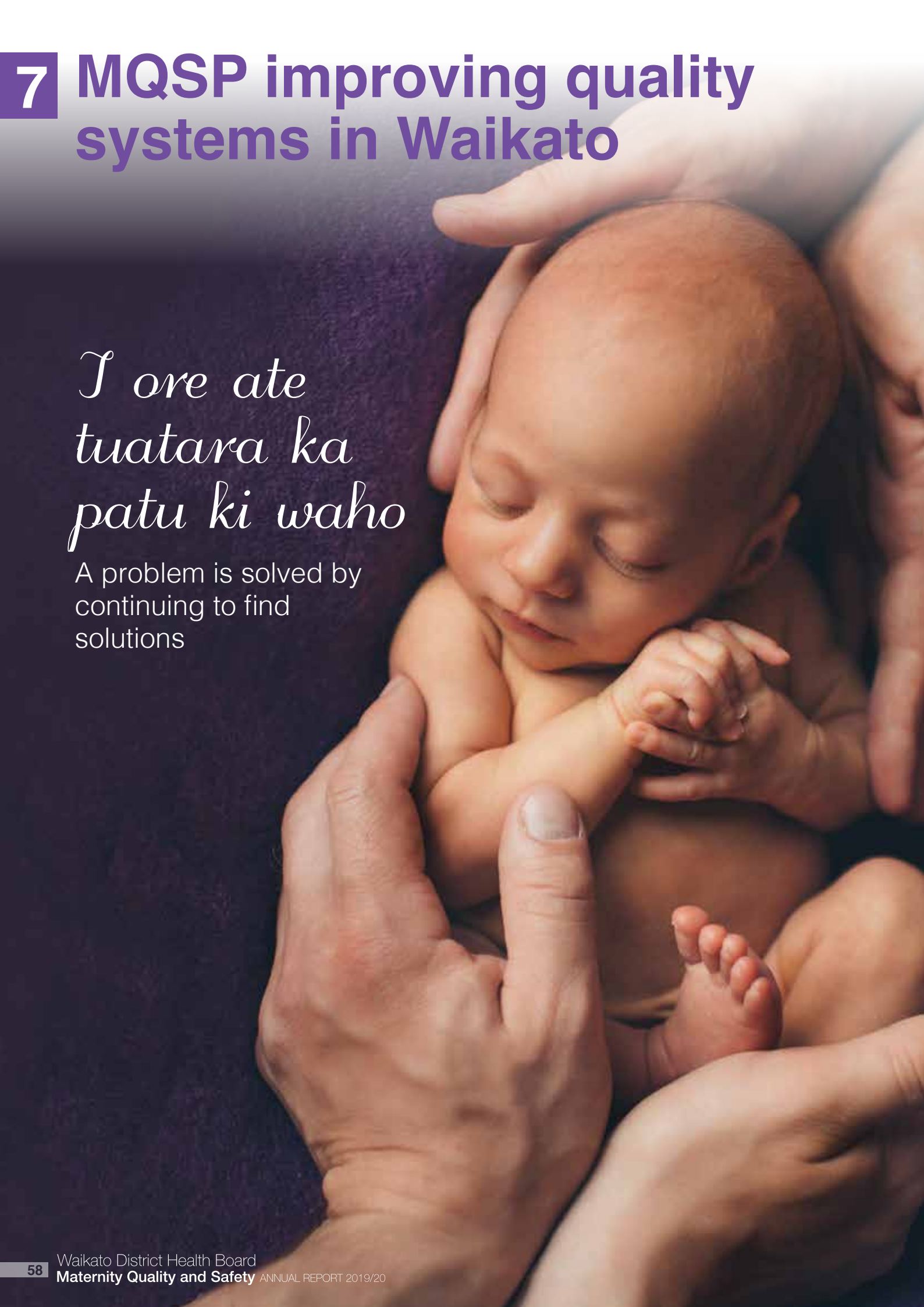
6.9.3 Preterm babies at the lower limits of viability

Waikato Hospital has a checklist which aims to facilitate the clinician consultation with a woman and her whānau, when the woman is at risk of preterm birth between 22-26 weeks.

This ensures all groups of women are offered the same level of care and can make informed decisions. The information is consistent with the New Zealand Consensus Statement on care of mother and baby(ies) at pre-viable gestations.

Waikato also has a guideline on resuscitation of marginally viable Infants which is consistent with the New Zealand Consensus Statement on the care of mother and baby(ies) at pre-viable gestations.

7 MQSP improving quality systems in Waikato



I ore ate tuatara ka patu ki waho

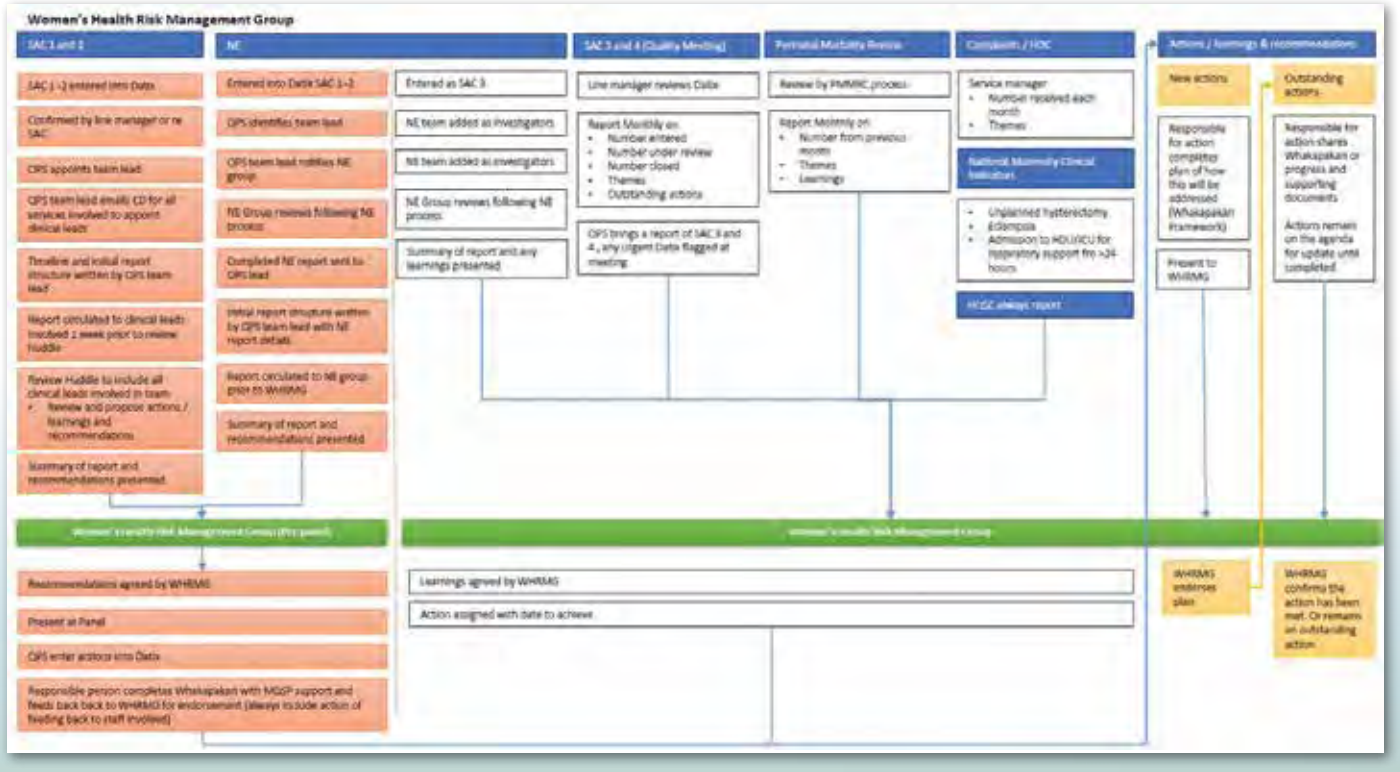
A problem is solved by continuing to find solutions

This section outlines systems in place in Waikato to monitor, review and improve quality and safety systems in Waikato. This includes:

- the Risk Management Structure in Waikato
- outline about the serious events review system process and how learnings are shared across the maternity sector in Waikato.
- implementation of the Maternity Early Warning Score (MEWS) in Waikato
- NE review systems and meeting the recommendations of the PMMRC on this topic
- learning from women and whānau feedback
- the new system and processes for providing care for vulnerable whānau in Waikato
- BFHI Initiative outlining the system approach to supporting breastfeeding

7.1 Risk Management Structure

During 2020 an overview review of the process for complaints, adverse events, morbidity and mortality in Women's Health took place. A Risk Management Structure was developed to ensure that all adverse event reviews, neonatal encephalopathy reviews, morbidity reviews and mortality reviews, are reported appropriately, recommendations are outlined and shared and that actions are implemented. This structure also ensures that different groups are not potentially reviewing the same case at the same time e.g. NE review group, mortality review group etc. The structure and processes are being embedded into practice during 2021.



7.2 Adverse events (Severity Assessment Code 1 and 2 events)

The Women's Health team adopted the Health Quality and Safety Commission's (HQSC) guidance for maternity specific Severity Assessment Code (SAC) early in 2019.

Maternity Severity Assessment Code (SAC) examples 2018-19

This list is for guidance only. All events are rated on actual outcome for the consumer.

SAC 1 Death or permanent severe loss of function	SAC 2 Permanent major or temporary severe loss of function
• Unexpected neonatal death – differs from the immediate expected outcome of care. • Unexpected intra-uterine death at term – differs from the immediate expected outcome of care. • Unexpected peripartum hysterectomy – differs from the immediate expected outcome of care. • Maternal death during pregnancy or within 42 days from end of pregnancy (including labour). • Maternal suicide (during pregnancy or within 42 days of birth). • Neonatal hypoxic brain injury resulting in permanent brain damage (or permanent and severe loss of function). • Maternal hypoxic brain injury resulting in permanent brain damage (or permanent and severe loss of function). • Delayed recognition of patient deterioration resulting in permanent disability or death.	• Medication or treatment plan error resulting in major harm (e.g., requiring dialysis, intervention to sustain life, anaphylaxis). • Infant fall resulting in fracture or other significant injury. • Maternal fall resulting in fracture or other significant injury. • Perineal trauma – grade 4 tear involving temporary or permanent loss of sphincter function. • Eclampsia following admission in woman with known pre-eclampsia. • Hospital acquired stage 3, 4 or unstageable pressure injury. • Delayed recognition of patient deterioration resulting in cardiopulmonary resuscitation and/or intubation, or unplanned transfer to intensive care unit (ICU)/high dependency unit (HDU)/neonatal intensive care unit (NICU)/1:1 care, or to another hospital for higher acuity care.

Source: www.hqsc.govt.nz/assets/Reportable-Events/Publications/National_Adverse_Events_Policy_2017/SAC_examples_maternity_final_May2019.pdf

As outlined earlier in the report:

- National Maternity Clinical Indictors 13-15 severe maternal morbidity are reviewed and as appropriate SAC rated
- Since 2019 NE cases are SAC rated as appropriate and the NE review forms the basis of/is part of the SAC review

A clinical team undertake triage of the SAC rating. In the case of SAC 1 or 2, it is initially reported to the HQSC. A review takes place and the woman/whānau have an opportunity to share their story. Recommendations and actions are outlined and an update is sent to the HQSC. As appropriate findings and actions are presented to the Women's Health team, learnings from the review are shared via electronic newsletter and presentation format. Improvement recommendations and actions are implemented with oversight of the risk management structure.


Waikato District Health Board

Sharing the Learning

November 2019

November 2019

Learning from Morbidity and Mortality Reviews, Serious Adverse Events, Audit Reports and Datix Actions

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Welcome to the Novembers edition of Sharing the Learning. This newsletter is part of improving Maternity Quality and Safety in Waikato. The edition shares learnings for practice from Mortality and Morbidity reviews presented monthly at Waikato DHB, audit reports conducted at the DHB and Severity Assessment Code (SAC) reviews.

Maternity Severity Assessment Code (SAC)

This newsletter enables a recap for those who were at the meeting and gives a flavour of what was discussed / teaching / further information related to the cases for those unable to attend.


Presentation of a case review at Waikato Hospital

7.3 Reducing the rate and severity of Neonatal Encephalopathy (NE)

NE is a clinically defined syndrome of disturbed neurological function within the first week of life in an infant born from 35 weeks' gestation. A small number of babies born in each DHB, each year will be found to have NE. NE can be mild to severe and can contribute to neonatal death in addition to causing neurodevelopmental disability.

Across all maternity services in New Zealand prevention of NE and reducing the severity is important. However not all cases can be prevented.

The latest published PMMRC report (14th Annual Report released February 2021) is based on data up to the year 2018 for babies born at 37 weeks or later. This report demonstrates that Waikato's NE rate 2010 to 2018 was slightly lower than the previous report at 1.59 per 1000 live births.

This is statistically higher than the national average range of 1.19 per 1000 live births.

However, Waikato has shown a continuous improvement with the rate of NE cases reducing. Representing the data over five year periods (removing a year as a new year is added) demonstrates the reduction:

5 year band	Number of cases	NE rate per 1000 cases
2014-2018	34 cases	1.37
2013-2017	35 cases	1.41
2012-2016	39 cases	1.56
2011-2015	41 cases	1.65
2010-2014	43 cases	1.71

Source: NE cases PMMRC reports, rate calculated using live births ≥ 37 weeks gestation.

7.3.1 System Improvements to reduce NE

The table below outlines ongoing system improvements taken in Waikato DHB to prevent NE or reduce the severity.

The improvements outlined are in response to a theme found in Waikato case reviews, PMMRC recommendation or if it is a national NE task force key area.

Key:
- PMMRC recommendation
- Theme from Waikato NE review/ Waikato identified system improvement
- NE task force key area

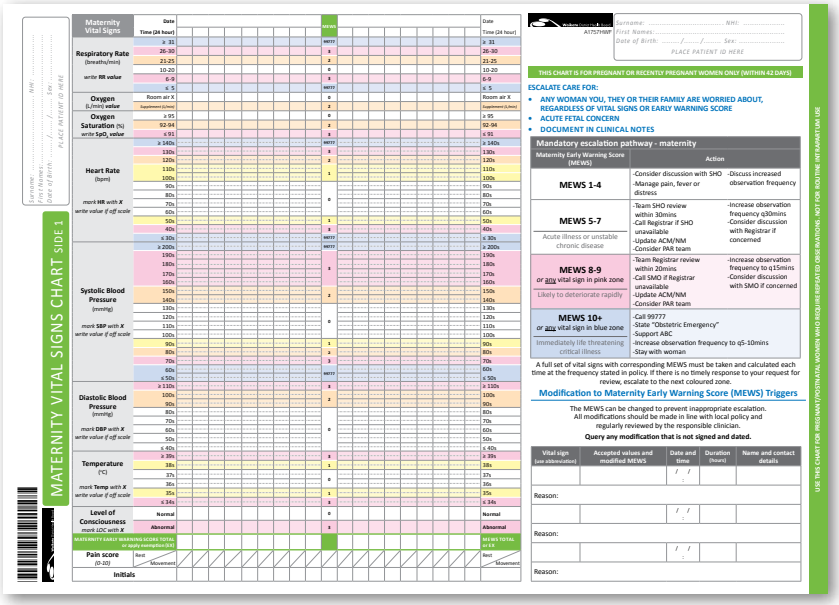
System improvement	Action implemented in Waikato
Review all cases of NE PMMRC recommendation	• All Waikato NE cases are reviewed by a multi-disciplinary panel with neonatal, obstetric and midwifery input including an invite to the woman's community midwife (LMC) as having their view and their understanding of the ante-natal path adds to the depth of the review • In addition to the invite to the woman's LMC; in 2020/21 there is a process in place to have a LMC representative on the multi-disciplinary panel to provide advice on current community practice and context of LMC practice • The review system is focused on understanding contributing factors to NE, if NE could be prevented or if severity can be reduced
Governance and oversight of NE reviews PMMRC recommendation to include NE reviews as part of the SAC review process. Waikato governance action has been to align the NE process to mortality review process if the baby passes away (Waikato Improvement)	• As of 2019 all cases are SAC rated as appropriate and the NE review forms the basis of/is part of the SAC review. Through this process actions and recommendations to make improvements in the service are outlined • If the baby passes away the NE review and the perinatal death review processes are linked • NE cases are reported to the Women's Health Risk Group which keeps track of SAC reviews and implementation of actions related to those reviews

System improvement	Action implemented in Waikato
All NE cases have a multidisciplinary discussion regarding referral to Accident Compensation Corporation (ACC) PMMRC recommendation	• All NE cases are assessed if they potentially meet the requirements for referral to ACC by the neonatal team and confirmed by the multi-disciplinary NE group • Waikato DHB ACC team has dedicated treatment injury case managers who process requests from clinicians and patients. These case managers also investigate reported incidences for potential claims, discuss cases with clinicians and provide education and support to clinicians and staff • There is a planned education update for Maternity and NICU staff with the ACC team manager about when and how to refer to ACC
Reducing severity: Timely recognition of NE babies Theme from Waikato case reviews regarding timely cooling. National NE taskforce has found that not recognising an NE baby occurred in 18% of potential cases.	• Waikato has updated the Neonatal Encephalopathy Management Guideline in July 2020 with improvements to the Neuroprotection Care Pathway regarding identification of cases and timely cooling • Education on the updated guideline has taken place with Waikato and Midland Hospital's neonatal/paediatric teams • Waikato is implementing the National Newborn Early Warning Score during 2020/21
Escalating risk factors Theme from Waikato reviews has found that – awareness of the importance that all small risk factors can accumulate into a much greater risk of NE occurring.	Antenatal care • Local service review of NE identified a theme related to vulnerable women with complex social or mental health history • Local recommendation that this group of women need early referral to the Vulnerable Unborn Forum to enable wrap around support to facilitate engagement with agencies, attendance at clinic appointment and timely labour care Intrapartum care • Partograms are in place in Waikato Hospital Delivery Suite. This enables staff to more easily identify increasing risks • Implemented "Speaking up for Safety" Training with staff in Waikato Hospital • "Fresh eyes" approach is used in Waikato Hospital delivery suite for continuous fetal monitoring. This is when an ACMM/midwifery coordinator reviews the CTG/partogram at agreed intervals with the midwife providing care and the woman
Improving communication during intrapartum care	• Using SBARR communication tool • Implemented "Speaking up for Safety" Training in the maternity service
CTG monitoring PMMRC recommendation Theme found in local review. NE taskforce has found issues with fetal heart monitoring in labour occurred in 78% of potentially avoidable cases.	• All DHB employed maternity staff (doctors and midwives) undertake CTG training annually. Staff who do not reach the expected standard in the training are stood down from interpreting CTG traces and an accredited practitioner is required to sign the trace. The staff are supported to achieve accreditation as soon as possible • Weekly case reviews of CTGs presented by a multidisciplinary team, doctors, DHB midwives and LMCs are invited to drop in • CTG training is also available free to all Waikato based LMCs

System improvement	Action implemented in Waikato
Small for gestation age babies NE taskforce has found babies born with abnormal low birth weight have a 58% higher risk of NE than babies with normal birthweight.	• Waikato has implemented the Perinatal Institute's Growth Assessment Protocol (GAP) using growth charts to identify small for gestation age (SGA) babies as early as possible to monitor them and ensure they are not delivered after 40 weeks
Cord lactate testing	• We currently follow RANZCOG recommendations and have recently updated and reviewed the local Waikato Obstetric guideline
Sharing the Learning	• Sharing the Learning teaching session on the risk factors for NE, presentation of local cases, and the learning from local cases to multidisciplinary maternity health professionals at Waikato Hospital and in the community at the local Midwifery Collaboration meeting • Sharing the learnings electronic newsletter with disseminated information from the face to face session – sent to all maternity health professionals in Waikato

7.4 Implementing MEWS and NEWS

The HQSC has developed a national maternal early warning system (MEWS) to help clinicians identify when a pregnant or recently pregnant woman's condition starts to get worse, so they can respond quickly.



All DHBs are to implement the MEWS prior to early 2021.

Waikato developed an implementation group of midwives, obstetricians, anaesthetist and education team.

MEWS was implemented in August 2019 within Women's Health service of Waikato Hospital and across the whole hospital in September 2020.

Primary units both urban and rural were included. HQSC supported the team with standardised templates and guidance on which to base the MEWS chart. The MDT gathered to determine to actions appropriate to the MEWS scores for the unit. This was reviewed once we went hospital wide to include the PARS team and allow for women in other areas outside of Women's Health. Prior to implementation, all staff were encouraged to complete the online learning package via Ko Awatea which includes short modules for registered midwives (RMs), registered nurses (RNs) and doctors.

NEWS has yet to be implemented and will be on the agenda for 2021/22.

7.5 Learning from women's and whānau feedback at Waikato Hospital

Waikato Women's Health view what matters to women in their care journey also matters to the service. We want to make sure as far as possible that women have a positive experience. Feedback from women's experiences through the feedback cards and complaints show us where we are doing well and where improvements can be made.

7.5.1 Feedback cards

Feedback cards are available at each ward and service for women and whānau to complete; they are anonymous unless the woman leaves her name. The feedback can be:

- an observation about the service
- a compliment about the service or to let staff know about positive experiences
- what could be improved, or what was a poor experience

Women who express that they have had a poor experience can talk to the midwife manager and/or complete a complaints form (see below).

The feedback cards are reviewed on a regular basis by the ward/clinic manager and discussed with staff.

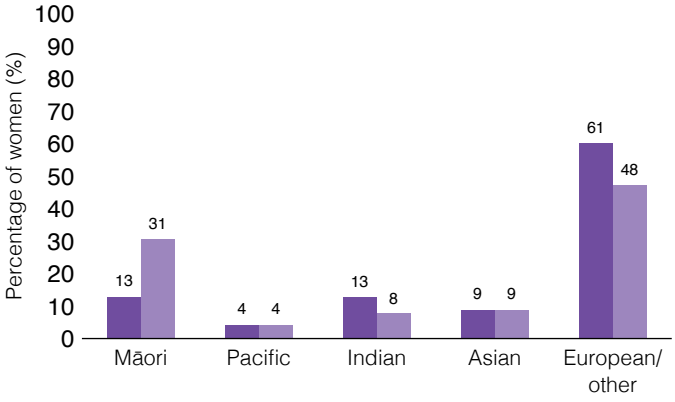
The cards provide the manager with instant feedback about how the ward/clinic is running at that time and how women feel about the service. This enables them to pick up on and act upon potential issues early.

7.5.2 Complaints

The DHB complaints system is available to women and whānau who have a complaint about the service and would like follow up, or an investigation. The service will then get back to the woman to let her know what has happened and what actions will be implemented as a result of their feedback

Twenty-three complaints were investigated for maternity services in Waikato Hospital 2019/20. Ethnicity is collected when processing complaints.

Percentage of complaints vs percentage of births in Waikato by ethnicity



Percentage of complaints from women who birth in hospital of that ethnicity

Percentage of women who birth in hospital of that ethnicity

Source: Waikato DHB Datix system

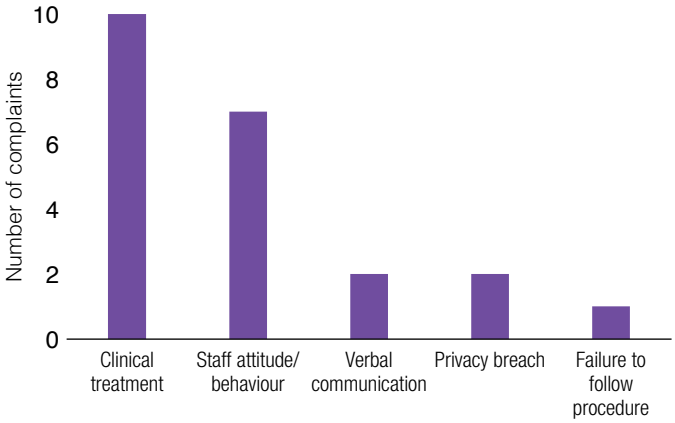
The highest percentage of complaints are from European women, who make up 61% of complaints yet only represented 48% of births at the hospital.

There is a lower percentage of complaints from Māori women than would be expected compared to the percentage of Māori women birthing.

There are slightly more complaints from Indian women, and a similar rate to the birth percentage in the hospital for Asian and Pacific women.

The chart below demonstrates the primary subjects of the complaints, it should also be noted that there are sub-subjects e.g. clinical treatment is the primary subject alongside communication as the sub-subject.

Subject of compaints about maternity services in Waikato Hospital 2019-2020



Source: Waikato DHB Datix system

Complaints are rated on a seriousness of the consequence and the likelihood of them reoccurring.

From a scale of rated 1 most severe through to 4 minor. It was pleasing to see no complaints rated at 1 and only one rated at 2. The majority of the complaints were rated as 3 with two complaints rated as 4.

Individual actions resulting from the complaints investigation process 2019/20

As a result of the investigations nine improvement actions/instances of feedback to individual staff for reflection and/or improvement were taken.

One member of staff has undertaken formal training.

Themes related to individual actions:

- Communication
- Documentation
- Patient privacy

With permission, one patient story (anonymised) has been used in staff teaching sessions related to the importance of listening and providing compassionate care.

System improvements undertaken as a result of complaint investigations 2019/20

- Charge midwife manager or other senior midwife/ nurse attends the ward rounds alongside the doctors daily. This will ensure that staff midwives and nurses are aware of treatment plans made with women at the time of the ward round
- Improvements to pain relief: Opioid administration guideline reviewed – women will be able to receive oral morphine in the wards where previously this was not an option
- Improvements to the IOL process – introduction of misoprostol induction of labour and guideline changes are in process – research demonstrates this method shows improvement in women's experience of IOL
- Staff education regarding the cultural importance of the whenua to whānau, including placenta testing timeframes and the correct forms to be used to accompany the placenta when it is returned
- Laboratory team process updated to send placenta back to clinician if the correct form and signature has not been used
- Review triage guidelines to prioritise women waiting to be seen in WAU.

7.6 Providing care for vulnerable whānau

A new specialist midwifery role for Vulnerable Families: Kaiāwhina Matanga Whakaraerae Whānau commenced at the end of January 2019. The aim of the role is to work alongside the child protection team at Waikato DHB and set up a system and process to identify and coordinate the care of vulnerable pregnant woman with other local health and social care professionals.

The vulnerable unborn forum allows discussion of individual client cases and wrap around care plans to improve outcomes for the pregnant woman, the unborn baby and the wider whānau. There are now seven forums held each month across urban, rural and remote rural areas of the Waikato district.

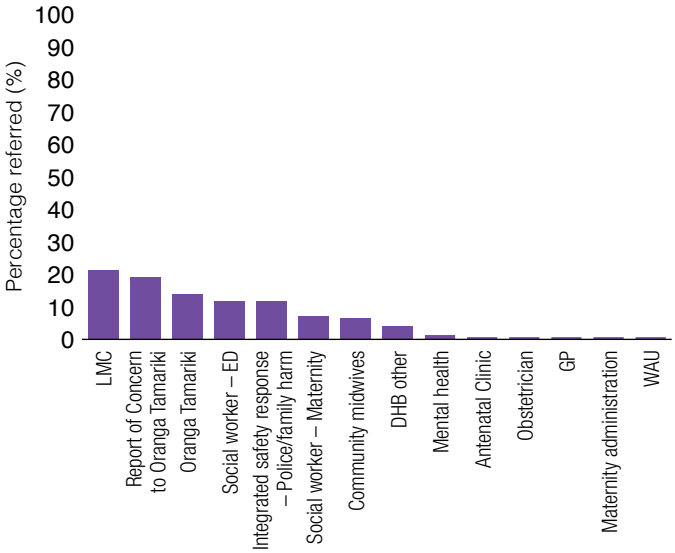
Health professionals who attend the forum are from Whānau Ora, Tamarki Ora, perinatal mental health services, Oranga Tamariki, adult mental health services, alcohol and other drugs services, corrections services, Women's Refuge (except Tokoroa where the community Police officer attends), community or hospital social workers, LMCs, and NGOs in the areas the forum takes place.

In addition to the focus on individual women, the specialist midwife also highlights inequities in the DHB area and outlines potential quality system changes to improve the wider health care for vulnerable whānau.

7.6.1 Referrals

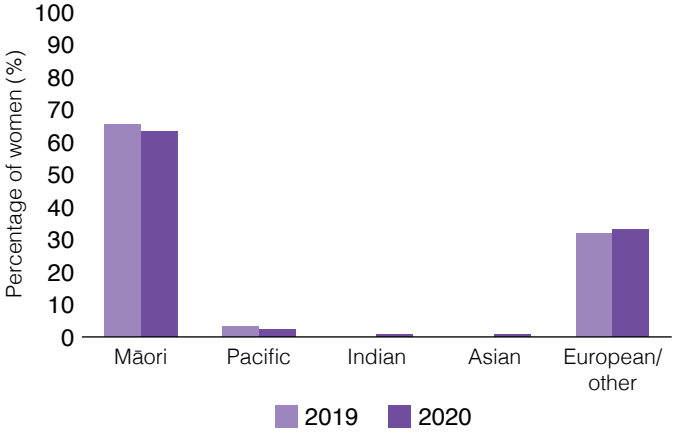
Referrals come from a number of sources, from health professionals involved in the forum and from outside the forum membership. In 2019 a total of 152 women were referred, in 2020 referrals significantly increased to 234 women.

2019 Percentage of referrals to the forum from Waikato health/social care professionals



7.6.2 Demographics of women by ethnicity

Percentage of women referred to the vulnerable unborn forum by ethnicity

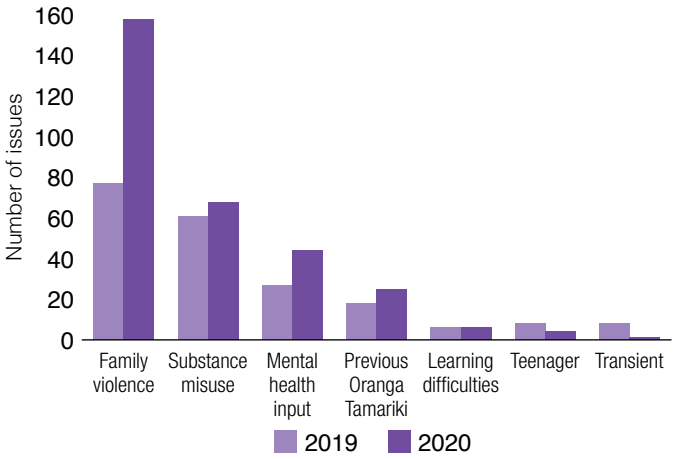


Most significantly the highest referrals were for Māori women at 65.8% in 2019 and 63.1% in 2020. This is disproportionately higher than the rate of Māori women birthing in Waikato DHB.

Cultural representation is a key aspect of the forums, ensuring a perspective and world view is taken for the whānau involved.

7.6.3 Issues identified

Number of issues identified in 2019 and 2020



Many women had multiple issues, with family violence, substance misuse and mental health input as the top 3.

The significant increase in family violence issues in 2020 is a reflection of the increase in referrals coming from the Integrated Safety Response Team, rather than an increase in family violence.

Some women have complex pregnancies and/or little engagement with antenatal care. For these women the baby is more likely to require NICU care. This equated to 26 babies (17%) in 2019 and 50 babies (21%) in 2020 requiring NICU care.

7.6.4 Improvements

It is difficult to "quantitatively" measure improvement outcomes for vulnerable women, as it is unclear what percentage of women birthing make up this group. Referrals have increased as forums become embedded practices and numbers are expected to plateau. The improvement measures at present centre on system improvements, relationships between organisations and taking feedback from those involved about what difference they think the forum and wraparound care plans have made to their clients.

Pre-birth planning is making a difference

This has been introduced as a system improvement for the most complex cases that often involve family violence and substance misuse. The meeting is attended by professional representatives who have current or future involvement in the pregnant woman's birth and immediate postnatal period.

Risks are reviewed and mitigation is put in place. The plans have pre-empted potential difficult situations that could have occurred at the birth and postnatal care of mother and baby. In 2019, 27 pre-birth plans were in place and in 2020 30 were in place.

Prevention

Health and social care professionals have noted that earlier intervention by agencies such as Waikato Women's Refuge and Kirikiriroa Family Services Trust has meant in some circumstances Oranga Tamariki doesn't need to take any further action because a situation of concern has become safer.

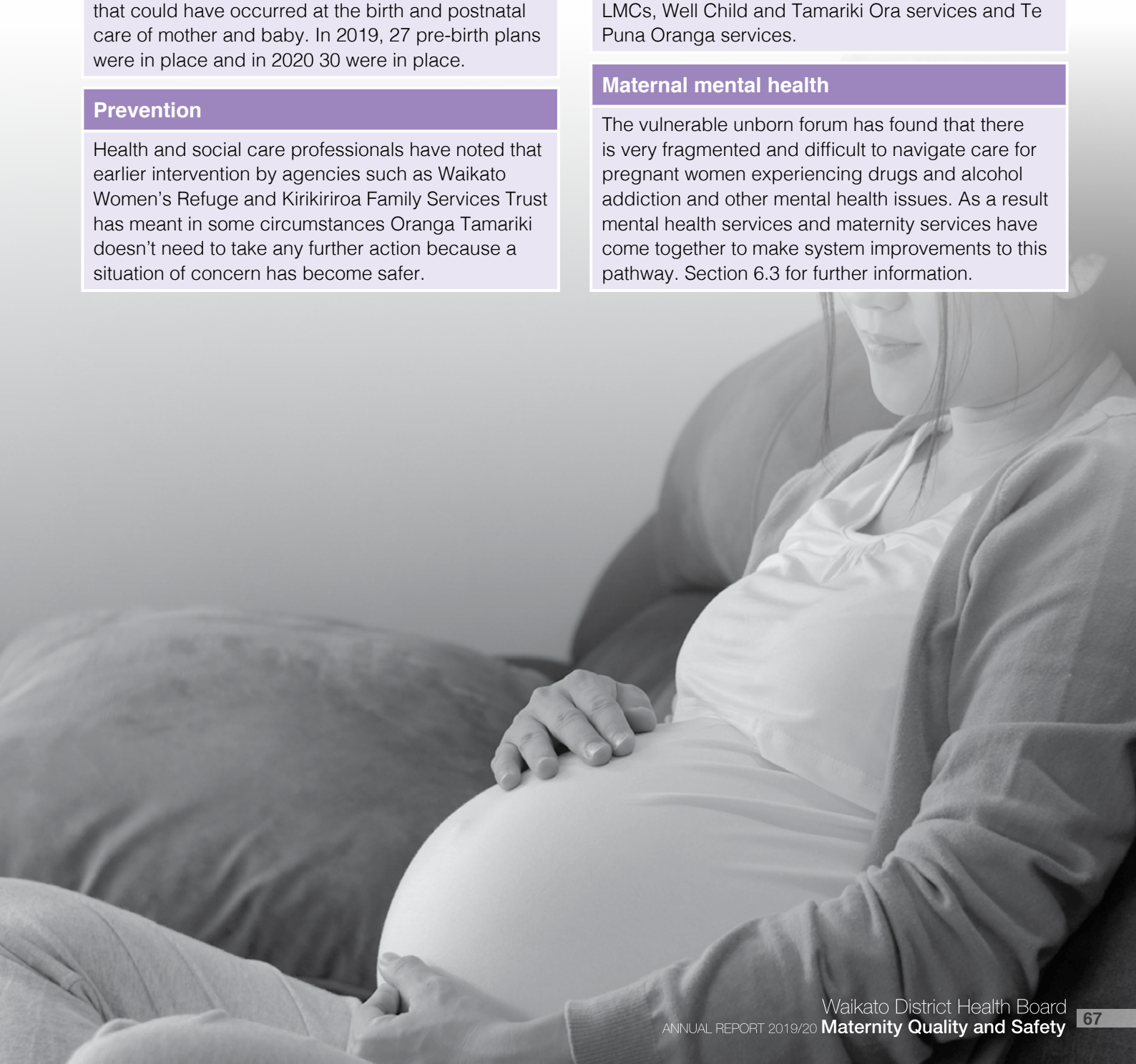
Collaborative working

Building relationships with Te Whakaruruhau–Waikato Women's Refuge and maternity services has made a significant difference for women in their care.

Collaboration is improving between multiple organisations who are often involved in the whānau care including Waikato Women's Refuge, perinatal mental health services, Oranga Tamariki, alcohol and drugs services, Kirikiriroa Family Services Trust, LMCs, Well Child and Tamariki Ora services and Te Puna Oranga services.

Maternal mental health

The vulnerable unborn forum has found that there is very fragmented and difficult to navigate care for pregnant women experiencing drugs and alcohol addiction and other mental health issues. As a result mental health services and maternity services have come together to make system improvements to this pathway. Section 6.3 for further information.



7.7 BFHI: System approach to support breastfeeding

BFHI is an international initiative by the World Health Organisation (WHO) and United Nations Children's Fund (UNICEF). It is a systematic approach to facilitate maternity and newborn services to support and promote breastfeeding.

All Waikato maternity facilities are BFHI accredited including Waikato tertiary hospital, three rural hospital primary birth units and six stand-alone primary birth centres.

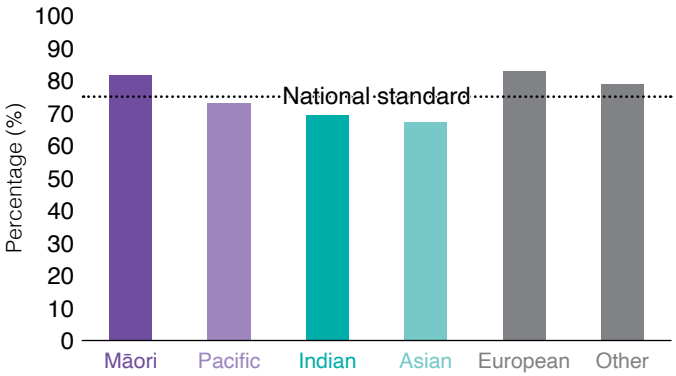
In order to achieve the BFHI accreditation each facility has to achieve "The Ten Steps" which is a package of policies and procedures that facilities providing maternity and newborn services should implement to ensure that all women, regardless of their feeding method, receive unbiased information, support and professional advice in their decision to feed their babies.

The BFHI standard is for 75% of babies to receive only breastmilk throughout their stay in a maternity facility. In 2019, across Waikato DHB facilities the DHB had a rate of 83%.

The average rate for tertiary hospital facilities in New Zealand is 76.23%, this is lower than secondary hospitals and primary facilities, because of the higher number of women undergoing interventions that may impact on breastfeeding. In 2019, Waikato Hospital (tertiary facility) achieved a rate of 79.6%.

Breaking this down by ethnicity demonstrates an equity gap, although Waikato Hospital is meeting the standard overall; Pacific, Asian and Indian women's exclusive breastfeeding rate is below the standard of 75%.

Percentage exclusive breastfeeding at discharge by ethnicity Waikato Hospital 2019



Data source: NZBA 2019 report – latest New Zealand comparable data.

BFHI certificate presentation to Waikato Hospital, South Waikato Primary Birthing Unit, Taumarunui primary birth unit and Thames Birthing Unit.

7.8 Detecting reduced fetal growth

Reduced fetal growth is one of the most common causes of avoidable adverse outcomes, including still birth and NE. Detecting small for gestational age babies early, monitoring them through pregnancy and delivering them at the most appropriate time can improve outcomes.

7.8.1 Waikato Growth Assessment Protocol (GAP) programme

The Perinatal Institute's GAP was implemented in Waikato in 2017. It is a systematic approach to identifying small for gestational age babies and in order to facilitate this Waikato has had a midwife GAP champion in place to facilitate training, education and audit.

Since 2018 all women referred to Waikato Hospital antenatal clinic have to have a GROW chart submitted with the referral.

Since 2019 in concurrence with the neonatal hypoglycaemia protocol, all women birthing at Waikato Hospital have a antenatal GROW chart and customised birthweight centile generated for their baby.

This activity has led to improvements in the detection of small for gestational age babies in Waikato.

7.8.2 GAP training

It is mandatory for all Waikato DHB maternity clinicians (doctors and midwives) to have GAP training. The training is also available free to all LMCs in the Waikato area.

In 2019/20 despite a number of disruptions to the training programme we have had a positive level GAP training. The year started slowly with cancelled sessions as staff were unable to be released from the clinical environment due to clinical needs then COVID-19 restrictions between April and May 2020, halted in-person training.

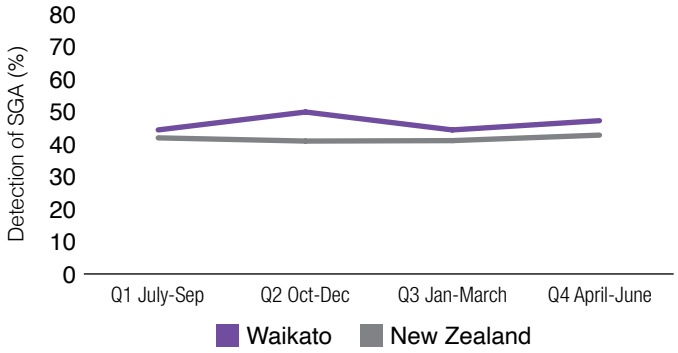
Prior to COVID-19 restrictions there were three community in-person training days at Waterford Birth Centre (Hamilton) and at Thames and Tokoroa birthing units. In response to COVID-19 restrictions there were two virtual training sessions with LMC midwives, core midwives, midwife managers, and some obstetricians. In addition, online training sessions were available followed by a competency assessment. Coming out of restrictions there were three in-person hospital training days. The DHB remains committed to supporting this mandatory training.

7.8.3 GAP audit

A 'Missed Case Audit' was also completed in 2019/2020 which looked at 30 cases of SGA babies not detected antenatally. The learnings from this report have been shared with the lead obstetrician, midwifery managers and distributed in "Sharing the Learning" to all LMCs, DHB midwives and medical staff.

7.8.4 Detecting reduced fetal growth: Results in Waikato

Detection of SGA antenatally: Waikato vs New Zealand average 2019-2020



Source: Perinatal Institute online GROW-App Reports extracted March 2021

Waikato continued to have a higher detection rate of babies with reduced fetal growth antenatally than the national rate, with an annual 46.5% detection rate in 2019/20.

Next steps

In addition to continuing the training and audit there will also be improvement work related to providing the data in a format showing the different rates across ethnicities in Waikato. Ethnicity is a focus at training, however, it is important to have local data feedback for Waikato health professionals to raise awareness of where the equity gaps are.

8 Our progress on national recommendations and the MQSP work plan

Whāia te mātauranga hei oranga mo koutou

Seek after learning for the sake of your wellbeing

8.1 Meeting the recommendations of the Perinatal Maternal Mortality Review Committee (PMMRC)

Perinatal and Maternal Mortality Review Committee
He matenga ohorere, he wairua uiui, wairua mutungakore

In the table below are recommendations from the PMMRC released in the September 2019 report and June 2018 report, with an overview of Waikato's progress against these recommendations.

PMMRC recommendation	Waikato DHB progress
In Aotearoa/New Zealand, babies of Indian women have the highest mortality rates for perinatal related death and stillbirths. DHBs should demonstrate that they have co-developed and implemented models of care that meet the needs of mothers of Indian ethnicity	**In progress** Waikato has looked at the local demographics for pregnant Indian women and their health outcomes. **See section 6.8** Co-design with Indian mothers to take place
DHBs provide interdisciplinary fetal surveillance education for all clinicians involved in intrapartum care on a triennial basis. This is to be provided free for staff and at no cost to lead maternity carers (LMCs)	**Complete** See information in section 7.3
All neonatal encephalopathy (NE) cases need to be considered for a Severity Assessment Code (SAC) rating. Neonatal hypoxic brain injury resulting in permanent brain damage (or permanent and severe loss of function) should be rated as SAC 1. Those who received cooling with as yet undetermined outcome should be rated as SAC 3	**Complete** See information in section 7.3
All babies with NE, regardless of severity, should have a multidisciplinary discussion about whether to refer to the Accident Compensation Corporation (ACC) for consideration for cover as a treatment injury, using ACC's Treatment Injury Claim Lodgement Guide. Parents should be advised that not all treatment claims are accepted	**Complete** See information in section 7.3
For the management of suspected ectopic DHB gynaecology services should have: i. clear pathways/processes for primary care regarding early pregnancy management ii. clear hospital guidelines for assessment of the collapsed woman of reproductive age that include the differential diagnosis of ectopic pregnancy. Collapse due to ectopic pregnancy requires rapid assessment and surgical management	**Complete** Waikato has this action in place with clear pathway for primary care regarding early pregnancy management and processes for the assessment of collapsed women of reproductive age. Also assessment and surgical management of women who collapse due to ectopic pregnancy

8.2 Meeting the recommendations of the Maternal Morbidity Working Group (MMWG)

Maternal Morbidity Working Group

In the table below are recommendations from the MMWG released in September 2019, with an overview of Waikato's progress against these recommendations.

MMWG recommendation	Waikato DHB progress
Principles of Te Tiriti DHBs should partner with wāhine Māori (Māori women) and their whānau in meaningful, participatory ways to understand their maternity health priorities and work with them to design and implement solutions. These solutions must recognise and respond to the authentic needs of Māori aspirations for self-determination in the health and wellbeing of themselves and their whānau, and must safeguard Māori cultural concepts, values and practices. We highly recommend using co-design to best develop a service that is responsive to the needs and outcomes of wāhine Māori	**Ongoing:** When co-design of services take place wāhine Māori are engaged to ensure Māori cultural concepts, values and practices are included. Wāhine Māori this year have been involved in the design of smoke free pregnancy training for health professions.
Addressing equity DHBs should use the Health Equity Assessment Tool (the HEAT) to assess their services for the impact on health equity. DHBs should increase their surveillance and monitoring of maternal morbidity, with a focus on identifying opportunities for achieving equitable outcomes for wāhine Māori and their whānau. The MMWG's maternal morbidity review toolkit for maternity services and the HEAT can be used to support this process. When data on maternal morbidity reveals inequities, DHBs should initiate 'free, frank and fearless' conversations about the causes of inequitable outcomes in maternity, and how they can be proactively addressed. In addressing these, DHBs should focus on the way they work, the environment they work in, and the systems and processes within which they deliver care, and should take action in all of these domains	**Ongoing:** HEAT has been included in maternal morbidity case reviews. However, further work is needed to embed the use of the tool
Women's narratives Women who are admitted to an HDU or ICU should be offered the opportunity to debrief and discuss their experience between three and six months following the event of maternal morbidity. Maternity services should ensure this appointment is arranged through an appropriate clinical appointment (as close to the woman's residence as possible), such as gynaecology outpatient, prior to discharge from the maternity service, directing her to agencies to enable attendance	A postpartum clinic has been established to see women who were admitted to HDU/ICU post maternal morbidity event/ unexpected complex birth event. The appointment is arranged prior to discharge and the woman is seen a few months later
Preventing delays DHBs should ensure there are enough senior medical staff and resources available for both acute work and elective theatres or clinics. Reference should be made to RANZCOG's *Categorisation of urgency for caesarean section* when planning staffing and equipment	Waikato has updated the c-section guideline on RANZCOG's *Categorisation of urgency for caesarean section.* Waikato is fully recruited for senior medical officers (SMOs) and resident medical officers (RMOs)

MMWG recommendation	Waikato DHB progress
Assisted birth techniques DHBs should ensure they teach and maintain the obstetric skillset and proficiency to select and apply the most successful delivery technique to effect urgent delivery. In cases of severe maternal or fetal compromise, the choice of delivery mode or technique may be different to the options for the more common scenario of failure to progress	Assisted birth workshops take place regularly in Waikato, with practical workshops. It's a combination of assisted birth and breech techniques, and is a full day course.
ISBAR The use of simulation multidisciplinary training and team-working helps to improve communication. The use of structured communication tools, such as ISBAR (Identify–Situation–Background–Assessment–Recommendation), also helps to establish a consistent communication approach	The communication tool: Situation, Background, Assessment, Recommendation and Response (SBARR) has been implemented in Waikato DHB for a number of years. SBARR is part of maternity services working practice to provide a consistent approach to communication with resources, notepads and stickers containing SBARR reminders.

8.3 Meeting the recommendations of the National Maternity Monitoring Group (NMMG)

In the table below are recommendations from the NMMG released in September 2018, with an overview of Waikato's progress against these recommendations.

NMMG recommendation	Waikato DHB progress
Staffing is an important issue that significantly impacts quality and safety. DHBs need to review basic staffing for midwifery and medical workforces, ensuring that a safe and high-quality service is supported. The workplace culture must enable staff to work collaboratively, feel safe and supported, and maternity services must be women-centred	**Partly complete with ongoing focus:** We have increased our midwifery positions, however, recruitement continues. Fully recruited medical team. Ongoing work on supportive women centred culture. See section 3.5 for further information
DHBs should support low-risk women to birth at primary facilities, and support women who choose to birth at home	**Complete with ongoing focus:** Waikato has the highest rate of births in the community. See section 6.5 for more information
DHBs that have high rates of induction of labour and c-sections for standard primiparae should investigate why the rates of intervention for this group of women are above average	**Complete with ongoing focus:** Waikato does not have a high rate of induction of labour or c-section for standard primiparae. See section 4 for more information
All DHBs should be working towards implementing recommendations made by the PMMRC and its sub-committees (Maternal Mortality Working Group, Maternal Morbidity Working Group, Neonatal Encephalopathy Working Group), and the Neonatal Encephalopathy taskforce	Waikato is working on these recommendations, with most recommendations completed. Further information on implementation can be found in sections 8.1, 8.2 and 7.3
Postpartum contraception options (including long-acting reversible contraceptives (LARC)) should be discussed with all postpartum women. Women should be given a range of options; comprehensive information about risks and benefits; and they should have equitable access to the contraception of their choice	**Ongoing focus:** Postpartum contraception options are available to Waikato women. Free access to LARC in Waikato Hospital, DHB primary birth facilities and via GP practices for women who meet me criteria. See section 6.4 for more information
DHBs should evaluate the use and effectiveness of maternal mental health pathways. Maternal mental health outcomes need to be reported, and the impact of the maternal mental health pathways need to be evaluated. Access to primary maternal mental health (including drug and alcohol addiction services) for pregnant and postpartum women should be improved to avoid unnecessary escalation to acute services	**Ongoing focus:** Waikato is developing a local pathway to primary/secondary mental health services. This includes information about referral and access criteria. See section 6.3 for more information

8.4 MQSP work plan progress

Topic	Status
Improving uptake for post-mortem investigations particularly for Māori whānau Local activity	**In progress:** ✓ A survey has been completed by maternity staff. The feedback centred on what we currently do well and suggestions for improvement. Themes that have emerged are as follows: – "Knowing the practicalities of the process well" which will give parents confidence that they and their baby will be well looked after e.g. about transport, parents staying with their baby – Having a cultural understanding/education – Updated information and resources – Feedback from parents and co-design postponed during 2020. To be completed during 2021 • Aim is to have a full package of information for staff on the practicalities and the process, information to give to whānau to take away and training on conversations with whānau about investigations and cultural understanding
Reduce maternal smoking focus on Māori women Local activity	**Ongoing:** ✓ Access has improved with yearly increase in referral to stop smoking services for Māori women ✓ Maternal smoking rate is reducing. With the biggest gains for Māori women • The equity gap between Māori an dnon-Māori remains. Continue as a focus until rates are equitable across the DHB. See section 6.1 for more information
Maternity website Local activity	**Complete:** ✓ Website went live in December 2019 ✓ Activity will continue to direct women to the webpage during consultation with their LMC/doctor and via social media prompts • Topics will continue to be added. See section 6.2 for more information
Informed consent Local activity	**In progress:** ✓ Information for women on informed consent in the pregnancy and maternity webpages 'Just found out you're pregnant?' section. • Further activity to continue in the clinic setting and WAU
Improving care for high BMI patients in clinic Local activity	**In progress:** ✓ High BMI check list for medical staff in clinic to ensure consistent approach in place ✓ Information for women on healthy weight gain and pregnancy available in clinic and on the pregnancy and maternity webpages 'Having a healthy pregnancy' section • Further activity to continue in 2021/22

Topic	Status
Increase registration with a LMC in the first trimester for Māori women and Pacific women Local activity	**Ongoing:** • There continues to be an equity gap for Māori and Pacific, who have lower rates of first trimester registration with a LMC ✓ DHB has supported rural areas with low LMC coverage until coverage has recovered to enable women to have access to LMCs • Further analysis of the data is required to identify where there is late registration: by ethnicity, age, parity, geography. Going forward in 2021 targeted action to take place with PHOs and Māori/Pacific providers. • Through the first 1000 days plan a pathway model will be developed by Strategy and Funding to improve Māori and Pacific women's access to care See section 6.7 for more information
Reduced fetal movement project Local activity	**Complete:** ✓ Reduced fetal movement guideline in place ✓ Information for women on DHB pregnancy and maternity webpages 'Having a healthy pregnancy' section on baby movements in pregnancy
Local maternity referral guideline for LMCs Local activity	**Complete:** ✓ Local guideline developed and distributed to LMCs
Postpartum contraception NMMG recommendation	**Complete:** ✓ Sterilisation and LARC contraception are available in Waikato Hospital for women postpartum women who meet the criteria ✓ LARC is available in two primary birthing facilities ✓ Stocktake of contraception services across Waikato has taken place from this the following was developed: – Information for women available on the pregnancy and maternity webpages 'After your baby has arrived' section – Information for LMCs See section 6.4 for more information
Maternal mental health NMMG recommendation	**Ongoing:** ✓ Formed Maternal Mental Health MQSP subgroup • Local guideline and pathway for maternal mental health services has been drafted. To be implemented in 2021 • This includes a directory of services for mild to moderate mental health services See section 6.3 for more information
Activities to reduce incidence and severity of NE PMMRC recommendation	**Ongoing:** ✓ DHB is meeting all the PMMRC recommendations for NE ✓ The rate of NE cases in Waikato are reducing • Continue to learn from cases and implement actions See section 7.3 for more information

Topic	Status
Implement the national Maternity Early Warning score (MEWs) PMMRC recommendation	**Ongoing:** ✓ MEWs was rolled out in 2019/20 • Ongoing audits of MEWS See section 7.3 for more information
Employ strategies to reduce preterm birth PMMRC recommendation	**Ongoing:** ✓ Information for women: The DHB pregnancy and maternity webpages has information for women about preterm birth ✓ Preterm Birth Clinic: In 2019 Waikato established a clinic for women who have had a previous preterm birth. ✓ MDT consultations for high risk pregnancy • Continue to raise awareness of referral guidelines and LMCs to refer women with previous preterm birth to clinic. Monitor referrals by ethnicity and audit See section 6.11 for more information
Co-develop and implement models of care that meet the needs of mothers of Indian ethnicity PMMRC recommendation	**In progress:** ✓ Data on outcomes for Indian women has been gathered and analysed ✓ Plan is in place to co-develop a model of care • Co-design to take place See section 6.8 for more information
Co-develop and implement models of care that meet the needs of mothers under 20 years of age PMMRC recommendation	**In progress:** ✓ Data on outcomes of mothers under 20 years has been gathered and analysed ✓ Activities in place to improve outcomes for younger women have been outlined in the section 6.9 • Through the first 1000 days plan a pathway model. This will be developed by Strategy and Funding to improve younger women's access to care • Activity to look at care of younger women in Waikato Hospital clinics and wards to take place See section 6.9 for more information
Management of suspected ectopic pregnancy PMMRC recommendation	**Complete:** ✓ Clear pathway for primary care regarding early pregnancy management and processes for the assessment of collapsed women of reproductive age ✓ Process for assessment and surgical management of women who collapse due to ectopic pregnancy
Improving cultural responsiveness and competency in Waikato maternity services PMMRC recommendation	**Ongoing:** • Activities across primary birthing services and within the hospital service continue • Improving cultural competency through training to commence in 2021 (postponed in 2020)

Topic	Status
Debrief for women at 3-6 months following HDU or ICU admission for maternal morbidity PMMRC recommendation	**Complete:** ✓ Postnatal follow up clinic commenced in 2020 for women following HDU or ICU admission for maternal morbidity
Implementation of the new national guideline on diagnosis and treatment of hypertension and pre-eclampsia in pregnancy National guideline to be implemented in each DHB	**In progress:** Waikato DHB adopted the ministry's guideline of hypertension and pre-eclampsia and updated the DHB's protocol for practice. The following has been implemented: ✓ Using recommended first line antihypertensive ✓ 4-6 hourly blood pressure monitoring ✓ Postnatal – remain in hospital for 72 hours ✓ A flip chart has been developed for the medical team. It outlines a quick review of the protocol and recommended care ✓ Lanyard cards with best practice guidelines have been produced • The challenge for the DHB is the postnatal monitoring requirements in the community, this has not yet been implemented

Our MQSP plan 2021 and beyond

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Te toia, te haumatia

Nothing can be achieved without a plan and way of doing things

The topics and actions are based on recommendations from the PMMRC, the NMMG, national guidelines or a DHB identified priority area. The actions that are "In progress" have already commenced and further actions are required to complete the topic. Actions that are "Ongoing" relate to topics that will require ongoing action over time, with multiple activities to demonstrate improvements. For example reducing maternal smoking will take more than a one year period of focus. Although some actions and activity within this topic will have start and finish timescales. There are eight new topics in the plan

Topic	Actions	DHB	PMMRC	NMMG	National
Improving uptake for post-mortem investigations particularly for Māori whānau	**In progress** • Feedback from parents and co-design process to be completed • Create package for staff – Practicalities and the process – Information to give to whānau – Training on conversations with whānau about investigations and cultural understanding	■			
Reduce maternal smoking focus on Māori women	**Ongoing** • Through Tupeka Kore framework improve quality of maternity health professionals "brief interventions" • Increase referral rates • Reduction in maternal smoking	■		■	
Improve maternity information for consumers	**Ongoing** • Continue to build Waikato pregnancy and maternity webpages • 2021 commence social media linked to webpage information • Increase use of the webpage in clinic setting • Monitor webpage traffic	■			
Informed consent	**In progress** • Implement models of practice to promote informed consent in the clinic setting and WAU	■			
Improving care for high BMI patients in clinic	**In progress** • Promote referral guidelines to LMC community about women with high BMIs • "High BMI checklist" is currently available for use in clinic • Review and update information for women with a high BMI • Audit in 2022	■			
Increase registration with a LMC in the first trimester for Māori women and Pacific women	**Ongoing** • Work with PHOs and health providers on targeted actions in areas of later registration • Work with Strategy and Funding first 1000 days lead	■	■		
Implement the new 'Neonatal Early Warning score'	**New** • For roll out in Waikato in 2021/22				■
Activities to reduce incidence and severity of NE	**Ongoing** • DHB is meeting all the PMMRC recommendations for NE • Continue to learn from cases and implement actions	■	■		■

Topic	Actions	DHB	PMMRC	NMMG	National
Place of birth	**New** • Improve communication via social media about the choices of primary birth facilities in the Waikato community and home births for women with no complications. To communicate, inform, reassure and educate low risk women that primary facilities and home is a viable choice • Set up a system to enable LMCs to pick up free birth packs from DHB premises to support them to offer home birth services				
Long acting reversible contraception (LARC)	**New** • Investigate implementation of Jadelle LARC in other primary birth facilities				
Maternal mental health	**Ongoing** • Implement the local guideline and pathway for maternal mental health services • Review previous recommendations of PMMRC related to maternal mental health and implement changes as appropriate **New** • MQSP mental health subgroup consider and respond to recommendations / actions outlined by the NMMG				
Severe maternal morbidity	**Ongoing** • Audit MEWs **New** • Embed morbidity review through trigger tools • Implement HQSC morbidity tool kit • Implement use of HEAT in reviews • Embed the use of the HEAT in case review's • Continue postnatal follow up clinic for severe maternal morbidity				
Employ strategies to reduce preterm birth	**New** • Implement the recent recommendations of the NMMG and report on progress related to activities to reduce preterm birth. (Note PMMRC actions completed)				
Monitor key maternity indicators by ethnicity to identify variations in outcomes and improve areas where there are differences in outcome	**Ongoing** • Audits and information analysis completed for maternity services to always use an equity lens viewing the data by ethnicity (where information is available) **New** • Through above – identify improvement projects where areas of inequity have been found and add to improvement plan as appropriate • Celebrate improvements in reducing equity gaps in Waikato				

Topic	Actions	DHB	PMMRC	NMMG	National
Co-develop and implement models of care that meet the needs of mothers of Indian ethnicity	**In progress** • Implement plan to co-develop a model of care • Outline baselines to measure change • Implement model of care				
Co-develop and implement models of care that meet the needs of mothers under 20 years of age	**In progress** • Work with Strategy and Funding first 1000 days lead • Outline baselines to measure change • Implement model of care				
Interdisciplinary fetal surveillance education for all clinicians involved with intrapartum care	**Ongoing** • Continue with the programme in Waikato				
Improving cultural responsiveness and competency in Waikato maternity services	**Ongoing** • Improving cultural competency through training to commence				
Implementation of the new national guideline on diagnosis and treatment of hypertension and pre-eclampsia in pregnancy	**In progress** • Hospital actions implemented • Remaining area to be completed: – System postnatal monitoring in the community (measure)				
Establish a clinical pathway for women with identified placental implantation abnormalities	**New** • Implement pathway and guideline				
PMMRC recommendation from 14th report	**New** • Waikato will review all 38 recommendations from previous PMMRC reports and identify: – Recommendations that are still considered completed and implemented in 2021 – Recommendations that require an update – Recommendations that require new implementation plans • Outline a plan for all recommendations requiring an update or new implementation • Plan Implementation				

Appendices

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Appendix 1: Abbreviations/acronyms

Term	Meaning
ACC	Accident Compensation Corporation
BFHI	Baby Friendly Hospital Initiative
BMI	Body mass index (a measure of body fat based on height and weight)
CADS	Community Alcohol and Drug Service
CTG	Cardiotocography (used during pregnancy to monitor fetal heart rate and uterine contractions)
DHB	District Health Board
ED	Emergency Department
GA	General anaesthetic
GAP	Growth Assessment Protocol (programme)
GP	General practitioner (doctor)
HDU	High Dependency Unit
HEAT	Health Equity Assessment Tool
HQSC	Health Quality and Safety Commission
ICU	Intensive Care Unit
IOL	Induction of labour
IUCD	Intra-uterine contraceptive device
LARC	Long-acting reversible contraceptives
LMC	Lead Maternity Carer (community midwife)
MDT	Mullti disciplinary team
MEWs	Maternity Early Warning score
MFYP	Midwifery First Year of Practice programme
MMWG	Maternal Morbidity Working Group
MOH	Ministry of Health
MQSP	Maternity Quality and Safety Programme
NE	Neonatal Encephalopathy
NEWs	Neonatal Early Warning score
NGO	Non-Government Organisation
NICU	Newborn Intensive Care Unit

Term	Meaning
NMMG	National Maternity Monitoring Group
NRT	Nicotine replacement therapy
NZ	New Zealand
PAR	Patient at Risk (team)
PHO	Primary Health Organisation
PMMRC	Perinatal and Maternal Mortality Review Committee
RANZCOG	Royal Australian and New Zealand College of Obstetricians and Gynaecologists
RM	Registered Midwife
RMO	Resident medical officer (doctor)
RN	Registered Nurse
SAC	Severity Assessment Code
SBARR	– Situation – Background – Assessment – Recommendation – Response
SGA	Small for gestational age
SMO	Senior medical officer (consultant doctor)
SP	Standard primipara
SUDI	Sudden Unexplained Death in Infant
UNICEF	United Nations Children's Fund
WAU	Women's Assessment Unit
WHO	World Health Organisation

Appendix 2: Glossary of terms

Culture – The way of life, beliefs, customs and arts of a particular society, group, place or time. Culture can also refer to a way of thinking, behaving or working that exists in a place or organisation (such as a business).

Cultural competence – Culture can relate to more than ethnicity alone, for example socio-economic status, religion, gender, age, sexuality or disability. Cultural competence is the ability to interact effectively with people of different cultures. It requires an awareness of cultural diversity and demonstration of the attitude and approach that allows people to work effectively cross-culturally. It applies to people working with each other, consumers and whānau/families.

Cultural safety – An environment that is spiritually, socially and emotionally safe, as well as physically safe for people; where there is no assault challenge or denial of identity, of who they are and what they need. It is about shared respect, shared meaning, shared knowledge and experience of learning together. An important principle is that it doesn't ask people to focus on the cultural dimensions of any culture other than their own. Culture can relate to more than ethnicity alone, for example socio-economic status, religion, gender, age, sexuality or disability.

Engagement – A participatory process where stakeholders are involved in dialogue about their views on a topic.

Equality – Everyone is treated the same based on the assumption that everyone has the same needs.

Equity – Unequal treatment of unequal needs with the aim of achieving similar outcomes.

Model of care – A model of care defines the way health and social services are delivered. They can encompass the broader holistic needs of people, describe an end-to-end journey and could include self-management, prevention, early detection, intervention, treatment and rehabilitation, as well as services provided by other social services. Models of care describe what services people should have access to, how they get into and move between them, as well as describing enablers for the model of care, such as how providers share information between themselves and with people. What is included in a model of care can be variable and ranges from just clinical management in specific areas to more comprehensive clinical and holistic needs.

Outcome – A result or consequence. A health outcome is a change in health status as a result of one or several interventions.

Primary care – Primary care is often considered the first point of contact in the community for health care. Primary care is often seen as general practice. The term primary health care also relates to first points of contact but is considered wider than general practice and includes any health services in community settings, such as pharmacies.

SAC – Severity Assessment Code
Adverse events are events with negative reactions or results that are unintended, unexpected or unplanned (often referred to as incidents or reportable events). All New Zealand health providers are obliged to comply with the National Adverse Events reporting Policy to report SAC 1 and 2 events.

- SAC 1 is death or permanent severe loss or function
- SAC 2 is permanent major or temporary severe loss of function
- SAC 3 is permanent moderate or temporary major loss of function
- SAC 4 is a near miss event

Each identified NE case is SAC rating reviewed. Those that are allocated a SAC rating in addition to the NE review process to PMMRC. Depending on severity this may also include a report to the HQSC.

SBARR – Tool used in healthcare to communicate key information in a common format to update collegues about a clinical situation.

- Situation
- Background
- Assessment
- Recommendation
- Response

Stakeholder – Person, group or organisation that has interest or concern in an organisation. Stakeholders can affect or be affected by the organisation's actions, objectives and policies. Some examples of key stakeholders in this context are providers, employees, government (central and local), professional agencies, iwi, hapū, primary care alliance partners, service users, patients and communities.

Pregnancy and maternity

Planning for your pregnancy

- Alcohol and fertility
- Pre-pregnancy folate
- Help to stop smoking
- Healthy weight and physical activity
- Women who are taking anti-epileptic medicines for epilepsy, mood or pain
- Women who have had gestational diabetes in a previous pregnancy
- Women with experience of mental illness
- Women with diabetes
- Women who have had severe complications in a previous pregnancy or currently have severe/ complex health conditions

Just found out you're pregnant?

- Choosing a midwife (lead maternity carer)
- If you had a preterm birth in a previous pregnancy
- First trimester scanning
- Early pregnancy screening tests
- Smart Start
- Women over 40 years old
- Women under 20 years old
- Maternity Resource Centre – Te Kuiti
- Informed consent

Having a healthy pregnancy

- Alcohol and pregnancy
- Smokefree pregnancy
- Food safety during pregnancy
- Baby movements in pregnancy
- Sleeping during pregnancy and sleeping on your side
- Iodine and pregnancy
- Vitamin D and pregnancy
- Iron and pregnancy
- Healthy weight gain during pregnancy
- Flu vaccination during pregnancy
- Whooping cough vaccination during pregnancy
- Maternal mental health
- Pre-eclampsia warning signs
- Preterm birth in a previous pregnancy

Pregnancy complications

- Bleeding in early pregnancy and the Early Pregnancy Assessment Clinic (EPAC)
- Pre-existing diabetes: type 1 or 2
- Gestational diabetes (GDM)
- Having a large baby
- Having a small baby
- Having twins or more
- Pre-eclampsia
- Breech presentation
- Obstetric cholestasis
- Preterm prelabour rupture of membranes (PPROM)
- Referral to the Waikato Hospital Antenatal clinic
- Referral to the Waikato Hospital Day Assessment Unit (DAU)

Preparing for labour and birth

- Choices for giving birth in the Waikato
- Giving birth at Waikato Hospital
- Childbirth education
- Pregnancy, childbirth and parenting education for hapū māmā and pēpē
- Going into labour
- Support people in labour
- Induction of labour (IOL) at Waikato Hospital
- Possible interventions during labour

After your baby has arrived

- Where to have your postnatal care
- Breastfeeding your baby
- Formula feeding your baby
- Coping with grazes, tears and stitches
- Contraception after birth
- Your mental health after birth
- Getting to know your baby
- PEPE (Parenting Education Programme)
- Well Child Tamariki Ora services in Waikato
- Space at Waikato playcentres
- Maternity Resource Centre – Te Kuiti

Hapū māmā and pēpē

- Pregnancy and parenting education for hapū māmā and pēpē
- Whenua (placenta)
- Tamariki Ora (Well Child services)

waikatodhb.health.nz/pregnancy

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