Hauora Tairāwhiti

2019/20 Maternity Quality & Safety Annual Report

Improving Equity

Cover Photos

Thank you to Anna Rickard, Kristy Buckley and Lena Martin for providing the beautiful photographs for the cover of this report.

Photo 1

Anna Rickard is a local Mum of five; this photo is from Anna's last pregnancy.

Anna was born here in Gisborne in 1991, 4 of Anna's children were born at Gisborne Hospital and one born at Te Puia Springs Hospital.

Anna and her husband are from Ruatoria. Anna and her whānau love to be outdoors hunting, diving, fishing etc.

Photo 2

Kristy Buckley, married to Matt, has two girls Anne (3) and Sylvie (1). Kristy is a teacher and has worked at a number of schools in Gisborne as well as up the coast in Ruatoria.

Both of their girls were born on the North Shore as that's where they were living for a few years before returning home to Gisborne last year.

Annie was 5 days overdue, Sylvie was 6 1/2 weeks early. Both very different and this carries down to their personalities now. They look forward to the years ahead with raising girls.

Photo 3

Lena Martin is a mum to two, from Ngāti Maniapoto and has lived in the Tairāwhiti district since 2005. Lena became a registered midwife in 2018 and has worked as a Lead Maternity Carer in the community until going on maternity leave in 2020. Lena is hoping to join our Puawai Aroha whānau as a core midwife in 2021.

Pictured is Lena's youngest pēpi Eva at two hours old with back up midwife Teresa Buchanan. Eva was born at home in Manutuke, in the early hours of the 13th of May - right as NZ went back into level 2 of our COVID-19 response. Lena was very grateful to have the wonderful care of her colleagues Nerissa Walters and Teresa Buchanan during her pregnancy, labour and birth. Giving birth during a pandemic was certainly not what Lena expected when she became pregnant with Eva but her birthing experience was empowering and she couldn't have asked for better support.

Table of Contents

1.0 Acknowledgements

We would like to thank the many people who have contributed to the completion of this our eighth edition of the Tairāwhiti Maternity Services Annual Report. We also acknowledge that the report may not be totally inclusive of all our community partners - we value our relationships always.

"Ka mihi maioha atu ki te nui o te tangata nana I homai he korero kia tutuki ai tenei kaupapa ko te putanga tuawaru o te ripoata a tau mo te Puawai Aroha o te Tairāwhiti . Ka mihi hoki ki etahi o o tatou roopu a hapori kaare i watea ai ki te tuku mai he korero I te wa e tika ana – ahakoa tena ka kaingakautia o tatou whānaungatanga I nga wa katoa."

2.0 Introduction

Maternity Consumer Leader Jess Claffey

What a year!

My name is Jess Claffey, I have been a Consumer Leader on the Maternity Quality and Safety Committee for Hauora Tairāwhiti for the past 4.5 years. This past year has been very different for me as a Consumer Leader with restrictions on what I have been able to do due to the COVID lockdowns. We had 3 new Consumer Leaders join our committee but unfortunately we haven't managed to meet as we would have normally or been out in the community or helped out with our annual maternity consumer survey which is always in April due to the COVID restrictions. However, I was able to complete the follow up telephone calls to those women who did complete a survey during April. I enjoy doing this and listening to the experience of women who have been in our maternity unit, I had positive comments from all the mums I spoke to. I am also on the guideline group as a consumer, these meetings may not have occurred face to face during lockdown but we communicated through email until meetings could be recommenced face to face. We have managed to review and update all of the guidelines which were due for review, ending 2020 with every maternity guideline up to date. It is important that a consumer is involved on this group so the woman's voice can be heard. I was very involved with the project which was how we could implement the national hypertension guideline locally and particularly on how best to ensure women could continue to be monitored after having their babies and going home from the hospital.

I am looking forward to a very hands on year this year, and being able to be out in the community more.

Many thanks,

Jess Claffey
Maternity Consumer Leader

Maternity Consumer Leader Vesna Radonich

Kia Ora
Dobro dosli
Oku Vesna ahau

In 2014 I was asked to step into the role as one of the MQSP Consumers as a voice for mums. We had just welcomed our first child, a boy, Rawera Mijo Marks. It was rewarding to be in a role where our DHB supported us in being heard and encouraged us to be involved in all levels of maternity. We were a passionate bunch of mums who reached out in community and wanted to make a difference for all.

In 2018 after 4 years in the role I stepped away to take a break. Soon after we found out we were expecting baby number two, a girl, Tepiu Leon Marks

In 2020 I had the opportunity to step back into the role, which had many adjustments to be made with the COVID journey in our little DHB. Today I am excited to be able to be back face to face with our community, women, DHB and be a part of a role that allows our mums, dads and whānau to have a voice.

Ngā mihi

Vesna Radonich
Maternity Consumer Leader

Local Leadership of MQSP – Introduction from Liz

It is a great pleasure as the Director of Midwifery for Hauora Tairāwhiti to present our eighth Maternity Quality and Safety Programme (MQSP) Annual Report for 2019/20. This is a little delayed in publication due to COVID but 'better late than never'. The report provides you with a comprehensive overview of our district-wide maternity services, our highlights and achievements, how we continue to work with our community colleagues and services and ongoing opportunities to improve our services.

The maternity team at Hauora Tairāwhiti work in partnership with the local Lead Maternity Carer (LMC) midwives, our community primary care and iwi providers and consumers to provide a service which reflects and meets the needs of our local population. Our overall aim is to maintain and improve the quality and safety of the care we provide to all women, babies and their whānau. However, we acknowledge there is inequity in the health of our population which we continuously strive to address.

We will achieve this through our commitment to continuously drive forward by reviewing what we do through the MQSP. With the new MQSP quarterly reporting requirement we have been able to keep a closer eye on the areas which we are working on. The MQSP broadens our vision on what we can do as a community 'together', when we can do it, and what we can achieve now and in the future. Our main focus is on ensuring that our services are women and baby focused, equitable, accessible and engaging, starting from increasing the number of pregnant women who engage early with their LMC through to the discharge of a happy and healthy māmā and pēpi.

Once again this has been a challenging year which was further impacted when the pandemic was declared in April 2019. This was a stressful time for all involved including our hapu māmā and their whānau due to changes/restrictions in the services both here in the hospital and out in the community. We had to impose restrictions to our hapu māmā who were only permitted one support person who was to remain with them during labour and birth and that same support person was to remain for the duration of the postnatal stay with no additional visitors allowed during levels 3 and 4. However, this was to keep everyone safe and the feedback we received from the consumer audit which was conducted throughout April was reassuring and gave positive feedback informing us that everyone appreciated what we did and the care we provided.

We continue to see increasing acuity within the unit, with higher numbers of women requiring more complex care due to co-morbidities. This has impacted on the number of women handed over during labour for secondary care. The challenge has been addressing capacity to meet demand, sometimes with little or no warning. The workforce is an area which is constantly being reviewed so that we can ensure we can meet this increased demand on our services whilst maintaining safe staffing and high quality safe services. Staff have been working hard to increase the accuracy of Trendcare data (acuity tool) so that we can monitor this growing acuity. Trendcare is part of the Care, Capacity and Demand Management (CCDM) programme in maternity which has been one of our projects over the past 14months and is part of the hospital wide CCDM. We aim to have this fully implemented by the required national deadline of June 2021.

We have also fully implemented the National Hypertension guideline and the Maternity Early Warning System (MEWS), both have been large projects which we are pleased to say we have successfully completed over the past year. We now aim to introduce the Neonatal Early Warning System (NEWS) as well as other projects which will enhance the services we provide.

We are proud of our achievements over the past year and look forward to the challenges ahead in making further improvements through our dedication and commitment to a 'one team/one community system' approach. I hope you enjoy reading our report.

Liz Lee Taylor
Director of Midwifery & Clinical Midwife Manager

3.0 Maternity Tairāwhiti Vision and Values

To provide evidence informed/based maternity services which are seamless, culturally appropriate, woman-centred, and integrated within Tairāwhiti. Our Clinical Leadership and Partnership aim is: “Keeping the woman at the centre of care in the Tairāwhiti Maternity Services”.

Whakarangatira | Enrich:
We value and validate the role of mothers and parents. The woman is nurtured and respected. We form and follow guidelines to promote best practice such as breastfeeding. Screening to ensure good mental health is used regularly to help preserve and improve maternal emotional and mental wellbeing.

Awhi | Support:
The dignity of the woman and her whanau are recognized. The infants are recognised as the lines to the future. Haoura Tairawhiti continues to provide Pepi pods and support safe sleep for infants. The maternity department provides 24 hour a day advice and supervision for transitioning into parenthood. Mothercrafting is available for mothers with infants in the neonatal ICU.

Kotahitanga | Togetherness:
Midwives and consultants work in partnership with women in the community to pursue healthy pregnancies and safe births. Midwifery and consultant care is planned with the women we see to prioritise and implement actions that protect mothers and their infants from risk. Women are encouraged to involve their whanau in their health and care.

Aroha | Compassion:
We share in the joy and the sadness of our women along life’s paths. Words of praise and encouragement are used whenever possible during a woman’s care. During times of loss, for example miscarriages, we listen to and hold her sadness. With joy and sadness we facilitate the creation of memories for the woman and her whanau to carry with them in to the future.

Puawai Aroha | Blossoming of Love

Working in Harmony together for the women of Tairāwhiti:

- We always treat each other with courtesy and respect
- We value constructive feedback
- We will avoid being defensive and give feedback in a constructive manner
- We strive to recognise and celebrate individual and team accomplishments
- As Team members, we will pitch in to help where necessary to help solve problems and catch up on behind scheduled work
- We acknowledge differences in knowledge and skills between professions and areas of work and respect each contribution to team working and the women and baby’s care
- We will commit to attending clinical audit and reflection meetings whenever possible and value those as important learning tools.

4.0 Our Population

Tairāwhiti District Health Board Area

Te Tairāwhiti "the coast upon which the sun shines across the water."

Geographically Tairāwhiti is unique and very beautiful. Located on the East Coast of the North Island, Tairāwhiti starts in the East Cape areas beyond Hicks Bay (north of Gisborne) and traverses down to the Wharerata ranges (South of Gisborne). The western boundary runs along the Raukumara Range, which separates it from the Opotiki district. In the southwest, its boundary runs along the western edge of Te Urewera National Park.

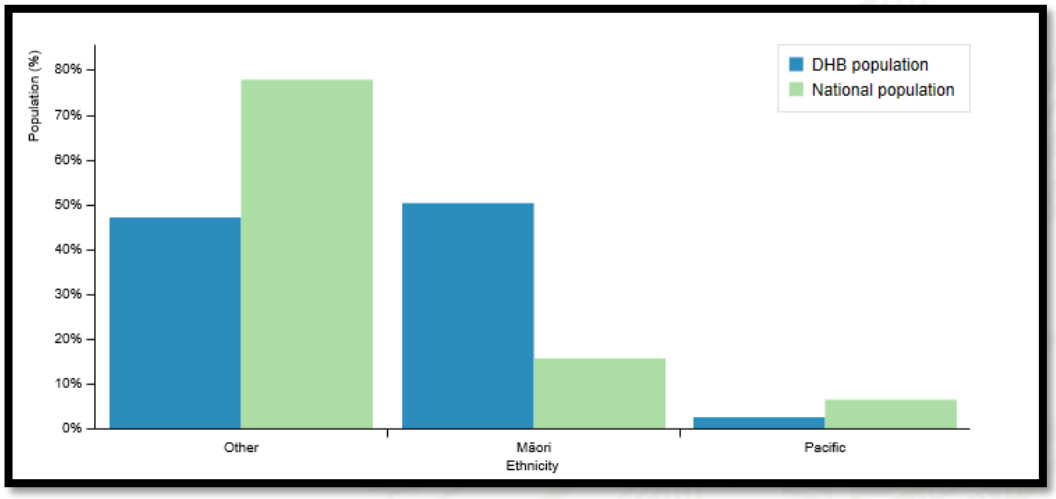
Hauora Tairāwhiti is located in Gisborne City the “first city in the world to see the sun”. We have long sandy beaches, sunny weather and mild winters. Although very tranquil, Tairāwhiti is very remote, rural and isolated from our other main centres in New Zealand. This can be advantageous at times and at other times it can be very challenging.

The population of Tairāwhiti sits around 48,680 (PHO enrolment data 2019 Q2). The ethnic diversity of Tairāwhiti is quite small, with around 24,524 or 50.4% of the population in Tairāwhiti identifying as Māori, which is proportionately higher than the national average.

Tairāwhiti is sparsely inhabited and isolated, with small settlements along the eastern shore including Tokomaru Bay and Tolaga Bay. Around 35,700 live in the city of Gisborne. The largest other settlements are the towns of Tolaga Bay and Ruatoria, each with populations of over 700.

Inland, the land is rough, predominantly forested, hill country. A spine of rough ridges dominates the centre of the region, culminating in the impressive bulk of the 1752 metre Mount Hikurangi in Waiapu Valley in the region's northeast. This mountain is the fifth highest mountain in the North Island, and the highest that is not a volcano. Regarded as sacred by the Māori, there is some justification to the claims that this is the first mountain to see the sun in summer.

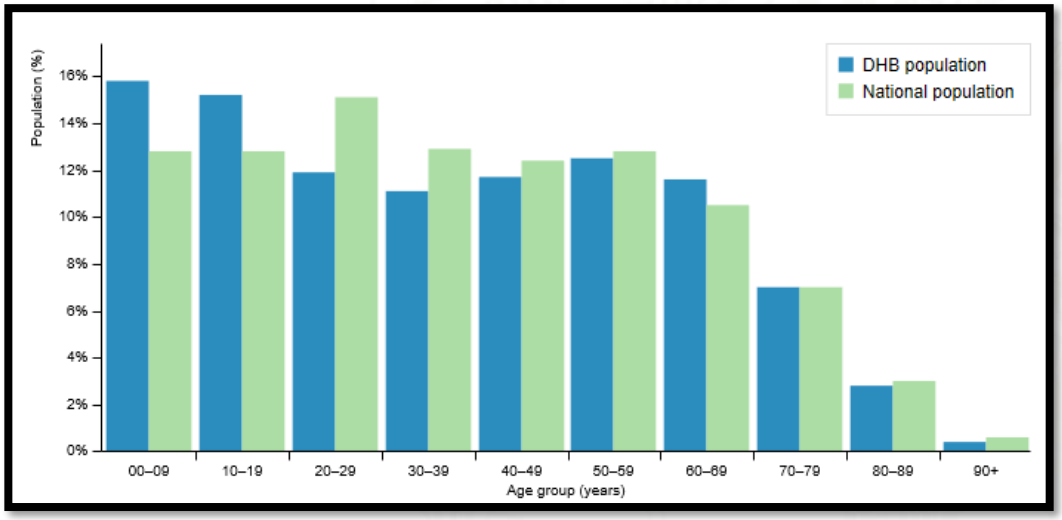
The region's population has higher than the national average proportion of Māori - over 50% - and still maintains strong ties to both Māori tradition and the iwi and marae structure. The predominant iwi are Ngāti Porou, Rongowhakaata, Ngai Tamanuhiri, Te Aitanga a Mahaki.



Tairāwhiti is economically supported by industries such as agriculture, forestry (including timber processing), fishing, viticulture, and horticulture.

Tairāwhiti has a large proportion of young people much higher than the national average in those aged between 0 and 19 years of age. This associates a much higher resource cost.

These factors: geography, industry, and age of the population attribute to the overall deprivation of Tairāwhiti.



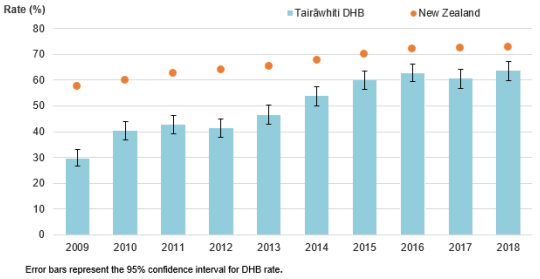
Source: Tairāwhiti Population 2018/19 - Ministry of Health website/My DHB

Each year we have an average of 660 births of which on average 70% identify as being Māori.

5.0 Maternity Clinical Indicators

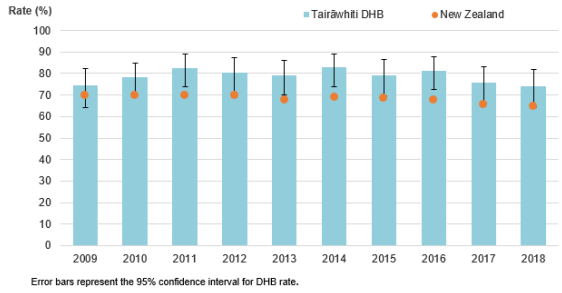
INDICATOR:	PERFORMANCE:
Clinical Indicator 1: Registration with a Lead Maternity Carer (LMC) in the first trimester of pregnancy	2013: 46.8% 2014: 53.9%. 2015: 59.7% 2016: 62.8% 2017: 61.1% 2018: 63.5%

Our percentage has been mostly unchanged for the last three years. The New Zealand average is also stable 72.7%. Our levelling off is in line with a levelling off of the New Zealand average over the last three years. This is an area which we continue to try and improve. We continue to distribute information widely through GP offices and other primary care settings and the local laboratory and our website. Materials include a pamphlet "Book with a Midwife before you are 10 weeks pregnant". This pamphlet, along with LMCs cards, are also being kept in sonographers' premises and given to women who come for a dating scan.



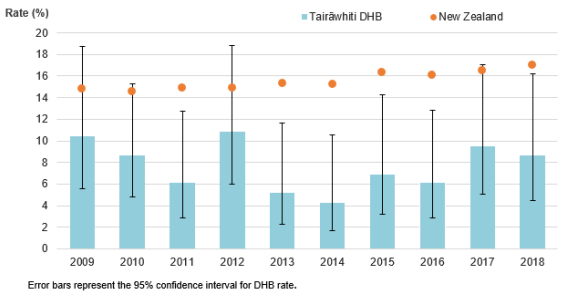
Clinical Indicator 2: Standard primiparae who have a spontaneous vaginal birth	2013: 80% 2014: 83% 2015: 79.5% 2016 80% 2017: 75% 2018: 73.9%

The New Zealand average is 64.7%. Although our confidence interval crosses the New Zealand average, we have consistently exceeded the New Zealand average despite our higher risk population related to our ethnic mix and our depravity levels.



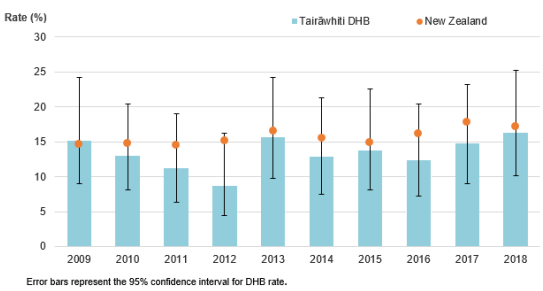
Clinical Indicator 3: Standard primiparae who undergo an instrumental vaginal birth	2013: 5% 2014: 4%. 2015: 6.8% 2016 6.7% 2017: 9.8% 2018: 8.7%

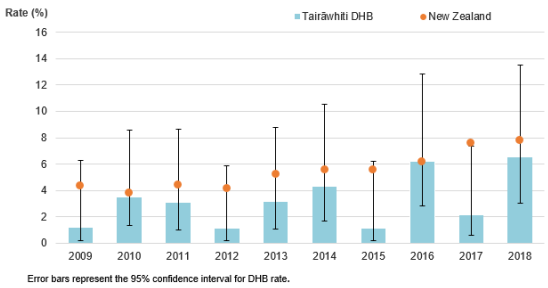
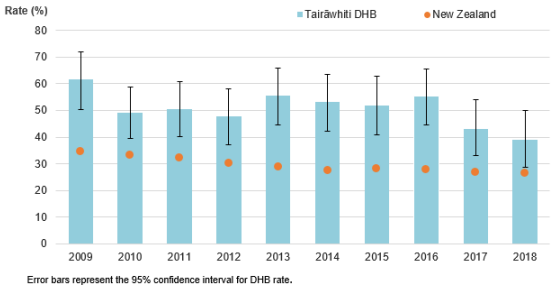
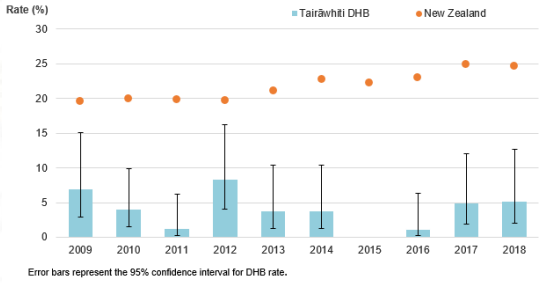
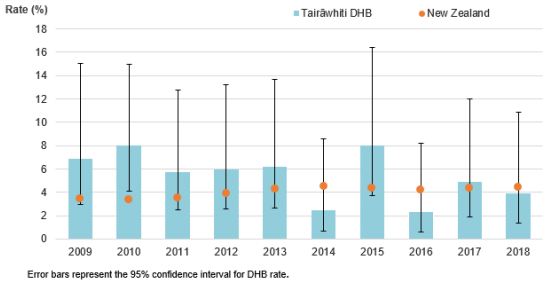
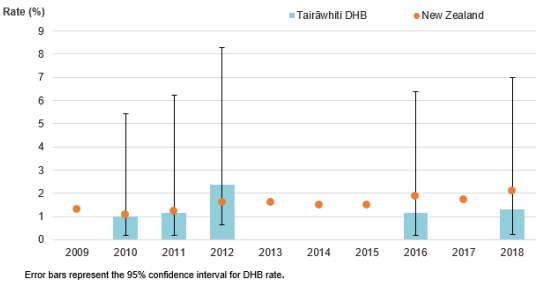
We remain well below the average for secondary and tertiary facilities of 17.0% for instrumental deliveries. This reflects our high quality and woman centred midwifery intrapartum care.

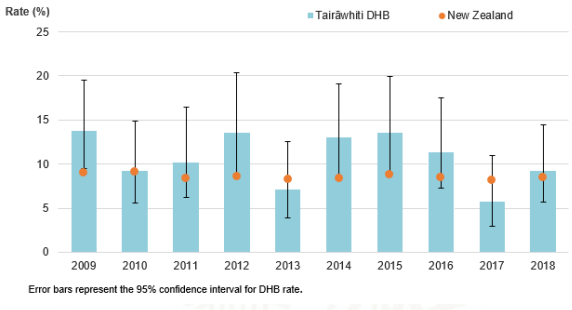
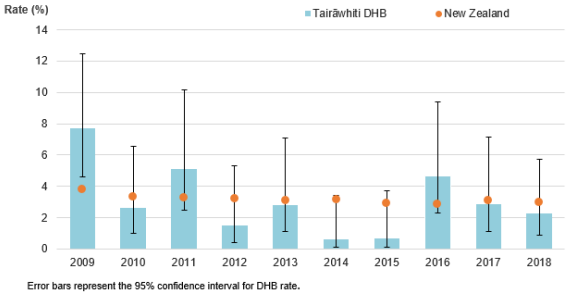
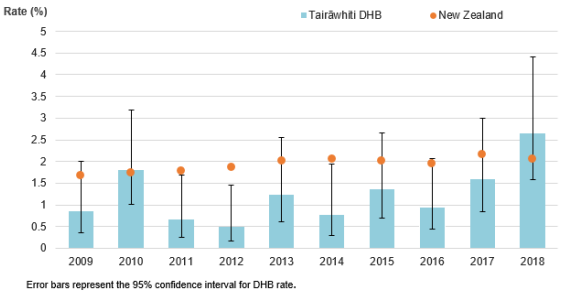
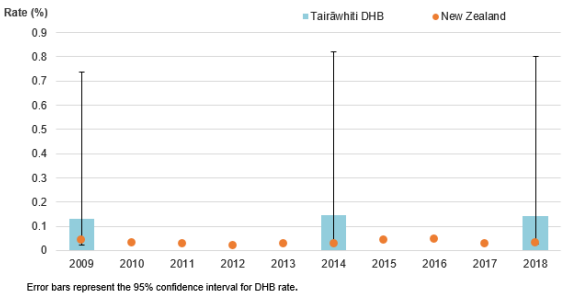


Clinical Indicator 4: Standard primiparae who undergo caesarean section	2013: 14.6% 2014: 12.8% 2015: 13.63% 2016 13.5% 2017: 15.2% 2018: 16.3%

As with New Zealand our average continues to slowly rise. Our 95% CI crossed the New Zealand median of 17.2%. We continue to monitor our primary caesarean sections for appropriateness at our weekly Multidisciplinary Quality Meetings as well as the O&G Morbidity and Mortality Department meetings

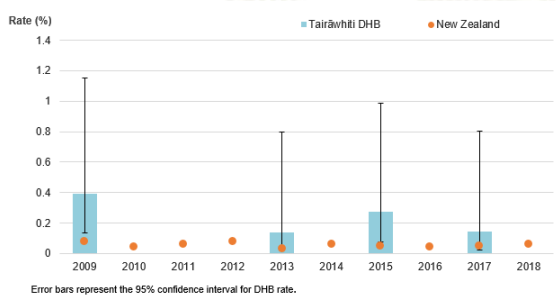


INDICATOR:	PERFORMANCE:	
Clinical Indicator 5: Standard primiparae who undergo induction of labour	2013: 4.3% 2014: 4.3% 2015: 1.1% 2016 6.7% 2017: 1.1% 2018 6.5% The New Zealand average is 7.8% and our confidence interval crosses the NZ average. We monitor inductions for guideline compliance and consistency of care. We have updated our induction of labour guideline to reflect the recently released New Zealand Induction of Labour guideline.	
Clinical Indicator 6: Standard primiparae with an intact lower genital tract (no 1st- to 4th-degree tear or episiotomy)	2013: 54.9% 2014: 53.7 % 2015: 52.6% 2016 53.2% 2017: 42.3% 2018: 39.0% We continue to be above the average of 26% for secondary and tertiary facilities in NZ. Our consistently low rate of perineal trauma reflects the excellent intrapartum care given by our LMC's and core midwives.	
Clinical Indicator 7: Standard primiparae undergoing episiotomy and no 3rd- or 4th-degree perineal tear	2013: 3.7% 2014: 3.4% 2015: 0 2016 1.3% 2017: 5.1% 2018: 5.2% Our rate of episiotomy is consistently low. The NZ average for secondary and tertiary facilities is 24.6%. Our 95% CI is well below this value giving validity to this statistic. This again is a reflection of our outstanding midwifery intrapartum care.	
Clinical Indicator 8: Standard primiparae sustaining a 3rd- or 4th-degree perineal tear and no episiotomy	2013: 6.1% 2014: 2.4% 2015: 7.9% 2016 2.6% 2017: 5.1% 2018: 3.9% The NZ average for secondary and tertiary facilities is 4.5%. Our 95% CI crosses this average. Due to our small numbers the percentage can appear to change dramatically year to year. Our 5 year average of 4.4% better reflects our overall OASIS rate and is in line with the New Zealand average.	
Clinical Indicator 9: Standard primiparae undergoing episiotomy and sustaining a 3rd- or 4th-degree perineal tear	2013: 0 2014: 0 2015: 0 2016 1.3% 2017 0 2018: 1.3% Our episiotomy percentage as well as our instrumental delivery rate among standard primiparae is consistently low, leading to a low rate of extension to 3rd or 4th degree tears. The overall NZ rate remains low as well at 2.1%.	

INDICATOR:	PERFORMANCE:	
Clinical Indicator 10: Women having a general anaesthetic for caesarean section	2013: 7.1% 2014: 13 % 2015: 13.5% 2016 9.7% 2017: 3.8% 2018: 9.2% The NZ average this year is 8.5%. Our 95% CI crosses the median implying we are in line with the national average. GA caesarean sections were audited following the 2016 clinical indicator release in 2018. All appeared to be appropriate and no anaesthesia or obstetric trends were identified.	
Clinical Indicator 11: Women requiring a blood transfusion with caesarean section	2013: 3% 2014: <1% 2015: <1% 2016 3.4% 2017: 2.3% 2018: 2.3% As our 95% CI crosses the median. We are in line with the NZ average of 3.0%. Our continued aggressive use of oral and IV iron therapy for iron deficiency anaemia in pregnancy has resulted in better maternal haemoglobins at the time of labour and delivery or caesarean section, keeping our transfusion rate low.	
Clinical Indicator 12: Women requiring a blood transfusion with vaginal birth	2013: 1.2% 2014: 0.8% 2015: 1.2% 2016 1.0% 2017: 1.7% 2018: 2.7% The percentage of women who require a blood transfusion with a vaginal birth is consistent with the national average of 2.1% but with a wide 95% CI. Recognising that postpartum haemorrhage (PPH) is a potential life threatening emergency is something that we continue to emphasise. This includes requiring all midwifes and obstetricians to attend our PROMPT courses yearly. We follow the national PPH guideline and have instituted a Massive Transfusion Protocol. All women are now risk scored for PPH continuously during the antepartum and intrapartum periods with the incorporation of standardized measures in an attempt to reduce the rate of PPH.	
Clinical Indicator 13: Diagnosis of eclampsia at birth admission	2013: 0 2014: According to national data had one case of eclampsia during 2014. This was a coding error. There were no women with an eclamptic seizure in 2014 at Tairāwhiti. 2015: 0 2016 0 2017: 0 2018: 0.14% One eclamptic seizure occurred at Tairāwhiti in 2018. The case underwent an outside review and learning points were implemented. Early recognition and treatment of eclampsia is covered in PROMPT which is required yearly of all midwives and O&G's. Magnesium sulfate use in severe PET and strict blood pressure control protocols are consistently used with hypertensive disorders of pregnancy. The new Hypertension in Pregnancy national guideline has been fully implemented at our facility.	

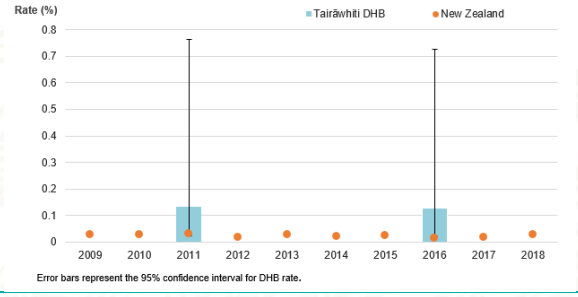
INDICATOR:	PERFORMANCE:	
Clinical Indicator 14: Women having a peripartum hysterectomy	2013: 2014: 2015: 2016 2017: 2018:	1 0 2 0 1 0

The New Zealand average is 0.1%. Peripartum hysterectomy remains a rare event in Tairāwhiti as well as New Zealand and its use remains a lifesaving procedure only.



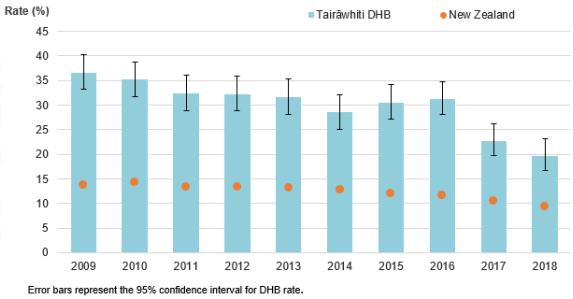
Clinical Indicator 15: Women admitted to ICU and requiring ventilation during the pregnancy or postnatal period	2013: 2014: 2015: 2016 2017: 2018:	0 0 0 0.1 0 0

No cases again reported at Gisborne Hospital. The rate for NZ is quite low as well at <0.1%.



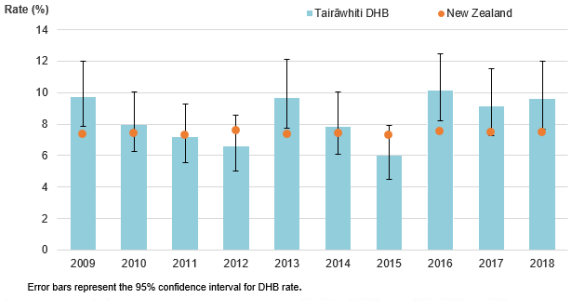
Clinical Indicator 16: Maternal tobacco use during postnatal period	2013: 2014: 2015: 2016 2017: 2018:	31.4% 28.5% 30.6% 29.2% 21.7% 19.7%

We persistently have among the highest rates of smoking among pregnant women in New Zealand. The national average is 9.4%. Although there is an overall downward trend in numbers, this is an area of great concern and considerable effort has been put forth to decrease the rate of tobacco use in pregnancy with only mild success to date. We will continue our efforts to reduce tobacco use in our pregnant and non-pregnant women.



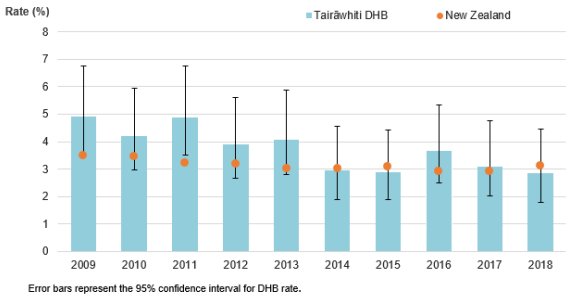
Clinical Indicator 17: Preterm birth	2013: 2014: 2015: 2016 2017: 2018:	9.7% 7.6% 5.6% 10.5% 9.2% 9.6%

We are above the NZ average of 7.5% but our 95% CI crosses the median. An audit of 2018 preterm deliveries was conducted. An overall preterm delivery rate of 8.4% was found using data from our Maternity Clinical Information System (MCIS). The information in MCIS is highly likely to be more accurate than the coding data used for the Maternal Clinical indicators. The audit also showed that antenatal steroids were offered and used consistently when clinically appropriate. Due to the significant impact of preterm delivery on neonatal morbidity and mortality, periodic audits will be performed to monitor our local performance.



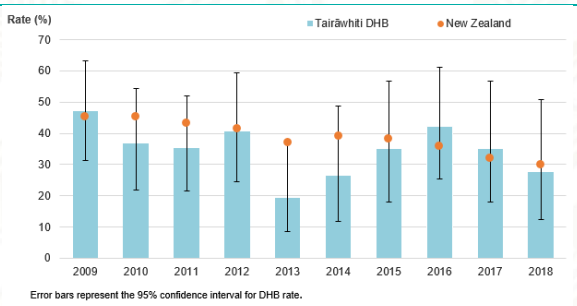
INDICATOR:	PERFORMANCE:	
Clinical Indicator 18: Small babies at term (37–42 weeks' gestation)	2013: 2014: 2015: 2016 2017: 2018:	4.0% 2.9% 2.8% 3.8% 3.3% 2.8%

The NZ average is 3.1%. Our 95% CI is quite wide reflecting our small number of deliveries. We promote the use of customised GROW charts with appropriate use of ultrasound to diagnose growth restriction. An audit this year of 24 months of delivery data showed a small for gestational age (SGA) detection rate of 41%. The average detection rate with GROW users is 42%. Learning points from the audit included continued surveillance of growth to at least 38 weeks gestation and having a high suspicion of SGA in women who smoke.



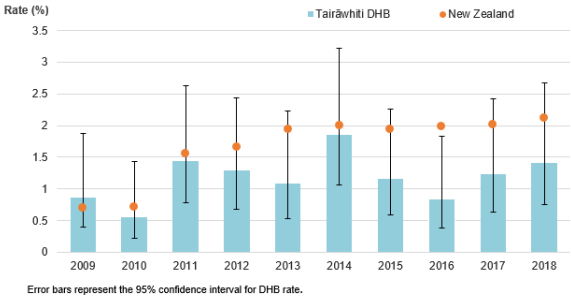
Clinical Indicator 19: Small babies at term born at 40–42 weeks' gestation	2013: 2014: 2015: 2016 2017: 2018:	19.2% 26.3% 35.0% 37.5% 35% 27.8%

The NZ average is 29.9% but our 95% CI is quite wide. See recent audit results above. By continuing to monitor fetal growth through to the EDD we hope to decrease the rate of SGA babies at 40-42 weeks.



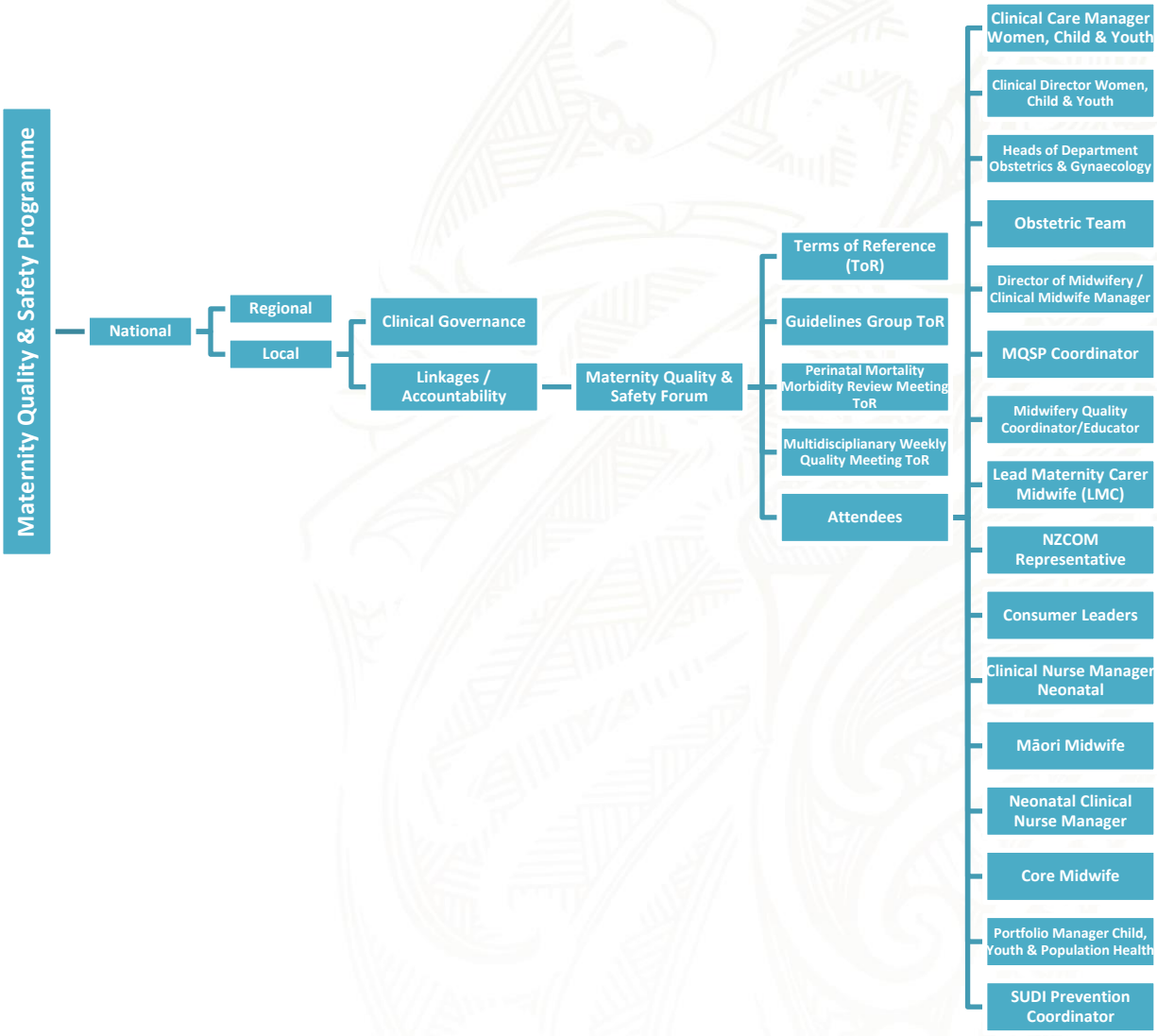
Clinical Indicator 20: Babies born at 37+ weeks' gestation requiring respiratory support	2013: 2014: 2015: 2016 2017: 2018:	1.1% 1.8% 1.1% 0.8% 1.2% 1.4%

Our numbers continue to remain below the NZ average of 2.1% but with an expected wide 95% CI. Any unanticipated neonatal unit admissions are presented at Perinatal Maternal and Mortality Committee meetings and appropriate clinical records are reviewed by a multidisciplinary committee for learning outcomes.



6.0 Maternity Quality & Safety Programme

Governance Structure



Maternity Quality Safety Programme Committee

The Maternity Quality and Safety Programme (MQSP) Committee meets monthly. The aim is to maintain and improve the quality and safety of the care we provide to all women, babies and their whānau. We will achieve this through our commitment to continuously drive forward by reviewing what we do.

The maternity quality and safety programme work is shared amongst managers, clinicians, consumers, community midwives and community agencies.

Pictured (from left): Nicki Dever (Group Manager Women, Child & Youth Services), Vesna Radonich (Maternity Consumer Leader), Iidil Merlini (Maternity Educator & Quality Coordinator), Jenelle Sheridan (Clinical Nurse Manager Neonatal Unit), Jess Claffey (Maternity Consumer Leader), Sally Raine (Core Midwife), Dr Sean Pocock (Obstetrician & Gynaecologist), Liz Lee Taylor (Director of Midwifery & Clinical Midwife Manager) Dr William Weiderman (HoD Obstetrics & Gynaecology), Puna Schwenke (Admin Support), Kaniwa Kupenga-Tamarama (SUDI Coordinator), Dr Becky Jones (Obstetrician & Gynaecologist). Absent: Kerri Walser (Lead Maternity Carer), Dr Shireen Heidari (Obstetrician & Gynaecologist)

Hauora Tairāwhiti

Highlights and Achievements from 2019/20

Highlights and achievements 2019/20

Hauora Tairāwhiti

We have had several highlights within our Maternity Quality and Safety Programme (MQSP) in 2019/20. These great achievements are as a result of the dedication that staff, consumers and community services have for the services we provide to the wider community and within Hauora Tairāwhiti.

No positive COVID tests

Completed maternity consumer survey during COVID lockdown, positive feedback received

Increased uptake for staff flu vaccination

Interface achieved between CTG machines & MCIS meaning CTGs can now be stored in women's electronic records

Increased number of midwives who have successfully completed the International Board Certified Lactation Consultant (IBCLC) accreditation process

Successfully implemented the Maternity Early Warning System (MEWS) chart across the hospital

Care Capacity Demand Management (CCDM) implementation on track - all staff IRR tested

Growth Assessment Protocol (GAP) audit results reveal increased detection of Intrauterine growth restriction (IUGR) babies who have management plans put in place to improve outcomes

Successfully implemented the National Hypertension Guideline including postnatal monitoring of Blood Pressure with GP follow up

Improved discharge information for GPs for women who have had hypertension which includes a mangement plan

Received approval to recruit 5th Obstetrician & Gynaecologist

All Maternity & Neonatal Unit guidelines up to date

No increase in Postpartum Haemorrhage and all well managed

3 new staff (2 Neonatal & 1 Maternity Unit staff) training up to provide Newborn Life Support training

FTE calculations completed, safe staffing maintained

Whāia te hauora i roto i te kotahitanga | A healthier Tairāwhiti by working together

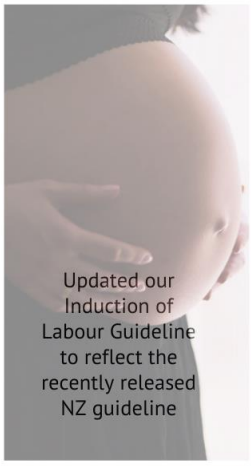
Hauora Tairāwhiti

Highlights and achievements 2018/19

Hauora Tairāwhiti

Decrease in number of small babies born at 40-42 weeks gestation

Successful Baby Friendly Hospital recertification with NZ Breastfeeding Alliance (NZBA)



Updated our Induction of Labour Guideline to reflect the recently released NZ guideline

Consistently exceeded the NZ average of standard primiparae having a spontaneous vaginal birth despite our higher risk population due our ethnic mix and our deprivation levels

We remain well below the average for secondary and tertiary facilities of 17.0% for instrumental deliveries

Consistently low rate of perineal trauma for standard primip reflects the excellent intrapartum care given by our LMC's and core midwives

Increased access to Long Acting Reversible Contraception (LARC) for all postnatal women in the unit as more midwives trained to insert these

Our rate of episiotomy for standard primip with no 3rd or 4th degree tear remains low (5.2% compared to 24.6% NZ average)

Cold chain recertification achieved enabling us to continue to store, offer & administer vaccinations to pregnant women in both the Antenatal Clinic & Maternity Unit

Peripartum hysterectomy remains a rare event in Tairāwhiti

Introduction of Neonatal pulse oximetry screening for cardiac abnormalities in maternity and available for home births too

Our continued aggressive use of oral and IV iron therapy for iron deficiency anaemias in pregnancy has resulted in better maternal haemoglobins at the time of birth, keeping our blood transfusion rate low

Notwithstanding COVID and lockdowns, all mandatory midwifery education (both recertification and DHB requirements) has been completed

Whāia te hauora i roto i te kotahitanga | A healthier Tairāwhiti by working together

Summary of Maternity Quality & Safety Programme Projects 2019/20

Project One – Complete implementation of the national hypertension guideline locally		Status
Rationale	National and local requirement to ensure appropriate care provided for women with diagnosed hypertensive disorders in pregnancy and postnatally	
Actions	1. Launch the revised discharge letters to GPs for recommended postnatal care and follow up for women with hypertensive disorders	
	2. Monthly meetings to discuss progress and implementation	
	3. Investigate how women can receive postnatal follow up at home or an appropriate alternative venue and how this will be funded if additional LMC/GP visits required	
	4. Look at funding so there is no additional cost for follow up care for the women once discharged from the hospital	
	5. Update the local guideline to meet national recommendations	
	6. Educate all providers	
	7. Develop an audit tool in 2021	
	8. Undertake an audit 2021	
	9. Review data collected and identify any learning actions 2021	
	10. Implement learning actions if applicable 2021	
Issues	Obtaining feedback from local GPs	
Risks	Retrieving and replacing BP machines when not returned or broken – on going cost	
Future	1. Business as usual and guideline fully implemented 2. Equity of care for all women diagnosed with a hypertensive disorder in pregnancy	
Project Two – Fully implement maternity CCDM by July 2021		**Status**
Rationale	1. National requirement 2. Ensure safe staffing of maternity services 3. Capacity to meet demand	
Actions	1. Continue to work with hospital wide CCDM team including MERAS and Midwifery CCDM coordinator	
	2. Trendcare update training	
	3. Annual Trendcare IRR testing to ensure accuracy of data collection	
	4. HAAG screen in use	
	5. Introduce Local Data Council to ward meetings	
	6. FTE calculations performed with clean data	
	7. VIS Training	

Issues	Hospital wide implementation	
Risks	Not meeting the required time frame due to COVID lockdowns	
Future	1. All completed and business as usual by July 2021 2. Updates as when required 3. Annual IRR testing 4. Orientation of new staff to trendcare	
Project Three – Repeat PPH audit		**Status**
Rationale	To review if what was implemented has made a positive difference in reducing PPH rate	
Actions	1. Prepare audit tool	
	2. Collect data	
	3. Evaluate data	
	4. Present findings at PMMRC meeting March 2021	
	5. Implement any recommendations	
Issues	Obstetrician finding the time to complete this audit	
Risks	Results showing no improvement in reducing PPH rate	
Future	1. Proactive prevention of PPH through antenatal risk assessment for all women with management plan agreed and in place 2. Contemporaneous risk assessment on all women when in labour/prior to 3rd stage management 3. Maintain quick and effective response to PPH incidents therefore reducing morbidity 4. Accurate measurement of blood loss with appropriate management and follow up care 5. Reduced rate of PPH, in particular massive PPHs	
Project Four – Full implementation of the Maternity Early Warning Score and Chart (MEWS)		**Status**
Rationale	Improve the outcomes for women by avoiding or limiting severity of morbidity.	
Actions	1. Attend national meeting with HQSC and other DHBs	
	2. Prepare to implement the national MEWS	
	3. Establish clinical governance for MEWS and integrate within wider hospital patient deterioration governance system	
	4. Agree escalation pathway – complete mapping tool	
	5. Assess challenges and opportunities for the MEWS	
	6. Review and update relevant local policies to reflect MEWS	
	7. MEWS implemented through use in MCIS in maternity and printed maternity vital sign chart for hospital ward areas	
	8. Educate all hospital staff and lead maternity carers on the new system	

	9. Launch the MEWS hospital wide and celebrate	
	10. Monitor progress on the agreed area(s) eg, engage regularly with champions, review and respond to emails, queries and comments	
	11. Monthly audits completed	
	12. Present audit results at PMMRC meeting in March 2021	
Issues	None	
Risks	Escalation pathways not followed or reduced compliancy in use of chart outside of maternity area potentially putting a pregnant or postnatal woman at risk of morbidity	
Future	1. All pregnant women and up to 42 days postnatally are commenced on a Maternity Vital Signs Chart if admitted to any ward in the hospital 2. Any abnormal vital signs are escalated using the escalation pathway correctly 3. Women receive the appropriate care in a timely ,manner therefore reducing the risk of morbidity 4. Monthly audits completed and findings shared	
Project Five – Identify if there is any inequity in perinatal mortality for young mothers under 20 years of age here in Tairāwhiti and apply corrective actions if identified		**Status**
Rationale	As per PMMRC recommendation. If this exists it needs to be addressed so that all mothers regardless of age receive the same high quality, safe care to reduce morbidity and mortality	
Actions	1. Develop an audit tool to capture all pregnant women under 20 years of age specifically looking at smoking status at beginning and end of pregnancy, any infections screening/diagnosis during pregnancy and if treated, any screening for IUGR	
	2. Undertake the audit	
	3. Review data collected	
	4. Present findings at PMMRC meeting February 2021	
	5. Implement any identified learning actions	
Issues	Not all teenage pregnant women will assess care	
Risks	None	
Future	1. All young mothers have equal access to appropriate screening and care during their pregnancy in order to achieve equitable health outcomes 2. Assess if re-auditing is required in the future if there is an increase in the rate of teenage pregnancy which is currently low	

PROJECT STATUS LEGEND	
	Work has been completed and/or in business as usual phase
	Work is in progress/underway and nearing completion
	There is still a significant amount to achieve before completed

Future Project Plan

Initiative/priority	Rationale	Action	Expected Outcome	Measure	Timeframes
1. <u>NMMG recommendation.</u> Maintain/increase our midwifery workforce which reflects our local population	1. Maintain the high quality and safety of the maternity services we provide both in the hospital and community 2. Improved outcomes for mothers and babies 3. Midwifery workforce to reflect our local population of over 50% Māori 4. Midwifery workforce that meets Safe Staffing requirements	1. Work closely with WINTEC to re-instate local clinical hub for WINTEC student midwives 2. Support the clinical tutor 3. Advertise repeat information evenings for anyone interested in midwifery as a career pathway 4. Facilitate information evenings 5. Be part of any local Careers Expo's 6. All midwives must have completed preceptorship workshop to be able to support students 7. Support midwives to complete mentorship course so New Grad Midwives have access to a mentor for support during MFYP 8. Advertise two 0.8FTE New Grad positions each year which will be outside the normal FTE budget 9. Promote local Māori funding available for bridging courses for potential students who currently do not meet the enrolment requirements outside normal budget 10. Interview <u>all</u> Māori midwifery applicants who meet the minimum requirements for the role	1. Retention of enrolled student midwives 2. Increased number of students enrolling in the WINTEC pre-registration midwifery programme 3. Increased local New Graduate Midwives 4. Increased midwifery workforce which reflects our local population, so increased Māori midwives	All, if not, a very high percentage of student midwives successfully graduate and become part of our future workforce both in the hospital and in the community	1. WINTEC local clinical hub to be re-reinstated by April 2021 2. Information evening repeated each year in September, advertise in local paper in August 3. Attend career Expo each time one becomes available locally 4. Advertise New Grad Midwives positions each year from September
2. Recruit one full time MQSP co-ordinator	1. As per Crown Funding Agreement 2. To have a full time MQSP coordinator who is a midwife with an APC who will report to the DOM and the MQSP committee on all MQSP projects and present the quarterly and annual reports to the committee prior to submission to the MoH.	1. Prepare job description in line with other MQSP coordinators 2. Present to MQSP committee 3. Prepare advert and advertise widely 4. Follow recruitment process 5. Recruit successful applicant 6. Coordinator to chair MQSP meetings and report back on all projects in place and seek agreement on future projects	1. Successful recruitment of a full time MQSP coordinator	Position filled by January 2022	1. DOM to prepare job description for this role by March 2021 2. Present to MQSP committee March 2021 3. Advertise the position widely for 4 weeks minimum from end of March 2021 4. Shortlist applicants – end of April 2021 5. Interview mid May 2021 6. Recruit successful candidate by end of May 7. If unsuccessful or insufficient applicants extend advert till end of May 2021 8. To have this position filled by a midwife with a current APC by January 2022 9.

	Initiative/priority	Rationale	Action	Expected Outcome	Measure	Timeframes
3.	MOH requirement - Full implementation of CCDM	1. To meet safe staffing requirements by using recommended acuity tool	1. Complete any further staff training required on any upgrade in Trendcare 2. CCDM hospital coordinator to introduce Excel spreadsheet to collect data as an interim measure prior to software implementation, which maternity will be included in 3. Software to be implemented to capture the core data set on a permanent basis	1. CCDM fully implemented with all staff confident in using this tool and inputting correct data	1. Safe staffing maintained 2. Annual IRR completed 3. Annual FTE calculations completed 4. Business as usual in using the system	1. Fully implemented by June 2021 2. DOM, MERAS representation and project coordinator continue to attend monthly CCDM council meetings, VRM, operational and core data meetings. 3. Monthly local data council meetings take place at ward level 4. Complete implementation of VIS by April 2021 5. Repeat IRR testing annually in October/November or with any new update 6. Repeat FTE calculations annually in November and action outcomes 7. Utilise software for collating core data set once implemented TBC
4.	Neonatal Encephalopathy Taskforce recommendation - Introduce the Newborn Observation Chart and Early Warning Score (NOC & NEWS)	1. To reduce the incidence and severity of Neonatal Encephalopathy (NE) in Tairāwhiti	1. Follow the Project charter 2. Develop a User guide 3. Agree on local escalation pathway 4. Produce and have printed NOC/NEWS chart 5. Equipment inventory 6. Baseline audit form 7. Data collection tool 8. All staff to complete the Ko Awatea NEWS module as online training 9. Set date for GO LIVE 10. Auditing begins 11. Present audit results 6 monthly at PMMRC and implement any learning outcomes 12. Maternity staff to convert to using NOC electronically once we have Global MCIS	1. Compliancy in use of chart and then the electronic chart and escalation pathway followed throughout the hospital	1. Reduced cases and early detection of NEC by the actioning of the escalation pathway following early detection of a deteriorating baby	1. Agree escalation pathway March 2021 2. Print charts March 2021 3. Train all staff April/May 2021 4. GO LIVE May 2021 5. Commence audits May 2021 6. Analyse data collected Nov 2021 7. Present findings at PMMRC Dec 2021 8. Action any learning outcomes within the same month as above 9. Repeat the above 6 monthly - ongoing
5	MOH recommendation Continued review of use of Maternity Early Warning Score (MEWS) charts and include review of cases	1. Ensure continued compliance with use of MEWS and the Maternal Vital Sign chart (MVSC)	1. Staff member assigned to complete monthly audits 2. Auditor identifies a case to be reviewed or any other member of the team if involved in a case they wish to be reviewed	1. Compliancy maintained and escalation pathway followed throughout the hospital	1. Reduced maternal morbidity by the actioning of the escalation pathway following early detection of a deteriorating pregnant woman or postnatal woman	1. Monthly audits – on going 2. Analyse data collected 3. Monthly reports presented at PMMRC meeting with a case review, first presentation in June 2021 4. Action any learning outcomes within the same month 5. Repeat the above 6 monthly then annually depending on outcomes and MoH requirements

	Initiative/priority	Rationale	Action	Expected Outcome	Measure	Timeframes
6	Clinical Indicator - Reduce maternal tobacco use during pregnancy and the postnatal period	1. Healthier mothers and babies 2. Reduce number of maternal tobacco use during pregnancy and the postnatal period	1. Arrange a training update for all staff and LMCs 2. Training update for all hospital staff and community teams to help reduce smoking rates in our community 3. DOM working closely with provider and new Māori female smoking cessation provider employed to work with pregnant and postnatal women 4. Establish how this person can engage with LMCs and working in their clinics for improved access for women 5. Inform women of agreed increase in incentive by local provider if they successfully quit 6. Hospital wide quit smoking campaign	1. Good attendance at training 2. More women referred to smoking cessation providers 3. Increased success rate in women who engage with a quit smoking provider	1. Improved stats in Clinical Indicators and local provider reports	1. Identify smoking champions for all areas for the hospital and community – March 2021 2. Training session by national stop smoking trainers – March 2021 3. Training session for all hospital and community champions – March 2021 4. All hospital staff complete ABC online training – July 2021 5. All new staff receive smoking cessation education in their orientation – on going 6. Hospital wide Quit smoking campaign – May 2021 and repeat annually
7.	NMMG recommendation- Review of maternal mental health services with mental health team aiming for integration of mental health in maternity	1. Review needs of women & whānau 2. Review the local mental health services for pregnant and postnatal women using systems improvements approach 3. Identify barriers	1. Arrange meeting with the mental health team and LMC representative 2. Review current pathways to assessing care and identify any gaps 3. Agree improved pathways for women to access mental health services and implement	1. Equitable access for all women to appropriate mental health services	1. Easier access with clear pathways in place which provide equitable access to mental health services 2. Feedback from women and LMCs	1. Arrange meeting with the mental health team and LMC representative – March 2021 2. Review current pathways to assessing care and identify any gaps - April 2021 3. Agree improved pathways for women to access mental health services and implement - TBA
8.	Equitable access to maternity care for women accessing Te Hiringa Matua (Alcohol and Addition services for pregnant and postnatal women and whānau) who are not registered with an LMC	1. Women accessing Te Hiringa Matua have access to midwifery care though the DHB or an LMC	1. Meet with Coordinator/team leader of the services to discuss what is required and what we can offer 2. Agree on what can be offered and implement this 3. Go LIVE date agreed 4. Review 6 monthly	1. All women accessing the services of Te Hiringa Matua have access to and receive midwifery care	1. Feedback from Te Hiringa Matua services 2. Women receive equitable access to maternity care	1. Arrange meeting with Coordinator/team leader to discuss what they have identified as being required from their service and what we can offer - March/April 2021 2. Agree on what can be offered and implement support - TBC 3. Evaluate any support provided annually starting after the initiation of any new service/support and make changes if required as mutually agreed with Te Hiringa Matua team

	Initiative/priority	Rationale	Action	Expected Outcome	Measure	Timeframes
9.	NMMG recommendation - Improved informed choice and access to postnatal contraception for all postnatal women prior to discharge from the hospital	1. Equitable access to contraception	1. Continue to provide training for all midwives/nurses in the insertion of Jadelle (Long acting reversible contraception -LARC) 2. Organise and facilitate a contraception update for all staff and LMCs 3. Annual audit on LARC use 4. Source a contraception leaflet in English and Māori	1. All midwives and nurses updated in contraception and advice to be given to women	1. All women have informed choice and access to postnatal contraception for all postnatal women prior to discharge from the hospital	1. Continue to train staff in the insertion of Jadelle – ongoing 2. Training session of contraception – May 2021 3. Annual audit of LARC uptake
10.	Clinical Indicator - Review all cases of peripartum hysterectomy from 2013	1. Evaluate indications and outcomes and identify any learning outcomes	1. Develop an audit tool 2. Undertake the audit 3. Review data collected and report back on findings at PMMRC 4. Implement any identified learning actions	1. All cases were appropriately managed	1. Reduction in number of peripartum hysterectomy 2. Appropriate actions taken to prevent peripartum hysterectomy	1. Prepare audit tool by May 2021 2. Commence and complete audit by Aug 2021 3. Implement any changes required 4. Present findings at PMMRC meeting in Sept/Oct 2021
11.	Increasing the support and links between the secondary care unit and the rural primary birthing facility - Ngāti Porou Hauora (NPH), to improve equity	1. Support for implementing maternity quality and safety projects in NPH facility and for our midwifery colleague working in isolation	1. DOM to arrange initial planning meeting with NPH leaders & midwife 2. Discuss national projects and any gaps in service identified by the midwife and leaders plus any innovation projects in the rural facility 3. Continue to provide an annual PROMPT course 4. Agree on what other educational support may be required and available	1. Projects to improve quality and safety identified and implemented 2. Closer links between the secondary and primary care rural birthing unit/service	1. Improved relationship between the secondary and primary facilities 2. Projects implemented with mutual agreement of what support is needed and what we can offer in partnership	1. Arrange initial planning meeting with NPH leaders & midwife – Feb/March 2021 2. Agree what support is required and can be offered March/April 2021 and on-going 3. Support provided TBC
12.	Introduce gynaecological/ obstetric clinic in rural facility	1. Improve equity of access to obstetric and gynaecology services for women living rurally	1. HoD to liaise with hospital manager and midwife in rural facility to discuss this project 2. Further meeting to finalise the details and practicalities of this new service 3. Roster an O&G to run these clinics monthly initially 4. Review this service after 6 months to ensure capacity is meeting demand 5. Provide a report following this review to present to MQSP committee for further discussion	1. Clinic to run monthly 2. Women have easy access to this specialist care 3. Improved outcomes for mothers and babies 4. Improved outcomes for women requiring gynaecology consultations	1. Women attend these clinic and any follow up appointments required 2. Positive verbal feedback from women who receive this service	1. Meeting with rural facility manager and midwife early March 2021 to make final arrangements 2. First clinic to run by end of March/beginning of April 2021 3. Review this new service in October 2021 4. Present findings to MQSP committee November 2021 5. Action any required changes e.g. frequency of clinics end of November 2021 6. Repeat the above 6 monthly until service becomes BAU

	Initiative/priority	Rationale	Action	Expected Outcome	Measure	Timeframes
13.	Audit pulse oximetry screening which was introduced in October 2020 for all babies born in Tairāwhiti included those born at home	1. The early detection and access to care/treatment for babies with an undiagnosed congenital heart condition	1. Develop audit tool 2. Undertake audit 3. Review findings and prepare report 4. Present findings at PMMRC meeting 5. Implement any recommended changes 6. Repeat audit every 2 years	1. Audit completed and results shared 2. Compliancy with using this screening tool by all 3. Compliancy with actioning results and escalating when required	1. Babies with an undiagnosed congenital heart condition are detected early and required care initiated to reduce morbidity	1. Develop audit tool April 2021 2. Undertake audit May 3. Review finding and prepare a report 4. Present findings at PMMRC meeting June 2021 5. Implement any recommended changes 6. Audit bi-annually in month of May commencing 2023
14.	Implementing Badgernet Global migration project	1. Improved system functionality with regular upgrades	1. Work closely with Clevermed on time frame for full implementation 2. Work closely with Information Systems team to work through the logistics of local implementation 3. Midwife educator to train all staff on use of new programme and any future new staff 4. Agree on GO LIVE date	5. Full migration completed within set time frame	1. All staff confident in using the new system	1. UAT completed by April 2021 2. Midwife educator to train all staff on use of new programme and any future new staff commencing end of march beginning of April 2021 3. Fully implemented system by June 2021 4. UAT for any future upgrades TBA
15.	Follow up review following the implementation of the National Hypertension guideline (2020)	1. Review of women diagnosed with hypertensive disorders in pregnancy and postnatally received the recommended care and pathway was followed	1. Develop an audit tool 2. Request GP feedback 3. Complete audit 4. Review findings 5. Write a report and recommendations 6. Present at PMMRC meeting 7. Actions any changes	1. Women have received appropriate care and pathway has been followed	1. Good outcomes (reduced morbidity) for the woman following the management of the hypertensive disorder 2. Evidence of compliancy with pathway from audit	1. Develop audit tool July 2021 2. Collect 12 months of data August 2021 3. Collate data and findings Sept 2021 4. Present findings at PMMRC meeting Oct 2021 5. Implement any recommended changes 6. Implement any further changes to the National hypertension guideline which is to be reviewed by the NMMG in 2021
16.	Implementation of any further NE taskforce projects	1. To reduce the incidence and severity of Neonatal Encephalopathy (NE) in Tairāwhiti	1. Action what is recommended in a timely manner e.g. fetal surveillance education package	1. Projects implemented and completed in a timely manner	1. Reduce incidence and severity of Neonatal Encephalopathy (NE) in Tairāwhiti	1. TBC once projects announced by NE taskforce

	Initiative/priority	Rationale	Action	Expected Outcome	Measure	Timeframes
17.	Obtain 3 IPad for consumer feedback and health promotion education	1. Improve consumer access to providing feedback about the services they have received and access to health promotion education	1. Obtain 3 iPads 2. Review consumer questions with consumers 3. Install a programme that women can access on the iPad to provide feedback and access to visual health promotion education e.g. Safe sleep, BF, Prevention of shaken baby, contraception 4. The programme must be able to generate data into a report 2. 5. Include annual consumer audit	1. iPads obtained and programme installed 2. Women uptake the use of this with increased feedback received 3. Report back to MQSP committee and include in annual report	1. Women access health promotion education for easily and increased feedback received to be able to evaluate our services	1. Obtain 3 iPads by April 2021 2. Review consumer feedback questions – April 2021 3. Identify a programme with IT which is capable of providing what we require – April to June 2021 4. Go LIVE date agreed for in June/July 2021 5. Present 6monthly feedback report to PMMRC starting January 2022, then repeat 6 monthly
18.	Frenotomy service in maternity	1. Provide an equitable service to mothers and babies in Tairāwhiti requiring a frenotomy	1. Frenotomy accreditation pathway for core midwives to be completed by designated staff 2. Obtain required equipment 3. Formulate an agreement on resourcing staffing hours to provide outpatient service 4. Commence service 5. Use the accredited audit tool quarterly	1. Equitable service to mothers and babies in Tairāwhiti requiring a frenotomy	1. Number of babies undergoing frenotomy through this DHB funded service versus number of babies undergoing a frenotomy through a private service elsewhere	1. Frenotomy accreditation pathway for core midwives to be completed by designated staff by May/June 2021 2. Obtain required equipment by May 2021 3. Formulate an agreement on resourcing staffing hours to provide outpatient service June 2021 4. Commence service July 2021 5. Use the accredited audit tool quarterly and report back to MQSP committee 6. Review pathway annually 7. Evaluate feedback from community LC at exit point from women/whānau
19.	PMMRC requirement Preterm Birth	1. Tairāwhiti's preterm birth rate remains above the NZ average of 7.5% (9.6%) but has reduced since 2016 (10.5%). 2. Due to the significant impact of preterm birth on neonatal morbidity and mortality we will continue to periodically perform audits to monitor our local performance.	1. Repeat the audit undertaken in 2018 of preterm births to identify any further local contributing factors that are amendable and include ethnicity, socio-economic status and age to review equity and access to services 2. Recommend early registration with an LMC who can make a referral to smoking cessation provider, screen and treat any sexually transmitted diseases and/or urinary tract infections. This information can be included in the audit. 3. Continue use of partosure for all women with signs and symptoms of preterm birth, so that preterm birth can be confirmed or excluded and a management plan agreed and implemented which will include corticosteroids and magnesium sulphate and early transfer to a tertiary unit if less than 32 weeks gestation. This can be captured in the audit.	1. Reduce the rate of preterm birth	1. Reduction in preterm birth rate	1. Prepare audit tool by May 2022 2. Commence and complete audit by Aug 2022 3. Implement any changes required 4. Present findings at PMMRC meeting in Sept/Oct 2022

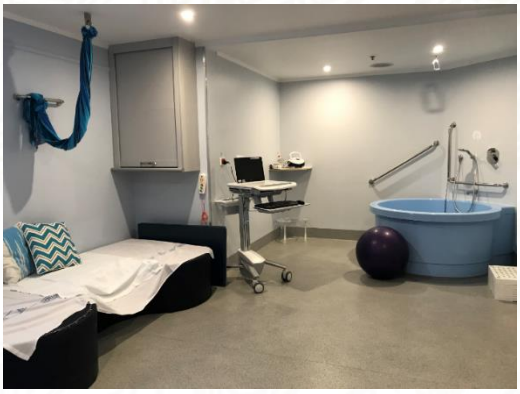
7.0 Our Maternity Facilities

Secondary Birthing Facility: Gisborne Hospital - Puawai Aroha Maternity Unit

Puawai Aroha Maternity Unit is located at the Ormond Rd Campus of Hauora Tairāwhiti (Gisborne Hospital) next to the main entrance of the Hospital and consists of 5 birthing rooms, including an active birthing room with pool facilities and 8 post/antenatal rooms. We also have a whānau room. We had 649 births in 2019 and 665 in 2020.

Front Entrance to Puawai Aroha Maternity Unit

Reception area



Active birthing pool room

Neonatal Unit

The Neonatal Unit is a level 2 unit, and is funded for six cots. We care for babies from 32 weeks gestation and above in our Unit. The staff work closely with whānau ensuring positive outcomes for their babies in the NNU. Breastfeeding and safe sleeping are actively promoted in the unit. The NNU staff have to be are prepared at all times for unpredictable events such as; early births and emergency situations. We care for and stabilize babies whilst waiting for the retrieval team from the tertiary hospital to come and collect the baby. NNU staff help Maternity Services when required.

Antenatal Clinic

The Antenatal clinic is situated in the Women's Health Clinic at Gisborne Hospital and consists of 2 clinic rooms and a reception office. Appointments are made by the Lead Maternity Carer caring for the woman directly to the dedicated antenatal clinic midwife. All core midwives have been orientated to the running of the Antenatal Clinic to ensure the service can be covered at all times.

Te Puia Springs Hospital – Ngāti Porou Hauora

The birthing facility at Te Puia Springs Hospital is run by the Ngāti Porou Hauora Charitable Trust. It is about 104kms north of Gisborne. The hospital was established in Te Puia Springs in 1907.

There is 1 Lead Maternity Carer (LMC) midwife based at Te Puia Springs Hospital. She provides care to pregnant women from Hicks Bay down to Tolaga Bay. 53 babies were born in Te Puia Springs Hospital birthing unit in 2019 and 54 in 2020. These numbers do not reflect the work that goes on in this small unit as women attend for antenatal appointments and often drop in if they have concerns about their pregnancy. Any women requiring more complex care are referred to the team at Puawai Aroha Gisborne Hospital Maternity unit and sometimes require transferring during or following the labour and birth.

Each year the team from Gisborne travel to Te Puia and run a PROMPT course. This is well attended by the hospital and community staff and the local ambulance crew and local GPs. This enables everyone to be more prepared for those challenging emergency events in a rural area and enables the women being transferred to Gisborne to arrive in a more stable condition.

This maintains a collegial and supportive relationship between the two units.

8.0 Our Maternity Services Workforce

Director of Midwifery/Clinical Midwife Manager

Liz Lee Taylor has been the Director of Midwifery/Clinical Midwife Manager since 2017 and says it is a pleasure to come to work each day with such a positive team to lead and work alongside. Liz reports that the unit has grown so much in the past 9 years since she started here as the midwifery educator in June 2011 and continues to grow and improve.

Liz has remained committed and dedicated as a leader who ensures the maternity services are of the highest standards and meets the needs of our local population so that we can achieve the best outcomes for our māmā and pēpi in our community and Hauora Tairāwhiti. This is often reflected in the feedback we receive from our annual maternity consumer's survey. We also try to ensure that the workforce reflects the population it serves, with employed and LMC Māori midwives who help us to maintain cultural safety. Liz is also a member of the hospital Clinical Governance Committee and a member of the Te Kahui Whakahaere (leadership group) and ensures a strong midwifery voice is heard. Liz is passionate about her role, her team and services and always has an open door for a friendly chat if any staff member or an LMC has any concerns they wish to discuss privately or seek advice. She takes any complaint seriously and will arrange to contact or see the complainant and/or whānau personally as soon as possible. Any learning outcomes from these discussions and/or meetings are shared and implemented.

Hauora Tairāwhiti offers flexibility to midwives who wish to return to work, such as fixed term reduced working hours when returning from maternity leave and the option to work in the antenatal clinic where the midwife can bring along her baby to work with her. We have a room for expressing and storage of breast milk for any staff member from maternity or across the hospital. All staff have attended training in 'Speaking up for Safety, which enables them to effectively communicate concerns to colleagues about potential harm to any of our women and babies.

Midwife Educator/Quality Coordinator

Iidil Merlini works hard to maintain the highest standards of quality and safety in the maternity services provided in Tairāwhiti and ensures all the team have access to the education and training they require to remain safe practitioners.

Iidil is also a trained lactation consultant and supports māmā and pēpi with breastfeeding difficulties in the unit and offers advice to the midwives and LMCs. She is also responsible for ensuring we maintain the BFHI standards, is certified to insert Jadelle (LARC) and trains others to do the same.

Core Midwives

We have a great team of dedicated core midwives employed by Hauora Tairāwhiti who provide primary and secondary care in a collegial and supportive environment. Hauora Tairāwhiti employ 19 core midwives plus 1 registered nurse which is the equivalent of 14.2 full time positions, however with some recent changes in the workforce we are in the process of recruiting to current vacancies. We also employ 2 casual midwives who supports the team when required with part time midwives picking up extra shifts when required. All midwives work in partnership with the women of Tairāwhiti and their whānau, alongside their LMC midwives. The focus is on women centred care so that we always deliver high quality care to the woman and her whānau to maximise her birthing experience, health and well-being. All core staff are encouraged to submit a Quality Leadership Programme (QLP) portfolio with 90% achieving this. All midwives have an annual appraisal known as 'You Time" as the individual midwife will lead her appraisal with Key Result Areas (KRA's) developed and agreed. Every midwife has a minimum of one quality activity that they are responsible for and able to complete in 'downtime' or have protected time allocated on the roster. The workplace culture is reported to be very positive, with everyone working as one team with mutual respect and supporting each other.

Lead Maternity Carer Midwives (LMC)

LMC midwives provide antenatal visits regularly throughout a woman's pregnancy journey and refer to the Hauora Tairāwhiti obstetric team as needed. Visits vary between midwifery practice but usually occur monthly until around 28-30 weeks, fortnightly to 36-37 weeks and then weekly until birth. Most women attend their antenatal appointments in the clinic rooms where the midwives are based. Women and their babies are seen postnatally every day they are in hospital, within 24 hours of discharge from hospital at home and then a minimum of 5 home visits until 4-6 weeks postnatally with referral to Well Child Provider Plunket or Tūranga Health who continue visits from 6 weeks. We currently have 11 LMC midwives practicing in Tairāwhiti, who work in 4 practices based in Gisborne City and provide full antenatal, labour, birth and postnatal care to women in Tairāwhiti who may choose to birth at home or at Puawai Aroha. There are to be some changes within the practices but there will still be 11 LMCs in total who are able to provide the services required for our population. A focus for LMC's has been to increase the number of women booking with them in their first trimester of pregnancy, this is quite challenging but we continue to focus on this. We are slowly seeing positive results in this area with an increase in women booking with their LMC in their first trimester, especially now that LMCs can offer free pregnancy tests. We aim to arrange a primary/secondary care hui bi-annually to maintain and improve the relationship between our local GPs, LMCs, hospital midwives and obstetricians which will enhance the woman's journey through all of our services from conception to the postnatal discharge.

There is one midwife working up the East Coast based at Te Puia Springs Hospital in the small birthing unit. She provides antenatal, labour, birth and postnatal care to women living rurally from Tolaga Bay to Hicks Bay. These women may choose to birth at home or at the primary unit based at Te Puia Springs Hospital or come to Puawai Aroha Maternity Unit.

Obstetricians

Pictured (from left): Dr Klara Ekevall, Dr William Weiderman, Dr Shireen Heidari, Dr Sean Pocock. Absent: Drs Christina Dave and Becky Jones

The obstetric workforce has seen many changes over the past 12 months. We have recently been given approval to recruit a fifth permanent full time obstetrician. This will enable the services we provide to expand, this will include the introduction of an obstetric and gynaecology clinic in the rural facility so women have equitable access to these services who live in the most rural areas of Tairāwhiti. All our obstetricians are experienced practitioners and active members of their professional colleges. They provide specialist obstetric services to Tairāwhiti meeting the service delivery specifications and provide appropriate and timely advice to staff and management on obstetric matters, and on professional standards of practice. They all participate in the professional and quality assurance activities required of senior medical staff.

Perinatal Maternity Mortality Review Committee

The local Perinatal Maternal Mortality Review Committee has a new coordinator. Meetings are held monthly and include event reporting and reviews of cases and an opportunity for clinical discussions and sharing of information which is well attended by the multi-disciplinary team.

Hauora Tairāwhiti Vulnerable Pregnant Women (VPW)

Maternal Wellbeing and Child Protection Multidisciplinary (MDT) Hui

Dallas facilitates the VPW hui which involves taking interagency referrals for at-risk pregnant women. Group membership includes the VPW coordinator/Health Broker, VIP Coordinator, Paediatric Social Worker, a Māori midwife liaison, Well Child providers Tūranga Health and Plunket, a teen parent school and house representative, the Oranga Tamariki hospital liaison, māmā and pēpi Kaiāwhina and a police representative.

The purpose of this group is to enable the best possible outcomes for women and their whānau identified to have vulnerabilities during the maternity care period (antenatal to six weeks post-partum). The role of the core midwife on the group is to confirm expected dates of delivery and previous obstetric issues to bring to the discussion plus obtaining and providing feedback to the LMC midwives in the community from other agencies supporting the woman.

The overall aim of the group is to strengthen whānau by facilitating a seamless transition between primary and secondary providers of support and care; working collaboratively to engage support agencies to work with the mother and her whānau in a culturally safe manner. We hold a fortnightly VPW hui where we share information and review each case to ensure women are receiving the support they need. Once the woman births, checks are made to ensure the woman receives the safe sleep and shaken baby prevention education. Links to Well Child providers and community services are also put in place before the woman is formally discharged from the VPW hui/process.

Improvements 2020:

- Post COVID, using ZOOM to encourage participation, especially during the alert levels, some only logging on to talk about the whānau they are working with.
- Being part of the system improvement process for Te Pā Harakeke (Children's Team) transition from an agency led model to a Community Led Model.
- Creating better systems to store the information held for VPW, making it easily accessible for all DHB users
- Successfully developing the role from Clinical to Non-Clinical

Health Services Broker Role

The Health Services Broker shares information at the intersection of health, statutory care/authority and community social services. By gathering information from a somewhat fragmented health system, the broker helps piece together a picture of what is happening for whānau currently, what is needed and where the gaps in service lie. Information is gathered from DHB, NIR, oral health services, Well Child providers, public health nurses, ICAMHS, ACC, child development service and GPs. The broker contributes to decisions around escalating cases to police and Oranga Tamariki. The aim is to keep children safe and at the centre of any care plan.

Having a strong background in hospital systems and processes, the health broker is able to identify the most appropriate referral pathway to meet the needs with a coordinated approach.

The Health Broker acts as a conduit in the feedback loop between services but is also able to lead a professionals hui when concerns are raised by multiple agencies around a child's health needs

The Health Broker identifies every professional in role and calls them together to share information and inform a whole, holistic picture. Keeping children safe and at the centre to prevent statutory intervention is a priority, it is preferred that we develop a plan to provide wraparound services. A professional is identified as the voice for the whānau at the hui and it is established that this person would be the face of the team so as to reduce the number of 'cars up the driveway' and limit the chaos and confusion for whānau.

Working with the whānau, professionals develop a plan using s a coordinated approach between services to lessen anxiety at a time of crisis. The team are then able to advocate for children to be in a safer environment with their whānau, supported and with protective factors in place.

Dallas Haynes
Health Services Broker

9.0 Local Maternity Quality Improvement Activities (Closing the Loop)

Hauora Tairāwhiti Quality & Safety Initiatives 2019-20

Throughout the year we collect information on what we have done well, what we have done not so well and how we can implement improvements. This information is gathered in many ways. Some of the improvements are presented in the 'Highlights and Achievements' (section 6.0 of this report).

Multidisciplinary (MDT) Quality Meetings

Multidisciplinary Meetings are held every Wednesday morning and include Obstetricians, the Director of Midwifery/Clinical Midwifery Manager, Midwifery Educator and Quality Coordinator, Core Midwives, LMCs midwives, nursing and midwifery students, and sometimes guest speakers. At these meetings we discuss statistics for the previous week, significant incidents, the number of women offered support to quit smoking, share research articles and present any events which provide useful learning, such as cases which were well-managed and cases in which we could have done better. We also discuss any feedback from consumers. We make changes in our practice and amend our policies to reflect what we learn from these weekly meetings.

Like most routine activities, our MDT meetings had to be suspended during the initial level 4 Covid lockdown and took a little while to restart, as we took our time to ensure the safety of all was kept front of mind and that we learned our way around new ways of working. We resumed our MDT meetings in July.

In 2020, we have chosen to focus on the learning and sharing expertise components of these meetings: we have identified topics as a group and shared the task of bringing resources or case studies to demonstrate each topic in context; we have reviewed together national publications and reports bringing our differing points view (such as the Maternity Clinical Indicators Report, the Te Manawa Taki Child Health Action Group Quarterly Data Reports, the National Maternity Monitoring Group Annual Report); we have invited guests speakers to share their expertise and contribute ideas and suggestions to improve the care our māmā and pēpi receive – such as the dieticians to contribute input for pathways of care for women experiencing severe hyperemesis gravidarum (morning sickness).

Case Reviews

In addition to the weekly meetings, significant cases are also reviewed by the interdisciplinary team and include the woman/whānau/family affected. We act on the learnings from these case reviews and report them back to the woman involved and also report significant findings to the Hauora Tairāwhiti Clinical Governance and Maternity, Quality and Safety committees and present learning outcomes at the Perinatal meeting.

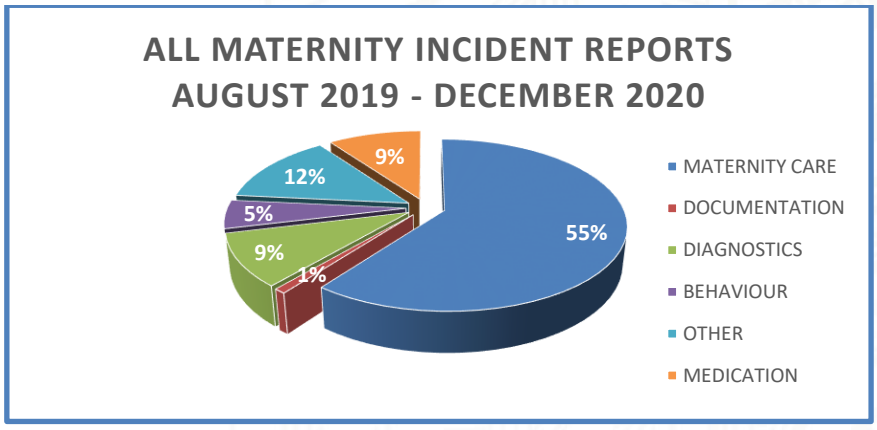
Examples of practical learning outcomes from case reviews over the last 12 months:

- Importance of correctly completing fluid balance charts as the important information is the actual ongoing balance – charts have been amended to add a balance chart, an example of a correctly completed fluid balance chart is in the office in maternity for reference.
- Focus of MDT is as a learning and improvement opportunity, cases discussed here will be case studies as we do case reviews in a different context.
- Need to develop local standard approach for early pain relief/sedation options to be considered ahead of morphine.

- Care of women who have had bariatric surgery: this is currently a quite rare presentation for us, but would require MDT antenatal input from O&G, dietician and also an antenatal anaesthetic assessment. Bariatric surgery can have effects on maternal nutrient absorption during pregnancy which needs to be monitored; history of bariatric surgery can lead to increased incidence of small for gestational age (SGA) and can have a detrimental effect on lactogenesis (milk production), thus increasing the risk for neonatal hypoglycaemia; history of bariatric surgery also leads to an increase in dumping syndrome, in view of this it is suggested that diabetes screening is most appropriately done by blood sugar level (BSL) monitoring over a period of time rather than glucose tolerance testing. The anaesthetist who inserted this woman's epidural also pointed out that the excess skin resulting from the rapid weight loss can be an additional risk for difficulties with the placement of epidurals: the loose skin moves around creating a higher risk of also moving the epidural catheter; additionally, there may be issues related to changes to gastric emptying etc. – hence an antenatal referral for anaesthetic assessment should be completed for women who have had bariatric surgery.

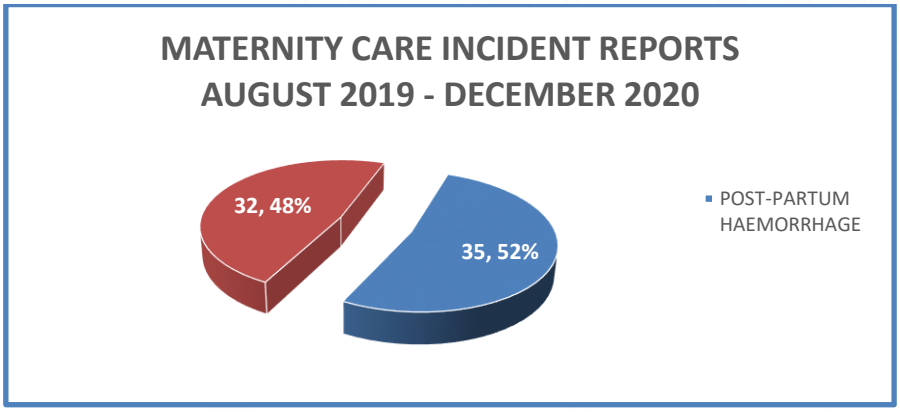
Clinical Incident Reports

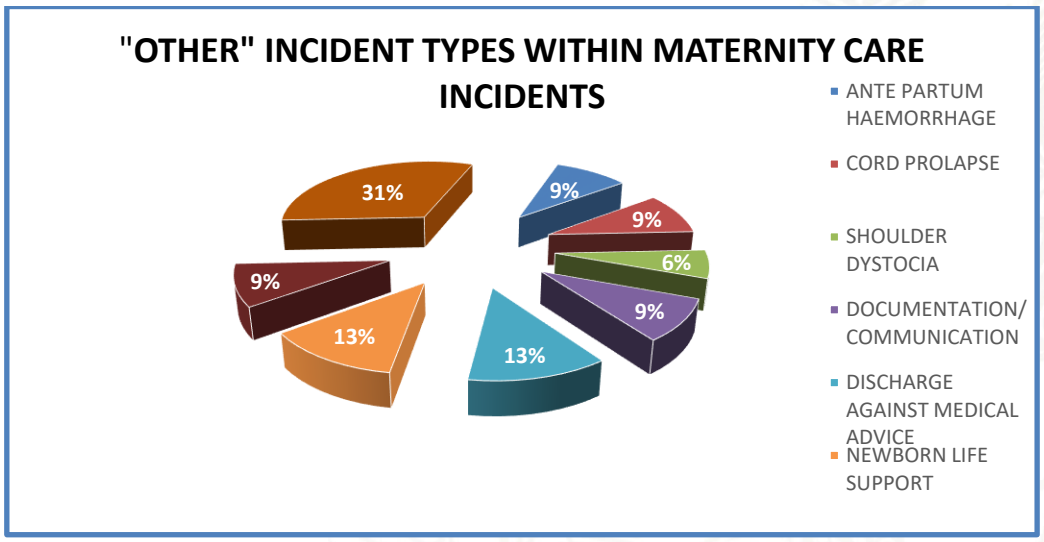
Staff are encouraged to report all incidents and near misses which we could share and learn from. In the last 18 months, 121 incidents have been reported for maternity into the DATIX system. Anonymised details of incident reports and outcomes are shared during weekly MDT meetings so that the learning points can be of use to the whole team.

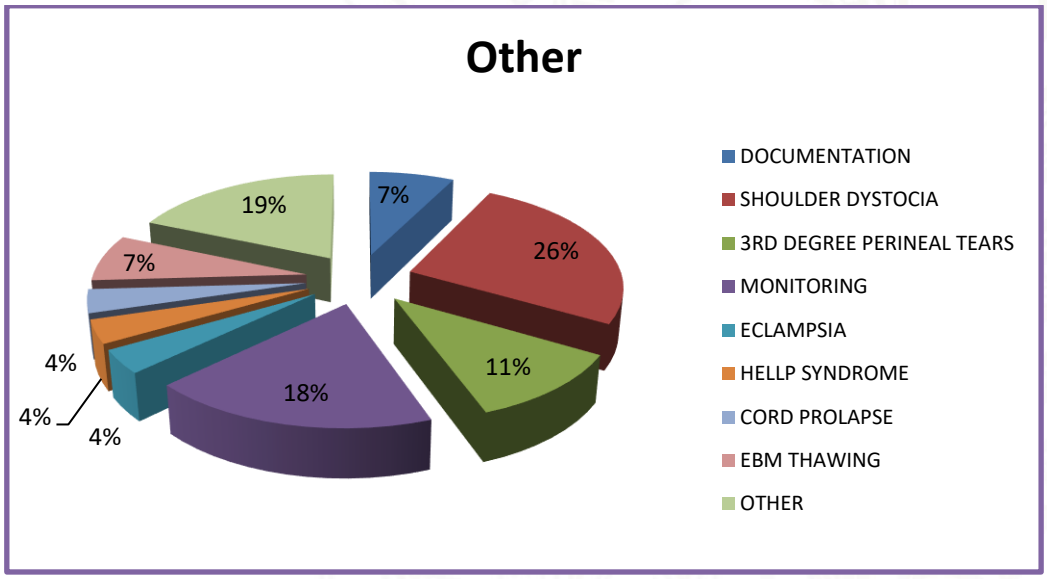


These reports are also used to identify trends or issues that may require particular attention or quality improvement projects.

Within the Maternity Care incident reports (which account for 55% of all maternity incident reports for the 18 months 1.8.19 to 31.12.2020), the largest single issue reported continues to be post-partum haemorrhage (PPH). Initial review of PPH incidence for 2019 shows a decrease in overall numbers with a rate of 12.03%, which is our lowest in the last 5 years.







Guideline Group

A group of Obstetricians, the Midwifery Educator and Quality Coordinator, a Core Midwife, a Neonatal Unit Nurse, Neonatal Unit Clinical Nurse Manager and a Community Midwife (LMC) meet monthly along with a consumer representative to update the evidence based guidelines which all of those using our Maternity Unit and Neonatal Unit can follow. The group has worked hard with continued commitment to providing up to date evidence based guidelines and implementing national guidelines. In the 18 months from August 2019 to December 2020 76 guidelines have been reviewed and updated, which represents almost 70% of all of our current guidelines, and has meant we have reached the goal of all maternity guidelines being up to date. Maternity Unit Guidelines are also available on the public Hauora Tairāwhiti website, this ensures LMCs have ready access to local guidance and empowers women and whānau to access information to support them making informed decisions.

Compliments and Complaints

We encourage consumers to feedback any comments they may have about their experience in our Maternity Unit. All these remarks, whether they are compliments or complaints, are fed back to the team during our Multidisciplinary weekly meetings and any issues identified are addressed straight away. By reviewing these

and identifying themes we are able to inform decision making to improve our consumers' experience in maternity. Currently feedback is received in paper form but we aim to introduce iPads that women will be offered to enter their feedback into directly which will generate a report. The iPads will also have access to health education links such as Safe Sleep and Shaken Baby Prevention and breast feeding education for women to access. Currently these are accessed from DVDs on a TV but are of very poor quality.

Frenotomy Accreditation Pathway

At the end of 2020 we were able to finalise a local accreditation pathway for core midwives to provide frenotomies to babies in our maternity unit. This has not been available until now and has been the result of liaison and cooperation between the BFHI Coordinator, Community Lactation Consultant Service, and the Paediatric team. The goal of this additional service is to have a protective effect for the breastfeeding journey of babies who are tongue-tied, and ultimately increase the initiation and continuation of breastfeeding for Te Tairāwhiti whānau. Transparency and accountability are built into the pathway and there is a strong equity focus as currently frenotomies for simple tongue-ties are not available free of cost in our region, although some whānau are able to receive funding if qualifying for E Tipu E Rea financial support. This pathway and our guideline for the management and referral of tongue-tie (ankyloglossia) align with the National Guidance for the Assessment, Diagnosis and Surgical Treatment of Tongue-Tie in Breastfeeding Neonates published by the Ministry of Health in November 2020. We plan to establish this service in the coming months and will audit the number of frenotomies performed for inpatient babies and evaluate whether this service is having an impact on breastfeeding rates.

Neonatal Encephalopathy (NE) Taskforce and Projects

The Director of Midwifery is a member of the Fetal Monitoring working group for the NE taskforce and has been jointly working on the development of a fetal surveillance education package for all health professionals who attend a pregnant women antenatally or during labour in any setting. Once this has been finalised and released by the NE taskforce we will introduce this at Hauora Tairāwhiti. We also have plans in place to introduce the Neonatal Early Warning System (NEWS) programme which includes the Neonatal Observation chart this year. We have already successfully introduced pulse oximetry screening for all babies born in the hospital or at home in Tairāwhiti. This was following the recommendation from the Starship Foundation Pulse Oximetry Trial for Early Detection of Congenital Heart Defeats in Newborns. We will audit this new screening service later this year .

Maternity Early Warning System at Hauora Tairāwhiti

As planned we successfully introduced and implemented the new national MEWS and Maternity Vital Signs chart across Hauora Tairāwhiti. This enables us to identify acute deterioration in the condition of a pregnant or postnatal woman during her admission to hospital. If staff recognise acute deterioration early and respond to it appropriately, they can improve the outcomes for women by avoiding or limiting severity of morbidity. The maternity vital signs is recorded for any pregnant or recently pregnant (within 42 days) inpatient woman requiring observations. As we use the electronic records (MCIS), the chart has been installed in this system and used for women whilst in maternity, whilst a paper chart is used for women if admitted to any other area in the hospital. The local escalation pathway was developed and agreed locally and so far has not required any changes. A monthly on-going audit is currently in place which evaluates the success of this implementation and we will include case reviews during 2021.

National Hypertension Guideline Implementation at Hauora Tairāwhiti

As planned, we have successfully implemented the national hypertension guideline. The success of this project was through working with the LMCs, GPs, maternity consumer representatives, O&G and maternity team. The recommendations around clinical care of the woman while in hospital were implemented and plans updated. We have improved the process for discharge summaries so that affected women, their LMCs and GPs will all receive a summary and follow up plan for postpartum care. The biggest challenge in implementation was that there were additional expectations of non-DHB community providers – LMCs and GPs – with no additional

funding attached. However, the DHB identified funding for the additional blood pressure self-monitoring machines for use by the women in the community following discharge from the hospital. The women are therefore supplied with a machine and shown how to use this. They then record their own BPs and for the initial first 2 weeks telephone the shift co-ordinator in maternity with their recordings or share with their LMC if visiting that day. If any problems arise during this 2-week period the O&G is informed and will recommend appropriate action. After the initial 2 weeks the woman is then under the care of her GP but keeps the BP machine until 6 weeks postnatal when it is returned to the unit. We are to audit and evaluate this new service during 2021.

Annual Maternity Consumer Survey

This survey was designed to identify patterns/trends in the provision of maternity services at Hauora Tairāwhiti in order to guide further improvement and to ensure the needs of the local population are met, by identifying barriers to care and other issues. This survey seeks to find out women's perception of the care they received as well as their recollection of the information and advice given, some of the results may therefore not be a direct reflection of the information offered by health practitioners, but of that which women retained. The Maternity Services Survey questionnaire is adapted and updated by Liz Lee Taylor, DOM and CMM in discussion with our maternity consumer leaders. During the month of April each year, all women admitted to Puawai Aroha Maternity Unit are asked to complete a survey; the results are then collated and reviewed by Iidil Merlini, Quality Midwife. The consumer leaders as well as maternity unit staff usually collect responses, however this year access was restricted to hospital departments in view of Covid safety requirements, and therefore our consumer leaders were unable to collect survey responses directly.

Summary of findings: The Maternity Services Consumer Survey team has made a concerted effort this year to maintain the high survey response rate achieved last year and in fact continued to improve on this. Birth numbers for April were lower than last year, but remained high compared to previous years: 62 babies were born in April this year. In April 2017 42 babies were born in our unit; in April 2018 the number rose to 58, and we remarked on the increased activity level and the possible impact this had on survey outcomes. In April 2019 79 babies were born in our unit: almost twice the number born in the same month 2 years prior.

The age distribution for the 2020 respondents is very similar to the previous cohorts: the youngest being 18 years old and the oldest 47 years old compared with 17 and 41 years old respectively in 2020. The <20 group has dropped back to the usual 4%, compared with 14% last year.

Women felt their religious and cultural beliefs to be overall very well respected.

Antenatal classes' attendance has dropped again: from 55% of respondents in 2017, to 40% of respondents in 2018 to only 23% in 2019, to a mere 8% in 2020. As well as an increase in the proportion of respondents stating they had already attended classes in the past, it is likely that a strong contributing factor to this low attendance rate was intermittent provision of antenatal classes during 2019. It will be of interest to re-assess this following the reorganisation of this service.

There appears a slight improvement in the smoking cessations discussions antenatally: in 2019 only 47% of women recall having these conversations antenatally as opposed to 52% in 2020. There has been a marked improvement in the women who report having received advice to quit postnatally from 18% to 50%. Smoking cessation conversations and support must be an area of focus for all the maternity services providers in Tairāwhiti as addressing the rates of smoking would be a step closer to improving numerous other health outcomes.

On average women accessed similar resources to confirm their pregnancy as they have in previous years. More women reported knowing that midwives provide free pregnancy tests (50% in 2020 compared with 30% in 2019).

There was a marked improvement in the ease of finding a midwife: 84% of women found it easy. However, this has not improved early engagement with midwifery care and this has continued to worsen: only 48% of respondents first saw their midwife before 12/40, compared with 54% in 2019 and 66% in 2018.

Awareness of the recommendation for and availability of, whooping cough and flu vaccination during pregnancy has improved from 71% in 2019 to 80% in 2020.

Women were overall very pleased with the care received from all professional groups during their pregnancy, birth and postnatal period.

Family violence screening has remained stable with 78% of respondents in 2020 reporting that at some point during the antenatal, intrapartum of postnatal period, they had been asked whether they felt safe.

Some feedback from women:

I've only been here almost a couple of days now and my baby is premature. My experience here was good for me, good communication, very helpful. I'll be happy to do a later survey.

The ladies here have changed my life and I am eternally grateful for the care they provided. Comments - I received the best care, support and love and the ladies in the ward have been sensational.

Thank you to everyone from the bottom of our hearts. This has been a pleasurable experience because of you all. Also being lockdown we appreciate all you front line staff being away from your whānau to help our new whānau. Mauri Ora.

*I would like to thank Gisborne midwives for the awesome work and support they are beyond amazing. ********** (midwife) is amazing and I couldn't asked for a better midwife. Thank you so much, love, ***** and mum.*

Absolutely awesome considering what's going on in the community. Brilliant

*I would like to say thank you for everyone who contributed and for others that helped. But beside that eveything went well and I couldn't thanks more for everything you guys have done it's a ****** for me.*

Awesome team and great support with baby and mother.

A big thanks to all staff for your help in this time. You all have been amazing.

All staff are amazing! Couldn't be happier with our experience. Thank you all so much.

The care from the midwives here have been amazing. Great bunch of ladies xx

Hospital patients should be able to access wifi hospital internet connection while staying especially when they are in hospital for a while. Even a separate internet connection with password that's only given to patients who have long stay would be helpful.

Very very tough situation to be in re: virus. You have all done a wonderful job and should be proud of the level of care given out.

Improving technology in maternity services

Hauora Tairāwhiti was one of the first in New Zealand to adopt Badgernet, the Clevermed Maternity Clinical Information System (MCIS). Instead of entering information about a woman's pregnancy on paper notes, this is a computer data collection system. Laboratory reports, ultrasounds results and notes about the woman's antenatal care, labour and birth are all recorded in her computerised record. The aim is to provide a centralized record of care across the entire pregnancy, which should improve outcomes. Records in MCIS can also be accessed for audit purposes and quality control. The woman's records can also be accessed at other DHBs who have also implemented MCIS should the woman attend there for care at any point in her pregnancy. We have already seen the benefit of this on many occasions.

We are about to complete 6 years using the Maternity Clinical Information System. We remain one of few DHBs having fully adopted the system and we remain heavily involved in its continued development.

This past year has seen considerable developments in several areas of documentation, in particular finalizing of the Maternity Early Warning System (MEWS) chart and completed implementation of the HQSC National MEWS programme.

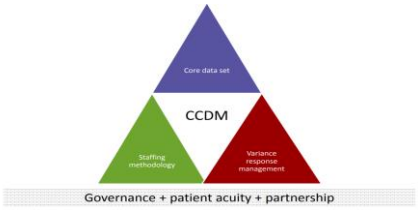
Work has also been completed on the interface between MCIS and our cardiotocograph (CTG, used to monitor babies' heart beat and mothers' contractions) monitors – this allows the automatic upload and storage of this information to the electronic system, allowing clinicians to review the information without being at the bedside but also allowing safer storage of this information for longer as the paper print-outs fade and perish. Puawai Aroha is the first maternity unit in New Zealand to have this functionality.

There is work in progress for the implementation of the transition from the current NZ configuration of Badgernet to "Badgernet Global": this transition once complete will enable NZ Badgernet users to access a much improved version of the current BadgerNet system while maintaining local customization in respect of different maternity care practices and cultural sensitivity.

Work is also underway with the Information Systems department at the DHB to develop further interfaces with other current systems in use in the DHB to allow for more efficient communication and information sharing with other disciplines and with primary care.

Compiled by Iidil Merlini
Midwife Educator and Quality Coordinator

Care Capacity Demand Management (CCDM) and Trendcare



The CCDM project is still in progress and moving towards completion by the middle of 2021.

To recap the CCDM Programme is a set of tools and processes that help DHBs better match the capacity to care with patient demand. The goal is quality patient care, quality work environment and best use of health resources.
This programme is to be implemented in all DHBs by mid-2021 and as a maternity unit we feel we are on track to achieve this goal.
There are 4 key aspects to CCDM

CCDM GOVERNANCE

CCDM governance is a permanent operational structure with processes and tools for achieving safe staffing and healthy workplaces. Governance happens at all levels of the organisation in partnership with health unions.

CORE DATA SET (CDS)

The core data set is a set of 23 measures. Equal priority is placed on quality patient care, quality work environment and best use of health resources. Staff from all levels of the organisation use the core data set. Different groups monitor the core data set and reporting flows up and down.

FTE CALCULATION

The FTE (Full-Time Equivalent) staffing calculation is a systematic, validated method for generating a recommended roster and budgeted FTE. TrendCare data from the past 12-months is used to establish an acuity based staffing model. The calculation includes the MECA entitlements and allowances. The FTE should be re-calculated annually.

VARIANCE RESPONSE MANAGEMENT (VRM)

Variance response management is a set of tools and processes for organisational visibility of care capacity and demand management. This includes an operations centre, electronic screens, staffing early warning system and standard operating procedures.

TRENDCARE is the validated acuity tool used to gather data to inform the CCDM project.

Over the last 12 months TrendCare use has improved markedly in maternity and we now regularly achieve 100% accuracy of our data input on a daily basis. This input is monitored and reported weekly. All staff have been tested in the accuracy of their use (IRR - Inter-Rater Reliability testing) and new staff are tested within the first few weeks of commencement.

We now have the required Local Data Council in operation and discuss chosen data measures at each monthly staff meeting in order to engage staff with the information being gathered and give meaning to it.

We have now completed an FTE calculation with a full 12 months of accurate data which has shown no need for major staff adjustments. There are a few items of TrendCare data entry that need to be reviewed but overall it was a very satisfactory process and outcome.

A Hospital at a Glance (Haag) screen has been mounted in maternity with a Variance Indicator Scoring (VIS) system to be fully implemented early in 2021. This screen will show levels of acuity throughout the hospital and alert when there is assistance required or staff available to be moved to areas of higher acuity. In maternity we already have a clear escalation pathway with the same colour coding as the VRM indicators so this will not be a big change.

Judi Murphy
Maternity CCDM Project Lead

The Growth Assessment Protocol (GAP)

The GAP programme was first implemented at Hauora Tairāwhiti in 2016 with the aim to reduce stillbirth rates by increased detection of small for gestational age (SGA) babies. It is based on three main elements

1. Training and accreditation of all staff involved in clinical care
2. Adoption of evidence based protocols and guidelines
3. Rolling audit and benchmarking of performance

Saving Babies Lives in New Zealand (SaBiNZ) is a project to ensure the robust implementation of the GAP programme in all District Health Boards across New Zealand – Hauora Tairāwhiti was lucky to adopt SaBiNZ in January 2019.

GAP as part of SaBiNZ has made steady progress over the 2020 year, this has been closely monitored by auditing to ensure our practice meets benchmark supported by current evidence.

Auditing was a positive way to not look at what we are doing wrong, but what we are doing well and what we can do better.

With the introduction of GAP at Hauora Tairāwhiti in 2016, a baseline audit was conducted to assess our detection rate. From this audit a preliminary finding identified a reassuring increase in SGA detection. Unfortunately at the time of writing this we do not have the final audit results from the Perinatal Institute.

A missed case audit involved closely examining 30 cases of babies born with a birthweight centile <10 that were not detected antenatally from ultrasound scan.

We were able to identify common key themes from the missed cases. The themes were, women who have had a previous small for gestational age infant, maternal smoking and BMI <35. These themes are strong risk factors for a SGA pregnancy so would suggest these women require serial growth scans.

It is reassuring to know our SGA detection rate is one of the highest in NZ

- Above benchmark set by Perinatal Institute
- Gradual increase since January 2019
- Jan 2019 41% detection rate

- July 2020 52% detection rate

A local guideline was developed in line with the New Zealand Fetal Medicine SGA Guideline. The local guideline is more specific to processes and services our region offer. The guideline ensures all women receive consistent, safe care that remains evidence based.

Ongoing work

- Education with women and whānau for women who have had an SGA baby. Environment in utero is a strong predicator for long term health outcomes, improving current health status for future pregnancies.
- Maintain holistic view in providing care
- Continue missed case audits to monitor detection rates and common themes
- Maintain cascade training for all staff

Statistics from audits has supported the improvement GAP has had on SGA detection rates which will improve long term outcomes. We are all committed to continue the momentum with the progress we have made and to adopt new ideas to improve practice.

Kendra Mackey
Core Midwife & GAP Champion

Audit Outcomes

Jadelle Audit – Improving Equity Access to Long Acting Contraception (LARC) – July 2020

Short inter-pregnancy interval, defined as less than 18 months between live births, is associated with increased maternal and fetal morbidity and mortality. It is also associated with young maternal age, either teenagers or women in their 20s. According to the maternal depletion hypothesis, maternal nutrients, in particular folate, may not be replenished sufficiently between closely-spaced pregnancies, particularly among breastfeeding mothers. This may lead to adverse pregnancy outcomes including growth restriction. Other factors potentially contributing to poor obstetric and neonatal outcomes includes cervical insufficiency, preterm birth, sibling competition for maternal resources, and incomplete healing of uterine scar from a previous caesarean delivery. In some cases, closer birth spacing is the unintended result of lack of correct and consistent use of contraception. Contraception enables spacing of pregnancies, therefore playing a vital role in reducing health outcomes for mothers and babies. The National Maternity Monitoring Group recommended in 2019 that all women have access to free contraceptive services from the immediate postpartum period.

Jadelle, or the implantable hormonal rods, is a recognized reliable long-acting reversible contraception (LARC) that can be placed subcutaneously in a woman's arm at the bedside postpartum, allowing women the reassurance of contraception before they are discharged home. It has become a popular option postpartum as it is easy to place with local anaesthesia, works for up to five years and is more than 99% effective for pregnancy prevention. Other options in hospital include Depo-Provera and IUD placement. Depo Provera only provides contraception for three months and many women are not able to follow up for the next injection or regular injections long term after that. IUDs have a high rate of expulsion from the uterus in the postpartum period (10%). Following up with GP or family planning for contraception after discharge home may be limited by geography, transportation, financial, or social circumstances.

The Jadelle Postpartum Insertion program at Puawai Aroha Maternity Unit started in September of 2018. The program involved training appropriate staff in Jadelle insertion. A staff member was certified to place the Jadelle if they were a qualified midwife or nurse and followed the designated certification process. This involved observing the placement of three Jadelles then placing five themselves under supervision by someone already certified. Placement of five a year was required for ongoing certification. Under this process, 18 people have observed at least one Jadelle placement and 6 have watched the prerequisite 3. Of the six, 3 have gone on to place Jadelles under supervision, completing the required five, and are now well in to completing their ongoing numbers. Many midwives on maternity felt comfortable watching the procedure at least once but did not feel comfortable performing the procedure themselves, which limits the numbers of those who are able to insert these. However, we do not envisage that this will be a too problematic for us.

Nearly 2 years later, 51 women have had a Jadelle placed prior to discharge from the maternity ward. During that time there were 1165 total hospital births, giving a rate of 4.4% of women having a Jadelle placed postpartum. Women's ages range from 18 to 40, average age was 26.8. Four were primips. Of the 47 multiparous women, parity ranged from 2-13, with an average parity of 6. 92% of the women were of Māori decent, 8% were other Pacific Islander, and 2% were NZ European.

In summary, the Jadelle Postpartum Insertion program continues to provide a LARC option for all women postpartum who give birth at Gisborne Hospital. It has improved equity of access for women who would not be able to afford a GP visit or who may not have ease of transportation to the local Community Clinic where placement is also free. Ongoing goals for the program include certifying two more providers for placement. Future audits could look at length of inter-pregnancy intervals and haemoglobin or ferritin levels for women who had Jadelle placed at the hospital as an immediate postpartum contraceptive. A new initiative may be auditing documentationof postpartum contraceptive plan prior to a woman being discharged.

By Dr Shireen Heidari
Consultant Obstetrician & Gynaecologist

Teenage Pregnancy Audit 2019

Introduction

The last few years the teenage pregnancy numbers in Gisborne had been trending down from 7% in 2016 to 5.3% in 2017 to 3.5% in 2018. However, in 2019 they increased again to 5.4%. The overall numbers are small and do not necessarily suggest a clear trend. Still, we audited these 2019 pregnancies to identify any patterns and to look at their outcomes. Obviously it is difficult to comment on their antenatal care without access to their LMCs' records. However, we hoped to be able to use hospital records to make some assessment of their antenatal care and ultimate pregnancy outcomes. To achieve this end we reviewed the hospital records for all women less than 20 years old who delivered at Gisborne Hospital in 2019.

Results

In 2019 642 women delivered at Gisborne Hospital. The average maternal age was 28. Of these women, 35 (5.4%) were teenagers.

Thirty-four of the thirty-five (97%) had prenatal care.

One mother was 14, two were 16, six were 17, fourteen were 18 and twelve were nineteen. So nine (26%) of the women were less than 18.

Thirty identified as Māori (86%) with the other five all being of European heritage. None of those of European heritage were younger than 18. By comparison, 58% of all women who delivered in the same time frame were Māori.

Twenty-eight of the women (80%) were having their first baby, six their second and one was having her third.

Twenty-nine delivered at term - 37 weeks or beyond. Two had second trimester miscarriages (18 and 21 weeks) and four had preterm deliveries (range 32-34 weeks). Of the 33 viable pregnancies, 12% had preterm deliveries. This compares to 7% in the general population.

Of the 33 women who delivered viable babies, five had growth restricted babies less than the tenth percentile (15%). None were less than the third percentile. Nineteen had normally grown babies. Seven had babies greater than the ninetieth percentile (21%). Two did not have birth weight centiles recorded. Thirteen percent of the general population had babies with birth weights less than the 10% and 5% were less than the third percentile.

Of the 35 women, eight had a Body Mass Index (BMI) of 30 or higher (23%). Of these eight, one had a miscarriage and three had caesarean sections. In 2019, 26% of the general population had BMIs of 30 or higher.

Of the 33 women who had viable babies, six had caesarean sections (18%), two had operative vaginal deliveries (6%) and twenty-five had normal deliveries (76%). Twenty-four percent of the general population had caesarean sections in 2019 while 3% had operative vaginal deliveries.

Fourteen women (40%) smoked at the start of the pregnancy. Thirteen of these women were Māori (93%). Four had caesarean sections. One had a miscarriage. Four had growth restricted babies.

Eleven of the fourteen women (79%) who smoked at the start of pregnancy were referred to cessation. For three it wasn't clear from the records. One did not have prenatal care.

Eight of the fourteen women (57%) self-reported that they quit smoking during the pregnancy. Three of these eight had caesarean sections and one had a miscarriage. Three had growth restricted babies. Unfortunately it is not possible to compare these smoking cessation statistics with the general population.

Of the thirty-five women, thirty-one (89%) were referred to support services (Vulnerable Pregnant Women and/or E Tipu E Rea).

All of the thirty-four women who had antenatal care had appropriate serological screening for infection. None of the women had urine cultures or vaginal/cervical cultures for infectious screening sent by their LMCs

Conclusions

It is always difficult to draw firm conclusions given our small numbers. Teenage mothers had more preterm deliveries than the general population. Apart from this, it does not seem like teenage mothers in Gisborne have significantly worse pregnancy outcomes than the general population. Growth restriction was slightly increased but none of the babies were severely growth restricted. Vaginal delivery percentages were similar.

We weren't able to make many demographic comparisons. BMI percentages were similar between the audit and the general populations. Not surprisingly, outcomes were worse for women who started their pregnancies with higher BMIs or who smoked. The vast majority of the women who smoked were Māori. This is distressing to see but also consistent with smoking trends in the general population. Clearly our community needs intensified efforts to decrease the prevalence of smoking and obesity. Decreasing these would dramatically improve both the short and long-term health of our community.

The vast majority of the women in our audit were referred to support services. It is interesting that none of the women had screening for urinary tract infections or sexually transmitted infections (STIs). Given that teenagers are at increased risk of STIs, they might be a population that would be more useful to screen.

This audit is not able to determine how many of these pregnancies were undesired. Consequently we are unable to say whether there should be any changes in our efforts to help women avoid undesired pregnancies. However, we are working on increasing the availability of long acting reproduction contraception (LARC) to women prior to discharge home postnatally and in particular any teenage mothers. If in the future we identify that there appears to be a trend towards increased teenage pregnancy rates, we will consider efforts to assess this.

The most notable finding from this audit was the fact that a disproportionate percentage of teenage mothers were Māori. As in the preceding paragraph, we were not able to determine whether their pregnancies were desired or undesired. If the majority were undesired, it would suggest inequities of some sort. At the very least, it raises the possibility that there are inequities in things such as access to birth control and/or safe sex education. Investigation into possible inequities should be considered if teenage pregnancy rates continue to increase. We will continue to monitor trends in teenage pregnancies in Tairāwhiti.

By Dr Sean Pocock
Consultant Obstetrician & Gynaecologist

Postpartum Haemorrhage Audit | 1 August 2019 – 31 July 2020

Introduction

Postpartum haemorrhage (PPH) is one of the top five causes of maternal mortality in every country in the world. Primary PPH is defined as blood loss of 500 ml or more within 24h of birth, although this definition is more a marker for audit and for mobilising extra resources. Actual morbidity is relatively infrequent among women with blood loss 500-999 ml. Clinically significant PPH may be defined as any excessive bleeding that causes the woman to become symptomatic. The incidence of PPH varies widely, depending on the criteria used to define it. Occurrence is reported in 3 to 5% of births worldwide, but may be higher when blood loss is measured quantitatively instead of estimated. A regional study in Victoria, Australia, from 2009-2013 show a PPH rate of 21.8%, including a severe PPH rate of 1.4% (defined as >1500 ml blood loss), and increase in overall rate possibly due to improved estimation and documentation leading to better identification. New Zealand has not published PPH rates nationally and where rates have been published, definitions and measurement methods have varied. The adoption of MCIS (electronic Maternity Care Information System) has facilitated tracking of PPH in some DHBs and in 2019 Counties Manukau published a PPH rate of 24% for 2018, a significant increase from their pre-MCIS rates of 10-12%.

In 2017 an audit of PPH was performed for this maternity unit as the rate of PPH was thought to be increasing. We also arranged for an external review. In conjunction with the audit, a risk assessment model was introduced. In part, this current review was conducted to see if steps put in place to reduce PPH rates and severity have had any benefit. Each women admitted to maternity was to have a PPH risk assessment performed. These recommendations were then made for management of third stage based on risk factors:

- If no identified risk factors, active management of third stage (AMTS) recommended unless physiological management requested by woman and labour has remained physiological (including having had no narcotics)
- If 1 or 2 risk factors are present, AMTS recommended with IV sited and CBC/group & hold sent. In addition to this, a Syntocin infusion is recommended x 1 litre.
- If 3 or 4 risk factors are present, 1 ampoule of Syntometrine IM is recommended at delivery of the placenta (unless contra-indicated in which case O&G is to be contacted for plan to prevent PPH)
- If >4 risk factors are present, the O&G should be contacted for discussion of plan to prevent PPH.

The other purpose of the audit is to identify risk factors most commonly seen in the local populations. PPH can be difficult to predict, and all women giving birth should be considered at risk (RANZCOG 2017), especially given that the majority of women with PPH have no identifiable risk factors. Many risk factors for PPH have been reported and are often interdependent.

Conclusions

Overall, the PPH rate for the period reviewed in this audit (14.12%), the rate of haemorrhage >1000ml (4.49%) and the rate of severe haemorrhage (1.44%) compare favourably with previous audits (16.3% overall rate in 2017) for our region and in other parts of New Zealand (24% in 2018, Counties Manukau). At worst our PPH rate remains the same in our region despite an increasing rate of medical complexity in the local antenatal population. Given the introduction of the PROMPT course and the attention paid to quantitating blood loss, one could argue that our rates remain the same despite better identification of PPH, therefore representing an improvement; in years past, the incidence of PPH was more likely to be inaccurate because of methods for identifying it. But what has not improved is at least the documentation of identifying risk factors, developing a management plan, and documenting actual management when a PPH occurs. Only 30 of the 62 charts reviewed had PPH identified under risk factors, either previous or current. Only 14 of these had a documented plan, roughly 23% of the charts reviewed. Documentation of a management plan aside, AMTS was used in 77% of all deliveries, 58.3% of vaginal deliveries, which compares to 58.5% of vaginal deliveries in the PPH audit from 2017. Both that audit and this were strict in their definitions of AMTS and the true rate may be higher if time of administration of medication was not accurately documented. MCIS has a template for documenting PPH, but this was not regularly used and unless it is used in real time, it may not aid in the accuracy of documentation. Accuracy of documentation also made it difficult to assess whether recommendations for prophylaxis based on the number of risks factors were followed, but there did not appear to be adherence to the guidelines initiated after the last PPH audit. This may be due to lack of awareness of the recommendations as staffing has changed on the unit since 2017. Although these recommendations are posted in each labour room, perhaps making pocket sized laminated copies for each maternity employee to carry would facilitate their implementation. Lack of implementation may also be due to lack of awareness of the number of risk factors a woman has when she actually delivers. If there are any recommendations forthcoming from this audit, it is a renewed diligence to identifying and documenting risk factors antenatally in MCIS, but also to identifying and documenting intrapartum risk factors in MCIS. A woman may be admitted with one or no risk factors but by the time the baby is born she may have accumulated four or five. Starting a routine of pausing at the beginning of second stage to reassess risk factors would increase PPH risk awareness and preparedness. If needed, a core staff could be called into the room to verify or assist with this assessment. AMTS could then be prepared, whether it is syringes with the appropriate amount of Syntocin, or making sure that other medications are in the room to be given promptly and prophylactically.

Along with vigilance for risk assessment, the effort to document PPH risk identification and management plan or specialist involvement is key. In particular, women with hypertensive disorders in pregnancy or those who refuse blood products need clear management plans given that certain medication (Syntometrine for PIH) or blood products cannot be used to manage PPH. It is even more imperative that thought be given to a management plan prior to the time of birth to allow a smooth implementation of the plan and to minimise blood loss.

Overall, PPH rate at Gisborne Hospital compares favourably with its own past rate and rates seen in other regions. But it could potentially be better, a challenge likely to be met with renewed dedication. **See appendix 2 for full audit report.**

By Dr Shireen Heidari
Consultant Obstetrician & Gynaecologist

10.0 Supporting our Māmā & Pēpi

Te Hauora O Turanganui a Kiwa – responding to the needs of our local population

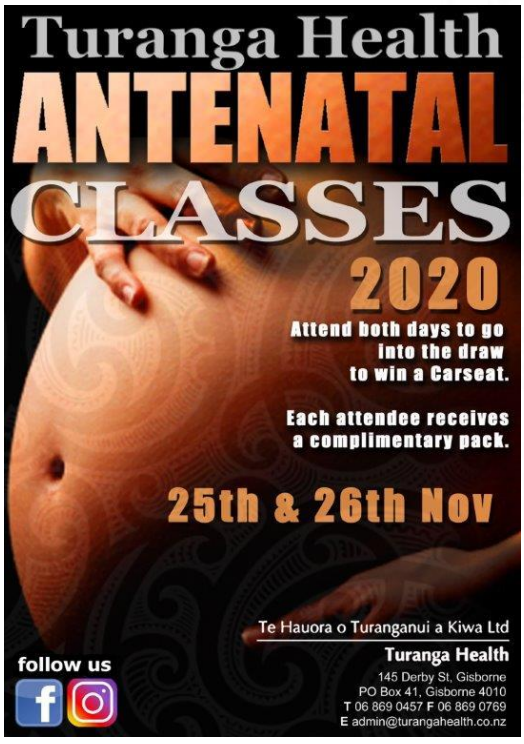
Te Hauora ō Tūranganui a Kiwa Ltd
Turanga Health
Kia Whai Oranga-a-Whānau Mō Ngā Whakatipuranga
Building family wellness for future generations

Ante Natal Wānanga:

Tūranga Health provides kaiāwhina support to hapū māmā and whānau. This support can be accessed at any time whilst a māmā is hapu. Kāiawhina will contact the whānau to meet and korero about their needs and aspirations. This gives the opportunity to connect, to share whakapapa and to build a relationship with the whānau. The Kaiāwhina can also check the māmā is registered with an LMC and a primary practice.

From the assessment, needs are identified and planning starts with the whānau. The plan may include:

- Smoking Cessation support
- Healthy Homes kaiāwhina support
- Hapū māmā oranga niho programme
- Child Restraint access
- Whānau are also able to discuss access to resources through E Tipu E Rea funding



Manaaki from Kaiāwhina gives hapu māmā and whānau the opportunity of attending an Antenatal wānanga. Wānanga occur bi-monthly across two full days covering a variety of topics and interactive activities. Hapū māmā and whānau can access the wānanga through a variety of pathways including their LMC, social media, whānau and friends.

Hauora Tairāwhiti midwives present at antenatal wānanga which gives whānau more knowledge about labour and birth, an opportunity to discuss and ask questions and the opportunity to meet a midwife they may latter see at the Maternity Unit. Pregnancy Immunisations are offered at Antenatal wānanga as an additional wrap around service.

The evaluation of sessions continues to indicate a high level of satisfaction with the wānanga. Interactive activities are the most popular and feedback from whānau informs changes and improvements to the delivery of the programme.

Evaluation Summary of Whānau Voice:

"The programme was perfect, helped wash away all my anxieties for birth & how to be a māmā"
"It was perfect, met all the criteria that I was needing"
"Culturally attuned and appropriate care & pathways"
"This is my second child, so I came more for my partner's sake and I think he learned heaps from this"
The Tamariki Ora team includes Well Child Tamariki Ora nurses who work alongside the Māmā and Pēpi kaiāwhina. This provides a holistic and ideally seamless transition on the journey from antenatal to postnatal stages.

Covid-19 has affected the delivery of service and care to whānau this year. To support whānau during this time the Tamariki ora team within the wider team at Turanga Health continued to provide service during all stages of the Covid-19 response in New Zealand.

Turanga Health identified those #"vulnerable whānau" (665) and put in place the following supports throughout the level 3/4 Pandemic;

A virtual phone tree for daily contact manned by registered nurses, a virtual phone tree for daily contact manned by Kaiāwhina, the Turanga Health phone line manned by Turanga Health management – this is to identify the demand and unlock the necessary wraparound support real time, hygiene bucket, hygiene pack, kai parcel, flu vaccination and COVID swabbing.

Turanga Health Wrap arounds	**Turanga Health Vulnerable Whānau**	**Iwi**	**Primary Industry**
Hygiene buckets	**1050**	**1000**	
Hygiene packs	**300**	**280**	
Precooked meals	**550**	**300**	
Flu Vaccinations	**350**	**150**	**300**
Phone Tree	**2000**	**300**	**150**
Waikohu Clinic Swabbing	**20**		

Supporting whānau to confidently maintain day to day life in their home, providing information and advice, delivering hygiene supplies and kai parcels to the door meant whānau knew they were thought of, cared for and still connected to their community.

Our hapu māmā and those with new-born babies during the Covid-19 stages were included in the vulnerable whānau supported as in the table above.

Mokopuna Ora Coordinator

Tēnā tātou kātoa,

2020 has whizzed by and as I write this report, we start to settle back from National Safe Sleep day; Friday 4th December.

In Tairāwhiti our services have utilized the two weeks during their hapū wānanga to celebrate their year long focus on educating our workforce, whānau and hapū māmā on the importance of protective parenting practices, intertwining traditional practices into contemporary lifestyles.

COVID-19 has illustrated challenges that paused our service providers ability to deliver physical wānanga. As soon as our colleagues have been able to hold wānanga safely in alert level one, there has been a great effort put into ensuring wānanga are structured and full of practical information and useful gifts that demonstrate the manaakitanga and kotahitanga of our health services to our hapū māmā, pēpi and whānau.

The main focus of the Mokopuna Ora role is to not apply a tunnel vision onto SUDI (Sudden Unexplained Death in Infancy) prevention, but critically analyse the main preventable and modifiable causes of SUDI, targeting those complexities with a strengths based, holistic and mana enhancing approach to work on the evolution of health services, clinician practices, patient care and education.

For Safe Sleep Day 2020, we hit the streets to deliver 'Tapu whilst Hapū' posters created locally by rangatahi in our community to predominantly off-site licenced liquor businesses and organizations that have a high engagement with pregnant women, parents and families to display our FASD awareness posters during the summer. This summer project is in partnership between the Tairāwhiti FASD Action Group, Turanga Health, Hauora Tairāwhiti Public Health and Health Protection teams, focusing on reducing alcohol harm in our whānau. The vision for this summer project is to also raise awareness of the wrap around support available to our hapū wāhine to engage in positive stress relief strategies.

L-R: Cheanne Johnson, Courtney Stubbins, Kaniwa Kupenga-Tamarama and Waldo Horomia, ready to distribute the Tapu whilst Hapū Posters for the summer FASD awareness project in collaboration with Hauora Tairāwhiti and the Tairāwhiti FASD Action Group, proudly supported by Turanga Health.

Addressing Fetal Alcohol Spectrum Disorder in Tairāwhiti has been making steady tracks this year with recent research linking drinking alcohol and smoking ciggarettes antentally beyond the first trimester are at a substantially risk of SUDI/SIDS (Elliot et al., 2020).

As a member of the Tairāwhiti FASD Action group we have worked towards our action plan and lobbying local members of parliament about recognizing FASD as a neurological disability. Furthermore, we have run petitions and supported national initiatives that will require all alcoholic beverages in the near future to have compulsory warning consumption signs of drinking whilst pregnant.

September just gone, in conjunction with Turanga Health, the first ever FASD Parent support hub in Elgin was launched. The hub is open every Wednesday morning between 10-12noon and is open to the public, no referral needed.

The main focus of the summer project is to raise the communal awareness of FASD and stimulate a constructive response to our responsibilities to caring for pregnant women in our community. It is about enhancing the mana of the hapū māmā and recognising the sacredness of her pregnancy. There has been interest from other regions about replicating this summer project.

This year, we have also had the honor of collaborating with the Women's Native Tree Project who have locally nutured and grown native sapplings that are gifted to our hapū wāhine and whānau to practice the birthing tradition of 'whenua ki te whenua' or simply dedicating our new pēpi in our community to a native rākau.

Signifying the physical, mental and spiritual connection to our ahikaa (tribal lands) and ensuring that we are grounded into Papatūānuku. Thus further instigates a positive relationship with our local eco-systems and ensures that our tamariki grow up, continuing to protect the relationship we have with our environment.

Pearl Beattie with her pepi and mother at Te Aowera Marae at the August 2020 Hapū wānanga for a Big Latch morning tea!

A huge Thank you to Kauri Forno who along with her amazing voluteers, who have nutured, grown and gifted to the new babies in our community a native tree sappling. We look forward to another year of collaboration and support.

Here is the link to Turanga Health's article on the fabulous work they have been doing this year and how they're making a positive impact in our community, highlighting safe sleep day 2020.

http://www.turangahealth.co.nz/news?fbclid=IwAR25X0PJ9B8A4csswK7zo9YVaHfE6dkmSDcUna2WWvyFh0JJJf5fc9ufQWQ

L-R: Karangi Robin, Amanda Smith, Kitaleva Latu, Anahere Tuapawa and Puja Rajbhandai at the November 2020 Hapū Wānanga facilitated proudly by Turanga Health at Te Rau Aroha College in Gisborne.

Ngāti Porou Hauora have also continued to hold hapū wānanga that enables hapū māmā and whānau to attend and weave their own wahakura for their pēpi. The manaaki of te whare tangata is focused upon to ensure that the holistic health of the māmā is central to an optimal in-utero development of pēpi and thus promoting the strengthening of whakapapa.

Hapū māmā with Rural Midwife Corrina Parata at the December 2020 Hapū wānanga facilitated proudly by Ngāti Porou Hauora at Reremoana Hall in Te Puia Springs

The first 1000 days has been a huge influence in guiding campaigns, health education and promotion to prevent SUDI. At hapū wānanga, Māmā and whānau also get to make muka cord ties, ipu whenua and hear from a range of other services that are there to help wrap around support as the whānau transitions through the milestones of pregnacy and birth, focusing on maintaining Mauri Ora, Whānau Ora and Wai Ora – as per the Ministry of Health's 'He Korowai Oranga: Māori Health Strategy'.

In this December Hapū wānanga, Māmā were gifted re-usable menstrual pads and breast pads from Days for Girls New Zealand, Kia Kaha Māmā Journal packs that innovatively promote mental and spiritual health exercises influenced upon the Maramataka to promote the holistic wellbeing of māmā.

A special shout out to Terran Kupenga from The Beauty Hive and Hillary Harrison-Kahaki from HuiHūia Creative, both local Māori business owners, who have come on board this year and sponsored prizes to support the Big Latch event Ngāti Porou Hauora held in August 2020. Tino atāhua wāhine, ngā mihi mahana korua. We look forward to working with you more in 2021.

At the recent Indigenous & Contemporary Paradigms to eliminate S.U.D.I. from our whakapapa, held on 18 November 2020, we had a great turn out from a wide variety of community based and Hauora Tairāwhiti professionals who we guided into Te Ao Māori paradigms surrounding childbirth in regards to preparing Te Whare Tangata for pregnancy, in-utero environmental epigentic influences and external enviromental influences that surround the first 1000 days. Early life development is a sensitive period of development that requires our professionals to be open-minded in learning about indigenous cultural health paradigms that can help broaden their practices to address health inequities within the maternal and infant/child realms.

Thank you to Aporina Chapman, Janine Brown, Janet McGuinness, Ella Atkins, Bina Akuhata-Brown, Matua Owen Lloyd and Dannielle Koia for all your support in making this Seminar happen. We will look at re-hosting this seminar next year as a lot of other community members were unable to attend this session. Furthermore, we discussed the vital role Ūkaipō holds in providing protective elements to the wellbeing of our children and how that also protects against SUDI.

Indigenous and Contemporary Paradigms to eliminate S.U.D.I. from our whakapapa presenters and participants at the Poutama room at Gisborne Hospital.

Our community is passionate about ensuring our whānau receives up-to-date information regarding the prevention of SUDI and the protective actions of matua and whānau who can make **every sleep a safe sleep**. Whilst the wahakura is a safe sleeping device that optimizes safe bed sharing, we need to focus on improving the continuation of breastfeeding in our community.

The Tairāwhiti Ūkaipō Group was established in September 2019. Over the last 15-months, we have been created an action plan that aims to strengthen the health promotion of breastfeeding in Tairāwhiti.

It is one of our groups focal points in 2021 to work on strengthening community peer breastfeeding support services to aid supporting the breastfeeding aspirations of māmā, pēpi and whānau.

Puawai Aroha Maternity Unit Pēpi Pod Annual Report – July 2019

Looking at the data collected over the 12 month calendar for 2019 it is easy to see that a majority of our pēpi-pods are given to Māori women who smoke before, during and/or after their pregnancy. For those Māori woman who did not smoke the pēpi-pod was issued as they were either found to be co-sleeping with their baby and/or did not have a safe sleep space for baby at home. If not given a pēpi-pod, then the woman had acknowledged that she already had a safe sleeping space/device for her baby during the education provided by the staff.

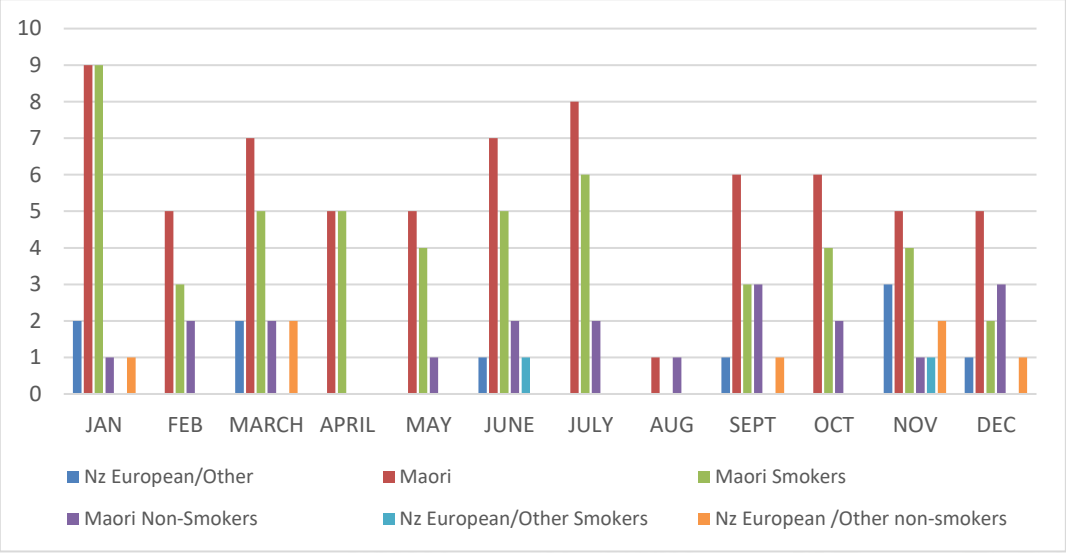
These findings show that we need to remain vigilant in educating and supporting women to practice safe sleeping for their baby/babies and referring woman to the local smoking cessation provider services so that they can be fully supported to stop smoking. This includes also encouraging their partners /whānau to stop smoking as well. Referral to this service should ideally be at the start of the pregnancy journey by the LMC or by the hospital team if the woman is receiving secondary care antenatal services but support continued throughout her pregnancy and postpartum period. Referring a pregnant woman to these services at any stage of her pregnancy or after the birth should be and is encouraged by all the team.

In maternity and the neonatal unit all our staff are trained on how to correctly issue a pēpi-pod and provide the required education on the correct use of this by our Safe Sleep Champion, Lesley. All staff have completed on line training to enhance their education skills around safe sleep, prevention of shaken baby and smoking

cessation. We also discuss safe sleep and shaken baby prevention with all postnatal women during their stay. Last year we added these topics to our white board in the maternity office linking them to the woman's postnatal room. The boxes are to be ticked when completed which enables staff to clearly see if this education has been provided and if not, to do so. This is then documented in the woman's electronic records, so it is clear that these topics have been discussed with the woman/partner/whānau prior to discharge from our maternity unit.

PĒPI-POD DISTRIBUTION - Hauora Tairāwhiti Puawai Aroha Maternity Unit 2019

Month	Total distributed per month	NZ European/ Other	Māori	Māori Smokers	Māori Non-Smokers	NZ European/ Other Smokers	NZ European /Other non-smokers
JAN	11	2	9	9	1	0	1
FEB	5	0	5	3	2	0	0
MARCH	9	2	7	5	2	0	2
APRIL	5	0	5	5	0	0	0
MAY	5	0	5	4	1	0	0
JUNE	8	1	7	5	2	1	0
JULY	8	0	8	6	2	0	0
AUG	1	0	1	0	1	0	0
SEPT	7	1	6	3	3	0	1
OCT	6	0	6	4	2	0	0
NOV	8	3	5	4	1	1	2
DEC	6	1	5	2	3	0	1



Lesley Turnbull
Senior Midwife & Safe Sleep Champion

Coping with A Crying Baby – Shaken Baby Prevention

All babies cry and some babies cry a lot. We are committed to making sure that all mothers and whānau have the information they need to know what to do and how to get help when they feel they are not coping.

It is our responsibility as professionals, to share information with families with young babies about how to prevent shaken baby syndrome.

All staff have been requested to complete an online update.

Information is available to parents on line: https://www.kidshealth.org.nz/never-ever-shake-baby

Te Hiringa Matua

Helping hapū (pregnant) māmā who are struggling with drug and alcohol problems is what Te Hiringa Matua is all about.

Te Hiringa Matua is a pregnancy and parenting support service based on a successful pilot at Waitemata District Health Board. Waitemata offered an intensive programme of support to pregnant women and/or whānau with children under three, who have serious addiction issues. The women were generally not well connected to social and health support services.

In this region, the service has a uniquely Tairāwhiti approach to providing that support and connection. Mahi a Atua (using indigenous knowledge of Māori gods to make sense of a situation), is a way of working that has been developed in Tairāwhiti. Mahi a Atua is the foundation of the Te Hiringa Matua service and the people who facilitate this approach are called Mataora.

Ngati Porou Hauora is the lead provider for the Te Hiringa Matua service which is across Te Tairāwhiti. The service reports to a governance group with membership from Tūranga Health, Hauiti Hauora, Hauora Tairāwhiti and Ngāti Porou Hauora.

The name Te Hiringa Matua is taken from Te Oriori (lullaby) mo (for) Tuuteremoana, an ancient birthing karakia that describes the phenomenon of human procreation and the instinct to care for children.

I taatai ai te puhi ariki
And blessed upon this young person
Te Hiringa matua
Was the power to parent
Te Hiringa tipua
A magical power
Te Hiringa tawhito-o-rangi

Te Waharoa

A joint venture between Hauora Tairāwhiti, Te Kupenga Net Trust and Pinnacle Midlands Health Network to provide a simple, easy gateway to mental health and addiction services for whānau in distress with an open door policy. People can ask for help for themselves, whānau or be referred by their GP or another service. Waharoa Service brings together a range of providers (Mataora, GPs, community groups and mental health professionals) committed to doing things differently by adding the principles of relationships and community to western psychiatric approaches. It is about applying indigenous matauranga (knowledge/understanding) to reframe the way a person's experience is discussed and to find a pathway forward when experiencing distress. Well-being workshops, therapeutic art sessions and moko papa (the grounding of moko) will be held there.

Tairāwhiti health professionals have listened to a call for a more effective response to mental health and addiction distress that affects too many Tairāwhiti families.

Te Waharoa is a unique and ground breaking response to that call. It is about applying indigenous mātauranga (knowledge/understanding) to reframe the way we talk about a person's experience and to find a pathway forward for people experiencing distress.

The approach has been endorsed by Prime Minister Jacinda Ardern in her 2019 budget announcement on mental health services.

Te Waharoa was previously known as Te Kuwatawata was initially run as a pilot. The pilot was (part) funded by the Ministry of Health's Fit for the Future fund. This funding, combined with clinical services, formed the basis of the bicultural service.

Mātauranga

A groundswell of people – indigenous knowledge experts, local GPs, community groups and mental health professionals - have been learning about using stories to look at all the characteristics of Māori deities and how they interacted with each other. This helps to understand interactions and behaviours. "Mātauranga enables us to move away from only using western ideology to categorise distress while staying critical in our thinking as health professionals. We are not abandoning western psychiatric approaches; we are just putting other principals - such as relationships and community voice - forward as an immediate response. This helps us to respond quicker, closer to where people live and most importantly this makes people feel connected, rather than disempowered."

Evaluation

A formal evaluation of the pilot was completed in 2019 and included recommendations for the ongoing development as part of the suite of Mental Health Services offered in Tairāwhiti.

Source: https://www.hauoratairawhiti.org.nz/our-services/mental-health-and-addictions-services/he-waharoa/

Lactation Consultant Service

The Hauora Tairāwhiti Lactation Consultant Service, established in 2011, provides community-based Lactation Consultant support to women experiencing breastfeeding difficulty who require specialist care. Under the contract, referrals are capped at 240 per year, which currently meets client demand and the availability of Lactation Consultants.

In the past year, the service has cared for 230 women and their babies.

The service is currently provided solely by Janet McGuinness.

Amy Wray temporarily provided some LC cover over November to January and will continue to be an option for added support on a casual basis as required.

The contract is held by Janet McGuinness, Trading as MāmāPukeko Ltd.

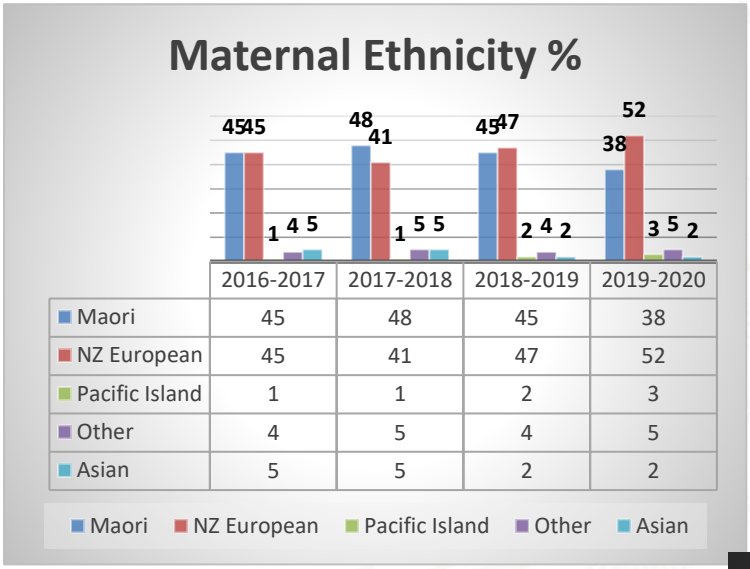
This service was not interrupted or reduced over the Covid19 lockdown alert level 4 or during the subsequent levels 3 to 1. Consultations were provided via the platform that suited each mother's needs best. Care remained as efficient and intensive as normal. PPE was worn during all consultations during alert levels 3 and 2 as well as extra hygiene precautions which continue during consultations today. This report contains additional statistics that will show the impact of the Covid 19 Alert levels on mothers and babies with feeding problems in our district.

I greatly appreciate Hauora Tairāwhiti commitment to the lactation service, and to supporting breastfeeding mothers in Tairāwhiti. Thanks to the contract roll-over, I am pleased to have notice that the contract will continue until 2023. This will enable us to continue to provide much-needed specialist care, support and advice for mothers struggling on their breastfeeding journey.

Tamaiti kai wai u tenei ra, ka ora te tamaiti apopo!

General Statistics

The lactation service aims to meet the needs of Māori and Pacific Islanders as well as other New Zealanders. Referrals of Māori and Pacific Island mothers to the service are always encouraged.



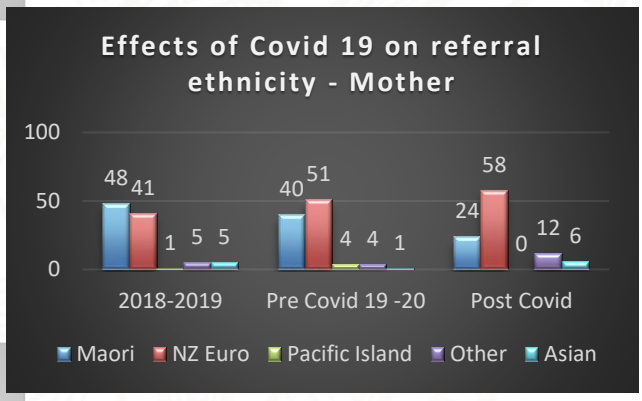
	2016-2017	2017-2018	2018-2019	2019-2020
Maori	45	48	45	38
NZ European	45	41	47	52
Pacific Island	1	1	2	3
Other	4	5	4	5
Asian	5	5	2	2

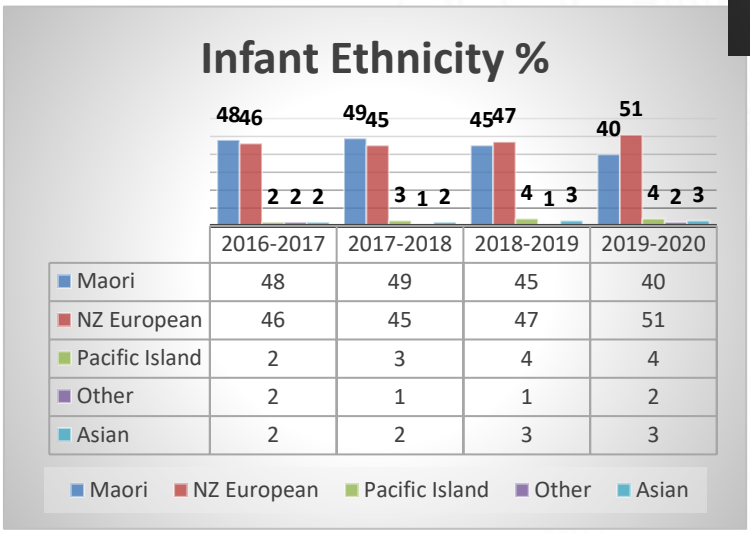
The number of Māori mothers & babies referred to the service has decreased this year. As seen below, this drop appears to be heavily influenced by the referrals received during and after the covid 19 lock down.

Why 16% fewer Māori mothers were referred to the service during this period warrants investigation.

Baby's ethnicity numbers vary from maternal ethnicity as they account for the father's ethnicity. The 'Other' in both groups represents ethnicities such as Australian, European, South African, British, Irish, and American.

Not surprisingly **the number of Māori babies cared for within the service also reduced by more than 16% during and after the covid lock down**.





	2016-2017	2017-2018	2018-2019	2019-2020
Maori	48	49	45	40
NZ European	46	45	47	51
Pacific Island	2	3	4	4
Other	2	1	1	2
Asian	2	2	3	3

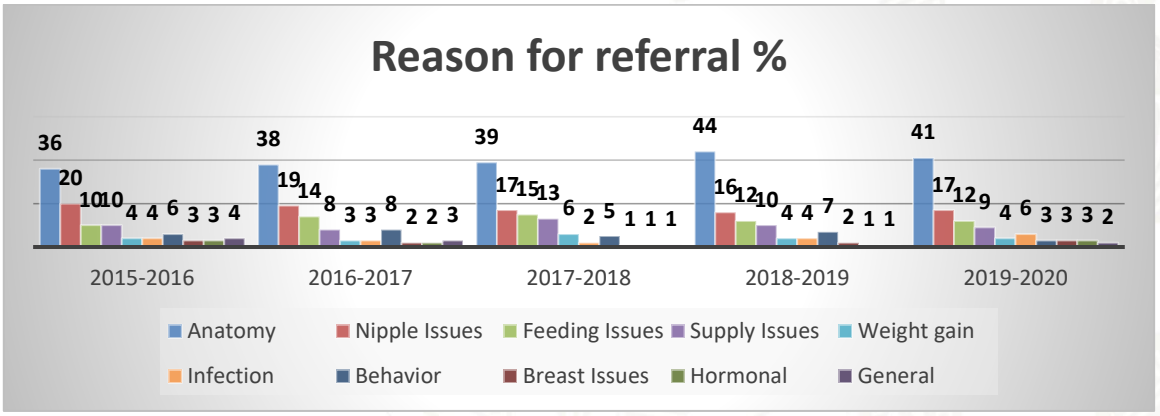
The ethnicity & origin of referrals to the service cannot be controlled however work is always done to improve interagency linkage with providers who care for Māori and Pacific Island mothers.

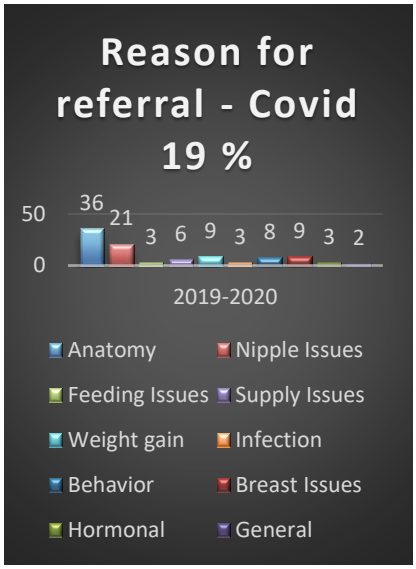
Care is provided to mothers living up the coast, however it has proven difficult to source appropriate locations in which to see women and as travel expenses are not funded home visits are not an option.

LMC's (Lead Maternity Carers), make up most of our referees. **Consistently, more than 2/3 of babies referred over the last 4 years have been seen between birth and 6 weeks of age.** This includes during and after the Covid 19 lockdown.

The **average age of babies at referral is 4 weeks old**.

Reason for Referral and Diagnosis on Discharge

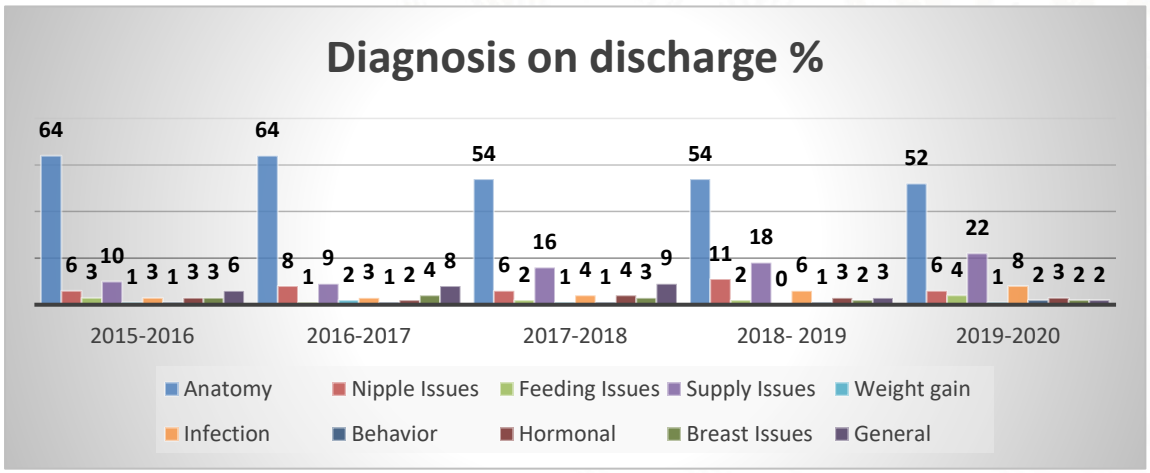




Breastfeeding problems are often complex and usually present with multiple linked symptoms which can eventuate in more than one diagnosis.

To simplify reporting, symptoms have been classified to highlight the breastfeeding issues we see. An appendix at the end of this report elaborates on the classifications shown in the graph. as in all previous years, **Anatomy**, consisting of mostly ankyloglossia (tongue tie) and lip tie but not excluding torticollis, GERD, or breast hypoplasia, is the **most common reason for referral** and diagnosis on discharge. **Supply issues seem to be on the rise as do infection rates.**

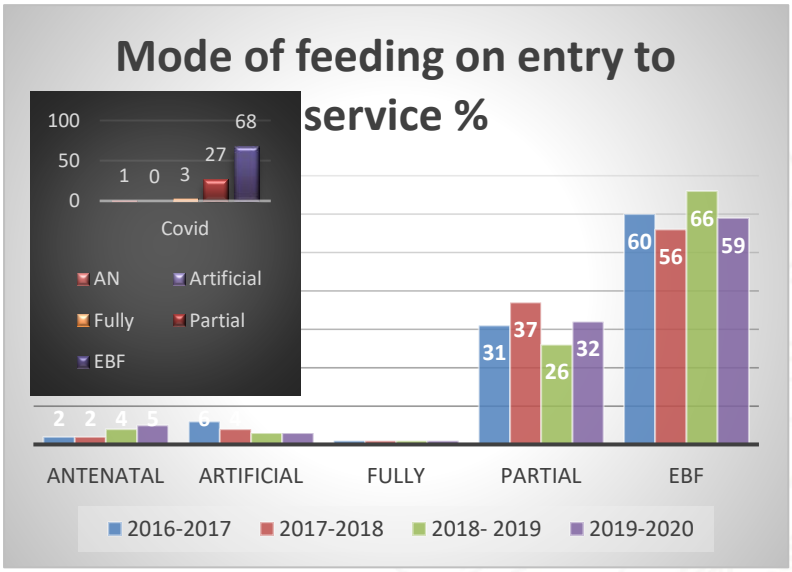
During Covid 19 alert levels the service saw an increase in referrals for babies with poor weight gain issues as well as breast and nipple pain.



Diagnosis of supply issues during the Covid 19 alert levels increased.

Ankyloglossia (Tongue-tie) - See Ankyloglossia report in appendix 3.

Overall outcomes for the service.

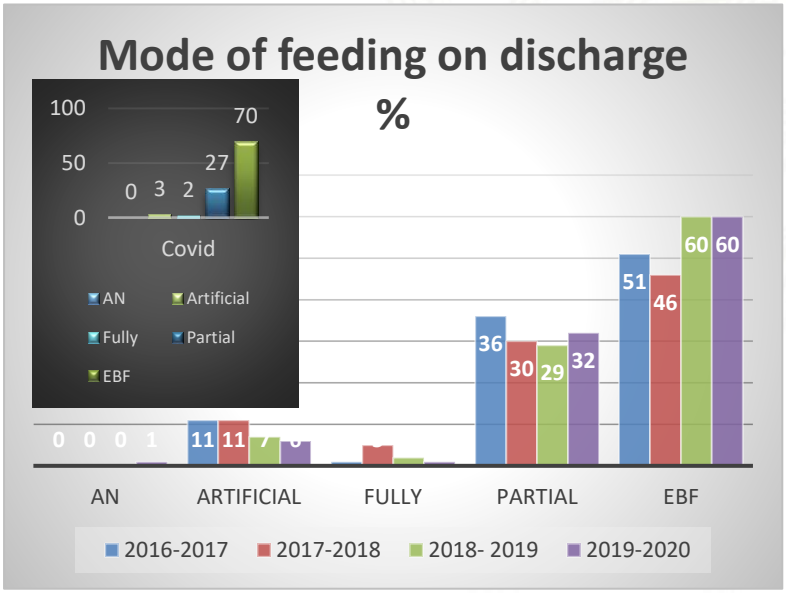


Breastfeeding rates are collected on entry and at the time of discharge from the service. Most of the breastfeeding dyads are **under the care of the service for an average of 11 weeks or more**.

The graphs to follow show the 5 different modes of feeding on entry and exit to the service in % for the last 4 years.

The data pattern for feeding method on admission to the service remained the same during the Covid 19 alert levels.

For the first time in 4 years there has been an increase in EBF on exit from the service despite the restrictions in place over the Covid 19 alert levels. This I believe may be due to fewer visitors to the new mum's home over the alert levels, coupled with the lower Māori referral rate as often Māori mums have lower breastfeeding rates.



5% of mothers seen within our service chose to switch to formula despite our best efforts and advice, a reduction of 2% since last year.

Our regional statistics show that fewer mothers are choosing to or are maintaining breastfeeding. There is a concerning increase in partial feeding on admission to our service. There is an urgent need for Māori focused antenatal education around breastfeeding as well as a sustainable and effective peer support programme.

The increase in artificial feeding from entry to discharge reflects the nature of our service as well as cultural norms of our society. On entry, the service meets women struggling to breastfeed due to several issues, sometimes late in the struggle and for some even after treatment and assistance it can be either physically impossible for them to exclusively breastfeed or the struggle is just too great, and they lack support from whānau and the wider community. Also, it is known internationally, that 5% of women physically cannot breastfeed due to various reasons.

Women referred to the service are on the extreme end of the breastfeeding spectrum and are the most likely to give up because of the difficulties they are facing.

Interagency Linkages include:

Referrals from many agencies. We often consult with other IBCLC's, GP's, Midwives, Well Child providers, Osteopath's, Obstetricians, Paediatricians, Herbalists, Surgeons, social services, Maternal and infant mental health, and Mother-crafting where required to meet māmā and Pepe's needs and refer to these services if necessary.

Working to provide better access to our service with Turanga Health and Ngati Porou Hauora for coastal dwelling mothers. There is a system in place for all Māmās who meet E Tipu E Rea criteria to fund breast pump hire, breastfeeding equipment and medical treatments associated with breastfeeding where required.

Facilitation of a meeting of all of Gisborne's IBCLC's, from hospital and community every two months to establish our community's needs in terms of Lactation consultant and breastfeeding support and how this can be achieved as well as improve knowledge and share case studies.

Representation on the Tairāwhiti Ukaipo Group on a monthly basis to ensure input of local issues affecting breastfeeding of the women seen within the service.

Connection with national lactation consultants and services, including the attendance at monthly New Zealand Lactation Consultants Association, (NZLCA) to engage with and learn from other services to improve this service to meet standards around the country.

Working with other agencies to celebrate World Breastfeeding Week. Sadly, due to Covid 19 this year's latch on had to be moved to a virtual platform with a Breastfeeding selfie competition. There was engagement from the community but not as much as with previous years where face-to-face Latch On's were hosted. Previously large Latch On events have been coordinated with great attendance. The hope is to be able to repeat that again in 2021.

Provision of breastfeeding education to WCTO groups, RNCGP peer review group on request as well as BFHI breastfeeding updates to hospital staff and frequent clinic sit-ins with health professionals. All of these thus far have been unpaid events but provided in order to increase the knowledge of those working with breastfeeding mothers and decrease the occurrence of conflicting advice, a common complaint of mothers in our region.

Report Against Deliverables

Average time spent on each client in the past year: 1 x hour long 1st consultation

1.1 Follow up 30 min appointments (range 0 – 6)
6.3 Phone calls (range of 1 – 30)
21.9 Text messages (range of 1 – 98)
1.1 Care Plans (range of 0 – 4)
0.7 Referrals (range of 0 – 2)

Mother and Pepe dyads receive care within the service for an average of 11 weeks.

Consultations- Attempt to see each referral within a week and follow up until the problems have been solved and treatments completed, or until the mother no longer requires support.

Care plans/records- If required, mothers are provided with a copy of a written care plan and access to other resources and information needed at the time.

Follow up visits- Every mother is followed up on a needs basis until her desired outcome is reached.

Resources, equipment, and information- I provide mothers with several resources: website cards, information leaflets, lact-aid tubes, feeding spoons and cups. The service has 10 hospital grade breast pumps available for

hire in the community. **All of the above are not funded, but are greatly needed for mothers to succeed, so they are provided out of my own pocket.**

Support and resources to other health professionals- Frequent phone calls are received from other health professionals with questions or requests for advice. This time is additional to the referrals and is not accounted for in the contract but necessary to maintain the mutual relationship between agencies and to assist mothers to continue to breastfeed. The Māmā Aroha Talk Cards are continually used.

The service website: "Wai U Tairāwhiti" www.breastfeedingeastcoast.nz contains helpful breastfeeding information, informative videos, comprehensive breastfeeding care plans and tongue-tie treatment information.

All website content is IBCLC approved, adheres to relevant WHO codes and is freely available for health professionals and mothers to download, print or view online. The aim is to reduce conflicting advice and provide IBCLC approved resources for anyone to use.

The website is paid for, written, and managed by Janet McGuinness. Business cards with the website address are provided to all WCTO providers, LMC's, and our IBCLC's to distribute to mothers in our area as required.

Unforeseen Risks

COVID 19 pandemic. While the service was able to continue to operate at full capacity the alert levels obviously had an affect on the delivery of service and the number of referrals as follows:

Alert levels 3 & 4 required all consultations to be completed online or via phone call. This was done via several platforms; zoom, face-book video call, facetime and skype, specifically ones that suited clients needs best. There was a concern about security of the sessions and each client was briefed of the risks prior to commencing the consultation. There was also a limit to the efficacy of the service when an oral examination would have been a useful tool in diagnosis of feeding issues. The result of this was that once we reached alert level 2 where face-to-face consultations we permitted, there was a back log of clients requiring assessment.

Alert level 2 saw service resume to allowing face-to-face consultations with PPE worn, extra cleaning in-between clients and wider spaced appointments to ensure no client to client contact, as per infection control protocol. It also saw an increase in referrals from LMCs and WCTO providers who increased contact visits at this time resulting in the recognition of feeding issues not previously noted.

Alert level 1 saw the service resume as normal, with extra cleaning measures, however there was a surge in referrals from Plunket who had previously not been conducting face-to-face consults or weighing babies during alert levels 4,3 and 2. The result was that the referrals for June almost doubled compared to normal.

Backlog of frenotomies due to Covid 19 restrictions. During alert levels 4,3 and 2 ENT was unable to see babies for frenotomy. Midwife frenotomies we unable to be performed during levels 3 and 4. This meant that once we reached alert level 1 there were 16 pending frenotomies. Mr Avisenis and Carol Coetzee worked hard to clear the back log as soon as possible and should be commended for their service. Unfortunately for some babies and mothers, treatment came too late and a few had given up breastfeeding as it was just too painful or difficult.

There remains an absence of community breastfeeding support groups. This means greater pressure on our service and others for general advice and support in the community. The low breastfeeding rates in Tairāwhiti

are largely due to cultural norms within our society, especially amongst Māori Māmā and whānau. There is a definite need for development and funding of a Māori focused Wānanga such as the Hapu Wānanga run in Waikato DHB or a peer support group such a Kia Māmā. Work is being done by the Tairāwhiti Ukaipo Group to remedy this absence.

Programme Development

Further education to improve outcomes and ensure evidence-based practice is essential. Lactation consultants working within this service are required by to law to recertify every 5 years to continue to practice as lactation consultants. **This is a costly requirement which current pay rates do not cover and therefore is covered by Janet McGuinness at personal cost.** For hospital IBCLCS, all recertification costs are covered by the DHB as well as attendance at conferences. Something which community lactation consultants are not afforded. This is inequitable, especially considering that the community service deals with a greater proportion of the DHB's breastfeeding issues.

Funding for equipment. There is no funding for equipment such as nipple shields, lact-aid tubes, finger feeding tubes, feeding cups, or other miscellaneous items that mothers may require to succeed in initiating or maintaining breastfeeding. **All equipment provided to mothers who access the service is provided by Janet McGuinness at personal cost.**

Thank you again for providing funding for this contract. The certainty of further years under contract means that we can continue to plan long term improvements, as well as continue to provide this much needed and valuable service, with the aim of improving breastfeeding outcomes for mothers and babies in our district. However, with a contract set until 2023, it does not allow for further programme development, something that greatly needs to be addressed.

*Tamaiti kai wai u tenei ra, ka ora te tamaiti apopo***!**

Some feedback from clients for 2019-2020

Has been amazing the support Janet has given me. With my second child being diagnosed with tongue tie also it made me nervous after the first time and the traumatic experience we went through
Increased my understanding of breastfeeding, and gave me hugely helpful information about babies in general. Very well rounded info
I have had a few bumps along the road and the lactation consultant has ALWAYS helped me through the bumps and her advice has always proven the best options!
She helped and supported me so much, even when I was considering to quit. Here I am today, still breastfeeding and it has almost been 7 months.
Without the support of the LC I would have really struggled with breast feeding as I had a few different issues in the first few months of feeding.
Janet was great with giving advice and information when I needed it, especially as a first time mum
Without the lactation help, I would have given up on breastfeeding
Help me understand what was happening and facilitated me to continue with tools to make it work
It's given me the confidence to carry on with exclusive breastfeeding and made my breastfeeding journey more enjoyable and less painful!
Janet was great with giving advice and information when I needed it, especially as a first time mum
Help me understand what was happening and facilitated me to continue with tools to make it work
Great advice for our baby twins born with tongue tie to try osteopath treatment instead of snipping tongue straight away. I was able to get her to latch the same day after her osteo session. Consultant also gave me a nipple sieild to try and that was helpful for me getting babies to latch.
Without the support of the LC I would have really struggled with breast feeding as I had a few different issues in the first few months of feeding.
Help me understand what was happening and facilitated me to continue with tools to make it work
Helped me find a solution to painful feeding and provided support and advice throughout problems until i was happy with breastfeeding. Slow referral due to covid.
It helped me heaps as a first time māmā, experiencing tongue tie wasn't the greatest during LOCK DOWN- but she always messaged asking how I am going and hung in there until we were finally seen to get the snip - oh since that snip it has been heavenly breastfeeding if only It's one side. So blessed to have met her and she had lots of tips and website to check out also ☺

11.0 Appendices

Appendix 1 - Mokopuna Ora Plan

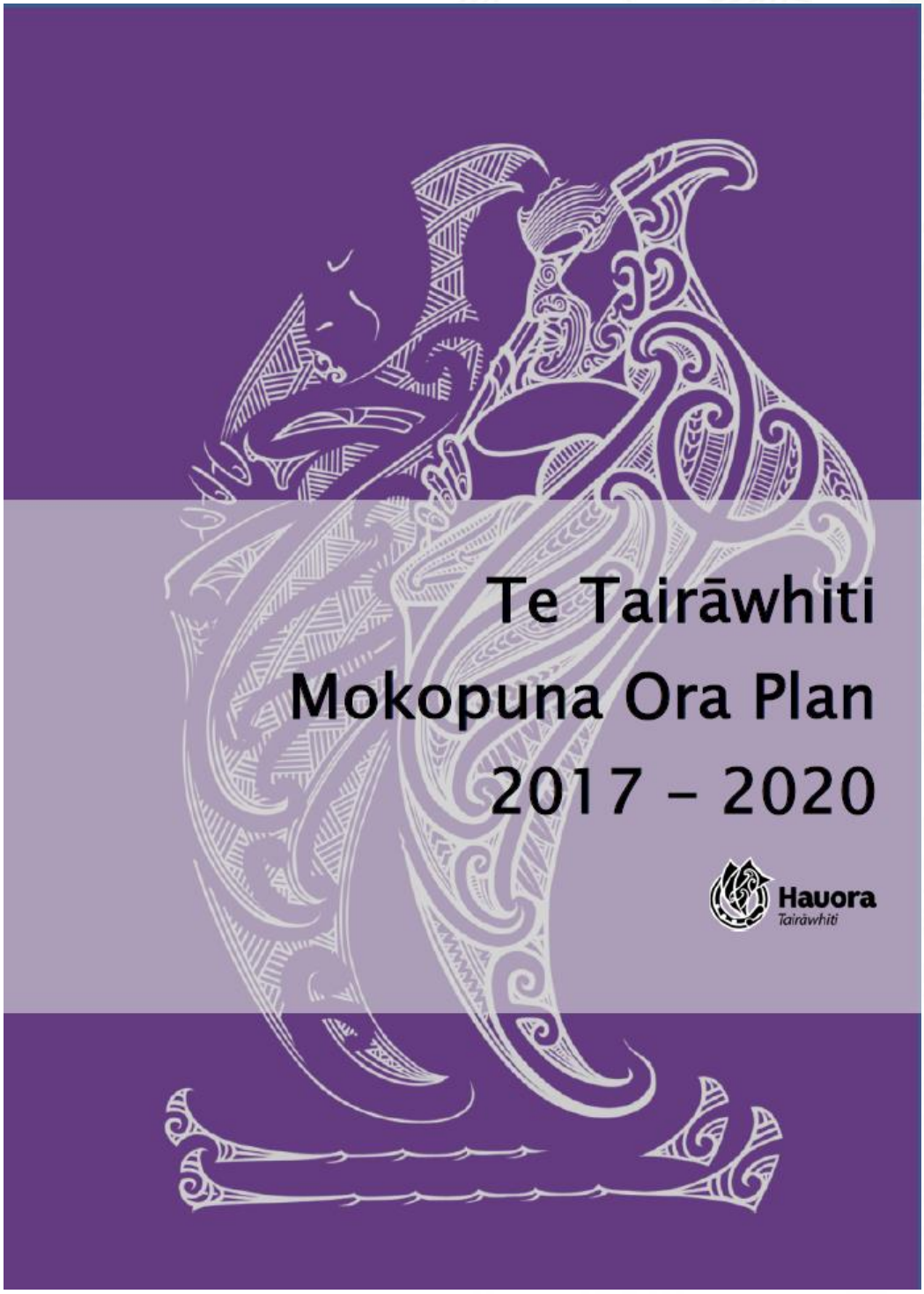


TABLE OF CONTENTS

Tena Tatou Katoa,

The first draft of the Tairāwhiti Mokopuna Ora Plan was written in 2016 following the *Mokopuna Ora* symposium. It marked the 10-year anniversary of the Wahakura Project led by Dr David Tipene-Leach and the Tairāwhiti Nukutere Weavers in 2006. One hundred Wahakura were woven as a Māori solution to Safe-sleeping Pēpi in response to the high rates of SUDI (Sudden Unexpected Deaths in Infancy) within Tairāwhiti at the time.

This updated version of the *Mokopuna Ora Plan* reflects the new discussions, information and introduction of the Ministry of Health (MOH) National SUDI Prevention Programme (NSPP 2017). The current SUDI rate in New Zealand is approximately 0.7 in every 1,000 babies born and 1.59 for every 1,000 Māori babies born. The NSPP aims to reduce the rate to 0.1 in every 1,000 births by 2025.

Mokopuna Ora is our goal, our vision and our dream for the future, underpinned by a Whānau Ora model where whānau are supported and empowered to realise their own health needs and aspirations drawing on a 'Mokopuna / Whānau' centred methodology. We use the term Mokopuna Ora for the plan as a strengths based approach to support parents and whānau to be confident, capable loving parents/caregivers. SUDI Prevention and Safe-sleeping are core factors of the plan; alongside of other equally important and beneficial outcomes for Pēpi such as, *Tupeka Kore* (Tobacco free) whānau and *Te Whāngai U i to Pēpi* (Breastfeeding baby).

The combination of these four components we are confident that our babies will be born healthy, will thrive and be part of whānau that love and care for them. That they are safe in their own sleeping spaces and places, are nurtured and nourished, live in homes that are tobacco free, are warm dry and healthy, and are receiving all of their health checks on time. In order for these things to occur, whānau must be supported, informed and guided by health and social services workforce that are capable and competent, and are health literate in SUDI Prevention and Safe-sleep practises.

Our mokopuna are precious and fragile; particularly so in their first year of life. The whakatauki reflects the seriousness and implications of SUDI;

"Maroro kokoti ihu waka tau"
The small fish crosses the path of death

The 10-year anniversary of the Wahakura Project and subsequent hui, workshops and planning sessions to date have mobilised the communities by raising their awareness of SUDI and the prevention of it. This is a significant kaupapa to undertake, as Hauora Tairāwhiti we are committed to improving Child Health outcomes for all; nevertheless we recognise the inequalities which exist for Māori with respect to the SUDI rates within Tairāwhiti. For the past 12-years all SUDI in Tairāwhiti have all been specific to whānau Māori.

Within the plan we focus on six key priorities that we believe will contribute to our overarching goal of Mokopuna Ora, and in the process will reduce SUDI in Tairāwhiti;

KEY AREAS OF PRIORITY

1. Moe Haumaru - Safe Sleep
2. Tupeka Kore – Tobacco Free

3. Te Whāngai Ū i to Pēpi – Breastfeeding baby
4. Services are inclusive, accessible and effective
5. The workforce is competent, confident and consistent
6. Everybody is talking about mokopuna ora

The plan aligns with the two key SUDI risk factors which are, being exposed to tobacco smoke during pregnancy and baby is in their own bed and make sure every sleep is a safe sleep. We acknowledge that these are not the only risk factors, and that tobacco is not the only stimulant or drug that has been associated with SUDI deaths. However, for the purposes of this plan we are aware that the extensive use and harm of tobacco by Māori women during pregnancy has to be addressed as a priority.

We're using the wahakura as our framework for this plan. The base of the wahakura requires three strands (or whiri) to be interwoven and locked together for strength and stability. Our three whiri represent the domains of ***Pae Ora*** – Mauri ora, Whānau ora and Wai ora.

We look forward to the implementation and developments that a resourced SUDI Prevention and Safe-Sleep programme will achieve. Mokopuna Ora is about all of our babies, and all of our whānau; we all have a shared responsibility for protecting our most precious taonga.

Mauri Ora

Mokopuna Ora, Whānau Ora, Mauri Ora: Tairāwhiti 2006, 2016 – 2018

"We have made massive gains in reducing SUDI rates, but there is still a long way to go. We can credit most of our success to the introduction of safe-sleeping devices like the wahakura and the associated safe sleeping messages"

"The wahakura is a woven basket that creates a safe distance between baby and their parents in or near the bed. Along with the plastic pepi-pod, the wahakura has been distributed to thousands of young parents around the country."

Dr. David Tipene-Leach (2016)
Mokopuna Ora Symposium – Gisborne/Turanganui-A-Kiwa)

Whakatauki - Proverb

Hutia te rito o te harakeke,
Kei whea te kōmako e kō?
Kī mai ki ahau;
He aha te mea nui o te Ao?
Māku e kī atu, he tāngata, he tāngata, he tāngata

If the heart of the harakeke was removed, where will the bellbird sing?
If I was asked what was the most important thing in the world;
I would be compelled to reply.

It is people, it is people, it is people.

What does success look like for Mokopuna Ora?

Our Whānau

- Whānau are empowered, supported and are able to determine their health needs and aspirations
- Hapūtanga is a time when māmā and pēpi are healthy, supported and loved during development
- Mokopuna are born at full-term and are of a healthy birth weight
- Whānau have a positive birth experience and are supported post-birth
- Whānau have the knowledge, confidence and support to breastfeed pēpi fully and exclusively to at least 6-months
- Whānau have their own wahakura for pēpi to sleep in from birth
- Whānau have the knowledge and confidence to ensure every sleep for pēpi is a safe sleep
- Whānau are tupeka kore within the whānau, their whare and waka (vehicle)
- Whānau are loving and enjoying their new pēpi
- Mokopuna and Whānau are at the centre of their extended whānau, hapu, iwi and communities; and celebrate their whakapapa

Our Marae

- Our marae are tupeka kore
- Our marae are supporting our whānau to be a tupeka kore place
- Our marae have their own pa harakeke for weaving wahakura
- We are able to learn how to weave a wahakura on our marae
- We support local marae to develop their Kairaranga collectives
- Our marae have wahakura for pēpi that are sleeping on the marae
- Our marae have weavers that are supported to help teach the whānau how to weave wahakura
- Every sleep for pēpi on the marae is a safe sleep
- Our marae whānau understand the gift of breastfeeding and support mum to breastfeed pēpi

Our Services

- Services are responsive and supportive to the needs of mum, dad, pēpi and the wider whānau
- Services are supported by a centrally coordinated hub to ensure activities, resources and training are enabled, efficient and accessible to whānau and the workforce
- Pēpi receives all their checks and immunisations on time
- Support for breastfeeding is accessible and available
- Information is provided to mum, dad and the whānau in ways that they best understand
- Mum, dad and whānau know where to access support and help for any concerns
- The programme collects information to measure its effectiveness of services and activities, against the NSPP SUDI Outcomes framework

Our Community

- There are wahakura available for whānau through wananga, from Kairaranga or the central hub
- Wahakura are in our marae, kohanga reo, day-care centres
- Our kohanga reo and kura are breastfeeding friendly and tupeka kore spaces
- Kaimahi receive up to date training and education on breastfeeding, safe sleep and tupeka kore
- There are safe sleep, tupeka kore and breastfeeding policies in all our key settings
- Mum is able to continue breastfeeding pēpi once she returns to work
- There are breastfeeding friendly spaces and places in our community
- There are tupeka kore spaces and places for pēpi and tamariki in our community
- Kairaranga experts "Tohunga" implement a kaitiaki quality standard for wahakura

Our Dreams

- Our mokopuna know their whakapapa
- Our mokopuna are at ease on their turangawaewae
- Our mokopuna speak their language
- Our mokopuna are excelling in all education pursuits including in kohanga reo, kura and wharekura
- Our mokopuna are utilising their unique gifts and talents and embracing life to the fullest!

The Three Domains Of PAE-ORA

Mauri Ora - HEALTHY Individuals

Population Statement *The mauri of our pēpi and whānau are strong, vibrant and energised*

OUTCOME STATEMENTS	POPULATION INDICATOR
Whānau are connected to their marae. Whānau are able to participate in marae, hapū and iwi activities.	Proportion of whānau who participate in their marae, hapū and iwi activities and wider cultural activities
Whānau are confident in their own identity Whānau know their whakapapa	Proportion of whānau who know their whakapapa, marae, hapū and iwi
Te Reo Māori is spoken in the home.	Proportion of whānau who speak Te Reo Māori in the home
Mokopuna are participating in education – including Kohanga Reo, TKKM and Wharekura.	Proportion of taiohi/tamariki/pēpi attending Te Kohanga Reo, Te Kura Kaupapa Māori and Wharekura

Wai Ora - HEALTHY Environments

Population Statement *Whānau live in environments that support us to be well*

OUTCOME STATEMENTS	POPULATION INDICATOR
Whānau live in homes that are warm, dry and not crowded	Proportion of whānau utilising the healthy homes programme
Pēpi have their own wahakura (or safe sleeping space) for every sleep	Proportion of pēpi with a wahakura or safe sleeping space
Whānau are able to access health services such as a doctor, midwife, antenatal education, well child tamariki ora nurse and close to where they live	Proportion of whānau enrolled with a GP
	Proportion of hapū wahine enrolled with an LMC by 12 weeks
	Proportion of mokopuna enrolled with a WCTO provider
	Number of first time hapū wahine completing antenatal education

Whānau Ora - HEALTHY Families

Population Statement *Whānau are supported to achieve their maximum health and wellbeing*

OUTCOME STATEMENTS	POPULATION INDICATOR
Wahine Māori are entering pregnancy strong, healthy and confident	Proportion of hapū māmā that have pregnancies to full term
Hapū wahine receive wrap-around care and support throughout their pregnancy	Proportion of pēpi born of a healthy birth weight
Hapūtanga are smoke, tobacco and alcohol free	Proportion of hapū māmā that are offered help to quit smoking

Māmā are supported and confident to breastfeed their pēpi	Uptake of cessation support by hapū māmā to quit smoking
	Proportion of māmā that are smokefree at 2 weeks postnatal
	Proportion of pēpi exclusively, fully and partially breastfed in their first two years of life
Whānau are safe-sleeping their pēpi in a wahakura from birth	Proportion of whanau who have a wahakura and are using it at their 6wk, 3month and 6month WCTO check

ACHIEVING THE OUTCOME STATEMENTS

Me awheawhe noa tēnā mahi ka oti
That work should be done as a group and then it will be completed.

Activity One: MOE HAUMARU – Every Sleep is a Safe-sleep

WHAT CAN WE DO?	WHOSE HELP DO WE NEED?	WHY?	HOW WILL WE KNOW WE ARE MAKING A DIFFERENCE?	HOW READY ARE WE TO COMPLETE THIS ACTIVITY?
Pēpi have their own wahakura (or their own safe sleep bed) to sleep in; **Key Messages:** **PLACE** pēpi in their own baby bed in the same room as their parent or caregiver **POSITION** baby flat on their back to sleep – face clear of bedding	▪ NSSP – Hāpai Te Hauora ▪ Māmā and Pēpi ▪ Iwi Hauora ▪ Runanga ▪ MWWL ▪ Weavers ▪ Marae ▪ Toihoukura ▪ TWOA/EIT ▪ LMC's ▪ Maternity ▪ WCTO	Wahakura are our preferred choice for a safe bed for pēpi. The evidence that wahakura can reduce the risk of SUDI is well documented. The community and the local weavers will work together in an integrated project to provide wahakura through wananga for whanau, or will have wahakura available for every pēpi in our rohe.	▪ LMC feedback/data ▪ #of pēpi with a wahakura at first WCTO core visit ▪ #of pēpi with a safe sleep bed at first WCTO core visit	▪ The wahakura project is a major component of this Mokopuna Ora plan and will be coordinated through the E Tipu E Rea service. ▪ The engagement of weavers through the Mama and Pepi 'Wahakura' programmes based within the three Maori health service providers Te Hauora o Te Turanganui a Kiwa, Ngati Porou Hauora and Te Aitanga A Hauiti Hauora. As well as through the network of Tairāwhiti Kairaranga (weavers) collectives.
Whānau are knowledgeable and confident on safe sleep principles and practice	▪ LMC's ▪ Māmā and Pēpi ▪ Maternity ▪ WCTO ▪ Weavers ▪ Marae	Whānau understanding of safe sleep principles and practices is crucial to SUDI prevention. We want whānau to feel confident in being able to give pēpi a safe sleep not only in their own home but also when staying with whānau, visiting friends, or on the marae.	▪ #whānau provided with safe sleep education in antenatal classes ▪ #whānau provided with safe sleep education in maternity ▪ #whānau provided with safe sleep education by LMC ▪ #whānau provided with safe sleep education by WCTO at core 1. ▪ Whānau feedback	▪ Services are already providing safe sleep education as part of their core requirements. Workforce development is a crucial component of this and we will ensure that all health services are trained appropriately. ▪ Training opportunities will be extended out to other sectors – social services, early childhood, Whangaia, Pa harakeke, community based groups Ka Pai Kaiti, E Tu Elgin, Maori Women's Welfare League etc.

A marae-based iwi-led holistic wahakura programme is developed and implemented	▪ Weavers ▪ Marae ▪ Hauora ▪ Māmā and Pēpi ▪ Runanga ▪ MWWL ▪ Toihoukura ▪ TWOA/EIT ▪ Hāpai Te Hauora ▪ Te Puni Kokiri ▪ DHB	A marae-based wahakura programme is one of our approaches. The goal is to have pēpi sleeping in their own wahakura, woven by their whānau, taught by their whānau, using harakeke from the pa harakeke of their own marae. A connection of a pēpi to their turangawaewae is powerful! The programme would provide opportunity to korero about breastfeeding, tupeka kore, parenting, relationships and safe sleep, child health checks (WCTO i.e. Immunisations)	▪ Programme will be developed and implemented on marae or community based setting ▪ Stakeholder feedback ▪ Whānau feedback ▪ #wahakura Wananga completed ▪ #wahakura woven	▪ This is a community identified approach which enables engagement with whanau at an extended level, and communities. Coordination of this will be supported through the three key Māori health provider services and their Wahakura programmes. ▪ Weavers will be engaged to tutor weaving wahakura from marae whanau. ▪ Developing Safe-sleep policy and guidelines for the marae will be implemented with a wahakura gifted from a wananga to the marae.
Safe sleep advice and a check is completed by LMC's and WCTO providers at first visit	▪ LMC's ▪ WCTO ▪ Māmā and Pēpi	Ministry requirement that SUDI information and a check is completed at the first WCTO core visit	▪ #checks completed by provider ▪ Stakeholder feedback	▪ Nationally and regionally approved 'Key Safe-sleep and SUDI Prevention messages' will be utilised ▪ Ensure workforce are up to date in safe sleep training, online SUDI Prevention training via Hāpai Te Hauora (NSSP) and Change for our Children
There is a pathway available for whānau to access wahakura / safe sleep beds	▪ LMC's ▪ WCTO ▪ Māmā and Pēpi ▪ Maternity	Ensure a source of wahakura and/or beds are available for whānau in special circumstances, and for those unable to participate in wananga.	▪ # wahakura being distributed by LMC's, maternity units, WCTO,E Tipu E Rea - Māmā and Pēpi for whānau unable to access one ▪ # wahakura distributed after WCTO core 1 visit (WCTO required to	▪ Referral pathways developed and included in communications and resources for key provider services ▪ Monitoring of distribution from when wahakura is provided and across the handover, 6wk, 3mth and 6mth checks via LMCs WCTO services, as well as other child health services ▪ Resourcing weavers will be

			physically sight pēpi bed)	coordinated through the E Tipu E Rea hub.
A quality assurance process for wahakura will be implemented through a 'specialised / expert' Kairaranga group	▪ Weavers ▪ Kaumatua ▪ Toihoukura ▪ TWOA ▪ Health professionals	Ensure that the quality of the wahakura is of a high standard in terms of safety, strength, tikanga and value	▪ Quarterly forum with weavers, kaumatua and other experts ▪ Stakeholder / provider feedback ▪ Whanau	▪ Develop a quality assurance checklist which includes safety standards for Safe-sleep i.e. weave durability, harakeke preparations, dimensions, mattress, maintenance and care etc (refer to Dr David Tipene-Leach & Nukutere Wahakura Guidelines)

Activity Two: TUPEKA KORE - Pēpi lives in tobacco free environments

WHAT CAN WE DO?	WHOSE HELP DO WE NEED?	WHY?	HOW WILL WE KNOW WE ARE MAKING A DIFFERENCE?	HOW READY ARE WE TO COMPLETE THIS ACTIVITY?
Implement a cessation pathway that works for hapū wahine and their whānau to be a smokefree whanau, with smokefree whare and waka **Key Message:** **ELIMINATE** smoking in pregnancy and protect baby with a smokefree whanau, whare and waka.	▪ LMC's ▪ Māmā and Pēpi ▪ Hāpai Te Hauora ▪ Cessation Service Providers (OAFA) ▪ Taki Tahi Toa Mano ▪ Health services	Our current maternal smoking rates during pregnancy are still high. Nearly 220 newborn babies are exposed to cigarette smoke during pregnancy. We need to continue ABC and support uptake of cessation support by hapū wahine is only about 30%.	▪ Cessation pathway in place by Jan 2017. ▪ # of hapū wahine offered ABC ▪ Uptake of cessation services by hapū wahine ▪ % of wahine smoking during pregnancy (need to check what data is available currently) ▪ % of women smokefree two weeks postnatal	▪ Improve pathways to support hapū mama and whanau to access smoking cessation services, include Maori models and perspective into the pathways ▪ Build incentives into smoking cessation services, as individuals or whanau groupings ▪ All health services engaging with hapū mama will be having the ABC conversations ▪ Build on smoking cessation services tailored specifically for hapū mama and whanau i.e. Te Aka Ora (Teen/young parents), Radiology, Pinnacle PHO (General Practises), Maternity, LMCs etc
Ensure the tobacco control workforce are up to date with safe sleep training	▪ Taki Tahi Toa Mano ▪ Health and social services	Workforce development is a key component of this plan and as such ensuring our tobacco control workforce is up to date with safe sleep is essential.	▪ # of participants that have completed safe sleep training ▪ Database of all organisations or services that need to complete safe sleep training and track participant numbers at each training session.	▪ Hāpai Te Hauora will provide from April 2018 the revised online SUDI training ▪ Child Health service training days/ workshops planned for range of educational sessions i.e. SUDI Prevention, Shaking Baby, Breastfeeding, Immunisation etc
Review current key Smokefree messages and information that are included in antenatal and parenting education programmes.	▪ Māmā and Pēpi ▪ Hāpai Te Hauora ▪ Taki Tahi Toa Mano	Smokefree messages have always been included in our antenatal education programmes. Reviewing these messages may give us some insight into how whānau are receiving these messages, is it working, and are there any new approaches or information we can include?	▪ #participant evaluation on completion of antenatal education ▪ #referral numbers into cessation services from antenatal classes	▪ Work with population health teams, HPA, Hāpai Te Hauora and tobacco control sector
Support the priorities and activities outlined in the Tairāwhiti Tobacco Control Plan	▪ All stakeholders, communities and whānau	The DHB plan highlights maternal smoking during pregnancy and healthy environments as key priorities within the plan.	▪ Outlined in plan	▪ Key prioritisation for Hapū Mama highlighted with plan ▪ Redevelop new plan to include SUDI Prevention and Safe-sleep messages
Undertake a pilot for smoking cessation for alternative quitting approaches i.e. Vaping / E-cigarettes	▪ Taki Tahi Toa Mano ▪ All stakeholders, communities, hapū mama and whanau	Communities have taken up the Vaping / E-cigarette with reports that this has supported them on a quitting journey. Awaiting national guidance, but will explore through other DHB networks where Vaping is being utilised	▪ Include in Tobacco Control Plan 2018 – 2021 ▪ Service Mapping of Tobacco services for Tairāwhiti	▪ Progress discussions with Smoking Cessation services to pilot/trial using vaping as a quitting support strategy with hapū mama and whanau ▪ Undertake a service mapping of all Tobacco Control services in Tairāwhiti to inform the new plan ▪ Complete and implement a Tobacco Free 'Tupeka Kore' Outcomes RBA Framework with Taki Tahi Toa, Cessation Services, key stakeholders facilitated by SheaPita & Associates

Activity Three: TE WHĀNGAI Ū I TO PĒPI – Pēpi is breastfed

WHAT CAN WE DO?	WHOSE HELP DO WE NEED?	WHY?	HOW WILL WE KNOW WE ARE MAKING A DIFFERENCE?	HOW READY ARE WE TO COMPLETE THIS ACTIVITY?
Complete a breastfeeding review so we know exactly what is happening in this space (who, what, where, how, why) **Key Message: Encourage** and support breastfeeding and gentle handling of baby.	▪ DHB Planning and Funding ▪ LMC's ▪ Maternity ▪ Māmā and Pēpi ▪ WCTO ▪ Lactation Consultants	A review of breastfeeding services across the district would enable a comprehensive understanding of what is available to mothers and whānau to support breastfeeding. Will support planning for the workforce training needs. Informs our funding models for service agreements Links to: MQSP, WCTO Quality Improvement Plan, DHB Māori Health Plan	▪ Key informant interviews ▪ Stakeholder interviews ▪ Whānau interviews ▪ #pēpi exclusively and fully breastfed at key milestones	▪ Develop with MQSP, WCTO, LMCs, Lactation services, Mama & Pepi and other maternal/child health stakeholders ▪ Work with Healthy Families East Cape to support 'Breastfeeding Friendly Environments and supports required' ▪ WCTO Quality Improvement project identifying Breastfeeding as a key priority for 2018/19 & 2019/2020 year (utilise PDSA).
Breastfeeding education and support is accessible, appropriate and available (antenatal, postnatal, at home)	▪ LMC's ▪ Māmā and Pēpi ▪ Lactation Consultants ▪ Maternity ▪ WCTO	Breastfeeding education and support is required at different stages and in different forms. Support breastfeeding continuum and that we collectively work together to support mums and their whānau to be able to breastfeed pēpi exclusively and for longer. We need to ensure that whānau are able to access this support regardless of their	▪ #pēpi exclusively and fully breastfed at key milestones	▪ Expand on breastfeeding education capability is increased, currently Māmā and Pēpi services include breastfeeding in their antenatal education classes, maternity support mums with establishing breastfeeding, LMC's and WCTO support mums in the home and the Community Lactation Consultant is available for complex and specialised breastfeeding support and intervention.

		location (rural, urban etc.)		▪ Promote the referrals to specialised Mamapukeko Community Lactation services, specifically increasing referrals for Maori wahine, to reduce current disproportion in utilisation of service.
Māmā are able to continue breastfeeding pēpi on return to work or study	▪ DHB Healthy Workplaces Facilitator ▪ Human Resources ▪ Tertiary training institutes ▪ Teen Parent Education Services ▪ Employers	We continue to see a drop off in our breastfeeding rates at 3 months. This coincides with the end of paid parental leave and mums needing to return to work and/or study. Working with local employers and education providers to ensure mums are able to continue breastfeeding their pēpi will help ensure the protective factors of breastfeeding on SUDI risk reduction can continue	▪ #pēpi exclusively and fully breastfed at 3 months and 6 months. ▪ Feedback from mums ▪ Feedback from stakeholder	▪ Engage with key stakeholders to outline ways in which breastfeeding mama are supported for work or study.
Breastfeeding is supported in public spaces and places	▪ MQSP ▪ Maternal stakeholders ▪ WCTO ▪ HFEC ▪ HPA ▪ Breastfeeding Advocates / Champions	We continue to be aware that in some public spaces and businesses breastfeeding is not supported. We need to 'normalise' breastfeeding as being an everyday and healthy way to nourish and nurture our babies	▪ Annual Latch-on events and promotional opportunities	▪ Planned events and resources that support breastfeeding ▪ Work with key stakeholders to develop a Breastfeeding Friendly Community Initiative in line with Breastfeeding Friendly Hospital Initiative ▪ Promote breastfeeding friendly cafes, restaurants, public spaces – stickers and social media profiling.

Activity Four: SERVICES ARE INCLUSIVE – Accessible, effective and timely

WHAT CAN WE DO?	WHOSE HELP DO WE NEED?	WHY?	HOW WILL WE KNOW WE ARE MAKING A DIFFERENCE?	HOW READY ARE WE TO COMPLETE THIS ACTIVITY?
Ensure antenatal education and parenting classes are available to all whānau across the district	▪ E Tipu E Rea ▪ Māmā and Pēpi ▪ LMC's ▪ Te Aka Ora	Appropriate and accessible antenatal and parenting education helps ensure better birth, postnatal and health outcomes for pēpi, mum, dad and their whānau. Our Māmā and Pēpi services deliver antenatal education from a kaupapa Māori perspective in city, rural and coast communities and reach a large number of our first time mothers and Māori/Pacific hapū wahine. We also have our DHB funded antenatal education classes that deliver to a largely mainstream population. We need to ensure that all hapū wahine throughout the district have access to antenatal education.	▪ # first time mothers completing antenatal education ▪ # teen hapū wahine completing antenatal education ▪ # Māori/Pacific wahine completing antenatal education ▪ # hapū wahine completing antenatal education by domicile ▪ # referrals into antenatal education from ETER	▪ Review all ante-natal education and information that is currently utilised. Identify the gaps by availability of classes, location, effectiveness/appropriateness for all groups ▪ Implement the HEAT tool to identify if there are any inequalities within the review ▪ Update and inform MQSP and other key stakeholders of key issues, gaps, successes and recommendations from review ▪ Research evaluated Maori ante-natal models to inform the review process
Services continue to support whānau to ensure all pēpi are enrolled with a PHO and that WCTO and immunisations are completed on time	▪ E Tipu E Rea ▪ Māmā and Pēpi ▪ WCTO ▪ General Practice ▪ Maternity /NCHIP ▪ LMC's ▪ MWWL	Universal services that support and promote the healthy development of children and the whānau from birth to five years. Additional services are available according to need.	▪ Newborn PHO enrolment rates by ethnicity ▪ WCTO enrolment rates by ethnicity and deprivation ▪ # Babies receiving all core contacts in their first 12 months. ▪ % babies fully immunised at key milestones by ethnicity and high deprivation.	▪ WCTO Quality Improvement Programme. There are MOH targets for these indicators which we use to track coverage, enrolment rates and completion of core checks. We are tracking under for most of our targets. Including these in our mokopuna ora plan helps bring a greater understanding of these targets and engages services and communities to ensure these are completed on time.
Confirm agreed regional safe sleep policy for implementation into health settings	▪ DHB ▪ Maternity ▪ Māmā and Pēpi ▪ WCTO ▪ Iwi Hauora ▪ PHO ▪ LMC's ▪ Hāpai Te Hauora	A safe sleep policy that is inclusive of all Tairāwhiti service providers that support and care for pēpi, mothers and their whānau is needed for our district. Policies already exist as part of BFHI but it would be useful and meaningful to take a collaborative approach and develop a policy that can be used across our different health services (DHB, Hauora, PHO etc.).	▪ Policy is developed, agreed and implemented across the district ▪ Feedback and agreement on the policy from: ▪ Maternal and infant health providers ▪ NSSP – Hāpai Te Hauora ▪ Clinical leaders in maternal and infant health ▪ Whānau input and advice	▪ Liaise with the Regional Midland DHB SUDI Prevention & Safe-sleep Group on review and update of policies and guidelines for health service settings ▪ Seek input and feedback on redeveloped policy across maternal and child health services
Progress and quality improvement is monitored including one clinical audit of safe sleep practice in a health service setting. Cultural audits could also be explored	▪ DHB ▪ Maternity ▪ Māmā and Pēpi ▪ WCTO ▪ Iwi Hauora ▪ PHO ▪ LMC's	As part of quality improvement activity and to ensure our activities continue to improve health outcomes for pēpi, mum and their whānau. Clinical audit to ensure compliance with safe sleep policy and to offer an opportunity for review and reflection.	▪ Findings of clinical audit and/or cultural audits if agreed.	▪ Include as part of safe sleep policy development.
Establish a community-based, iwi-led kaitiaki roopu to provide guidance and advice on the activities outlined in this plan	▪ All	The kaupapa of Mokopuna Ora belongs with whānau, their marae and their community. DHB and other government agencies are there to support, enable and respond accordingly. Leadership of this plan belongs with the community. Whānau know what works best.	▪ Kaitiaki group established, progressing and supported by agencies.	▪ Identify key stakeholder groups with identified/recommended members to join a broader Child Health Services forum ▪ Particular focus on specialist / experts, kaumatua, Kai Raranga, health leaders and marae, Te Kohanga Reo & ECE to be invited to attend regular forums

Activity Five: THE WORKFORCE IS COMPETENT – Confident, consistent and health literate

WHAT CAN WE DO?	WHOSE HELP DO WE NEED?	WHY?	HOW WILL WE KNOW WE ARE MAKING A DIFFERENCE?	HOW READY ARE WE TO COMPLETE THIS ACTIVITY?
Develop and deliver a training package that encompasses Safe Sleep, Tupeka Kore, Breastfeeding, WCTO – Immunisations, Nutrition & Physical Activity within a Te Ao Māori context for the local workforce (paid and voluntary)	▪ Hāpai Te Hauora ▪ Lactation Consultants ▪ Tobacco Control/Cessation Providers ▪ Māori Birth Educators ▪ LMCs ▪ Māmā and Pēpi	We need to ensure that all those working with whānau are competent and confident in delivering messages within a Te Ao Māori context. Health literacy is crucial. Training is opportunistic at present. A collaborative and coordinated workforce development plan will help ensure everyone is on the 'same page'	▪ Training package developed ▪ Workforce development plan developed ▪ # training sessions delivered ▪ # participant numbers by organisation and role (e.g., clinical, community, kaiawhina) ▪ Whānau feedback	▪ Priority for new kaimahi, and refresher for current workforce. ▪ The coordination and planning of the training package and its implementation would require a working group to develop. ▪ Funding requirements to be identified in order to support as ongoing workforce development programme. ▪ In-house training review undertaken with services, to map and calendar shared training opportunities
Explore training needs of other sectors (i.e. early childhood, kohanga reo, social services, iwi services) in safe sleep, breastfeeding and tupeka kore	▪ Kohanga Reo ▪ Kura Kaupapa Māori ▪ Social services ▪ Iwi services	Whānau connect to a range of people from different services and settings such as kohanga reo, kura, iwi services etc. A training package to support kaimahi from these settings would help ensure we are all consistent and confident in our messaging and conversations with whānau.	▪ Training package developed ▪ Workforce development plan developed ▪ # training sessions delivered ▪ # participant numbers by organisation and role	▪ Same comments as above
Introduce a Mahi-A-Atua approach into training/education sessions. Building on the models of wananga and drawing from our Tairāwhiti purakau	▪ Mahi-A-Atua ▪ Te Kura Huna ▪ E Tipu E Rea ▪ Population Health Hauora Tairāwhiti	Workforce within Tairāwhiti are able to benefit from a unique model of learning, three key principles include • Indigenising your space • Being an active learner	▪ Uptake from a wide range of Maternal and Child Health services in wananga ▪ Participant feedback	▪ Develop with stakeholders an overarching Child Health Services training and education calendar, that supports community delivered workshops, online training, support and mentoring through

Activity six: EVERYBODY IS TALKING – "About Mokopuna Ora"

WHAT CAN WE DO?	WHOSE HELP DO WE NEED?	WHY?	HOW WILL WE KNOW WE ARE MAKING A DIFFERENCE?	HOW READY ARE WE TO COMPLETE THIS ACTIVITY?
Identify safe sleep champions/kaitiaki within each community that can advocate and promote key messages and activities	▪ Whānau ▪ Marae ▪ Runanga ▪ Iwi Hauora ▪ Health Promotion ▪ Māmā and Pēpi ▪ WCTO ▪ Hāpai Te Hauora ▪ MWWL	Kaitiaki keep us safe and give us guidance, awhi and tautoko. Kaitiaki are respected within their whānau and communities. We have some amazing people in Tairāwhiti who have provided support and awhi to whānau for many years. These people would be ideal advocates for mokopuna ora.	▪ Feedback from kaitiaki about what they're seeing and hearing from their communities ▪ Whānau feedback	▪ Identify resources and people interested in becoming community champions/spokespeople and the support processes for them ▪ Utilise nationally, regionally developed resources and information
Identify whānau that are keen to become involved in local activities	▪ Whānau ▪ Marae ▪ WCTO Māmā and Pēpi ▪ Hāpai Te Hauora ▪ MWWL	Whānau stories and experiences are a powerful tool in community awareness and health promotion campaigns. Our community responds strongly to local stories from whānau they can connect and recognise with.	▪ Whānau feedback ▪ Social media response	▪ Work with provider sector and community-based groups i.e. MWWL etc that would like to be involved...
Use Safe Sleep Day as our key promotional campaign day	▪ All	Provides direction and a key event for all to work towards. Links in with activities and resource at a national level. Whānau recognise this day and it earns considerable media coverage.	▪ # activities and events completed on safe sleep day ▪ Whānau feedback ▪ stakeholder feedback	▪ Collaborate with Health Promotion, providers and community groups for event. ▪ Identify resources available to support activities.
Develop a communications plan that includes regular	▪ Hāpai Te Hauora	To ensures a strategic, collaborative and coordinated	▪ Communications plan developed and	▪ Engage communications expertise to support development of a plan

updates on social media, print media, radio and community events	▪ DHB ▪ Iwi ▪ Hauora ▪ Community ▪ MWWL	response across our district.	implemented ▪ Community feedback ▪ Media feedback	▪ Social Media and other means of communicating effectively with whanau as well as services that work with whanau
Promote the skill and expertise of our local weavers i.e. Nukutere Weavers Collective as a sustainable business model.	▪ Weavers ▪ Hāpai Te Hauora ▪ Toihoukura ▪ MWWL	Our weavers are a taonga. The knowledge, skill and creativity they weave into each creation is invaluable. The work they have done with wahakura has been celebrated nationally and we need to continue to support and enable them to do the great work they do.	▪ # weavers helping to teach whānau how to weave wahakura ▪ # weavers participating in local activities ▪ # weavers funded to weave wahakura ▪ Community feedback	▪ Work with Hāpai Te Hauora and national Māori media on coverage of the wahakura project and the weavers after the Mokopuna Ora ▪ .

Appendix 2 - Audits

Postpartum Haemorrhage Audit | 1 August 2019 – 31 July 2020

Introduction

Postpartum haemorrhage (PPH) is one of the top five causes of maternal mortality in every country in the world. Primary PPH is defined as blood loss of 500 ml or more within 24h of birth, although this definition is more a marker for audit and for mobilising extra resources. Actual morbidity is relatively infrequent among women with blood loss 500-999 ml. Clinically significant PPH may be defined as any excessive bleeding that causes the woman to become symptomatic. The incidence of PPH varies widely, depending on the criteria used to define it. Occurrence is reported in 3 to 5% of births worldwide, but may be higher when blood loss is measured quantitatively instead of estimated. A regional study in Victoria, Australia, from 2009-2013 show a PPH rate of 21.8%, including a severe PPH rate of 1.4% (defined as >1500 ml blood loss), and increase in overall rate possibly due to improved estimation and documentation leading to better identification. New Zealand has not published PPH rates nationally and where rates have been published, definitions and measurement methods have varied. The adoption of MCIS (electronic Maternity Care Information System) has facilitated tracking of PPH in some DHBs and in 2019 Counties Manukau published a PPH rate of 24% for 2018, a significant increase from their pre-MCIS rates of 10-12%.

In 2017 an audit of PPH was performed for this maternity unit as the rate of PPH was thought to be increasing. We also arranged for an external review. In conjunction with the audit, a risk assessment model was introduced. In part, this current review was conducted to see if steps put in place to reduce PPH rates and severity have had any benefit. Each women admitted to maternity was to have a PPH risk assessment performed. These recommendations were then made for management of third stage based on risk factors:

- If no identified risk factors, active management of third stage (AMTS) recommended unless physiological management requested by woman and labour has remained physiological (including having had no narcotics)
- If 1 or 2 risk factors are present, AMTS recommended with IV sited and CBC/group & hold sent. In addition to this, a Syntocin infusion is recommended x 1 litre.
- If 3 or 4 risk factors are present, 1 ampoule of Syntometrine IM is recommended at delivery of the placenta (unless contra-indicated in which case O&G is to be contacted for plan to prevent PPH)
- If >4 risk factors are present, the O&G should be contacted for discussion of plan to prevent PPH.

The other purpose of the audit is to identify risk factors most commonly seen in the local populations. PPH can be difficult to predict, and all women giving birth should be considered at risk (RANZCOG 2017), especially given that the majority of women with PPH have no identifiable risk factors. Many risk factors for PPH have been reported and are often interdependent. The following factors may play a role as illustrated by a large series:

In a study including over 154,000 deliveries that compared 666 cases of PPH with controls without hemorrhage, factors significantly associated with hemorrhage were, in decreasing order of frequency:

- Retained placenta/membranes (odds ratio [OR] 3.5, 95% CI 2.1-5.8)
- Failure to progress during the second stage of labor (OR 3.4, 95% CI 2.4-4.7)
- Morbidly adherent placenta (OR 3.3, 95% CI 1.7-6.4)
- Lacerations (OR 2.4, 95% CI 2.0-2.8)
- Instrumental delivery (OR 2.3, 95% CI 1.6-3.4)
- Large for gestational age newborn (OR 1.9, 95% CI 1.6-2.4)

- Hypertensive disorders (preeclampsia, eclampsia, HELLP [Hemolysis, Elevated Liver enzymes, Low Platelets]) (OR 1.7, 95% CI 1.2-2.1)
- Induction of labour (OR 1.4, 95% CI 1.1-1.7)
- Prolonged first or second stage of labor (OR 1.4, 95% CI 1.2-1.7)

Other purported risk factors include: personal or family history of previous PPH, obesity, high parity, precipitous labor, uterine over-distention (e.g., multiple gestation, polyhydramnios, macrosomia), chorioamnionitis, uterine inversion, leiomyoma, inherited bleeding diathesis, acquired bleeding diathesis, anemia, and use of some drugs (uterine relaxants, antithrombotic drugs).

Review Method

The period reviewed was the 1st August 2019 to 31st July 2020. A total of 88 women were identified from MCIS, the electronic Maternity Care Information System, with PPH. Of these, electronic records for 34 women with a blood loss of 500 to 999 ml and all of the women with a blood loss of >1000 ml (28 women) in the 12 month period from 1st August 2019 to 31st July 2020 were reviewed. The mode of delivery and volume of blood loss were noted and case records examined to identify the presence of antenatal or intrapartum risk factors, as well as documentation for the management of identified risk factors, and how third stage was managed in each case. Active management of the third stage (AMTS) was defined for the purpose of the review as administration of a uterotonic agent within 5 minutes of birth of the baby together with controlled cord traction to deliver the placenta.

Results

Between 1st August 2019 and 31st July 2020, 617 women gave birth at Gisborne Hospital. Of these, 88 women had a postpartum blood loss of >500 ml, giving a PPH rate of 14.12%. 60 women lost 500-999 ml, 19 women lost 1000-1499 ml, 4 women lost 1500-1999, and 5 women were recorded as losing >2000 ml.

PPH volume	Women	% of total births
500-999 ml	60	9.63
1000-1499 ml	19	3.05
1500-1999 ml	4	0.64
>=2000 ml	5	0.8
Total	88	14.12

Demographics (for the 62 women reviewed)

Age: 19-46, average 29

Parity: 16 nulliparae, 44 multiparae, 2 grand multiparae

BMI: range 17-51.5, average 29.75

Smoking: 15 smoke, 1 vapes, 9 unknown/not documented

Mode of delivery: 41 normal vaginal births (NVB), 2 ventouse extractions, 20 caesarean sections (14 emergency CS and 6 elective CS). There were no forceps deliveries.

Management of the Third Stage of Labour

Of the 62 charts reviewed, 30 women had a risk assessment for PPH. 10 had a management plan in place under the specified risk assessment, and 4 had management plans documented in the notes but not under risk

assessment. All management plans that were documented included the use of AMTS. Reviewing MCIS documentation, 24 women with PPH <1000 ml had AMTS, 10 did not. 24 women with PPH >=1000 ml had AMTS, 4 did not. 3 of these four had delayed PPHs from 1 to 4 hours after delivery. It was assumed that all women who had a caesarean delivery had AMTS with 5iu of IV Syntocin followed by a prophylactic Syntocin infusion, as that is the standard at Gisborne Hospital.

Risk Factors

Antenatal Risk Factors

The most common antenatal risk factors for this cohort were current or previous macrosomia, previous PPH over 500ml, prior CS, and obesity, in that order.

Increased intrauterine volume (35%)

18 women had previous or currently suspected macrosomia and polyhydramnios, and 3 women had polyhydramnios but no macrosomia or history of macrosomia. One of the women with polyhydramnios alone had gestational diabetes. None of the other women had identified gestational diabetes, however 3 women with current macrosomia or previous history of macrosomia had not completed adequate testing to rule it out. There was one twin gestation. Of these women, 5 (one of which was the twin gestation) had a documented plan for active management of the third stage (AMTS) in their MCIS notes.

Previous PPH or retained placenta (22%)

14 women had a history of prior PPH or retained placenta and 5 of these women had a documented management plan. 12 of these delivered via NVB and 2 were CS before labour. 7of the women who delivered vaginally did not have a documented plan for AMTS.

Morbid Obesity (19%)

9 women had a BMI between 35 and 39, 3 had a BMI between 40-49, and 1 had a BMI >50. Of these 12 women, 3 were elective caesarean sections before labour. Only 2 of the women who birthed vaginally had a documented plan for AMTS.

Previous CS (16%)

10 women had a history of prior CS and all of these women had a documented plan for delivery. 9 had a pre-labour CS. There was a documented plan for AMTS for the 1 woman who attempted a vaginal birth but delivered via emergency CS.

Other Antenatal Risk Factors

Other risk factors included hypertensive disorder of pregnancy (6), grandmultiparity (3), antepartum haemorrhage (2), fibroids (2, including 1 case of severe adenomyosis), anaemia (2, one with Hb 94, another with known thalassemia minor but normal Hb of 105) or thrombocytopenia (platelets 94), and refusal of blood products (1).

Intrapartum Risk Factors

The most common intrapartum risk factors were induction or augmentation of labour, precipitous labour, vaginal or perineal lacerations, emergency CS, and delivery of a macrosomic baby.

Precipitate Labour (41% of women with a vaginal delivery)

This was a difficult parameter to assess as the onset of labour was not always accurately recorded. Defined as a delivery in less than three hours from the onset of regular contractions, precipitous labour occurred in 17 of the women included, which is 41% of the vaginal births. 7 of these women were induced or augmented with Syntocin prior to delivery. 7 of these women did not have AMTS, including 1 of the women who was augmented/induced.

Perineal or Vaginal Tears (39% of women with a vaginal delivery)
16 who had a vaginal birth had a perineal or vaginal tear. 1 was an episiotomy, 6 were first degree perineal lacerations, 7 had second degree perineal lacerations, and 2 had vaginal/sidewall lacerations. All were repaired on maternity except for 1 who was taken to theatre for retained placenta.

Induction or Augmentation of Labour (34%)
Labour was induced in 13 women and an additional 7 were augmented. 16 of these women received Syntocin alone, 1 had a cervidil alone, 4 had artificial rupture of membranes (ARM) alone, and 8 had a combination of the three, either Syntocin +ARM, cervidil + Syntocin, or all three. 16 women delivered vaginally, 1 woman had a CS in the first stage and 3 women had a CS in the second stage, 1 of which was after a failed ventouse. 9 of the women induced or augmented had documented plans for AMTS. All but three of the women who delivered vaginally received AMTS. Two of these women were augmented with ARM alone and 1 had Syntocin and ARM. Of the three that did not have AMTS, they did received IV Syntocin very soon after, at 6, 8, and 9 minutes postpartum.

Emergency Caesarean Section (23%)
During the period reviewed, 144 total CS occurred. Of these, 20 were identified to have blood loss >500, giving a PPH rate of 13.9% among CS. This compares to the rate of 14.4% of PPH in all vaginal deliveries during the same time (68 PPHs out of 473 vaginal births). Most authorities do not regard a blood loss of 500-1000ml at CS as excessive as a higher blood loss rate is common, and accurate estimation of blood loss is more likely to be confounded by amniotic fluid.

A total of 20 women in this audit delivered by CS, 6 were elective CS and 14 were emergent.

Of the 6 women with emergent CS who had a PPH of <1000ml, all had at least one additional risk factor (previous PPH, morbid obesity, macrosomia, polyhydramnios, PROM, prior CS, or eclampsia). All 5 of the women who had a PPH of >=1000ml associated with emergent CS had an average of 2 additional risk factors (prior PPH, morbid obesity, macrosomia, previous CS, polyhydramnios, or PROM).

Macrosomia (18%)
For the purposes of this audit, macrosomia was defined as an infant with estimated fetal weight above the 90%ile on a customised growth chart. 10 infants were suspected of being LGA, of those 2 did not meet criteria at birth. There were a total of 11 babies with birth weight centiles >90, 3 of those were not suspected to be macrosomic prior to delivery.

Prolonged Labour
Prolonged 1st Stage (9.6%)

For the purpose of this audit, the MCIS definition of > 10 hours for prolonged first stage of labour was used. 3 women had a first stage between 10h35min and 14h33min, and 3 other women had a first stage of 9h30min-9h53min, very close to 10 hours. Estimates of course may be inaccurate as for these women and others also listed as spontaneous labours as the women may have laboured at home before arrival at hospital. Of these six women, 2 had ARM but no other method of induction or augmentation was used. 5 of these women had estimated blood loss of > or = 1000 ml (1000 to 2600 ml). 2 of the women who met the definition did not have AMTS (meds not given until 6 and 9 minutes respectively), but the rest of the women did.

Prolonged 2nd Stage (2%)
Using the definition for prolonged 2nd stage of >1 hour for a multip and >2 hours for a primip, only 1 woman had a prolonged second stage. This was a multip with a three hour second stage who ended up with a ventouse assisted vaginal delivery and second degree laceration following augmentation for PROM and chorio.

Operative Vaginal Delivery (3% of all births)
2 women had a ventouse assisted delivery. 1 of them had no additional risk factors. The other had 5 additional risk factors. Both of these women had AMTS.

Retained Products of Conception (3%)
Only 2 women had retained placenta documented. One required removal of the tissue in theatre and it is presumed that the delay in arriving in theatre contributed to the estimated blood loss of 3130 ml, more than any other PPH. The other was managed with removal on maternity along with repair of an episiotomy.

Number of Risk Factors and AMTS Following Normal Birth
None of the women in our cohort had zero risk factors. The number of risk factors, including both antepartum and intrapartum, ranged from 1 to 6. Average number of risks factors was 2.7.

27 women had 1 or 2 risk factors. Of these, 18 had AMTS. 12 also had syntometrine in addition to syntocin. 2 women had either pre-eclampsia or eclampsia, therefore syntometrine was contra-indicated. 14 were noted to have PPH listed as a risk factor in MCIS, 2 had an actual management plan.

30 women had 3 or 4 risk factors, all but 3 had AMTS. 12 had PPH listed as a risk factor, only 3 had a management plan for it. Although 6 of these women had a diagnosis of PIH or pre-eclampsia, making syntometrine contraindicated, only 10 had syntometrine in addition to ATMS.

5 women had 5 or 6 risk factors. 3 had PPH listed in risk factors, only 1 had a documented management plan. All of these women had AMTS, but only three had the addition of syntometrine.

Please note that for the women who received syntometrine, it was not possible to determine if it was given prophylactically (immediately after the delivery of the placenta as stated in the recommendations outline in the introduction). It can only be presumed that it was used for management of the PPH.

Severity of Haemorrhage

Greater than or equal to 2000 ml
There were 5 women with EBL of 2000ml or more. On average, these women had 1 antepartum risk factor. They had anywhere from 1-5 intrapartum risk factors.

One was an elective repeat CS whose only risk factor was her history of prior CS; her blood loss was 2000 ml. Review of the operative note does not discuss the additional bleeding other than noting a blood count would be done postoperative day 1. It does however document a delayed cord clamping of 1 minute, which is not thought to increase risk for postpartum haemorrhage.

Next was a multip with a history of PPH who laboured spontaneously. PPH was listed as a risk factor and a management plan was documented. Infant birthweight centile was 87.9. Her delivery was complicated by a retained placenta. By definition, she did not have AMTS as Syntocin was slightly delayed at 8 min postpartum. A Syntocin drip was also started. No other medications were given. She had lost almost 1500ml before the O&G consultant had arrived and had to be taken to theatre to effectively deliver the placenta. The MTP protocol was activated in the process and she required 4 units of packed red blood cells (pRBC) and 2 units of fresh frozen plasma (FFP). Total quantitative blood loss was 3130ml.

An obese multip with a history of PPH presented in spontaneous labour. PPH risk factor was noted antenatally but no plan was in place. She also had a previous macrosomic baby. She had not completed GDM screening this pregnancy. She was augmented with ARM and Syntocin and progressed to second stage before delivering

precipitously, resulting in a second degree perineal laceration. AMTS was performed followed by a Syntocin drip and misoprostol. Her total blood loss was 2200ml. She was treated with an iron infusion postpartum.

Another multip with no antenatal risk factors presented in spontaneous labour and delivered precipitously. She did not have an IV in prior to delivery. Third stage was managed with AMTS, but additional Syntocin drip, Syntometrine and misoprostol was needed due to uterine atony. Clot was manually evacuated from the uterus. Quantitative blood loss was 2600 ml. The woman required a transfusion of 2units of pRBC.

The fifth woman was an obese grandmultip who laboured spontaneously without augmentation for an almost 10 hour first stage (9h30m). There was AMTS only at birth. 2 hours and 40 minutes after delivery, the uterus was noted to be distended and deviated. Misoprostol was given and O&G contacted. Manual evacuation of clot was performed. Total blood loss was 2070 ml. Transfusion of 2u pRBC was given postpartum.

1500-1999 ml

4 women had blood loss between 1500-1999ml. 2 were NVB, 1 was ventouse assisted, and 1 was an emergency CS. One of the NVB had two identifiable intrapartum risk factors (augmentation with ARM and prolonged first stage) but did not receive AMTS. The other three deliveries received AMTS. Shared risk factors for the women who delivered vaginally was either a prolonged first stage or prolonged second stage, and all three were augmented. In fact, all of the risk factors associated with these three deliveries were intrapartum risk factors. These women had no antepartum risk factors. The emergency CS was different, as it was complicated by polyhydramnios, APH and uterine adenomyosis.

1000-1499 ml

19 women had blood loss between 1000 to 1499 ml. 12 were NVB, 1 was an elective CS, and 6 were emergency CS. These women had a range of 1 to 5 risk factors, average was 2.9. 4 women were morbidly obese, 3 had previous CS, 4 had infants with birthweight >90%ile, and 1 had polyhydramnios. 6 had a history of previous PPH, 3 of these had a documented management plan. 8 of these women were induced or augmented during labour, 7 had precipitous or prolonged labours, and 5 had vaginal or perineal lacerations. All but two of the vaginal births received AMTS. Both of those that did not had delayed PPH of 1 hour and 4 hours respectively. 7 women with vaginal births received Syntometrine as part of their PPH management, 3 of those that did not had an identifiable contra-indication (PIH/PET). None of these women required a blood transfusion or iron infusion.

500-999 ml

This sub-cohort contained 7 nulliparous women, 25 multips and 2 grandmultips. 22 women were NVB, 1 delivery was ventouse assisted NVB, 7 were emergency CS and 4 women were elective CS. Average blood loss overall was 698 ml. 7 women had 1 risk factor, 11 women had 2 risk factors, 12 women had 3 risk factors, 3 women had 4 risk factors, and 1 women had 6 risk factors. Average BMI was 30.6; 8 women were morbidly obese. Overall, the majority of women with BMI >35 were in this group. 7 babies were macrosomic, 6 women had a previous CS and 6 women had a prior PPH (none of these had a documented plan for PPH management). Of the women who delivered vaginally, 9 were augmented or induced, 6 had PPROM, and 4 had perineal or vaginal lacerations. 24 women in this cohort had AMTS. Those that did not often did not have an IV leur in place during labour. 7 of the women who did not have AMTS also did not have an IV leur in place. 5 of those without an IV and without AMTS were precipitous births and 3 had a prior history of PPH. One of the women with a prior history of PPH had documented refusal of IV in labour but no documented plan for PPH management.

Conclusions

Overall, the PPH rate for the period reviewed in this audit (14.12%), the rate of haemorrhage >1000ml (4.49%) and the rate of severe haemorrhage (1.44%) compare favourably with previous audits (16.3% overall rate in 2017) for our region and in other parts of New Zealand (24% in 2018, Counties Manukau). At worst our PPH rate remains the same in our region despite an increasing rate of medical complexity in the local antenatal population. Given the introduction of the PROMPT course and the attention paid to quantitating blood loss, one could argue that our rates remain the same despite better identification of PPH, therefore representing an improvement; in years past, the incidence of PPH was more likely to be inaccurate because of methods for identifying it. But what has not improved is at least the documentation of identifying risk factors, developing a management plan, and documenting actual management when a PPH occurs. Only 30 of the 62 charts reviewed had PPH identified under risk factors, either previous or current. Only 14 of these had a documented plan, roughly 23% of the charts reviewed. Documentation of a management plan aside, AMTS was used in 77% of all deliveries, 58.3% of vaginal deliveries, which compares to 58.5% of vaginal deliveries in the PPH audit from 2017. Both that audit and this were strict in their definitions of AMTS and the true rate may be higher if time of administration of medication was not accurately documented. MCIS has a template for documenting PPH, but this was not regularly used and unless it is used in real time, it may not aid in the accuracy of documentation. Accuracy of documentation also made it difficult to assess whether recommendations for prophylaxis based on the number of risks factors were followed, but there did not appear to be adherence to the guidelines initiated after the last PPH audit. This may be due to lack of awareness of the recommendations as staffing has changed on the unit since 2017. Although these recommendations are posted in each labour room, perhaps making pocket sized laminated copies for each maternity employee to carry would facilitate their implementation. Lack of implementation may also be due to lack of awareness of the number of risk factors a woman has when she actually delivers. If there are any recommendations forthcoming from this audit, it is a renewed diligence to identifying and documenting risk factors antenatally in MCIS, but also to identifying and documenting intrapartum risk factors in MCIS. A woman may be admitted with one or no risk factors but by the time the baby is born she may have accumulated four or five. Starting a routine of pausing at the beginning of second stage to reassess risk factors would increase PPH risk awareness and preparedness. If needed, a core staff could be called into the room to verify or assist with this assessment. AMTS could then be prepared, whether it is syringes with the appropriate amount of Syntocin, or making sure that other medications are in the room to be given promptly and prophylactically.

Along with vigilance for risk assessment, the effort to document PPH risk identification and management plan or specialist involvement is key. In particular, women with hypertensive disorders in pregnancy or those who refuse blood products need clear management plans given that certain medication (Syntometrine for PIH) or blood products cannot be used to manage PPH. It is even more imperative that thought be given to a management plan prior to the time of birth to allow a smooth implementation of the plan and to minimise blood loss.

Overall, PPH rate at Gisborne Hospital compares favourably with its own past rate and rates seen in other regions. But it could potentially be better, a challenge likely to be met with renewed dedication.

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Appendix 3 – Ankyloglossia/Tongue Tie Report

Introduction

Ankyloglossia (Tongue-tie) is a congenital condition characterized by an abnormally short, thickened, or tight lingual frenulum that restricts mobility of the tongue.[i] It is typically an isolated anomaly but can be associated with other craniofacial abnormalities. It variably causes reduced tongue mobility and has been associated with functional limitations in breastfeeding, swallowing, articulation, orthodontic problems including malocclusion, open bite, separation of lower incisors, mechanical problems related to oral clearance, and psychological stress.[ii]

The reported incidence of tongue-tie ranges in worldwide studies from 3% to 16%[iii] and the International Affiliation of Tongue-tie Professionals (IATP) shows some countries reporting an incidence of 23%. For many years, the subject of ankyloglossia has been controversial, with practitioners of many specialties having widely different views regarding its significance and management.

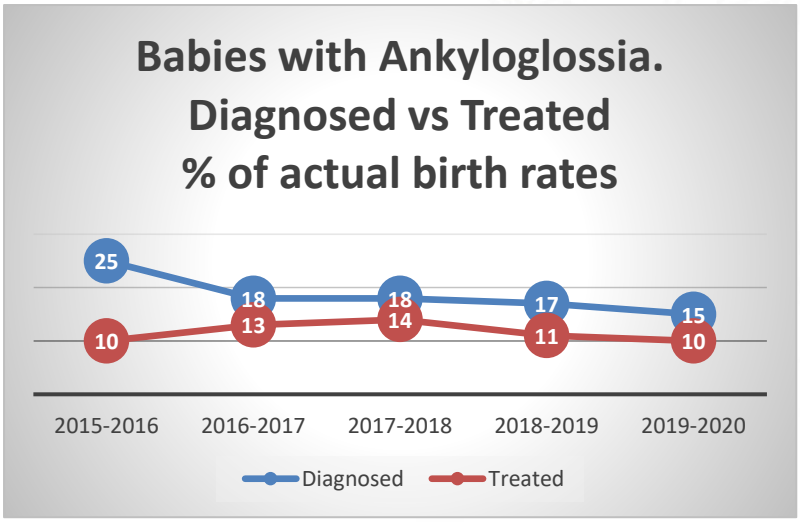
Recognition of potential benefits of breastfeeding in recent years has resulted in a renewed interest in functional ankyloglossia sequelae. Of infants with ankyloglossia, there is a reported 25% to 80% incidence of breastfeeding difficulties, including failure to thrive, maternal nipple damage, maternal breast pain, poor milk supply, maternal breast engorgement, and refusing the breast. Ineffective latch is hypothesized to underlie these problems. Mechanistically, infants with restrictive ankyloglossia cannot extend their tongues over the lower gum line to form a proper seal and therefore use their jaws to keep the breast in the mouth. Adequate tongue mobility is required, and infants with ankyloglossia often cannot overcome their deficiency with conservative measures such as positioning and latching techniques, thereby requiring surgical correction. [iv]

Surgical Options

There are four options available in the choice of interventions in cases of tongue tie:

1. Snipping/cutting the frenulum (sometimes referred to as 'frenotomy') of neonates.
2. Surgical revision of the frenum, removal of tissue, (sometimes referred to as 'frenectomy', 'frenulectomy', or 'frenuloplasty') under a general anaesthetic at or after 6 months of age.
3. Revision of the frenum by laser without a general anaesthetic.
4. Revision by electrocautery using a local anaesthetic.[v]

The research field around ankyloglossia is growing and more information and evidence emerges each year. It is imperative that those involved in the diagnosis, treatment and recommendation for treatment attend regular conferences where this new information is being shared to ensure current evidence-based practice.

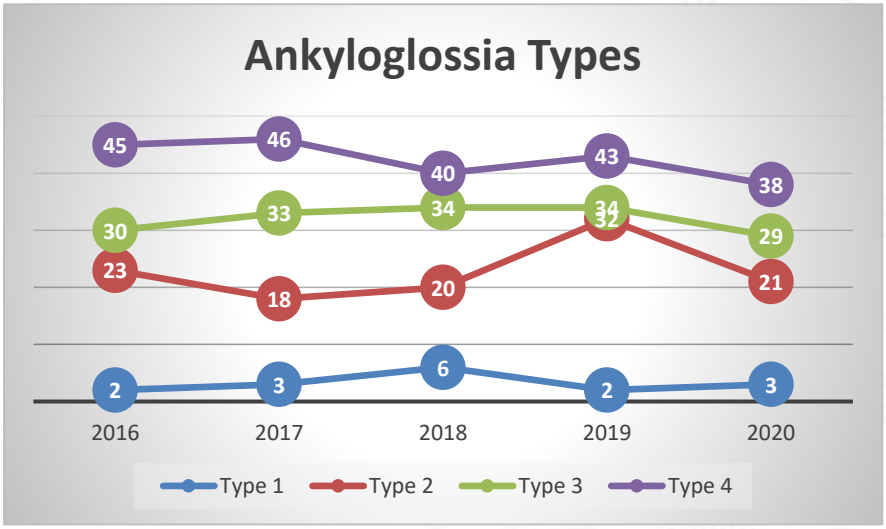


*Attached to this report is our current DHB Tongue tie Pathway as well as the Flow chart we use for treatment provider recommendations. *

Many of the cases referred to the Community Lactation Consultant Service involve tongue-tie; therefore, we collect data to highlight issues and outcomes of this common problem.

As seen in the graph on the left, over the last 5 years the % of babies born in our district diagnosed with Tongue-tie have fluctuated, however, the **number requiring treatment remains fairly consistent**. These figures are percentages of actual birth rates for the respective 5 years.

Types of ankyloglossia:

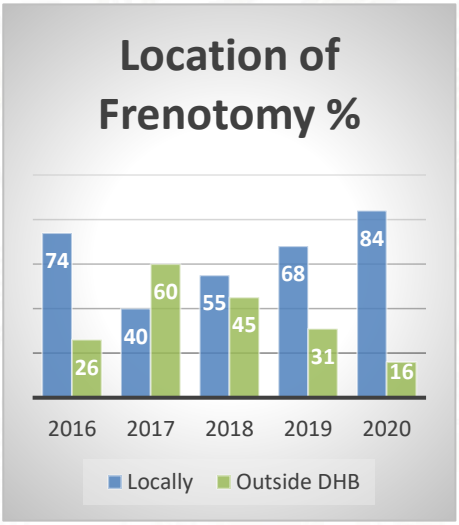


The most common type of Tongue tie diagnosed in our district is Type 4, closely followed by Type 3, both classified as posterior ties. Posterior ties are associated with the most risk, therefore, there are limited treatment options. Only ENT, Oral Surgeons, Dentists and Health Professionals specially trained in the treatment of posterior tongue-tie and/or Lip-ties, are qualified to release them.

More than half of all diagnosed ankyloglossia in this district were posterior ties unable to be treated by local midwives.

In our district we have a major issue in that locally we currently have **only one treatment option for posterior ties and lip ties**, being Mr Julian Avisenis, ENT.

The waiting list for ENT appointments is usually 2-5 weeks, with the ENT service only able to dedicate a slot once a week to tongue and lip ties. As it is, this service is provided out of good-will outside of his normal clinic hours. The waiting times increase when ENT services reduce due to leave as locum cover is never sufficient to cater for the usual frenotomy slot.



Many parents are unable/unwilling to wait 3 to 5 weeks or longer at times for treatment of posterior ties and therefore either give up breastfeeding prematurely or seek treatment out of town at a cost of $60 to $300 for the procedure.

There is an urgent matter regarding posterior ties:

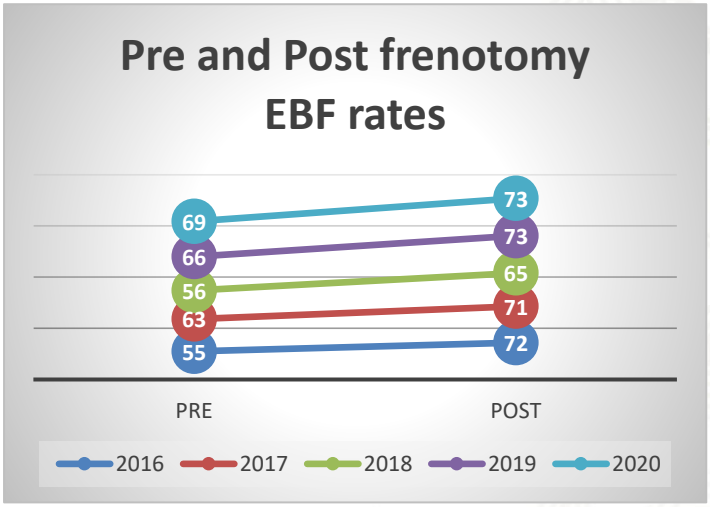
The predictable loss of Mr Avisenis's services as he approaches retirement soon requires an action plan to ensure that treatment for posterior ankyloglossia by a trained surgeon or dentist can still be offered within our DHB. Midwives' scope of practice under NZCOM, New Zealand College of Midwives, only allows the treatment of babies younger than 6 weeks of age with anterior, simple ankyloglossia. We have local LMC and IBCLCs, Carol Coetzee and Pam Sanders who run much needed private tongue-tie treatment clinics as required. Unfortunately, there remains the fact that they can safely and legally only treat anterior ankyloglossia, (Type 1 & 2) which accounts for roughly only 30% of the ties diagnosed over the last 5 years. There is also a cost for this treatment which means that **only around 13% of all babies received free treatment each year.**

In the past 3 years, many parents who fit the criteria for E Tipu E Rea have been given financial assistance for travel and procedure costs where out of town treatment was required. This is a wonderful improvement on

previous years where very little assistance was available. However, it remains a financial challenge and logistical nightmare for many other parents who do not fit the criteria and must travel out of town.

A frenotomy is not an elective procedure but rather a proven, necessary one to improve breastfeeding outcomes and the health of our babies with tongue-ties. This is certainly something that needs to be addressed in the future if we wish to protect and prolong breastfeeding in our district.

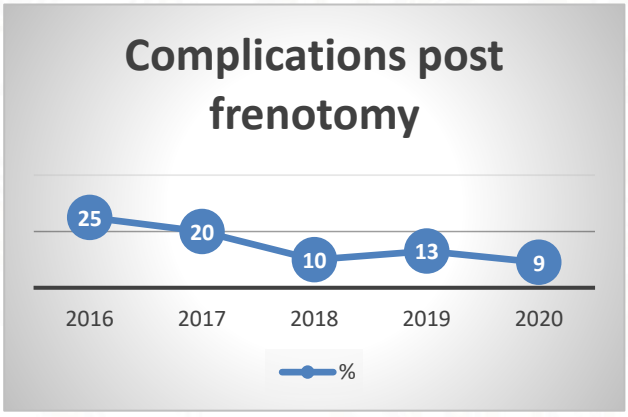
Outcomes post Frenotomy



The percentage of mothers reporting an **improvement in breastfeeding and symptoms following frenotomy has increased** over the last 5 years with improvement rates never being below 90%, **currently we have a 99% improvement in breastfeeding and symptoms following a frenotomy.**

Re-join due and not releasing the restriction far enough were the most common cause of the lack of improvement. Those not released far enough were either from out of town providers or were anterior ties which once released revealed they had a more complex posterior restriction that needed to be released.

Complications following frenotomy include: bleeding, re-join, scar tissue, oral aversion and infection. The decrease in complications this year I believe is due to a reduction in the number of lazer frenotomies as well as ever improving skills of those performing the frenotomies.



Non-compliance with post frenotomy stretching exercises remains an issue in some cases. This is either due to conflicting advice given by out of town providers who do not agree with post frenotomy exercises or parents who were not willing to perform them which resulted in a re-join.

One complication was a mucous retention cyst, a rare complication that resolved on its own without requiring treatment or causing harm to the baby.

We believe that the **reduction in diagnosis of ankyloglossia and the consistent reduciotn in complications post frenotomy for babies treated while in our service** is due to;

a) Better post frenotomy care practice with each baby receiving no less than 2 follow up visits to review wound healing, recovery and feeding,

b) Filtering out treatment providers who operate unsafely or have had poor outcomes in the past,

c) Most importantly, improvements in the diagnostic process of ankyloglossia to establish better where treatment is appropriate or not. These improved skills are gained by attendance at conferences such as the ASTLiT (Australian Society for Tongue and Lip ties) Symposium, which we were grateful to receive funding for in 2018. Funding for the 2019 conference was won through the Hospital Trust.

Continued education will further improve our outcomes.

Below is a personal story one of the mothers who accessed both the Lactation Consultant service and ENT for tongue-tie. She offered to write it to confirm the value of the services to breastfeeding mums:

Jessica ODwyer: My first encounter with Tongue Tie was 6 years ago.

My daughter was born with a grade 4 tongue tie and when she was 10 days old at Gisborne Hospital. They cut her tongue tie which then re-joined. I was then referred to a lactation consultant who suggested I travel to Hamilton and have my daughters tongue tie water lasered. This was done twice and both times the tongue tie re-joined. There was no follow up from the lactation consultant, back then, and I felt really isolated, especially being a first-time mum. My daughter had severe scaring, so when she turned five her tongue tie was re cut by the ENT and this time was successful.

Six years on and I now have another daughter with a tongue tie. My midwife referred me to a Lactation consultant, who gave me a call and booked me in for a consultation. She diagnosed my 2nd daughter with a grade 4 tongue tie. This made me very nervous as I remember the traumatic experience that my 1st daughter went through.

Janet was very professional and made me feel really at ease with the whole experience. She talked me through all my options and gave me all the information I needed to make an informed decision. I chose to wait and see ENT at the Hospital.

I had a 4 week wait and between this time wait, the lactation consultant would ring me and check on how feeding was going and if I had any concerns. The day before my daughter had her tongue tie cut, she gave me a call and checked with me to see if I had watched the videos for the tongue exercises? She also checked if I felt confident in doing the exercises and if I had any questions.

At ENT the staff were lovely and talked me through the process. My daughter was very content, and the process was very quick, and she recovered very fast. When my 1st daughter had her tongue tie water lasered she was screaming when they were doing the procedure. I believe the process done by ENT is far better than the water laser, and much less painful.

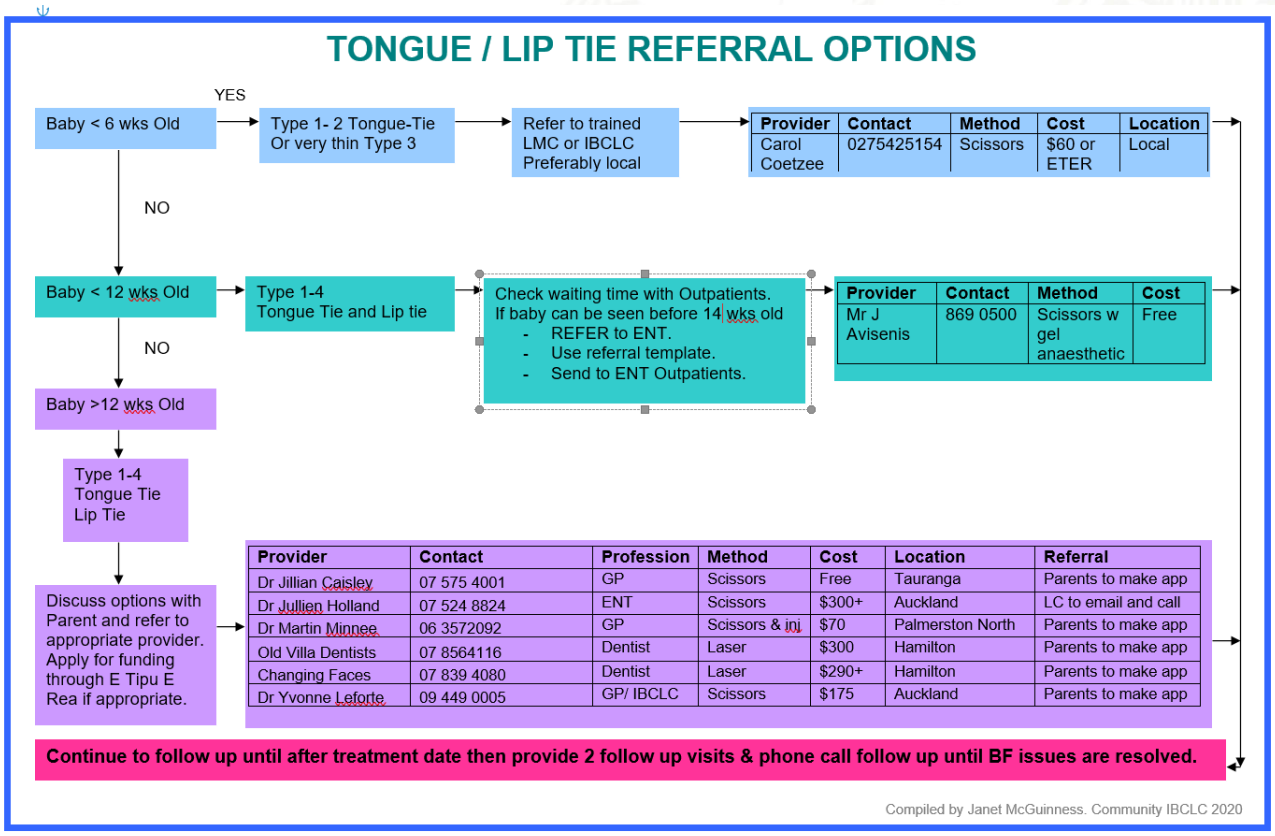
A week later I had a follow up appointment where things were checked to ensure the tongue was good and not re-joining. We had one more follow up and checked process was still going well.

Through this whole process Janet has gone above and beyond in the process, checking all was going well with feeding and showing the exercises etc. I really wish this service was available 6 years ago.

I will definitely be recommending this service to anyone that has any feeding issues.

*Tamaiti kai wai u tenei ra, ka ora te tamaiti apopo***!**

[i] Lalakea ML, Messner AH. Ankyloglossia: does it matter? Pediatr Clin North Am. 2003;50(2):381–397pmid:12809329
[ii] Suter VG, Bornstein MM. Ankyloglossia: facts and myths in diagnosis and treatment. J Periodontol.2009;80(8):1204–1219pmid:19656020
[iii] Messner AH,Lalakea ML,Aby J, et al. Ankyloglossia: incidence and associated feeding difficulties. *Arch Otolaryngol Head Neck Surgery* 2000;126:36–. doi:10.1001/archotol.126.1.36
[iv] Suter VG, Bornstein MM. Ankyloglossia: facts and myths in diagnosis and treatment. J Periodontol.2009;80(8):1204–1219pmid:19656020
[v] Carmen Fernandez, Tongue-tie, Confusion to Clarity - A Guide to the Diagnosis and Treatment of Ankyloglossia, 1998



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TONGUE TIE CARE PATHWAY

CURRENT PATHWAY FOR ASSESSMENT AND TREATMENT OF TONGUE TIE AND LIP TIE IN THE NEWBORN:

For suspected tongue restriction - a full breastfeed assessment and tongue function assessment using HATLFF* is to be completed. This can only be done by IBCLC's and midwives who have completed the NZCOM approved Tongue and Lip tie training session. If no DHB staff available to complete HATLFF* then refer to Community LC Service.

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Breastfeeding, lactation and optimal infant nutrition will be supported by core staff with a clear plan documented by maternity staff until discharge.

Full breastfeeding assessment and plan - see the "non-latching baby care plan" non latching baby 2 - lidil 2017. doc

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Babies with anterior tongue ties can be referred by Community LC or DHB LC to Certified Midwives for treatment as soon as possible after discharge. Severe posterior ties that require urgent attention can be referred to ENT by an IBCLC while an inpatient. For all other posterior and non-urgent ties a referral to Community LC Service is recommended.

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Prior to referral to a treatment provider all guardians of infants must have:
1. A full consultation on benefits, risks and cost of treatment.
2. Informed consent for treatment.
3. Read all information as well as viewed treatment procedure and post-care videos on www.breastfeedingeastcoast.nz.

This can only be done by certified staff as above.

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All infants with suspected ties should be referred to Community LC service for follow up care on discharge from the unit. This should be done in consultation with the LMC.

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The Community LC will provide a full assessment, diagnosis and referral to best available treatment provider in consultation with the infant's parents.

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The Community LC will continue to provide support prior to and following the treatment date. If the treatment appointment is no longer necessary or parents have changed their minds, the Community LC must contact ENT outpatients to cancel the appointment as soon as possible.

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Community LC will provide 2 post release follow up appointments at 1 week and 2 weeks post procedure as well as any verbal follow up required until breastfeeding issues are resolved.

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If a re-release is required the Community LC will refer and follow up as necessary.

*HATLFF- Hazelbaker Assessment Tool for Lingual Frenulum Function. Compiled by Janet McGuinness & Lidil Medini, IBCLC, 2018