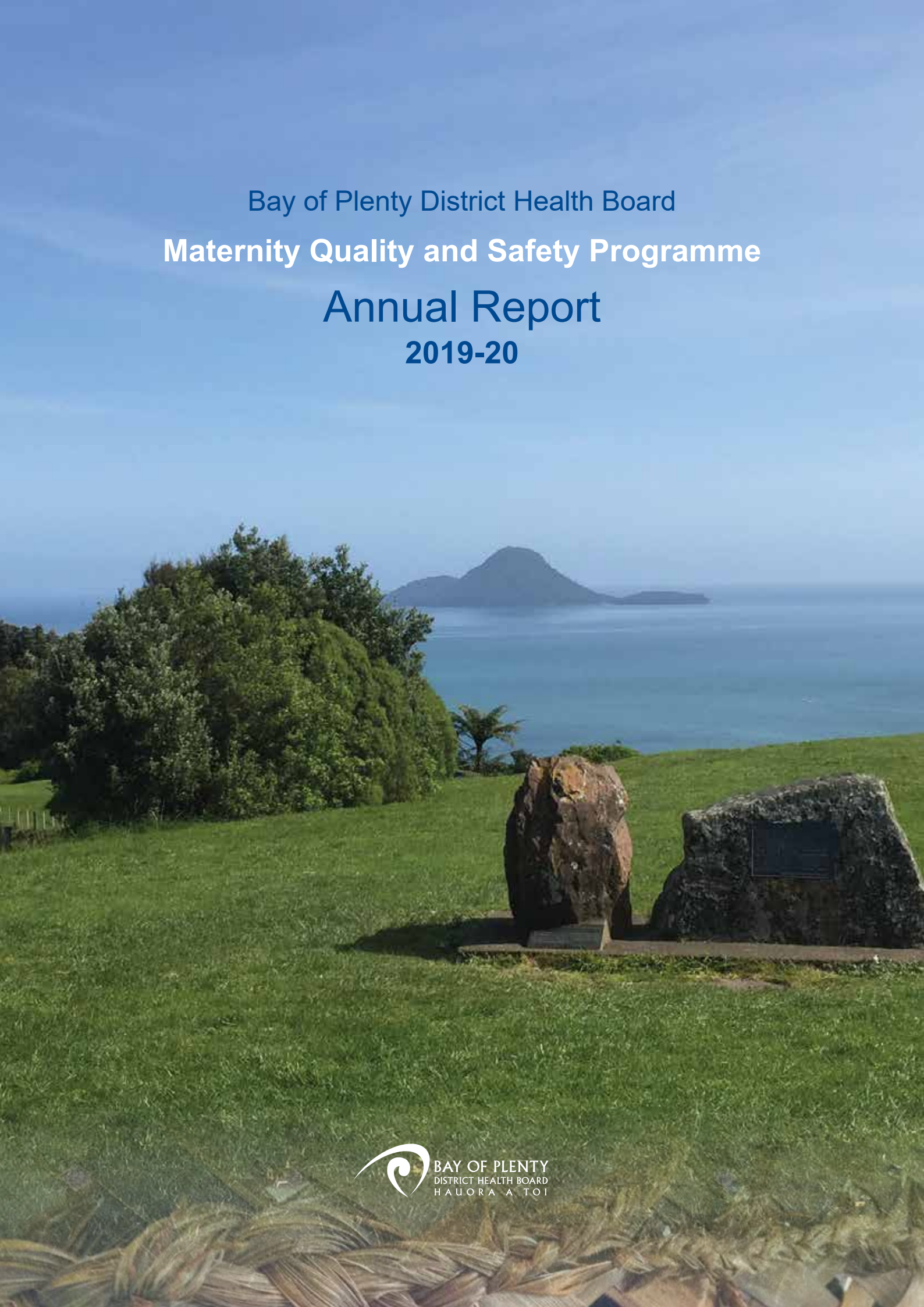
Bay of Plenty District Health Board

Maternity Quality and Safety Programme

Annual Report

2019-20



BAY OF PLENTY
DISTRICT HEALTH BOARD
HAUORA A TOI

Glossary

BBC – Bethlehem Birthing Centre (primary maternity unit, Tauranga)

BOPDHB – Bay of Plenty District Health Board

CTG – Cardiotocograph

FSEP – Fetal Surveillance Education Program

GAP – Growth Assessment Protocol

HEAT – Health Equity Assessment Tool

IUGR – Intrauterine Growth Restricted

LARC – Long Acting Reversible Contraceptive

LMC – Lead Maternity Carer

MCG – maternity clinical Governance

MCI – Maternity Clinical Indicators

MCIS – Maternity Clinical Information System

MEWS – Maternity Early Warning System

MDT – Multidisciplinary Team

MgSO4 – Magnesium

MQSP – Maternity Quality and Safety Program

NA – National Average

NE – Neonatal

NOC/NEWS – Newborn Observation Chart and Newborn Early Warning Score

NZCOM – New Zealand College of Midwives

PMCS – Primary Midwifery Care Service

PMMRC – Perinatal Mortality and Morbidity Review Committee

PROMPT – Practical Obstetric Multi-Professional Training

QLP – Quality & Leadership Programme

RANZCOG – Royal Australian and New Zealand College of Obstetrics and Gynaecology

SAMM – Severe Acute Maternal Morbidity

SGA – Small for Gestational Age

SP – Standard Primiparae

USS – Ultrasound Scan

Wāhine/women* – The * acknowledges the variety of birthing bodies in our community.

Contents

Foreword

Every taitamaiti/child starts their life trajectory nurtured in the whare tangata (mother's womb). Every māmā/mother starts her journey in pregnancy and every whānau/family's development is influenced by the journey they take together from conception to early days of the pēpi/infant's life.

The impact of maternity care is lifelong and influences health and well being in profound and far reaching ways. High quality maternity care is a priority for our people. Outcomes for wāhine/women*, pēpi/babies and their whānau/family are significantly influenced by the quality of maternity care.

Maternity care starts before conception and ends with handover from maternity providers to primary child and adult health service providers. Key areas of improvement work include the following.

Improving Māori Health Equity

The BOPDHB is committed to the principles of Te Tiriti o Waitangi and improving Māori Health is one of our four strategic priorities. In 2020 Marama Tauranga was appointed as Manakura (General Manager) of Māori Health Gains and Development providing leadership and direction to the BOPDHB in all matters affecting the Māori population of Te Moana a Toi, Māori services, and Māori staff, as well as leading implementation of Te Toi Ahorangi, the Māori health strategy launched in 2020.

Improving collection and analysis of outcomes with an equity focus is an important part of the BOPDHB Maternity Quality and Safety programme. Understanding the differences in outcomes for Māori underpins changing the way we deliver services to Māori whānau. Co design processes have been undertaken and more are planned to ensure services are tailored to the needs of Māori whānau.

Strategies to improve ways in which we address institutional racism have been identified and education for equity and Te Tiriti o Waitangi is under revision. So far 52% of all maternity staff have attended at least one equity training session.

Quality and Clinical Governance

BOPDHB maternity service has identified and developed maternity and neonatal clinical governance processes.

These processes have prompted growth of stronger mechanisms for:

- Identification of priorities,
- Decision making,
- monitoring outcomes and
- engaging with:
  - Mana Whenua,
  - maternity health professionals and
  - consumers of maternity services.

We are looking to continue to improve the way we gather and analyse information, with an emphasis on identifying inequities and to how we design and plan services, together with the whānau/family accessing our services.

The revised BOPDHB Maternity Clinical Governance process has embedded itself over the last year and we are now seeing progress across policy development, development of a Severe Acute Maternity Morbidity (SAMM) Review Committee, and an Adverse Event Review Subcommittee. Further work is required to progress Health Intelligence and Risk Management.

In line with this approach, the Maternity Quality and Safety Programme Network has also been revised, with broad stakeholder inclusion and integration with the Maternity Clinical Governance processes. Maternity Consumers are included in the stakeholder group.

Staff Engagement and Culture

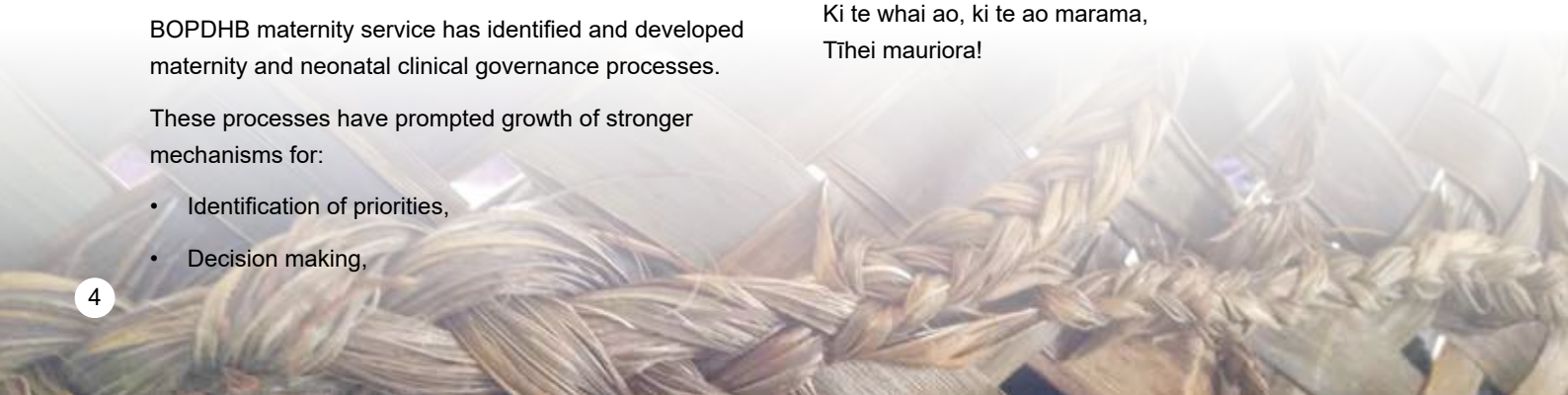
A clear link is established between staff wellbeing and patient wellbeing. Significant challenges to staff wellbeing have been experienced through natural disasters, the COVID19 pandemic and ongoing international maternity health professional staffing shortages.

BOPDHB maternity service continues to develop positive opportunities for engagement, including a new midwifery forum, "The Journey to Excellence", which provides education and inspiration for the midwifery community.

Staffing changes have also supported the team, with appointments of supernumerary coordinators and a focus on streamlining and integrating antenatal outpatient services.

Acknowledgments

Ko Ranginui e tū ake nei, ko Papatūānuku e takoto nei,
Nā rāua ko Tāne Māhuta i hanga i te wahine kikokiko,
Nā Hineahuone ko Hinetītama
Nāna ko te ira tāngata e puta,
Ki te whai ao, ki te ao marama,
Tīhei mauriora!



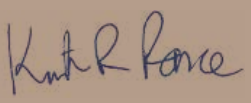
We acknowledge each and every whānau/family who has received maternity care in the Bay of Plenty during this year. The journeys of Wāhine/women*, pēpi/babies and their whānau/families are the individual stories behind the information in this report and are the focus of everything we aim for in maternity quality improvement.

We acknowledge our tāngata whenua mai i ngā kurī a Whārei ki Tihirau, mai i Maketū ki Tongariro, and their aspirations for maternity care. Much emphasis is on understanding barriers to equity for tāngata whenua and others. We acknowledge tāngata whenua and their leadership in Te Toi Ahorangi; the first wellbeing strategy developed by iwi and adopted by Bay of Plenty DHB. This double hulled waka is leading us together into the future for Toi Ora, the health and wellbeing of our people.

Our starting place to understand the outcomes for Wāhine/women*, pēpi/babies and their whānau/families is through gathering the data for our birthing families. Our people are unique and their challenges are also unique in each whānau/family and community across the Bay of Plenty. Some of the challenges we have understood and improvements have been made. Some are challenges we have yet to fully identify and understand. We explore reasons for the outcomes to identify ways in which we can improve.

We acknowledge the work of our colleagues and DHBs throughout Aotearoa New Zealand. The National Maternity Quality and Safety Programme allows us to compare ourselves with other regions of Aotearoa New Zealand to better identify where we compare well and where we need to continue to focus our attention and resources on improvement.

We are pleased to present the Bay of Plenty DHB Maternity Quality and Safety Report 2019-20. We hope you enjoy reading about our achievements and the challenges identified for the work ahead.



Kirsty Rance
Midwife Leader

Maternity Facilities

Tauranga Hospital

- **7** primary and secondary birthing rooms with 2 birth pools
- **4** single bed antenatal rooms
- **1** double bed antenatal room
- **10** single bed postnatal rooms (9 with ensuite)
- **4** double bed postnatal rooms
- Lactation consultant service
- **1** portable bedside ultra sound
- **12** Cot Special Care Baby Unit - including 2 high needs spaces
- **2** Boarder māmā/mother beds
- Hearing screening performed on ward
- Women's Assessment Unit for additional monitoring of high risk wāhine/women
- Primary Midwifery Care Service for wāhine/women without an LMC
- Outpatient specialist consult clinics

Ko Matariki/ Whakatāne Hospital

- **3** primary and secondary birthing rooms
- **1** birthing pool
- **4** single bed antenatal rooms
- **1** portable bedside ultra sound
- **10** double bed postnatal rooms
- Lactation consultant service
- **4** cot Special Care Baby Unit and one high needs space
- Hearing screening performed on ward
- Outpatient specialist consult clinics

Opotiki Birthing Unit

- **2** primary birthing/ postnatal rooms
- **1** birthing pool
- **1** CTG (Fetal heart monitor)

Bethlehem Birthing Unit

- Antenatal education classes
- CTG (Fetal heart monitor)
- **12** primary birthing/ postnatal rooms with birthing pools
- Lactation consultant service

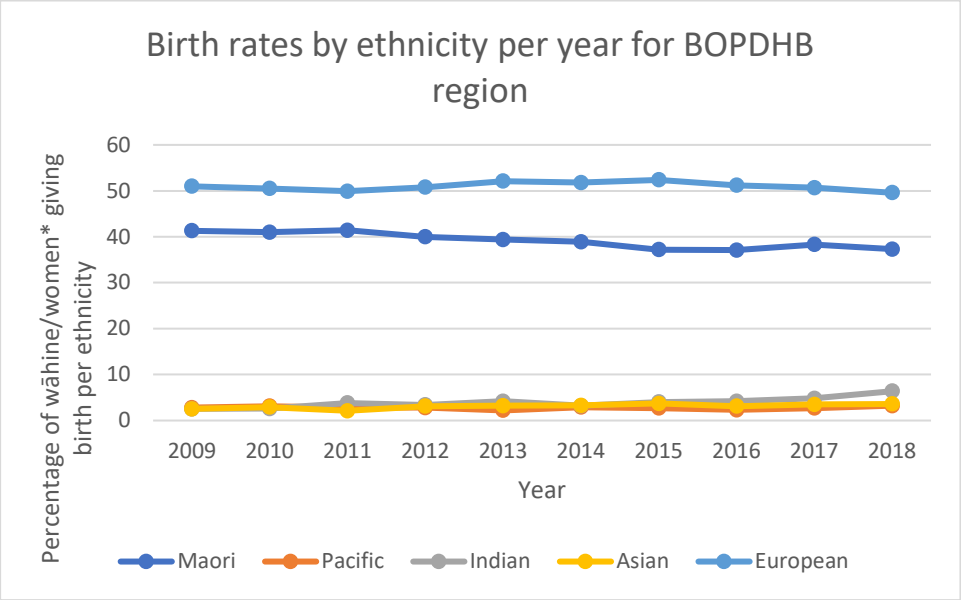
Murupara Birthing Unit

- **1** antenatal visiting room
- **1** antenatal/emergency birthing room
- **1** DHB LMC support package (COVID19 response)

Birthing Population

The following data discussed is from 2019 where available. Some data is only available up to 2018.

Ethnicity of BOPDHB Birthing Population

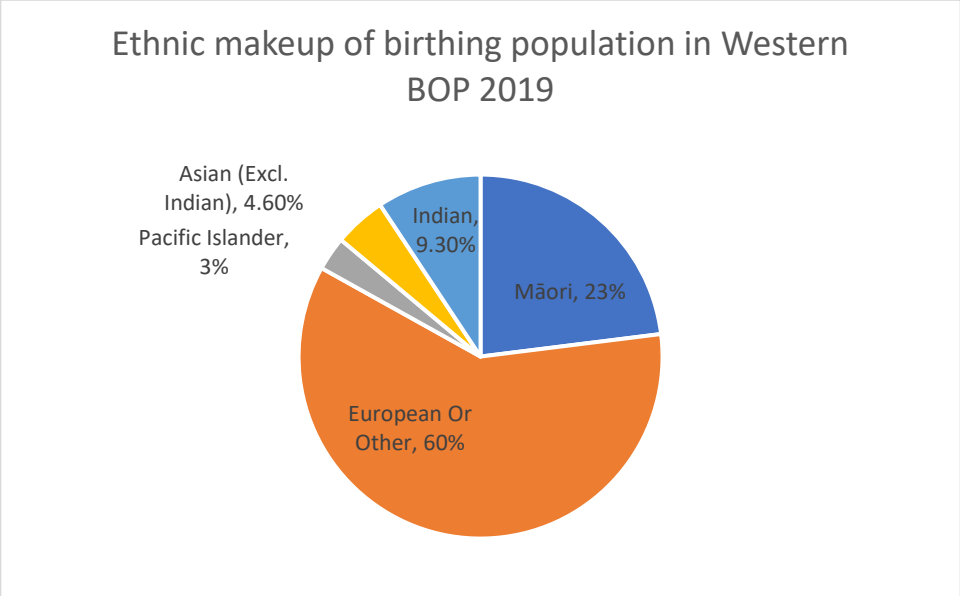


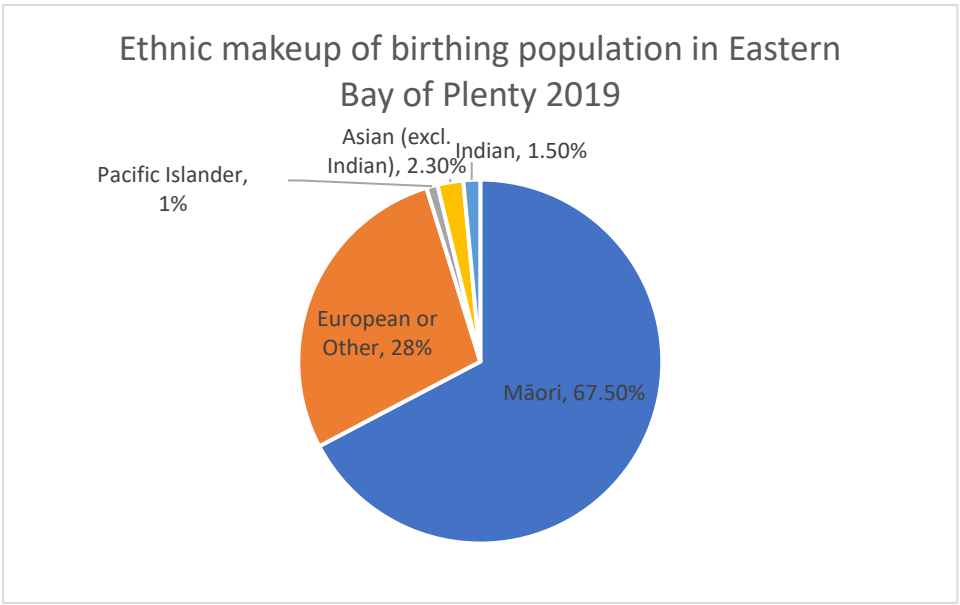
(Source: MOH MCI report 2020).

BOPDHB has maintained the increasing trend and in 2018 matched the birth rate seen in 2009.

Less Māori wāhine/women* birthed in 2018. All other ethnicities remain consistent except for Indian wāhine/women* who show an increase to two and half times the number reported in 2009. The changing demographics of local ethnicity of birthing wāhine/women* needs to be considered when planning services. Co-design processes need to be undertaken to ensure the BOPDHB maternity service is meeting the needs of the evolving population.

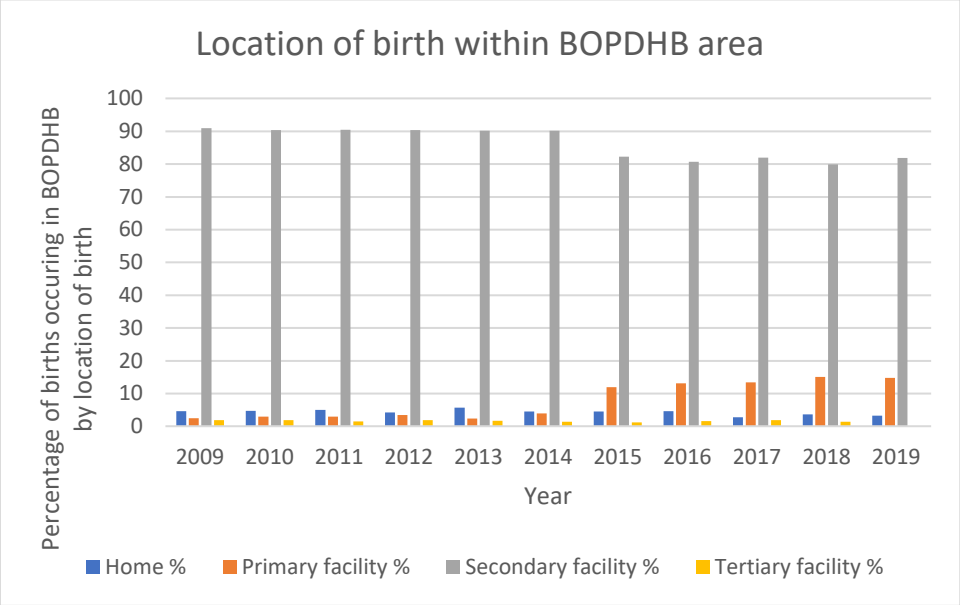

Wintec
MIDWIFERY





In 2019 over 67 percent of the wāhine/women* giving birth in the Eastern Bay identified as Māori compared to 23% in the Western Bay.

Location of Birth



Home birth rates in the BOPDHB region have remained about five percent or lower. There are no known service barriers to wāhine/women* accessing homebirth other than the shortage of LMC's.

Primary unit births rose from 2015 due to the opening of the Bethlehem Birthing Centre in 2014. Numbers continued to rise until 2018, where we see numbers maintained in 2019.

Age of birthing population

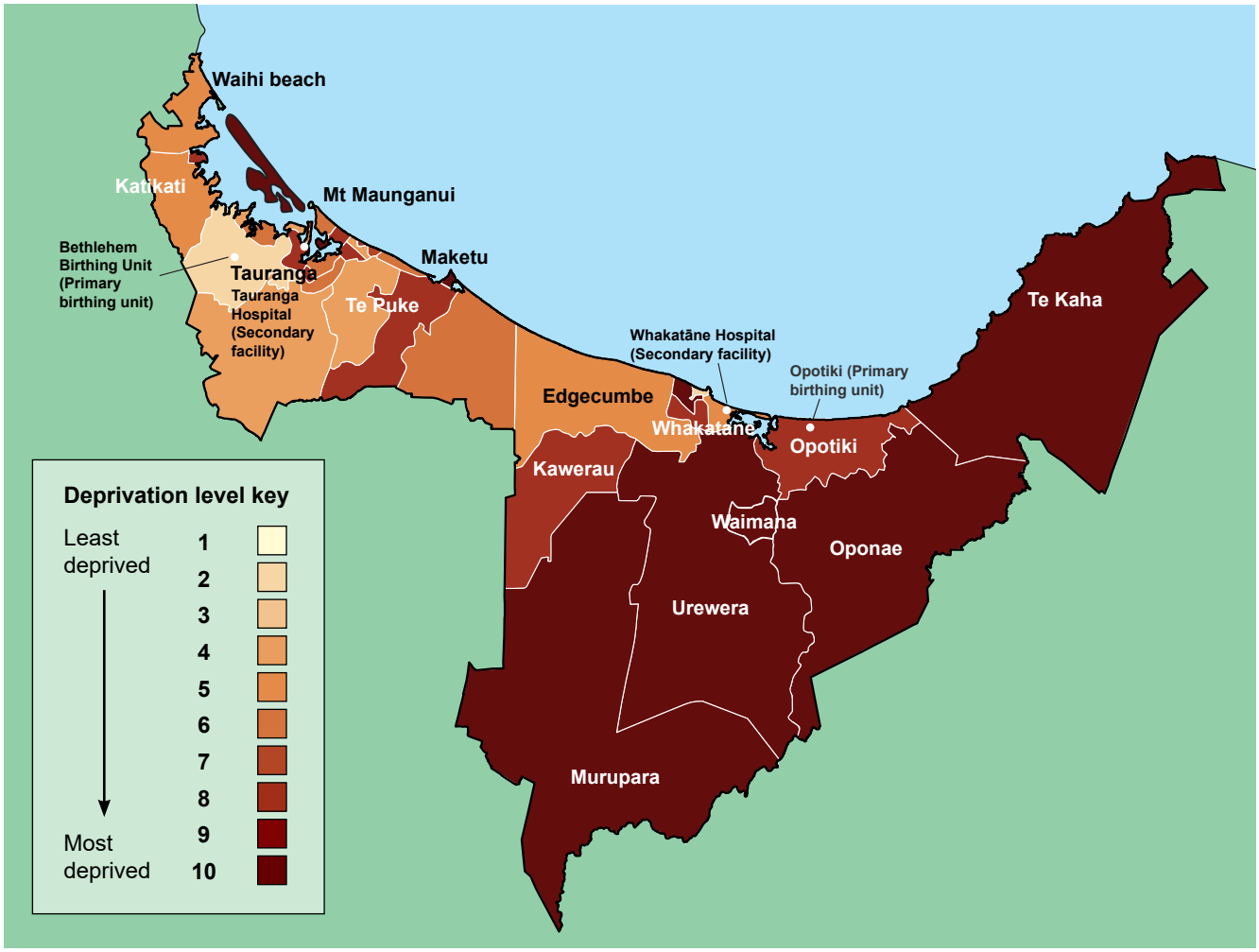
The largest number of birthing wāhine/women* by age in the Bay of Plenty for 2019 was 30-34 years, followed by 25-29 years[1]. This is consistent with all previous reported years. The BOPDHB's most common birthing ages continue to match the national data. However, there is variation in age prevalence by ethnicity.

In 2019:

- Māori wāhine/women* were most likely to birth at 25-29 years. This is a change from 2018 where Māori wāhine/women* were most likely to birth at 20-24 years.
- Pacific wāhine/women* were most likely to birth at 25-29 years. This is a change from 2018 where Pacific wāhine/women* were most likely to birth at 20-24 years or 30-34 years.
- Indian wāhine/women* were most likely to birth at 25-29 years. This has not changed.
- Asian wāhine/women* were equally likely to birth at 30-34 and 35-39 years. This is a change from 2018 where they were more likely to birth at 30-34 years only.
- European or Other wāhine/women* remained most likely to birth at 30-34 years.

1. Figure NZ. (2020). *Fertility rates by age group in New Zealand.* Figure.NZ. **https://figure.nz/chart/mubOq0fljutpj8B4**

Deprivation of Birthing Population



For more information on deprivation effects in New Zealand follow this link **http://www.ehinz.ac.nz/indicators/population-vulnerability/socioeconomic-deprivation-profile/**

The level of deprivation is calculated from census data and includes the following[1]:

- People without internet access at home
- People aged 18-64 receiving means tested benefit
- People living in households with income below an income threshold
- People aged 18-64 who are unemployed
- People aged 18-64 without qualifications
- People not living in their own home
- People aged under 65 living in a single parent family
- People living in households below a bedroom occupancy threshold
- People living in dwellings that are always damp and/or always have mould greater than A4 size

People living in areas of high levels of deprivation (most deprived = quintile five) are more likely to have poor health and are more likely to experience a stillbirth or neonatal death[2]. Nationally 20% of the population fit into each of the five deprivation quintiles.

The following information relates to wāhine/women* birthing in 2019.

The number of wāhine/women* in the BOPDHB who were living in quintile five was 33%, this is 13% higher than the national average. Another 27% were living in quintile four level deprivation (7% higher than the national average).

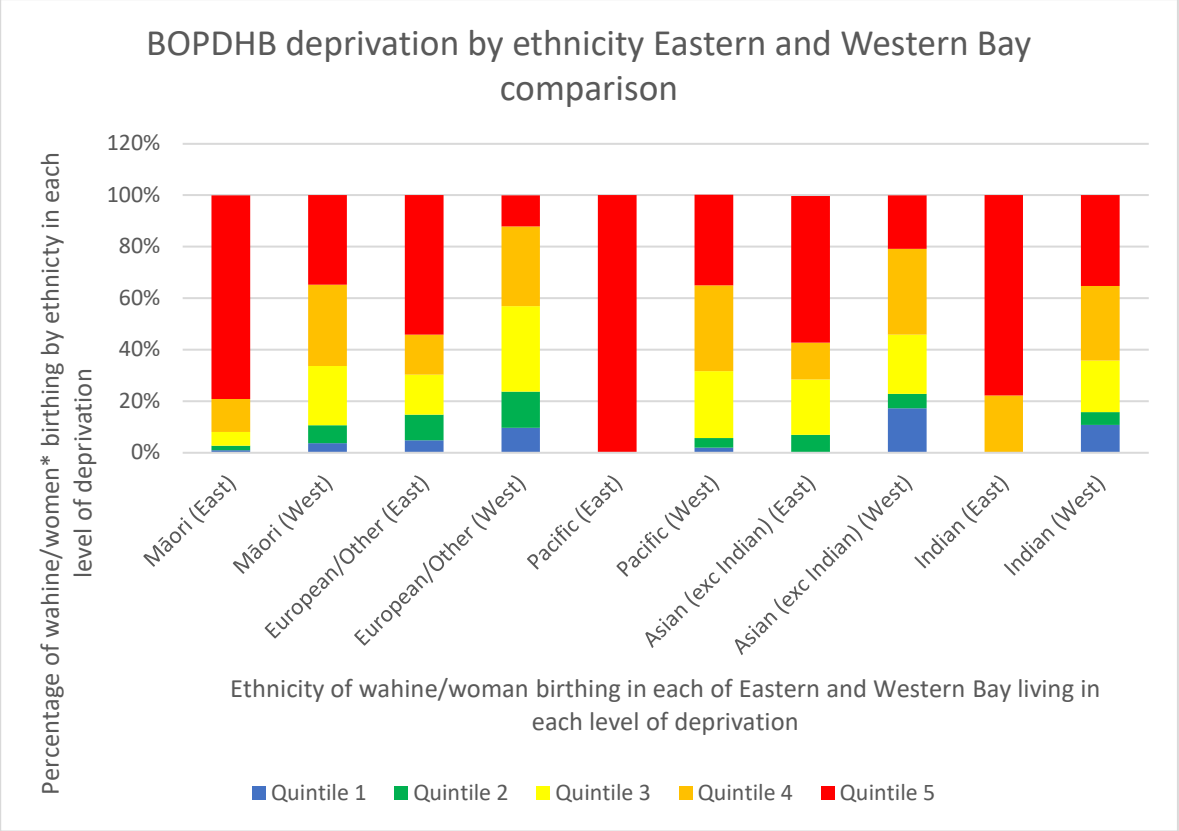
The Eastern Bay has higher levels of deprivation across all ethnicities. 72% of wāhine/women* in the Eastern Bay were living in quintile five level deprivation. For the remote rural population, although numbers may be small, some wāhine/women* with the highest level of deprivation have the greatest distance to travel to engage with care.

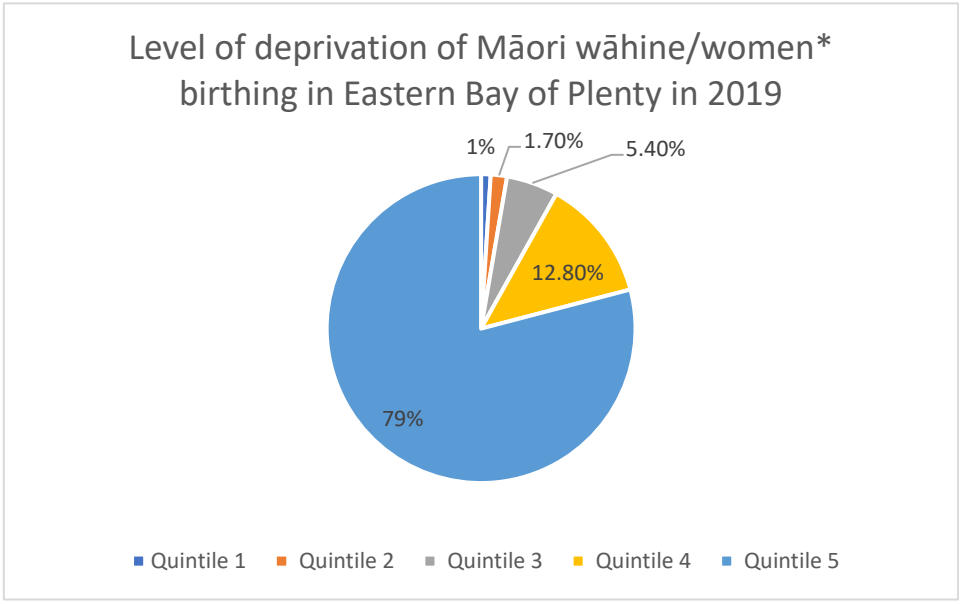
79% of Māori wāhine/women* were living in quintile five and 12.8% in quintile four. This contrasts with the Western Bay where 35% of Māori wāhine/women* were living in quintile five and 32% in quintile four. A similar picture is seen for Indian wāhine/women* living in the Eastern Bay.

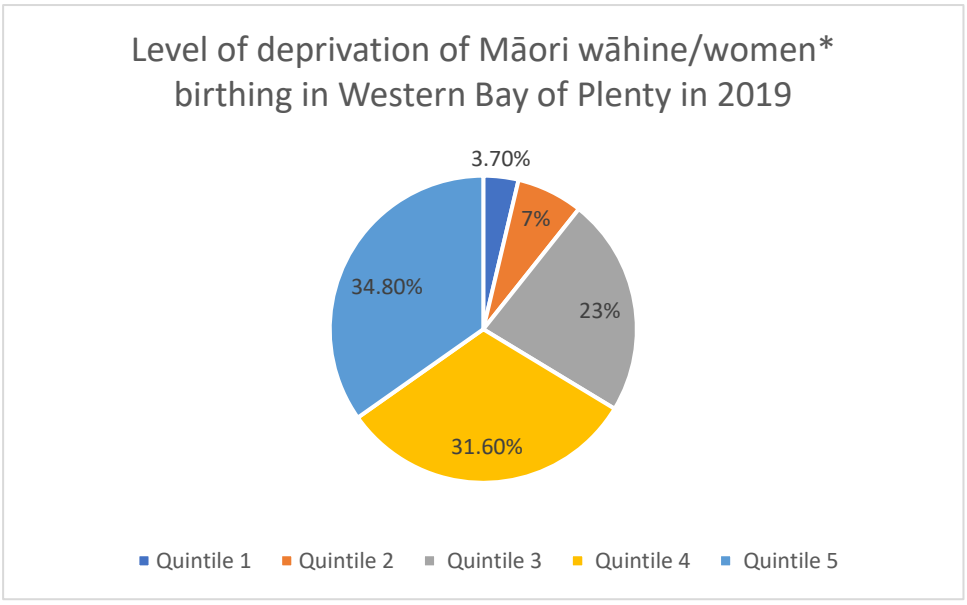
The Western Bay has lower levels of deprivation across all ethnicities with 20% of wāhine/women* living in a quintile 5 area. Most wāhine/women* in the Western Bay lived in a quintile four area (31%), closely followed by quintile three (29%).

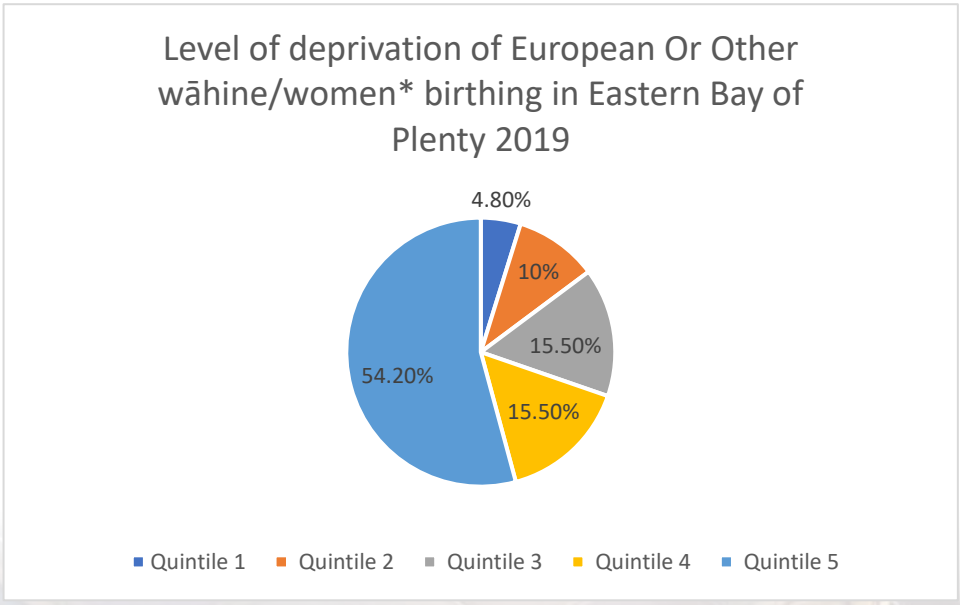
For this report we have included the Eastern and Western Bay levels of deprivation as a stacked bar graph to compare the difference between the two areas. This needs to be viewed with the overall birthing population pie graph, at the start of this section, to show the percentage of each ethnicity birthing in the areas in 2019. Further brake down of deprivation is shown in the pie graphs below for our three largest ethnic populations birthing in 2019; European and other (60% in the Western Bay and 28% in the Eastern Bay), Māori (23% in the Western Bay and 67% in the Eastern Bay) and Indian (9.3% in the Western Bay and 1.5% in the Eastern Bay).

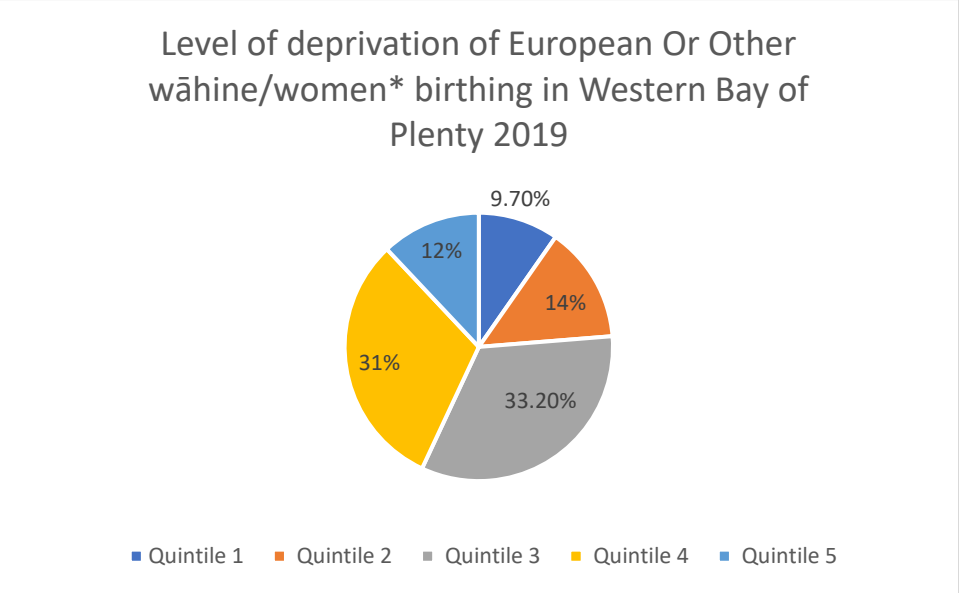
As you can see there is considerable variation between the two areas. Wāhine/women* birthing in the Eastern Bay in 2019 were 2-4 times more likely to live in the lowest quintile than those in the Western Bay. Wāhine/women* birthing in the Western Bay were nearly three times more likely to live in the lowest quintile if they were not of European ethnicity. There is marked variation in the standard of living both geographically and ethnically in the Bay of Plenty. A one size fits all approach is not an equitable approach for these wāhine/women*. Any quality improvements need to take this disparity into account.

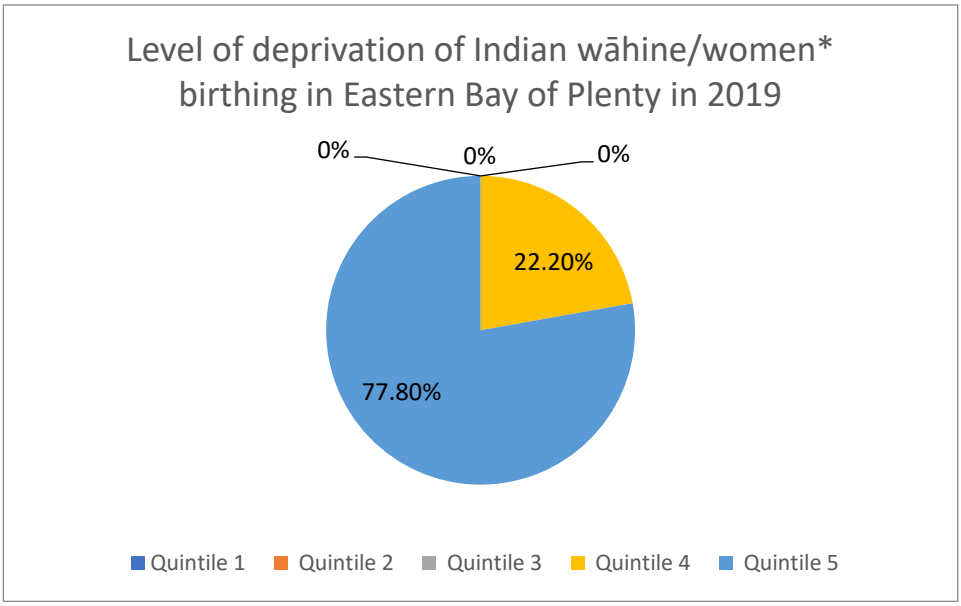


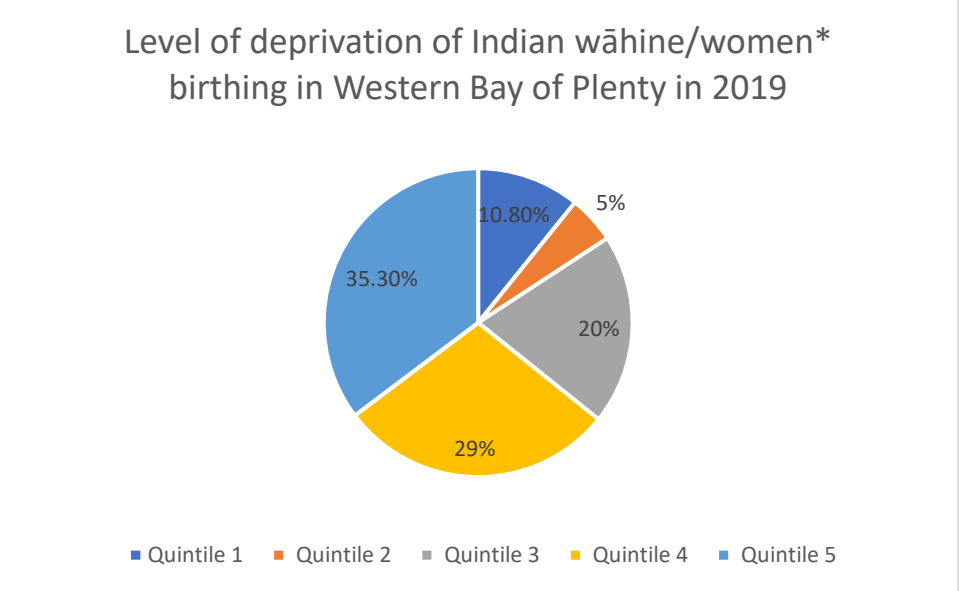

Level of deprivation of Māori wāhine/women* birthing in Eastern Bay of Plenty in 2019
1%
1.70%
5.40%
12.80%
79%
Quintile 1
Quintile 2
Quintile 3
Quintile 4
Quintile 5


Level of deprivation of Māori wāhine/women* birthing in Western Bay of Plenty in 2019
3.70%
7%
23%
31.60%
34.80%
Quintile 1
Quintile 2
Quintile 3
Quintile 4
Quintile 5


Level of deprivation of European Or Other wāhine/women* birthing in Eastern Bay of Plenty 2019
4.80%
10%
15.50%
15.50%
54.20%
Quintile 1
Quintile 2
Quintile 3
Quintile 4
Quintile 5







1. University of Otago. (2018). NZDep2018 Index of Deprivation. **https://www.otago.ac.nz/wellington/otago730394.pdf**.

2. PMMRC. 2019. Te Pūrongo ā-Tau Tekau mā Toru o te Komiti Arotake Mate Pēpi, Mate Whaea Hoki | Thirteenth Annual Report of the Perinatal and Maternal Mortality Review Committee: Te tuku pūrongo mō te mate me te whakamate 2017 | Reporting mortality and morbidity 2017. Wellington: Health Quality & Safety Commission.

Highlights and achievements

Highlights in outcomes

Over 70% of wāhine/women*

having their first pēpi/baby have a spontaneous vaginal birth (above the national average).

- **Māori wāhine/women* continue to achieve spontaneous vaginal births of first pēpi/babies at aproximately 80 percent (fourth equal highest rate nationally).**
- **More wāhine/women*, of all ethnicities, enrolled with an LMC in the first trimester than ever before in 2018.**
- **Caesarean section rate below the national average in 2018.**
- **Smoking rates in the postnatal period for Māori wāhine/women* have decreased by 15% since 2009.**

Ko Matariki/ Whakatāne Hospital:

- **Lowest ever rate of caesarean births under general anesthetic in 2018.**
- **Wāhine/women* having their first pēpi/baby vaginally in 2018 had the highest rate nationally with an intact perineum.**
- **Reported the fourth lowest rate of preterm births of all secondary hospitals in 2018.**

Quality initiatives

Early Warning Systems

- **Newborn Early Warning System introduced to the maternity wards.**
- **Maternity Early Warning System implemented hospital wide on both sites.**

Ward Upgrades

- **New equipment purchased to aid accurate assessment of contractions in high risk cases.**
- **Infant resuscitation equipment trolley developed for maternity wards.**
- **New epidural trollies purchased.**
- **New whānau/family violence risk assessment tool developed.**

Midwifery Staffing

- **Clinical Midwife Coordinators appointed to all shifts on Tauranga Ward.**
- **Portfolio Champions appointed to Whakatāne Ward.**
- **Antenatal Coordinator appointed.**

Midwifery Education

- **Regular midwifery education days introduced, focusing on midwifery excellence.**
- **Power to Protect Education run for maternity staff.**

Quality Governance and Management

- **Engagement of new Maternity Consumer Advisors.**

Foetal Surveillance

70% of BOPDHB maternity staff and

61% of LMCs

have attended the RANZCOG fetal surveillance training since 2019.

Safe Sleep Initiatives

18 wahakura wananga

held in the BOP community since 2016.

30 wahakura made

during the 2019-20 financial year.

319 Pepi-Pods

distributed across BOP during the 2019-20 financial year.

Parent by Choice Initiatives

Long Acting Removable Contraceptives (LARC) provided to

14 times more wāhine/ women* in 2020 than in 2019.

11x increase in midwives

delivering LARC services in BOPDHB area since 2019.

44 new practitioners

trained to provide LARC services in BOPDHB since 2019

Interim Termination of Pregnancy (TOP) management process in place

Clinical Trials

Ongoing collaboration

with the Liggins Institute and participation in at least two clinical trials per year.

Rural Midwifery Support

Part funded support

to LMC midwifery service in Murapara area.

Maternity Consumer Feedback

Consumer feedback in 2020 has been confined to a survey following the COVID19 Lockdown. All wāhine/women* admitted to the maternity units during levels three and four were surveyed.

Wāhine/women* were asked about their maternity ward experience during lockdown. Over 60 percent were either happy or very happy with their experience of the maternity service. Comments were consistent with themes for improvement including:

- communication of care plans,
- information sharing,
- the emotional challenges experienced with restricted access to their usual support networks because of lockdown measures.

This survey presented an improvement opportunity piloting a new approach to consumer engagement. Text messages were sent with a link to a survey monkey quiz. Previous maternity specific surveys were postal with a 20% response rate and time-consuming collation of responses. The text pilot had an improved response rate of 32.8% of wāhine/women* responding (over 12 percent more response). Time frames for response were also greatly reduced, 99% of these being in the first 12 hours. This format also provided improved collation of data.

"A bit more communication would have been great as I was unsure of what was happening at a few times during my stay"

Previous surveys have shown a disproportionate response from consumers when grouped by ethnicity. The text methodology increased response rates across all ethnic groups, more closely representing the ethnicity breakdown of the birthing population surveyed. The age range of respondents also more closely represents the birthing population.

The improvements achieved in this pilot will be fully developed into an all of birthing population text message survey as an ongoing programme with options to be explored for those wāhine/women* who would be disadvantaged by this method.

"The DBH restrictions due to Covid constantly changed in the weeks/days before my babies birth. This created a huge amount of anxiety and stress."

"Thanks for taking care of me and my baby. It wasn't easy giving birth during lockdown but you made us feel safe."

"I think the hospital did the best they could to make you comfortable during COVID."

"The birth of my first born child was an extremely negative and anxious experience. It has had a lasting impact on my health and wellbeing."

"The most traumatic experience I've ever been through."

"Being a first time mum it was really hard as I didn't know how things were supposed to be and with covid making me be on my own it was all very scary, sadly didn't enjoy majority of the experience"

"Everyone was great considering the situation. It was difficult not having a support after the birth."

"I was well cared for during lockdown. Safety was the first priority for everyone. Overwhelmed with services provided by the staff during lockdown. Doctors and nurses very careering. Thank you"

"My midwife had to leave when I undertook the epidural but I would have the hospital midwives again in a heartbeat."

BOPDHB MQSP Projects 2019-20

Key:
- Project complete
- Project in progress
- Significant work yet to be done on project

Project title	Equity of Access to Ultrasound Services (USS)	Status
Rationale	Inequitable access to scanning services in Eastern Bay, with surcharge in place leading to some wāhine/women* not engaging with routine scanning, due to cost and travel barriers.	
Actions	Increased access to USS in the Eastern Bay by installing a second machine. Surcharge removed for all routine scans and risk-based scanning accessible to all LMC clients. To commence January 2021 via variation to contracts.	
Measures	Increased availability and uptake of USS appointments. Reduction in undiagnosed IUGR/SGA pēpi/babies.	
Outcomes	Improved access. Increased engagement. Increased equity. Reduced impact on obstetric service for free scanning.	
Future	Ongoing monitoring of Maternity Clinical Indicators 18 & 19. These changes will not be visible before 2023.	

Project title	Equity of LMC Access	Status
Rationale	Eastern BOP LMC registration at 12 weeks is 12% lower than Western BOP[1]	
Actions	Identify local midwifery practices. Identify barriers/enablers for accessing LMC services. Reactivate ASAP programme to encourage earlier engagement of LMC services. Ko Matariki/ Whakatāne Maternity Unit has instituted processes to support wāhine/women* with no LMC.	
Measures	Continue to monitor MCI one data.	
Outcomes	These changes will not be visible before 2021.	
Future	Continue to monitor MCIs 2021+ and change approach if no improvement is seen.	

Project title	National Maternity Early Warning System (MEWS) implemented	Status
Rationale	MEWS being rolled out nationally.	
Actions	MEWS embedded in Maternity wards on both sites then rolled out hospital wide across DHB.	
Measures	Pre-audit completed in each area for 2 weeks pre roll out then weekly in each area.	
Outcomes	Areas for ongoing education highlighted by audits and addressed as identified. Communication between health professionals and departments improved. Training embedded into orientation of all new staff to relevant wards. Reduction in the number of wāhine/women* reaching high scores. Increased timeliness of escalation.	
Future	Auditing to extend out to monthly maintenance auditing in 2021.	

Project title	National Newborn Early Warning System implemented	Status
Rationale	NOC/NEWS rolled out nationally.	
Actions	NOC/NEWS implemented in Maternity wards on both sites. Weekly auditing established.	
Measures	Auditing indicates reliable use, appropriate escalation and response.	
Outcomes	Areas for ongoing education highlighted by audits and addressed as identified. Reduction in the number of pēpi/babies reaching high scores. Increased timeliness of escalation. Training embedded into orientation of all new staff.	
Future	Auditing to extend out to monthly maintenance auditing in 2021.	

Project title	Sepsis Identification and Response	Status
Rationale	Sepsis is a high cause of maternal morbidity and mortality, development of sepsis kits is recommended[2].	
Actions	Sepsis education has been added to the compulsory emergency midwifery skills and PROMPT days. Sepsis Grab n Go Boxes have been implemented on both maternity wards.	
Measures	Raised maternity provider awareness of signs and symptoms of sepsis.	
Outcomes	Reduction in severe sepsis cases.	
Future	Ongoing promotion of Sepsis Boxes and signs and symptoms of sepsis. Update of Sepsis policy.	

Project title	LARC in Maternity Services	Status
Rationale	All wāhine/women* should be supported to be 'parents by choice' and should have equity of access to contraception[1].	
Actions	Access to LARCs in BOPDHB area reviewed, a shortage of trained service providers in maternity identified. Midwives in both community and DHB settings trained to provide service. Promotion of availability of LARC services to LMC community and DHB maternity staff for early postnatal insertion.	
Measures	Audit of DHB LARC services to include age & ethnicity of wāhine/women* receiving them and the number removed in each 12 month period.	
Outcomes	44 new practitioners trained in the BOPDHB area in the last 18 months. 11 midwives providing LARC services. Reporting on insertion and removal numbers underway.	
Future	Further midwives trained in LARC service provision as needed. Availability of LARC service promoted.	

Project title	Post COVID19 Lockdown Survey	Status
Rationale	Survey of consumers, community LMC's and maternity staff, following COVID19 lockdown levels three and four, to assess areas for emergency response improvement.	
Actions	All consumers admitted during lockdown level three and four, all Community LMC's and all maternity staff surveyed. Results compiled and presented to MCG for inclusion in ongoing emergency response planning.	
Measures	Survey results.	
Outcomes	Responses received from; 20% of the LMC community, 17% of the DHB maternity staff and 32% of consumers surveyed. Suggestions for improvements noted in report.	
Future	Increased focus on communication to all maternity stakeholders. Updating of maternity information on DHB public website.	

Project title	Consumer Engagement Pilot	Status
Rationale	To identify an equitable approach to surveying maternity consumers.	
Actions	Text message pilot linked to online survey sent to consumers. Outcomes and costing reported to MCG Committee.	
Measures	Response rate. Previous consumer feedback mediums compared with text option.	
Outcomes	Response rates for text pilot was two to three times higher than previously used mediums of email and post.	
Future	Ongoing use of text medium for maternity consumer feedback. Development of an ongoing maternity consumer survey through co-design process. Consideration of using the same system in other areas of the DHB.	

Project title	Maternal Mental Health Pathway	Status
Rationale	Need identified to raise awareness of primary mental health support services and criteria for engaging with secondary care Maternal Mental Health services[1].	
Actions	Primary mental health support services identified and listed in Maternity Community Support.	
Directory	Electronic access to Maternity Community Support Directory provided to LMC's and promoted to wider stakeholder group. Criteria for secondary mental health admission identified and circulated to all LMCs and DHB staff. Audit referrals to secondary care Maternity Mental Health Service, assess for equity of access and closing the loop style communication.	
Measures	Increased awareness and access of primary services. Increased awareness of secondary care pathway. Audit of engagement with secondary services including equity review.	
Outcomes	Appropriate and timely referral's to secondary level mental health service.	
Future	Relocation of Maternity Community Support Directory to BOPDHB Maternity Webpage for greater visibility and ease of access by consumers and maternity care providers.	

Project title	Midwifery Excellence Forums	Status
Rationale	Identified shortage of midwifery specific education and excellence focus.	
Actions	Three full day forums established to run each year. Themes agreed for each day, to be reviewed annually. Local and national speakers identified and engaged. Awareness raised locally on various areas for midwifery improvement.	
Measures	Attendance. Feedback Changes in the level of care delivery relevant to topics covered.	
Outcomes	Improved standard of care delivery by midwives.	
Future	Continue to monitor attendance rates and feedback to maintain high standard of relevant content.	

Project title	Maternity Clinical Governance (MCG)	Status
Rationale	Identified need to grow governance and quality management functions in maternity including health intelligence, risk management, adverse event management, policy management, quality culture, consumer engagement and equity considerations.	
Actions	Maternity Clinical Governance Committee established. Sub-committees established (Policy Sub-committee, Adverse Events Sub-committee), yet to be established (Maternity Health Intelligence/Data and Audit Sub-committee). Work plan and timeline set. Approval/oversight of project plans. Relevant national reports reviewed, and recommendations considered. Identify additional local needs and quality improvements. Annual MQSP report to MOH submitted.	
Measures	Workplan progressing, MCG attendance, policy development progressing, Adverse Events and Risk management progressing, MCI's and other indicators improving.	
Outcomes	MCG embedded in maternity service and BOPDHB governance structure.	
Future	Ongoing annually	

Project title	Maternity Quality and Safety Program (MQSP) Network Redesign	Status
Rationale	As part of the redesign and development of the MCG Committee, the MQSP Network was formed for the larger group of maternity stakeholders to gather and discuss relevant issues.	
Actions	Establishment of MQSP Network and promotion of attendance and electronic communication between meetings. Zoom meetings to support equitable attendance across all of DHB region.	
Measures	Attendance and amount of issues raised by email.	
Outcomes	Greater connect with stakeholders, more varied voices.	
Future	Ongoing monitoring of engagement as standard.	

Project title	Maternity Policy and Guideline Review	Status
Rationale	Improved evidence-based practice guidance needed to set the standards for BOPDHB maternity practitioners.	
Actions	Maternity Clinical Governance Policy Sub-committee established. Current policies and guidelines reviewed and gaps identified. Prioritised policy management plan developed. Policy development ongoing. Monthly reports to MCG.	
Measures	Reduction in expired policies. Raised staff awareness of policy availability and access points. Improved consistency of care delivery consistent with best practice guidelines.	
Outcomes	Improved provider access to evidence-based practice information.	
Future	Ongoing policy requirements identified and developed.	

Project title	Severe Acute Maternal Morbidity (SAMM) Review Committee	Status
Rationale	The establishment of MDT SAMM reviews, to identify ways to improve systems and processes to reduce maternal morbidity, has been recommended to all DHB's[1]. There is a significant emphasis on equity issues.	
Actions	Develop local process from the Maternal Morbidity Review Toolkit for Maternity Services. Establish a SAMM review committee. Preaudit numbers of wāhine/women* falling into trigger list categories. Commence case reviews. Provide recommendations for improvements.	
Measures	Audit of numbers falling into trigger list categories with an aim to see a reduction following implementation of any identified improvements over time.	
Outcomes	Reduction in SAMM. Completion of reviews. Identification of improvements undertaken.	
Future	Reviews commence from January 2021.	

Project title	Health Equity Assessment Tool (HEAT) Project	Status
Rationale	Consistency of equity lense application needed.	
Actions	Maternity Clinical Governance Committee (with mana whenua members) have agreed adoption of HEAT. HEAT trialed in SAMM process.	
Measures	HEAT in consistent use. Equitable approaches identified in all aspects of care delivery.	
Outcomes	Maternity care delivery improvements instituted to reduce inequities.	
Future	Develop plan, apply HEAT lense to all aspects of service delivery and identify areas for ongoing improvement.	

Project title	Maternity Health Intelligence (Clinical data and audit) Sub-committee	Status
Rationale	Identified need for development of quality measurements for the maternity service to monitor how safe, whānau/family centred, equitable and effective.	
Actions	Maternity Health Intelligence Subcommittee established. Data requirements identified. Clinical audit requirements identified. Monthly reports to MCG. Identify education requirements. Update staff of progress and areas for ongoing improvement.	
Measures	Data requirements identified. Data hygiene (accuracy) measures identified. Analysis Audit programme reviewed annually and completed. Recommendations forwarded to MCG. Monthly report to MCG.	
Outcomes	Coordination of data management. Maternity ward audit portfolio coordinator assigned. Improvement driven timely auditing process.	
Future	Assignment and education of auditors and portfolio coordinators.	

Project title	Adverse Events/Complaints Management	Status
Rationale	Oversight and governance of Adverse Event processes to ensure appropriate risk identification and implementation of improvements.	
Actions	Adverse Events/Complaints Subcommittee established with multidisciplinary engagement. Events/complaints triaged and reviewed weekly. Monthly report to MCG.	
Measures	Improved completion times. Improved tracking of events. Robust recommendations made and improvements implemented. MCG oversight of process. Monthly report supplied to MCG.	
Outcomes	Coordination of adverse events management. Reduction in duplication of work.	
Future	Ongoing streamlining and embedding of process.	

1. Ministry of Health (2020). New Zealand Maternity Clinical Indicators 2018. New Zealand Maternity Clinical Indicators 2018 | Ministry of Health NZ

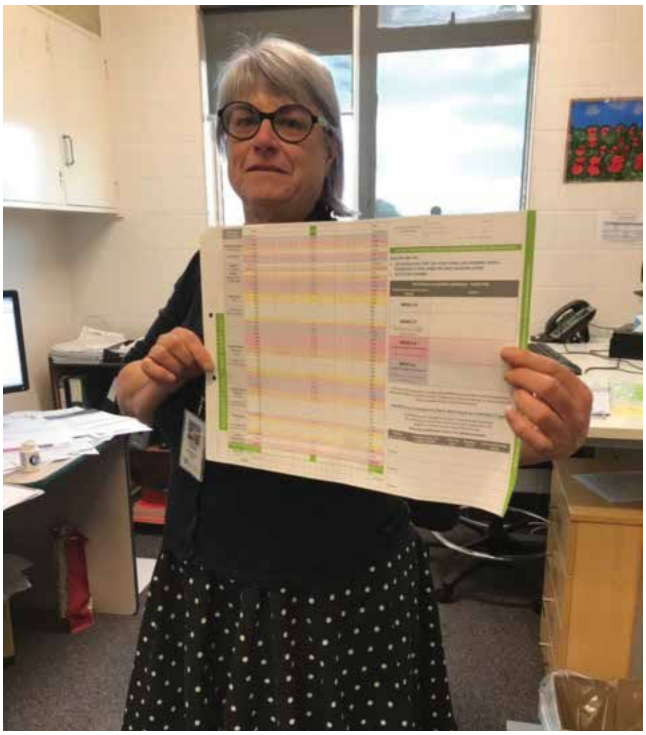
2. HQSP (2019) Third annual report of the Maternal Morbidity Working Group. Health Quality & Safety Commission | Third annual report of the Maternal Morbidity Working Group (hqsc.govt.nz)

Maternal Early Warning System (MEWS)

This vital sign chart and designated escalation pathway, was introduced to BOPDHB Maternity wards in late 2019. It has since extended out to include all wards likely to admit a hapū/pregnant or recently hapū/pregnant wāhine/woman*. The MEWS has provided staff with a clear parameter for identifying patient deterioration and direction on how to respond.

Staff completed an e-learning module pre-rollout, which is now part of the orientation education for all relevant staff. The MEWS chart is also used in several practical education programmes including; the Midwifery Emergency Skills Workshop, attended by every midwife annually, and the PROMPT day, attended by the multidisciplinary team several times each year.

Over time, we have seen a reduction in higher scoring vital sign scores and an increase in the number of wāhine/women* with low scores. This suggests that wāhine/women* at risk of deterioration are being identified earlier, and the necessary care is being provided to stop them from becoming more unwell.



Dr Penelope Makepeace, MEWS Clinical Lead for BOPDHB, holding the MEWS chart as part of the hospital rollout promotion.

Education/Professional Development

BOPDHB Maternity Service has identified several professional development priorities, including promoting excellence, increasing engagement through more accessible and appealing learning opportunities.

A Midwifery Excellence Forum has been established in collaboration with NZCOM. The forum supports the education priorities while bringing midwives together across the BOP community and hospital services. The focus of the days is excellence in clinical practice. The Forum ran twice in 2020, themed differently for each day and both local and national speakers presented. High attendance has highlighted the appetite for this format and quality of educational experience, with 50 plus midwives attending each day. Further sessions are planned for 2021.

Midwifery and multidisciplinary education have been an area of improvement focus with education administration systems development. Support and resources to assist midwifery practitioners in planning their education and maintaining their education records have been developed.

Orientation programmes for all Maternity and Special Care Baby Unit staff have been reviewed and updated.

BOPDHB Maternity Education Service has increased its online learning opportunities. Learning packages, video resources and zoom links, aimed at providing more opportunity for all midwives to access and engage with education.

Targetted education opportunities are being utilised more frequently in the ward setting, including mini education sessions at handovers and specific programme education e.g. MEWS and NOC/NEWS developments.

Several DHB maternity staff are currently undertaking postgraduate-level education, and there are increasing numbers of midwives engaging with the QLP process.

2021 planning aims to promote further engagement of senior midwives with leadership education as part of an aim to nurture our future leaders. There are also plans to support all staff to attend further cultural competency education to build on the Engaging Effectively with Māori Workshops run in 2019.

Maternity Clinical Indicators 2018

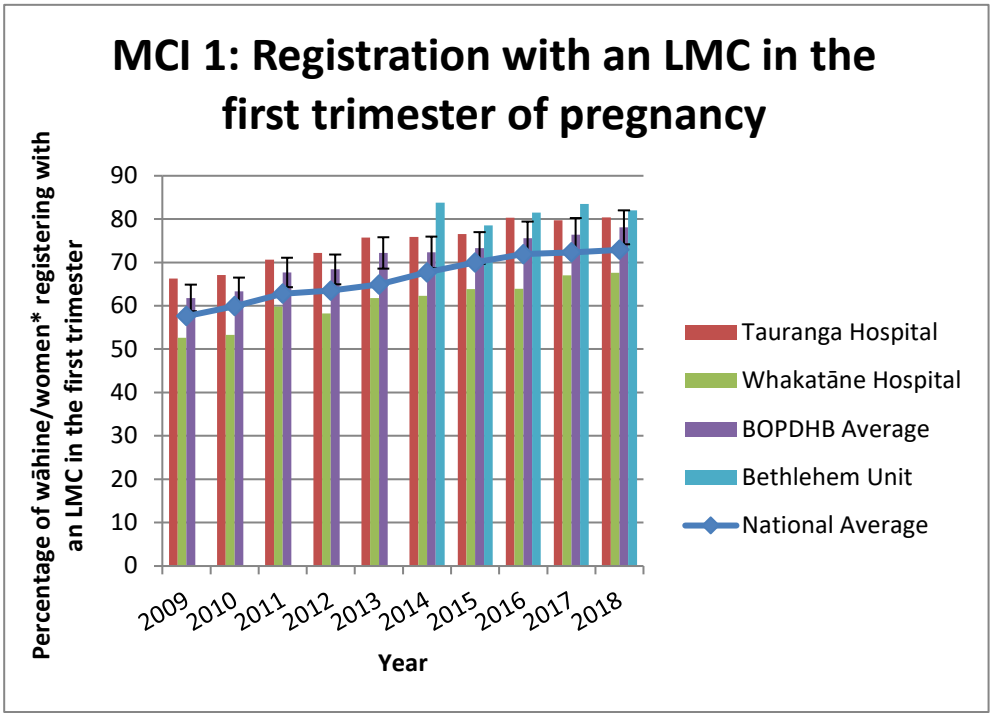
The New Zealand Maternity Clinical Indicators (MCIs) are monitored and reported on annually. They show key maternity outcomes for each DHB region and maternity facility. A national average (NA) is calculated and each DHB and maternity facility can benchmark themselves against the NA, other facilities and previous outcomes.

The data reported by the MCIs can help draw attention to outcomes requiring improvement. Benchmarking provides opportunity to identify high performing DHB's that could be shared between organisations[1].

Standard Primiparae

The term Standard Primiparae (SP) is used in several of the MCIs (indicators 2-9). A SP is a wāhine/woman* having her first pēpi/baby, who has no known obstetric complications. As a group, these wāhine/women* make up approximately 15% of the birthing population. SP outcomes are used as they do not have other identifiable reasons which may influence outcomes[1].

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

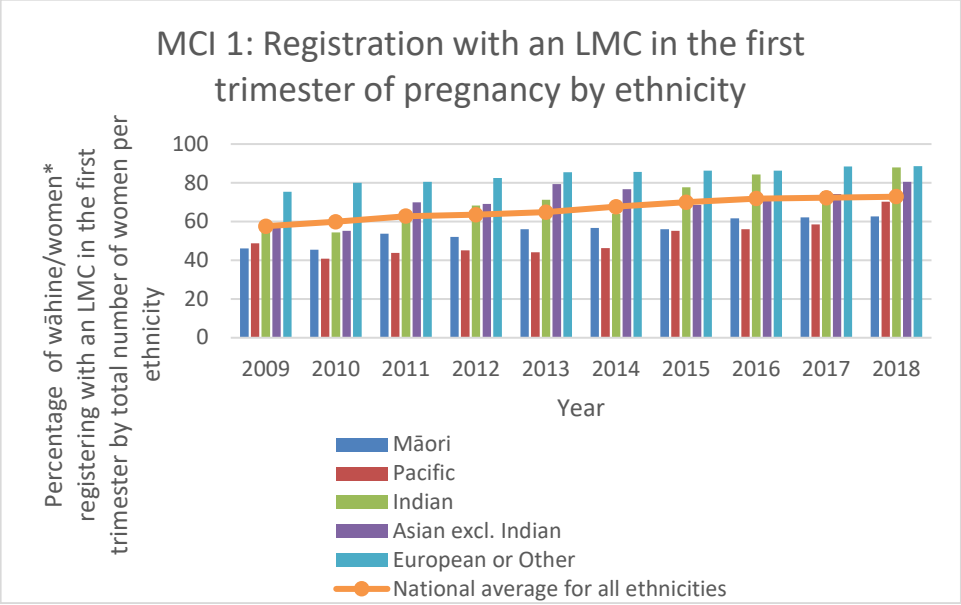


The national trend for registration in the first trimester has risen steadily since 2009 and for the 2018 year is 72.9%. The BOPDHB trend has increased over time with figures for 2018 being the highest recorded at 78.1%, remaining consistently above the NA. Tauranga (80.4%) and the Bethlehem Birthing Centre (BBC) (82%) remain above the NA.

The rate for Ko Matariki/Whakatāne has remained below the NA since 2009. However, 2018 is the highest recorded at 67.6%. The As Soon As you're Pregnant (ASAP) campaign was relaunched in the Eastern Bay in the second half of 2019 to promote awareness of the pregnancy priorities relevant to the first trimester. The focus of this programme was the dissemination of information in the community across a broad range of sites hapū/pregnant wāhine/women* may have contact with. The impact of this campaign will not be seen in the MCI data before late 2021. Further opportunities for improvement in the Eastern Bay will be sought in 2021, exploring barriers to registration, using a co-design process, with an equity focus.

BOPDHB has been working to raise awareness that the DHB Antenatal Clinic Service is the first point of contact for wāhine/women* unable to find an LMC. This is being achieved through a website presence and information with GPs. A primary midwifery care service has been established to ensure wāhine/women* with no LMC receive appropriate care. This includes assisting wāhine/women* to engage an LMC where possible.

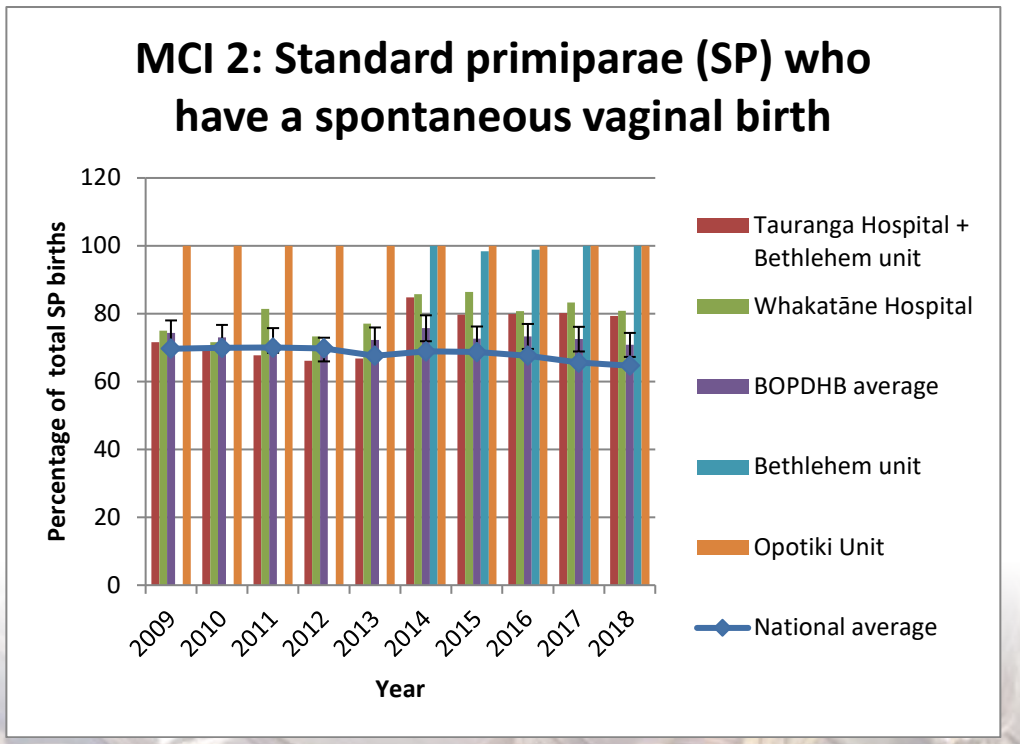
Registration with an LMC in the first trimester of pregnancy by ethnicity



BOPDHB wāhine/women* of all ethnicities have shown an increase in first-trimester registration since 2009. Registration with an LMC continues to occur later for Māori and Pacific wāhine/women*. This remains below the NA for this indicator (Māori 62.7% and Pacific 70.2%).

Registration for Indian and Asian wāhine/women* continues to improve and remains above the NA.

MCI 2: Standard primiparae (SP) who have a spontaneous vaginal birth



The national trend for SP having a spontaneous vaginal birth has shown a slow decline since 2014, with the NA at 64.7% for 2018.

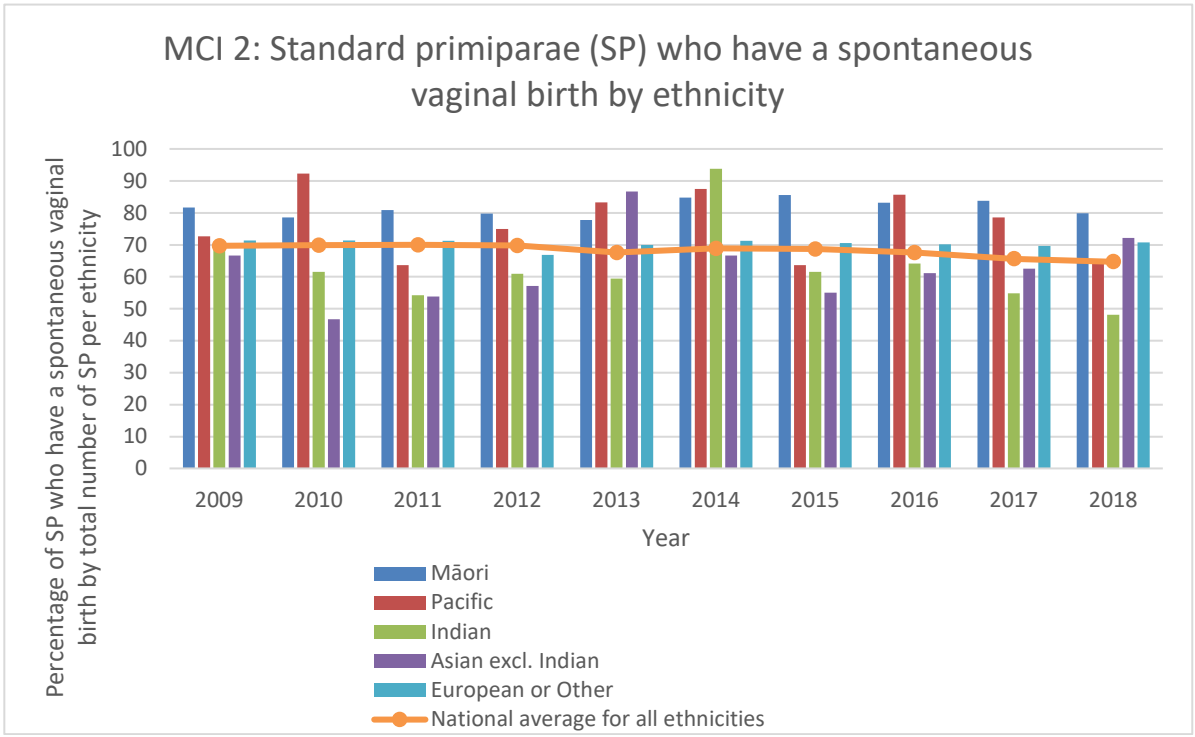
BOPDHB has remained above the NA since 2014 at 70.8%.

Ko Matariki/Whakatāne continues to have the highest SP vaginal birth rate of all secondary/tertiary level facilities nationally at 80.8%, (16% higher than the NA). It remains unclear what contributes to this rate and what outcomes are associated with a higher rate of vaginal birth. Further exploration is required to understand this regional variation.

The BBC was opened in Tauranga in 2014 offering a primary birthing option to the local community. Since then it has recorded increasing numbers of SP births (113 in 2018) over 98% of which achieve successful vaginal births. Tauranga Hospital has shown a sustained decrease of approximately nine percent in vaginal births coinciding with the opening of the BBC. The relative percentage of instrumental births and caesarean sections at Tauranga Hospital rose with the BBC births removed from the figures. This year the numbers are combined.

The data relating to births in primary units does not consider wāhine/women* that started their labour at the unit then transferred to the hospital.

Standard primiparae (SP) who have a spontaneous vaginal birth by ethnicity

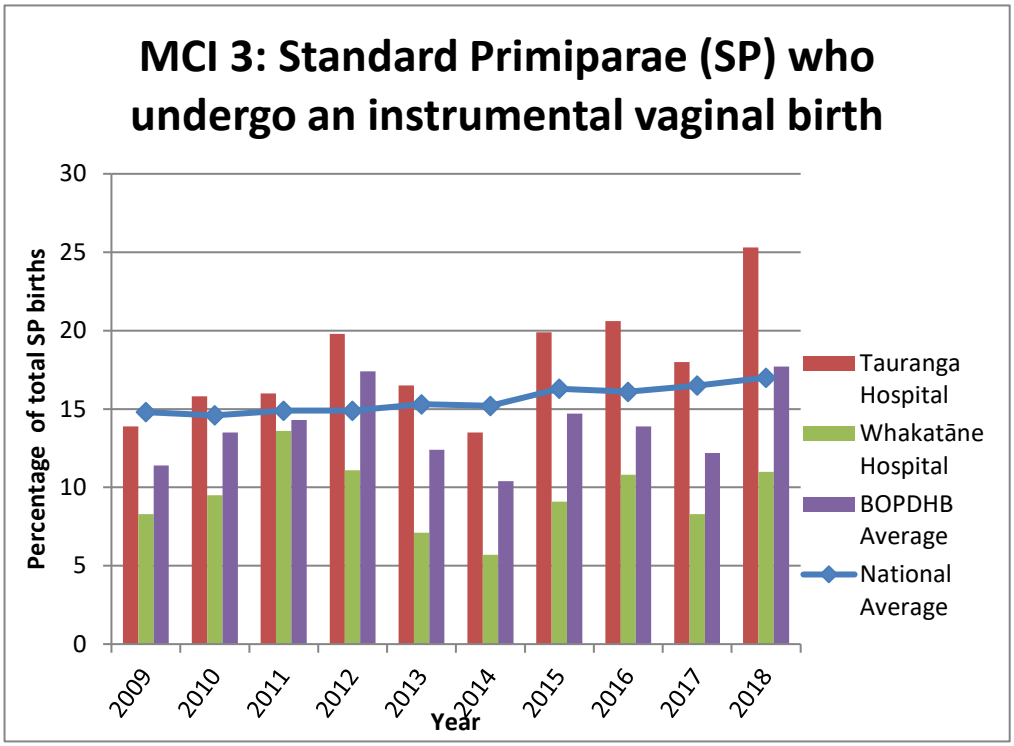


There has been little change in the rate of spontaneous vaginal birth, for Māori and European/other wāhine/women* in the region, since 2009. Rates remain above the NA for all ethnicities.

The number of Pacific and Asian wāhine/women* in the BOPDHB area is low, therefore, show greater variability. However, the overall trend for Pacific wāhine/women* is decreasing while Asian wāhine/women* show an increase.

Vaginal births for Indian wāhine/women* continue to decline and have now fallen to 48.1%, well below the NA for all ethnicities. Further investigation is required to understand the factors contributing to this change. Given that the number of birthing wāhine/women* identifying as Indian in the BOPDHB has doubled since 2009, services appropriate to our Indian community require co-design processes, concerning this and other outcome variations. This process will be deferred until 2022.

MCI 3: Standard primiparae (SP) who undergo an instrumental vaginal birth



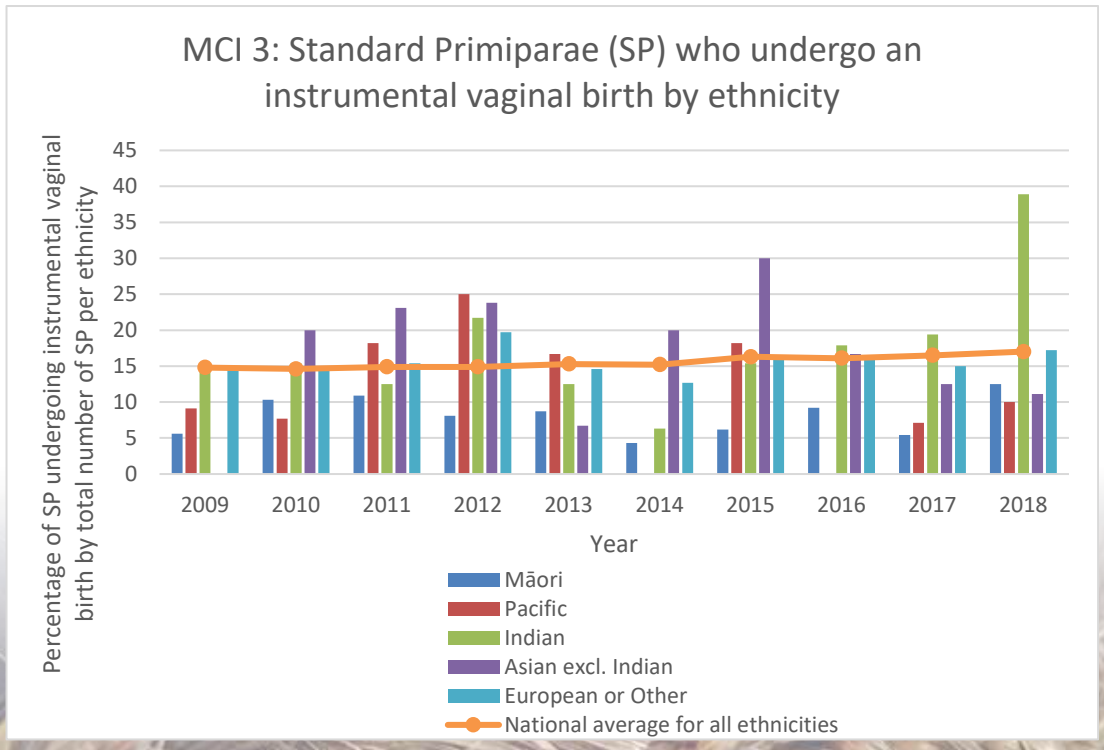
The national trend for SP who undergo an instrumental vaginal birth has increased since 2009.

The BOPDHB average was above the NA (17%) at 17.7% of SP undergoing an instrumental delivery in 2018. This is the greatest increase seen in the BOPDHB for this indicator since 2009. Further exploration is required to understand this variation.

Tauranga Hospital has benchmarked above the NA almost consistently since 2009. The highest rate reported so far (25.3%) was recorded for 2018, a large increase from 2017. This increased rate requires further investigation.

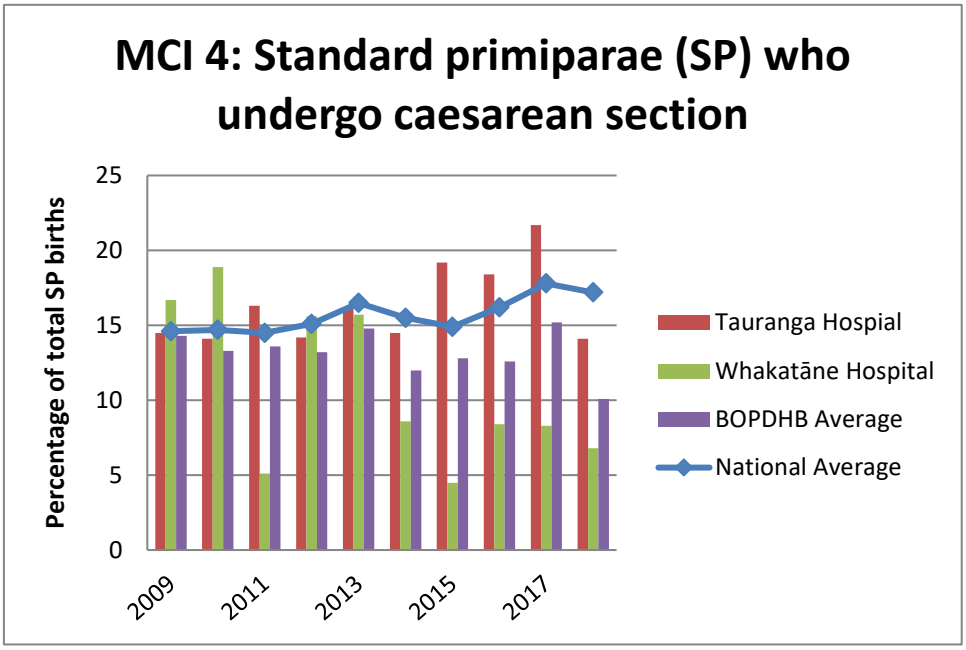
Ko Matariki/Whakatāne Hospital outcomes have consistently sat well below the NA. The rate remains variable, ranging from 5.7% in 2014 to 13.6% in 2011. In 2018 the rate is 11%.

Standard primiparae (SP) who undergo an instrumental vaginal birth by ethnicity



BOPDHB has shown little change in the rate of SP instrumental delivery for European/Other and Māori wāhine/women*. A slightly upward trend shows for Asian wāhine/women* however, in the last four reported years this has been steadily decreasing. Greater variability is seen for Pacific wāhine/women* due to low numbers however, suggest a downward trend for this group. An increasing trend for Indian wāhine/women*, particularly in the last four reported years, is concerning. 2018 showed a rate almost double the year before and more than double the 2018 NA. This inequity requires further investigation.

MCI 4: Standard primiparae (SP) who undergo caesarean section



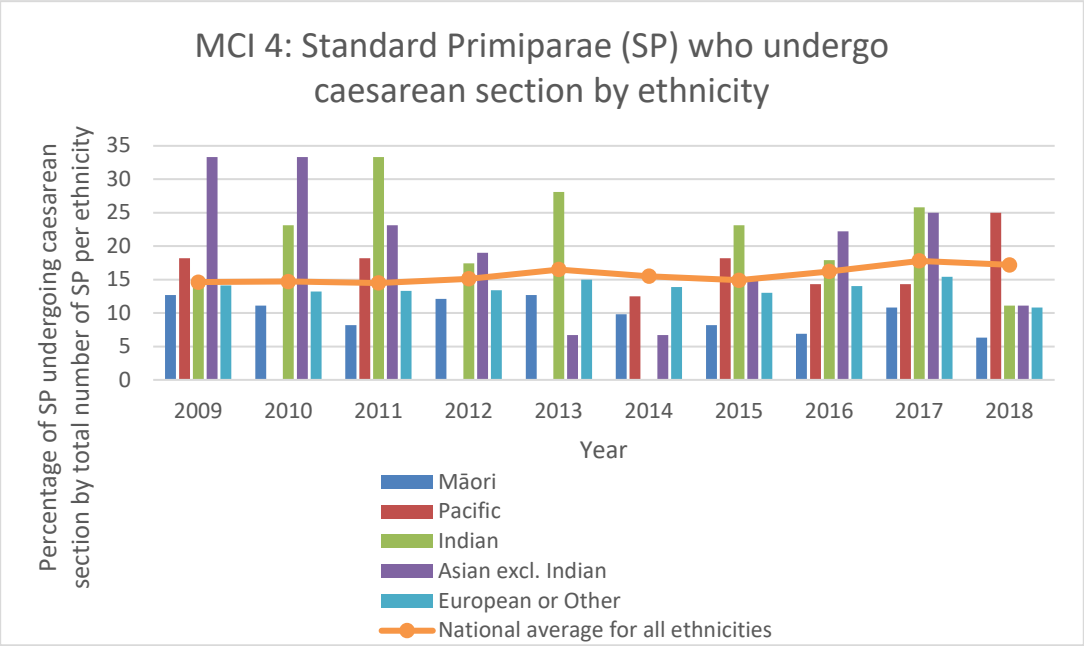
The national trend for SP who undergo caesarean section has increased since 2009.

The BOPDHB average rate for 2018 was seven percent below the NA (17.2%) with 10.1% of SP undergoing a caesarean section. This is the lowest rate for BOPDHB since reporting started in 2009.

Tauranga Hospital's rate of 14.1% was a decrease of over nine percent from the previous years' rate (21.7%). This is the first year Tauranga Hospital has had a caesarean section rate below the NA in four years and is the lowest rate equal with 2010.

Ko Matariki/Whakatāne Hospital had the lowest rate nationally (6.8%), a decrease from the previous year (8.3%). Ko Matariki/Whakatāne has shown a rate of approximately half of Tauranga's since 2014. Further investigation is needed to understand the drivers for this trend.

Standard Primiparae (SP) who undergo caesarean section by ethnicity

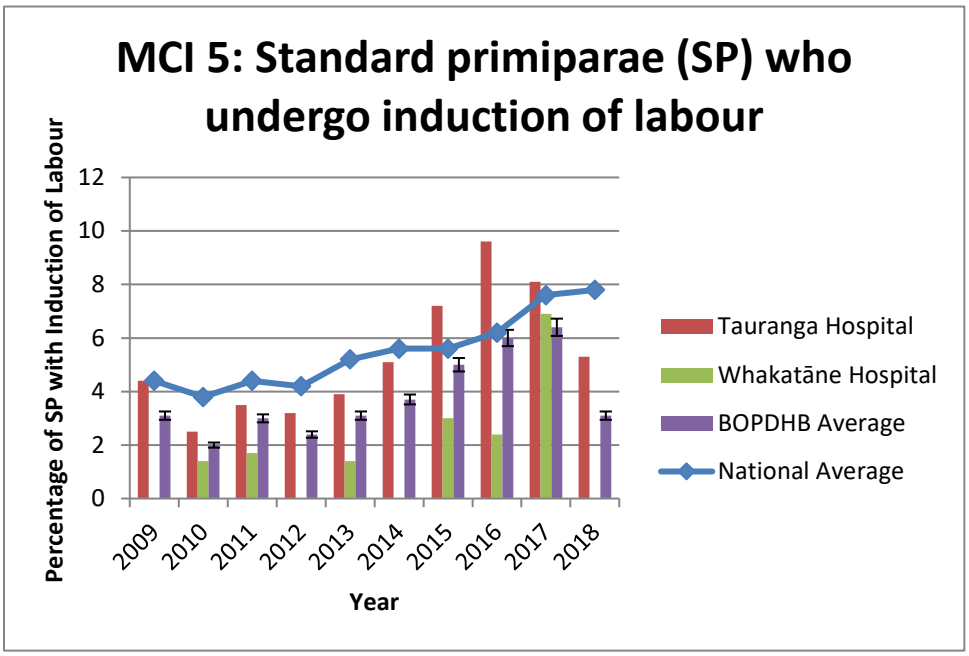


BOPDHB has shown a decreasing trend in the rate of caesarean sections for Māori, Indian and Asian (excl. Indian) wāhine/women*. The rate for Indian wāhine/women* is the lowest reported to date.

An increasing trend for Pacific wāhine/women* is shown, with a large jump in rate in 2018 to 25%, the highest rate seen for this ethnicity to date. As mentioned with other indicators, the population of Pacific wāhine/women* birthing in BOPDHB is low and therefore has a more variable rate.

The rate of European/Other wāhine/women* has remained consistent.

MCI 5: Standard primiparae (SP) who undergo induction of labour



The national trend for SP who undergo induction of labour has increased steadily since 2012.

BOPDHB's average for 2018 was below the NA (7.8%) at 3.1%, half the rate of the year prior. Ko Matariki/Whakatāne Hospital recorded no SP inductions for the year.

Tauranga Hospital has shown a steady downward trend for this indicator over the past three reported years. Tauranga hospital benchmarked the sixth-lowest rate of the 18 secondary care hospitals nationally in 2018.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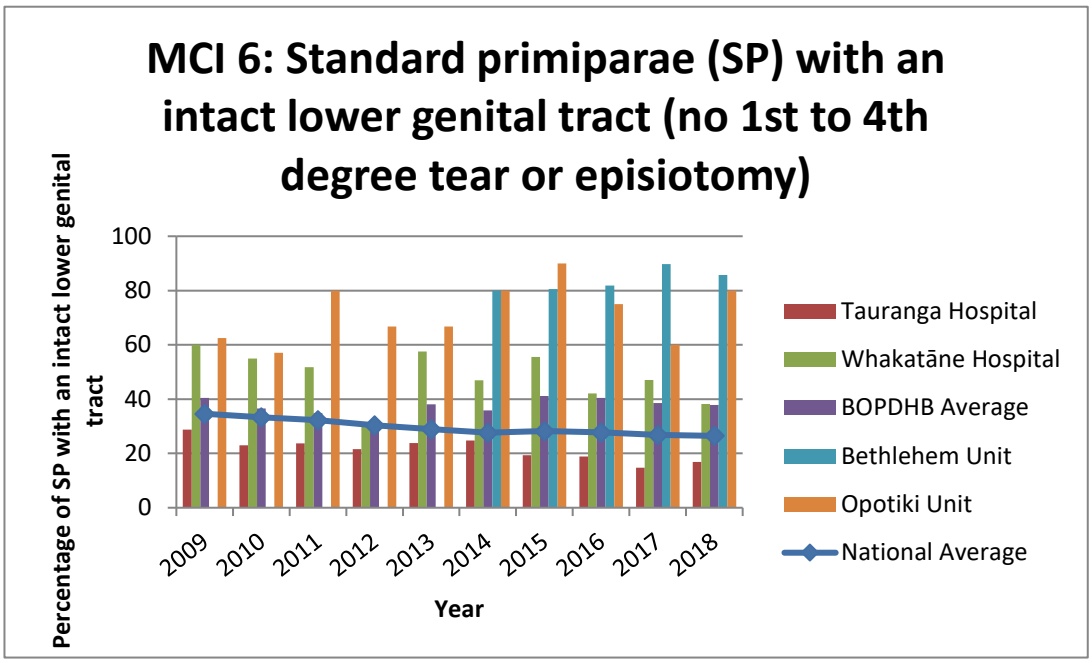
COVID-19
oblige
1000 recruits

MCI 6: Standard primiparae (SP) with an intact lower genital tract (no 1st to 4th degree perineal tear or episiotomy)

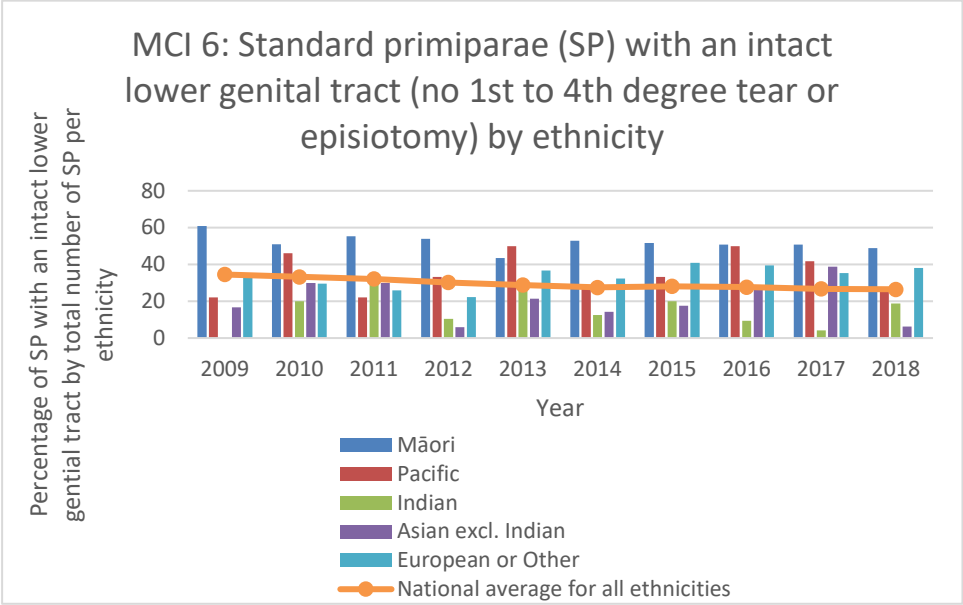


The national trend for SP with an intact lower genital tract (no perineal tearing or episiotomy) has decreased steadily since 2009.

BOPDHB's average was above the NA (26.5%), in 2018, with 37.8% of SP maintaining an intact genital tract. BOPDHB has had an average rate above the NA since 2013.

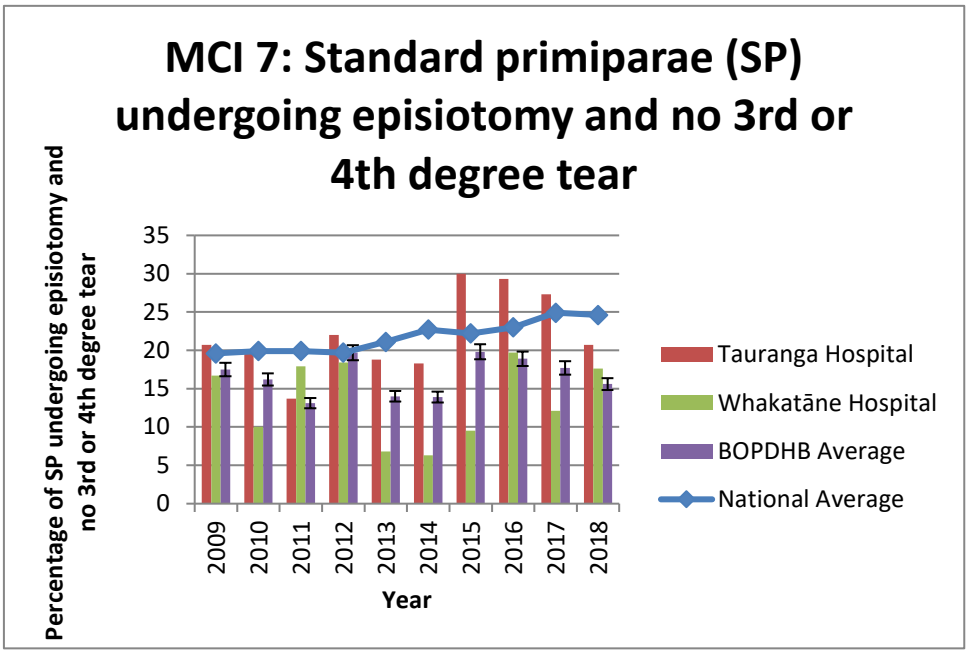
Tauranga Hospital had an increasing rate of intact lower genital tracts (16.9%) in 2018. Ko Matariki/Whakatāne Hospital maintained the highest rate nationally (38.2%) and has consistently been above the NA and in the top four hospitals since 2013.

Standard primiparae (SP) with an intact lower genital tract (no 1st to 4th degree tear or episiotomy) by ethnicity



BOPDHB shows consistent rates of intact genital tracts for Māori wāhine/women*. Rates are highly variable for all Asian wāhine/women*. The trend has decreased over the last three-four reported years for Pacific and European/Other wāhine/women*.

MCI 7: Standard primiparae (SP) undergoing episiotomy and no third or fourth degree perineal tear



The national trend for SP undergoing episiotomy and no third or fourth-degree perineal tear has risen steadily since 2009.

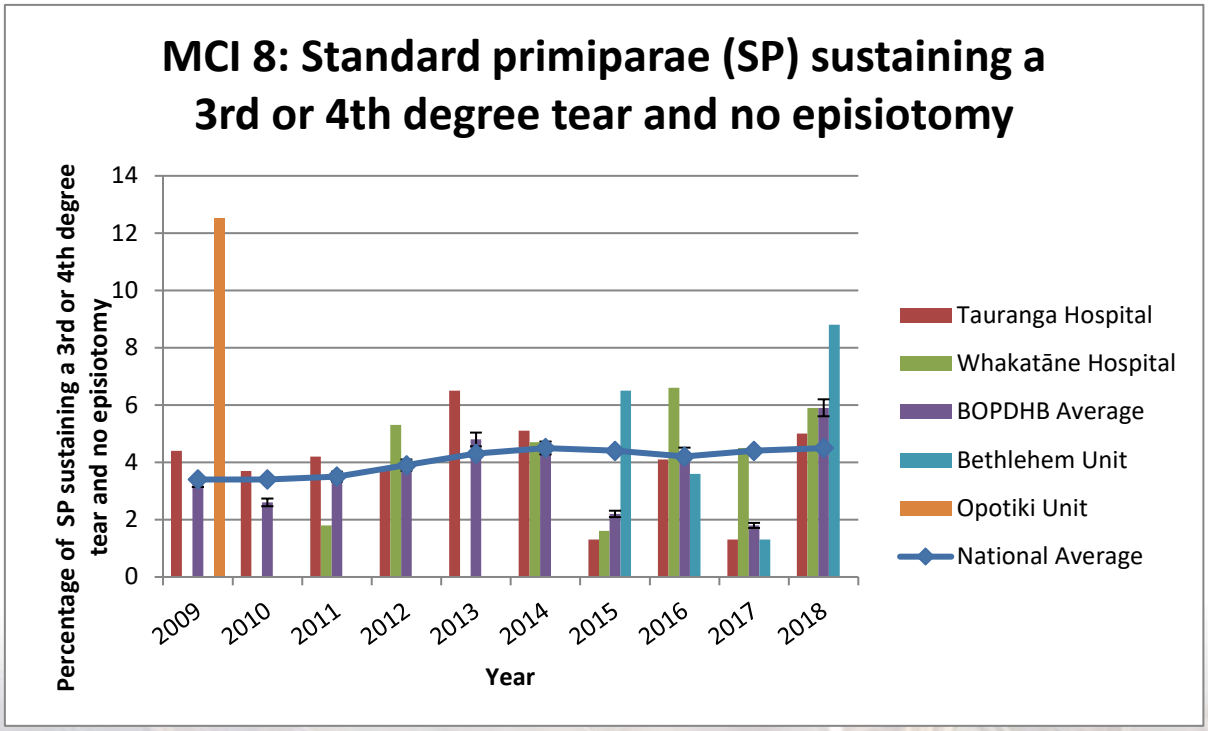
BOPDHB remained below the NA (24.6%) at 15.6% for 2018. There has been a steady decrease over the last four years for this indicator. BOPDHB has the sixth-lowest rate for this indicator nationally.

Tauranga Hospital had a rate of 20.7%, a decrease of over six percent from the year before, and a drop to below the NA for the first time since 2014.

Ko Matariki/Whakatāne Hospital had an increased rate to 17.6%, the closest it has been to the Tauranga Hospital rate reported to date.

There has been an overall static or downward trend for all ethnicities other than European or Other wāhine/women*.

MCI 8: Standard primiparae (SP) sustaining a third or fourth degree perineal tear and no episiotomy



Due to showing as a percentage of the total number of SP births for each facility, this indicator can be misleading as a comparison between units. The high rate for Opotiki Unit in 2009 was the representation of 1 out of 8 SP births sustaining a third- or fourth-degree tear without episiotomy. Compared to Tauranga hospitals rate that represents 12 of 271 births, for the same time frame.

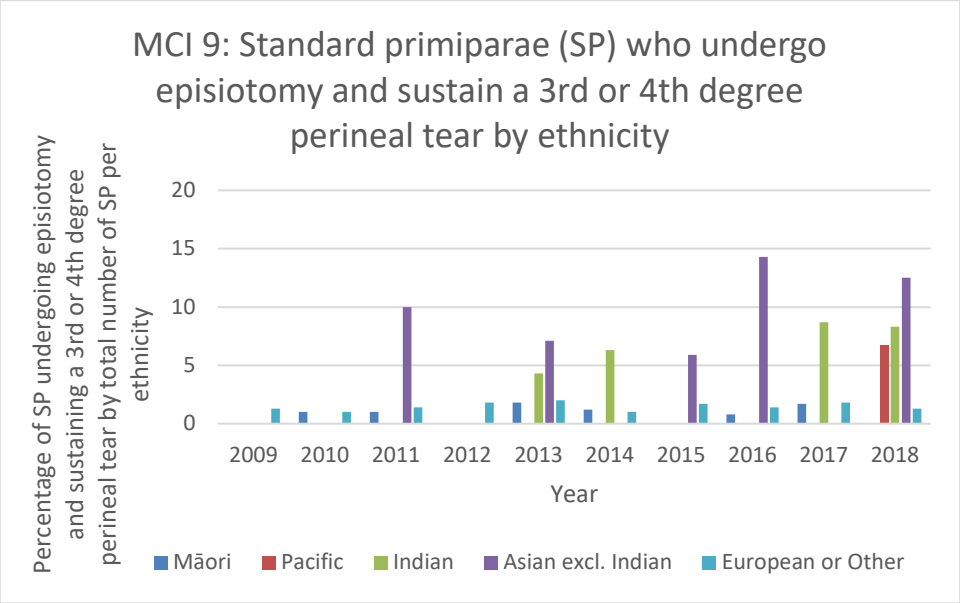
The national trend for SP sustaining a third or fourth-degree perineal tear and no episiotomy rose from 2009 to 2014 but has plateaued since.

BOPDHB's average for 2018 was above the NA (4.5%) with 5.9% of SP sustaining a third or fourth-degree tear with no episiotomy being performed. This is an increase from the previous year but more in line with other reported years. This is an inconsistent indicator due to the low numbers measured. For the entire BOPDHB 27 SP wāhine/women* out of a possible 447 sustained a third or fourth-degree tear. This is a significant increase from all other reported years and may require further investigation if this is a developing trend.

Tauranga Hospital shows an increase from the previous year, however, the degree of variability for Tauranga Hospital shows no overall trend. Ko Matariki/Whakatāne Hospital had an increase from 2017 to 5.9%. Again, there is considerable variability but there is an increasing trend in the incidents of third and fourth-degree tear without episiotomy in Ko Matariki/Whakatāne Hospital. An update of education relevant to this indicator is planned for 2021. The impact education has on outcomes will not be seen before 2023.

Due to low numbers for this indicator, no clear trend is seen when analysed by ethnicity.

MCI 9: Standard primiparae (SP) undergoing episiotomy and sustaining a third or fourth degree perineal tear



MCI nine is another indicator with low numbers and therefore inclined to show yearly variability and absence of trends.

The national trend for this indicator has risen slightly overall since 2009.

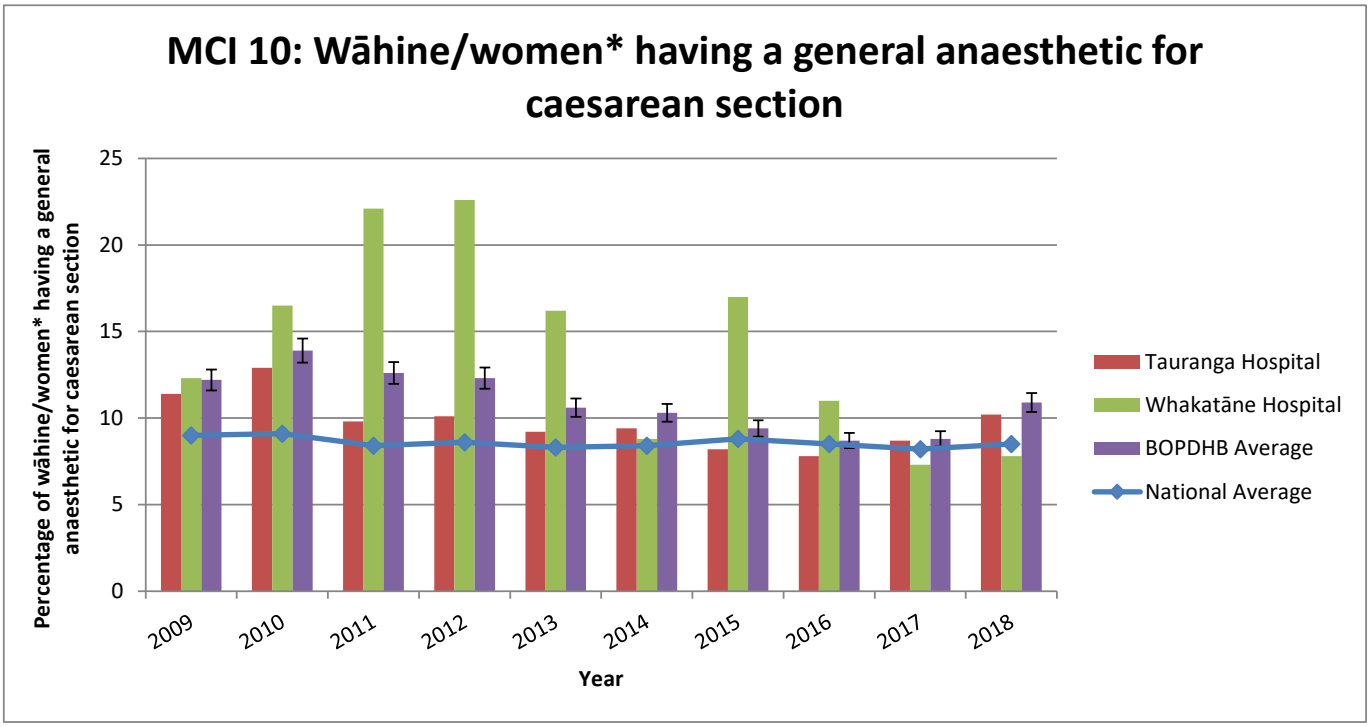
BOPDHB's average for 2018 remains above the NA (2.1%) at 2.3% of SP undergoing an episiotomy and sustaining a third or fourth-degree perineal tear. Since 2014 there has been a steadily increasing trend. BOPDHB had the fifth-highest rate of all 20 DHBs.

Tauranga Hospital recorded an increase from 2017 to a rate of 3.5% and is over one percent above the NA. Tauranga Hospital had the second-highest rate of all secondary level hospitals and the fourth-highest of all hospitals. An update of education relevant to this indicator is planned for 2021. The impact of this education will not be seen before 2023.

Ko Matariki/Whakatāne Hospital had a rate below the NA (1.5%) and a decrease of half of the previously reported rate. Ko Matariki/Whakatāne Hospital was the second equal lowest hospital nationally for this indicator.

Due to the variability of incidents annually, the rates for wāhine/women* of various ethnicities are too variable to discuss as trends.

MCI 10: Wāhine/women* having a general anaesthetic for caesarean section



The national trend for wāhine/women* having a general anaesthetic (GA) for caesarean section has decreased slightly since 2009.

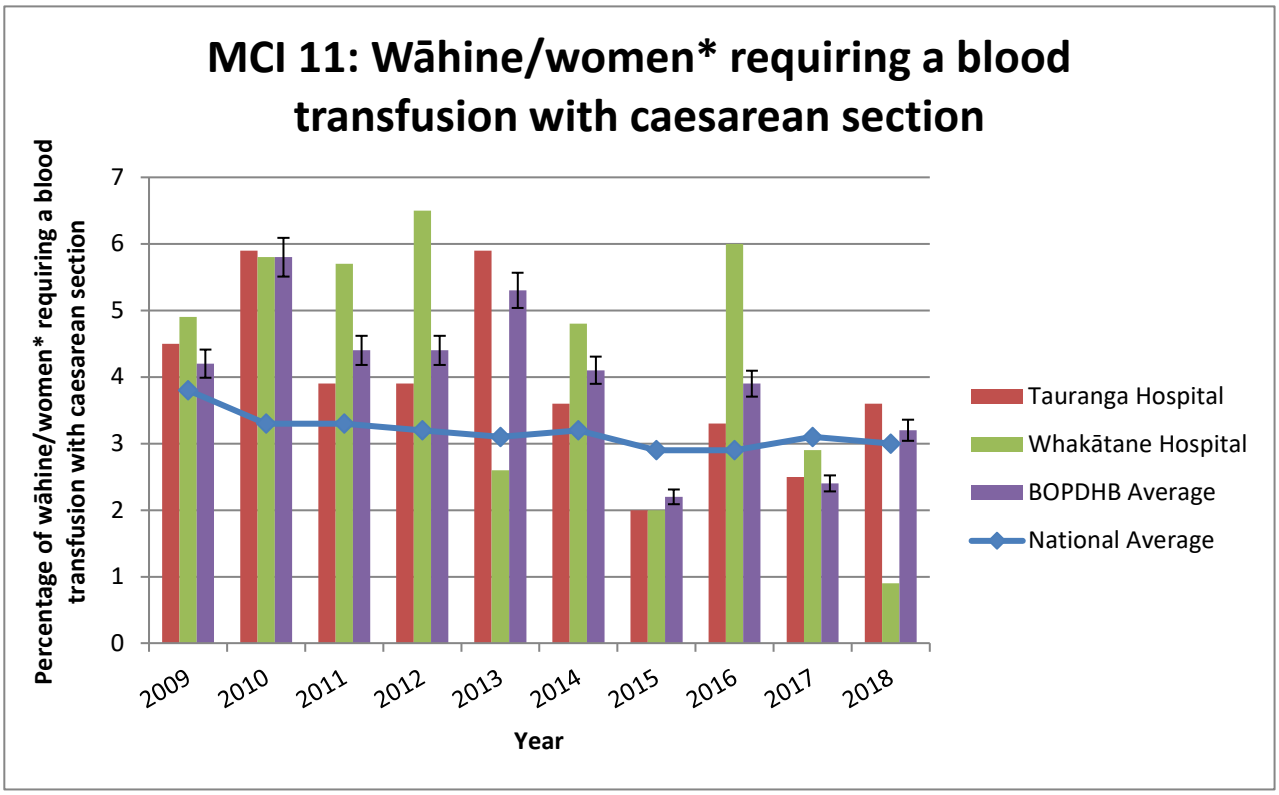
The BOPDHB average for 2018 was above the NA (8.5%) at 10.9%. This rate has been decreasing overall since 2010. The 2018 rate is the highest since 2012 and the sixth-highest of all DHBs nationally.

Tauranga Hospitals had an increase from 2017 to 10.2%. This is near the median rate for all hospitals nationally.

Ko Matariki/Whakatāne Hospital had a slight increase from 2017 to 7.8%, following an otherwise decreasing rate for this indicator since 2015 when an improvement process successfully reduced the rate of general anaesthesia.

Due to the relatively low numbers of wāhine/women* represented in this indicator for some ethnicities, it is difficult to identify trends.

MCI 11: Wāhine/women* requiring a blood transfusion with caesarean section



The national trend for wāhine/women* requiring a blood transfusion with caesarean section has decreased since 2009 and plateaued around the three percent mark since 2015.

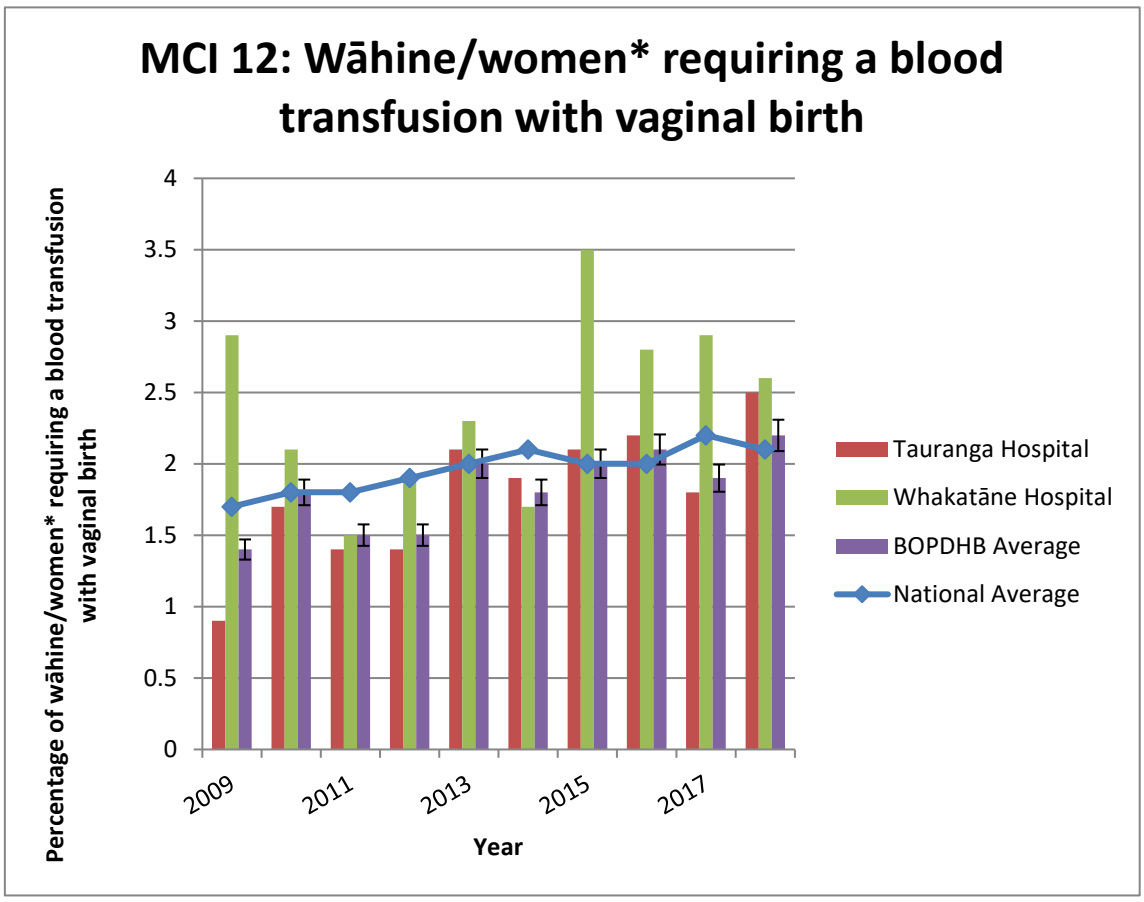
The rate for this indicator has been generally unstable due to low numbers. BOPDHB's average for 2018 was slightly above the NA (3%) at 3.2%, an increase from 2017, and benchmarks BOPDHB at the median nationally. There has been a concerted effort, particularly from the anaesthetic department, since 2016 to identify wāhine/women* with low haemoglobin levels antenatally and treat them appropriately before birth.

Tauranga Hospital reported an increased rate from 2017 (to 3.6%) and sat fifth equal for this indicator when benchmarked nationally.

Ko Matariki/Whakatāne Hospital had a further decrease from 2017 and had the second-lowest rate when benchmarked nationally.

Due to the generally low rates for this indicator, variation is less consistent by ethnicity. Wāhine/women* identifying as European/Other had double the previous rate reported. Rates for Māori wāhine/women* have steadily decreased over the last three years reported.

MCI 12: Wāhine/women* requiring a blood transfusion with vaginal birth



The national trend for wāhine/women* requiring a blood transfusion with vaginal birth has risen since 2009.

BOPDHB's average was slightly above the NA (2.1%) with 2.2%, benchmarking at the median nationally.

Tauranga Hospital had a rate of 2.5%, slightly above the NA and benchmarked at the median for all hospitals nationally.

Ko Matariki/Whakatāne Hospital had a slight decrease from 2017 to 2.6%, also benchmarking near the national median. And maintaining a decreasing trend since 2015 which however remains above the national average.

Due to the relatively low numbers of wāhine/women* represented in this indicator for some ethnicities, it is difficult to identify trends.

MCI 13: Diagnosis of eclampsia at birth admission.

Numbers for this indicator too low to report on.

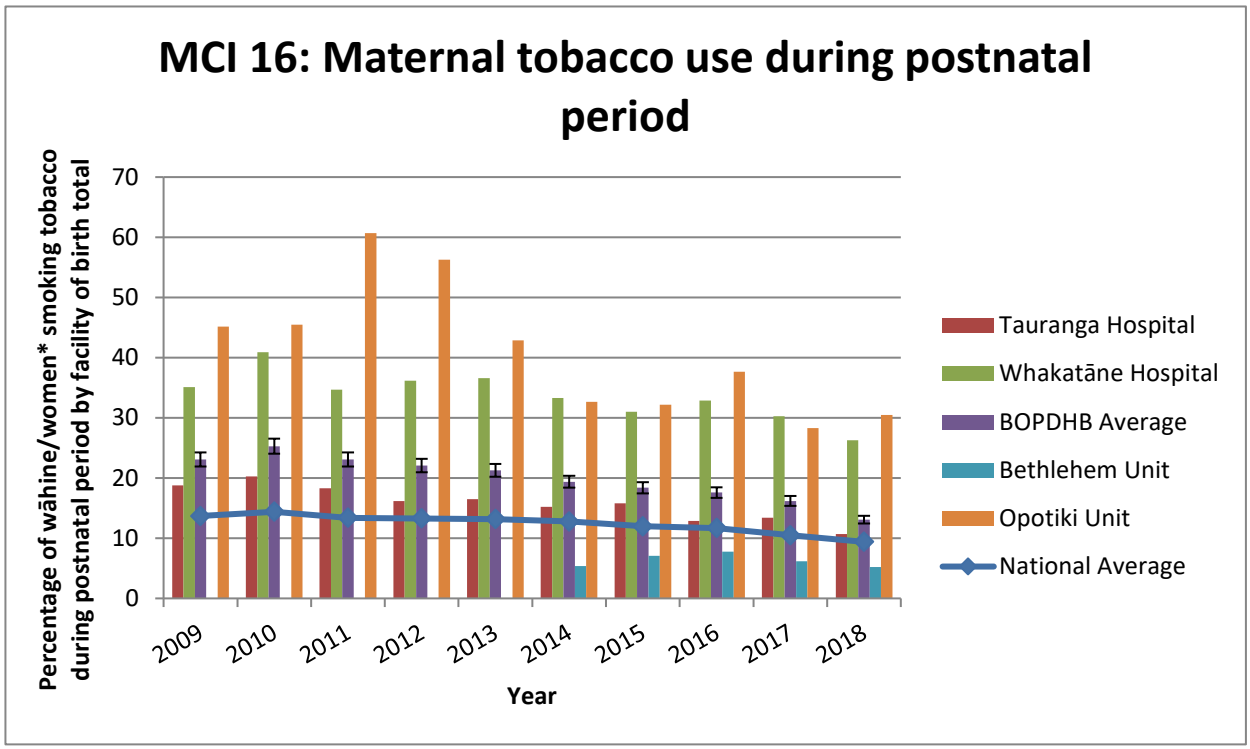
MCI 14: Wāhine/women* having a peripartum hysterectomy.

Numbers for this indicator too low to report on.

MCI 15: Wāhine/women* admitted to ICU and requiring ventilation during the pregnancy or postnatal period.

Numbers for this indicator too low to report on.

MCI 16: Maternal tobacco use during postnatal period



The national trend for maternal tobacco use during the postnatal period has decreased steadily since 2012.

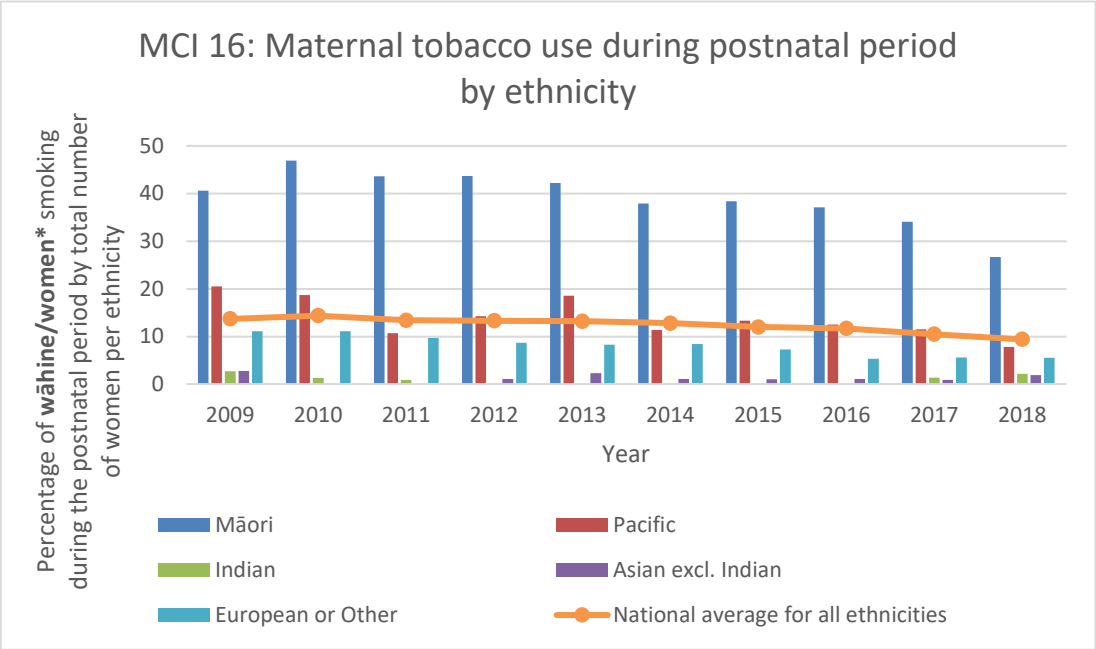
The BOPDHB average was above the NA (9.4%) with 13.1%, the lowest rate for BOPDHB and an ongoing steady decrease. BOPDHB benchmarks near the median for this indicator nationally.

Tauranga Hospital reported a decrease from 2017 to 10.7%, benchmarking near the national median for this indicator and the lowest rate reported to date.

Ko Matariki/Whakatāne Hospital continues to rate above the NA at 26.3%, the lowest rate reported to date. Ko Matariki/ Whakatāne Hospital continues benchmarking at the highest national rate for this indicator, as it has since reporting began.

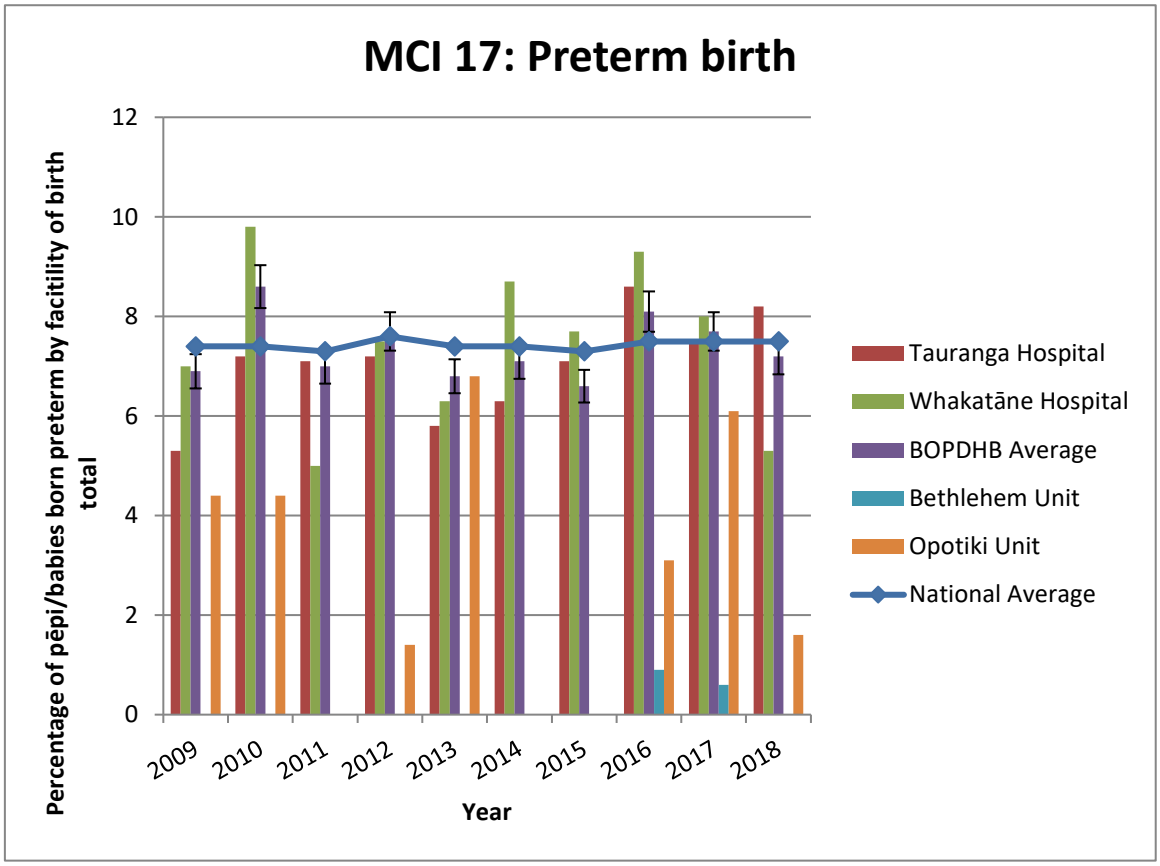
A large body of work promoting the risks to whānau/family and pēpi/baby continues through the likes of the Wahakura Wananga and Ukaiapo workshops. Data accuracy continues to be challenging with inconsistent access to LMCs reporting.

Maternal tobacco use during postnatal period by ethnicity



There has been a consistent downward trend seen for all ethnicities in this indicator. However, there continues to be a disproportionately large representation of wāhine/women* identifying as Māori and Pacific. The inherent bias in the screening of different ethnicities has been reported[2], which could impact the accuracy of data reported and warrant further investigation.

MCI 17: Preterm birth



The national trend for preterm birth has been consistent since 2016.

The BOPDHB average was slightly below the NA (7.5%) at 7.2%. A further decrease from 2017 and benchmarking below the national median. Screening for risk factors, including previous preterm births, is now completed for all wāhine/women* at booking.

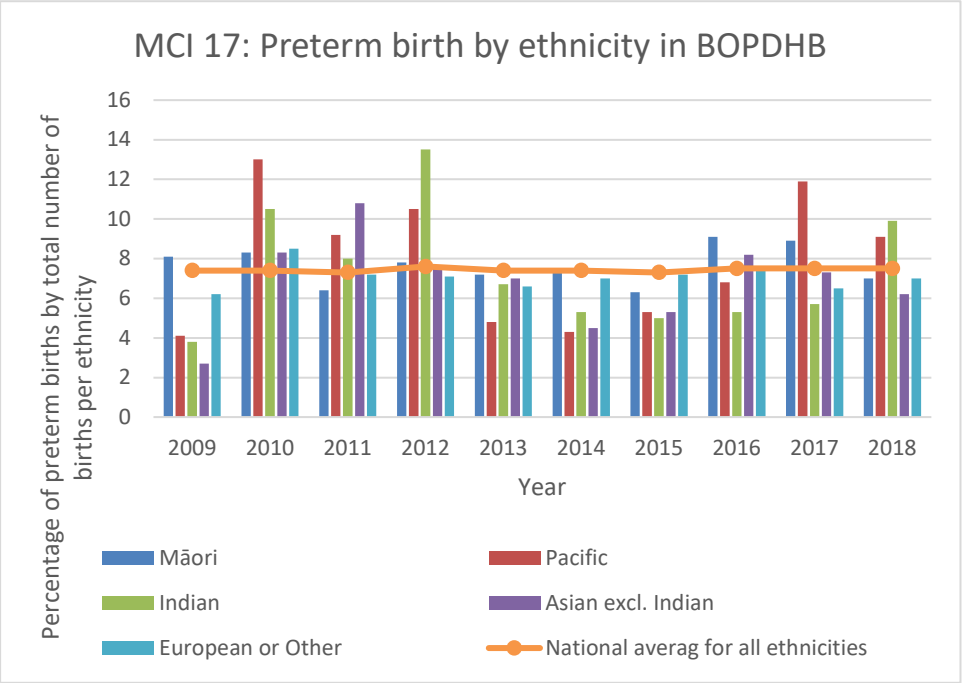
Tauranga Hospital had a rate above the NA at 8.2%, an increase from 2017 and benchmarking the sixth-highest of the 18 secondary level hospitals nationally.

Ko Matariki/Whakatāne Hospital had a decreased rate from 2017 to 5.3% and benchmarking the fourth-lowest rate of the 18 secondary level hospitals nationally.

Low numbers at the BBC indicate appropriate levels of referral to the secondary level hospital. Rates of preterm births at the Opotiki Unit may indicate the need for a review, as it reports approximately the same number of preterm births a year as the BBC that services seven times the number of births.

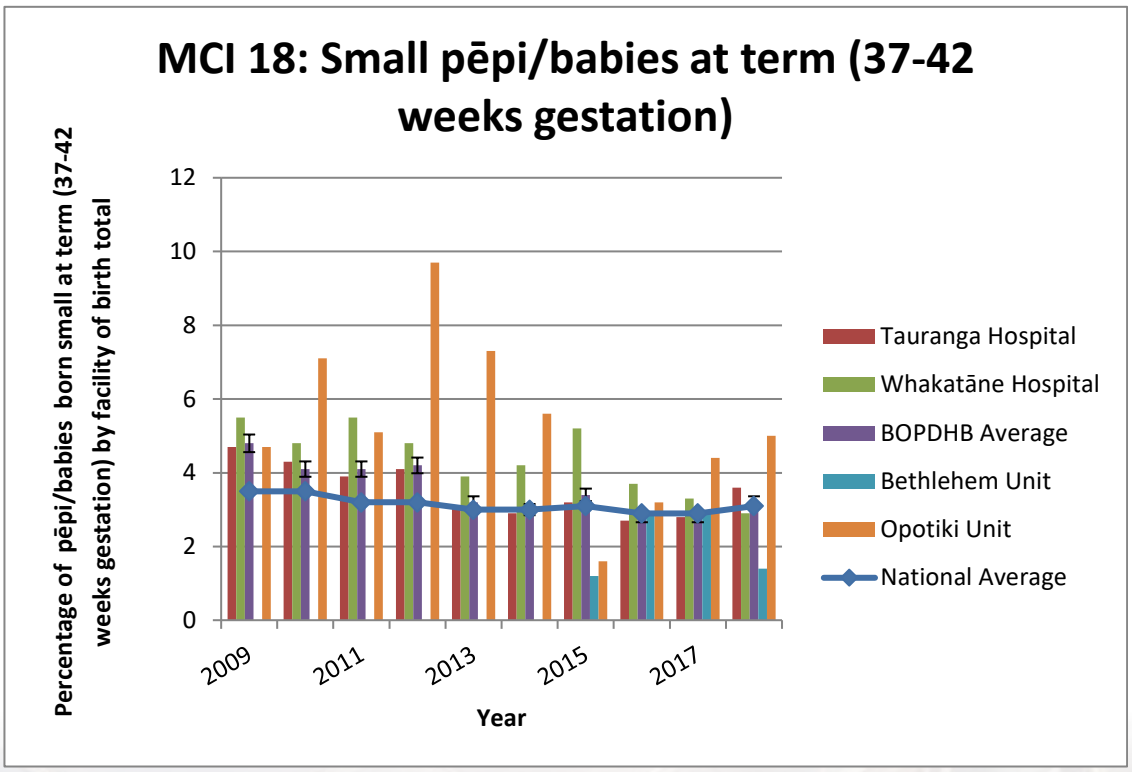
BOPDHB is introducing a booking risk assessment tool with questions aimed at identifying wāhine/women* with previous preterm births (among other risks) early. Any impact from this change initiative will not be reported before 2023.

Preterm birth by ethnicity in BOPDHB



Wāhine/women* identifying as Māori, Pacific and Asian (excl. Indian) have seen a decrease in preterm births from 2017. European or Other wāhine/women* maintained a generally consistent rate since 2009. Indian wāhine/women* rates have increased over the last three years for this indicator. The possible presence of inequities of service provision nationally have been raised[3] and local consideration is needed.

MCI 18: Small pēpi/babies at term (37-42 weeks gestation)



The national trend for small pēpi/babies at term (37-42 weeks gestation) has decreased slightly since 2009.

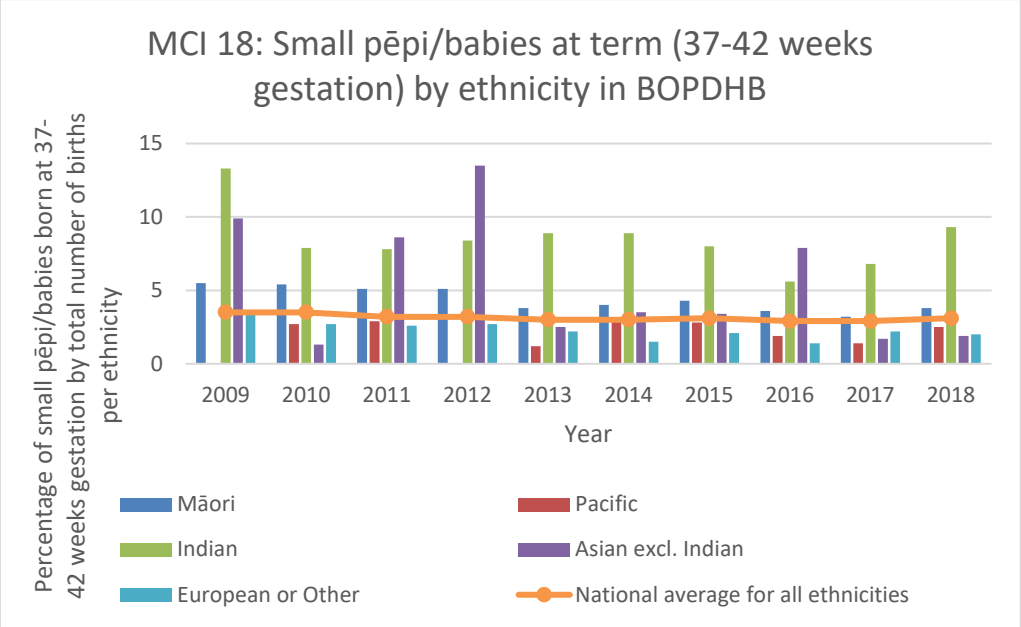
BOPDHB's average was slightly above the NA (3.1%) at 3.2%, and benchmarks slightly above the median for this indicator.

Tauranga Hospital reported an increase from 2017 to 3.6% and benchmarked at the national median for all secondary level hospitals.

Ko Matariki/Whakatāne Hospital reported a continuation of the decrease seen since 2015 (2.9%) when Ko Matariki/Whakatāne Hospital benchmarked as the second-highest rate nationally. Ko Matariki/Whakatāne Hospital had the fifth-lowest rate nationally of the 18 secondary level DHBs in 2018.

Of the 56 national primary birthing facilities, the BBC was 21st equal for this indicator. The Opotiki Unit was the fourth highest. Subsidies of key ultrasound scans in the Eastern Bay are expected to impact on this indicator. However, will not be reported on until 2023

Small pēpi/babies at term (37-42 weeks gestation) by ethnicity in BOPDHB

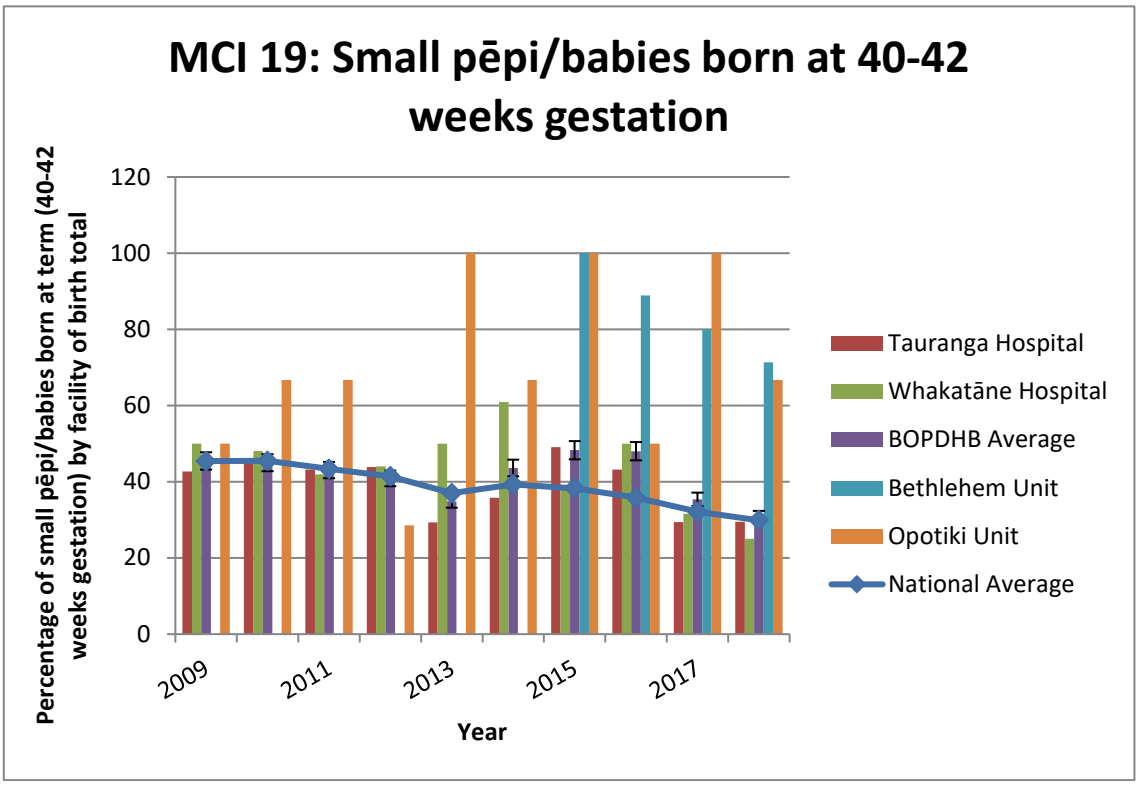


There has been a continuing downward trend for this indicator for wāhine/women* identifying as Māori, Pacific and Indian and some variability for European or Other. There is variability in the rates seen for Asian (excl. Indian) wāhine/women* due to low numbers represented in this population.

Current national evidence-based practice recommends the use of GROW charts, customised fetal growth charts, to guide pregnancy intervention decision making and actions relating to fetal growth. The GROW charts are generated as part of the Growth Assessment Protocol (GAP), developed by the Perinatal Institute. These charts plot the estimated fetal weight of the pēpi/baby with relevance to the mothers hight, weight, ethnicity, and previous pēpi/baby birth weights. Any variation from the normal growth trajectory will prompt clinicians to increase monitoring and intervention where necessary. Once the pēpi/baby is born, its birth weight is added to the GROW programme. A customised plotting is generated, identifying any need for additional observations.

The Ministry of Health uses the INTERGROW-21 charts, for the data used in this indicator. The INTERGROW-21 charts are not customised. They were developed following review of different ethnicities average growth and any relevant variations. These charts are used for mapping children's growth from birth, and are the same as those used in the Well Child Tamariki Ora books each child is allocated at birth. This difference in charting and focus adds confusion and makes quality improvement efforts difficult.

MCI 19: Small pēpi/babies at term born at 40-42 weeks gestation



The national trend for small pēpi/babies at term, born at 40-42 weeks gestation, has decreased by almost 10% since 2014.

The BOPDHB average continues to be above the NA (29.9%) at 30.8% and benchmarks as the sixth lowest DHB nationally.

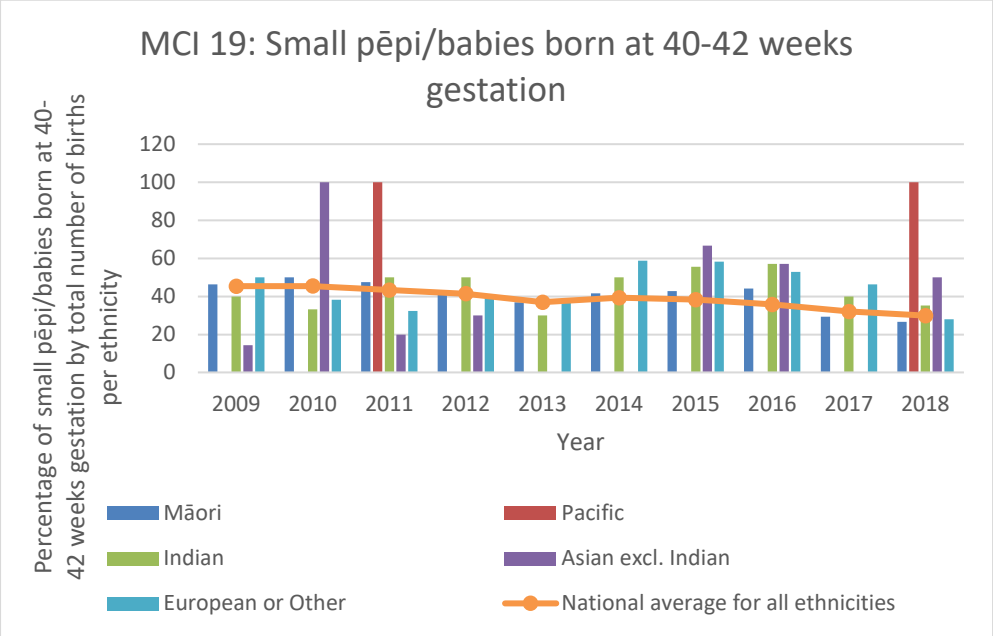
Tauranga Hospital has also maintained its decrease from 2017, benchmarking as the fourth-lowest of the 18 secondary level hospitals in 2018.

Ko Matariki/Whakatāne Hospital reported a further decrease from 2017 and benchmarked the third-lowest rate of the 18 secondary level hospitals nationally. The 2018 rate of 25%, is the lowest rate recorded for Ko Matariki/Whakatāne Hospital since 2009, and half the 2015 rate.

Both Tauranga and Ko Matariki/Whakatāne hospitals have maintained a rate below the NA for this indicator for two consecutive years.

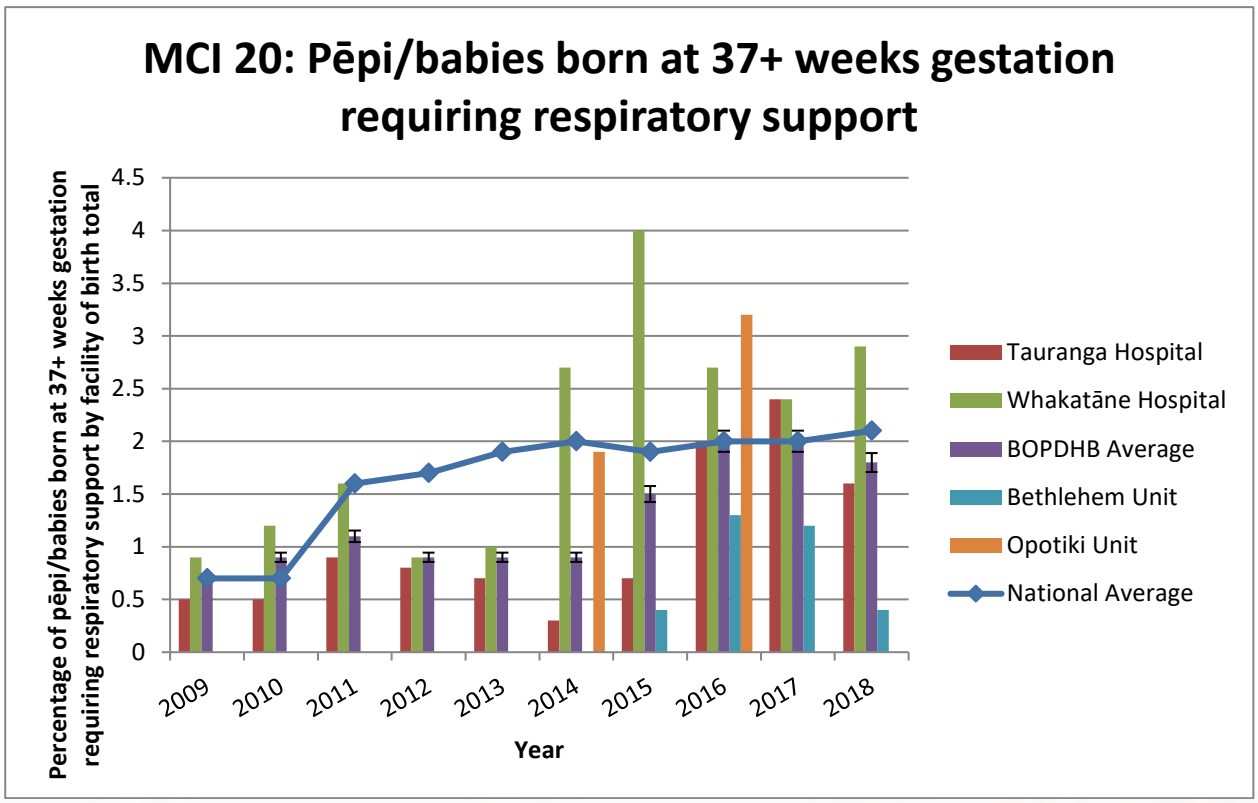
Primary birthing facilities in the BOPDHB area have reported rates well above the NA, with BBC reporting a rate of 71.4%, and Opotiki Unit reporting a rate of 66.7%. Taken in context these rates are taken from very low numbers - BBC 7 births at this gestation, Opotiki 3 births at this gestation – therefore, little can be taken from this data.

Small pēpi/babies born at 40-42 weeks gestation by ethnicity in BOPDHB



Wāhine/women* identifying as Māori and Indian have shown a continuing decrease in incidents for this indicator in 2018. European or Other wāhine/women* rates decreased from 2017 (46.4%) to 28%. The low numbers for Asian (excl. Indian) and Pacific wāhine/women* make this another area of high variability.

MCI 20: Pēpi/Babies born at 37+ weeks gestation requiring respiratory support



The national trend for pēpi/babies born at 37+ weeks gestation requiring respiratory support has risen since 2009.

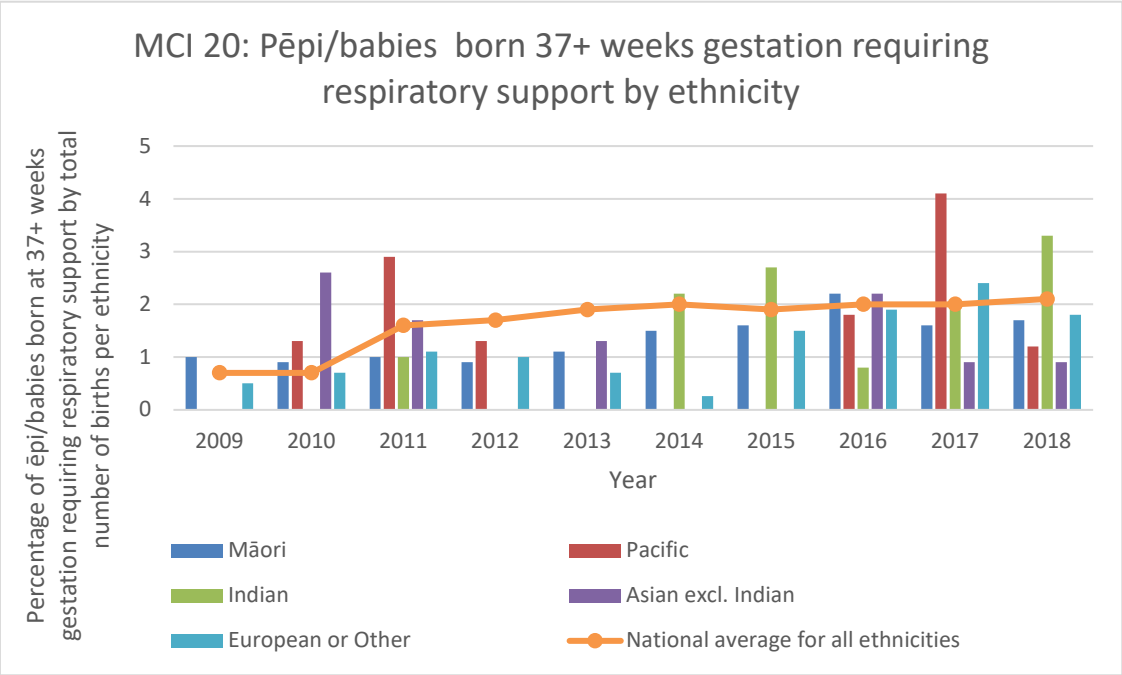
BOPDHB's average was below the NA (2.1%) at 1.8% and benchmarked the median nationally for this indicator.

Tauranga Hospital reported a decrease from 2017 to 1.6%, benchmarking on the higher side of the national median for all secondary level hospitals.

Ko Matariki/Whakatāne Hospital reported an increase from 2017 (2.4%) to 2.9%, benchmarking the fourth highest of the 18 secondary level hospitals nationally.

BOPDHB's primary birthing units had rates well below the NA. Opotiki Unit had no births that met this criterion. BBC benchmarked second equal lowest nationally of all primary units. This suggests that pēpi/babies with risk factors for developing breathing difficulties at birth are appropriately being born in secondary level hospitals.

Pēpi/Babies born 37+ weeks gestation requiring respiratory support by ethnicity



Wāhine/women* who identify as Māori have maintained the decrease seen in 2017 (1.6%). European or Other wāhine/women* recorded a decreased rate for this indicator in 2018. While Indian wāhine/women* recorded an increasing trend since 2013. Further investigation into these cases may highlight some cultural issues yet unidentified.

1. Ministry of Health (2020). New Zealand Maternity Clinical Indicators 2018. New Zealand Maternity Clinical Indicators 2018 | Ministry of Health NZ
2. HealthShare (2020) Child Health Action Group (CHAG) Data Report. Child Health | HealthShare
3. PMMRC (2021) 14th annual report Health Quality & Safety Commission | Fourteenth Annual Report of the Perinatal and Maternal Mortality Review Committee | Te Pūrongo ā-Tau Tekau mā Whā o te Komiti Arotake Mate Pēpi, Mate Whaea Hoki (hqsc.govt.nz)

New Zealand Maternity Standards Alignment

Standard One:

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

Criteria 8:

All DHB's have a system of ongoing multidisciplinary clinical quality review and audit of their maternity services, involving consumer representatives and all practitioners linked to maternity care.

Criteria 9:

All DHB's work with professional organisations and consumer groups to identify the needs of their population and provide appropriate services accordingly.

Criteria 10:

Communication between maternity providers is open and effective.

Local evidence:

BOPDHB has embedded several multi-disciplinary groups following last year's restructure of the Maternity Clinical Governance Committee (MCG): Adverse Events Sub-Committee, Policy Sub-Committee, Maternity Health Intelligence/Clinical Data and Audit Sub-Committee, Maternity Quality and Safety Programme Network. Representation from BOPDHB Māori Health Gains and Development team and both Mana whenua and Tangata Whenua midwives are included in governance processes.

Broader Stakeholder engagement is maintained through the MQSP Network, which includes consumers.

The objectives of the newly formed MCG Committee include working to:

- Create a quality and equity improvement culture informed by He Pou Oranga Tāngata Whenua, aligned to BOPDHB's CARE / Manaakitanga values, which is actively inclusive of stakeholders; ensuring the right people have opportunity to engage in the right dialogue and decision making processes.
- Manage maternity quality improvement and decision-making processes to ensure opportunities for improvement are identified and acted upon promptly.
- Ensure sound data collection and analysis of information is undertaken to guide quality improvement and decision making. Toi Ora (flourishing Hāputanga and Pēpi) data intelligence is supporting the identification of inequity and the imperative presence of the whānau voice.

Standard Two:

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

Criteria 16:

All women have access to pregnancy, childbirth and parenting information and education services.

Criteria 17:

All DHB's obtain and respond to regular consumer feedback on maternity services.

Criteria 18:

Maternity services are culturally safe and appropriate.

Criteria 19:

Women can access continuity of care from a Lead Maternity Carer (LMC) for primary maternity care.

Local evidence:

BOPDHB provides pregnancy and antenatal education information online at both the **Bay Navigator website** and the **BOPDHB website**. There are several funded and unfunded groups offering antenatal education, postnatal support and community iwi and hospital based lactation services. There are also Māori antenatal education providers delivering Kaupapa Māori focused education.

Following the identification of multiple barriers to engaging with the BOPDHB feedback systems, work is underway to ensure all consumers can easily provide feedback on service provision following, discharge.

Focus groups held with multiple groups, including Māori and young māmā/mothers, have helped to identify areas for service delivery improvement.

Access to LMC's has been impacted by a considerable change in local community service provision. Both Tauranga and Ko Matariki/Whakatāne hospitals are at times providing antenatal and labour and birth care to wāhine/women* unable to access an LMC. The numbers of wāhine/women* accessing this service vary from month to month, with a total of 139 wāhine/women* having care provided through the Tauranga Primary Midwifery Care Service between 1 November 2019 and 31 October 2020. For the 2018-19 period 180 wāhine/women* accessed this service. Additional funding has been instituted to support LMC services in Murupara, where there are no resident midwives.

Engagement with LMC services in the first trimester are lower in some areas of the BOPDHB. Projects promoting the importance of early engagement with LMC services have been run and barriers to access identified. Outcomes of this work will not be seen, in the Maternity Clinical Indicators, until after 2021.

Standard Three:

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

Criteria 22:

All DHB's plan locally and regionally to provide the nationally agreed levels of primary, secondary and tertiary maternity facilities and services for their population.

Criteria 23:

Women and their pēpi/infants have access to the levels of maternity and newborn services, including mental health, that is clinically indicated.

Criteria 24:

Primary, secondary and tertiary services are effectively linked with a seamless transfer of clinical responsibility between levels of maternity care, and between maternity and other health services.

Criteria 25:

All DHB's plan locally and regionally for effective clinical and organisational pathways to respond to maternity and neonatal emergencies.

Criteria 26:

Women whose care is provided by a secondary or tertiary service receive continuity of midwifery and obstetric care.

Local evidence:

The DHB funds a primary maternity unit in Tauranga (Bethlehem Birthing Centre) and operates a limited primary service in Opotiki and Murupara.

LMC's are funded to provide wāhine/woman* with the information, including risk and benefit discussions, necessary to make an informed choice around their preferred location for birthing. The DHB provides Primary Midwifery Care Services (PMCS) to wāhine/women* without an LMC.

Secondary care services are available in Ko Matariki/ Whakatāne and Tauranga. Wāhine/women* requiring tertiary care are transferred to the appropriate tertiary service out of the BOPDHB area.

BOPDHB has a designated Maternal Mental Health service for secondary level concerns. Primary care and Kaupapa Māori Mental Health services provide for the rest of the continuum. The pathway and support for maternal (and whānau/families) mental health services has been highlighted to local maternity services through local education days run by Toi te Ora public health and at the local Midwifery Forums.

The LMC community continue to provide antenatal and postnatal midwifery care for secondary and tertiary care wāhine/women* in the region, and local labour care on a case by case basis. Consumer feedback demonstrates that wāhine/women* requiring secondary care are generally very satisfied, with the continuity of midwifery and obstetric care they received.

Future Projects Plan

Initiative/priority		Rationale	Action	Desired Outcome	Measure	Timeframes
1	Review and redesign of local Perinatal Mortality and Morbidity Review Committee (PMMRC)	Current local PMMRC process is not promoting engagement, robust multidisciplinary team (MDT) review and effective MDT communication of learnings.	Review process.	Increased MDT engagement. More robust MDT review. Improved communication of learnings.	Survey pre and post change.	December 2021.
2	Further review and update BOPDHB Maternity Website data.	Further changes required to increase access considering; literacy, useability, currency of links.	Review website contents, identify gaps, improve; graphics, language options, accessibility and search functions. Communicate site availability widely.	A culturally appropriate intuitive maternity site that is a known go to for all local wāhine/ women* and their whānau/family who are hapu/pregnant or planning a pregnancy; a robust source of information to aid informed choice.	Measure hit rates for site and individual pages, include questions around website experience in maternity service satisfaction survey.	December 2021.
3	Digital strategy for maternity	Maternity clinical information system currently paper based, poor access to data, poor quality of data.	Review options for digital maternity clinical information system.	Completion of business case. Discissions regarding business care.	Approved business case.	June 2021.
4	Maternity Consumer Advisor Group	Membership has reduced, currently BOPDHB has two maternity consumer advisors, diversity of group needs to expand to include Indian and teen mama/mothers*	Ask LMCs to approach suitable clients to engage with consumer role. Add question to consumer survey asking if involvement in maternity consumer group is of interest.	A Maternity Consumer Advisor Group that represents the local population and provides a voice for as many as possible but especially the higher risk groups.	Increased Maternity Consumer Advisor Group membership with increased diversity.	December 2021.
5	VTE Risk Assessment Screening Tool Audit	Tool introduced 2020, consistency of use needs assessing.	Develop audit tool, audit 10 births per month on each site, evaluate findings and provide ongoing education to support full use of tool.	All wāhine/women* with risk factors identified early and plans made for their care that best meet the needs of wāhine/ woman* and her pēpi/ baby.	100% of booking submitted with a completed risk assessment form.	December 2021.
6	Redevelopment of the PROMPT Team	Reduced numbers of skilled educators.	Training of additional personnel.	More robust cross site availability of PROMPT education with flexibility to provide community/ primary care specific sessions.	Increased number of PROMPT trained personnel at both sites.	December 2021.

Initiative/priority		Rationale	Action	Desired Outcome	Measure	Timeframes
7	Equity of Consumer Feedback Project	Previous methods of accessing consumer feedback have not provided equitable engagement opportunities.	Roll out text prompts to engage with a digital survey to all wāhine/ women* admitted to Maternity Service.	Increased engagement of consumers that matches the birthing population by both ethnicity and age. Increased understanding of the issues that matter to consumers to help guide future projects for continual quality improvement.	Increased levels of equitable engagement from previous methods of engagement.	June 2022.
8	Establishment of Severe Acute Maternal Morbidity Review Committee (April 2021)	While events of maternal morbidity are rare, the impact on the wāhine/woman* and on her whānau/family, and on the clinicians who provided her care, are often profound[1].	Finalise processes for SAMM reviews. Establish committee.	Review of all cases of severe maternal morbidity or 'near misses' and learnings from these events shared to help improve outcomes. Identify where high-quality care has been given and provides opportunities for learning, creativity, innovation and improved resilience. Facilitation of the maternity team to learn, share and thereby minimise the future impact on; wāhine/women*, their whānau/families, and maternity care providers. Support clinicians to manage the impact of a severe maternal morbidity event and establish a culture that is fair and safe[1].	Monitor cases over time for: number and finding trends. Use trends to guide future projects.	April 2021.
9	Establishment of Co Design	Ongoing need to engage with ethnic groups who are overrepresented in poor outcomes. Need to develop more culturally appropriate services to support engagement.	Links to community organisations to be established (Māori/Pacifica/ Indian/Asian). Co design processes to be developed.	Design of services which meet needs of ethnic groups, improved engagement with services, improved outcomes.	Relationship with community groups established. Focus groups and surveys conducted. Codesign tools developed.	December 2022.
10	LMC orientation pack	Consistent information about BOPDHB processes, policies, resources and supports for new access holder LMCs	Develop an orientation pack to support LMC midwives new to the area.	LMC midwives well prepared for clinical environment and DHB processes.	Orientation pack implemented.	September 2021

1. HQSP (2016) Recommendations for a sustainable severe acute maternal morbidity audit within the Health Quality & Safety Commission. Health Quality & Safety Commission | Recommendations for a sustainable severe acute maternal morbidity audit within the Health Quality & Safety Commission (hqsc.govt.nz)

BOPDHB Summary of Three-Year Plan 2021-24 (Status as at December 2020)

	Project	Actions	Status	Next steps
1	Local project – MCIS	Review of current system.	Completed December 2020	
		Business plan completed.	In progress	March 2021
		Business plan prioritised for start date.	In progress	Contingent on finance
		Implementation plan.	Not completed	Contingent on finance
2	Ongoing audit and review of MEWS & trigger tool	Weekly auditing established.	Completed February 2020	
		Monitoring of highest MEWS score established.	Completed March 2020	
		Monthly auditing established	Not completed	January 2021
3	Implementation of NOC/ NEWS as per national roll out	E-learning package	Completed July 2020 80% of staff at roll out July 2020 Ongoing onboarding new staff	
		NOC/NEWS implemented	Completed August 2020	
		Audit process implemented	Completed November 2020	Ongoing audits and additional education/ support run as indicated.
4	Neonatal Encephalopathy (NE) Taskforce projects	Neonatal Clinical Governance Committee re-established.	Completed December 2020	
		NE and SAC 1-2 case reviews commenced.	Completed December 2020	Ongoing case reviews
5	Encouraging low-risk wāhine/women* to birth at home or in a primary facility Promotion of primary birthing facilities	DHB Maternity website update, including current primary birthing options.	Completed December 2020	Further revision 2021
		DHB continues to liaise with Bethlehem Birthing Centre.	Ongoing	
		Review of model of care for Opotiki Unit	In progress	Remains under review for completion 2021
		Opotiki maternity unit clinical space revision.	Completed	
		Rotorua LMCs contracted to provide care in Murupara.	Completed June 2020	Review of contract 2022
		Murupara maternity unit clinical space revision.	Completed	
6	Equitable access to postpartum contraception, including regular audit	BOPDHB LARC programme 'Protected and Proud' launched	Completed August 2020	Audit 2021.
		Midwives trained for LARC insertion across site.	Completed September 2020	Ongoing training of midwives and nurses. Aim to increase availability 2021/2
		Home visit service established.	Completed October 2020	Aim to increase availability 2021/2

7	Equitable access to primary mental health services Maternal mental health referral & treatment pathway	Meet with LMC community to identify referral issues.	Completed 2018	
		Identify primary service providers in region.	Completed 2019	
		Create list of available services	Completed 2019	
		Promote services	Completed May 2019	
		Review engagement with primary services	Completed 2020	Further Midwifery Forum sessions on Mental Health services
		Codesign processes undertaken	Not completed	2022
8	Reduce preterm birth and neonatal mortality	GAP programme training delivered.	Completed May 2019	
		USS funding in Eastern Bay.	In progress	January 2021
		Auditing established.	Not completed	January 2022
9	Monitor key maternity indicators by ethnicity to identify variations in outcomes & improve areas where there are differences in outcome	Maternity Clinical Information System Implemented.	Not completed	
		Review MCI outcome measures including ethnicity.	Completed	Ongoing
		Engage Māori Health and Gains with Maternity Clinical Governance.	Completed 2019	Ongoing
10	Co-design models of care to meet the needs of Indian wāhine/ women*	Codesign processes undertaken	Not completed	2022
11	Co-design models of care to meet the needs of wāhine/women* <20 years	Hold focus groups with young mums	Completed 2019	
		Identify project areas	Ongoing consumer feedback	
		Further codesign processes undertaken	Not completed	2022
12	Interdisciplinary fetal surveillance education for all clinicians involved with intrapartum care	FSEP training delivered (free attendance)	Completed 2019/20 (multiple sessions)	
		Review e-learning module	In progress (current options available)	2021
13	Cultural competency workshops for all Maternity Service staff	Redesign mandatory cultural competency training.	Completed November 2020 DHB wide	
		Nga Maia Turanga Kaupapa cultural competence for midwives' package developed.	In progress	2021
14	Implementation of HQSC maternal morbidity review tool kit and SAC rating (maternal & NE case review)	Severe Acute Maternal Morbidity (SAMM) Group established.	In progress	April 2021
		Maternity SAC rating tool in use.	Completed 2019	
15	Implementation of Hypertension guideline, with a review/re-stock of medications to ensure easy availability & administration in acute care settings	Implementation of Pre-mixed MgSO4 bags	In progress	March 2021
		Pre-programmed pump use established	In progress	March 2021
16	Use of the Health Equity Assessment Tool (the HEAT) to assess services for the impact of health equity	Engagement with Māori Health and Gains.	Completed September 2020	
		HEAT Education delivered.	Completed November 2020	

17	Establish a clinical pathway for wāhine/ women* with identified placental implantation abnormalities	Pathway developed and implemented	Not completed	2021
18	Establish septic bundle kits to address human factor components, such as stress in high-acuity settings	Sepsis Grab n Go Boxes implemented.	Completed October 2020	
		Sepsis education.	Completed	Ongoing
19	Establish clinical pathways across primary and secondary/ tertiary care to enable earlier recognition and treatment of sepsis	Review sepsis policy	In progress	2021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