



## Hawke's Bay Maternity

Whare Kōhanga ō  
Te Matau ā Maui



# Hawke's Bay DHB Maternity Services ANNUAL CLINICAL REPORT 2016

# ACKNOWLEDGEMENTS

The Midwifery Director would like to sincerely acknowledge and thank the following people for their contribution to the content of this report.

**Aaron Turpin & Timothy Zhang**, Quality Systems and Performance Analysts, for their substantial involvement in the provision and analysis of the data presented throughout this report

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**Donna Foote** – Waioha CMC

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**Roisin Van Onselen** – Clinical Midwife Manager

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**Sue Davey, Isabella Cresswell & Rawinia Edwards** – Safe Sleep Co-coordinators

**Louise Gelling** – Pregnancy and Parenting Education Co-ordinator

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**Alison Williams** and the Wairoa midwives

**Dr Oliver Grupp** – Paediatrician

**Shari Tidswell** – Team leader for Population Health

**Beatrix Exeter** – LMC Midwife

**Pauline Buckman** – Communications Team

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**Jarn McClelland** – Violence Intervention Programme Co-coordinator

**Diana Taylor** – Immunisation Nurse Specialist

**Nancy Ogle** – Maternity Social Worker

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**Cheryl Newman** – Maternal Wellbeing Child Protection Co-coordinator

**The Maternity Clinical Governance Group Members**

**Audit Contributors** – Dr Kirsten Gaerty, Dr Delwyn Munn, Dr Joseph Gudex, Dr Ikhwan Yusof, Dr Jeremy Meates.

The photographs and stories published throughout this report have been provided by members of the Hawke's Bay community. The Maternity Quality and Safety Team would like to express their appreciation to all the parents who have granted permission for us to share their experiences and these special images.

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# FOREWORD



It is with great pleasure that the fifth annual clinical report for Hawke's Bay Maternity Services is presented. This year has seen the opening of Waioha primary birthing centre, relocation of our Antenatal clinic - Te Kākano and reconfiguration of our maternity reception and Ata Rangi. There has been a collaborative approach for driving quality improvement and ensuring consumer feedback and involvement is part of our everyday business throughout our initiatives and projects.

The Maternity Quality and Safety Programme is maturing and continues to enable proactive quality initiatives and governance for maternity services within the overarching governance structure of our District Health Board. It is providing the ability to be responsive to our consumers, engage with them at the beginning of any initiatives and for our consumers to be the drivers of the change needed. The framework has further enabled and strengthened multi-professional participation across not only maternity services but health services and throughout our health sector here in Hawke's Bay.

This report is highlighting some sustainable change and inroads into some challenging clinical and non-clinical areas: improving care provision, initiating new services and embedding quality changes that are improving the health outcomes of our mothers, their babies, and whānau. In particular the initial impact of Waioha is strengthening a number of standard primiparae clinical indicators and there is evidence of a growing number of key strengths and few outliers in our indicator map.

The embedding of a whole-of-team approach across the health care continuum, with a focus on relationship building with our primary care partners, joining up our services and smoothing the woman's journey that is demonstrating a noticeable difference in engagement, proactive responses to need and a change in how we are thinking and doing.

What is very evident is inequity in the health of our population that we serve. Our quality initiatives are very focused on removing this inequity and striving to ensure that our services are equitable, accessible and engaging.

This report provides you with a review of our Maternity Services, national benchmarking, our achievements and ongoing opportunities to continue to improve the quality and safety of our Hawke's Bay Maternity Services. It reflects the importance of working together to make meaningful change and difference to those whom we serve.

A handwritten signature in black ink, which appears to read "Jules Arthur". The signature is fluid and cursive.

Jules Arthur, Midwifery Director and Chair of Maternity Clinical Governance Group

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# MESSAGE FROM DR CRAIG SKIDMORE HEAD OF OBSTETRICS AND GYNAECOLOGY



Our local Maternity Quality and Safety Programme (MQSP) has along with all DHBs been operating since 2012. The measures of its success are broadly defined and measured by Three Standards:

**Standard 1:**

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

**Standard 2:**

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

**Standard 3:**

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.

Achieving these Standards has required improved Governance structure, enhanced clinical leadership and better engagement with the sector, and with consumers.

This framework has enabled a structured approach to embedding quality throughout maternity services, has supported implementation of a number of quality initiatives both clinically and socially to improve health outcomes for our women, babies and community.

The collaboration involving all the key stakeholders is proving invaluable in shaping and progressing Hawke's Bay maternity services with a specific focus on equity, safety and accessibility to the right care at the right time by the right person in the right place.

2016 has had its challenges and successes with Waioha Primary Birthing Centre opening, and Te Kākanō Antenatal clinic re-locating. A DHB wide re-structuring proposal did initially threaten our future ability to continue with the MQSP improvements. The efforts from our Midwifery team, Senior Medical Staff, along with support from our Service Director, and recognition of its importance from senior management led to a restructuring revision to allow continuation, albeit in a more limited way.

Rather than comment on the specific data contained within this year's report, I would like to acknowledge the efforts of the Maternity Governance Coordinator, the MQSP administrator, members of the Maternity Clinical Governance Group (MCGG), and all those involved in running the program and implementing new recommendations to improve Maternity Services in Hawke's Bay. A genuine thank-you is also extended to all those who contributed to the writing of this year's Annual Clinical Report.



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# MQSP GOVERNANCE AND OPERATIONS

## **Operations of the Maternity Quality and Safety Programme**

The continuation of the MQSP within HBDHB Maternity Services was the responsibility of the Maternity Governance Team during the 2016 calendar year.

The team, made up of the Maternity Governance Coordinator (0.9FTE), the Maternity Governance Team Administrator (0.9FTE) and the two Maternity Consumer Members (each contracted to approx. 12 hours per month) collectively met the requirements of the MOH contract with the support and oversight of the Midwifery Director. Overall accountability for the MQSP sat with the Midwifery Director. It is important to note that there has been significant change in the makeup of the team at the end of 2016 leading to the Midwifery Director now chairing.

## **The Maternity Governance Coordinator (MGC)**

During 2016, the Maternity Governance Coordinator, had a delegated accountability to lead quality and safety initiatives across the Maternity Services, as well as provide expert guidance, support and leadership to all staff practicing in the unit. Risk management, clinical governance, audit processing and provision of best practice were all integral components of the MGC role.

The dedicated role was able to encompass the facilitation of adverse event case reviews, coordination of the Maternity Clinical Governance Group, facilitation of the Perinatal Maternal Morbidity Review Committee meetings, development of clinical documentation and patient information material, provision of formal education to clinicians, continual implementation of quality initiatives and the ongoing review and publication of our maternity statistics and reported events.

The MGC was responsible for compiling the Annual Clinical Report for 2015 during 2016, the facilitation of the HBDHB Annual Clinical Report Presentation Day, as well as overseeing, supporting and guiding the two consumer representatives in their roles throughout the year.

Additionally, providing timely responses to requests from the National Maternity Monitoring Group were the responsibility of the Maternity Governance Co-coordinator, along with collating reports for the HBDHB Clinical Council, and representing Maternity Services on committees and at national conference.

## **The Maternity Quality and Safety Programme Administrator**

The MQSP Administrator role is a 0.9FTE position, with the primary focus of supporting the Maternity Governance Coordinator in all aspects of her daily role during 2016.

Responsibilities include the collation of the weekly Maternity Services statistics and adverse events publication, compilation of the mid-monthly and quarterly adverse reported events documents, completion of the monthly and quarterly Maternity Quality and Safety Programme report and the analysis of the quarterly online Maternity Consumer Survey. The role ensures that all MQSP related reports are disseminated to all stakeholders across the Maternity Services and/or the wider Communities, Women and Children Directorate.



Additionally, the MQSP Administrator contributed to case review facilitation, report compilation and tracking of the resulting recommendations. Supporting the MCGG in relation to administration of the meeting documents to all members, tracking of initiatives, audits and recommendations through to completion, as well as compiling the agenda and reporting of the minutes to the group and the wider stakeholders were all executed by the administrator throughout the year.

Consumer focus is another strong component of the administrators FTE, holding the main administration responsibilities of our Maternity Services Facebook page, contributions to consumer related written information and by supporting and guiding the two Maternity Services consumer members to fulfil their role to the maximum.

### **MQSP Governance**

The Maternity Clinical Governance Group (MCGG) is a comprehensive multidisciplinary group of professional, consumer, administration and management representations who oversaw the implementation of maternity quality and safety activities, ensuring consistency and quality across Hawke's Bay Maternity Service during 2016.

The MCGG met monthly to contribute to discussions and decisions about maternity care at DHB level, approve clinical guidelines, monitor the compliance of audit recommendations, oversee implementation of new clinical documentation, approve recommendations from clinical case reviews, take decisions about quality improvement activities, identify areas that need improvement and monitor all MQSP reports.

The MCGG reports bi-annually to the HBDHB Clinical Council which in turn reports to the HBDHB Board. Our new members going forward into 2017 are:

### **The MCGG Members**



**Jules Arthur**  
Midwifery Director and  
Chair



**Louise Curtis**  
Consumer Member



**Gabby Allen**  
Consumer Member



**Dr Phillip Moore**  
Medical Director



**Julie Kinloch**  
NZCOM Representative



**Donna Foote**  
LMC Representative



**Sara Paley**  
Clinical Midwife Educator



**Sarah Howard**  
DHB Midwife  
Representative



**Dr Kirsten Gaerty**  
Obstetric Consultant



**Dr Jeremy Meates**  
Obstetric Consultant



**Tungane Kani**  
Rural Midwifery  
Representative



**Ann Taiapa-Johnson**  
Māori Midwife  
Representative



**Dr Sarah Sew Hoy**  
Obstetric  
Anaesthesiologist

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## HAWKE'S BAY CONSUMER REPRESENTATIVES



### **Louise Curtis:**

Lou is mum to son Liam, born at Ata Rangi in 2014.

She has a passion for high standard quality care, and as a result of Liam's birth, a new-found passion for pregnancy, the birth experience, babies and families.

Hawke's Bay born and bred, she describes the transition to motherhood as 'awe inspiring' and now wants to use her experience and the understanding she has gained of Hawke's Bay Maternity Services to support others.

*"I would love to support you (the Maternity consumer) to have your say, share your thoughts and provide feedback of your experiences. I would love to hear what's important to you about maternity care for you, your baby and your whānau and how you would like the service to meet your needs in the future."*

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### **Gabby Allen:**

Gabby is mum to two young boys – her 'little bears' who were both born under the guidance of Hawke's Bay Maternity Services.

She says her boys and the different experiences that were their births inspire her to represent and connect with consumers, to "listen" and to share their stories and make sure every woman's voice is heard.

Gabby looks forward to meeting women, partners and whānau using Hawke's Bay maternity services and using their feedback to help shape the services and how care is delivered.

*"Family and support during pregnancy, birth and parenthood is a passion of mine, linking in with my other interests and community networks. I believe when a child is born so is a mother. This is a precious and special journey that requires learning and growing as well as support networks. I hope that my support of you (the maternity consumer) can help to 'keep it real'. I wish to ensure all mums and dads have a voice, and can have a say in how the Maternity Service works and runs. I really feel passionately about each individual and take on board the good feedback as well as the ideas and suggestions on how we can improve. I will do my utmost to bring these suggestions and themes forward to be 'heard' in my role as a consumer member."*



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# OUR MESSAGE

## EXECUTIVE SUMMARY

This annual clinical report demonstrates Hawke's Bay DHB's delivery of the expected outputs of an establishing Maternity Quality and Safety programme and outlines the progress that Hawke's Bay DHB is making with the three year plan 2015-2018.

This report will be accessible online to all maternity stakeholders, practitioners of maternity care and consumers via the Hawke's Bay health sector website ([www.ourhealthhb.nz](http://www.ourhealthhb.nz)), as well as hard copies for the maternity department, health services and corporate colleagues.

The report describes Hawke's Bay DHB's activities undertaken in 2016 and those intended to be undertaken to improve maternity quality, safety and clinical outcomes of its maternity services in 2017.

- The programme uses national and local data to inform and assist in priority setting activities for the following year.
- Our 2016 clinical indicator data demonstrates a significant improvement on a number of the indicators becoming strengths and an improvement against national benchmarking.
- Health equity data demonstrates that our Māori and Pacific Island women have the highest rate of normal birth but our Māori women also have the highest rates of smoke exposed pregnancies and preterm birth.
- Our quality initiatives are evidenced in this report and beginning to demonstrate positive change and sustainable improvements.
- Our most significant event of 2016 was the opening of our alongside-primary birthing centre Waioha and the early data is demonstrating improved outcomes particularly for our lowest risk women.

- Consumer engagement has continued to be strengthened with our consumer members hosting community based forums across Hawke's Bay, the establishment and renewal of on discharge consumer surveys for Waioha and Ata Rangi.
- The early engagement with a midwife campaign has progressed this year with good engagement across general practice to better support women to book early with a midwife.
- Napier Maternity Resource Centre has published its third year of data reaching our most vulnerable women early in pregnancy and supporting early booking and smokefree cessation advice. Alongside this the use of the out of hours assessment facility by our LMC community has kept women closer to home.
- Maternity services continues to strengthen and develop relationships and alliance with other key stakeholders across the district.

Although not an overall reflection of this report, it is important to highlight the challenges that have occurred in 2016, which have had an impact upon the Maternity Clinical Governance Group (MCGG) and collation of this report; such as the restructure of the Maternity Governance Coordinator and the production of accurate data integrity.

Going forward in 2017 we aspire to reestablish a smooth running of the MCGG group, relaunch the Annual Clinical Report Day for maternity staff members and ensure that all data produced for the report is accurate.

# OUR VISION



## Our Shared Vision / Te Matakite

Healthy Hawke's Bay Te Hauora o Te Matau ā Māui

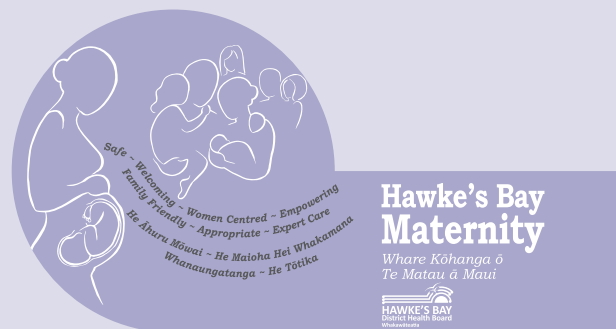
## Our Mission / Te Kaupapa

Excellent health services working in partnership to improve the health and wellbeing of our people to reduce health inequities within our community.

## Our Values

How We Work Together with Others / Nga Tikanga

Health with Heart – Our Values to achieve this:



## MATERNITY SERVICES VISION

He Āhuru Mōwai – He Maioha Hei Whakamana  
Whanaungatanga – He Tōtika

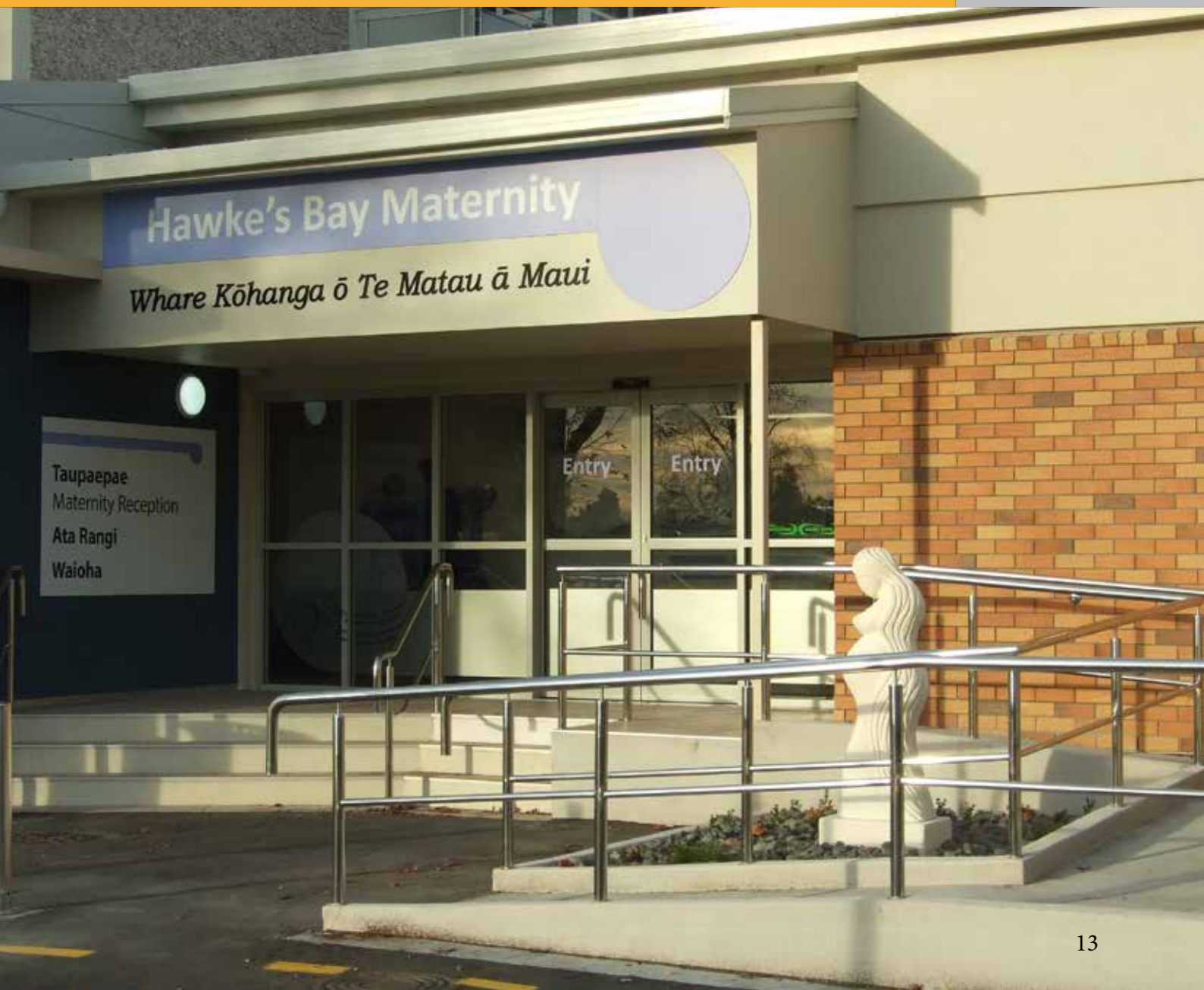
Hawke's Bay Maternity: whare kōwhanga

A safe, welcoming, women centred, empowering whānau friendly place that provides appropriate and expert care supporting women, babies and whānau on their journey to becoming parents and caring for the next generation.

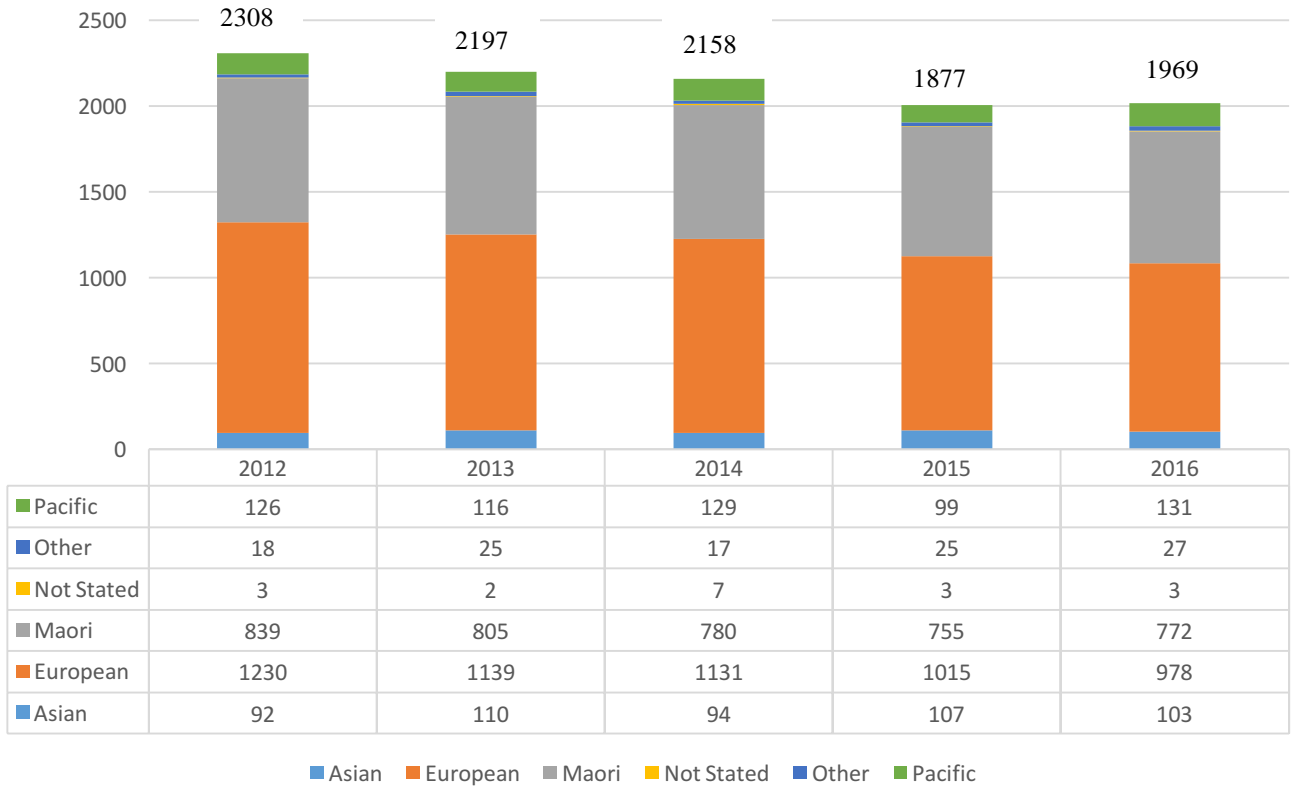




# SERVICE PROVISION



Movement in Hawke's Bay Birth from 2012-2016



# OUR REGION AND SERVICES

## OUR REGION

The Hawke’s Bay Region sits on the east coast of the North Island of New Zealand and encompasses a large semi-circular bay that extends over 100 kilometres from Mahia Peninsula in the northeast to Cape Kidnappers in the southwest, overall covering more than 14,000km<sup>2</sup> of beautiful landscape.

The region hosts an estimated population of 160,000 approximately 80% of which reside in Napier or Hastings, the two most urban areas located within 20 kilometres of one another. Smaller communities such as Waipakurau and Wairoa have populations of around 4,000 each with the remaining population residing in the more rural and remote locations.

Hawke’s Bay Fallen Soldiers’ Memorial Hospital is the main public health facility in the region and offers the full complement of health services for all ages, including the regional Intensive Care Unit, Emergency Department and Primary and Secondary Care Maternity Services.

# THE MATERNITY SERVICES

## ATA RANGI

### Secondary Labour & Birthing Suite and Antenatal / Postnatal Ward

- 8 labour and birthing rooms
- 4 assessment rooms
- 12 antenatal/postnatal rooms
- Day Assessment Unit
- Antenatal Clinic



## WAIOHA

### Primary Alongside

- 7 birthing/postnatal rooms all with pools.
- All women birth and stay postnatally in the same room.



## TE KĀKANO - ANTENATAL CLINIC

- 5 Consultant led clinics a week

## LEVEL 2A NEONATAL UNIT

- 12 Neonatal Cots
- Equipped to treat babies >28 weeks or with a birth weight >1000gms.

## WAIROA

- 3 birthing/postnatal rooms
- 4 Caseloading DHB Midwives
- Monthly Antenatal clinic, held by a Consultant Obstetrician from Hastings.

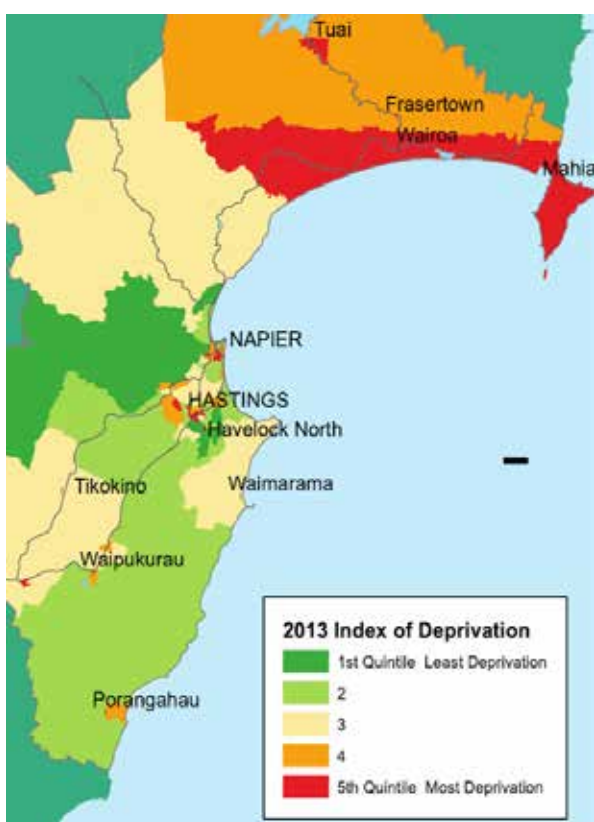
## THE MATERNITY WORKFORCE

- 7 Clinical Midwife Co-coordinators.
- 1 Midwifery Director
- 1 Head of Obstetrics
- 7 Consultant Obstetricians, 6 Registrars, 7 Senior House Officers
- 1 Clinical Midwife Manager
- 1 Associate Clinical Midwife Manager
- 1 Midwifery Educator
- 1 Lactation Consultant and 5 holding the ILBLC qualification
- 54 DHB Midwives (including Wairoa)
- 40 LMC Midwives
- 5 Nurses
- 1 Lactation Consultant
- 10 Care Associates
- 1 Antenatal Receptionist
- 2 Ward Administrators



# POPULATION DEMOGRAPHICS AND ANALYSIS

The demographical features of the Hawke's Bay maternal population that birthed during 2016 within either of our three maternity centres are depicted in this chapter. Data on ethnicity, maternal age, parity, decile, domicile, Body Mass Index (BMI) at booking and Smoke free status at booking are all demonstrated. Planned and unplanned homebirths, babies born before arrival (BBAs) and the births of Hawke's Bay women who birthed in other hospitals outside of Hawke's Bay are not included in this chapter of data, or remaining chapters, unless otherwise stated.



## Background

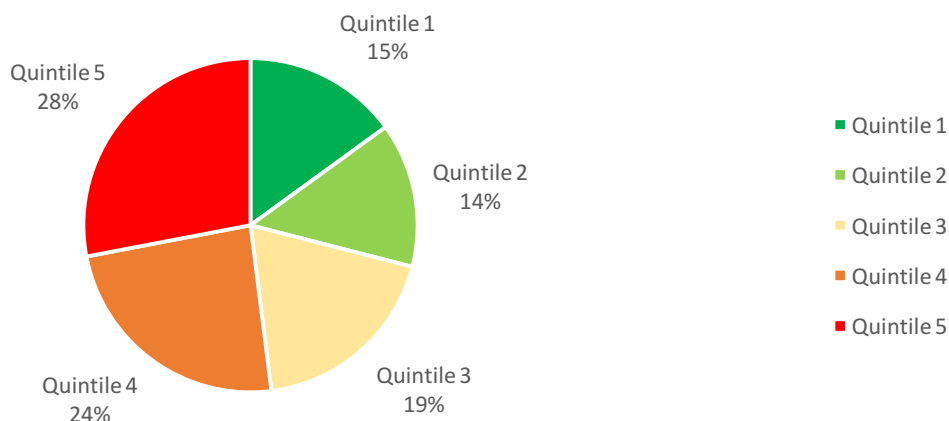
The HBDHB region covers urban, semi-rural, rural and remote rural communities and encompasses a geographical area of 14,111km<sup>2</sup>. The Maternity Service caters for a child-bearing population of 28,500 aged between 15-44 years old.

When compared to other areas of New Zealand, Hawke's Bay is a region with significant health inequalities and a higher than average Māori population (25%). The map of the 'Hawke's Bay Health District Index of Deprivation' on the left demonstrates the quintiles in which our population resides.

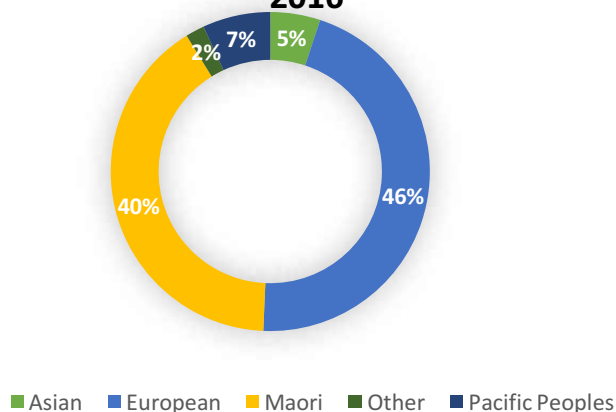
As you can see in Figure 1: 28% of our population are living in quintile 5 (our most deprived). We have seen an 7% decrease in those living in quintile 5 since 2015 and a 5% increase of those living in quintile 1 (least deprived), this could be a reflection of the 'Auckland Exodus' that many provincial regions have been experiencing throughout 2015/16.

Figure 1

## Hawke's Bay Deprivation 2016/17



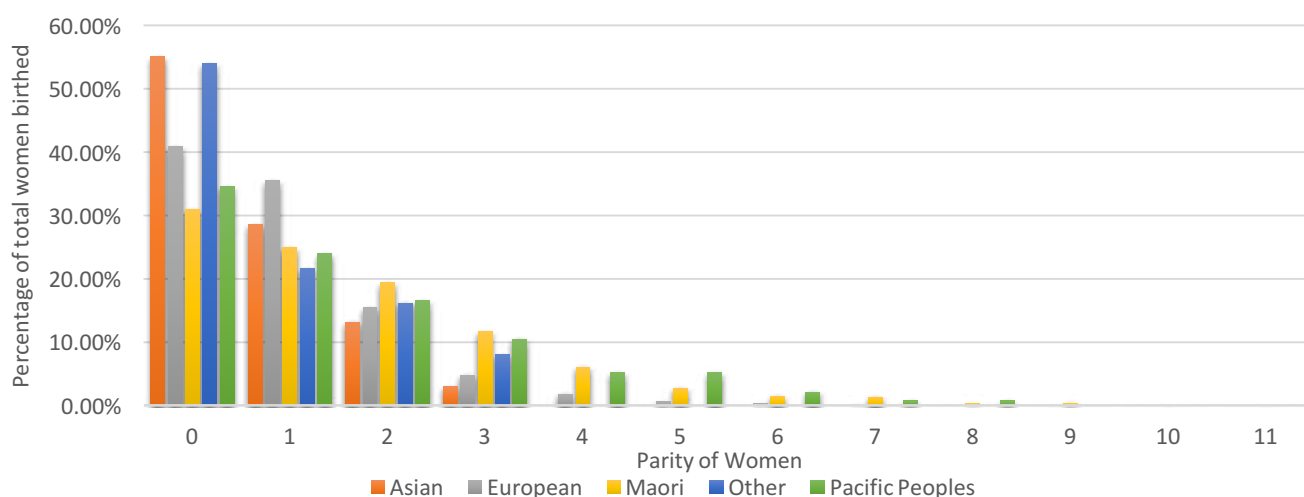
### Women Birthing at Hawke's Bay DHB by Ethnicity - 2016



In 2016 the majority of women birthing in Hawke's Bay facilities were either Māori (40%) or European (46%).

In comparison to our 2015 report we have seen a 5.4% decrease in European women birthing, and slight increases amongst our Māori, Pacific and other ethnic groups.

### Parity of Women Birthing in Hawke's Bay by Ethnicity - 2016



The above graph depicts the representation of parity\* within each ethnic group. In 2016 we had 308 standard primips\*, 15.91% of our total birthing population.

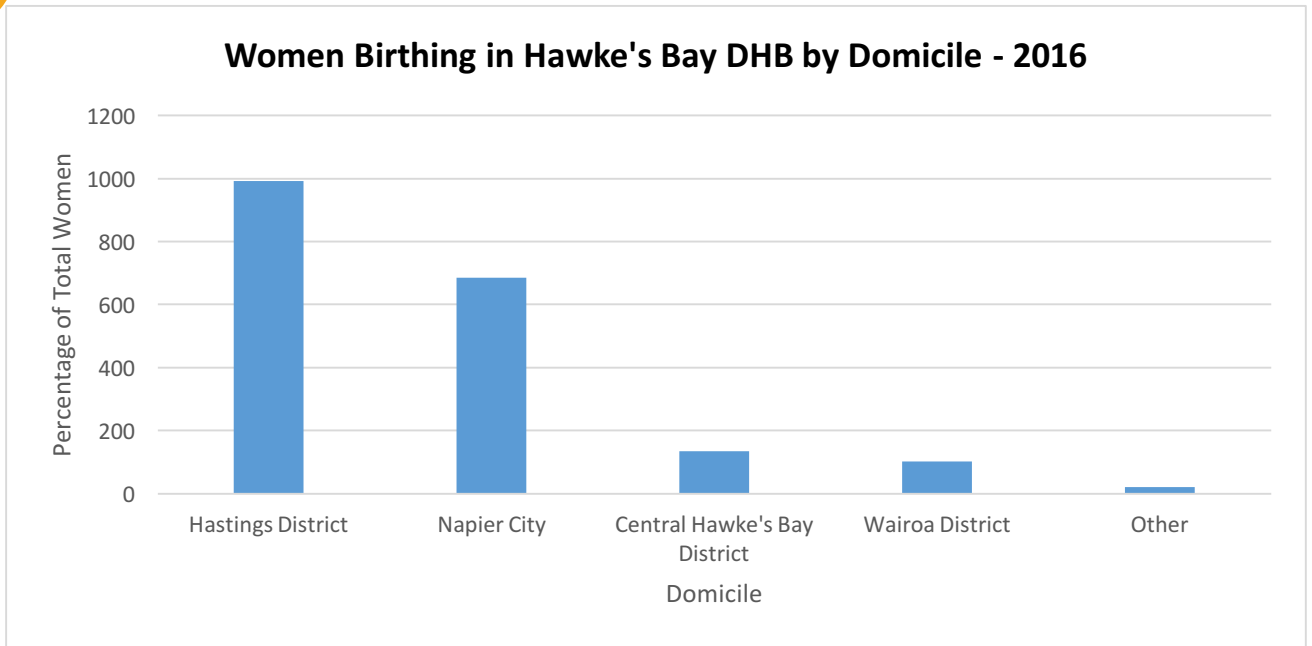
Amongst the ethnic groups both Other and Asian have the highest percentage amongst themselves of primiparous (1<sup>st</sup> time mums) women, furthermore 2016 has seen an apparent increase (8.10%) in Asian primiparous women birthing in the Hawke's Bay. However the majority (45.63%) of primiparous women birthing this year from the overall total of 1935 women were of European origin, there has been a decrease of 9.77% amongst this ethnic cohort since 2015. Interestingly when comparing 2016 data with 2015 we can see that the remaining four ethnic groups have had increases of primiparous women amongst the percentage of women within that ethnic group, with the highest increase (16.59%) amongst Pacific Island women.

The ethnic group with the highest number of para one and para two women amongst them were Europeans (54.95%) followed by Māori women (41.22%). From para four onwards the totals of women birthing this year reveal that Māori and Pasifika women have the highest representation. There is no representation from Asian and Other ethnic groups from para four onwards, and minimal representation from European women.

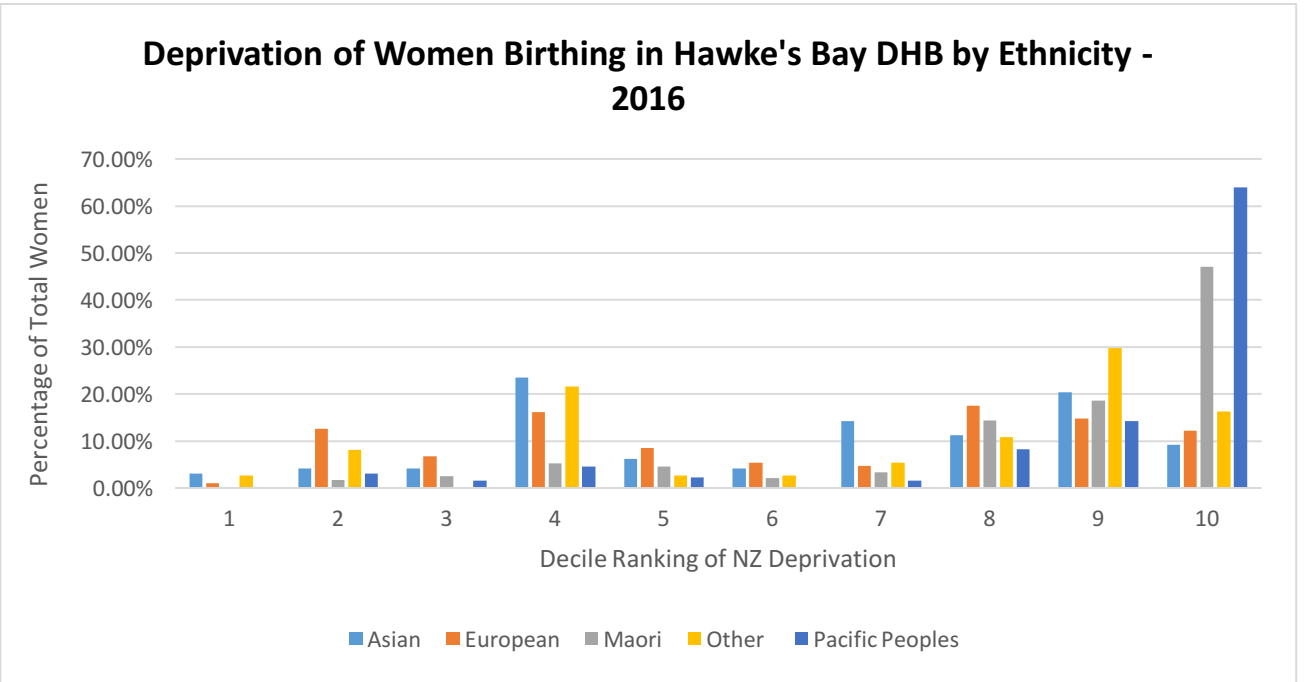
#### \*Definitions:

Standard Primiparous: 20-34 years old, gestation at delivery 37+0 and 40+6 weeks, parity= 0, head first presentation

Parity: The number of babies > 20 weeks gestation a women has delivered.



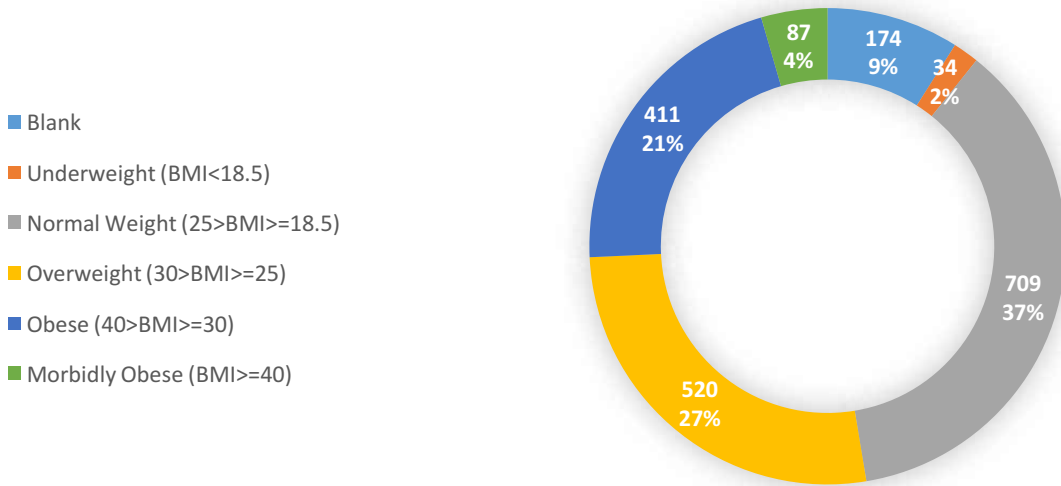
The domicile of the 1935 women that birthed within the three maternity centres during 2016 can be seen in the graph above. Reassuringly 98.92% of women who birthed at either of the Hastings or Wairoa birthing centres were Hawke's Bay residents. Of these women, 51.31% were residing in the Hastings District, 35.45% in the Napier District, 6.92% from Central Hawke's Bay, and 5.21% from Wairoa. The remaining 21 women (1.08%) indicated in the 'other' category resided in a variety of regions outside of the Hawke's Bay.



The above graph depicts the decile ranking for our population and in accordance with our previous findings in the 'population background' section we have a high percentage of women residing in the higher, more deprived areas of residence. Our data shows that 60.77% of women using the HBDHB Maternity Services live in these areas, deciles 8-10. It is also apparent that of those living in decile 10 (the most deprived) the majority are of Māori or Pacific descent.

It is however encouraging to see that in 2016 we have seen a slight (4%) decrease in this figure, and a slight increase amongst deciles 1-7, where 37.05% of our women are living.

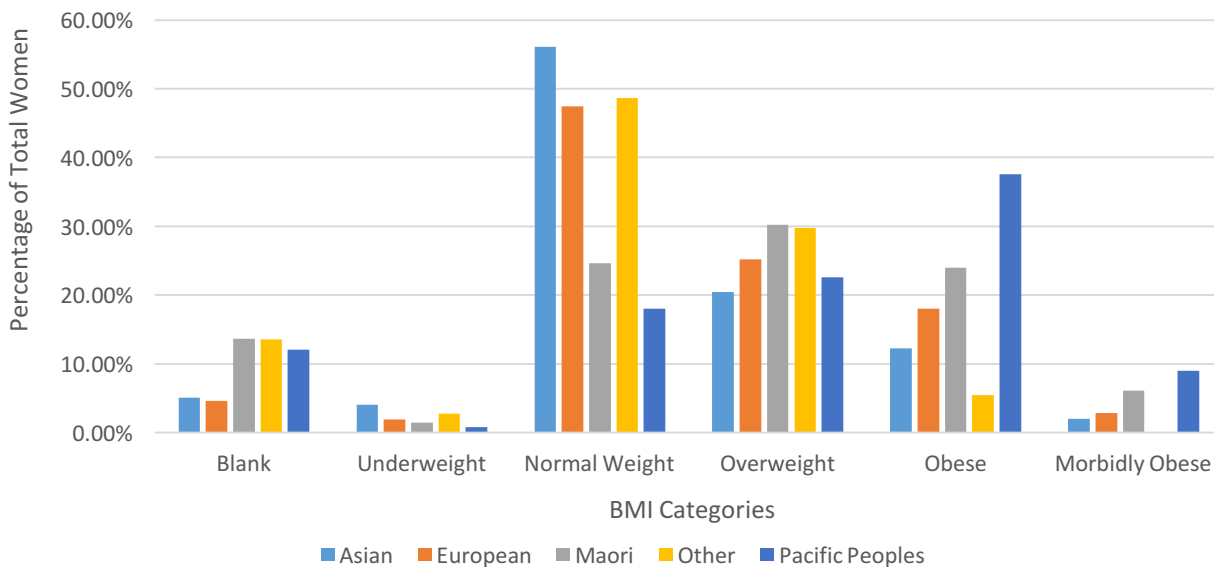
### BMI of Women Birthing in Hawke's Bay DHB - 2016



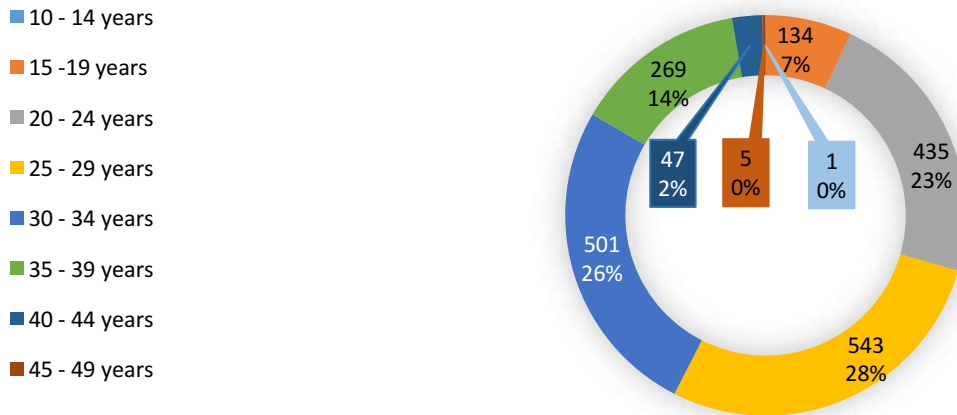
Of the women who birthed in 2016 2.00% were underweight, 37.00% were normal weight, 27.00% were overweight, 21.00% were obese and 4.00% were morbidly obese. In comparison to our 2015 data we have seen a slight increase amongst the overweight, obese and morbidly obese categories. Last year also saw a disappointing number (187) of women with an un-recorded BMI, 2016 has seen a decrease of 13 and we are moving towards ensuring all women have a recorded BMI at enrolment.

From an ethnicity point of view our Asian, Other and European women were categorised as our most underweight and normal weight, with our Māori and Pacific Island women being the most at risk with the largest percentages amongst the overweight, obese and morbidly obese categories.

### BMI of Women Birthing in Hawke's Bay DHB by Ethnicity - 2016



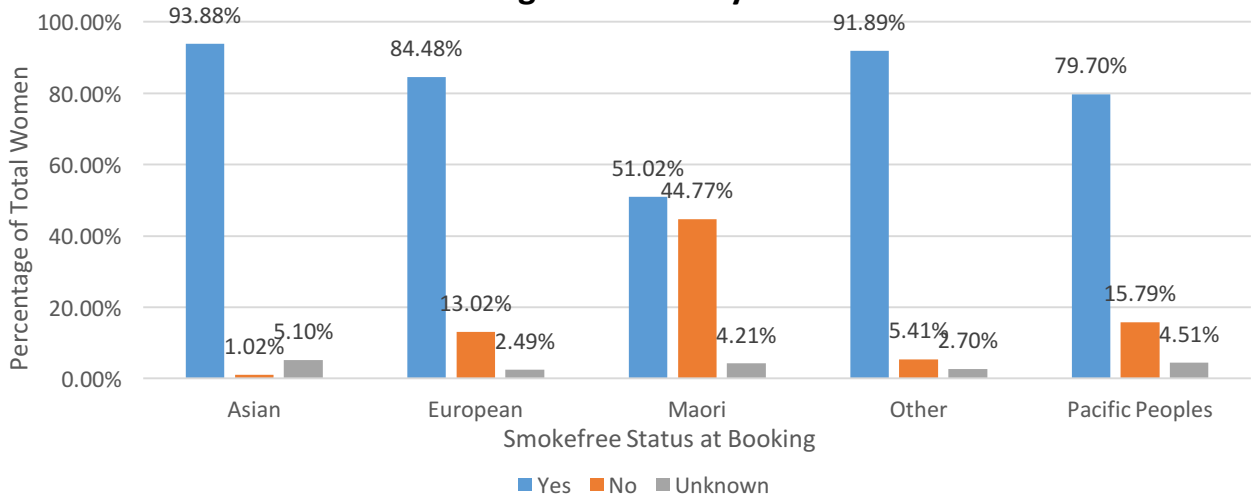
### Women Birthing in Hawke's Bay DHB by Age Bands - 2016



The national mean of standard primips birthing is 27.8 years, and the overall national average age of women birthing is 29.6 years. The most common age of HBDHB women giving birth corresponds with the national figures, with our most common age group being 25-29 years (28%), followed by women aged between 30-34 years (26%) and 20-24 years (23%). Interestingly this has followed a very similar trend of 2015.

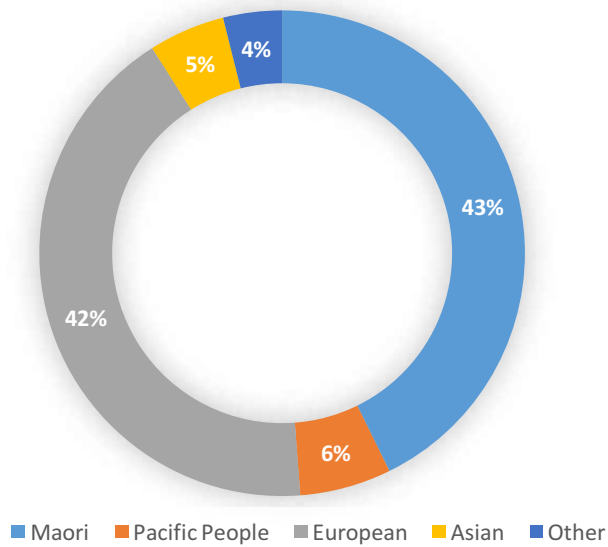
There were a total of 321 birthing women aged over 35 years which made up 16.58% of the total 1935 women. 52 of these women were aged over 40 years, collectively representing 2.68% of the total women birthing. The percentage of teenage women birthing in 2016 has slightly decreased since 2015 and is now below the national average of 7.1%.

### Women Birthing in Hawke's Bay DHB by Smokefree Status at Booking and Ethnicity - 2016



The above graph demonstrates that at least 25.40% of the women that birthed during the 2016 year were not smoke free when they registered their pregnancy with an LMC. Our data also shows us that our Māori women have very high rates of smoking status at booking, with 44.77% of them not being smoke free. When comparing this data against the corresponding clinical indicator it is reassuring to see that there has been an overall 2.49% decrease in smoking status between booking and discharge. There is an ongoing multifaceted focus in establishing smoke free pregnancies for all women and whānau accessing HBDHB Maternity Services, with initiatives currently driving this expectation demonstrating a decrease in smoke exposed pregnancies. These initiatives and the statistical data around them are discussed in depth in the Quality Initiatives Section of this report.

## Hawke's Bay Births by Ethnicity - 2016



When comparing our newborns by ethnicity to women birthing by ethnicity we can see the close correlations between the two. In 2016 our largest group of birthing women were European (46%) and 43% of babies born were identified as European. This was followed very closely by 40% of Māori women birthing within HBDHB and 42% of babies born being identified as Māori. Our smaller ethnic groups of women birthing were Pacific Islander with 7% and 6% of babies, 5% of Asian women and 5% Asian babies; and 2% of women whom identified as other and 4% of babies identified as other.









# PERFORMANCE AGAINST THE CLINICAL INDICATORS



<b>2016 Clinical Indicator Overview Table: Based on 2015 MOH Data</b>	<b>National</b>	<b>Hawkes's Bay</b>	<b>Desired Position</b>
6. Intact lower genital tract among standard primiparae giving birth vaginally	28.30%	40.20%	Above National
7. Episiotomy and no third - or fourth - degree tear among standard primiparae giving birth vaginally	22.20%	12.40%	Below National
14. Peripartum Hysterectomy	0.05%	30%	Below National
2. Spontaneous vaginal birth among standard primiparae	68.70%	67.30%	Above National
3. Instrumental vaginal birth among standard primiparae	16.30%	16%	Below National
8. Third - or fourth - degree tear and no episiotomy among standard primiparae giving birth vaginally	4.40%	4.60%	Below National
9. Episiotomy and third - or fourth - degree tear among standard primiparae giving birth vaginally	1.50%	1.60%	Below National
10. General anaesthetic for all women giving birth by caesarean section	2.90%	2.50%	Below National
11. Blood transfusion for all women giving birth by caesarean section	2.90%	2.50%	Below National
12. Blood transfusion during birth admission for vaginal birth for all women	2.00%	1.40%	Below National
19. Small babies at term (37-42 weeks)	3.10%	3.30%	Below National
21. Babies born at 37+ week's gestation requiring respiratory support	1.90%	2.40%	Below National
1. Registration with an LMC in the first trimester of pregnancy, all women	70%	57.44%	Above National
4. Caesarean section among standard primiparae	14.90%	16.70%	Below National
5. Induction of labour among standard primiparae	5.70%	9.20%	Below National
16. Maternal tobacco use during postnatal period for all women	12.00%	22.90%	Below National
17. Women giving birth with a BMI over 35 at registration	9.30%	11.81%	Below National
18. Preterm births, 32 to 36 weeks gestation, for all women	7.30%	7.80%	Below National
20. Small babies at term born at 40-42 weeks gestation	38.40%	40.00%	Below National
13. Diagnosis of eclampsia during birth admission for all women	26	0	N/A
15. Mechanical ventilation during pregnancy or postnatal period	16	0	N/A

**KEY**

FAVOURABLE

STATIC

UNFAVOURABLE

<b>Internal Data Clinical Indicator Overview Based on Current Internal Reporting</b>	<b>2015</b>	<b>We want to see figures</b>	<b>2016</b>
2. Spontaneous vaginal birth among standard primiparae	60.2%	Increasing	67.3%
3. Instrumental vaginal birth among standard primiparae	19.3%	Decreasing	16.0%
4. Caesarean section among standard primiparae	20.2%	Decreasing	16.7%
7. Episiotomy and no third - or fourth - degree tear among standard primiparae giving birth vaginally	15.9%	Decreasing	12.4%
8. Third - or fourth- degree tear and no episiotomy among standard primiparae giving birth vaginally	6.1%	Decreasing	4.6%
9. Episiotomy and third - or fourth – degree tear among standard primiparae giving birth vaginally	2.9%	Decreasing	1.6%
10. General anaesthetic for all women giving birth by Caesarean Section	11.5%	Decreasing	8.5%
11. Blood transfusion for all women giving birth by Caesarean Section	3.8%	Decreasing	2.5%
12. Blood transfusion during birth admission for vaginal birth for all women	2.4%	Decreasing	1.4%
14. Peripartum hysterectomy	0.5%	Decreasing	0.5%
1. Registration with a Lead Maternity Carer in the first trimester of pregnancy-All Women	58.0%	Increasing	57.4%
18. Preterm births, 32 to 36 weeks gestation, for all women	8.7%	Decreasing	7.8%
5. Induction of labour among standard primiparae giving birth vaginally	8.60%	Decreasing	9.20%
6. Intact lower genital tract among standard primiparae giving birth vaginally	44.20%	Increasing	40.20%
16. Maternal tobacco use during postnatal period for all women	21.60%	Decreasing	22.90%
17. Women giving birth with a BMI over 35 at registration	3.42%	Decreasing	11.81%
21. Babies born at 37+ weeks gestation requiring respiratory support	1.86%	Decreasing	2.95%
13. Diagnosis of eclampsia during birth admission for all women	0%	Static	0%
15. Mechanical ventilation during pregnancy or postnatal period	0%	Static	0%
19. Small babies at term (37-42 weeks)	3.30%	Decreasing	N/A
20. Small babies at term born at 40-42 weeks gestation	40%	Decreasing	N/A

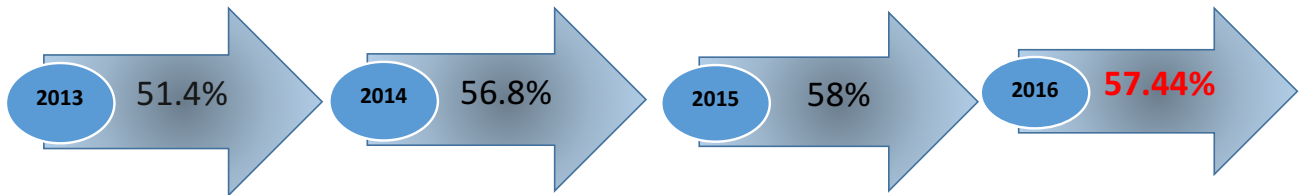
**KEY**

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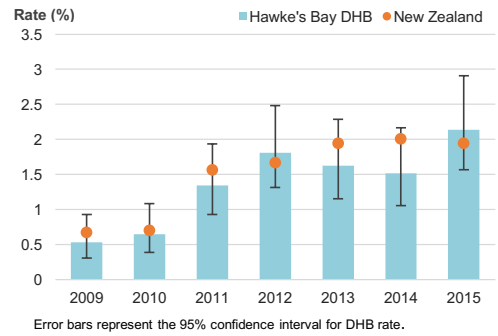
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Indicator 1: Registration with an LMC in the first trimester of pregnancy – All Women

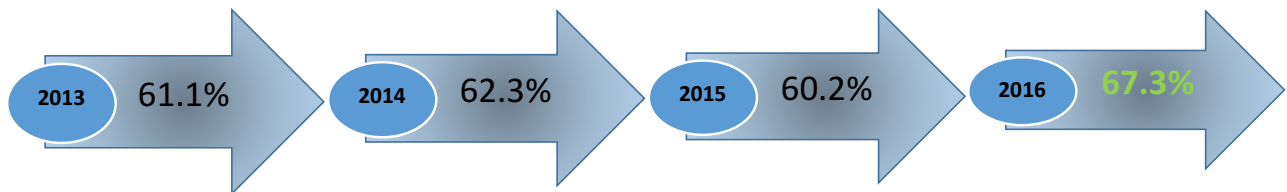


**INVESTIGATE:** European, Asian and Other have the highest rates of registering with an LMC in the first trimester, however no ethnic group meets the required target. Although there has been a 3% increase amongst Pacific Islanders since 2015, they continue to have the lowest registration rate, both regionally and nationally. Statistics show that for the last four years progress for this indicator has been static, and improvement does need to be made as at 57.44% we are placed below the National Mean of 70%. Please see Quality Initiatives chapter for more detail on this pathway plan.

	Women who register with an LMC in the first trimester	All women who register with a LMC	Rate (%) per Ethnicity	2015 National Mean
Māori	334	731	45.69%	
Pacific Islander	49	123	39.84%	
European	635	925	68.65%	
Asian	61	96	63.54%	
Other	14	28	50.00%	
<b>Total</b>	<b>1,093</b>	<b>1,903</b>	<b>57.44%</b>	<b>70%</b>

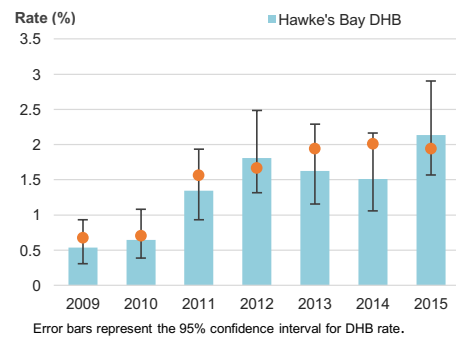


Indicator 2: Spontaneous vaginal birth among Standard Primiparae

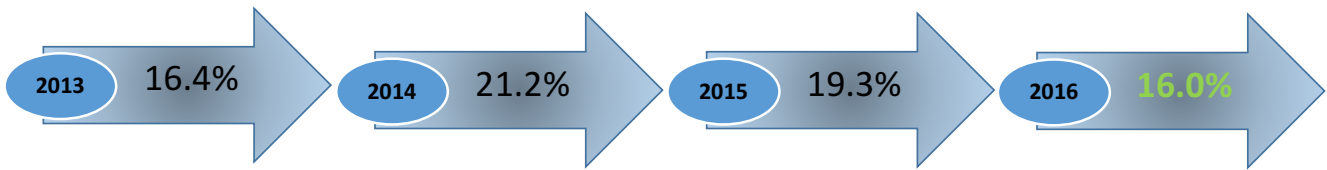


**STRENGTH:** As expected since opening our primary birthing centre Waioha we have seen a 7% increase in spontaneous vaginal births amongst standard primips since 2015. We have also seen an overall increase in spontaneous vaginal births for this cohort, and we are now sitting almost equal with the National Mean. Furthermore in comparison to our internal 2015 data we can see that there has been an increase of spontaneous vaginal births amongst all ethnicities. Please see Quality Initiatives Chapter for further information.

	Spontaneous vaginal births achieved per ethnic group - 2016	Total Standard Primiparae per ethnic group - 2016	Rate (%) per Ethnicity	2015 National Mean
Māori	61	85	71.8%	
Pacific Islander	17	23	73.9%	
European	112	169	66.3%	
Asian	10	18	55.6%	
Other	6	11	54.5%	
<b>Total</b>	<b>206</b>	<b>306</b>	<b>67.3%</b>	<b>68.7%</b>

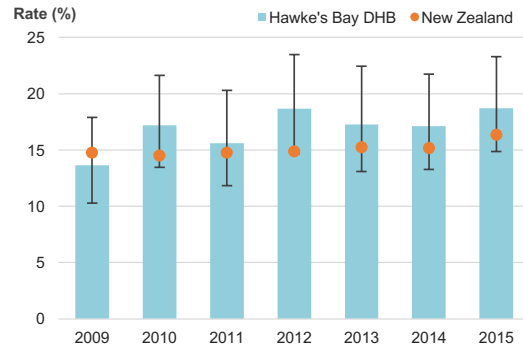


Indicator 3: Instrumental vaginal birth among Standard Primiparae



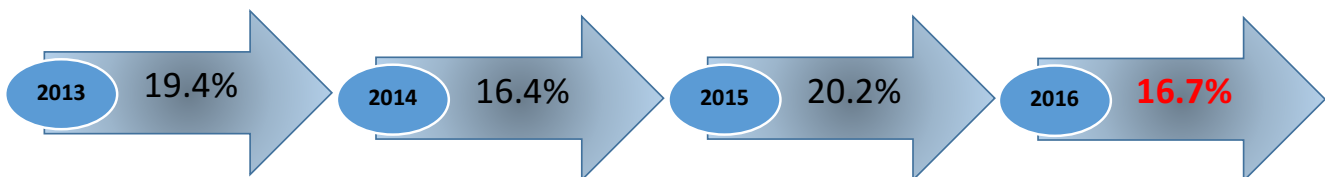
**STRENGTH:** We have seen a positive decrease in instrumental vaginal birth amongst standard primip this year with a correlated increase in spontaneous vaginal birth, and we are now sitting equal with the National Mean. Amongst our ethnicities Asian and Other had the highest rate of instrumental vaginal births, however in correlation with indicators 2 and 4, these ethnic groups also have the lowest rates of spontaneous vaginal and caesarean births. Another contributing factor to their high rates could also be that Asian and Other are our lowest population groups, therefore pushing the overall percentage up.

	Instrumental Vaginal Births per ethnic group – 2016	Total Standard Primiparae per ethnic group – 2016	Rate (%) per Ethnicity	2015 National Mean
Māori	7	85	8.2%	
Pacific Islander	3	23	13.0%	
European	28	169	16.6%	
Asian	7	18	38.9%	
Other	4	11	36.4%	
<b>Total</b>	<b>49</b>	<b>306</b>	<b>16.0%</b>	<b>16.3%</b>



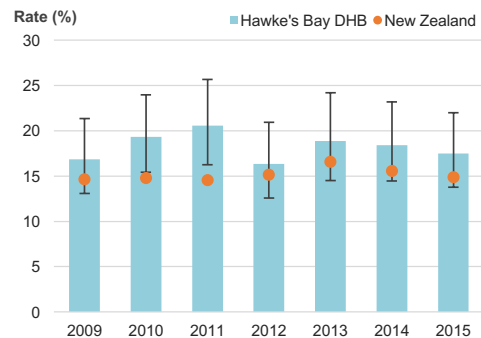
Error bars represent the 95% confidence interval for DHB rate.

Indicator 4: Caesarean section among Standard Primiparae



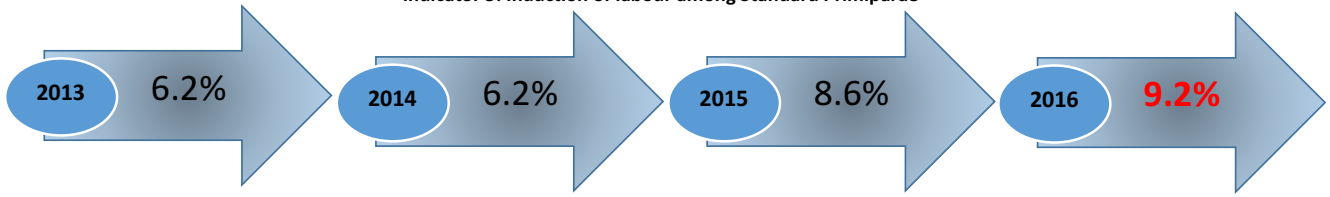
**DECREASING:** It is reassuring to see a 3.5% decrease in caesarean sections amongst our standard primips this year. We are positive we will continue to see a decrease with our new primary birthing centre (Waioha) opened and a more effective policy around IOL being implemented. From an ethnicity point of view our Māori and European standard primips have the highest rate of caesarean sections, and sit above the national mean for their respective ethnicities. However Māori do have a good spontaneous vaginal birth rate and with Europeans being our largest ethnic group, they are well spread out over all birth modes.

	Caesarean Sections per ethnic group – 2016	Total Standard Primiparae per ethnic group – 2016	Rate (%) per Ethnicity	2015 National Mean
Māori	17	85	20.0%	
Pacific Islander	3	23	13.0%	
European	29	169	17.2%	
Asian	1	18	5.6%	
Other	1	11	9.1%	
<b>Total</b>	<b>51</b>	<b>306</b>	<b>16.7%</b>	<b>14.9%</b>



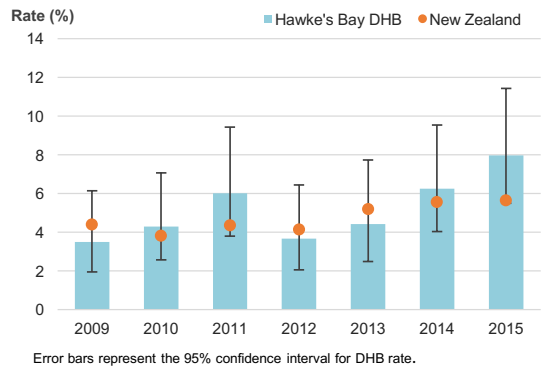
Error bars represent the 95% confidence interval for DHB rate.

Indicator 5: Induction of labour among Standard Primiparae

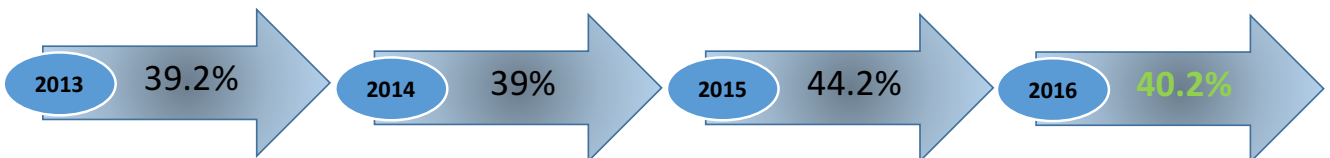


**INVESTIGATE:** Unfortunately 2016 has seen an increase in IOL amongst standard primips since 2015, and we are still placed above the National Mean. This is an area that we have identified needs to be audited to find out if there is a particular reason. Amongst our ethnic groups, IOL was very high for Other and reasonably high for Asian and European women, interestingly 0% of our Pacific Island primips needed an IOL in 2016.

	Inductions of Labour per ethnic group – 2016	Total Standard Primiparae per ethnic group – 2016	Rate (%) per Ethnicity	2015 National Mean
Māori	4	85	4.7%	
Pacific Islander	0	23	0.0%	
European	19	169	11.2%	
Asian	2	18	11.1%	
Other	3	11	27.3%	
<b>Total</b>	<b>28</b>	<b>306</b>	<b>9.2%</b>	<b>5.7%</b>

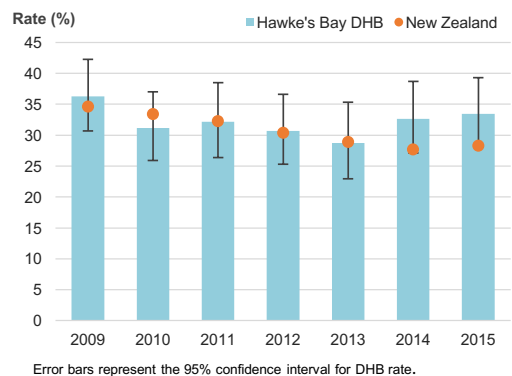


Indicator 6: Intact lower genital tract among Standard Primiparae giving birth vaginally

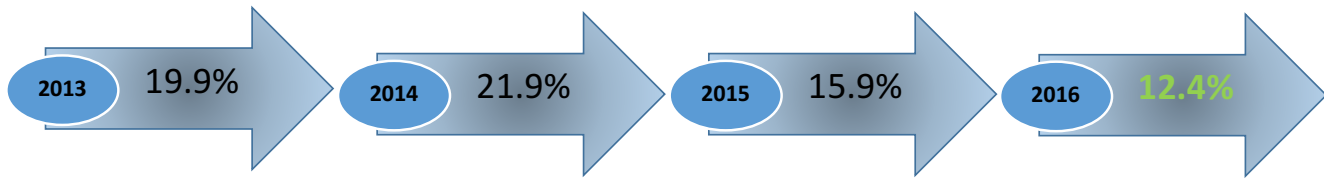


**STRENGTH:** We have seen a 4% decrease in intact lower genital tracts amongst our standard primips in 2016, and we are still placed positively well above the National Average of 28.3%. Encouragingly all ethnicities but Asian contributed to this high figure. A contributing factor for this could be that our Asian standard primips required a high number of instrumental births, and again in relation to population they are a minority group.

	Intact Lower Genital Tracts per ethnic group – 2016	Total Standard Primiparae giving birth vaginally per ethnic group – 2016	Rate (%) per Ethnicity	2015 National Mean
Māori	48	85	56.5%	
Pacific Islander	9	23	39.1%	
European	61	169	36.1%	
Asian	2	18	11.1%	
Other	3	11	27.3%	
<b>Total</b>	<b>123</b>	<b>306</b>	<b>40.2%</b>	<b>28.3%</b>

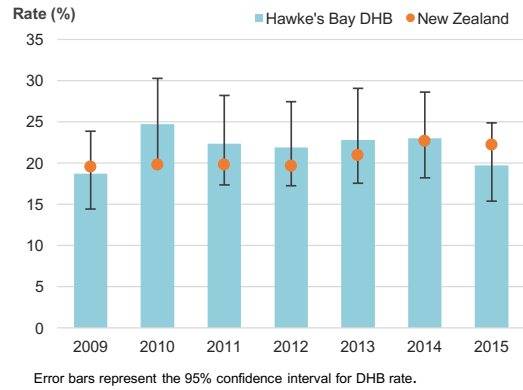


**Indicator 7: Episiotomy and no third or fourth degree tear among Standard Primiparae giving birth vaginally**

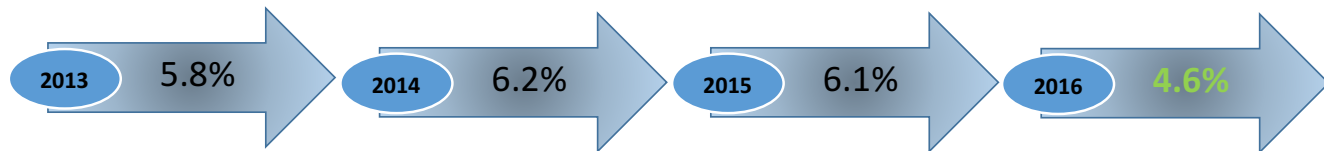


**STRENGTH:** In the last 3 years we have seen significant decreases in our episiotomy and no 3/4D tear amongst standard primip, and we continue to sit below the national mean of 22.2%. Episiotomies are very uncommon in our Māori standard primips, which is reassuring as they did have a high percentage of spontaneous vaginal deliveries. Our Asian and Other ethnic groups are requiring an episiotomy the most, this is also the group who has the highest rate of instrumental deliveries. Future action – Implementation of OASIS care bundle, see 2017 Action Plan.

	Episiotomies without a 3 <sup>rd</sup> or 4 <sup>th</sup> degree tear per ethnic group - 2016	Total Standard Primiparae giving birth vaginally per ethnic group - 2016	Rate (%) per Ethnicity	2015 National Mean
Māori	3	85	3.5%	
Pacific Islander	4	23	17.4%	
European	19	169	11.2%	
Asian	7	18	38.9%	
Other	5	11	45.5%	
<b>Total</b>	<b>38</b>	<b>306</b>	<b>12.4%</b>	<b>22.2%</b>

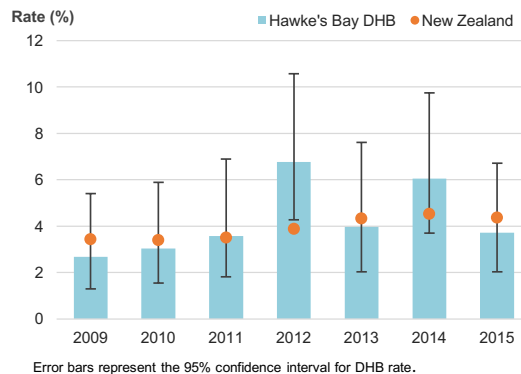


**Indicator 8: Third or fourth degree tear and no episiotomy among Standard Primiparae giving birth vaginally**



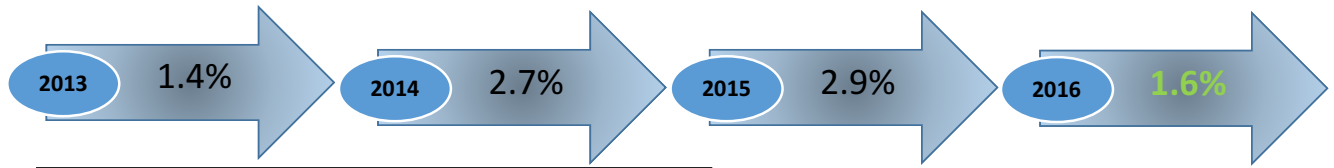
**DECREASING:** Encouragingly this year we have seen a decrease in 3/4D tears amongst standard primip who are not requiring an episiotomy and we are now placed equally with the National Mean. Although our percentage per ethnicities represents that 3/4D tears are highest amongst Asian and Pacific Islander, when looking at the raw data we can see that European primips have had the highest number of tears, this is also our largest ethnic group by population.

	3 <sup>rd</sup> or 4 <sup>th</sup> degree tears without episiotomy per ethnic group - 2016	Total Standard Primiparae giving birth vaginally per ethnic group - 2016	Rate (%) per Ethnicity	2015 National Mean
Māori	3	85	3.5%	
Pacific Islander	2	23	8.7%	
European	7	169	4.1%	
Asian	2	18	11.1%	
Other	0	11	0.0%	
<b>Total</b>	<b>14</b>	<b>306</b>	<b>4.6%</b>	<b>4.4%</b>



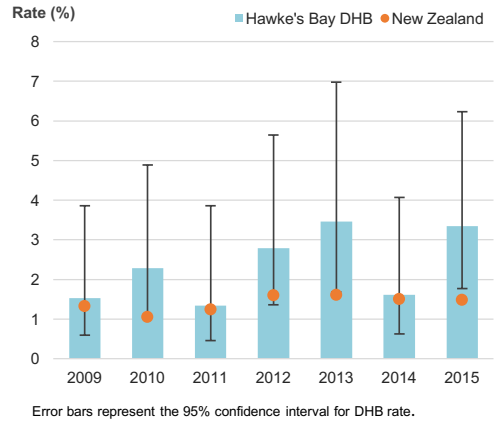


**Indicator 9: Episiotomy and third or fourth degree tear among Standard Primiparae giving birth vaginally**

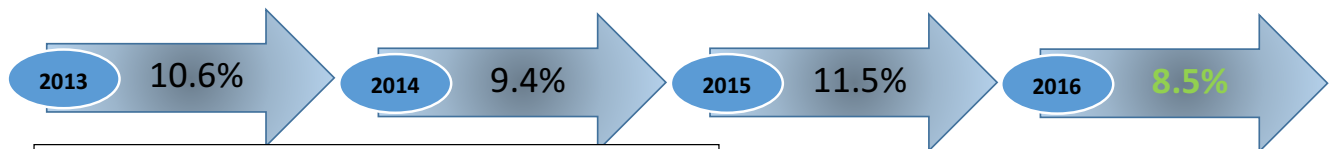


**DECREASING:** With similar findings to Clinical Indicator 8, we have seen a decrease in 3/4D tears amongst standard primip who have required an episiotomy, reassuringly we are now equal with the National Mean. 3/4D tears were also evenly spread amongst ethnicities, European women had the highest with 2 occurring. Please see review undertaken of these 5 standard primip women in the audits section.

	Episiotomies with a 3 <sup>rd</sup> or 4 <sup>th</sup> degree tear per ethnic group – 2016	Total Standard Primiparae giving birth vaginally per ethnic group – 2016	Rate (%) per Ethnicity	2015 National Mean
Māori	1	85	1.2%	
Pacific Islander	1	23	4.3%	
European	2	169	1.2%	
Asian	1	18	5.6%	
Other	0	11	0.0%	
<b>Total</b>	<b>5</b>	<b>306</b>	<b>1.6%</b>	<b>1.5%</b>

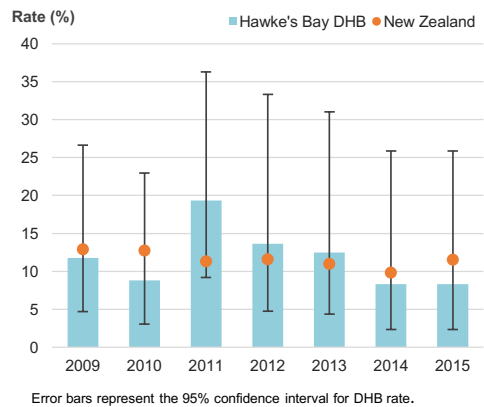


**Indicator 10: General anaesthetic for women giving birth by Caesarean Section**

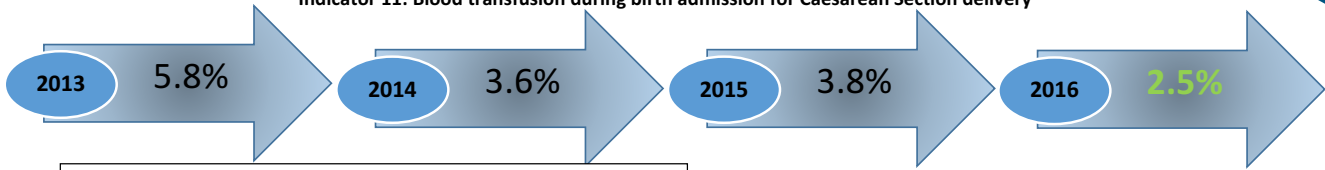


**STRENGTH:** 2015 had seen an increase in Caesarean Sections under GA, and this prompted an audit to be undertaken. Following the audit improvements have been made and in 2016 we have seen a positive decrease in this number. Furthermore our 2016 figures show that we have had our lowest amount of caesarean sections under GA since data recording began in 2013 for this clinical indicator. From an ethnicity point of view Māori and European required GA the most, this figure corresponds with these ethnic groups also having the highest rates of emergency caesarean sections.

	Caesarean Sections Under General Anaesthetic per ethnic group – 2016	Total Caesarean Sections per ethnic group – 2016	Rate (%) per Ethnicity	2015 National Mean
Māori	12	183	6.6%	
Pacific Islander	5	33	15.2%	
European	24	258	9.3%	
Asian	2	32	6.3%	
Other	1	9	11.1%	
<b>Total</b>	<b>44</b>	<b>515</b>	<b>8.5%</b>	<b>8.8%</b>

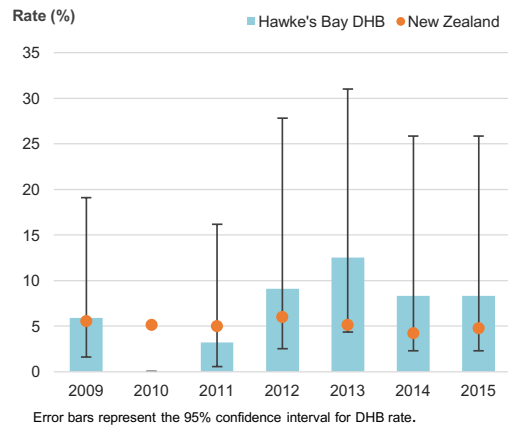


Indicator 11: Blood transfusion during birth admission for Caesarean Section delivery

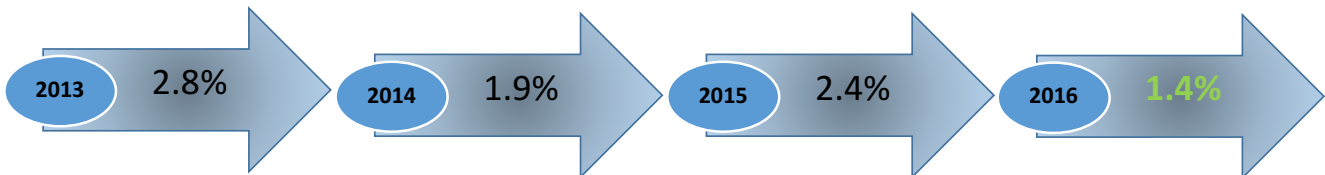


**STRENGTH:** We have continued to reduce the rate of post Caesarean Section blood transfusions and are now placed below the National Mean of 2.9%. A possible reason for this decrease could be due to the increase in antenatal iron infusions, reducing the need for postnatal blood transfusion. Although our data shows us that Pacific Islanders are at greatest risk of needing a post caesarean section blood transfusion, this could be because of the small ethnic cohort. Our largest number of women having post caesarean section blood transfusions are equally Māori and European, again reflected in previous clinical indicators these are our greatest ethnic groups having caesarean sections.

	Blood Transfusions Post Caesarean Section per ethnic group – 2016	Total Caesarean Sections per ethnic group – 2016	Rate (%) per Ethnicity	2015 National Mean
Māori	5	183	2.7%	
Pacific Islander	2	33	6.1%	
European	5	258	1.9%	
Asian	1	32	3.1%	
Other	0	9	0.0%	
<b>Total</b>	<b>13</b>	<b>515</b>	<b>2.5%</b>	<b>2.9%</b>

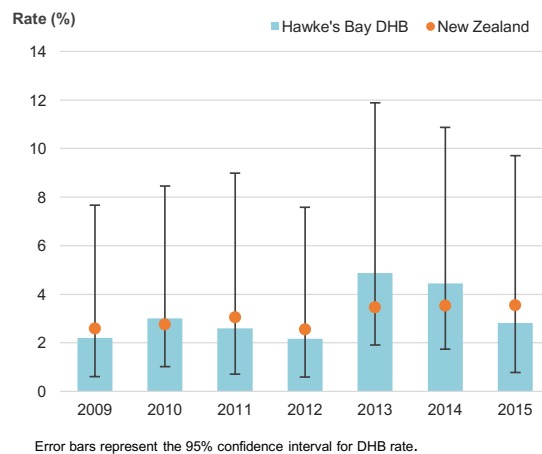


Indicator 12: Blood transfusion during birth admission for vaginal birth

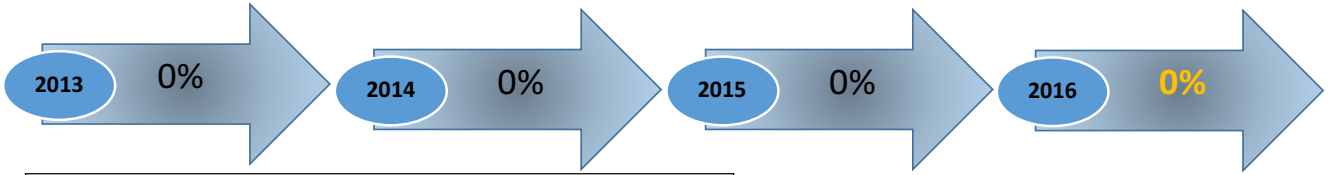


**STRENGTH:** It is reassuring to see that we have had a decrease in post vaginal birth blood transfusions in 2016, we are now placed below the National Mean of 2.0%. Our internal data shows that Māori and European were the ethnicities most at risk during 2016 for requiring a post vaginal birth blood transfusion. These are our largest ethnic groups by population, therefore have a likelihood of having increased numbers. From a statistics point of view Asian women are placed most at risk.

	Blood Transfusions Post Vaginal Birth per ethnic group – 2016	Total Vaginal Births per ethnic group – 2016	Rate (%) per Ethnicity	2015 National Mean
Māori	13	736	1.8%	
Pacific Islander	2	130	1.5%	
European	7	896	0.8%	
Asian	4	84	4.8%	
Other	1	40	2.5%	
<b>Total</b>	<b>27</b>	<b>1935</b>	<b>1.4%</b>	<b>2.0%</b>

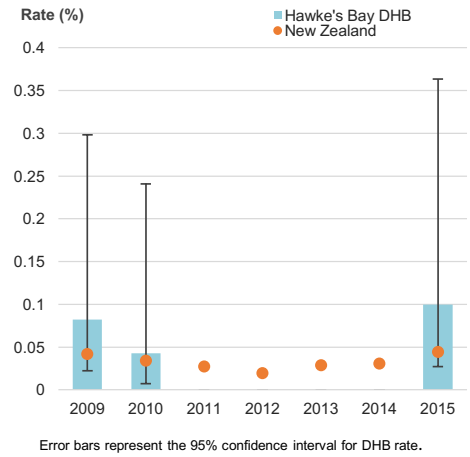


Indicator 13: Diagnoses of eclampsia during birth admission for all women

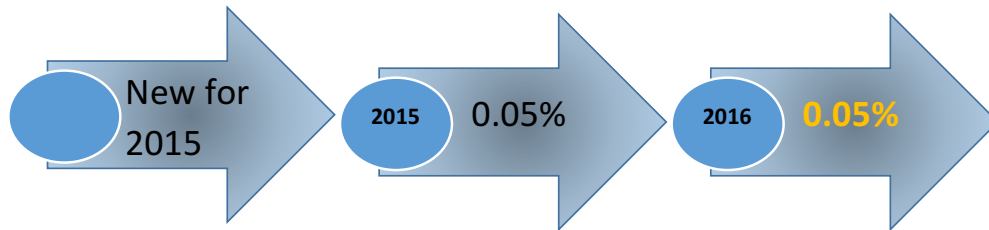


**STRENGTH:** Although differing from the national data our internal data shows that there were no occurrences of eclampsia amongst any of the women who birthed within HBDHB Maternity Services during 2016, similar to 2015, 2014 and 2013.

	All Women Diagnosed with Eclampsia per ethnic group – 2016	Total number of women giving birth per ethnic group – 2016	Rate (%) per Ethnicity	2015 National Mean
Māori	0	773	0.00%	
Pacific Islander	0	132	0.00%	
European	0	923	0.00%	
Asian	0	87	0.00%	
Other	0	41	0.00%	
<b>Total</b>	<b>0</b>	<b>1,935</b>	<b>0.00%</b>	<b>26</b>

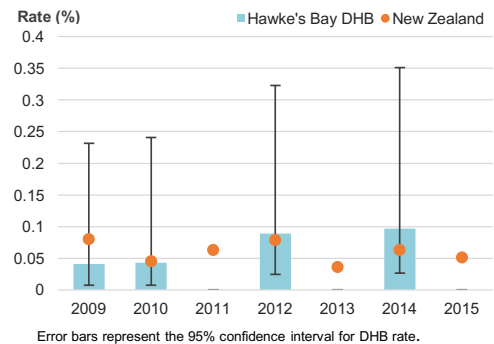


Indicator 14: Women having a peripartum hysterectomy

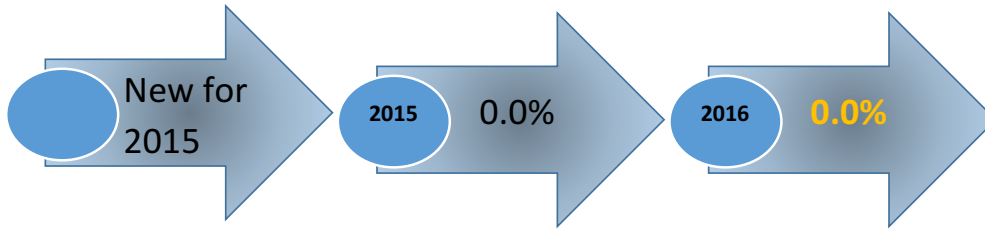


In 2016 one woman required a peripartum hysterectomy due to placenta accreta, our numbers for peripartum hysterectomy continue to remain static since the introduction of this clinical indicator in 2015.

	Total number of women having an abdominal hysterectomy per ethnic group – 2016	Total number of women giving birth per ethnic group – 2016	Rate (%) per Ethnicity	2015 National Mean
Māori	1	773	0.12%	
Pacific Islander	0	132	0.00%	
European	0	923	0.00%	
Asian	0	87	0.00%	
Other	0	41	0.00%	
<b>Total</b>	<b>1</b>	<b>1935</b>	<b>0.05%</b>	<b>30</b>

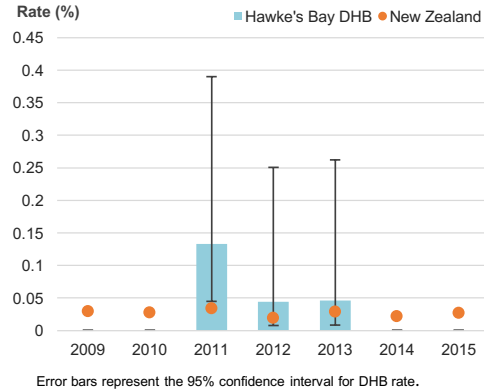


**Indicator 15: Women admitted to ICU and requiring ventilation during the pregnancy or postnatal period**

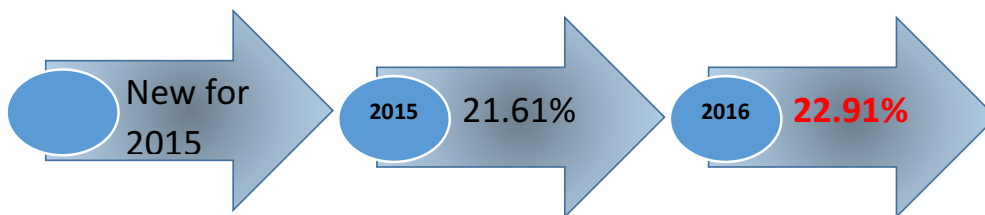


During 2015 and 2016 Hawke's Bay DHB has had no incidence of women being admitted to ICU requiring over twenty four hours of mechanical ventilation.

	Total number of women admitted to ICU and requiring over 24 hours of ventilation per ethnic group – 2016	Total Number of women giving birth per ethnic group – 2016	Rate (%) per Ethnicity	2015 National Mean
Māori	0	773	0.00%	
Pacific Islander	0	132	0.00%	
European	0	923	0.00%	
Asian	0	87	0.00%	
Other	0	41	0.00%	
<b>Total</b>	<b>0</b>	<b>1935</b>	<b>0.00%</b>	<b>16</b>

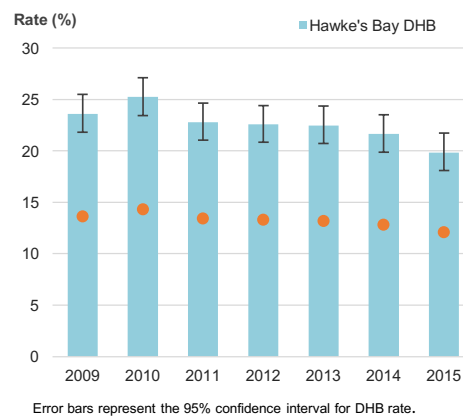


**Indicator 16: Number of women not smoke free at postnatal discharge**

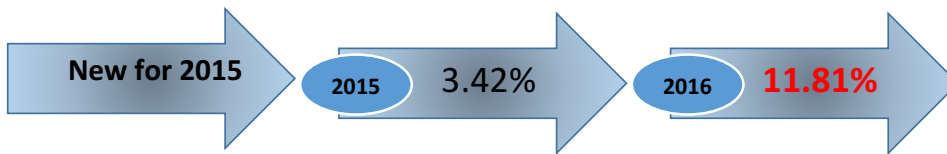


**INVESTIGATE:** Unfortunately we still have a suboptimal number of women not smoke free at post-natal discharge. We have also seen a slight increase in this number since 2015 and remain well above the National Mean of 12.0%. From an ethnicity perspective it is our Māori women who have the highest prevalence of smoke exposed pregnancies, they make up almost half of our non-smoke free mothers. HBDHB has a variety of support systems and initiatives to try and significantly reduce this number. Please see Quality Initiatives section for more information.

	Total Number of Women not Smoke free per ethnic group – 2016	Total Mothers booked in 2016 per ethnic group	Rate (%) per Ethnicity	2015 National Mean
Māori	334	767	43.55%	
Pacific Islander	14	130	10.77%	
European	110	983	11.19%	
Asian	2	102	1.96%	
Other	1	30	3.33%	
<b>Total</b>	<b>461</b>	<b>2,012</b>	<b>22.91%</b>	<b>12.0%</b>

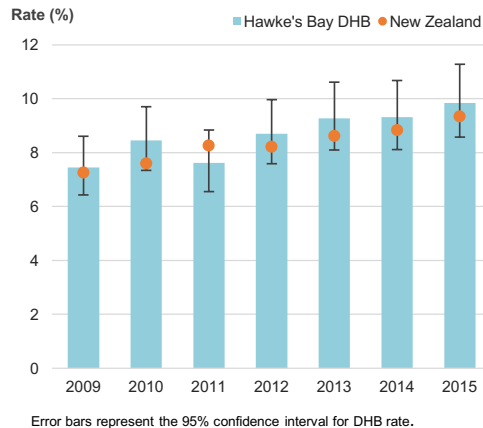


Indicator 17: Women giving birth with a BMI over 35 at registration

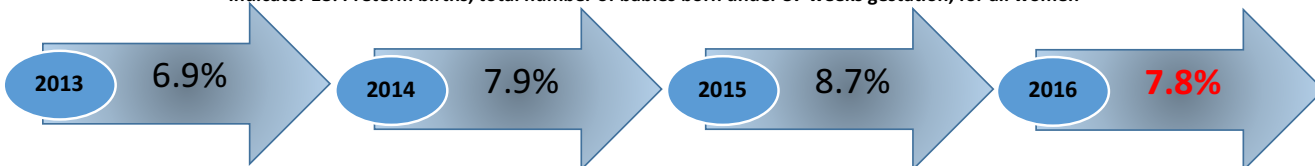


**INVESTIGATE:** The data relevant to this clinical indicator demonstrates that we have seen a large increase in women with a BMI over 35 at registration. As discussed in the population demographics chapter we have seen a slight increase amongst the three cohorts which represent overweight women, however the contributing reason to the significant variation between our 2015 and 2016 data is due to the inconsistencies around ensuring women’s BMI is recorded at registration. In analysing this data from an ethnicity point of view we can see that our Māori and Pacific Island women are most at risk of having a BMI over 35, and therefore this is where our efforts to reduce obesity need to be focused.

	Total Number of women with BMI over 35 per ethnic group – 2016	Total number of women with BMI recorded per ethnic group – 2016	Rate (%) per Ethnicity	2015 National Mean
Māori	117	666	17.56%	
Pacific Islander	31	113	27.43%	
European	66	925	7.13%	
Asian	2	98	2.04%	
Other	0	26	0.00%	
<b>Total</b>	<b>216</b>	<b>1,828</b>	<b>11.81%</b>	<b>9.3%</b>

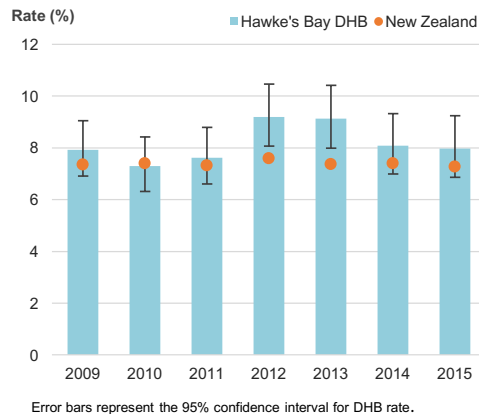


Indicator 18: Preterm births, total number of babies born under 37 weeks gestation, for all women

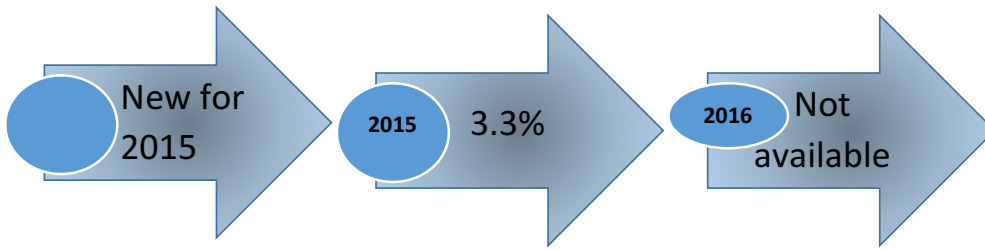


**INVESTIGATE:** In 2016 we continue to be above the national mean of 7.3% for pre-term live births under 37 weeks gestation. The majority of pre-term live births under 37 weeks occurred amongst our Māori and European women, these also were the largest ethnic groups by population. As represented in the previous clinical indicator, we have a high rate of Māori women whom are not smoke free, this is an evident contributing factor for these figures seen here. Furthermore it was found in a 2015 preterm audit that 41% of pre-term births were amongst Māori non-smoke free women.

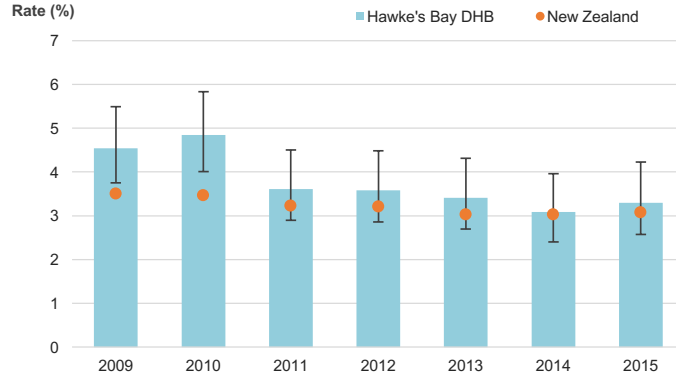
	Total number of babies born under 37 weeks gestation per ethnic group – 2016	Total number of babies born (live births) per ethnic group – 2016	Rate (%) per Ethnicity	2015 National Mean
Māori	74	742	9.97%	
Pacific Islander	6	113	5.31%	
European	70	970	7.22%	
Asian	4	86	4.65%	
Other	1	20	5.00%	
<b>Total</b>	<b>155</b>	<b>1969</b>	<b>7.8%</b>	<b>7.3%</b>



Indicator 19: Small babies at term (37-42 weeks gestation)

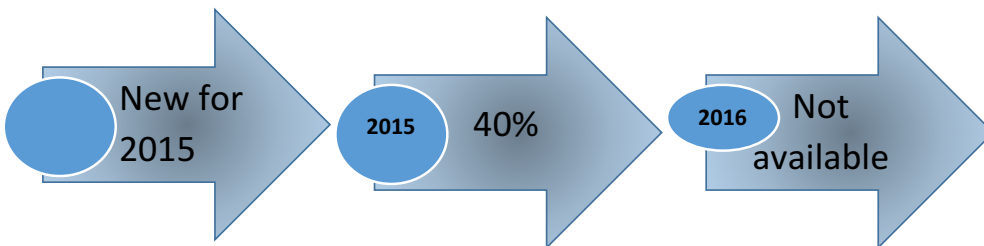


Unfortunately we cannot source internal data for this clinical indicator. We are working on correcting this issue for our 2017 report.

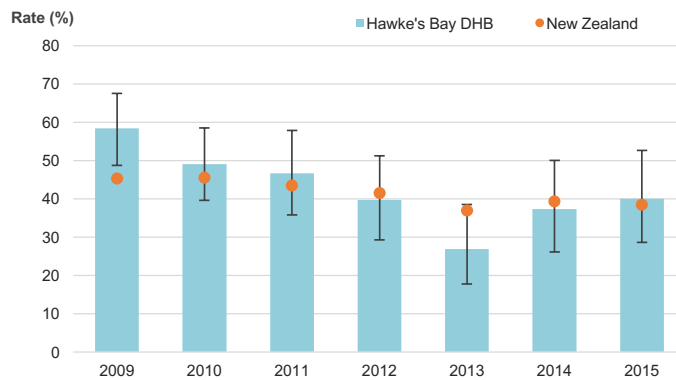


Error bars represent the 95% confidence interval for DHB rate.

Indicator 20: Small babies at term born at 40-42 weeks gestation

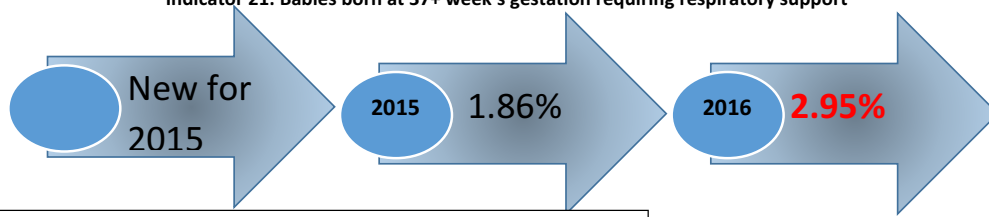


Unfortunately we cannot source internal data for this clinical indicator. We are working on correcting this issue for our 2017 report.



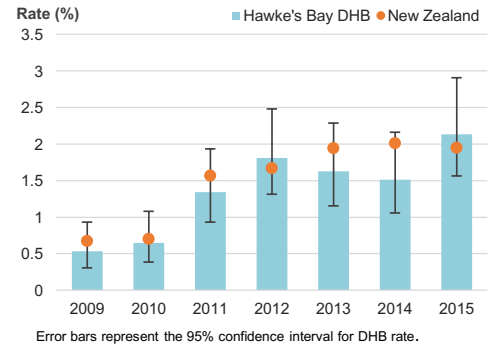
Error bars represent the 95% confidence interval for DHB rate.

Indicator 21: Babies born at 37+ week's gestation requiring respiratory support

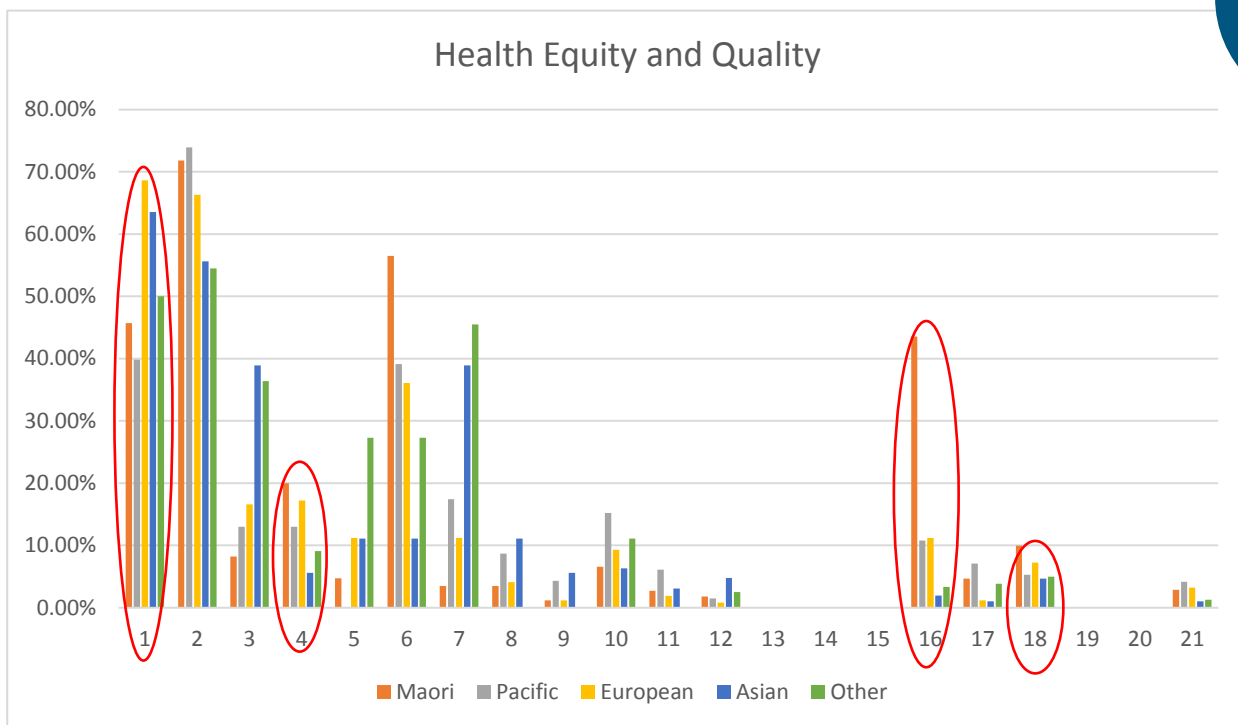


**INVESTIGATE:** The collation of data for this clinical indicator began in 2015, where it demonstrated that we had a slightly high number in comparison to national figures for term babies requiring ventilation. Unfortunately 2016 data shows us that we have had a negative increase and are placed 1.9% above the national mean. These figures are suboptimal and further inquiry needs to be made. Due to a rising trend we will be auditing these babies more specifically. With regards to ethnicity Māori, Pacific and European babies were most at risk for requiring respiratory support, these figures also correlate with these ethnic groups having the highest smoking rates.

	Total number of babies 37+ weeks requiring respiratory support per ethnic group – 2016	Total Babies per ethnic group - 2016	Rate (%) per Ethnicity	2015 National Mean
Māori	24	841	2.85%	
Pacific Islander	5	120	4.17%	
European	27	831	3.25%	
Asian	1	100	1.00%	
Other	1	77	1.30%	
<b>Total</b>	<b>58</b>	<b>1969</b>	<b>2.95%</b>	<b>1.9%</b>







The graph above is an overview of how each ethnicity is represented per clinical indicator, we have created this for the purpose of determining Health Equity and Quality measures.

**Clinical indicator one** is an identified area for further investigation, we can see that Māori and Pacific Islanders are less likely to engage with an LMC in the first trimester of pregnancy, we are continuing to explore reasons for this and campaigning these two ethnic groups as our target group.

As previously discussed **in clinical indicator four** we still have high rates of Caesarean Sections amongst our standard primips. Our data shows us that Māori and European are experiencing the highest rates of caesarean sections, although a contributing factor to the high numbers could be because these are our two largest ethnic groups, we plan to further investigate why Māori and European primips are most susceptible to caesarean section.

**Clinical indicator five** is another that we have identified needs to be audited in 2017. The largest ethnic group requiring induction of labour is 'Other' followed equally by Asian and European.

**Clinical indicator sixteen** clearly represents that further engagement and promotion needs to be undertaken with Māori mothers to reduce the very high rate of women not smoke free at postnatal discharge.

The information in **clinical indicators eighteen and twenty one** also defines that a higher than average number of Māori and European babies are being born preterm. These two ethnic groups also have the highest numbers of babies born 37+ weeks gestation requiring respiratory support. We believe that through our smoke free initiative we will see reduced numbers amongst Māori, however need to research more in depth about other contributing factors to these suboptimal numbers.

In summary we can see that there is identified health inequity amongst all ethnicities, which would be equivalent with the demographics and deprivation status of Hawke's Bay. However our main target groups are Māori and Pacific Islander with far greater inequity in comparison to the rest of our population. Particular focus continues for access, engagement and social deprivation to support improved health and wellbeing.



## BIRTH STATISTICS

This chapter outlines the care provision and organisation of our labour and birthing facilities and provides a detailed analysis of our birth statistics in relation to the demographics of the women who birthed within the three birthing facilities at HBDHB.

Statistics analysed in this report are based on a twelve month period of data from 1st January 2016 to 31st December 2016. The majority of our data is centred on the 1969 babies that were born to 1935 mothers within the three hospital sites during that timeframe; further into the chapter there is also data and analysis included on the planned and unplanned homebirths, and born before arrivals. Please note that there have been specific data challenges throughout 2016 due to the opening of a new alongside facility. The data presented is accurate to the best of our knowledge with some known limitations.

Of the 1935 mothers that birthed during 2016, 37.41% were primiparous whilst 62.58% were multiparous. In comparison to our 2015 data, there has been a 2% increase in primips and a 2% decrease in multips.

It should also be noted at this point that of the 1969 babies born, 1955 were live births whilst the remaining 14 were stillbirths. Where possible stillbirths have been identified amongst the data in order to clarify the statistics, these 14 stillbirths are also further discussed in the PMMRC Section of this report.

# Measurable Outcomes for 2016

<b>Spontaneous Vaginal Birth Rate</b>	<b>Instrumental Birth Rate</b>	<b>Elective Caesarean Section Rate</b>
66.9%	7.2%	9.6%
<b>Emergency Caesarean Section Rate</b>	<b>Total Caesarean Section Rate</b>	<b>Caesarean Section Under General Anaesthetic Rate</b>
15.9%	25.5%	8.5%
<b>Induction of Labour Rate</b>	<b>Episiotomy Rate</b>	<b>3<sup>rd</sup>/ 4<sup>th</sup> Degree Tear Rate</b>
11.2%	5.2%	1.7%
<b>Epidural Rate</b>	<b>Postpartum Haemorrhage Rate</b>	<b>Postnatal Blood Transfusion Rate</b>
23.20%	22.37%	2.6%
<b>Women living in Deciles 8-10</b>	<b>Neonatal SCBU Admission Rate</b>	<b>Exclusive Breastfeeding Rate</b>
60.77%	18.75%	85.8%
<b>Homebirth Rate</b>	<b>Registration with an LMC in 1<sup>st</sup> Trimester Rate</b>	<b>BMI &gt;35 at Booking</b>
4.4%	57.4%	2.84%
<b>Premature Birth Rate (less than 37 weeks)</b>	<b>ICU Admission Rate</b>	
8.6%	0.46%	

## Hawke's Bay Consumer Story - Ata Rangi

Hi, I am Soné and this is my love story.

We decided on having baby number two and it happened faster than expected. We always thought a three year gap would be ideal with our busy boy. I had the same midwife as before as I had a great connection with her first time around. It's such a unique experience, you want to get it right, after all their hands will be the first to touch your baby, and I wanted her to be greeted by a warm presence.

We had issues in regards to growth restriction which I had in both pregnancies, I measured small therefore a lot of scans meant I was able to see my little girl a lot more than expected. I tried to rest a lot, and started on Complian meal replacements as well. I also felt overwhelmingly tired to the point of exhaustion which was devastating to my relationship with my toddler. We soon discovered that I was anaemic and that I had to get an iron transfusion. In another two weeks' time from getting the transfusion I felt like a new person. I did wish we picked it up sooner as I wasn't coping well.

Due to having growth restriction and the fear of having to be induced I opted for acupuncture, I also got a few stretch and sweeps. I ended up having our little girl right on time (much like her brother).

My birth plan was inspired by my midwife and I to have a more natural approach. I ended up labouring in the birth pool with essential oils and beautiful music in the background. I took with me big stones that were dunked in hot water and essential oils which my husband and my midwife massaged me with while in the birthing pool at Ata Rangi.

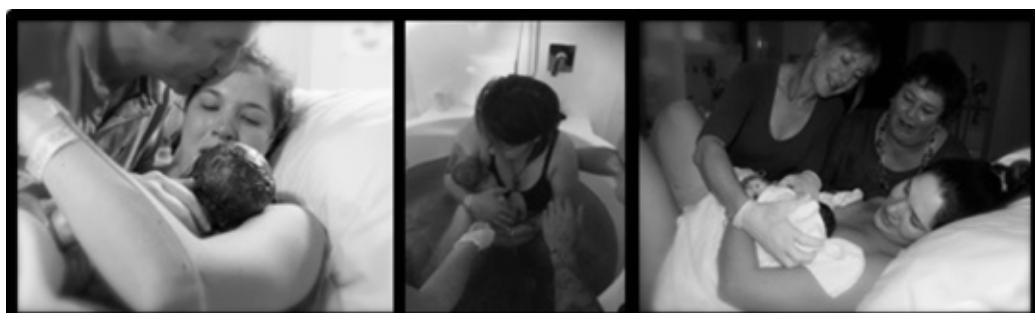
As the contractions escalated due to baby being back to my back I opted for an epidural. I was moved to the other ward and had to wait for the Dr. By the time the doctor arrived she told me that I was too far along, and our little girl arrived not long after! The birth experience was invigorating and doing it naturally truly made me feel empowered. Our little girl was much more settled and slept much better after an all-natural birth in comparison to my first birth having an epidural.

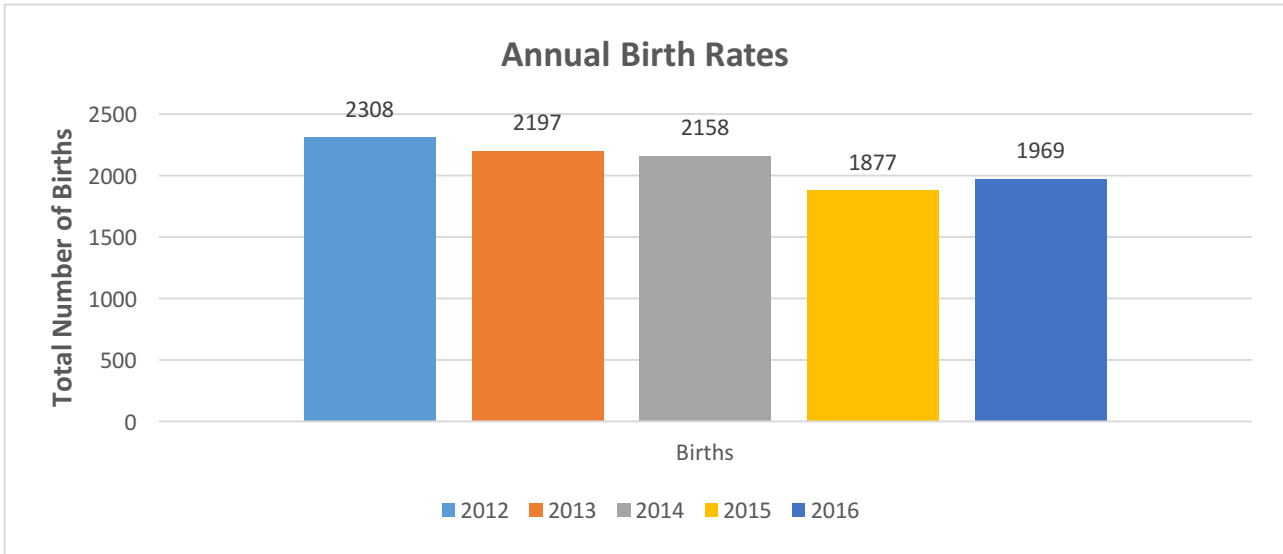
I had a really great experience in the end with both Ata Rangi and my midwife. The staff took great care of me and our little girl and were very helpful. The experience in a whole was really fantastic!

Thanks Soné Moriarty

### ANNUAL BIRTH RATE

As you can see in the following graph the number of women birthing at Hawke's Bay DHB had been on a decline since 2012, however in 2016 we have seen an increase of 111 women, although 2012 and 2013 saw our figures above 2000 women birthing in the HBDHB facilities, it is encouraging to see an increase.





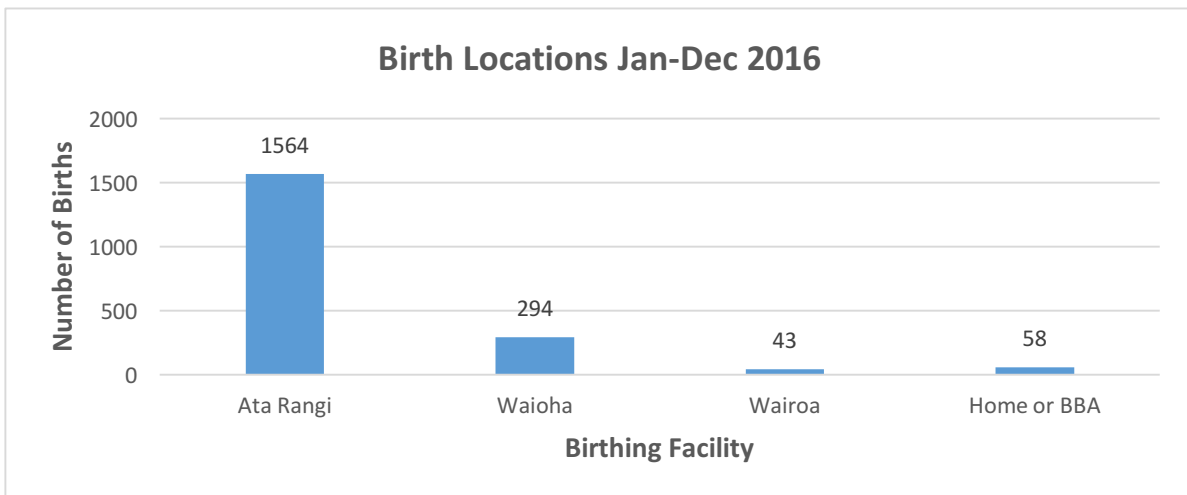
## BIRTH LOCATIONS

In July 2016 we welcomed the opening of our new primary birthing centre Waioha, this opened alongside our already existing secondary birthing facility Ata Rangi at Hawke’s Bay Fallen Soldiers’ Memorial Hospital. We also have our rural primary birthing centre located in Wairoa.



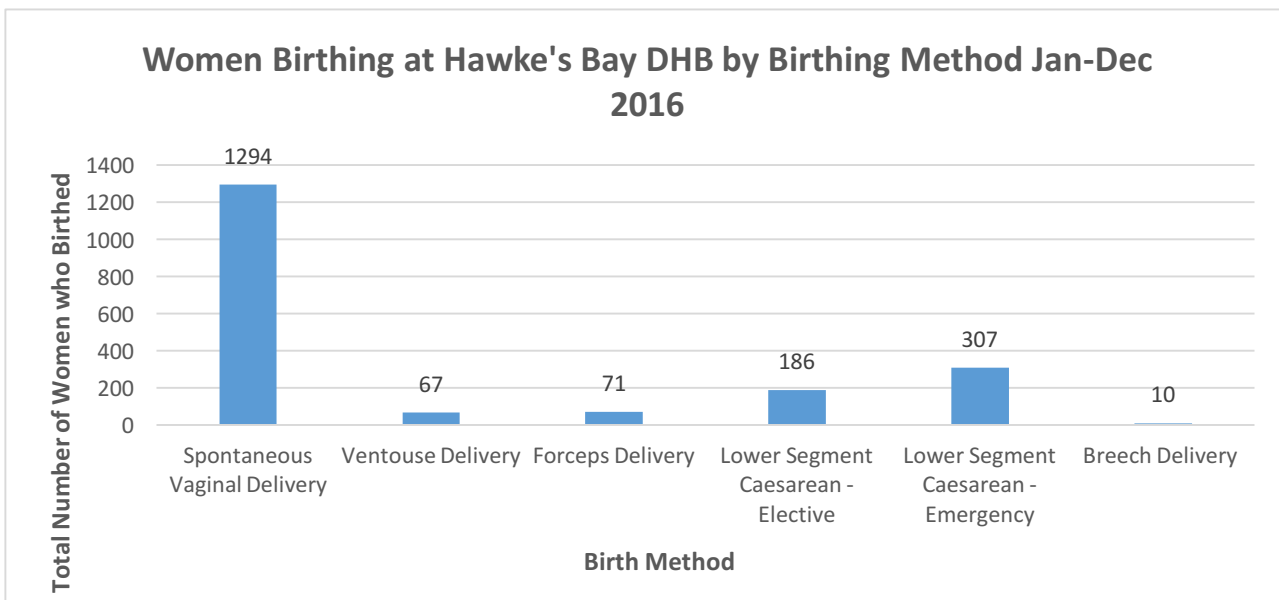
1564 (80.82%) of women birthing within our services during 2016 did so at our secondary facility Ata Rangi, this was a 17.28% decrease since 2015 due to our primary facility Waioha opening. Since its opening in July 2016, 294 (15.1%) women have birthed in Waioha, with the remaining 43 (2.22%) at Wairoa, and 58 (2.99%) of Hawke’s Bay women birthing at home or before arrival to hospital.

In our 2017 report we will have statistics from a full year of our Waioha service, and are positive we will see a further increase in the number of women birthing in Waioha.



# Birth Outcomes

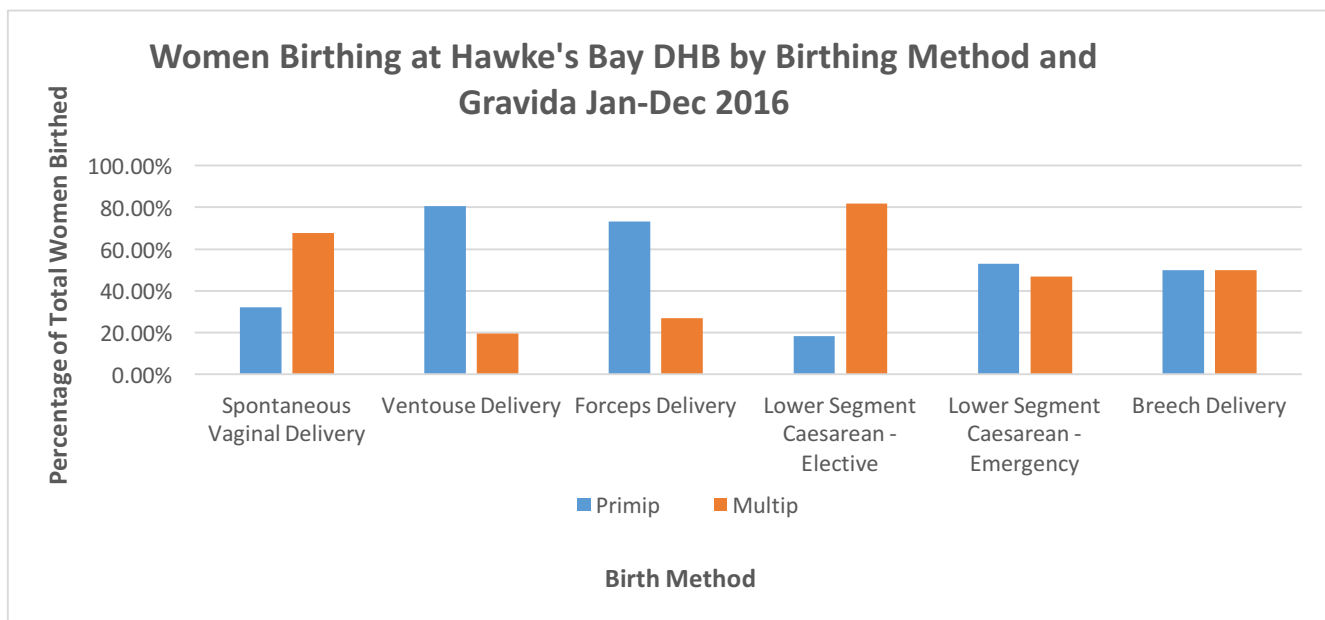
The birth outcomes of the 1935 mothers who birthed within our three sites are demonstrated in the graph below.



The graph demonstrates that the majority of women whom are birthing within the HBDHB services are doing so via spontaneous vaginal birth, with an overall rate of 66.87%. Our overall caesarean section rate is 25.47%, an instrumental rate of 7.12% and a breech birth rate of 0.51%. In comparison to the same data from the previous report, we can see notable changes amongst spontaneous vaginal births with a 0.87% increase, and a 0.78% decrease in instrumental births. Our Caesarean section rates remain static. With the opening of Waioha, an audit being undertaken on caesarean sections and inductions of labour and initiatives from these being implemented; and staff education on labour dystocia occurring throughout 2017, we aim to see an increase in our spontaneous vaginal birth rates, especially in our primiparous women.

## BIRTH OUTCOMES BY PARITY

The breakdown of birth outcomes between primiparous and multiparous women is presented in the graph below.



As one would expect, a higher number of multiparous women (878) achieved a spontaneous vaginal birth, more than double the 416 primiparous women. Statistically when comparing 2016 data to the same data from 2015 we can see that there has been a slight decrease (2.15%) amongst multips achieving a spontaneous vaginal birth, and a 2.14% increase in primips birthing spontaneously. Emergency caesarean sections were almost even figures amongst primips and multips, and as expected the elective caesarean section rates were over four times higher amongst multips. Breech births occurred evenly amongst both primip and multip with 5 occurring in each group. Our data also shows us that instrumental births are far more common in our primips than multips, in comparison to our 2015 data we have seen a slight increase in ventouse births and a slight decrease in forceps births for our primips, however an overall decrease in instrumental births amongst our multiparous women.

## Hawke's Bay Consumer Story - Emergency Caesarean Section

My husband and I were overjoyed to be pregnant, after years of infertility it felt surreal, so many mixed emotions, scared, excited and overwhelmed. My pregnancy was smooth, I had no morning sickness and no complications, I loved being pregnant.

When I was 37 weeks pregnant I started to become extremely uncomfortable, I remember telling my midwife I think I have a ten pound baby, my stomach is so heavy and I'm so uncomfortable. She assured me it was normal and my baby wasn't large. At 41 weeks my midwife referred me for an induction appointment, one that I couldn't get until I was 42 weeks pregnant, being a Friday they assessed me, I had an ultrasound and they sent me home with an induction booked in for the Monday morning.

I spent all weekend nervous and excited that I was possibly going to meet my baby boy on the Monday. When we arrived things were slow, they really didn't do much that day as they were late in starting and were concerned that there could be issues and they were very busy and low in staff overnight.

Day 2 of the induction they got the ball rolling and I was given some more gel and had my waters broken. This was a traumatising experience for me as my baby had moved posterior and my cervix was tilted which made it an extremely difficult and painful task. I had not progressed into labour. It was a very long day, I was strapped to monitors and unable to move around freely. Early Tuesday night they started me on the drip. Contractions started and got intense fast. By 11pm I was asking for an epidural, I hadn't slept in days and I was exhausted, I remember thinking that this process was not what I planned at all; I had planned a natural active birth, and here I was strapped to monitors and drips and unable to freely move. The midwives couldn't get the portable monitors working so I didn't have much freedom for two days. After the epidural I was able to finally get some rest.

Throughout the night I could hear women coming and going and all the wonderful noises of labour and then their baby's being born, little cries would fill the halls, I kept wondering when will it be my turn.

After regular and strong contractions and only dilating to 1cm by 4am, the doctors were getting concerned about Baby's heart rate, they had decided that a C-section was needed to get baby out. The doctors and midwives were fast moving once that decision had been made. I had at that point already accepted it was going to be this way, I just needed it to be over, I was exhausted.



Down in the theatre we were all ready to go, but unfortunately there was an emergency and we had to wait, almost an hour, in the theatre, my husband couldn't cope and had to leave as it was all too much for him and was making him feel sick.

I had a lovely midwife hold my hand through it all. I was absolutely terrified and the nurses, doctors and anaesthetist were amazing, they explained the procedure to me and exactly what was going to happen.

They applied some iodine to my stomach and prepared to make their incision. The midwife made small talk, clearly seeing how frightened I was. Such a strange feeling lying on that operating table, awake, as they removed my baby I could feel my entire body moving and a lot of pressure in my abdomen. But that moment when they held my baby boy up so that I could see him, that was the most incredible moment of my life. Once they placed him on me it was then I knew I was right, I had a big baby. Our boy Oliver was born 16 March 7.59am, he was 10 pound 6 and 57cm long.

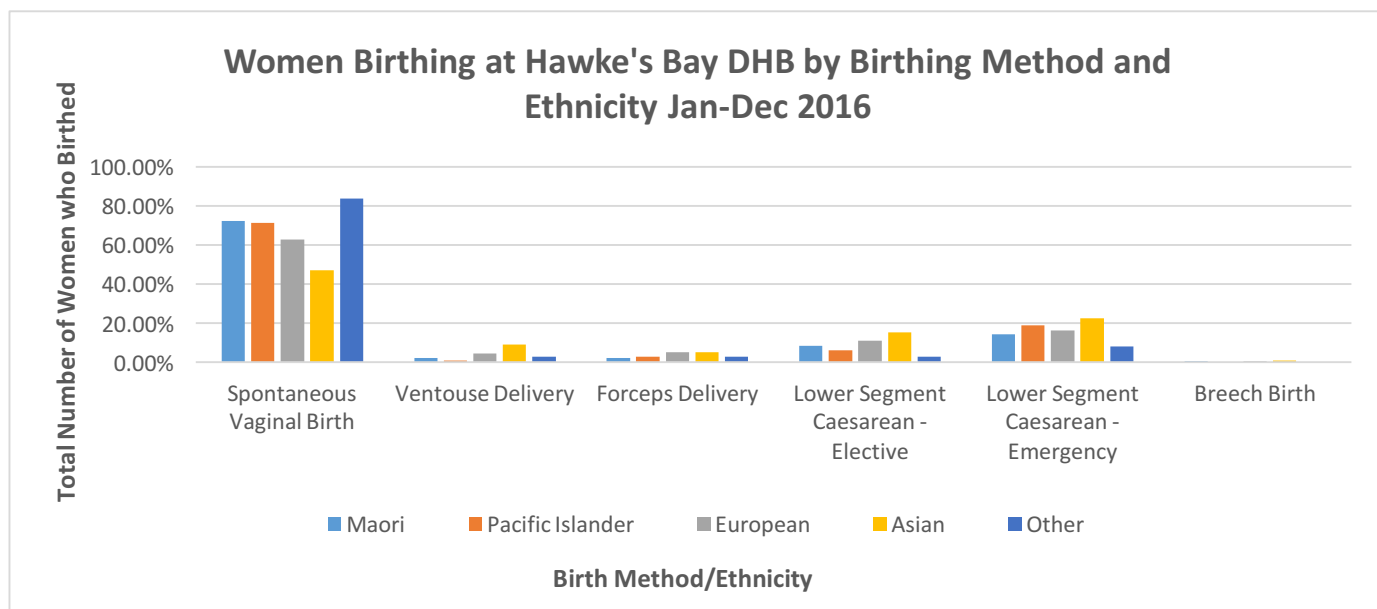


The aftercare was amazing, I was very sick after he was born as I don't do well under anesthetic or morphine, they really did look after us well. The midwives looked after us all, they came and helped with feeding our baby, changing him and looking after me. No one really prepared me for the aftercare that was needed from a C-section, I couldn't lift my baby by myself and needed help for everything. This was an incredibly hard journey and I am so grateful for the support of my husband. We had a wonderful baby that slept a lot and ate a lot, he was a delight. Being a first time mum is a wonderful yet scary journey. My son is now 17 months old and he is the light of my life.

My birth experience wasn't ideal, it certainly didn't go as I planned or hoped and if I'm completely honest, traumatising. It was an awful lot to go through, and because of this it has taken me quite a while to be open to the idea of having another baby.

Carlene Garrett-Tuck

## BIRTH OUTCOMES BY ETHNICITY



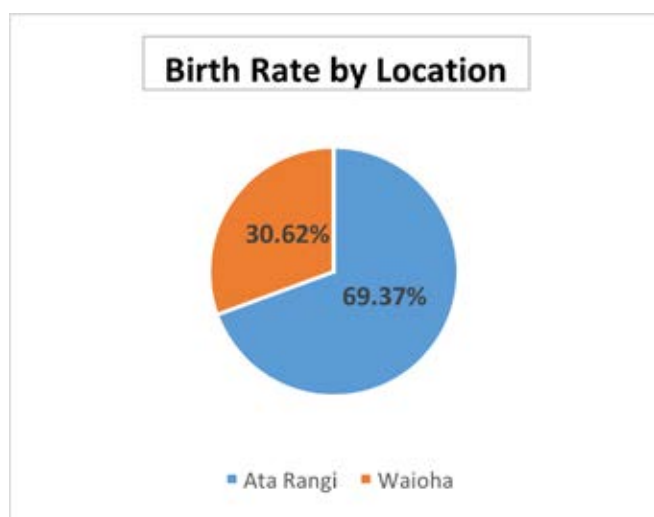


The graph above depicts how each ethnic group birthed their babies by percentage. It is very evident that each ethnic group had more spontaneous vaginal births than any other method. Although our 'Other' ethnic group had the highest percentage of spontaneous vaginal births, this high figure is due to the small group population. The ethnic group's best achieving spontaneous vaginal births are Māori, European and Pacific Islanders.

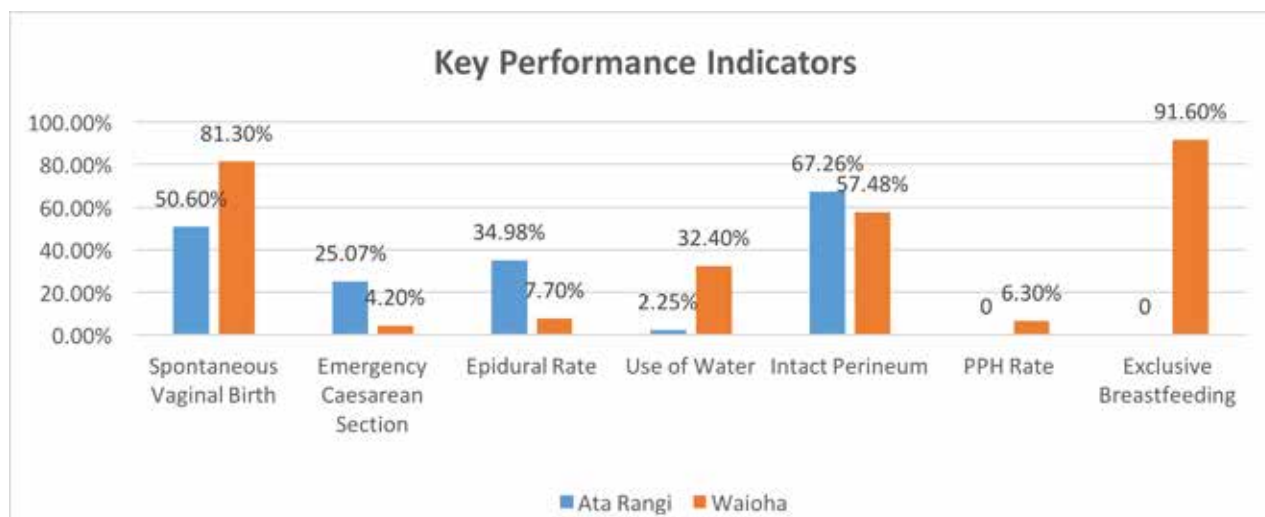
In analysing the remaining modes of birth we can see that Asians have a higher overall percentage of instrumental births and caesarean sections amongst all ethnicities, however this is a minority ethnic group, and when looking at the actual numbers the highest number of instrumental births and caesarean sections are occurring in European and Māori women, as these are our largest ethnic groups.

## PERFORMANCE AREAS BY BIRTH LOCATION

As previously discussed 2016 saw the opening of our primary birthing facility Waioha. The below graph demonstrates the percentage of women birthing in each facility. Wairoa data can be seen separately



The below graph depicts how each birthing service is performing against set key performance indicators. It is encouraging to see a good rate of spontaneous vaginal births and intact perineums in both our primary and secondary birthing facilities. Although we have birthing pools in both Ata Rangi and Waioha, we are seeing a low rate of use of water during birth and labour in Ata Rangi. Over the course of the 6 months of 2016 that Waioha was open 4.20% of women were transferred to Ata Rangi to undergo caesarean section and 7.70% of transfers for the the request of an epidural.



## Hawke's Bay Consumer Story – Waioha

After 6 days of contractions as a consequence of a couple stretch and sweeps I finally made it into Waioha 10 days overdue on the 17th August. It was always my plan to attempt a completely natural birth with no pain relief.

I arrived in Waioha just after 1pm with my contractions almost coming to a complete stop (again) so my midwife checked my progress and attempted to break my water which was unsuccessful.

I had an IV line put in for some fluids as I hadn't had enough to eat/drink prior to being admitted as I didn't feel like it. My contractions started to come back and I had to let them re-establish. As they intensified, with every strong contraction I ended up emptying my stomach contents. Once my contractions were going strong I was allowed into the birthing pool for some pain relief.

Ultimately I ended up telling my husband that I couldn't do it anymore and that I was going to ask for an epidural as I was too sore and exhausted. I pressed the call button for my midwife and one of the ward staff came in. I told her what I wanted and she said she would get my midwife for me. Later she told me that she had said to my midwife 'Rebecca has just asked for an epidural. Give it 30min and she'll have a baby'. I found this quite amusing.

My midwife came in and said she would check on my progress and we could go from there. As I got out of the pool I said I needed to go to the bathroom, however as attempting to go toilet I said I couldn't. Midwife put me right by saying it might be the baby. Sure enough I got up onto the bed and she checked how we were going and told me that I could start pushing with the next contraction.

Twenty minutes later I had delivered our beautiful baby girl at 4.50pm.

Little did I know that the labour was the easy bit because then all the lights come on and they are pushing on your belly, you're being injected to stop bleeding, you're getting your legs put up into stirrups for stitches etc. and then the assault begins on your upper half of your body.

I had a lot of issues learning how to breastfeed and found it difficult with many different people helping, each of them having a different way of doing things. The person that I found the most helpful was Donna and am extremely grateful for all the time she spent with me. All of the ladies were lovely and they would always go out of their way to help if you asked.

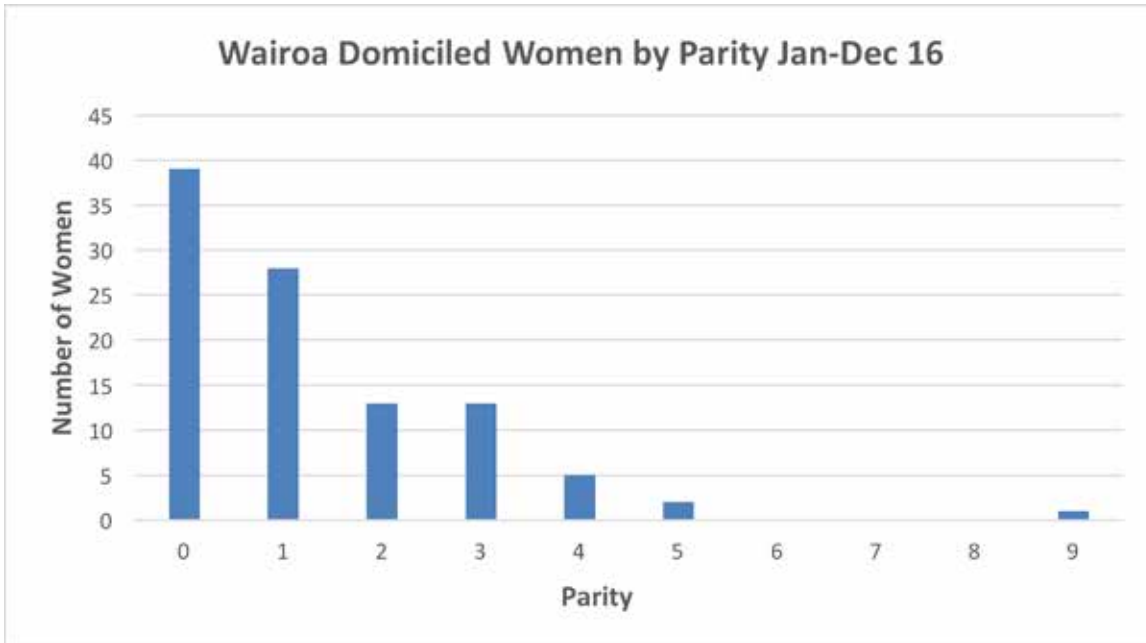
One thing that amazed me was how quickly the room was transformed after I had had the baby. While I was showering everything was cleaned up so that when I came out it was like it was when we had just moved in.

One thing I struggled with was that no one taught me how to burp my baby and not doing this caused us many sleepless nights until the mother in law moved in to help and worked out that our little girl was suffering from a sore belly.

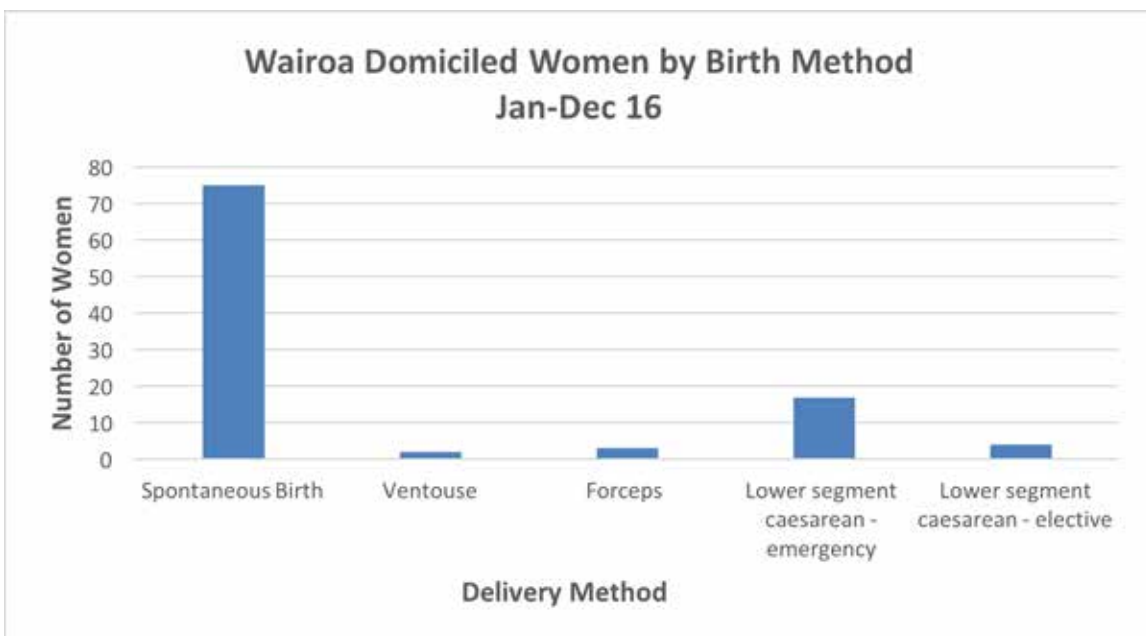
Overall I absolutely loved my experience in Waioha and would recommend trying a natural birth in there. I loved that we stayed in the one room the whole time and that there was a day bed my hubby could relax on too.

# Birth Outcomes for Wairoa Domiciled Women

The graph demonstrates the parity of the 101 women domiciled in Wairoa that birthed within either site during 2016. In comparison to our 2015 figures we have seen a large reduction in grande multiparity with only 2.97%. Our largest parity group amongst Wairoa women were multips 58.41% and the remaining 38.61% were primip women.



75 of the 101 women domiciled for Wairoa had a spontaneous vaginal birth within either the Wairoa or Hastings birthing facilities. Of the remaining; 5 required an instrumental vaginal birth, 17 an emergency caesarean section, and 4 an elective caesarean section at Hastings (Ata Rangi).

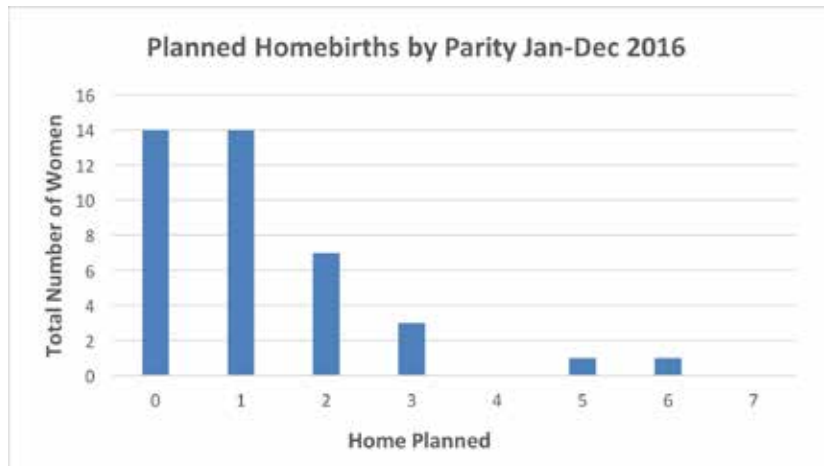


# Hawke's Bay Homebirths

In 2016, 86 women birthed within the Hawke's Bay DHB territory, however outside of the three hospital facilities. Of these 86 women 40 had planned homebirths, 38 were unplanned and 8 were born in transit before arrival to the hospital. When making a comparison with our 2015 data we can see that we have seen a decrease of 39 planned and successful homebirths in 2016.

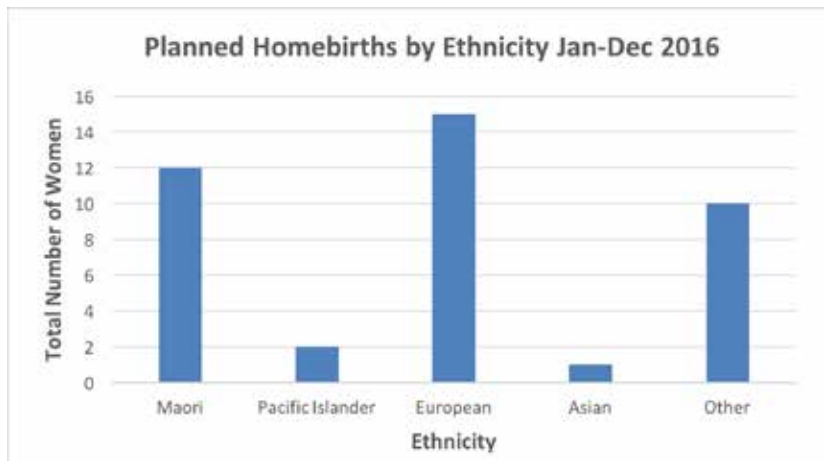
## Planned Homebirths by Parity

The following graph demonstrates planned homebirths by parity. Our highest number of planned homebirths occurred equally in both primip and second time mothers, with 14 women representing each group. In correspondence with our low number of planned and successful homebirths in 2016, overall we have seen a reduction amongst all parities.



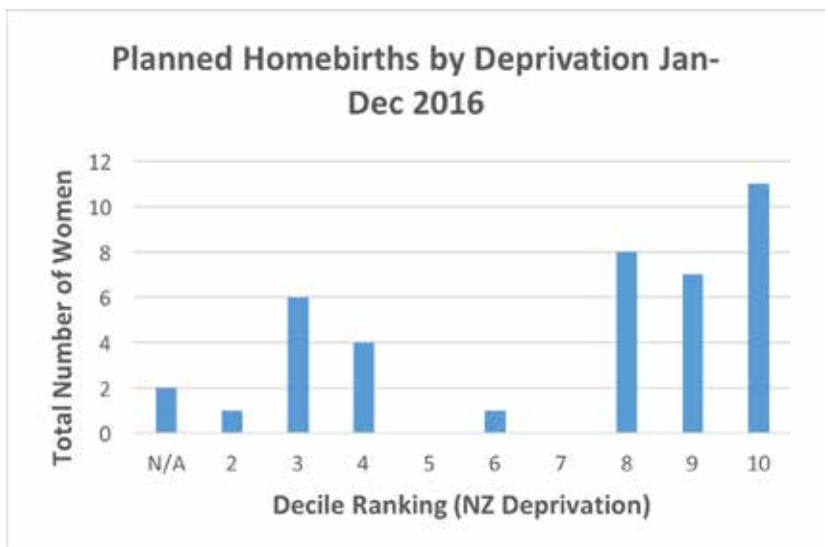
## Planned Homebirths by Ethnicity

The majority of women opting to have a planned homebirth are of European ethnicity, with Māori and Other closely following behind. Pacific Islander and Asian women continue to be less likely to choose this birthing option.



## Planned Homebirths by Deprivation

Of the 40 women whom had a planned homebirth 26 reside in the three most deprived areas of our region, in contrast to just 7 in our three most affluent areas.



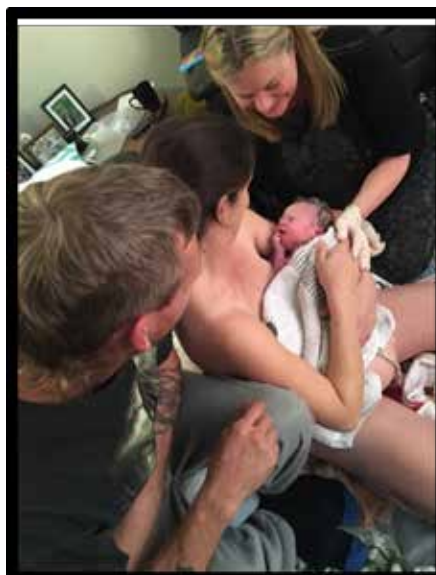
## Improved outcomes through home birth in HB LMC practice - BY Sarah Glass - LMC Midwife

Over 2015/16 I focused on the principles of evidence based care and informed consent around choice of birth place, and that has directly improved outcomes for my clients. By providing clear, evidence, and research based information, and having a full discussion about the risks and benefits of home and hospital birth, over 30% of my caseload in 2015/16 chose to birth at home.

The most exciting element of this approach has been that, when looking at my total client base, women have achieved outcomes well above national levels, where previously they have only matched national levels.

Outcomes for my total client base in 2015/16, compared with national rates:

- Intervention rate 58% lower
- Caesarean section rate 30% lower
- Instrumental birth rate 44% lower
- Exclusive breastfeeding rates (at 2 weeks) 31% higher



Given that the overall make up and complexity of my case load was similar to previous years, this is a huge improvement in outcomes, when taking into account that the only difference is that they chose to birth at home. This is what the research says will happen, and it did.

It was also very exciting to be the recipient of an award for Excellence In Clinical Practice at the 2016 HB Health Awards in recognition of these outstanding outcomes achieved by my clients.

The Ministry of Health agrees that home birth is safe, and recent research supports this too. We in Hawke's Bay accept that it's safe for a healthy woman to birth two hours away Wairoa, yet as maternity providers we are often mistrusting of birthing at home, within minutes of a base hospital, with exactly the same equipment and expertise that is in Wairoa, or any of the other 52 primary units around the country.

We don't have to be 'brave' in promoting homebirth, we just have to act on the evidence like we do for all other care models.

If we had a drug that was proven to be safe, dramatically improve outcomes and the woman's experience, cost nothing, and save the health budget \$3000 for every normal birth, we would be actively promoting its use and prescribing it to every well pregnant woman in the country.

Could it be, that the simplest, most cost effective way to reduce intervention, and the increased risks associated with those interventions, is just time, information and full support of home birth from ALL sectors of the health and maternity workforce? I believe that it is.

## Why Homebirth is part of my practice BY Julie Kinloch - LMC Midwife

I have always thought women are amazing and perfectly designed to birth their babies. For some the need to be at home helps the whole process. It is a big event and to be in the place you are the most relaxed in is paramount. Each family needs to do what is right for them, involvement of children and extended family is normal and easy in your own home. The midwife is the invited guest, there to follow mums lead and support you.

Of course as the midwife I bring skills if there are any concerns, mostly I am reassuring everyone that everything is going ok. Having been at over 1000 births as a midwife the joy and miracle of birth is still present each time.

I consider homebirth to be an informed choice for families and look forward to continuing to attend many babies born into the loving environment created by mum and dad.

MARCH 2016

This was an amazing month for homebirth in Hawkes Bay.

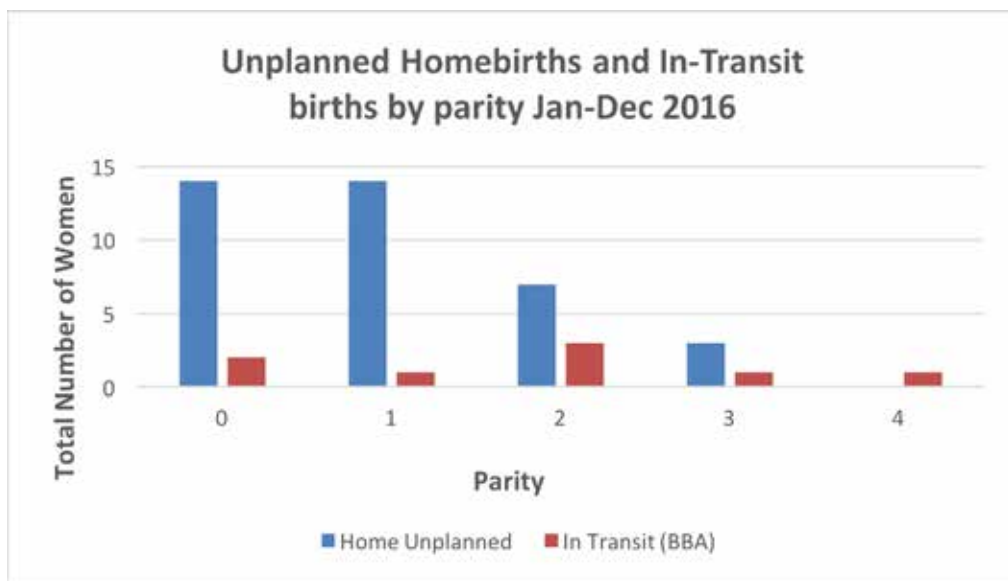
Seventeen babies were born at home, which will be a major record. Each month about 180 births occur in the Bay, so in March 9% were born at home.

The national average is approximately 4% and the 2016 yearly average for Hawke's Bay was 4.4%.

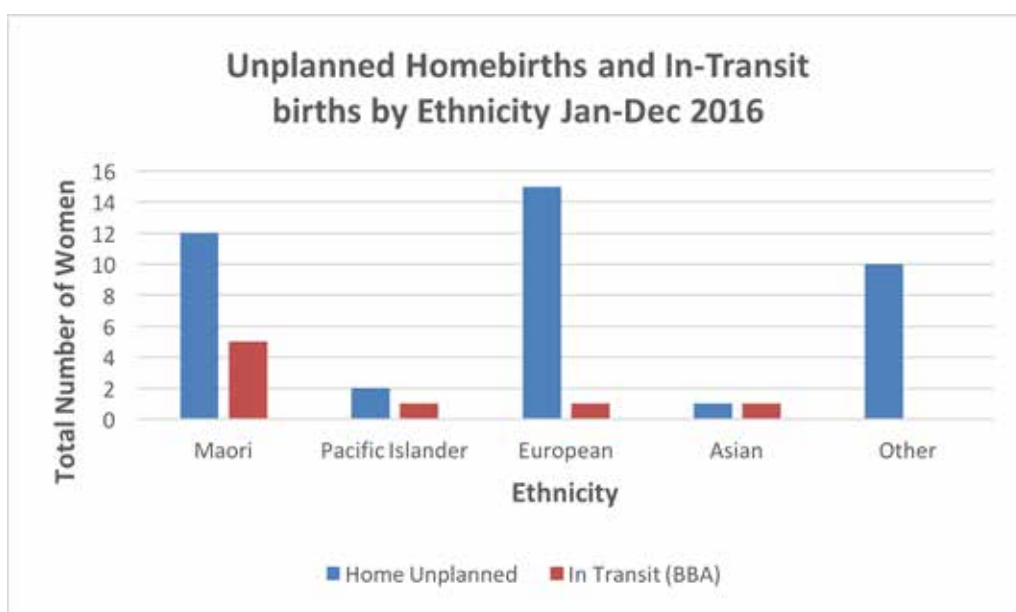
## Hawke's Bay Births Outside of the Maternity Units

As previously discussed of the 86 mothers who birthed outside of the Hawke's Bay Maternity Services 38 of them were unplanned homebirths and 8 born en route to hospital (BBA). The unplanned homebirths and births that occurred en-route are presented in the following graphs.

As you can see 28 of the 38 unplanned homebirths were to first and second time mothers. Parity two had the most amount of BBA births, followed closely by primips.

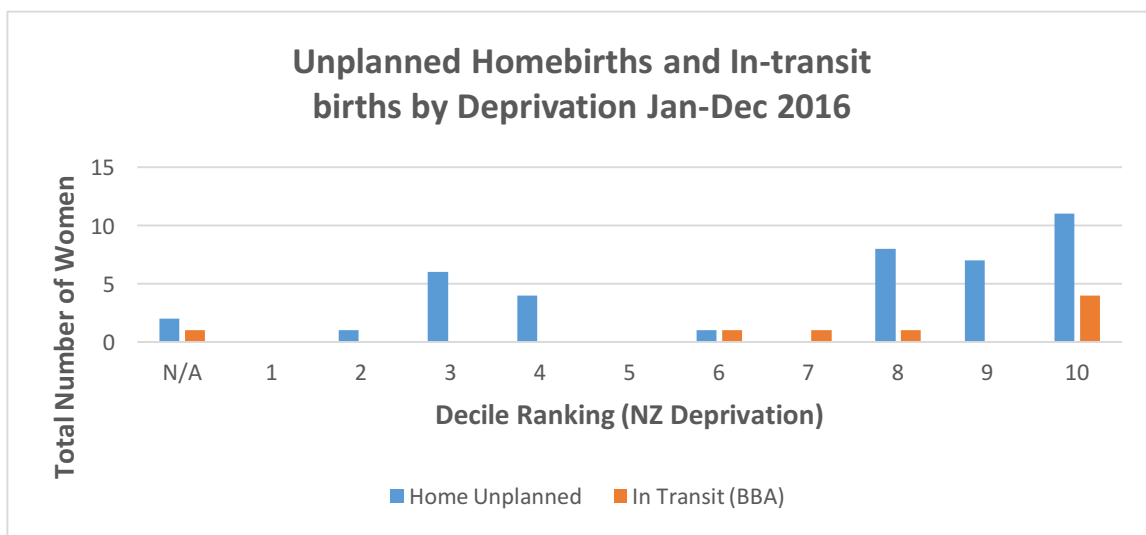


The graph below demonstrates that of our ethnic groups European women had the most unplanned homebirths, followed closely by Māori and Other ethnicity women. Over 50% of BBA's occurred in Māori women, this is similar to our 2015 findings.



Data in relation to deciles reveals that 67.39% of unplanned homebirths or in-transit births occurred for women that reside in the three most deprived areas of our region, this is a similar finding to last year's report. Only 7 of the 46 unexpected births occurred in the three most affluent areas.





## Consumer Homebirth Story - Was That My Waters?

Today is the day before my due date. Nobody actually gives birth on their due date do they? Well I don't and I've had enough chances to; this is baby number 6 after all. My day started out like any other Wednesday. Rise and send the kids off to school with the reassurance that if I went into labour, they would be called home quickly. The benefit of living in a small town where school was a short three-minute walk away. My Mum had arrived a few days earlier as my last baby had come two weeks before his due date and this being my last one (pretty sure I've said that before), I really wanted to have my Mum by my side. We just pottered around the house amusing the preschoolers and chatting for the day. Nothing felt unusual.

That evening there was a meeting at the school for the kids going off to camp so Mum and I decided to leave the kids with my partners' parents (also staying in hopes of catching the big event) and wander down for the meeting. It took a couple of hours and by the time we left the temperature had dropped so we walked briskly home. Slowly, everyone went to bed with hugs and slight disappointment that today was not going to be the day.

I went to the bathroom and noticed a small amount of my mucous plug. This is always a sign for me that things are happening. Excited, but slightly scared, I snuck to mum's room to let her know. I rang my midwife, who was travelling over from Napier (I was in Wairoa) to give her a heads up. I also contacted a local midwife who was going to be back-up for me in case things went fast and I needed the support. I went to bed to try and rest, taking one last look at the pool and the room where everything had been set up for a few weeks. The pool had a tiny slow leak on the inside chamber but once the liner went it we believed it would be fine.

I started to get some crampy pains and decided I'd better get up, aware of the time and the midwife having to drive so far, I didn't want to prolong things. Lying down always slows things down for me. My partner had stoked up the fire so I spent some time swaying gently with the warmth and glow of the fire for company. It was bliss, all was quiet, and I was ready to do this. The back-up midwife arrived. I was unsure of the time and it didn't matter to me. I was in the zone and loving every minute of it...yes even the painful ones. Contractions were still mild but very regular. I had no internal examinations as I knew my body was bringing my baby down perfectly.



I decided it was a good time to wake my partner up and get him filling the pool. He pumped it up with an extremely noisy compressor which irritated me. He started filling the pool and I focused on the contractions. I vaguely remember my partner asking me for duct tape and I pointed him in the right direction. I was starting to feel like I really wanted to get in the pool but it had split on the outside and the air was coming out faster than my partner could pump it up. The compressor was going on and off, on and off, and it was so distracting

There was a knock at the door and a student midwife had arrived. I had kind of said yes and that I don't mind her being there to the back- up midwife when I was already in labour but, in this moment, I really didn't want anyone else around.

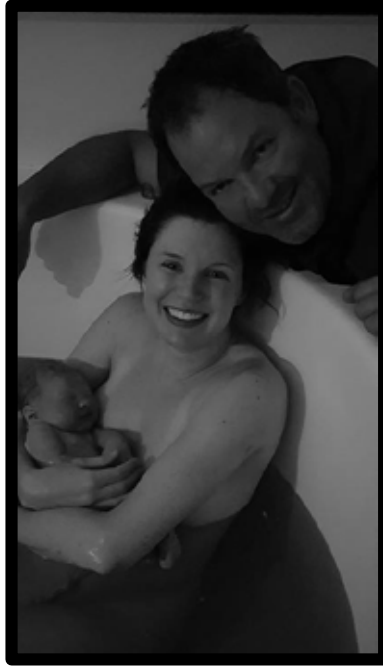
The house all of a sudden exploded into noise; the roar of the compressor, the dogs both ran through the house as the door opened again when my midwife arrived, my son woke up and was distressed as both his dad and I were busy. I quickly told my midwife I was starting to lose focus and was panicking. She asked the student to leave and assessed the pool. It was half full with amazing looking warm water. I desperately wanted to get in. I was standing in the doorway of the lounge gazing at the pool as one by one my other children woke up. My partner was desperately trying to keep the pool inflated and then transition hit me. The tears came and I begged to be let into the pool, I promised I would be super quick I just needed the water so, so, badly.

My partner had left the pool to adjust the taps and I glanced into the lounge just in time to see the side of the pool bulge and burst and a flood of water came rushing towards me. Everyone was busy so I just quietly said "Ummm, I think the pools waters just broke".

Of course, people only heard the waters just broke part and came to look at me. I was indeed standing in a flood of water but it wasn't mine. It was all hands on deck now trying to bail the water outside before it completely ruined everything. Furniture was being moved, including the electric heater, and towels were being soaked at an alarming rate. I stood there watching it all happening thinking what now? I was so close to needing to push and still needed that water. We decided to run the bath but guess what? No hot water left...I was having a home water birth and nothing was going to stop me! Every pot we had was on the stove and the jug was on constant boil until we had enough hot water for a shallow but just deep enough bath for me to climb into. The tears came again as I shooed the kids out of the bathroom and got mum to light the candles for me. We turned off the lights and closed the door to the madness going on outside it.

I was sad...sad that the kids were not going to see their sibling being born. We had it all planned; the lounge was set up and the kids had chosen their seats to watch me give birth. Now it wasn't going to be like that. The bathroom was too small for them all to watch and I was so distracted I just couldn't face having them there. Baby was ready to come but I could not get into a comfortable position where the head would be born fully under the water. I had practiced some positions in the bath a few nights before in the event of a 'just in case', but I wasn't prepared for how hard and uncomfortable a bath is when there are no bubbles to cushion the sides and your body is preparing to push a human out. I finally found a position that seemed to work and my pushes were starting to feel more effective. Baby crowned and the next push the head was out, I felt behind me for the head as I was on my knees. The midwives hands were supporting the head from hitting the bottom of the bath. I stayed like this for a while waiting for the next contraction. Suddenly I needed my kids! Quick someone please go and get my kids! They came barrelling in at 5:26am with my Mum, just in time to see their new brother wiggling his way out and into the water. I have never in my life felt so relieved. The children were in awe of what they had just witnessed and in that moment, everything was perfect.

The birth may have not gone completely to plan but it all ended magically. The kids shuffled off to bed and I snuggled my new baby on the couch. It was only then I realised he had come on his due date. He was weighed the next day and I was shocked to hear he was 9lb 2! No wonder that made my eyes water more than previous times. Aidan William, this is your birth story baby boy. Xxx



# QUALITY INITIATIVES AND SERVICES



## Waioha - Primary Birthing Centre

January to June 2016 was a busy time in the lead up to opening the Primary Birthing Centre (PBC). Three years of planning and how to be ready for our facility by July?

The Māori Health Team gave us our name, Waioha. Wa-time, Wai-water, ai-beget, lie with female, I- to join, O- belonging, Oha- a gift, Ha- to breathe.

Several meetings identified our team with Obstetricians, LMC's DHB midwives, Nurses, CA's, Paediatricians, Māori Health team and consumer representatives working in partnership to develop the model of care. Expressions of interest in working in the primary birthing centre were invited from our core staff with the development of the Clinical Midwife Coordinator (CMC) role leading to the appointment of four staff to this role. A committed team of skilled midwives were appointed to the team and we had several meetings to develop our shared philosophy and guidelines for Waioha.

**Waioha Philosophy-** Waioha is a safe space centring care on women and families, empowering them to birth within their primal, spiritual and cultural beliefs. We promote and protect normal labour and birth, encouraging belief and trust, surrendering to the feminine power of birth in a sacred place. We are supporting the creation of Mothers, Fathers and families through the childbirth experience. We respect this special environment and the gifts each of us bring, unifying the roles of LMC and DHB midwives. Supporting and learning from each other to provide excellence in care.



Setting up our environment the theme of water was chosen, reflected in our name and the promotion of the use of water in labour, with soft water-based, calming colours chosen. Each room was given a word art multilingual shape. Art work was donated to the centre - a sculpture by Riks Terstappen who has interpreted the migration story - a touch stone from Waimarama - a bonnet sculpture by Sue Elstone. Many days were spent preparing the rooms for our consumers with birth aids, clinical supplies and of course the office and rest area for the midwives.

## Finally 4<sup>th</sup> July 2016!!

The doors opened and by late evening we welcomed the first baby born in Waioha.



July - December 2016 - All women admitted to Waioha in labour 83% had a vaginal birth in Waioha and the use of water and water birth is on an upward trend. 62.13% of all spontaneous vaginal births across the service occurring in Waioha.



In order to ensure we were meeting our consumers' needs an online survey was developed in collaboration with our consumer representatives and is offered to every woman before discharge to complete. This gave us an opportunity to access a response from our hard to reach communities and we had 78 respondents in the first few months until December 2016.

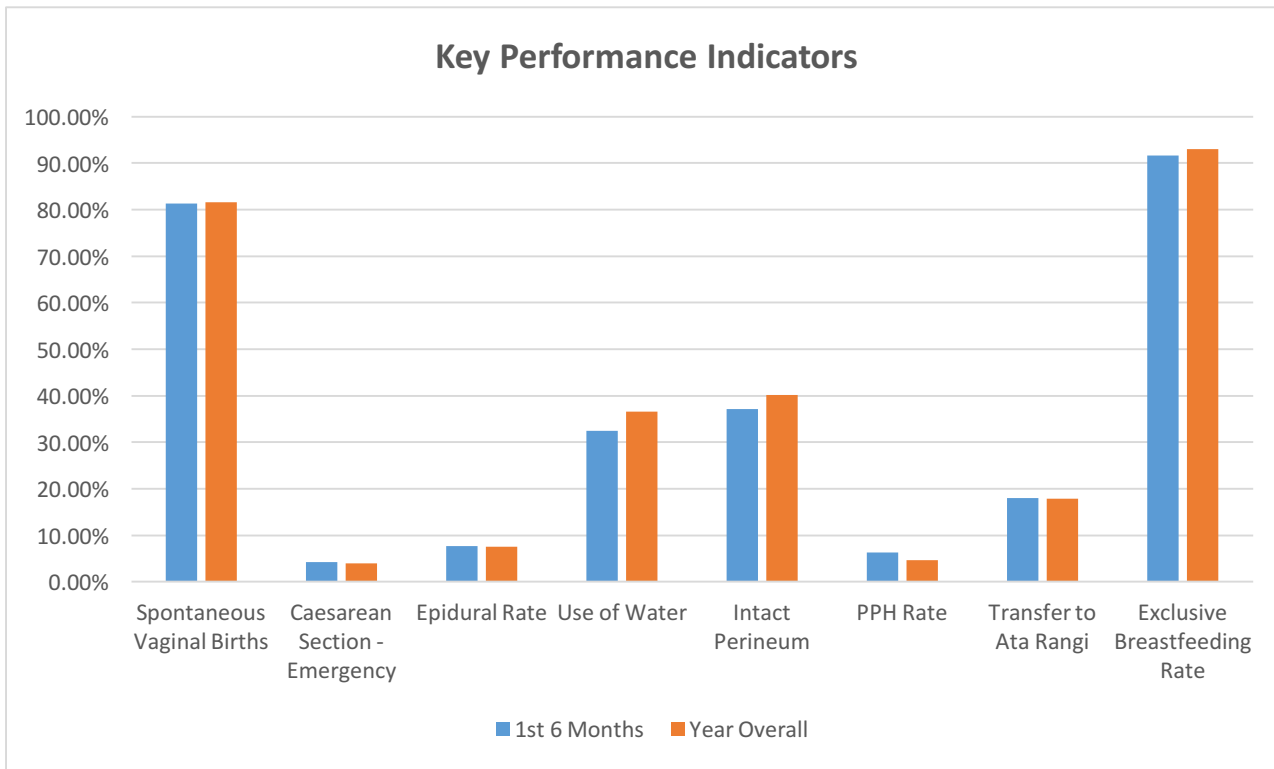
Our consumers have loved the new environment- "Service care and support were excellent and the facility was outstanding" "I loved that my husband could stay with me and he had a bed" "Homely feeling rooms make labour more settling".

The **clinical indicators** that we are measuring, average over six months July-Dec 16:



1. Vaginal Births – 81.33%
2. Use of water for labour and birth – 32.4%
3. Intact Perineum – 37.23%
4. Exclusive breastfeeding at discharge – 91.66%
5. Caesarean Sections – 4.28%
6. Epidural Rate – 7.7%
7. Transfer from Waioha to Secondary services – 18.01%

These indicators are for our low risk women and all demonstrate a positive outcome with increases in normal birth, use of water, intact perineums, reduced caesarean section rate, epidural rate and an improved exclusive breastfeeding rate. The transfer rate for alongside birthing centre can average anything up to 40% - our transfer rate is positive.



Quality improvements and initiatives have seen the commencement of a weekly breakfast club. This was started to strengthen the relationships between DHB staff and the LMCs accessing the facility. Friday morning’s breakfast was made by our CMCs and a range of topics for informal discussion was covered. We identified trends and points of care from the previous weeks, including cold babies, urinary retention and stalled labour. The expertise of many midwives together sharing over a cuppa has proved invaluable as team building and as a safe forum for questions and case discussion.



“You know Donna, I was feeling really depressed and despondent this morning. Not for any particular reason except sometimes being a new midwife and trying to learn new stuff every day is hard - and I'd had 3 hours sleep! Anyway, what I LOVE is 5 mins of Breakfast Club just lifted my spirits, put a smile on my face, and made me feel happy to be a part of a group of such wonderful women. SOUL FOOD right there!!! Love ya Annie xx”

The CMCs held a week of suturing workshops in the centre to increase skill and confidence in this midwifery scope of practice and saw some very enthusiastic practitioners having a supported and successful attempt at perineal repair for their clients.

Our Nga Maia midwives attended the breakfast discussions and workshops and as a result of this have scheduled a class in Waioha to help familiarise the women with the environment and our staff. “I want to have my baby here” and from family members “I wish this was here when I had my babies” is some of the comments feedback to Nga Maia.





## Wairoa Maternity Services

Primary maternity care in Wairoa includes working with a number of high needs women and whānau. Significantly, ethnicity data shows 75% of the caseload are Māori women. This compares to the population data of Wairoa which shows 62% Māori.

2016 was a time of great change for the Wairoa midwifery team, and provided new opportunities to refresh the provision of maternity care in Wairoa. Including a change to the senior management team for Wairoa, again providing fresh eyes and a renewed focus on health care for the Wairoa community.

### The Goals for 2016 were to:

- Improve communication across the team.
- Raise the profile of the Wairoa midwifery team and increase community perceptions and confidence in the maternity services.
- Improve numbers of women attending for antenatal care.
- Ensure timely follow up to care.
- Achieve recertification for Baby Friendly Hospital status.

The new team has had time to adjust to changes, new ways of working and opportunities. Some changes planned have needed longer to initiate and progress.

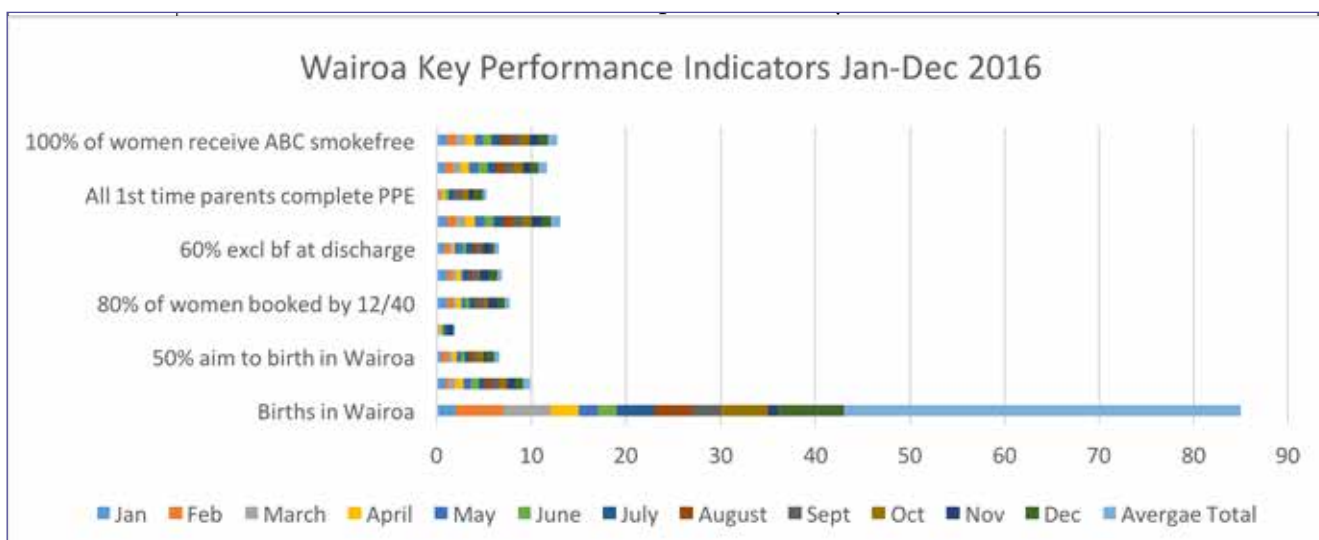
### The Highlights in 2016 were:

- Communication and handover improvements, using one book has improved our system and ensured all important information is shared in a timely manner.

Quality Activities	
<b>Audits</b>	<ul style="list-style-type: none"> <li>- Safe Sleep Audit was completed in November 2016</li> <li>- Audit of postnatal and antenatal documentation and care was completed.</li> </ul>
<b>Public Visibility</b>	<ul style="list-style-type: none"> <li>- Public health promotion in May was completed at the Lions Club Health Expo.</li> <li>- World Safe Sleep Mokopuna Ora day and the Wairoa Christmas parade was an opportunity for community health promotion. The midwives led a team to create a safe sleep float entitled Safely Sleeping Beauty.</li> <li>- Early Engagement with a midwife posters were personalised for Wairoa and distributed throughout the community. A survey regarding the poster was created to determine visibility.</li> <li>- Christmas fundraising raffle for toys and books for our tamariki was achieved.</li> </ul>
<b>Clinical</b>	<ul style="list-style-type: none"> <li>- A blood label was developed for midwifery and primary care practice to ensure accurate and consistent blood tests in pregnancy are completed.</li> <li>- A quality system to confirm evidence of ruptured membranes identified by positive ferning viewed under a microscope was put in place. The microscope was obtained from the Wairoa hospital laboratory.</li> </ul>



Key Performance Actions	
INVESTIGATE  CONTINUE	<p><b>Gestation at Booking</b> Evidence that further focus on early booking for Māori women is evident. The Early Engagement with a Midwife – Top 5 For My Baby To Thrive initiative is starting in 2017. Working relationships with GP’s and community agencies.</p>
MET	<p><b>Birth Location Intention and Outcome</b> KPI standard met and an increase in primary care births is evident since 2015.</p>
STRENGTH	<p><b>Transfers to Secondary Care Facilities in Hastings</b> Continued safe clinical decision making and partnership with base hospital to support access to best place to birth for women.</p>
INVESTIGATE  ACTION	<p><b>Parenting Education</b> 41% (14) out of the 34 first time parents attended arranged education classes in Wairoa organised and facilitated by Wairoa midwives. Implement standard registration form to record participant data. Investigate how to improve engagement.</p>
OPPORTUNITY  ACTIONS	<p><b>Exclusive Breastfeeding of Babies at 6 Weeks of Age</b> 50% of postpartum women were exclusively breastfeeding their 6 week old babies at discharge from midwifery care. - Continue representation at Breastfeeding Governance Group. - New Breastfeeding services planned to commence from 4-6 weeks to 3 months in 2017. - Participate in Consumer Breastfeeding Survey to better understand maternal choices in infant feeding. - Continue to individualise care in first 6 weeks postpartum.</p>
STRENGTH ACHIEVED	<p><b>Registration with Doctor</b> All women accessing maternity services were registered or became registered during pregnancy using general practitioner services in Wairoa, Hastings, Napier, Dannevirke or Gisborne.</p>
OPPORTUNITY  ACTION	<p><b>Women Identified as At Risk to Family Violence</b> 15 women were identified as “at risk” in response to disclosure when screened for family or partner violence or because of a known recent or current history of violence. Identification of referrals was difficult to find in documentation. To assess and improve evidence of documentation.</p>
TO IMPROVE	<p><b>Safe Sleep Education Plan</b> To ensure 100% of parents and whānau receive safe sleep education in 2017</p>
STRENGTH  ACTION	<p><b>Smoke free Screening and Interventions</b> 98% (100/104) of the antenatal clinical notes reviewed contained a complete Hawke’s Bay District Health Board smoke free screening and intervention form. - Continued focus on asking and referring for cessation support. - Continue to work in partnership with smoke free co-ordinator in Wairoa. - Review of cessation trends to be collected for 2017.</p>



# Napier Maternity Resource Centre

## Annual Report: 1 January to 31 December 2016

Welcome to the second annual report for the Napier Maternity Resource Centre.

The Midwifery Centre at 234 Kennedy Road has had a long history of being a hub for midwifery care in Napier. With the closure of Napier Maternity and the Ministry of Health directive to increase the number of pregnant women registering with their LMC prior to 12 weeks of pregnancy, a new service was envisioned. This led to a new contract created by the DHB. Ideally the DHB aimed to provide women and their families a facility and service that was close to home, easily accessible and that is located at a known site.

There were two main aims for this service. The first was to provide a drop-in maternity service in the Napier community. This would be a place where women could seek pregnancy and maternity-related care and advice from a midwife. The second aim was to secure an out-of-hours facility where LMCs could provide urgent assessments. The Napier Maternity Resource Centre (NMRC) was established to meet these purposes, in late 2014.

During our second year at the NMRC, we have seen an increase in the number of women dropping in. Women call in for free pregnancy testing, to find a midwife and to speak to the midwife about pregnancy, reproductive health, and contraception-related questions.

When the NMRC contract was established there were two objectives that the DHB required. The objectives for the Napier Maternity Resource Centre are:

- Early engagement with an LMC of all pregnant women, who drop in to the NMRC. Early engagement is considered to be registering with an LMC by 12 weeks pregnant.
- Provision of an out-of-hours, assessment facility for Napier women and their midwives.

### Maternity Drop-in Service

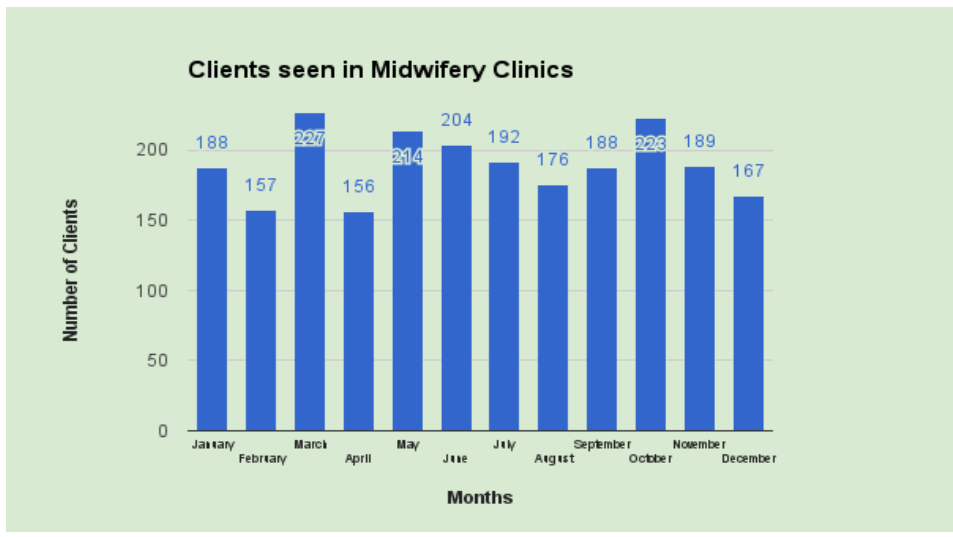
The NMRC is open each week day with a midwife in attendance. The goal is to be open to drop-in clients five hours per day, five days a week. Seven LMC midwives now hold their regular clinics at the NMRC. Generally this means that two midwives are present at the NMRC each day.

Of the days available for opening (not public holidays or weekends) the NMRC was open for over five hours 91% of the time. The remaining 9% of the days the centre was open for several hours but less than five hours. There were only two days out of the 230 days available when the NMRC was not open at all. This is due to the demands and unpredictability of an LMC workload including births, professional development including compulsory and elective education.



This is very similar to the previous year when the number of days the NMRC was not open for at least five hours was 7%.

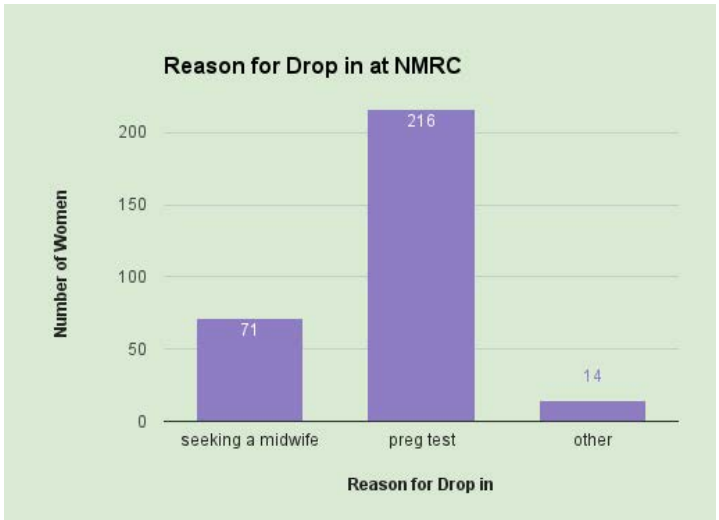
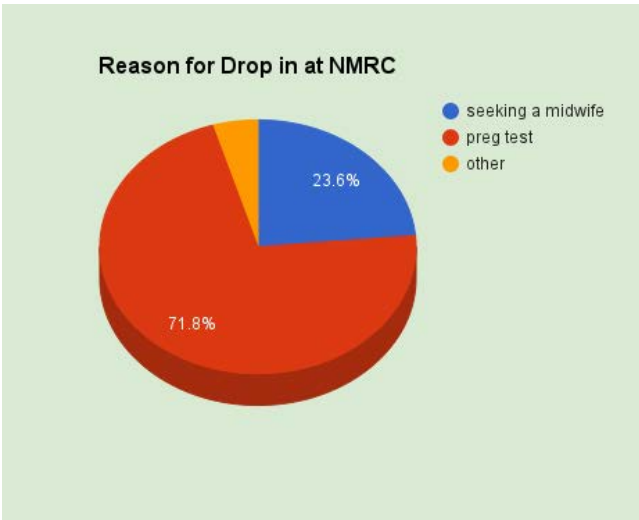
There are seven midwives, including two Māori midwives, holding regular clinics at the Midwifery Centre, where the NMRC is run from. Over the past year the number of women visiting each month for their regular midwifery clinic has increased. Over 2200 women attended midwifery clinics during 2016. This is a monthly average of 190 pregnant women receiving antenatal care at the NMRC. This is an increase from the 160 last year. We see that as a positive sign that the NMRC is meeting a local need.



The hope is these clients will continue to spread the word throughout the community that the NMRC at 234 Kennedy Road is open and a great place to visit to receive midwifery care.

The free pregnancy testing continues to be the major draw card to drop-in clients. Up to 75% of all visitors to the NMRC ask for a pregnancy test. The hope is with a free test and meeting a midwife at that time will educate women about the need to engage early with a midwife in any pregnancy. Though the majority of the pregnancy tests done are negative, they still provide a positive interaction for women planning a pregnancy. Encouragingly, women came in 226 times to have a pregnancy test, 21% of the time the pregnancy tests gave a positive result. When the number of positive pregnancy tests are combined with the number of women seeking a midwife the number rises to 38% of all drop-in clients. The number of women seeking a midwife has doubled in the last year from 32 to 67. This is very reassuring that the NMRC is becoming known as the place to come for pregnancy and maternity care and advice.

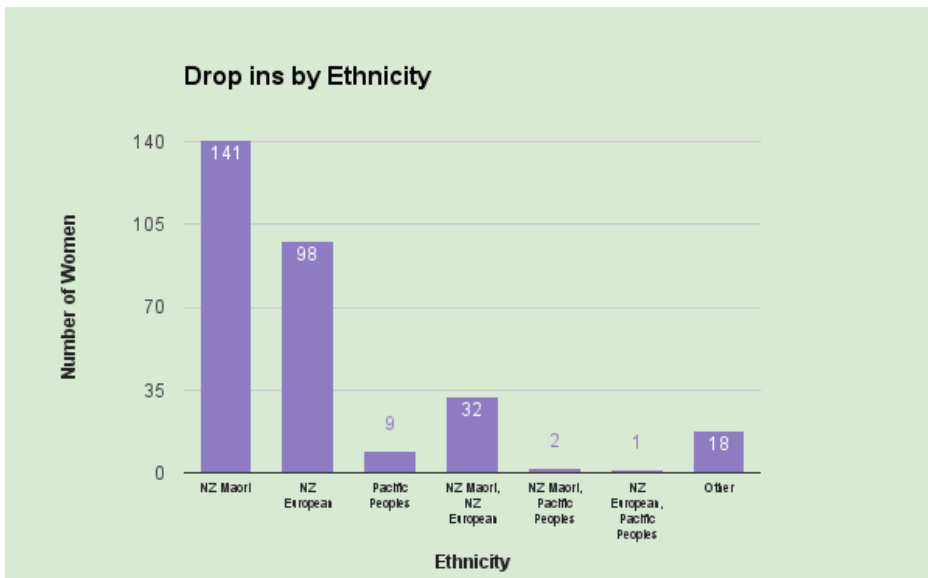
Other reasons women came to the NMRC were: wanting breastfeeding advice, men seeking preconception advice, needing refuge from domestic abuse, debriefing about birth and reviewing hospital notes. These are all positive uses of the facility, ensuring the growth of the NMRC as a maternity hub in Napier.

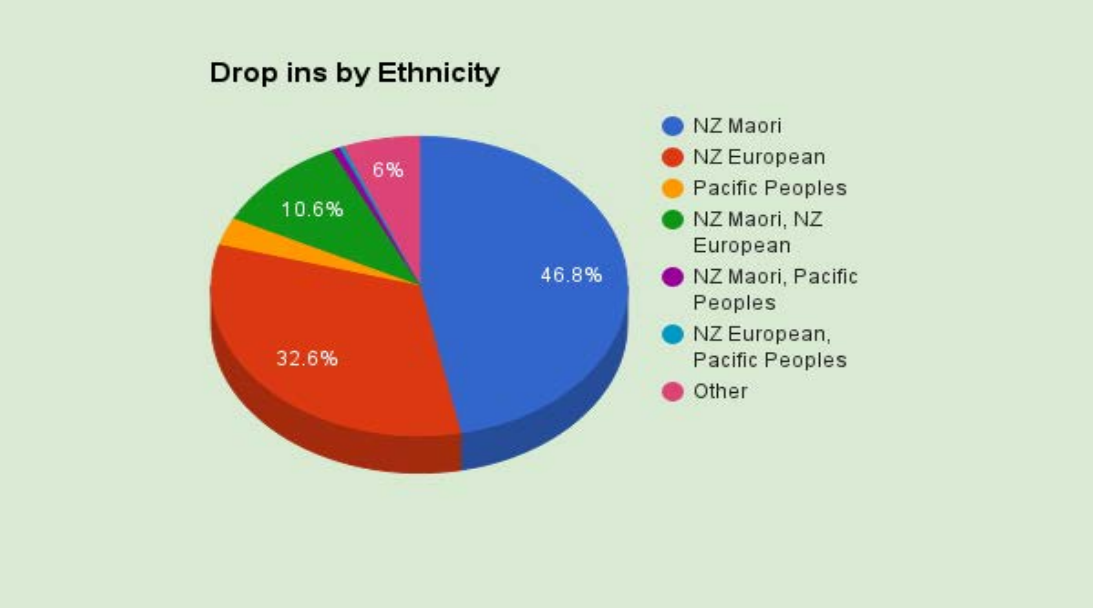


### Ethnicity of Drop in clients

The DHB contract for the NMRC has a goal of improving engagement with pregnant Māori and Pacific women with maternity services. It is positive to note that 58% of all drop-in clients identified as Māori or part Māori. This percentage is the same as the previous year. The New Zealand 2013 Census data state that 18.2% of Napier’s population identify as Māori, which means the NMRC is engaging well with Māori women in our community.

There has been a small increase in the number of women identifying as Pacific people, who dropped in to the NMRC. The number of Pacific women dropping in remains small, with 11 women identifying as Pacific Islander.

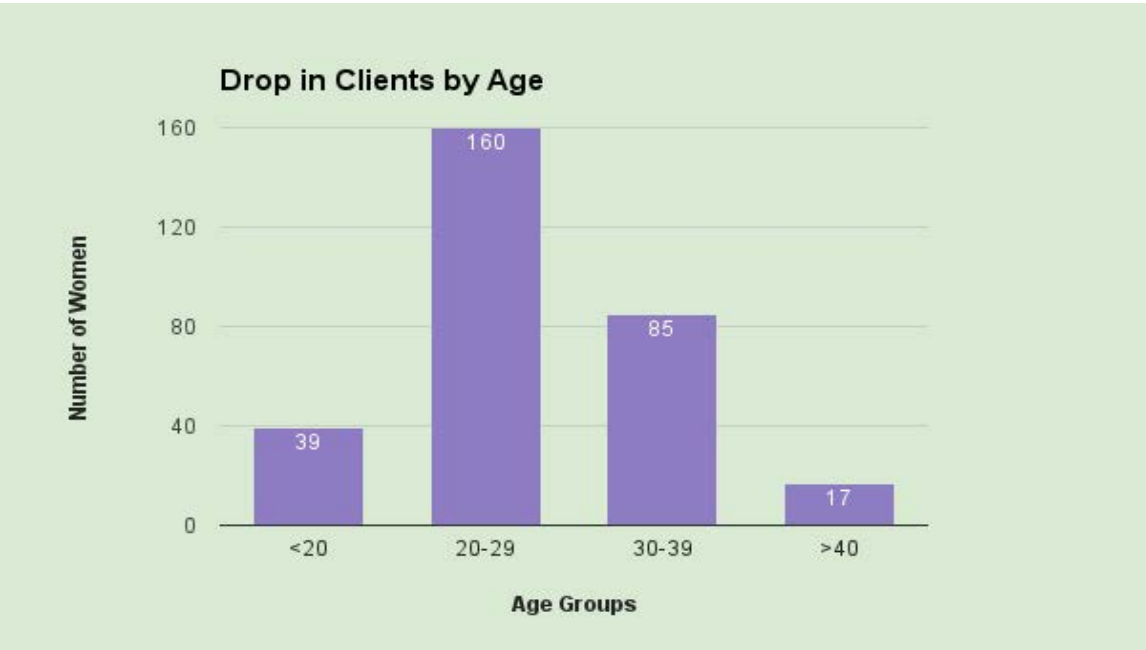


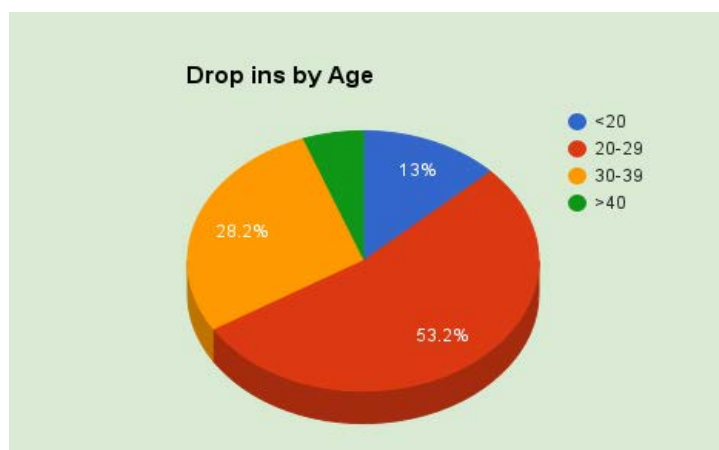


### Age of Drop in Clients

There continues to be a steady stream of women under 20 years (13%) dropping into the NMRC. Our most common age group of women accessing the NMRC is those in the 20-29 years group, accounting for 52% of our drop in clients over 2016.

There has been a significant increase in the number of women over 30 years of age dropping in, overall one third were over 30 years old, with 5.6 % of these women being over 40 years old. Overall our data is mirroring the birthing population of New Zealand, where the number of births to mothers under 20 years old is falling and there are more pregnancies for women over 35 years old.





### Objective 1: Early engagement

Early engagement of pregnant women with an LMC is the first objective of the NMRC. The use of the Midwifery Centre as a hub for maternity care is vital for it to be recognised as the facility in the community where pregnancy and maternity care takes place.

With the aim of early engagement it is rewarding to see that 85% of the woman dropping-in to find a midwife or have a positive pregnancy test while at the NMRC are in their first trimester of pregnancy.

Early engagement leads to ongoing care being successful. During the year new data was collected about how many days it was from when the pregnant women dropped in to the NMRC until her first appointment with her LMC midwife. 81.6% of the time the first visit with the chosen LMC was less than 7 days. There were 7 women who saw their LMC midwife after 7 days from dropping into the NMRC. Many of these women were seen by LMC midwives who do not hold regular clinics at the Midwifery Centre. To improve this timeframe, in discussion with the NMRC midwives, it was decided that the NMRC midwife will ring the chosen LMC midwife at the time the woman has dropped in at the NMRC. This will ensure a more immediate engagement with the chosen LMC by initiating a conversation between the two parties, thus facilitating engagement within 7 days.

Most months one of the women dropping-in for a pregnancy test received an unwanted positive result on the pregnancy test. For these women advice is given to contact their GP to organise services they will require to terminate the pregnancy. It is the policy of the NMRC to ring these women, with their permission, to see how they are. The rationalization for this is that some of these women may not terminate their pregnancy and may require help getting midwifery care organised.

Over the year three women were lost to follow up. Either the phone numbers they gave were incorrect or they did not turn up for scheduled appointments. These women were all followed up with several calls and text messages, without success.

### Objective 2: Provision of an Out-of-Hours facility

The second objective for the NMRC was to establish a fully equipped, well lit, safe facility available for LMC and DHB community midwives, and their Napier or rural clients to meet at any time night or day. The nature of pregnancy often means that assessments can be required outside of office hours. Local midwives sometimes will not have access to their usual clinic space when urgent assessments are required. With no DHB facilities for maternity care in Napier, women needing out-of-hours assessments were travelling to Hastings and being seen at Ata Rangī, a secondary care facility. This often meant that a secondary care consultation was had, instead of solely a primary care assessment, which may have been all that was needed.

315 women had visits to the NMRC out-of-hours. This is a 100% increase on the 154 for the previous year. This shows that midwives are utilising the NMRC more frequently. This is a good outcome for women, as they are often closer to home and require less intervention when a primary care assessment alone is done.



This year 32.7% of these out of hour’s visits were assessments regarding reduced fetal movements. Looking at the statistics for this assessment last year, which was 60% of all assessments at the NMRC, there is a significant decrease in assessment of reduced fetal movements this year. A decrease in fetal movements can be an indication of fetal compromise. During these out-of-hours assessments, a cardiotocograph (CTG) is performed, a monitoring of the baby’s heartbeat and movements over a period of 15 to 60 minutes. This is frequently enough to reassure the mother and the midwife. This means that 103 times during the year women were able to be comforted and cared for close to home and not have to visit the secondary Maternity Services. The partnership with the DHB enables these assessments to be supported in the community.

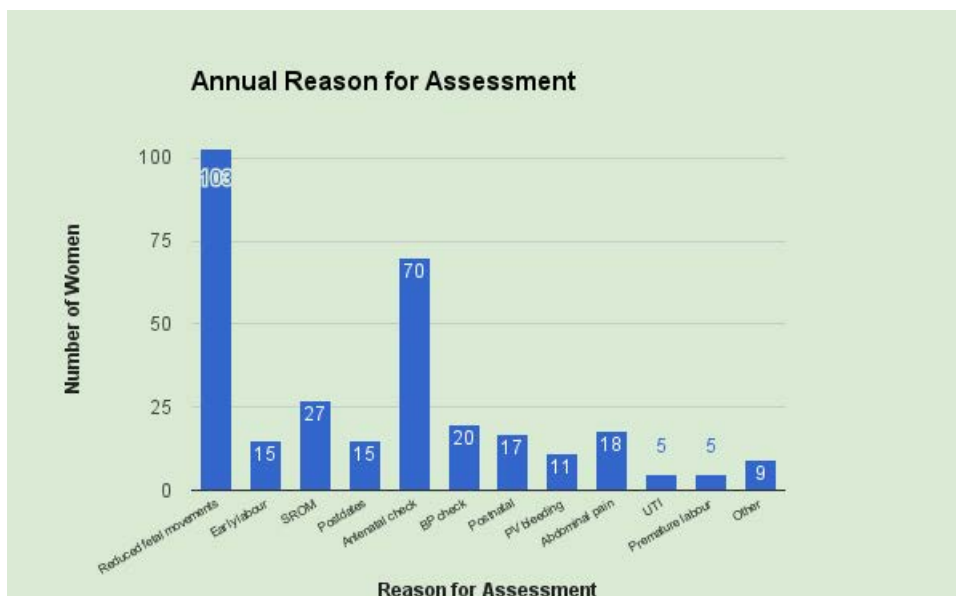
22% of pregnant women visiting out-of-hours were seeing a midwife for antenatal care. These 70 pregnant clients required visits outside of the midwives routine clinic day for a large and varied number of reasons. These may include: only being available at certain times of the day or on certain days of the week, or they may only travel into town on specific days.

The midwives have increased the numbers of pregnant women they see with the suspected rupture of membranes. Last annual report 17 women were seen to assess if their waters had broken. This year 27 women have been assessed for this. The ability to see these women, who have ruptured membranes, ensures they are not being admitted to Ata Rangī until necessary. It is recommended that if labour has not started within 18 to 24 hours of ruptured membranes that the labour should be induced, due to the increased risk of infection. These situations account for 8.6% of the out-of-hours visits.

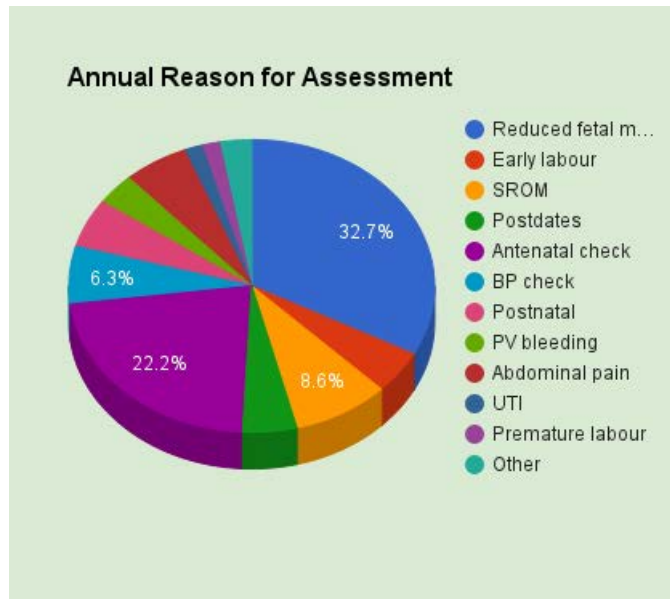
Each one of the following categories accounts for around 3% of the total visits: checks in early labour, postdates pregnancies, extra blood pressure checks, abdomen pain and vaginal bleeding. These can be assessed effectively away from the hospital at most times with the ability to refer into hospital as required.

In monitoring the reasons the NMRC is utilized in an out of hour’s scenario there are often a combination of reasons a pregnant woman may need to be assessed. As shown in the graph below there are nine other reasons for out-of-hours visits, as well as a category for other, which is often a once only reason for women to be seen. These assessments are often following a phone call between the midwife and the pregnant woman, and the midwife using her assessment skills to determine whether an out of hour’s assessment is required. Keeping the woman in the community and seeing her in a primary setting is a cost effective and safe use of the NMRC.

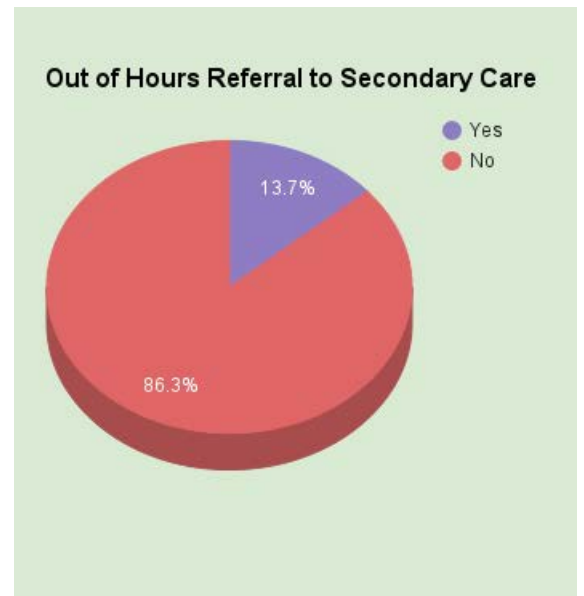
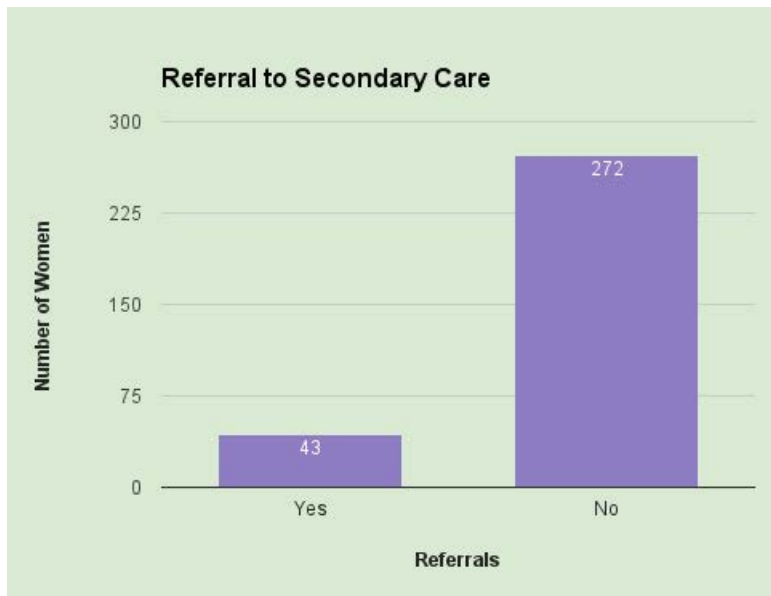
Fifteen different LMCs and the DHB community midwives have utilized the NMRC in 2016.







For the 315 women seen out of hours at the NMRC 13.7% were referred and required specialist consultation at Ata Rangi maternity facility. This is a similar percentage to the previous year but means that 272 women were seen, assessed and were then able to return home, following a primary assessment by their LMC midwife. The total numbers of visits has doubled, but the referral rate remains the same. This is supportive of the midwifery model of care in New Zealand where midwives can assess, treat and advise women only referring to specialists as required and as per Referral Guidelines.



## Supplementary report data

Education sessions	No. clients	Assistance	Hours per sessions
Baby Café sessions	48	Lactation Consultant	2

The Baby Café continues to be popular. It now has a changing table for the sessions and has supported the NMRC with a set of Mama Aroha cards for each assessment room. This valuable New Zealand breastfeeding resource is a gift when teaching.

Clinic rooms available for use	3 rooms
LMCs currently using the NMRC for clinics	7 LMCs
Drop- in women	301
Out-of-hours assessments	315

### NMRC Goals 2016

- 1 Maintain and extend contact with the Pasifika Community. This year two NMRC midwives attended the Tapuaki Training Workshop run by Taha Well Pacific Mother and Infant services. They returned with resources to share and an insight into how to make Pacific women more welcome within the service. Pacific women make up 3.6 % of the drop-in clients (NZ Census data from 2013 states that 3.1 % of Napier's Population).
- 2 Consult Napier Health Centre and the Napier City Council about Emergency Planning. Finding the right person to talk to has been a challenge, the directors of the NMRC have a meeting scheduled with the DHB Emergency Response Advisory Sandra Bee.
- 3 Prepare to become A Baby Friendly Community Facility. The NMRC has held some discussions with the DHB Lactation consultant around procedures. This is seen as a valid goal but will need more DHB help for it to come to fruition.
- 4 Investigate providing early pregnancy supplements to all drop-in pregnant clients or those planning a pregnancy. The Midwifery Director has supported a trial with some local GPs by providing supplements for them to give away but this has not been sustainable.

### Goals for 2017

- 1 Improve and refine data collection, so that useful and meaningful information can be provided to the DHB to support future developments.
- 2 Formalise our Smoke free Policy. Include smoke free data in our next Annual Report.
- 3 Have the Emergency Plan in place to support the families of Napier, ensuring that the NMRC is known as the Maternity Hub in the event of a disaster.

## Obstetric Ultrasound Services

Obstetric Ultrasound Services are provided by our hospital radiology department and three private providers, Onsite, TRG and Unity situated in different positions across Hawke's Bay. The private providers undertake most of the primary scans and a considerable number of the secondary scans. There is ongoing work looking into where our secondary scans are being undertaken and why they are being outsourced in such quantities. Moving forward we hope to develop a more co-ordinated relationship with all of our ultrasound providers to facilitate the most consistent care for our Obstetric patients.

Throughout 2016 Dr Kirsten Gaerty in her capacity as an Obstetric Sonologist has been working to establish a local fetal medicine and specialist ultrasound service. This has remained a very ad hoc service with the lack of access to an appropriate ultrasound machine. Some scans are undertaken in the radiology department with the limitations of working within a growth scan appointment while others are undertaken on Ata Rangi labour and birthing suite/day assessment unit where there is no capacity to formally record the ultrasound examinations. 71 women were looked after through this service with input ranging from a one off second opinion of a specific anomaly to weekly scans in some more complex cases. This service has been able to prevent some women needing to travel to Wellington, being able to facilitate an improved quality of local care for others with continuity around management of a fetal anomaly. Overall this service has been successful with very positive consumer feedback. A Capital business application for an Obstetric specific ultrasound machine is still in progress and will hopefully be successful as the logistics of running this model without a dedicated ultrasound machine is not sustainable.

In response to an adverse event in 2015 an Obstetric specific ultrasound request form has been developed in consultation with the radiology department and this was introduced into routine practice at the end of 2016 and appears to be working well.



# LMC Midwifery in the Community

By Beatrix Exeter – LMC Midwife

Many countries in the world envy our New Zealand Maternity System providing continuity of care and working in partnership with women and their families. From the time when a woman books with an LMC midwife (usually in the first trimester of her pregnancy) the Lead Maternity Carer (LMC) is on call 24/7 to provide an ongoing service until 4-6 weeks after the birth. Most women expecting their first baby have little comprehension about how life-changing, overwhelming and amazing the journey is they are about to share with their midwife. This article focuses on the work of the LMC midwife in the community, an often invisible but yet so vital part for the wellbeing, education and overall experience of the woman's pathway to motherhood. It's a small glimpse into my LMC practice with a caseload of about 40-50 women per year.

My first antenatal visit with the woman is usually in her home. This gives me a chance to meet other family members and get some insight in the living conditions, support network and her social wellbeing. Often women are more relaxed in their home and share family stories and I get an impression of their cultural and spiritual connections. It is the time for information sharing. I take a thorough history and give the woman relevant information about early pregnancy as well as performing a physical check-up. When I leave the home 1-2 hours later, I am often amazed how much I have learnt about this person whom I didn't know before.

Back in my office I now have some paper work to establish a maternity file and write referrals to make sure all necessary services are wrapped around the mother-to-be. This could be anything from Smoke-free Service, Maternal Green Prescription for high BMI, Social worker referral or an early referral to Antenatal Clinic, if required. I also connect with services which may already be involved with the pregnant woman, e.g. Mental Health and let the GP know that I am involved in the woman's care.

Besides seeing the woman (and her partner) for monthly antenatal visits in my clinic I am on-call for any concerns, like bleeding, abdominal pain, morning sickness and vomiting, constipation and other pregnancy discomforts. I might investigate for a urine infection or sexually transmitted infections and treat if required. I give advice about nutrition, life-style and listen to the woman's concerns. I request blood tests and - when required - a scan and guide the woman and her partner through the decision of genetic screening. Available results will often be discussed over the phone, outside a routine visit and necessary scripts (e.g. Iron supplements) faxed to the pharmacy.

Some women need to be referred to ED or Early Pregnancy Clinic due to early pregnancy complications and as the LMC Midwife I stay involved in the communication with the woman, organize Anti D if required and am available for any ongoing concerns.

As the pregnancy moves on I give advice about self-care to support the back and pelvic floor as well as how to relieve pelvic girdle pain and sciatica. I am providing information about childbirth and parenting education and support the woman with any housing, employment issues and parental leave. I use the Edinburgh Pre/Postnatal Depression Score (EPDS) tool to check the woman's emotional wellbeing and help address any issues which become apparent from that. Further referrals might be required as I learn more about the woman and her situation e.g. Maternal Wellbeing Child Protection Group, Family Start or extended Well Child Service. As some situations become more complex I try to keep up good communication with the woman/her family and the services involved. This may require home visits to the woman antenatally when lack of transport or commitment to regular antenatal care is an issue.

Later in the pregnancy we talk about the importance of baby's movements and to let me know if there are any concerns. More blood tests are explained to the mother-to-be and results followed up, some of which require further action, e.g. abnormal polycose/GTT and possibly further referrals. We are now meeting fortnightly and it's time for education about 'Safe Sleep' (may be a pepi-pod/wahakura needs to be organized), Breastfeeding, Vitamin K for the newborn, vaccinations, perineal massage, preparation for the birth and so on.

Between 34-36 weeks I usually offer another home visit to discuss the birth and postnatal care plan with the woman and her support people. This is often in the evening, when the partner is home from work. I like to be familiar with the place where a family lives so I know where to go in case I am called in the night for a labour assessment. In the last few weeks before the due date I see the woman for weekly antenatal checks.

As an LMC Midwife I often feel like I am providing a 24hour Triage Service. I am the first point of contact for any issues related to the pregnancy and sometimes even non-maternity issues - simply because I am always available. I see my job as keeping the "normal" in the community - in other words "out of the hospital". In order to make a responsible decision I need to have a detailed conversation with the woman over the phone to ascertain the degree of urgency, then decide if I can reassure her, if she needs to be assessed by me immediately and/or a referral to other services is required. All phone conversations and advice given need to be documented.

I would estimate that about 1/3 of women's concerns can be addressed over the phone with basic advice and reassurance (e.g. constipation, ligament pain), 1/3 require a physical assessment in their home or at my clinic (often out of hours) and may require further investigations (e.g. abdominal pain, reduced FMs) and 1/3 need to be referred to either primary services (e.g. GP for other medical issues) or secondary maternity services (e.g. PV bleeding).

Around the time of the birth I often see women in their homes for reassurance about early labour signs and by the time she holds her baby in her arms she may have shared with me an intensive time of growing and learning about life, tears of despair and tears of joy and I feel so privileged to be part of this process.

Following the birth I am a welcomed visitor to the home, helping with breastfeeding, advice around baby care and making sure mother and baby recover well from the birth. A debrief about the birth is usually an important part of the early postnatal time and a reminder to the mother how proud she can be of her achievement but also giving her the chance to re-visit possible traumatic situations. I assess how the parents are coping with the new situation, how well supported the mother is and guide the father to be involved in the care for the baby. Reassurance about normal baby behaviour, concerns about colic and reflux and unsettled babies are a common subject while the mother is often overwhelmed with tiredness. Another EPDS score will help me in my assessment for possible postnatal depression (PND) which might require further referrals to support services, e.g. Postnatal Adjustment Programme, 'Mothers Matter', MMH Service or GP.

Metabolic screening of the newborn is to be performed, which has been explained to the parents during pregnancy. Regular baby checks and postnatal assessment of the mother are usually reassuring and if there are any concerns I will either observe with more frequent visits or treat problems like mastitis or postnatal infections. Observation for jaundice in the newborn is a vital part of the early postnatal period and serum bilirubin (SBR) blood samples may need to be taken and delivered to the lab. If prolonged jaundice is evident further investigations are required and possibly a referral to the Paediatrician. At times I need to refer for other reasons, like heart murmur, tongue tie, referral for BCG vaccination or orthopaedic referrals for family history of hip dislocation.

Contraception options are discussed if not yet decided before the birth. I might refer to Sexual Health Services/Directions and/or prescribe contraceptives. It's time to refer the Baby to Well Child Services and send a referral to the GP with a birth summary and relevant postnatal details.

At the final visit 4-6 weeks after the birth I will perform a comprehensive postnatal check of the Mother and her Baby and document this in her maternity book and in the Well Child Book. By this time the family has made some adjustments to their new life and is ready to farewell me. It's time for me as well to move on to be with other women on their journey to motherhood.

I would like to take this opportunity to say how much I LOVE my work as a Midwife. For me it's the most 'un-boring job' in the world. You wake up in the morning and don't know what the day brings and there are usually extra jobs that need to be fitted into the diary - maybe a rural visit due to mastitis or someone's waters broke. Someone, who you know and care about and who is trusting you with her life (and her baby's) and you will do your best to keep them safe.

Consumer feedback:

"I believe that the midwifery service is absolutely central to a woman's health and well-being both during and immediately after pregnancy. Unlike other healthcare providers, a midwife provides women with constant, round the clock care, advice and support. We are so incredibly lucky to have access to such a wonderful service."

There are aspects of my job which I find challenging, like the sometimes crazy working hours (12-24 hours plus) often with interrupted sleep prior to that (due to early labour phone calls), finding the right time to be 'off call' and not having a secretary for re-arranging appointments, helping with supply and maintenance of equipment and for the endless paper work, phone calls and text messages.

I would like to thank all Hawke's Bay Midwives (DHB and LMC) for their beautiful commitment to women's health and for sharing their wealth of knowledge and wisdom with me. As independent practitioners we all work differently, however not in isolation as we have strong professional networks and processes (e.g. Midwifery Standard Reviews) to keep us safe. Our DHB provides us with great opportunities to maintain our skills and offer ongoing education in addition to the Recertification program set by the Midwifery Council.

I also want to mention how much I appreciate the team-work and good communication with medical staff, their knowledge and decision-making skills, if their input is required and the valuable expertise our nurses contribute to the Maternity Service.

Finally a big thank you to my back-up midwife Yoka for her support when I need a break and to my husband and children for being flexible whenever Plan A turns into Plan B ... and off I go ... who knows when I will be back home again?



## LMC Midwifery in the Community - A Consumers Perspective

Our LMC Midwife treated our journey with absolute respect and dignity. She was literally at our beck and call and would move mountains for us to ensure we were comfortable and happy. From midnight worries to day time dramas she would advise us on the next steps.

Much of our appreciation lay in the fact that we are different to most and therefore our midwife tailored our experience to suit our needs and wants and requests with complete discretion. Her advice was second to none.

From a husband's point of view she made me feel safe and assured that my wife and our baby were safe and comfortable as I grew to know I was extremely over protective already!

Our wishes were all fulfilled and our midwife went out of her way continuously even after hours to make sure everything went smoothly. She stayed with us in our home and made us realise how much time and energy she put into her work which was like no other job I have ever seen.

Our Midwife literally had my wife's and child's lives in her hands. The experience for me was so traumatic and shocking and beautiful, a thousand emotions all simultaneously but our midwife was always cool, calm and collected and never missed a beat.

I hope that one day authorities and the powers that be, can see midwives jobs and lifestyles for what they really are and to see they need the same support and recognition as any of the most important members of our society. How many people can say they are on call 24/7?

My new family are healthy and happy and we will forever cherish our memories of the most amazing midwife anyone could ever ask for in the most delicate and special times in our lives.

Kind regards,

A brand-new Dad.



Sebastian, Sarah and our wee Petronella



# Consumer Engagement

## 2016 Overview from Our Consumer Representatives

By Louise Curtis

REFLECTIONS ON THE SECOND YEAR AS A CONSUMER REPRESENTATIVE

Having come from a health professional background, I set myself a personal goal, in this role as a Mum providing Consumer Representation, to do my best to separate the two roles, but to also gain a fuller and more lived experience of Customer Service and what it REALLY is.

The most exciting learning for me, was a much clearer definition of Customer Service, separate to 'quality'. Whilst the MOH require DHBs to support evidence-based clinical indicators (which is great, and important) it is important to balance with the consumer 'lived experience'

As an example:

“Hey it's great we're mindful of safety and harm reduction with the comments in this pamphlet, but actually our Mums also want to be able to read what to bring to hospital, whether they should be getting a wax before their caesarean, and some timelines so they can put plans in place for their other kids”.

Not surprisingly the biggest 'learning'/confirmation is that no matter what walk of life, no matter what background, there are core key values amongst our Hawke's Bay whānau.

What has been highlighted for me is the 'differences' in the environment/practices/'norms' for the babies we were (i.e. our parents babies), compared to the babies being born today. Access to information (accurate or not) is explosive with cellphones, social media etc. The need for clearer and consistent information not only for the generation holding today's babies, but the generation wrapped around them too, is essential.

Social circumstances and support have changed too – access to support people has changed with some families living more widespread and/or perhaps support people/parents less available due to work, or financial constraints.

Opportunities have also arisen to connect with organisations' in our community such as 'Kids Need Dadz' organisation (and facilitating introductions with DHB); Maternal Immunisation Clinic ('get your flu shots and whooping cough imms here'☺) and Baby Café, opportunities to strengthen relationships with our Māori providers e.g. Napier Family Centre, Heretaunga Women's Centre, and the way in which the community of Central Hawke's Bay work together has been invaluable.

It was a privilege to sing the praises of HBDHB, at the yearly MOH forum for Consumer Representatives for the MQS programme from around the country. The MCGG we participate in, the leaders/support we connect with are genuinely welcoming of this role, and genuinely seek to do best for consumers. It was humbling to partake in kōrero around leadership role restructure proposals, as part of the MCGG, and the passion for 'getting it right' and preserving quality care for the community. Again, our voice on behalf of consumers was considered well. It is an unenviable task to be constantly resource-conscious when catering to a diverse community.

Heading into 2017 it made sense that there would be a need to let new leadership roles settle, and a recognition we would need to 'regroup' to how best to be of service within the resourced time. For me, this meant making best use of the stories, and themes and trends captured in the preceding year, through countless face-to-face encounters, and focusing now on how best to support the maternity team with some action. There was also a desire to keep 'a finger on the pulse' – whilst keeping up a 'group coffee catchup'.

It was a helpful exercise to write a summary at the end of our first year, of what we felt were the strongest themes and trends from the community thus far, and a privilege to be able to take part in subsequent actions. Community comments regarding feeding, consistent staffing have been tabled with appropriate forums. Suggestions on how to better support maternal mental health are able to be addressed through our participation in a current collaborative project being led by the HBDHB.

### **2016 Overview and Highlights by Gabby Allen**

Becoming a consumer representative for HBDHB Maternity Services was a really huge achievement for me personally. It would enable me to personally be able to formally represent Mums, Dads, babies and whānau so that their 'voices' are heard and I am passionate about being able to represent this community not only as a mother myself but to use the community role I have with Hawke's Bay families via Social Media. I hoped to be able to reach out to a variety of families via different networks and represent them in this role.

#### **My Highlights of 2016 were:**

- Holding our first formal consumer forum in March 2016 with a variety of Mums, babies and senior staff members for Maternity at the HBDHB
- Holding a number of smaller and informal forums and coffee catch ups with various groups including Plunket, baby wearing HB, Play Centres, Napier Family Centre, Parent Centre HB, Le Leche League HB, mothers who suffered from postnatal depression and other Maternal Mental Health issues, Tongue Tie support groups, home birth HB, midwives and the local NZCOM group and other carers of children as well as members of the community that I felt were important people to know about our role - including community leaders, local politicians and organisations and anyone I could connect with personally or via social media to spread the word about our role.
- Helping two families who had lost their precious babies who were stillborn and learning about the support that was available to them and their families. Although emotionally difficult, it is imperative that I understand this side of birth too. This included meeting the local Sands group as well as personally connecting with some local funeral directors for information and support around this area.
- Attending the MOH Consumer forum in Wellington with Lou and meeting consumer representatives from Maternity Services from all over New Zealand. From this I got a good feel as to how we were personally tracking in our role as well as seeing that we were well supported in our role with our local DHB. From this forum other nationwide networks have been formed that we can use for support or ideas.
- Being able to attend the bi-monthly MCGG meetings is a highlight for me, as it allows me to connect with a range of HBDHB staff. These meetings give understanding for the ongoing commitments and improvements being made in Maternity Quality and Safety, and as a consumer representative to ensure I advocate the consumer's voice. There is a sense of mutual respect amongst the group and I feel that my opinion is listened to and valued.

- Visiting the teen parent unit a number of times in 2016. Chatting to the inspiring and hardworking teen mums, doing a collection of clothes for them and their children (two car loads). Through building a bond with some of the Mums I was able to gain more insight into how they found their experiences with HB Maternity. On their behalf I wrote a speech that I was able to deliver at the ACR day for 2015, this was an emotional and meaningful speech which reflected their experiences of the Maternity Services and offered highlights and areas of improvements. I felt that I brought the 'teen mum' voice to those who needed to hear it, and represented these ladies with honesty and integrity. I received wonderful feedback, and this was a proud moment for me and a strong highlight of 2016
- I enjoyed collecting birth stories and photos and learning that every woman has a different story that is equally as important as the next lady.
- Through sharing and promoting the Maternity Services online surveys I was able to hugely increase engagement.

I use every opportunity, whether it be through daily interactions with people through work, social media, charity drives I run or community initiatives, to make connections and listen to what Hawke's Bay mothers, fathers, families and whānau have to say. For me these little daily interactions add hugely to my learning of how we are succeeding, improvements that could be made, the little and big issues and themes and trends that are occurring amongst our consumer views, experiences and opinions, and feeding these back to the Maternity Services. It is a great accomplishment and achievement to finish off the year of 2016 to see how through many ways we have been able to represent the women and bring their voice to the table for future planning to make our service even greater.

Overall the year has been varied and busy and the workload Lou and I got through was pretty huge. On reflection I feel we achieved a good amount of feedback for the HBDHB/maternity services and even more importantly showed many Mums (Dads and whānau) that we are the 'face' of the service, that we do care and that Maternity Services as a whole cares hugely about our community and delivering an amazing level of service. I hope that consumers are happy that we will continue to bring stories, problems, highlights and feedback from a variety of levels on an ongoing basis.

I personally use all opportunities I can to grow my role. It has been an honor to hear "your stories" and bring the consumer "voice" forward to enable us to shape and change Maternity Services for the better not only for today's mums but those to birth here in the future. I hope all women in our community feel they have equal opportunities to birth here with support and options and go on to raise their families in this wonderful region of ours.

### **Going forward. What have I learnt and where do I see myself in 2017/2018?**

It is clear to me that the hard to reach mums are in fact 'hard to reach' but I am determined to make this my focus. I feel connections with Wairoa and CHB will be beneficial. My other area of interest is working with Māori, Pacific Island and Indian Mums (as this is an increasing population making Hawke's Bay home). From my work with the teen Mums and smaller groups in 2016 I feel "baby steps" are needed to make this consumer interaction meaningful and genuine. I aim do this in a sincere and gentle manner with very small groups or individuals that will hopefully increase as trust and friendship grows. I really aim to try my best to make this work in 2017 and beyond.

### Consumer Collaborations

Consumer engagement has remained an ongoing focus during 2016 for our Maternity Service, with consumer opinion and feedback continuing to be a valuable component of how we shape our service. Throughout 2016, the role that the consumer plays in influencing our services, systems and processes has gained significant momentum and became an everyday element of planning, development and decision making.

Generically, Hawke’s Bay DHB consumers have an ongoing opportunity to provide feedback of their experiences to the service through a multitude of mediums including various forms of electronic media. Consumers are able to share their patient journeys with us through their own eyes whether a positive or negative experience.

In addition to consumers responding in a generic manner via email, phone or on paper, the Maternity Governance Team utilised an online maternity service survey in order to collate specific consumer feedback on particular elements of Maternity Services, and our own community Facebook page to share and post the feedback and comments that our service users message in.

### Consumer Collaboration Project

2016 was a productive and progressive year for collaborative work with consumers.

Our two consumer members have worked hard to ensure that the experiences of the women and families accessing our service is recognised, acted upon and subsequently feeds into our service design and delivery.

There is an expectation that the consumer members will focus their energies on building networks and relationships with women and groups within the harder to reach populations and pockets of our region, promising inroads in this area have been made. This has been established through meet and greets, coffee morning attendance, guest presentations, ad-hoc conversations and significant social media networking.

As already stated the two consumer members sit on the Maternity Clinical Governance Group, enabling the consumer voice to be heard and incorporated into the way in which we design, deliver and evaluate the Maternity Service.

Actions for 2017	
Consumer Collaboration Project	Identify a clear work plan with timeframes for the 2017/18 year
	Establishing consumer forums within a variety of settings focusing on Māori, Pasifika, young mothers, mothers with disabilities and those experiencing mental health issues in order to be accessible and approachable across the community and away from the DHB.
	Continue to ensure consumer members are known and visible in our organisation and across all aspects of the community
	Establish stronger relationships with our high risk and hard to reach women by making specific connections and having a regular presence in appropriate group meetings, special events and purpose built environments such as the teen parent units
	Respond to trends and issues in relation to service delivery and design
	Ensure a number of mediums are used to support consumer feedback
	Ensure this ‘work-stream’ maintains high profile in the organisation for ongoing support and shared understanding
	Review and write an Ata Rangi specific consumer experience survey
	Create and develop a Breastfeeding survey
	Support the public campaign launch of the “top 5 for my baby to thrive” (engage early with a midwife) project

## Consumer Forums Held: Napier Hub (Plunket) 22 March 2016



The first consumer forum was held at the Plunket Hub in Napier on the morning of 22nd March 2016.

The Maternity Consumer Members were tasked with organising the venue and recruiting women to attend the forum. Sizable communication occurred via social media in order to promote the event and invite the women. Correspondence occurred with over 300 women which resulted in 23 women being officially invited to attend along with their babies.

On the day, 17 mums attended with their 5 toddlers and 14 babies along with the two Maternity Consumer Members, the Maternity Governance Coordinator, Breastfeeding Advisor, Clinical Midwife Manager and the MQSP Administrator.

Once the formal introductions were completed, an informal approach was taken which allowed the consumers to speak out about their experiences in the group setting and then individually to the DHB team and each other during morning tea.

The discussion was led with the questions:

- What did we do well?
- What could we do better?
- What matters to you/what do you value?

The key themes that came out of these questions were:

- Apparent overstretched staff that voiced their busyness to the consumers: creating concerns around clinical professionalism.
- Prolonged waiting times for required neonatal discharge checks once all maternity related care has been completed.
- Concerns regarding the reluctance or inability of maternity staff to be able to assess for/diagnose lip and tongue tie – consumers requesting training for staff regarding this and for lip and tongue tie checks to be a standard part of the discharge check documentation.
- Consumers want the provision of emergency sleeping gear for support people of those women who attend and birth without the ability to be prepared.
- Parent Centre antenatal classes were very favourable to all of the women who had attended them.
- Several reports of inappropriate and unhelpful comments from staff to consumers, as well as some consumers reporting receiving conflicting advice.

The DHB team responded to all of the discussion that occurred, providing explanation and clarification as to why certain issues had arisen as well as informing the group that we would work towards addressing all of their concerns.

Without doubt the forum was very successful. The feedback for it was extremely positive, with the consumers stating they felt they were heard by the people who can make changes. They requested we hold more forums and we were sincerely thanked for providing the opportunity to the consumers to have their say. There were several suggestions that a drop-in style forum would be highly valued, where women could speak individually or in a smaller group.

All the attendees have been thanked for attending individually by e-mail by one of our Maternity Consumer Members. The Consumer Member also took this opportunity to invite the consumers to feedback further, if appropriate, and is collating this feedback as it comes in.

Following the forum, the main focus for maternity quality initiatives will most likely be work around the necessity for midwives to ensure an oral assessment is completed and referred on if concerned and implementing a more consumer friendly and efficient process for neonatal discharge checks.

Emma Mumford  
Maternity Governance Coordinator 2016

**Te Taiwhenua O Heretaunga 13 October 2016**

**Maternity Consumer Forum: 13<sup>th</sup> October 2016**

Te Taiwhenua O Heretaunga is a Māori Provider of health and social services, for whānau residing in the Hawke’s Bay region encompassed by Heretaunga.

It was a privilege for Gabby and I to be so warmly received as community members, representing our community of wahine/whānau who have utilised the maternity services of Hawke’s Bay.

Engaging first with kaimahi, some great kōrero occurred at a staff meeting of social/support workers caring for whānau and youth through Family Start initiative, and also at a separate meeting for staff of Tamariki Ora (Well-Child Provider). Family Start entails supporting pēpi from when they are in the late stages in the womb, through till the end of their first year of life, by supporting not only the pēpi, but the whānau embracing them throughout this time of their life.

I really appreciated the honesty and integrity of the kaimahi who shared what they have heard from whānau experience of the maternity journey, as well as what they have observed, including the transition of parenthood. From there, we agreed it would be ideal to meet with willing whānau first-hand, in a relaxed, informal setting with efforts to ensure they felt welcome, safe, and supported to have their say, and be heard.





Together we arranged a ‘coffee catchup’, where whānau were invited ahead of time by the social workers with whom they had built rapport, and on the day they were collected from home to overcome transport issues, and brought to the familiar venue of TTOH, with their pepi/tamariki. Their support workers remained present, to tautoko the kōrero that occurred. There were 9 parents (one of whom was a Dad) and 7-9 kaimahi which enabled ‘settling in’ and a closeness of sharing their stories with myself and the DHB representatives. The feedback emphasised appreciation for the presence of the DHB representation: Maternity Clinical Governance Coordinator, MQSP Administrator, the Clinical Midwife Manager and Midwifery Educator.

The chat started with a karakia, introductions and a Group open chat, which was really informative, and then progressed to mixing and mingling to allow one-to-ones over a coffee.

The feedback form demonstrated that the forum felt useful for the TTOH community of whānau and kaimahi, and certainly as facilitators we found it really valuable, and very welcoming.

Feedback was provided to the Maternity Clinical Governance Group, with many suggestions having since been acted upon.

SUGGESTIONS	ACTIONS
Postnatal Care considerations	Raised with (new role) Associate Charge Midwife for consideration
Support Person needs	X7 new mattresses have been acquired for Ata Rangi
Appointment cards by post – not arriving in time for transport purposes	Organisation-wide improvement to access to free transport – now able to show ‘texted’ appointment (promoted widely in media, and feedback to TTOH as well).
Visual ‘Health Promotions’ unappealing	Fabulous suggestions re colours/visuals incorporated in the latest ‘Top 5 for my baby to Thrive’ campaign
The need to increase knowledge of ‘what’s out there’ e.g. social media sites for mother craft skills etc.	As part of Maternal Mental Health Project – there is commitment to have a directory of community supports, including reputable Social Media sites for parental advice/social support etc.

Of value it was pleasing that so much of ‘status quo’ is valued by the TTOH community. An important learning for myself, in this role, is that there is value in this role as a liaison person to facilitate engagement and comfortable communication. Kaimahi (both in the first introductions, and on the day) and also whānau expressed how invaluable it was to feel heard, and to have face-to-face kōrero.



# Hawke's Bay Consumer Story - The birth of baby Hazel

Our story - a simple, quick, no dramas birth in Waioha :) Our second daughter was born in September 2016 in Waioha at Hawke's Bay Hospital.

She decided to arrive on the one weekend I hoped she wouldn't – the weekend my midwife was away – and chose to get things started while my husband was working a night shift!

Hazel was a pretty speedy arrival, I woke just after midnight with my tummy feeling really tight, and she was in my arms by 3.16am – and that was with the time being adjusted forward an hour at 2am due to daylight savings!

Once I realised that this was the night baby was coming, hubby got home quick smart from work, we phoned our back up midwife, Nana came around to look after soon to be 'big sister' and we jumped in the car and got to the Hospital as quick as we could. Some big contractions and feeling baby really low had me panicking I was going to have her in the car on Omahu Road, but we made it to the maternity ward car park.

We got into Waioha at 2.55am and were greeted by a lovely hospital midwife who took us through to our room. Dad was impressed that the birthing pool was already filling up for us (we had it in our 'birth plan'), although baby came so fast I didn't even make it to the pool.

Our back up midwife turned up about 5 minutes after we did and I was on my hands and knees on the bed, pushing. I could see there was quite a bit of blood dripping onto the bed and the midwives were talking about it in that 'we're going to talk calmly so as not to freak anyone out' kind of way. They were saying that we may have to transfer to Ata Rangi, but because baby's heart rate was good (the hospital midwife was checking every couple of minutes) and baby was so low, 'right there', and I was pushing well they were confident we should be ok in Waioha.

I had my heart set on having my baby in the new maternity ward, and my first birth was a 'natural' water birth so as I now knew I could actually do it with no intervention I was hoping to do so again (although my ultimate birth plan was 'get baby here safely' and I was totally open to whatever needed to happen to achieve that), so I was very pleased not to have to be transferred.



We had 15 minutes of intense pushing, a few “I can’t do it”, “it hurts” (and a few other choice words!), lots of encouragement from Dad and reassurance from the midwives, and then baby Hazel was in my arms enjoying skin to skin – only 2 hours after I’d woken up!

We were expecting things to be like they were with our first daughter as that was all we knew, and were pleasantly surprised that Hazel was a dream baby from the minute she arrived – she fed pretty much straight away, slept well and was just adorable (she owed me after a tiring pregnancy and lots of heartburn, ha!).

Our stay in Waioha was short but pleasant. It was so nice being set up in a lovely, clean new room with our own bathroom, and not having to be transferred. Having a decent built in bed for Dad was awesome - much better than sleeping on the floor or in an uncomfortable chair while trying to support your wife, and also the decent feeding/guest chair – might not seem like a major but those things make a big difference to the overall experience. Just the amount of space.

We stayed one night in Waioha and went home the following afternoon to continue life as a family of five – Mum, Dad, two gorgeous girls...and the dog!

Written by Jess Pipi

### Maternity Services Consumer Online Surveys

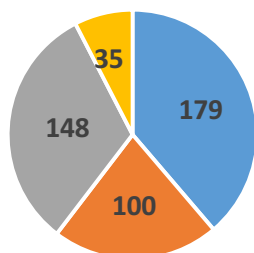
With consumer opinion and feedback being such a valuable component of how we shape our service, an online Maternity Consumer Survey was developed in 2014 as a further strategy to establish successful engagement with our hard to reach population. The survey is a platform that captures the thoughts, feelings and experiences of our own maternity population by developing an ongoing electronic consumer survey that encompasses the entire spectrum of our Maternity Services. The survey is structured to provide an in-depth and meaningful response to key issues including difficulties with engaging with a lead maternity carer in the first trimester and dissatisfaction with experiences of in-patient care.



## Ata Rangi Annual Survey Response

### Demographics

Number of Survey Responses



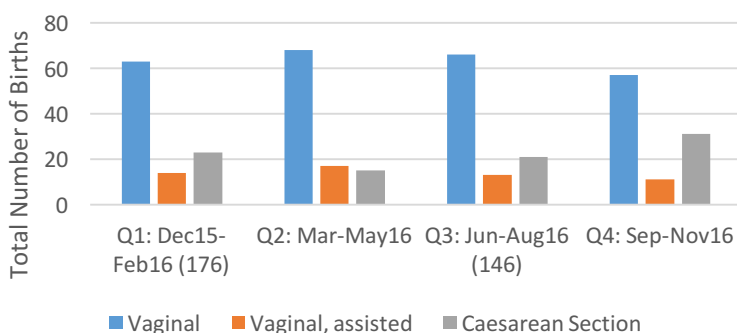
■ Q1: Dec15-Feb16 ■ Q2: Mar-May16 ■ Q3: Jun-Aug16 ■ Q4: Sep-Nov16

In 2016 we had 462 survey participants, with our busiest quarters being 1 and 3.

#### Of our participants;

- 73.79% were European
- 18.21% were Māori
- 1.96% were Pacific Islander
- 1.52% were Asian
- 4.58% identified as Other

Type of Birth



■ Vaginal ■ Vaginal, assisted ■ Caesarean Section

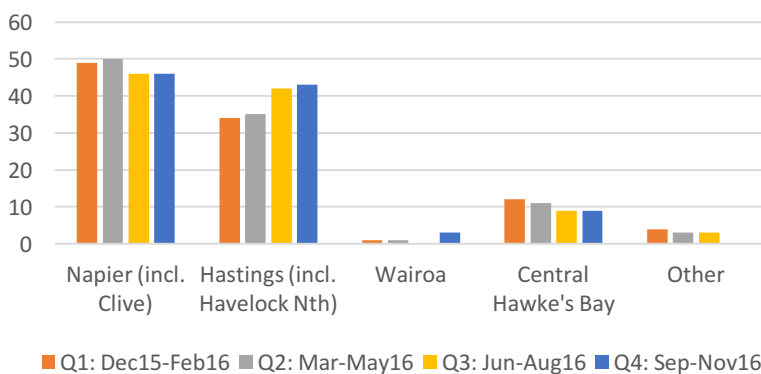
In all four quarters Spontaneous Vaginal Birth was the most common birth method, followed by Caesarean Section and Instrumental.

153 of our survey respondents were primips and 309 were multips.

Our participants are categorised into the following age groups:

- 15-20 years (4.00%)
- 21-25 years (15.32%)
- 26-30 years (33.16%)
- 31-35 years (35.42%)
- 36-40 years (8.29%)
- 41-45 years (3.01%)
- >45 years (0.75%)

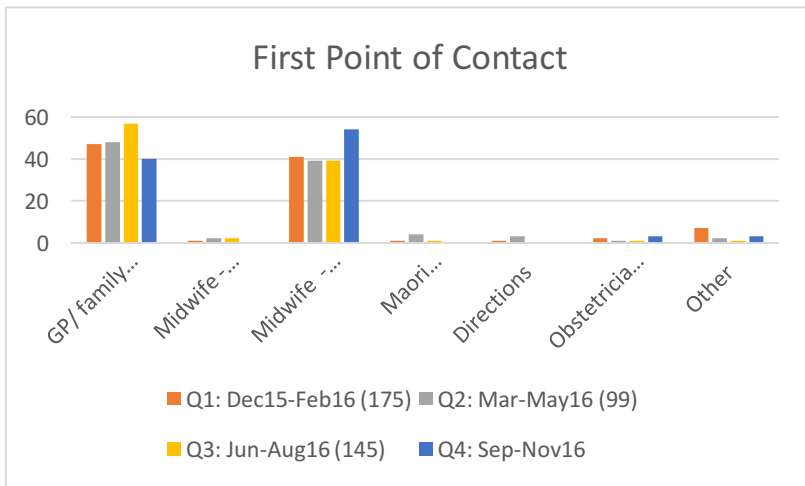
Normal Place of Residence



■ Q1: Dec15-Feb16 ■ Q2: Mar-May16 ■ Q3: Jun-Aug16 ■ Q4: Sep-Nov16

The demographic information also shows us that the majority of our participants reside in the Napier and Hastings areas.

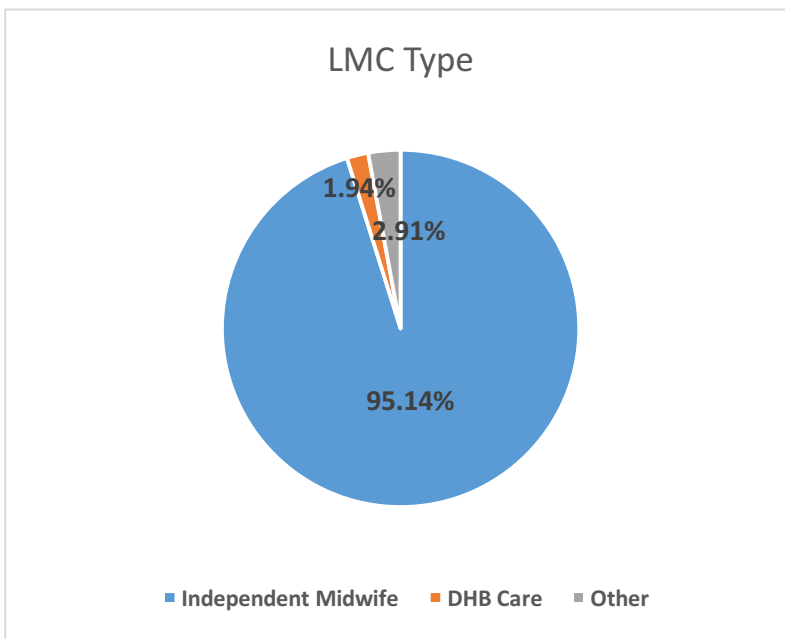
## Early Engagement



It is encouraging to see that for all quarters the majority of women are making contact with an LMC or their GP.

Our survey results also demonstrate that 90% of our women whom responded are making contact with a health provider within the 1<sup>st</sup> trimester of pregnancy.

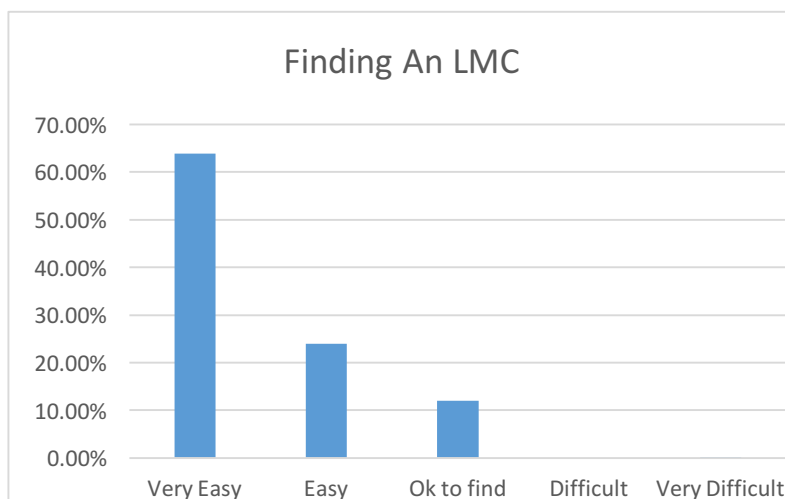
## LMC Engagement



412 of the 419 survey participants had an LMC, with 95.14% of them having an Independent Midwife as their LMC type and **86.3%** making engagement with them within the 1<sup>st</sup> trimester.

Our survey data shows us that women are engaging with an LMC within the following timeframes:

<6 weeks	(43.03%)
7-12 weeks	(43.27%)
2 <sup>nd</sup> /3 <sup>rd</sup> trimester	(12.46%)
Unknown	(1.22%)



The most common way women are choosing their LMC is through recommendation and the 'find your midwife website'. The most common reason listed for those who had difficulty finding an LMC was finding one that offered the right service.

**Antenatal Classes**

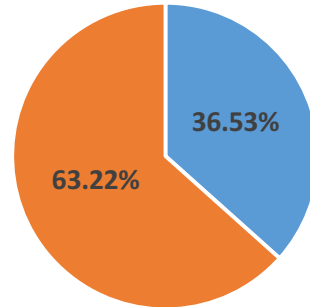
We had a high number 63.22% of survey participants saying they did not attend antenatal classes.

The most common reasons given were that they had previously attended, didn't have time to attend and the type of classes didn't suit.

Of our responses we can see that those who are attending are finding it useful:

- 59.18% found them useful/very useful.
- 34.69% found them somewhat useful
- 6.12% found them not useful at all.

Antenatal Classes



■ Attended ■ Did not attend

## Service Rating

### Antenatal Inpatient Services

82.54% of consumers felt that they were involved in decisions about care.

Consumers expressed that there was a lack of consistency amongst staff and opinions.

Staff attitude was a re-occurring complaint.

Consumers praised DHB midwives, for making them feel comfortable and at ease.

### Antenatal Clinic

87.53% of respondents felt that they were treated with dignity and respect during the Antenatal Clinic Visit.

Time waited to see a Dr continued to be a re-occurring issue throughout 2016.

Consumers expressed that they would have liked more continuity in care and for Dr's to know their history better.

### Postnatal Inpatient Care

The majority of consumers felt that during their postnatal stay their privacy and health information was maintained and respected, and they were treated with dignity and respect.

Our survey results demonstrated that we could make improvements in attending to patients comfort needs, and preparing them for discharge home.

Improvement could be made on our overall postnatal service and environment.

Consumers gave suggestions on staff improving their manner, supporting women and communicating at shift change over.

### Labour and Birth Care

Nearly 90% of respondents said they felt they were treated with dignity & respect.

More improvement could be made around involving patients in discussion and decisions about care.

Consumers expressed that they didn't feel their privacy was respected with staff leaving doors open to rooms.

Again staff manner towards patients was a re-occurring theme.

Positive consumer feedback was that they felt cared for, supported and had a positive experience.

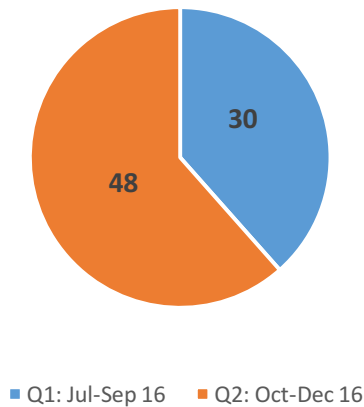




## Waioha 2016 Survey Response

### Demographics

Number of Survey Respondents

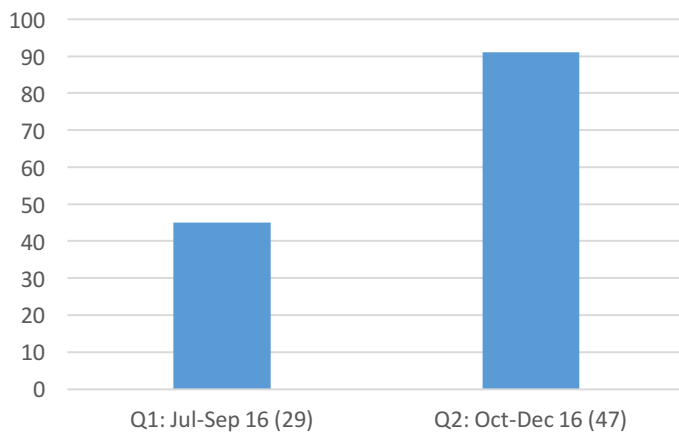


From July – December 2016 we had 78 survey respondents, with our busiest period in quarter 2.

**Of our participants;**

- 68.77% were European
- 18.09% were Māori
- 3.16% were Pacific Islanders
- 5.42% were Asian
- 4.51% identified as Other

Percentage of Primips

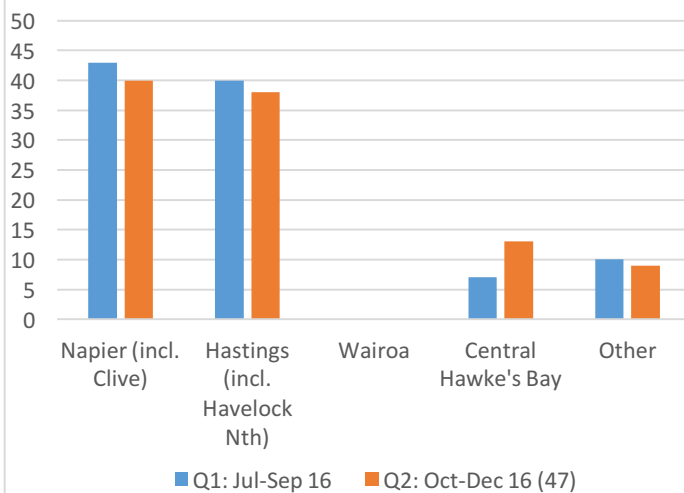


It is reassuring to see that within our 1<sup>st</sup> 6 months of opening Waioha we have a great number of primips birthing there. With 45% in quarter 1 and 91% in quarter 2.

Our Waioha participants are categorised into the following age groups:

- 15-20 years (7.96%)
- 21-25 years (16.91%)
- 26-30 years (31.34%)
- 31-35 years (28.85%)
- 36-40 years (11.44%)
- >45 years (3.48%)

Normal Place of Residence



The demographic information for Waioha shows us that similarly to Ata Rangi the majority of our women reside in the Napier and Hastings areas.

Encouragingly 92.1% of women are choosing Waioha as their 1<sup>st</sup> choice of birthing facility.

## Service Rating

### Positives About Waioha

50% of respondents liked the support and care they received from the staff the best.

29% enjoyed the facilities/environment the best.

#### Consumer Feedback:

- All the facilities and equipment facilitate a positive birth experience.
- Waioha is like a home away from home.
- The staff and facilities are so amazing.

### Dislikes About Waioha

Reassuringly 60% of our consumers had no dislikes about their stay in Waioha.

Our most common dislike was about the food not being nutritious, varied or pleasant.

#### Consumer Feedback:

- Please review the visiting hour's policy.
- Having no shower curtain causes water to flood the bathroom.
- It's unsettling having to move to Ata Rangi to have an epidural.

### How Can We Improve Our Services?

It is encouraging to see that 63.50% of our Waioha consumers do not believe any improvement needs to be made.

#### Consumer Feedback on Service Improvement:

- Extending the reach of the gas to the birthing pool – this has now been rectified.
- Make the doors close quieter – this has now been rectified.
- Providing a cleaner environment, and more frequent cleaning of the bathrooms – discussed with cleaning team, and commitment made to improve environment.
- Giving monthly public tours.
- Nothing – Waioha is great, amazing, comfortable and safe.

# Early Engagement with an LMC

## Top 5 for my Baby to Thrive Campaign

One specific indicator is in relation to supporting early engagement with a midwife in the first 10 weeks of pregnancy. MOH have set the target that 80% of all women will be booked with a midwife in the 1<sup>st</sup> trimester of pregnancy. Data for this indicator was first captured and reported in 2013 with Hawke's Bay maternity services identifying at a rate of 63.5%, just below the national average 64.9%. When this is further broken down by ethnicity a clear inequity of access was revealed for our Māori (45%), Pacifica (51%) and young teenage pregnant women. We have continued to struggle to make a significant impact on this target with evident inequity for our Māori and Pacifica women continuing.

National maternity consumer feedback and local consumer feedback demonstrates a significant lack of knowledge regarding midwives, maternity services and what to expect when a woman finds herself pregnant. Health professional feedback from both LMC midwives and General Practitioners reveal challenges with communication between each other, what the best method of communication is and who is responsible for what.

The opportunity to create a programme in partnership with our primary care practitioners evolved and by the end of 2016, 75% of general practices had been visited by the Midwifery Director and Smokefree liaison midwife promoting the key messages of supporting women to walk out with a booking appointment for a midwife and having had a smokefree conversation and cessation referral made.

*The opportunities this programme offered:*

- Improved continuity of care for pregnant women in early pregnancy with a more seamless handover between GP and LMC
- Improved communication pathways between primary care professionals
- Improved understanding of the expectation of the first consultation in pregnancy and the expectations from the Ministry of Health
- Improved networks within the community setting closing the existing gaps for women seeking midwifery care in a more supportive and joined up framework

**THE TOP 5 FOR MY BABY TO THRIVE**  
FIRST 10 WEEKS OF PREGNANCY

Five essentials in the first 10 weeks for every pregnancy every time

- FIND A MIDWIFE**  
[www.findyourmidwife.co.nz](http://www.findyourmidwife.co.nz)
- BE SMOKEFREE** 0800 686 223
- BLOOD TESTS AND SCANS**
- EXERCISE AND EAT WELL**
- TAKE IODINE AND FOLIC ACID**

**OURHEALTH HAWKE'S BAY**  
Whakawhātea

Hawke's Bay Maternity

[www.ourhealthhb.nz](http://www.ourhealthhb.nz)

*The main objectives were:*

- Improve care in pregnancy facilitating engagement for women with LMC's by 12 weeks
- Improve engagement of the pregnant woman with her general practice
- Strengthen communication between GP's and LMC's
- Meet education needs of women in early pregnancy

Outcomes of this initial visit to General practices with resources and consistent messaging:

- Evident increase in pregnant women registering with an LMC within 12 weeks; in particular a 10% increase for Māori
- Strengthened relationships between GP's and LMC's sharing communication, supporting early engagement in pregnancy
- GP's valued the identification and consistency of the Top 5 messages for women
- Women found finding a midwife less anxious and stressful and valued the support to get a booking appointment with an LMC
- For Napier GP's an increased awareness of the Napier maternity resource centre has led to increased referrals to the LMC's and early registration for pregnant women

Actions for 2017

- Continue to work with stakeholder project group to complete the development of woman focused resources for Top 5 for my baby to thrive public campaign inclusive of posters and wallet cards
- Finalised Communication plan for public campaign including posters, billboards, back of buses and new signs across the community

## Early Engagement from a Consumer Perspective

“I believe that the midwifery service is absolutely central to a woman's health and well-being both during and immediately after pregnancy. Unlike other healthcare providers, a midwife provides women with constant, round the clock care, advice and support. We are so incredibly lucky to have access to such a wonderful service.”



## Maternal Mental Health

Maternal Mental Health (MMH) has been operational since 2002. The service continues to grow in providing support to women with moderate to severe mental illness during their pregnancy or postnatal period for up to twelve months.

MMH Hawke's Bay has 1.4 clinical FTE that includes Registered Nurse and Social Worker. Senior Medical Officer, also provides 0.2 FTE medical cover. This small dynamic service provides assessment, treatment, information and therapeutic intervention to women needing support.

The volume of referrals have increased in the last two years. Complexity of referrals received has seen an increase in co-occurring mental, social, and physical health problems where deprivation, poverty, family violence and addictions are becoming more prevalent. At least 49% of these referrals are managed through Maternal Wellbeing Child Protection (MWCP) group. MMH is committed in meeting this demand by collaboratively working with Community Mental Health Services and other primary health providers. This also includes Pregnancy Parenting Support (Te Ara Manapou) which is a new specialist service establishing in 2017 that supports women with addictions during pregnancy and children under 3 years of age.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL:
2014	11	5	12	12	11	3	8	12	13	21	10	11	129
2015	7	12	7	21	11	12	24	12	16	15	18	2	157
2016	10	13	16	16	13	10	20	9	23	7	8	8	153

Continuous improvement is focused on outlining service criteria and patient access pathways. This will be done in collaboration with NGOs, Capital & Coast MMH and other maternity providers within the community. Our aim for 2017 is to update the MMH policy with a clear outline of the referral process. MMH also wants to implement a 'consult desk' to offer guidance and support to professionals and consumers. This initiative will increase MMH visibility and strengthen partnerships with maternity services. Educational sessions via Capital & Coast MMH will also be provided to key stakeholders regarding evidence based practice in MMH. Finally MMH wants to maintain a shared vision with maternity services in ensuring that we are keeping vulnerable women during their pregnancy in the fore front in all the work we do.

## A Consumer Story - Birth and Postnatal Depression

I didn't think about postnatal depression before I had my baby. Why would I have done? It was something that other people went through, other mums, not me. Everything was perfect, I was married, we owned our own home and we were pregnant. It was all anyone could ever ask for. But yet after 3 scary, out of control months following the birth, I had no choice but to face this beast of a thing (postnatal depression) head on. I had to confront it, I had to fight, I had to get better.

If we rewind time, and start in the beginning. Trying to conceive was something I struggled with, mentally. It was something that I could not control as well as I wanted, the waiting killed me, to know if we were pregnant or not. Looking back on it now, I can see that my anxiety was slowly creeping its way in. When we finally became pregnant I was, as most would say 'over the moon' everything was working out. Everything was perfect and everything was going to be perfect. I was so excited to meet the little boy that I had carried for 9 months.

The majority of my pregnancy was perfect and easy, I continued at the gym until I was 33 weeks pregnant, my sister was pregnant at the same time, I had all the clothes, the perfect nursery, the perfect pram and all the matching furniture. Towards the end of the pregnancy my blood pressure went higher than what it normally was. Baby's movements were decreasing which meant an extra scan. Again, my anxiety kicked in and I would lie on the couch just waiting and waiting for him to move, the relief when he did would dissipate my anxiety until the next long period without any movements. This continued until I went into labour. I didn't know what to expect with labour, I had heard birth stories from other mothers, I had learnt all that I could at antenatal class, but in reality, nothing can prepare you for labour, things can change so quickly. And boy oh boy did that happen.

My waters broke first thing on Sunday morning, I woke up thinking I had wet the bed, only to realise actually it was my waters that had broken. I remember having a conversation with my midwife and asking if the water stained the carpet, yes I was one of those pre-children people that worried about stains on the carpet (and yes of course that has changed). I remember standing in the bath thinking to myself when on earth will my waters stop. No one told me you needed to wear a maternity pad once your waters break, my goodness I felt out of control. I am a teacher, one that needs control, which needs to know, that needs to have the information so I can process what is going. This, I felt is where I began to feel not quite right. I laboured at home, with horrible pains in my back, I thought this was normal, I wanted it to stop, I hated every moment of it, I hated the feeling of waiting between contractions, not knowing when the next one would be. Little did I know he was actually posterior. We were in constant contact with my midwife, it came to around 10pm Sunday night and I desperately wanted to just get to the hospital, I didn't want to be at home anymore. I felt like giving up, I didn't want to do this, but on I went. I had no choice. Finally, at around 1.00am my husband rung my midwife and said that I just couldn't do it anymore and we needed to go. We met at 2.00am at the hospital. The drive to the hospital will be one I will never forget, even though I didn't feel like I was in my own body, I didn't feel like myself at all. Little did I know, this feeling continued even when we were driving home from the hospital after we were discharged.

We arrived at Waioha and I was assessed by my midwife, things were now becoming real. Lights were turned down low, the birthing pool was filled, music on. I had my husband by my side. Things were feeling not so bad, this was ok, I could do this. I remember my midwife constantly checking baby's heart rate, I thought this was a little odd the amount of times she was doing it, but didn't think anything more of that. I felt calm, I felt strong and I felt in control. With the snap of a finger those feeling vanished. My midwife got me out of the pool and onto the bed, his heart rate had dropped significantly, suddenly



those feelings of being calm, being strong and being in control went. Lights on. A team of medical people came rushing in, I was now panicked. Time seemed to be going slowly, but at the same time everything was rushing past me. I shook, my body shook, I could not control any part of my body. Being transferred to Ata Rangi was one of the hardest things. You are used to one environment and then all of a sudden that is gone and you are somewhere else. It allows your mind to overthink what is going on, it creates stress and panic.

Ata Rangi, a place that for a long time made me shiver with fear when I heard its name, or remembered what went on. I was in Ata Rangi in an environment that was completely different to Waioha; lights on, no music and a sense of panic and urgency from everyone. His heart rate thankfully returned to a safe level. Specialists arrived, specialists went. I was pushing for what seemed forever, it seemed like nothing was happening. My midwife kept me going, she kept me strong when I lost my way. She did all that she could do, but in the end I gave up, my body gave up, my mind gave up. A specialist came in, and said something that at the time I didn't know what she meant, I asked my midwife what was happening and she said I was going to be prepped for an emergency c section. Some would say that I shouldn't have felt joy, but I did. I felt relieved that I didn't need to push anymore, I felt relieved that this pain would stop. However, that feeling of joy and relief soon was taken over by the shock that my body and mind was now experiencing. I shook, I cried, I felt completely out of control. Having your husband by your side makes this horrible experience a little more bearable, but when he is told to go and prepare for theatre your whole world falls apart. The man that has held your hand, wiped your forehead, looked into your eyes to tell you, you are doing an awesome job has to leave you. I remember lying there shaking with every contraction, truly scared, actually petrified. Being wheeled into theatre to be greeted by my husband made me feel the slightest bit better, he held my hand, but the look on his face, the look in his eyes was one I have never seen in the 12 years we have been together. He too was scared, and petrified. What happened next not only scared me, but more so my husband. I hated lying on the operating table, I wanted to just move, to run, to get away from all of this. I didn't want to be here, I wanted to quit. I was scared, my husband was scared. I remember the feeling of when my son was born, or actually more to the point the lack of emotion. I remember everyone saying that feeling is one of joy, you will instantly fall in love with him. I didn't. I didn't want to. I wanted this to end.

Back on the ward, I felt ok. I felt some of my mummy confidence was kicking in, he was feeding well, I was doing well. Everything was now coming together. This all changed too quickly. He was not having enough wet nappies, and was just below the level of needing to go under the billy lights for his jaundice. All of a sudden things were out of my control again, I needed help with breastfeeding which I found a further struggle and caused further anxiety. However I persevered and finally went home, still breastfeeding. I don't remember much of the first week of being home. Although I remember sitting feeding, crying every time, I hated it, it didn't feel right, I didn't feel like myself, I wanted to give up. What went through my head was that Mothers don't give up on breastfeeding, which is something that is completely taboo. My husband was due to go back to work, I felt scared, and I felt like I couldn't be trusted alone with my son. I cried, I couldn't stop crying. I didn't know what was wrong. I felt like I had lost myself, I had lost my identity, I didn't know who I was. I have my sister, husband and midwife to thank. They had decided that I was showing all the signs of postnatal depression. I had to go after hours to seek medical help, I remember standing outside after hours and crying hysterically. What was I doing? Why was I like this? I wanted it to end, to all just go away. It didn't. I was prescribed anti-depressants, the words anti-depressants I thought would never ever be said to me. I didn't want to be on anything. I had failed. Taking the first pill was huge, I had to overcome all of what I had thought about myself. Things didn't get any better, I was spiraling down so back to the GP I went, onto more medication to try and calm me. I cried and cried, I looked at my son and wished it all away. I felt guilt for feeling like this. What sort of person was I, which wanted their son gone? This is when my panic attacks set in, nearly every day for 3 months I had one. I was constantly wanting to run, my flight and

fight was working in overtime. I had to go, I had to run, I had to be out of our house, away from our son. I used the 0800 mental health line to support me in how I was feeling. I decided that I needed to get help, I need professional help. This realisation came when the thought crossed my mind of just driving off into the sea. This scared me. I had never ever been this low, I had hit rock bottom and needed to get out of this. I used the help of my cousin who is an occupational therapist to work with me, I changed GPs to one that specialises in mental health, my husband signed me up for the Napier family centre Post Natal Adjustment group, I was working with a psychologist doing EMDR therapy to process the birth. I had to fight, I had to work hard, I had to do this. I had to work on being able to love my son. I believe I was let down by some key health professionals that said I did not have post-traumatic stress, even though I previously was diagnosed this by my GP. I was told that labour is not life threatening, therefore I cannot have PTSD. As you can imagine I was deflated. I was also advised that I will get addicted to a medication I was on. I stopped taking it in fear of addiction. And what happened? I spiraled down again. My brain needed that medication, I needed that medication. I did not need a medical professional telling me what I went through and how I was feeling was not valid. I politely declined referral to services as I was getting better results from the therapy group, my GP and my psychologist.

I have never had to work so hard before. I have never had to fight so hard before. I have never had to change so much before.

I now look at my 6 month old son and love every part of him, I don't wish away what I went through earlier on. I believe that it made me love myself, my husband, my family and most importantly my son even more. If you had of asked me if I ever believed I would recover from this, I would have said no. There was no way I thought I could get better, there was no way I thought I would ever have the feeling of wanting to be a Mum.

Everyone around me, including myself has learnt a lot. I have learnt that there is no 'right' way. What you do is the 'right' way for you, everyone is different, everyone has a different story to tell, everyone has different expectations, different ideals, and that is ok. We are all allowed to experience pregnancy, labour and motherhood differently.

I can now look back and be proud. Proud that I fought, for myself, for my husband, for my family, but most of all for my son.

And finally, as a friend recently said to me: "You have got to earn your Mummy stripes before you receive all the blessings. Bigger stripes, bigger blessings."

## Smoking Cessation Service & Smoke free Intervention Programme

The Hawke’s Bay District Health Board (DHB) Smoke free Team has five staff with four located in Hastings and one based in Wairoa. The Smoke free Team adheres to the DHB vision ‘Healthy Hawke’s Bay, Te Hauora o Te Mātau-A-Maui’ by:-

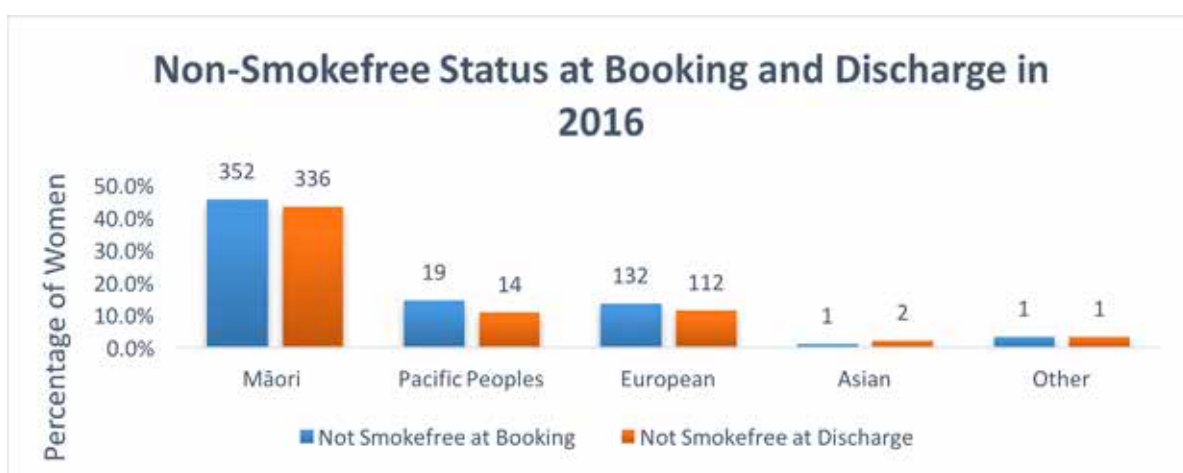
- Helping people to stop smoking completely as soon as possible
- Working collaboratively with health services and other services, important to the pregnant woman
- Providing an accessible and effective service to pregnant women in helping them to stop smoking.

While each team member has a designated area of work, all team members work collaboratively for specific projects and to reduce tobacco-related morbidity and mortality and the impacts of smoking during pregnancy.

The Maternal and Child Health Smoke free Coordinator’s role is to ensure and prioritise patient safety and quality relating to care and processes within the Smoke free Service. This includes taking responsibility of the Ministry of Health target of at least 95% of all patients and/or patient’s parents are asked about their smoking status, briefly advised on the benefits of being smoke free and offered stop smoking support to become smoke free. This key performance indicator is consistently met, however providing up to date data for 2016 has been challenging due to vacancies in clinical coding.

During 2016, the Maternal and Child Health Smoke free Coordinator continued to provide up to date research and information for midwives and obstetricians, as well as communicating on a regular basis to encourage them to provide ABC, offer cessation support and continue to refer pregnant women who smoke to the Increasing Smoke free Pregnancy Programme (ISPP). Other tasks were ensuring ISPP referral packs, Nicotine Replacement Therapy (NRT) and Quit cards are always available on site.

The documentation we are able to collate indicates the following statistics around non smoke free users of the maternity service. It is still evident that Māori are the predominant ethnic group, followed by European women.



The total number of women who were not smoke free when registered for maternity care was 505 women, compared to 465 women who were not smoke free, when they discharged from hospital. This difference was reflected by 16 Māori, 5 Pacific Island, and 20 European women becoming smoke free during their pregnancy. Interestingly the Asian group of women increased 100% at discharge from 1 to 2. The most significant reduction in smoking was the Pacific Island and European women.

The Maternal and Child Health Smoke free Coordinator is working collaboratively with staff across Maternity, SCBU, Paediatric Ward and Clinical Coders to improve documentation for statistic collation. This requires an understanding of current documentation practices within each service and finding a solution that works best for all areas. This has proven to take some time, to get it right and is still in its early stages. Other roles of responsibility include analysing the DHB smoke free data and sharing findings across other DHB's around the country, attending relevant study days, interagency meetings and workshops.

During the latter half of 2016, the Maternal and Child Health Smoke free Coordinator together with the Midwifery Director visited General Practices in the region to discuss the “Top Five to help my baby Thrive” essentials in the first ten weeks of pregnancy (Early engagement project). This is an opportunity for General Practices to promote ISPP by encouraging pregnant women who smoke to stop smoking and to provide a gift of Wahine Hapu resources (Fridge Magnet, Lip Balm, and pen and pregnancy information). It is hoped that if the pregnant woman declines ISPP, the Wahine Hapu resources will help review her decision and self-refer to the DHB Smoke free Service.

### **The Increasing Smoke free Pregnancy Programme (ISPP) continues ...**

The Increasing Smoke free Pregnancy Programme incentivises pregnant women and her whānau over a three month period if they agree to receive smoking cessation support and become smoke free. The aim of the initiative is to increase smoke free pregnancies and support her whānau to be smoke free creating a smoke free home in Hawke's Bay and to continue to work with our community Lead Maternity Carers (LMC's) and Kahungunu Health Services (Choices). This initiative has been running for two years and the referral rates to the programme continue to increase.

The DHB commissioned a mid-term review of the programme in August 2015. The purpose of the review was to identify what is currently working well and what improvements may be needed for future operation of ISPP. The findings of this review did not support changing the core incentive to something other than nappies at this time as nappies are cost-effective, appropriate and acceptable to both health professionals and pregnant women and their whānau. However, we have taken on board the following enhancements to the incentives package, which began on 1 July 2016:

- Offering an incentive one week after quit date as well as 4, 8 and 12 weeks, to provide a reward for getting through the first hard week of not smoking. Carbon Monoxide validation is required to receive incentives at each milestone
- Offering an incentive of grocery vouchers for whānau members who quit. To also begin one week after quit date as well as 4, 8 and 12 weeks. Carbon Monoxide validation is required to receive incentives at each milestone.

### **Increasing Smoke free Pregnancy Programme results for 2016**

In 2016, total referrals were 324. (64 % of our non-smoke free population), made up of 238 (73%) antenatal referrals, 32 (10%) postnatal referrals and 54 (17%) whānau referrals. 240 were of Māori ethnicity, 72 European, 16 Pacific Island and 1 other (race not identified).

When first contacted, 160 people agreed to go on the twelve week cessation programme provided by Choices and the DHB service in Wairoa. Te Taiwhenua o Heretaunga also supported 1 antenatal and 2 postnatal women to become smoke free. 118 (73%) were antenatal 9 (6%) postnatal and 32 (10%) were whānau.

Out of the original 160 who commenced the programme, 50 have been successful in becoming smoke free, 33 (66%) were antenatal, 4 (8%) were postnatal and 13 (26%) were whānau. Of the antenatal women 72% identified as Māori, 27% European and 1% other. All of the postnatal women identified as Māori and in the Whānau category, 69% were Māori and 31% were European. No Pacific Island women or whānau completed the programme.

The Increasing Smoke free Pregnancy Programme is providing a way for Māori to engage with a service in their journey to becoming smoke free. The vouchers for whānau have also helped to support the household to becoming smoke free.

Our challenge going forward is to prevent the high drop off rate 50.60% from referral to engagement in the programme and to further develop the whānau engagement.

Planned Actions for 2017:

- Work in partnership with maternity in the Public Early Engagement Campaign.
- Offer ISPP to all Te Haa Matea Stop Smoking Practitioners to increase workforce capacity.
- Survey participants who completed 12 week programme.
- Engage other key stakeholders.
- Continue to utilize social media to share success stories and support cessation.
- Realign messaging alongside breastfeeding, safe sleep, and healthy lifestyles programmes.

### **Baby Carbon Monoxide Monitors sponsored by Countdown Kids**



Countdown Kids Appeal provides much needed medical equipment for children. The DHB Smoke free team were successful in a bid to purchase four Baby Carbon Monoxide monitors. The recipients of the Baby CO monitors were:

- Te Taiwhenua o Heretaunga
- Te Kupenga Hauora o Ahuriri
- Ata Rangi Postnatal Ward
- Napier Maternity Resource Centre.

The Smoke free team thanks Countdown Kids Appeal for their generous donation to help pregnant women understand the consequences of smoking during pregnancy on themselves and their unborn babies.

### **Smoke free Service in Wairoa**

The Smoke free Service Coordinator is based in Wairoa Hospital providing easy to access referral process and is in very close proximity to all the other services. Other health care providers that remain consistent with referring their patients to the Wairoa Smoke free Team are the two General Practices, Acute Ward, Outpatients Department and Maternity Services as well as receiving many self-referrals.

The Smoke free Service Coordinator has developed strong relationships with Maternity Services by attending Antenatal Clinics to provide cessation support and encouragement to register for the Increasing Smoke free Pregnancy Programme (ISPP). Since July 2016, the opportunity to join ISPP has been extended to include Wairoa.

During the 2016 year 5 Māori antenatal, 1 Māori postnatal and 3 Māori whānau completed the Increasing Smoke free Pregnancy Programme. This makes up for 18% of the 50 participants. Wairoa participants have 85% engagement with the programme from initial referral. 21% of the participants continue on to be Smoke free at twelve weeks.



## **Smoke free Health Promotion Co-coordinator**

Health promotion is the process of enabling people to increase control over, and to improve their health. The Smoke free Health Promotion Coordinator works collaboratively with key stakeholders in community led initiatives and participates in developing health promotion activities. As a team member of the Hawke's Bay Smoke free Coalition, the Smoke free Health Promotion Coordinator provided the verbal submission, following on from the written submission for the Hastings District and Napier City Council Smoke free Policy. The policy was passed and came into effect on 1 July 2016.

The Smoke free Health Promotion Coordinator facilitates a variety of events aimed at promoting a healthy smoke free community, these take place throughout the year at various locations to ensure frequent community engagement. Events that took place in 2016 included the World Smoke free Month of May, Smoke free Car Promotion and Smoke free promotion with The Hawks Basketball Team. Engagement with General Practitioners was also a beneficial way to promote smoking cessation, through creating smoke free displays and running competitions. Furthermore the Smoke free Health Promotion Coordinator continues to work with all members of the Smoke free Team providing knowledge including latest tobacco control research, resources and support.

## **Smoke free Mental Health Project**

The Six Smoke free Best Practice Principles: Guidance for Mental Health & Addiction Services was completed and published in July 2015. The Smoke free Guidelines have been widely distributed to DHB's around the country.

## **Smoke free Liaison Nurse**

The Smoke free Liaison Nurse is crucial to the on-going smoke free education and training required by hospital clinical staff, community staff, General Practices and Stop Smoking Practitioners. One of the roles of the Smoke free Liaison Nurse is to build confidence in Clinicians to chart and administer Nicotine Replacement Therapy for all patients who are not smoke free and provide follow-up by way of Quitcard, referrals for other NRT products via their GP or Te Haa Matea (Hawke's Bay Stop Smoking Services).

During 2016, the Smoke free Liaison Nurse provided well-researched evidence for new trials in tobacco and non-tobacco products including Vaping and E-cigarettes to increase smoke free knowledge for the Smoke free team members, and consideration for the DHB Smoke free / Tobacco free / Auahi Kore / Tupeka Kore policy, due for review in August 2016.

## **Smoke free Māori Support Worker**

The Smoke free Māori Support Worker position started in January 2016 to promote smoke free activities and disseminate smoke free messages in community settings. The role is also to provide communities and primary care with expert cessation advice and referral pathways to local and national stop smoking providers. The Smoke free Māori Support Worker role supports all Smoke free team members, but works closely with the Smoke free Health Promotions Coordinator in health promotions initiatives in the community like the Waitangi Day celebrations and World Smoke free Month of May. The role provides peer group support and leadership with the community Stop Smoking Practitioners through the Hawke's Bay Cessation Network.

The Smoke free Māori Support Worker works closely with key stakeholders to develop shared strategies and goals i.e. Sport HB, Breastfeeding Coalition, Alternative Education and to offer Smoke free support. Together, the Smoke free Māori Support Worker and Smoke free Health Promotions Co-ordinator are developing relationships with workplaces / settings to increase cessation support to Te Haa Matea and increase smoke free knowledge and confidence to create a Smoke free environment.



# Labelling Specimen Error Campaign

During 2016 the Maternity Governance Coordinator continued to be a working member of the small working party commissioned to address the ongoing clinical risks created by high numbers of sample labelling errors across the organisation. The group convened regularly throughout the year to maintain the continued focus on reducing specimen labelling errors and to ensure the embedment of the quality initiatives that the group implemented during 2015. These were the delivery of group education sessions as part of the nurses and midwives mandatory study day, the “did you ID me?” campaign and “The Final Check - Say It Out Loud” campaign.

Following on from these pieces of work, the working party concentrated on implementing three initiatives during 2016. The first was the creation of a video film, accessible to all staff over the intranet that educates and demonstrates how to identify patients, how to correctly label specimens and how to perform the final check. Secondly, a Ko Awatea online learning module on correct identification and specimen labelling was developed by the group and implemented as a mandatory expectation for all new employees. Lastly, the group created and disseminated the specimen labelling error consequence flow chart that enforces consequences onto the error maker ranging from completion of the online learning module within a two week timeframe to full supervision of sample taking and labelling, depending on the severity of the error and the frequency of error per individual.

From a maternity perspective, the specimen labelling errors project has been highly valuable with our success story being celebrated across the organisation having seen a downturn in errors from over ten a month to usually a single error for the maternity department per month. Compliance of the error makers completing the online module is enforced and tracked by the Maternity Governance Coordinator and the updated and visible labelling specimens’ policy is used to support this process on a regular basis.

During 2016, the work and success of the labelling specimens’ working party was recognised on an organisational scale when the group were awarded a ‘Highly Commended’ Health Award for Commitment to Quality Improvement and Patient Safety.

The group plans to continue its work into 2017 and will be exploring options around bar coded patient identification bands.



## Maternal Social Worker Service

Our Maternity Services Social Worker works Monday to Friday providing service both in Ata Rangi and Waioha Maternity and in the community. She carries an average case load of approximately 18 – 20 women each month and her role encompasses safety assessment, discharge planning, instigating community support and resources, and provides intervention for problem solving and mediation in assisting families resolve disputes between themselves and third parties.

The maternity services social worker works closely with the paediatric social worker as both work with and share a case load of women who have been referred to the Maternal Wellbeing & Child Protection MDT. This MDT is a forum where health professionals both government and NGO's discuss women that may have high risk social situations and complex issues of concern such as family violence histories, child protection concerns, and mental health and addictions histories. Other referrals come from Midwives, GP's, Obstetricians and the early pregnancy clinic of the HBDHB gynaecology service. She also provides her expertise for women who are considering adoption (formal and whangai), plus women and families who have experienced grief following fetal loss.

Our Maternity Services Social Worker provides an indispensable and highly valuable service to both the clinicians and women and families alike.

## Maternal Wellbeing & Child Protection Group

The Maternal Wellbeing and Child Protection (MWCP) group is a multi-disciplinary group with representation from; Midwifery, Social Work, Oranga Tamariki, Family Violence services including the Police, Well Child Providers, Mental Health and Addictions Services, Māori Health and Hawke's Bay NGOs. As a group, our strength lies in collegiality, respect, robust discussion, shared values and ethos and an ability to quickly action any steps identified as being beneficial to a vulnerable woman and her family.

The group works to the key principle of early intervention to strengthen families identified to be at high risk during pregnancy, and in the few weeks after a baby is born. Whilst referral is for the women and her unborn child, an emphasis is placed on identifying services that can address the whole family's needs and work with them over a prolonged period, after they are closed to our group.

Referral reasons include family harm, alcohol and substance abuse, mental health concerns, poor engagement with medical care, child protection concerns - either historical or current, transience or severe poverty. It is often the case that identified risk factors are numerous for each family, with family violence featuring highly as a referral reason to the group.

Referrals to MWCP continue to show an over representation of Māori women and women experiencing family violence. Effort is being made to ensure that services who can best meet this client group needs are part of the MWCP group. There are current processes in place to ensure the most at risk women and children have alerts within the DHB system, especially given the transient nature of many of these families.

Having a dedicated 0.8 FTE coordinator for MWCP has allowed for the establishment of a MWCP Governance Group with membership including senior management from the key stakeholder groups. The Governance group ratified new terms of reference and a policy update for the MWCP multi-disciplinary team in late 2016.

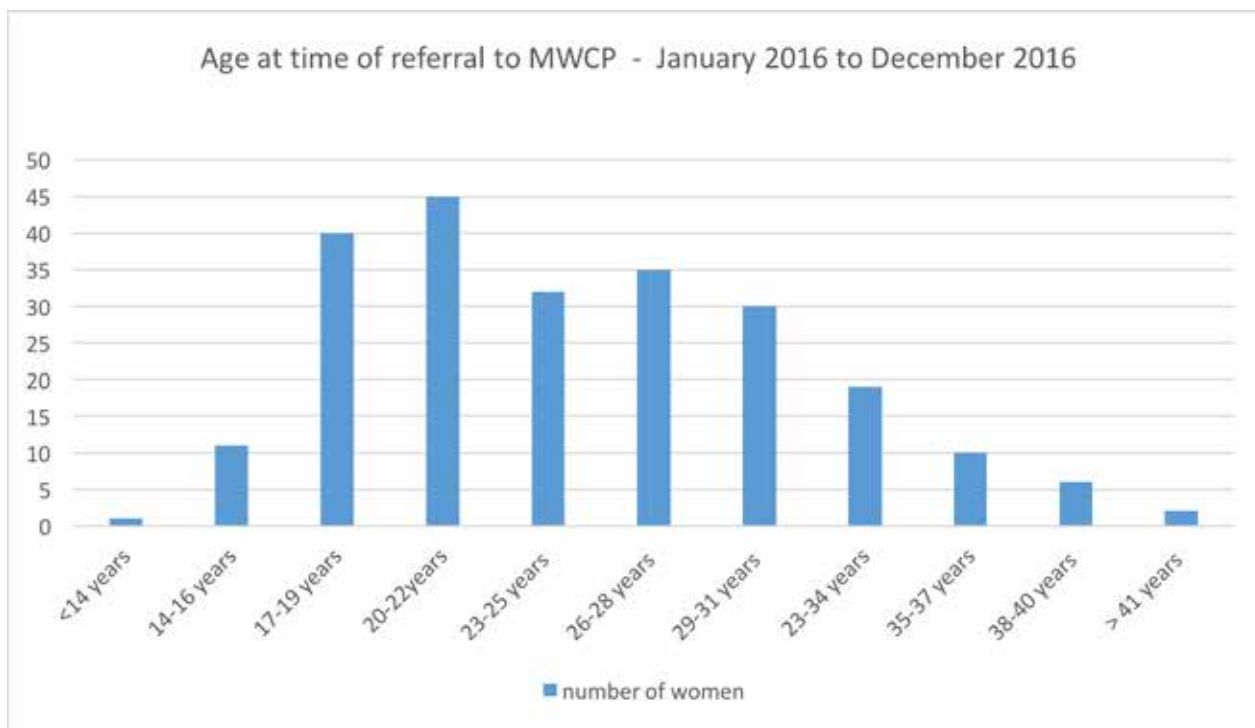
The outcomes framework in place since 2016, is supporting focused analysis of the impact of a multi-agency approach to providing care to vulnerable women. In particular there is consideration of abstinence from substances and ongoing engagement with services. The framework is also encouraging a re-focus on engaging women and their whānau in the decision making as there is currently a high number of women referred without their consent having been sought.

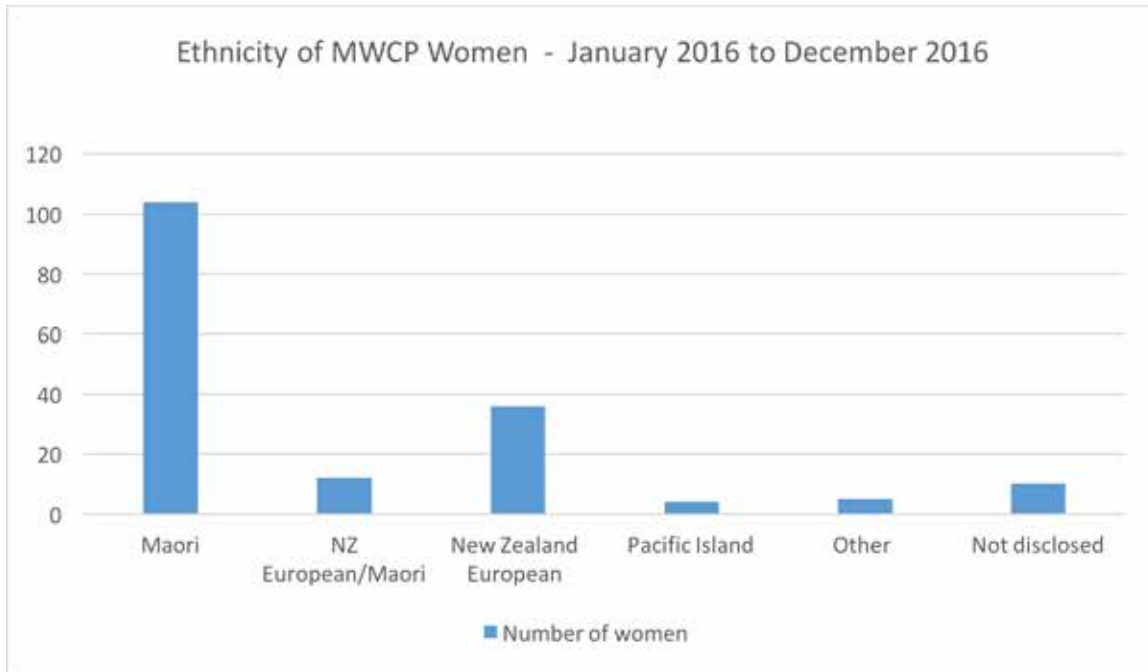
Challenges for MWCP group members in 2016 relate to their resources. Time available to attend and participate in meetings and capacity to respond to all the families in need were key themes fed back in the annual review. Poverty is a key factor impacting on families' ability and willingness to engage with services. Many were not having their basic needs of food, clothing and safe stable homes met; and services were increasingly preoccupied with supporting this as opposed to addressing more complex issues of violence and mental health.

From 1st January 2016 to 31st December 2016, 172 women were open to the MWCP group, this equates to approximately 14 referrals per month. Two women were on the group twice in this time. An additional 16 referrals were made for women later found not to be pregnant. 42 referrals were declined as there were already sufficient services in place or the women moved out of the area and were referred to an equivalent group in their region.

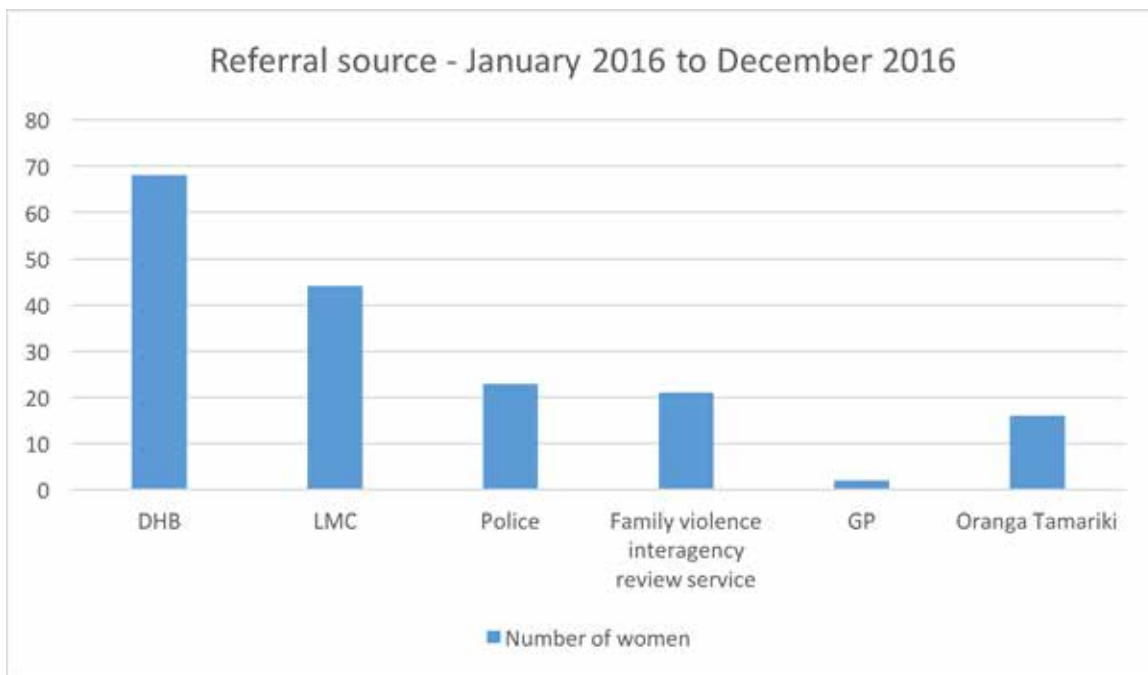
36 MWCP women had the Ata Rangi Community Midwives as Lead Maternity Carers for part or all of their antenatal and postnatal care due to medical or social complication.

Below are further details of women referred to MWCP.





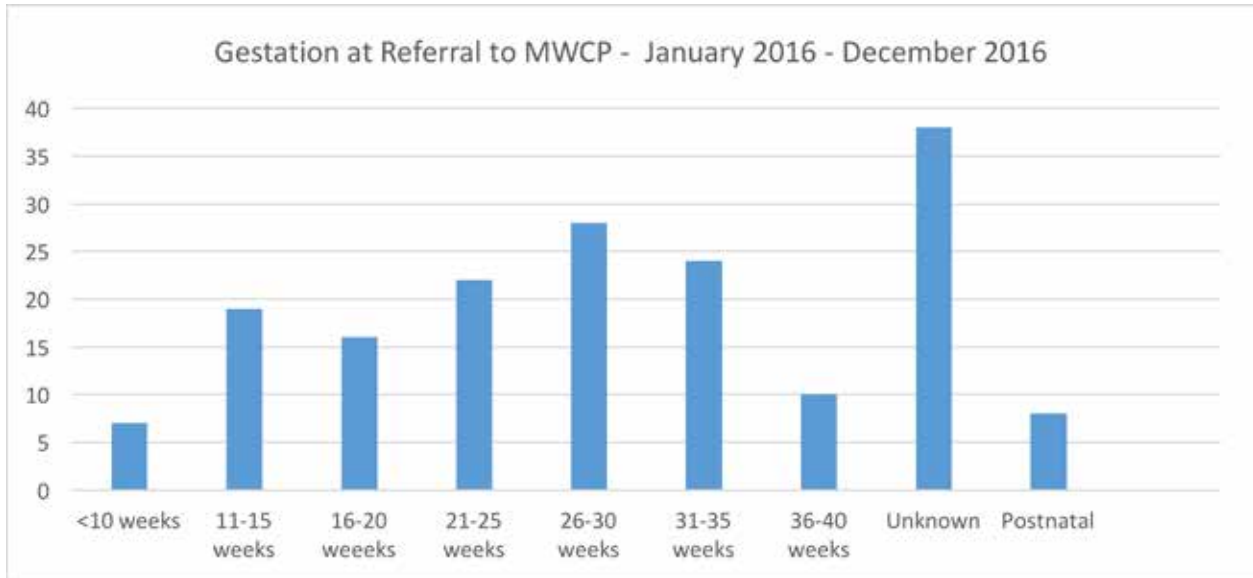
68% of the women referred identified as Māori, 24% identified as New Zealand European, 3% identified as Pacific Peoples and 5% identified as 'Other' ethnicity.



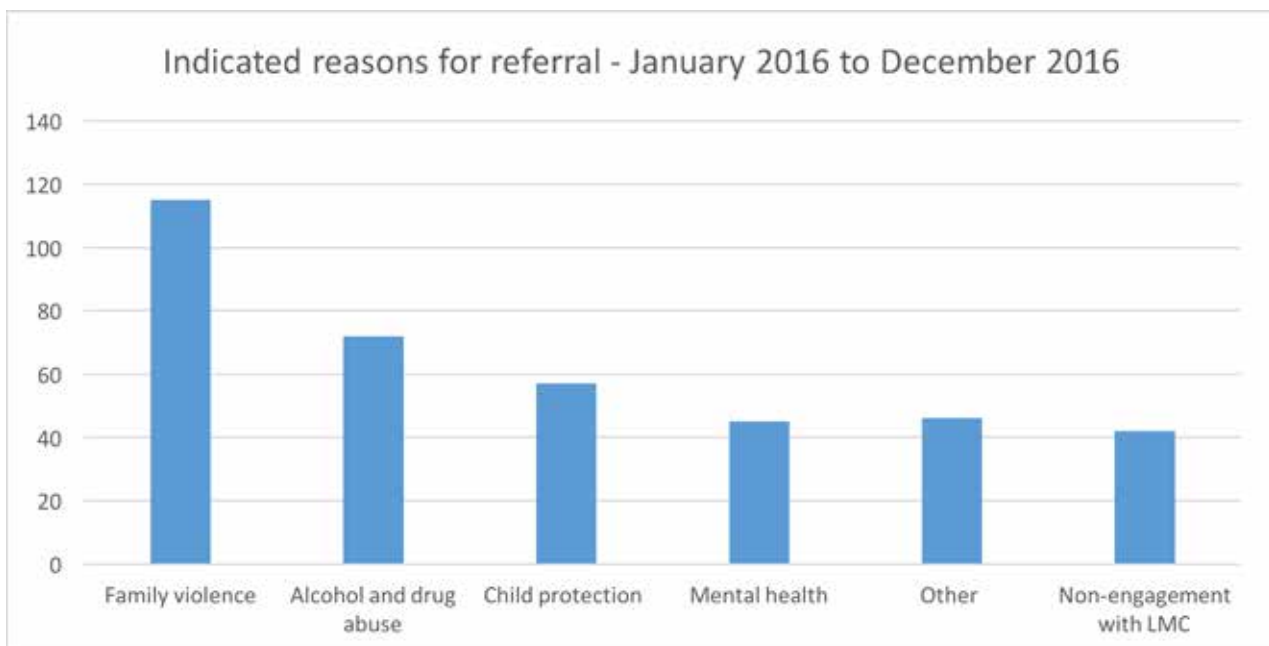
The graph above demonstrates that the largest referral source was the DHB at 41%, an increase from the previous year. Police services account for over 25% of referrals to the group consistent with figures from 2015. LMC referrals are also consistent at 26%. Notably this year are increased referrals from GP's at 4% which could be a direct impact of work done in 2014/2015 to develop relationships with PHO's.

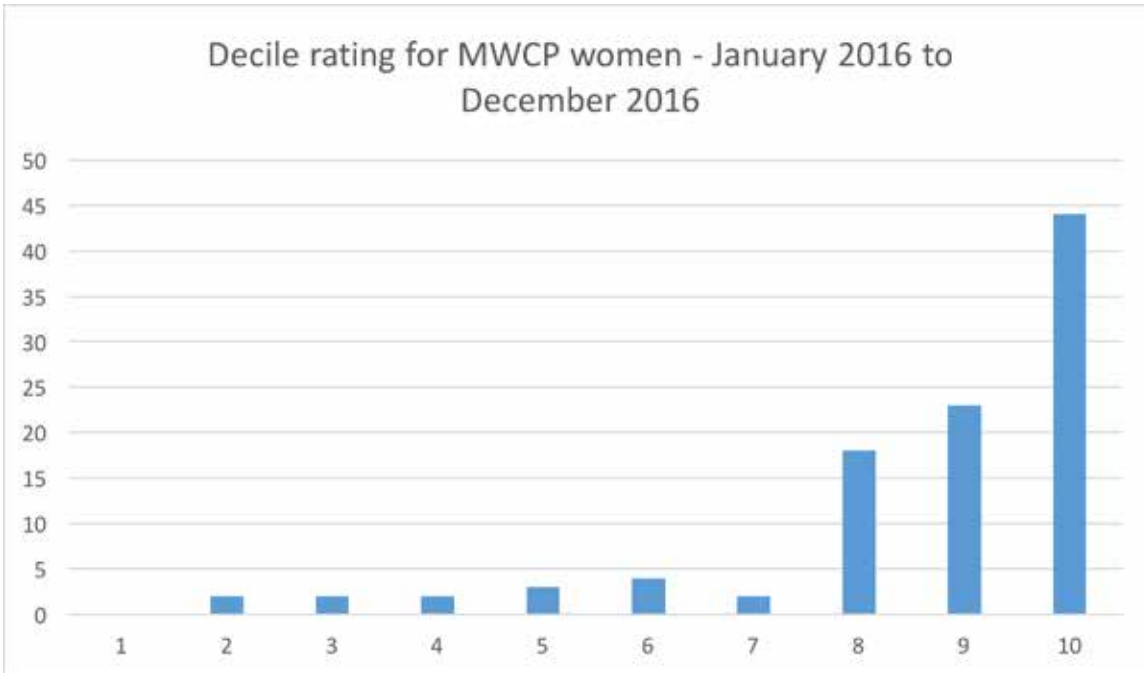
The most frequently cited reason for referral was for current or historical family violence, 30% of referrals. We believe the actual figures to be higher as this does not reflect the number of women that later gave a positive response when screened for violence, or those that were later subject to police family violence reports which was close to 85% of all women referred.

Very few referrals had single issue indicators, with family violence often coming hand in hand with child protection and/or alcohol and drug issues. Notably in 2016 was an increase in the identification of mental health and drug and alcohol issues.



Over 50% of women were referred to MWCP within their first or second trimesters. This is encouraging as it allows earlier intervention of services and sits well within our service goals. However there still remains 10% who are referred on arrival in labour, or in the very final stages of pregnancy making planning and intervention a challenge. These women have tended to not have any antenatal engagement as opposed to concerns not having been identified.





In 2016, referrals for women living in the most socio-economically deprived areas of Hawke’s Bay continued to dominate. There have also been increasing themes of overcrowding, substandard accommodation and poverty for women in these locations.

The New Zealand Deprivation Index, produced from census data in 2013, describes New Zealand’s most deprived residential areas. The index is comprised of a scale that runs from one, the least deprived areas, through to ten, being the most deprived areas. 85% of women who were referred to the MWCP group live in the 3 most deprived decile areas of Hawke’s Bay. There are an increasing number of women found to be transient within the higher decile areas, posing challenges for service delivery. 6% of overall referrals were of no fixed abode.

**Outcomes**

20% women had a referral to Oranga Tamariki due to unaddressed or increasing concerns for their safety and that of their child. 25% of these women had their child placed with Oranga Tamariki caregivers or whānau in the first weeks after birth.

The other women were supported in their parenting role through referral to other community services and ongoing assessment and monitoring by Oranga Tamariki. Longer term outcomes have not been measured, but we anticipate that those referred to Oranga Tamariki will be part of the extended MWCP programme (up to 2 years of age) when fully established.

**Actions for 2017:**

- Further development of the programme to consider the most vulnerable children up to 2 years of age.
- Ongoing development of the MWCP Governance Group.
- Storage of MWCP data electronically
- Increased visibility to DHB staff of MWCP involvement

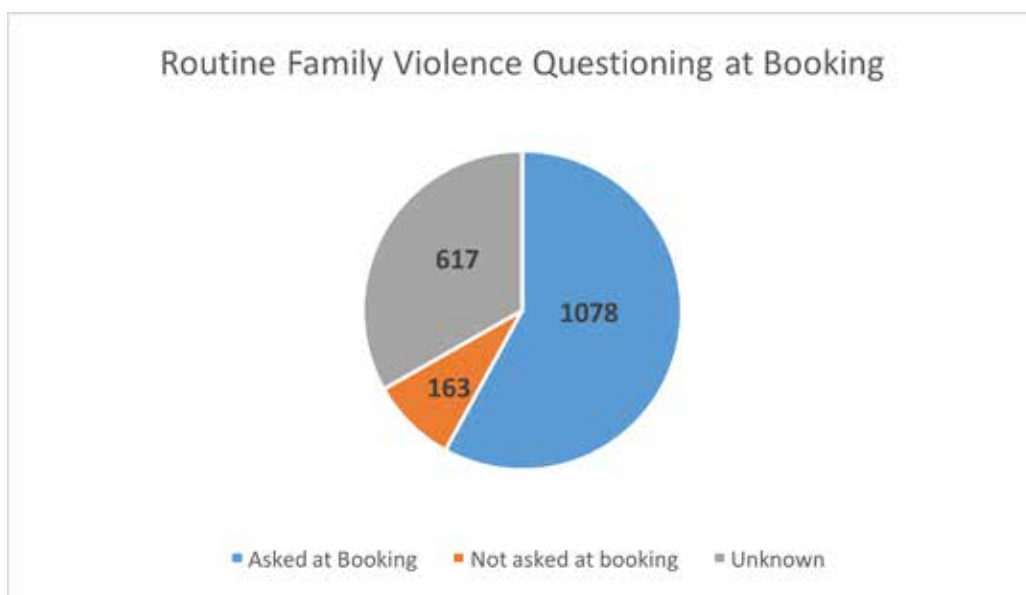


## Family Violence Intervention Programme

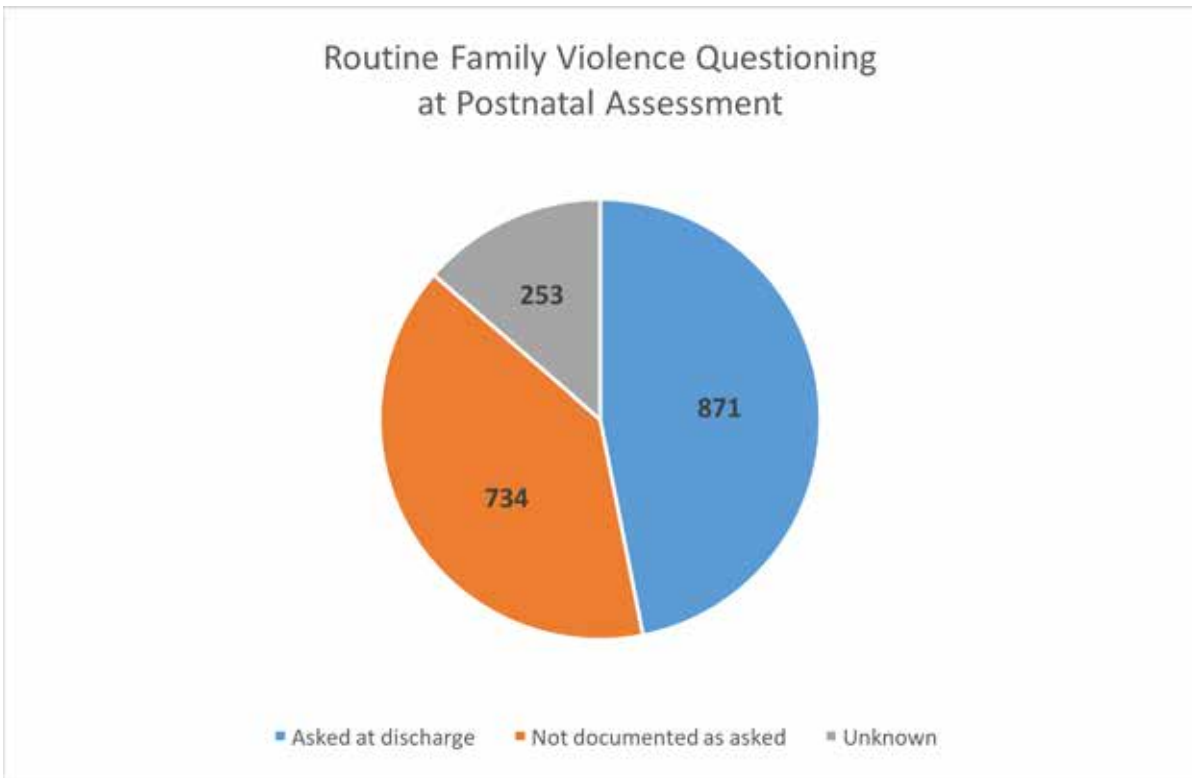
The Violence Intervention Programme (VIP) has been in place in HBDHB since 2002. Maternity staff are trained through the VIP Core training to question all women over the age of 16 if they have been a victim of family violence. The routine questioning occurs at the booking and subsequent visits, during admissions, postnatally in the community and on discharge from the maternity services between four and six weeks. Maternity staff are educated to assess risk and put a safety plan and referral into place for any identified victims.

Refresher training is offered yearly to keep clinicians up to date with the latest findings. As the co-occurrence of family violence and child abuse and neglect are high, staff are required to consider the risk to both the unborn baby and siblings. Additionally, The Shaken Baby Prevention Programme (SBPP) has been rolled out to all maternity staff and they in turn educate all parents around the six key messages for keeping their babies safe and the risks and consequences of shaking a baby. Currently there are six VIP Clinical Champions and two SBPP Clinical Champions within Maternity Services who support their colleagues and the VIP team to ensure best practice.

Most recently, the Family Violence Intervention Programme Coordinator (FVIPC) has commenced new initiatives within the Maternity Services. With the establishment of the Family Violence Improvement Group, the VIP team met with the management of Maternity Services and there was a commitment from the management team to roll out maternity specific core training in 2017. The VIP team have appreciated the support of Maternity services in increasing the visibility of the service in the wards. Due to the MWCP Coordinator taking Maternity leave the family violence coordinator took on both roles from November 2016. This dual role has enabled the FVIPC to build even stronger relationships within Maternity services.



2016 has seen a positive improvement in women being asked about family violence at booking. This year over half of women booked were asked, compared to our 2015 figures where only 43.48% were asked. Although more work does need to be done around ensuring all women are receiving family violence screening, it is encouraging to see improvements in 2016 have been made to reduce the amount of women where there has been no documentation of asking.



Again our data shows us that improvements can be also be made in ensuring all women are receiving postnatal family violence screening. 2016 has seen an increase in the ‘unknown’ category, showing us that there are gaps in health professionals’ documentation and understanding around the importance of this screening.

**Future Initiatives:**

- To embed Family Violence (FV) screening in a similar manner to Smoke free screening and intervention
- Continue to work closely with the VIP Team (DHB FVI coordinator & CP coordinator)
- Have focused FV months and mini workshops on staff chosen pertinent topics



## Pregnancy Parenting Education

Bump, Birth and Baby (BBB) antenatal education provided free antenatal education in Napier, Hastings and Central Hawke's Bay, these classes are run by childbirth educators (CBE) who are contracted to the DHB service. There were ten courses, in both Napier and Hastings, which provided a total of 12 hours education, per course, as per MOH specifications. Central Hawke's Bay hosted four sets of six week classes.

The Wairoa midwives provide free education for women in Wairoa. The Wairoa classes tend to be more flexible and depend on client demand. The BBB service also provides classes for young mothers under the age of 20 years at William Colenso Teen Parent Unit and Flaxmere College. The Young Mum classes are held during term time, six weeks per term, throughout the school year. These classes have more sporadic attendance but women attend for a longer period so many women attend at least 12 hours of antenatal education. The Teen Unit numbers are included in the Napier and Hastings figures. The Young Mum classes generally provide education to our target population, being under 20 and have a higher proportion of NZ Māori (NZM) women. The Flaxmere college classes although smaller tend to have a much better attendance. A total of 231 women attended classes in Napier, Hastings and Central Hawke's Bay, 162 (70 %) attended 80% or more of classes, 36% identified as NZ or Cook Island Māori. The median age of women attending the classes was in the 20-29 age group.

Classes in Wairoa are run by the Wairoa midwives. The schedule is more flexible depending on demand. There have been some problems hosting classes due to staffing issues but this appears to be resolved now. Classes have been offered in blocks of 3 hours with many women just completing one block of 3 hours. 24 women attended classes in Wairoa with 10 women completing 80% or more of 12 hours of education, 70% of women identified as NZ Māori.

Total women who accessed classes in 2016	Target group Napier, Hastings & CHB	Target group Wairoa	Women who attended 80% or more of classes
255	97	18	172

Specialist class	Women attended	NZM	Target group
Young Mums Napier	23	18	23
Young Mums Flaxmere	21	17	21
Newborn	48	8 (16%)	12 (25%)
Breastfeeding	157	21(13%)	29 (18%)
Twins	14	3	3

## The future

We are endeavoring to engage women in our communities to attend our antenatal classes. We have a certain number of women who ring up and enrol in classes but do not start classes. Women are sent reminder texts before the start of classes and are contacted if they do not attend. Once women attend classes we receive positive feedback about the education they receive.

Occasionally women pull out of classes as they feel they are not for them but frequently women state they miss classes as they are unwell, are out of town or have had their baby early. The CBE who hosts the Young Mum group in Flaxmere discussed classes with women who had attended the classes previously and were now at school with their babies. They all felt that the classes were fun and informative and said they felt they helped when they went into labour and with breastfeeding. They said, although they did not know how to get more young women to come to classes, the young mum classes are talked about in the community. Most women who attend the William Colenso and Flaxmere classes were enrolled in school rather than just coming in for classes. The CBE states that the mums who have already had babies and attend the Flaxmere classes often sit in on the classes and add support to the mums who are pregnant.

This year we have tried to streamline the portals that women use to access our service. We have someone who is available to answer phone calls Monday to Friday during working hours, women can leave a message after hours, text in or they can email into the service. The majority of women state that they hear about classes through their LMC. We have extra one off monthly classes on breastfeeding and also the newborn. There are also four 2 hour classes during the year for women who are having twins. The newborn class has been revamped for 2017 as we have received feedback from our consumers that they want more information about the first six weeks with their baby.

The BBB service is adding a new one off class in 2017, an active birth class. We are hoping this will support women in remaining active in labour and achieving a normal birth. Classes are becoming very full and it is hoped that an increase in the availability of this class can be supported. Some women are unable to attend evening classes due to other commitments or tiredness. We are still failing to attract women who identify as Pacifica, we have had 6 women who identify as Pacific Islanders enrolled in the young mums group this year. This will be a focus in 2017 as well as increasing the number of women who are in our target populations.



# Infant Safe Sleep Programme

The Safe Sleep Programme has been established since 2013 and was initiated as a project in 2010 after an almost 400% increase in Sudden Unexpected Death in Infancy (SUDI) rates in the Hawke's Bay. The programme continues and involves the education of Safe Sleep for baby principles to all, and the provision and distribution of Safe Sleep Enablers (pēpi-pods) for high-risk, vulnerable babies at risk of SUDI. Hawke's Bay was the first DHB to fund the distribution of pēpi-pods and of the fourteen DHBs who now also distribute them, we remain one of the biggest distributors. The Safe Sleep Action Group (SSAG) a multidisciplinary group of health professionals from both within the DHB and in the community, continue to meet quarterly.

2016 has been an eventful year for the Hawke's Bay DHB safe sleep team with the addition of a community Safe Sleep Coordinator taking the team total to 3 coordinators sharing 0.9 FTE. Together the coordinators continue to provide comprehensive safe sleep education across the Hawke's Bay District Health Board and to health workers, patients, whānau and community organisations, whilst continuing to coordinate the pēpi-pod referral and distribution programme.

The focus in 2016 has been to increase the awareness of safe sleep principles to the wider community as well as Hawke's Bay's health work force and infant carers. The aim is to have the whole whānau involved in keeping babies safe in their sleeping environment by providing education about correct safe sleep principles, smoking cessation agencies and breastfeeding support. Between the 3 coordinators this year 99 Safe Sleep education sessions were offered with 509 participants, 302/509 being community whānau and 207/509 being community and health care workers.

Two Safe Sleep Coordinators took on the task of visiting all the health centres in Hawke's Bay to provide Safe Sleep education to 52 Practice Nurses and GP's leaving an information resource pack that can be referred to when speaking to pregnant clients and families with young children. This was a well-received initiative which acquired some great feedback.

The retail audit which was performed in 2011 was followed up on this year with 17/22 original stores still in operation. Of those 17 stores 2/17 no longer sold infant sleeping products, 3/17 did not offer staff education opportunities and 12/17 agreed to participate in staff safe sleep education training. With 12 stores throughout Hawke's Bay participating 64 staff members received Safe Sleep education. Feedback received indicates that staff found the information worthwhile and would use it while assisting customers with purchases.

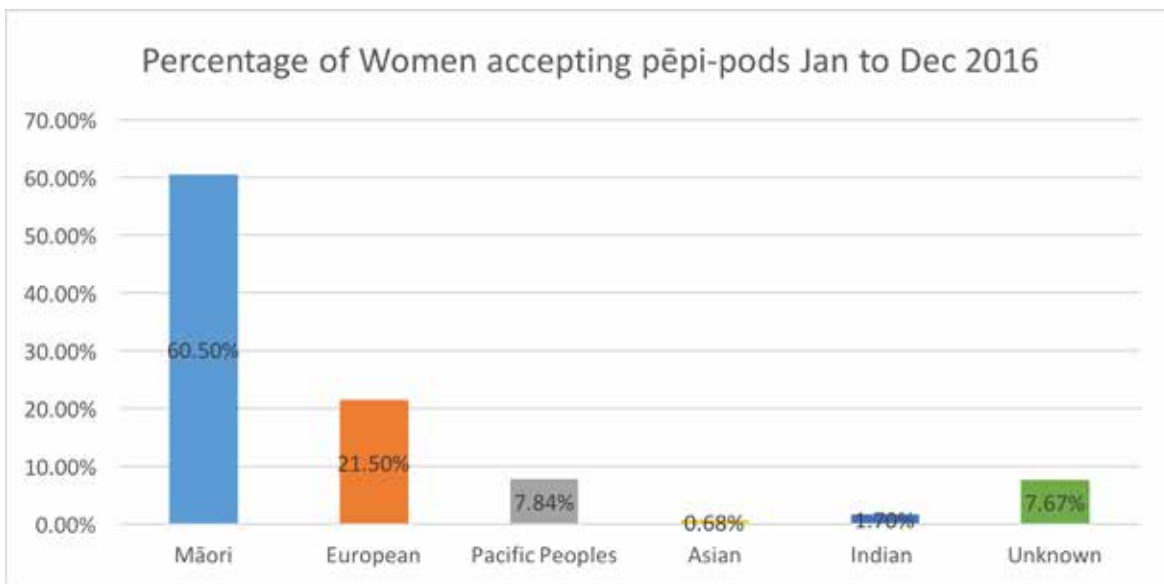
The Ministry of Health held a safe sleep Hui which all three coordinators attended along with other HBDHB staff and community workers. This meeting was called by the MOH after having had an independent review of SUDI evidence, relevant to New Zealand and the proposal to have a National Safe Sleep Programme. Two representatives from the MOH attended the hui and were visiting different regions throughout New Zealand. To find out what the people working at 'ground level' with families think will need to be done to reach vulnerable families to reduce the incidence of SUDI as part of a National Safe Sleep Programme. This was an opportunity to voice opinions about what a National Safe Sleep Programme could look like and how it should be run. Discussions were had about the impact of safe sleep and smoking cessation messaging and how the MOH could make these more relevant and widespread. The impact of Wahakura as a safe sleeping space and funding for this as a means to reducing the SUDI rates among Māori was also spoken about. It is hoped that the outcomes of these Hui will be made available in 2017.



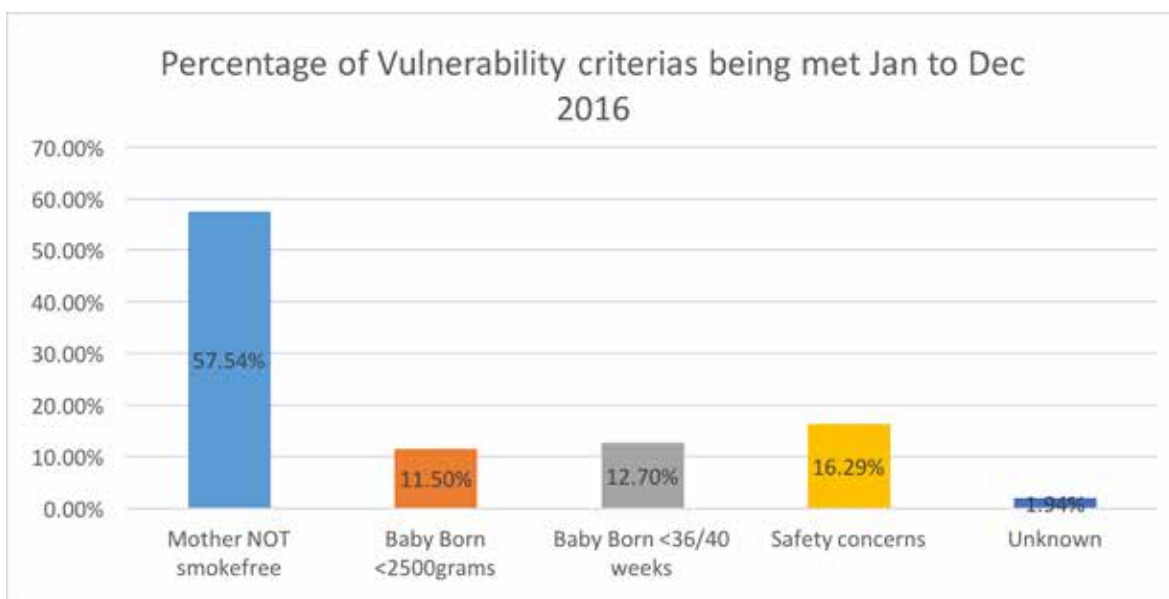
The Pēpi-pod Programme continues to support the Hawke’s Bay community in 2016 by providing these safe sleep spaces to whānau with the support of our amazing distributors at Plunket, Te Taiwhenua O Heretaunga, Kahungunu Executive Wairoa, Central Health and DHB maternity staff.

Between the 1<sup>st</sup> January and the 31<sup>st</sup> December 2016, 511 women and their babies were identified as having risk factors for SUDI and were referred for a pēpi-pod which creates a safe sleeping space for babies. This is a decrease from the 706 women referred in 2015. Of the 511 women referred in 2016, 481 accepted the opportunity to have a pēpi-pod in their home.

Percentage of women accepting the pēpi-pods by ethnicity from Jan to Dec 2016 demonstrated in graph below.



In order to be referred for a pēpi-pod, vulnerability criteria must be met. Criteria remain the same as previous years, mother not smoke free in pregnancy, baby born under 2500grams, baby born before 36/40 weeks gestation and baby living in an environment with safety concerns for example alcohol and drug abuse. A breakdown of vulnerability criteria met in 2016 is shown on graph below. (More than one vulnerability criteria can be ticked for a referral).





Work begun on the creation of a wahakura programme in 2016. In October a Hui was held to gauge interest from Hawke’s Bay weavers who might want to be involved in working with the HBDHB to provide these beautifully woven flax bassinets for our local communities. A group of weavers were selected and a standard size and shape agreed upon. There will also be weaving wānanga held throughout the year for experienced weavers to expand their knowledge by learning how to make wahakura. This will increase the amount being made throughout Hawke’s Bay and increase availability for whānau who do not meet the HBDHB vulnerability criteria. It is hoped that the Wahakura programme will be up and running in early 2017.



The three coordinators continue to support safe sleep day which was held on the 2<sup>nd</sup> December 2016. This is the fourth year this annual event has been held, initiated and supported by Whakawhetu, a national Māori organization focused on safe sleep for tamariki. A range of promotional opportunities throughout the week leading up to safe sleep day were organised to maximise awareness of SUDI prevention. Displays were created outside Zac’s café and in the HB maternity reception area. All women who gave birth in the week prior to safe sleep day went in the draw to win a Wahakura filled with care products. Four more hampers were available to be won through safe sleep quizzes at promotions sites such as The Warehouse Hastings, Tamariki/Rangatahi Iron Māori event, Countdown Waipukurau and the Central Hawke’s Bay A&P show, these events were supported by staff from Plunket and Te Taiwhenua O Heretaunga. Events were also held in Wairoa by Kahungunu Executive and Wairoa maternity staff. These events created opportunity for more than 200 safe sleep discussions to be held with members of the community. An early childhood centre competition was held, the aim was to see which centre could create the best safe sleeping display, and there were 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> prize winners which received a Whitcoulls voucher each.

**Safe Sleep Programme actions for 2017**

In January 2017 the safe sleep programme is changing and I coordinator will be working 0.5FTE under Māori Health. This role will continue to coordinate the safe sleep education for HBDHB staff and the community, the pēpi-pod programme and continue to meet relevant reporting requirements.

Establish the wahakura programme and gather feedback from whānau concerning the difference having a wahakura has made to their family.

Provide support and expertise to the reviewing of current safe sleep resources for our community and localising from national resources that are already available.

Organise the continuation of the pēpi-pod recycling initiative.

Develop closer relationships with other agencies and services to insure cooperation and collaboration for the benefit of the Hawke’s Bay community.

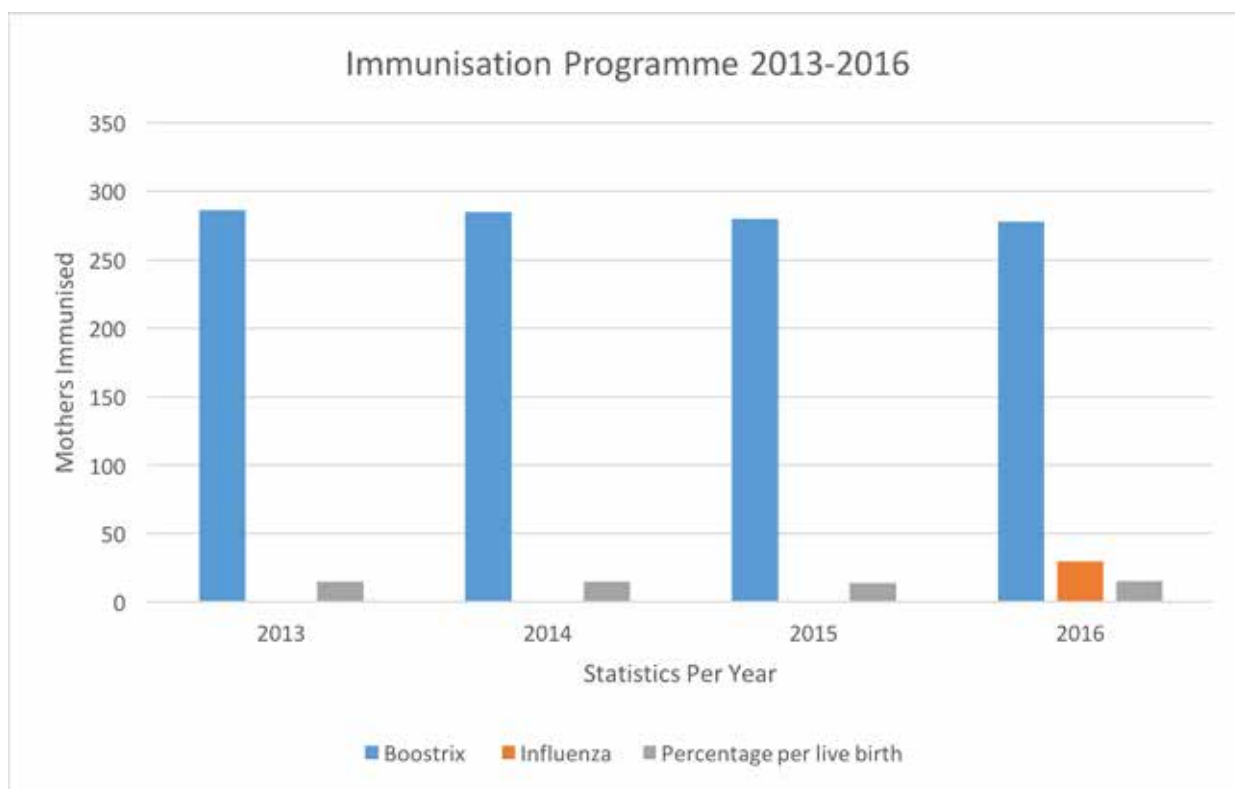
2017 will continue to focus on engaging with Māori whānau and extended whānau to carry on sharing knowledge and influence a change in their mind sets surrounding of where and how baby sleeps.

## Immunisation Programme

In 2016 we have had another good year of partnership with the DHB Immunisation Team and the DHB Maternity staff, making it possible for free Boostrix and Influenza vaccine to be offered to antenatal women. The programme has continued since January 2013 and is made up of two weekly walk-in clinics, one at the base hospital in Hastings, which coincides with the high-risk obstetric and medical antenatal clinic and the other at Napier Health Centre, our centrally located multi-purpose health centre.

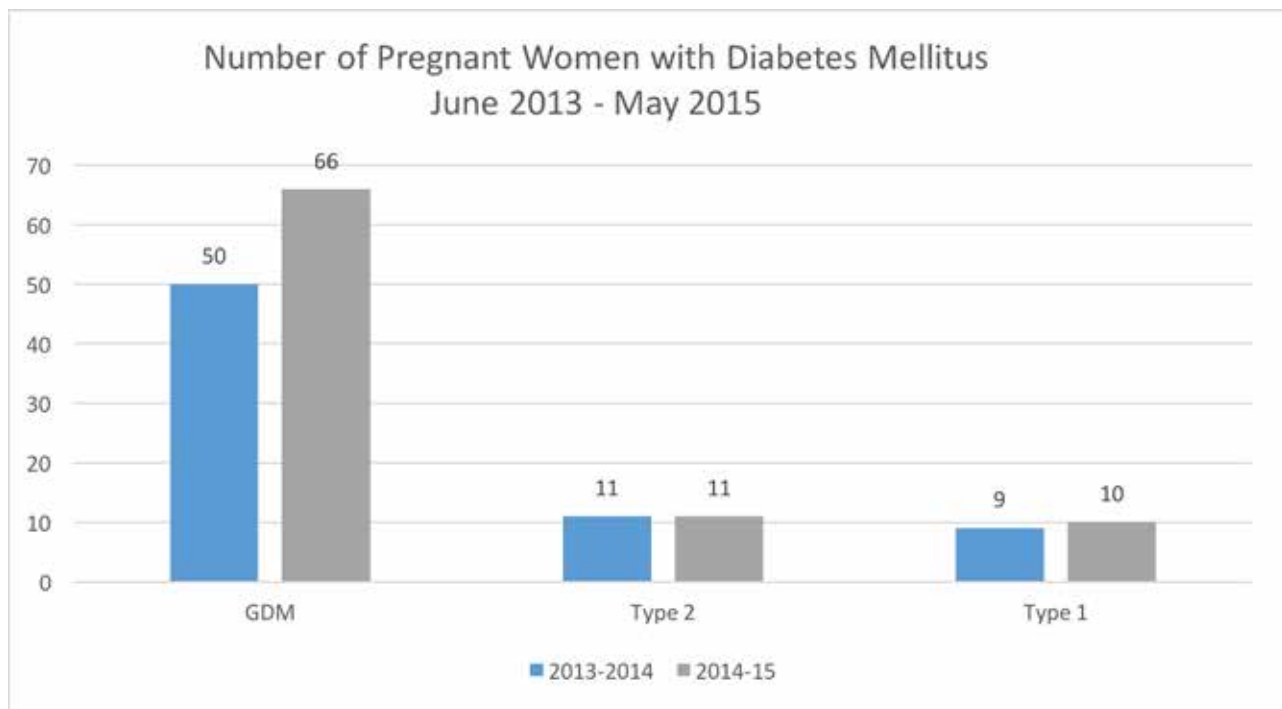
In 2013, 286 pregnant women were vaccinated, a figure that remained consistent for 2014 when 285 women attended to receive the free vaccine – this is 15% of our population and one of the highest in the country. In 2015, 280 women were vaccinated against pertussis across both sites, and in 2016, 278 presented. This was 14% of live births in our DHB. Additionally, there were 30 women whom had the Influenza only vaccine last year. This means over 300 women that were vaccinated had a 1:1 engagement with an Immunisation Team member.

The immunisation clinic also provides vaccinations to maternity staff, LMC's, and students during the clinics as well as those postnatal women who require MMR vaccine. Numerous staff presented for the influenza vaccination throughout influenza season, lifting rates to 60%. Our LMC's support these clinics, with many women attending on their recommendation. In support of this, this year one of our DHB midwives (Cushla McLaren, RM) became a fully authorised vaccinator and can provide up to date information as well as immunise those presenting on days the vaccination team are not present.



# Diabetes Specialist Service

During the period 1 January 2016 – 31<sup>st</sup> December 2016, there were 88 women referred to the Specialist Diabetes Service. 83% of these women (n = 73) had a diagnosis of gestational diabetes mellitus (GDM) with the remaining 17% having pre-existing diabetes, either type one (n = 4) or type two (n = 11). The increase in referral volumes for gestational diabetes in the past 3 years challenges our capacity to continue to deliver services that are equitable and effective, particularly for those with higher risk.



National GDM guidelines published in December 2014 recommend that HbA1c is now part of routine booking blood testing done in early pregnancy. Compliance with this has improved year on year (see table 1).

Women in early pregnancy with HbA1c > 49 mmol/mol are considered to have pre-existing diabetes and are now referred to the Specialist Service in their first or second trimester when previously they would have been diagnosed in the third trimester as having gestational diabetes and referred then. Women with HbA1c 40-49 mmol/mol are managed by their LMC. It is recommended they receive nutritional advice and maternal green prescription (offered by Sport Hawke's Bay) to prevent excessive weight gain during the pregnancy. These women are screened for gestational diabetes again later in the pregnancy. Currently, specialist dietetic support for these women is not available.

Women diagnosed with gestational diabetes require ongoing screening/monitoring after the pregnancy as they have significant risk for developing diabetes. Lifestyle and weight management support are important factors in reducing maternal perinatal risk. These women are seen by a diabetes dietician during pregnancy and offered a follow up appointment with a diabetes dietician at 4 months following the birth. A three year overview of this service has yielded the following data:

TABLE 1: PATIENT DATA COLLECTED OVER A THREE-YEAR PERIOD<sup>1</sup>

	Women seen by dietitian	'Booking' HbA1c	Postpartum HbA1c	Postpartum appointment attendance with dietitian	MGRx referrals by dietitian
Year 1	52	4 (8%)	35 (69%)	24 (46%)	12 (23%)
Year 2	73	23 (31%)	45 (62%)	22 (30%)	7 (9%)
Year 3	66	53 (80%)	*	*	9 (13%)

n. (3)

\*Year three postpartum data incomplete (women with EDD after December 2016 are due postpartum appointments from April 2017 onwards)



Year 1 = 1/4/2014 – 31/3/2015  
 Year 2 = 1/4/2015 – 31/3/2016  
 Year 3 = 1/4/2016 – 31/3/2017

Co-ordination of care remains an opportunity for improvement for this service with key improvements to be made when a positive screen is made and when referral is received; the prioritisation of care causes challenges with clinic capacity variability and access to specialist care. There are also two key areas which require specific focus and development of care pathways across primary/secondary. These are provision of pre conception care for women with pre-existing diabetes and initial postnatal diabetes follow-up for women with pre-existing or gestational diabetes.

A new model of service delivery is being developed to improve consistent access and to address gaps in service delivery re preconception and postnatal diabetes care. We hope to have an improved model of service delivery in place by early 2018.



# Breastfeeding Action Plan

The Hawke's Bay Breastfeeding Action plan was reviewed in 2016 and underpins direction of the Hawke's Bay Breastfeeding Governance Group (HBBFGG)

The HBBFGG provides a forum for a collaborative approach to improving breastfeeding rates in Hawke's Bay, it includes the following goals:

- To coordinate and integrate breastfeeding strategies, services, communications and resources
- To analyse breastfeeding data and provide advice on strategies to maintain and improve rates
- To develop strategies for reducing inequities in rates in Hawke's Bay
- To provide recommendations on improving breastfeeding rates to the funders of breastfeeding support services

The group aims to meet quarterly and involves representatives from Māori Health, Population Health, Tamariki Ora/Plunket Services and DHB Women, Child and Community Services.

Actions of HBBFGG in the last year include

- Input into the Hawke's Bay Breastfeeding Strategy review.
- Input for a submission and budget bid for a community lactation service. Māori Health is in the process of developing a community lactation service that involves home visits and more intensive support for women and their whānau from 6 weeks to 6 months. This service is expected to roll out in October.
- Several group members had input into a Survey Monkey for women who have had a baby in the last 2 years. The survey is to explore the reasons that women breastfeed (or not) and what enables them to continue breastfeeding.
- Input into a budget bid for a community and home visiting lactation service for women from discharge to 6 weeks
- As part of the HBBF Strategy there has been ongoing Talk Card education for health workers in the community. The HBBFGG strategy included reducing conflicting information and improving breastfeeding messages to mothers. Approval and funding was given to purchase Mama Aroha talk cards in 2016. Further sessions have been held this year to educate more community based health providers. Daytime seminars where all LMC's, Practice Nurses, Tamariki Ora/Well Child workers received free education and a set of Mama Aroha talk cards. Funding has been provided to update and modernise the Breastfeeding Flip Chart. This format has now changed to a breastfeeding reference card. The intention is that all new mothers receive the card. It is based on the same information and images shown in the Talk Cards.

## Baby Friendly Standards Audits

As per other maternity units, the HBDHB Breastfeeding Advisor conducts an Annual Assessment for NZBA every November/December. Smaller audits assessing BFHI standards are carried out on a six monthly basis. These audits consist of documentation reviews and patient feedback. The format has changed recently from patient interviews to patient feedback forms offered to all women as inpatients. Some of the patients had been discharged within 12 hours but most had a stay of 48 plus hours. Consumer feedback forms show a high level of satisfaction of the breastfeeding education and support while in hospital and this is reflected in the 85% exclusive rates on discharge. Our challenge lies in maintaining that rate in the community, particularly for Māori and Pacific people. This inequity is also reflected in other parts of New Zealand.



### Infant feeding outcomes

There has been a breastfeeding initiative in HBDHB Maternity Service for the past eleven years. The maternity service first achieved BFHI in 2006 and after successful three yearly assessments, the reaccreditation process has now been extended to four yearly audits. Our services next BFHI accreditation is schedule for March 2017 and will include our new primary birthing centre Waioha.

The maternity service promotes exclusive breastfeeding as the normal, optimum nutrition for babies as it provides nutritional, immunological, psychosocial, and financial benefits for the mother, her baby and family/whānau.

The Breastfeeding Hospital Initiative standards include the following definitions:

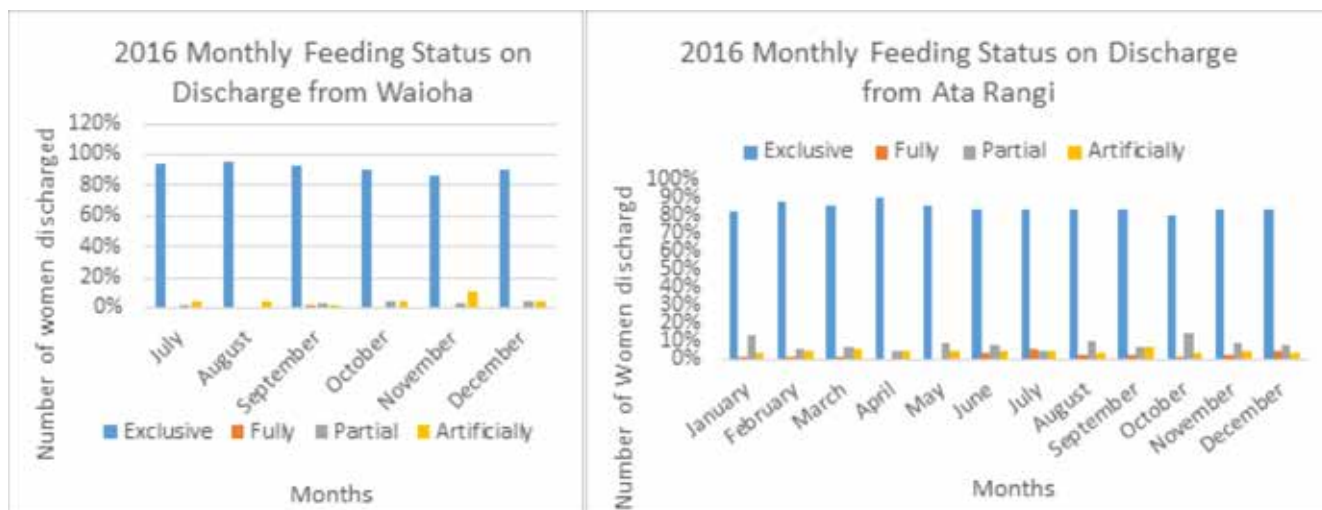
**Exclusive breastfeeding:** the infant has never, to the mother’s knowledge, had any water, infant formula or other liquid or solid food. Only breast milk from the breast or expressed and prescribed medicines have been given from birth. (Prescribed as per the Medicines Act, 1981)

**Fully breastfeeding:** The infant has taken breast milk only, no other liquids or solids except a minimal amount of water or prescribed medicine in the past 48 hours.

**Partial Breastfeeding:** The infant has taken some breast milk and some infant formula or other solid food in the past 24 hours.

**Artificial feeding:** The infant has had no breast milk but has had alternative liquid such as infant formula with or without solid food in the past 24 hours.

### Exclusive Breastfeeding Rates at Discharge from Hospital



The BFHI target for Exclusive Breast or Breast milk feeding is 75%. Ata Rangi achieved an average of 85.8% and Waioha 92% on discharge from hospital over the last twelve months (Jan – Dec 2016)





## Infant feeding Education and Service Provision

Breastfeeding education for all staff that have contact with pregnant or breastfeeding women occurs on an annual basis. The diversity of practice within the health professionals is recognised and consequently there is a variation of hours of education given to individual groups. For example, Obstetricians, Paediatricians and Registrars now have ongoing education of (minimum) one hour yearly or three hours every three years. Registered Nurses and Midwives require four hours annually, including one hour clinical education on breastfeeding.

The Maternity Service at HBDHB is well supported by the midwifery educator to enable all staff to attend the required education, and 90% of staff achieved required BFHI education in the last audit. Education for SCBU and Wairoa staff has proved to be more of a challenge to achieve. The main barrier here is the ability to cover staff in the work place while they maintain required training.

The risks of giving formula to infants is now well documented especially in the first few days of life. To reduce the possibility of infants being given breast milk substitute (BMS), the practice of antenatal expressing is now commonplace especially for women who are at a higher risk of delayed Lactogenesis II. Examples include diabetic mothers, multiple births, women with poor lactation history and women who have allergies. A Donor Milk Policy is now in operation for the postnatal ward. The purpose of this is to provide an alternative to BMS for infants who require supplementation due to insufficient colostrum until Lactogenesis II is established. The policy is for unpasteurised donor breast milk and therefore has strict criteria around blood testing of donor mothers. Unfortunately we have only had 2 successful donors as several women have been excluded due to the presence of CMV antibodies.

Services for Hawke's Bay maternity population and their whānau are diverse and frequent. They occur in the hospital and in the community and include:

### **Breastfeeding classes:**

- Monthly breastfeeding classes - These are very well attended and family/whānau are always invited. They are held in the DHB Education Centre and run on the first Monday of every month. They outline the Ten Steps and include a practical demonstration of feeding with dolls, lecture and videos. Participant numbers vary between 18 and 40, including support people.

### **Baby Café and support on discharge:**

- Baby Café continues to run Monday and Friday 11-1 pm in Hastings, located at Choices, a Māori Health Provider.
- Our second Baby Café operates from Napier Maternity Resource Centre (NMRC), on Wednesday afternoon, from 1-3pm. Numbers are consistent with regular attendance each week. Issues with funding lactation consultants is our main barrier to providing an ongoing more regular service. We have a high attendance from European women but again fail to attract a good number of Māori and Pacific Island women.
- Wairoa Kahungunu Executive (KE) provides a breastfeeding support service but no lactation consultant (LC) service is available. There is one midwife LC who incorporates her role and supports other staff with any breastfeeding issues. Wairoa has several La Leche League peer support workers trained as a result of Baby Friendly Community Initiative (BFCI)
- CHB has a Peer Support group of volunteers that visit mothers in their home for free. There is also a Lactation Consultant (paid by Parent Centre) who will do free home visits for women with more complex breastfeeding issues.
- Several Hawke's Bay providers achieved BFCI in 2014, unfortunately this has not continued due to the ongoing costs of achieving certification.
- WellChild/Tamariki Ora services, Plunket and Te Taiwhenua O Heretaunga both have Lactation Consultants in the workforce (not employed as LCs) and incorporate their skills in daily support of staff and mothers and their infants.

# Clinical Education

By Sara Paley - Midwifery Educator

The Education programme within Hawke's Bay Maternity services has been developed to meet several key objectives

- Provide education for midwives and registered nurses in the service to meet their annual practising certificate requirements
- Facilitate access to education to meet mandatory DHB training requirements
- Build strong multidisciplinary teams across the service
- Provide opportunities for elective education
- Build on skills and knowledge that support physiologic birth
- Build on skills and knowledge in complex and secondary maternity care
- Support midwives and nurses to develop areas of clinical expertise
- Grow leadership within the service

## Recertification

Hawke's Bay maternity service run five Midwifery Emergencies days across the year. Once in the three year recertification cycle midwives are encouraged to attend a Practical Obstetric MultiProfessional Training (PROMPT) course and full day Newborn Life support as an alternative to the Midwifery emergencies day.

Registered nurses working in maternity attend either the generic DHB CPR training, or PROMPT and Newborn life support annually.

The Midwifery Practice day is run twice a year with topics directed by the Midwifery Council. In this triennium, the sessions addressed maternal mental health, the developing abnormal picture, the latent phase of labour, update on opiates, with the themes of good documentation and communication woven throughout the day

## DHB Requirements

In addition to the recertification requirements, clinical staff have DHB mandatory training to be undertaken annually. The majority of this is accessed online via the Ko Awatea learning platform. This includes IV recertification, Safe handling, Infection control, and Treaty of Waitangi education as well as a variety of optional modules.

## Multidisciplinary education

PROMPT, Newborn life support, and RANZCOG fetal surveillance workshops are regular multidisciplinary education offered in Hawke's Bay. All are well subscribed and include midwives, obstetric medical staff, anaesthetic staff, nursing staff from ED, PACU, maternity, SCBU, and theatre. We find that multidisciplinary education ensures a consistent approach to emergencies, builds relationships amongst staff and strengthens the wider teams. These days have a multidisciplinary teaching team as well as participants. This year the guidelines for newborn resuscitation were updated by New Zealand Resuscitation Council and new slides have been introduced into the training.

Across the year there are six Perinatal Mortality and Morbidity Review Committee meetings (PMMRC). In addition to maternal and neonatal mortality review we incorporate morbidity cases, presentations of key findings and clinical changes resulting from case reviews, presentations of local and national maternal/perinatal data and local audit findings. These meetings have excellent attendance and robust discussion.

**Elective Education**

Some of the elective education opportunities in Hawke’s Bay in 2016 included:

- Diabetes in Pregnancy Study day
- Immunisation Update
- Motivational Interviewing
- Tuapaki Pacific Women’s training
- Postnatal contraception (RANZCOG)
- hPod Education
- Hawke’s Bay Maternity Services Annual Clinical Report Day

A ‘Refresher’ training day is offered to maternity and SCBU staff which includes 4 hours of breastfeeding education and a variety of topics in the afternoon. Updates in safe sleep, family violence intervention, jaundice in the newborn and pre-eclampsia were on the programme in 2016.

Bi-monthly Practice forum sessions provide the opportunity for staff and Lead Maternity Carers to present on topics of interest, feedback on conferences, and study days or share new developments in practice. These are informal and are generally well attended and enjoyed.

Topics covered in 2016 included:

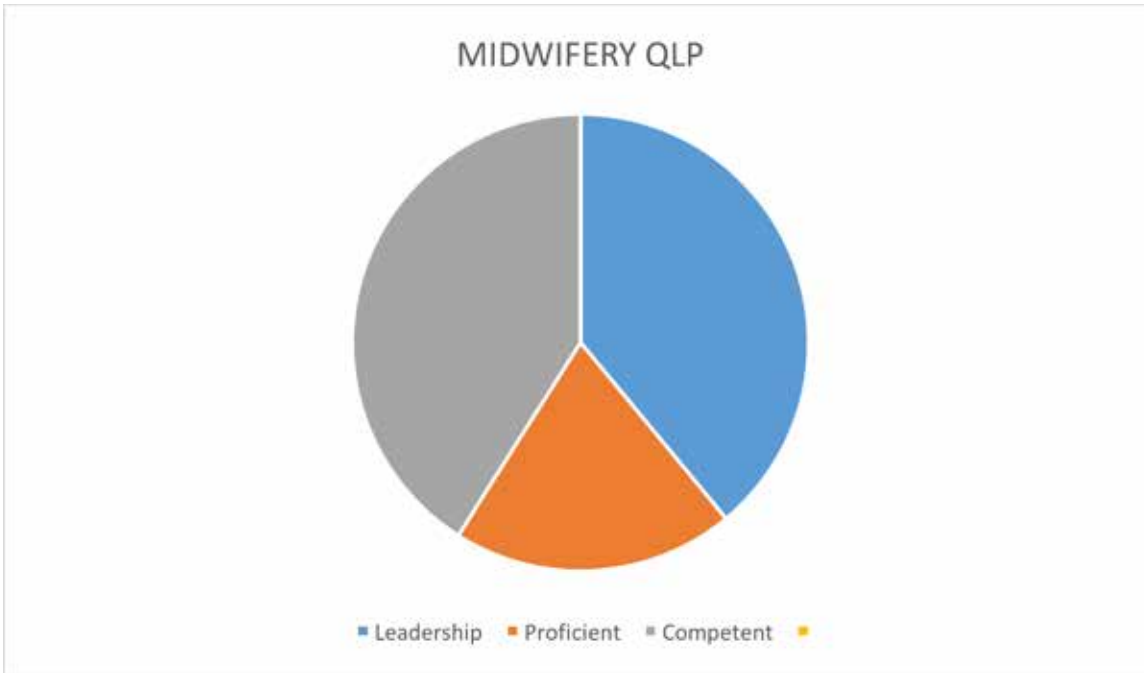
- Nutrition in pregnancy – How do I talk to women about food?
- The hPOD trial
- Rectovaginal fistula – a consumer’s story
- Protecting the microbiome in the 21<sup>st</sup> century
- High BMI and gestational weight gain
- Understanding fetal dopplers

One of the highlights of the year was the opening of the new Primary Birthing centre, ‘Waioha’ in July 2016. In the build up to opening we ran several workshops sharing skills for supporting physiological birth. Just prior to opening the unit we ran a team building workshop exploring the culture of the centre, goals and the more practical side of emergency responses in the primary setting.

To keep the momentum going the Midwife co-ordinators in Waioha run a weekly Breakfast club. These are informal drop in sessions for clinicians to come, share some food, wisdom and stories around topics related to primary maternity care.

**Developing Expert Practice**

As at December 2016 maternity services employed 55 midwives either permanently or on the casual pool. Of these 22 had attained Leadership on the Midwifery Quality Leadership framework, and 11 Proficient. This reflects the high level of experience and expertise within our service.



Of the six Registered nurses employed in maternity, 3 have achieved Level 4 on the nursing PDRP programme, and one has achieved Level 3.

In 2016 Hawke’s Bay had only one midwife undertaking the Postgraduate certificate in Complex Care. This is our lowest number to date however this may be in part due to the high number of midwives who have already completed this. Several other midwives were supported in alternative postgraduate study.

Conferences are a fantastic opportunity to network, gain fresh ideas and insight and be exposed to the latest research and developments. In 2016 staff were supported to attend a variety of conferences including:

- NZCOM bi-annual conference in Auckland
- Midwifery Today Conference in Fiji, four midwives supported to attend
- IBCLC conference in Auckland, five people supported to attend
- Annual PMMRC conference in Wellington

There are a number of staff who take on additional responsibilities and roles within our service within their contracted hours:

IV resource midwife – Sue Boake

Infection Control midwife – Judy Emmett

Guideline co-ordinator – Gill Knight

QLP Assessors – Maxine Kennington, Sarah Howard, Katy Williamson, Jean Sinclair

Manual handling resource, Health & safety rep – Sue Elstone

IBCLC Lactation Consultants – Issy Cresswell, Lisa Yong Minto, De Nicholls, Louise Gelling, Sue Davey

In Hawke’s Bay Maternity we have a small group of care associates vital to the smooth running of the service. They assist the midwives and nurses with patient care, transport, as well as restocking, cleaning and providing a variety of hospitality tasks. We feel it is important to offer opportunities for growth to this team and in 2016 two care associates completed a New Zealand Certificate in Health and Wellbeing for Health Assistants Level 3.

**Student Midwives**

Since 2010 Hawke's Bay Maternity Services have a successful contract with Wintec as a satellite training hub for Midwifery students. In 2016 we had eleven year 1 students, two year 2 students and three year 3 students undertaking the Bachelor of Midwifery programme in Hawke's Bay. The students bring energy and enthusiasm as well as fresh perspectives for our team and we relish being able to 'grow our own' midwives.

The Wintec Midwifery HB Hub continues to grow and be well received with all students finding employment on completion of their degree. The intake of 11 first year students has brought some challenges but we have been able to find suitable clinical experiences for them.

There is good interaction between DHB and Wintec midwives to ensure quality of clinical experiences is maintained and if issues arise both parties are supportive of each other and proactive in resolving them.

I thank Jules, Sara, Roisin and the team for their ongoing support to me as Hub clinical Supervisor  
Judy Thomson-Emmett



# NEWBORN SERVICES





# Newborn Services

Prepared by Dr Oliver Grupp – Consultant Pediatrician

## *Service Specifications*

HBDHB provides a high dependency special care baby nursery (Level 2-A) to meet specific regional and geographical requirements of the newborn population. As per the Ministry of Health (MOH) specifications there is a link to the regional Neonatal Intensive Care Unit (NICU) in Wellington (Level 3).

The Special Care Baby Unit (SCBU) has twelve resourced neonatal cots and admits approximately 300-350 neonates annually. This is approximately 15% of all babies born in Hawke's Bay Hospital.

The SCBU is equipped to treat unwell newborn infants including infants who are born very premature (<32weeks). The unit can provide non-invasive respiratory support (high-flow oxygen, CPAP), mechanical ventilation, total parenteral nutrition via central lines and passive cooling. Babies who need surgical treatment or babies born extremely premature (<28 weeks or birth weight < 1000g) are transferred to the NICU in Wellington. Babies who are born with severe congenital heart lesions are transferred to the paediatric cardiology service at Starship Children's Hospital in Auckland.

The Children and Youth Services at Hawke's Bay Hospital provide a structured follow up program for infants born very or extremely premature and those who have other significant risk factors associated with impaired long-term outcomes. There is a dedicated neonatal home care nursing team to support families after discharge and the Child Development Services provide an expert team of visiting neuro-developmental therapists (VNDDT) for ongoing monitoring and treatment in the home.

## *Hawke's Bay Population*

In Hawke's Bay the Children and Youth Services cater for about 34,000 children (0-14 years). The ethnic makeup of the paediatric population includes a high proportion of Māori (39.9%) and those living in areas of high socioeconomic deprivation (26%).

According to the 2015 report of the New Zealand Child and Youth epidemiology service (2008-2014), there was a higher rate in Hawke's Bay of babies born at moderate to late prematurity (32-36 week gestation), low birth weight and diabetes in pregnancy compared to the national average particularly for Māori, those living in the most deprived areas and young mothers. The overall rate of premature delivery (8.4 per 1000 births) and teenage births (37.1 per 1000 births) was higher in Hawke's Bay than nationally (7.5 per 1000 births and 24.4 per 1000 births respectively).

The 2014 update of population projections is produced by Statistics New Zealand and based on expectations specified by the Ministry of Health. The 2013 census serves as the base year for projections. In 2013, the total population in Hawke's Bay was 158,410. There were 11,515 children aged 0-4 years, 11,405 children aged 5-9 years and 11,540 children aged 10-14 years. The total of 34,460 children of less than 15 years of age make up 21.8% of the population. With an aging population, there is an expected decline of the paediatric population to 33,135 by 2026 which equates to 20% of the projected population total of 165,825.

However, the projections look different for Māori. In 2013, there were 13,735 children of Māori ethnicity living in Hawke's Bay (39.9% of all HB children). This is 34.6% of the Māori population of 39,720 (25.1% of total HB population). There is an expected growth to 14,315 children of Māori descent by 2026 (32.2% of 44,450 Māori). This will be an estimated increase to 43.2% of all children living in Hawke's Bay.



The calculations appear similar for Pacific peoples. In 2013, there were 1,825 children (0-14 years) of Pacific ethnicity (5.3% of all children). In 2026, there will be an approximate 2,195 (6.6%). The age group 0-14 years made up 32% of the Pacific population in 2013 and will be an estimated 29% in 2026.

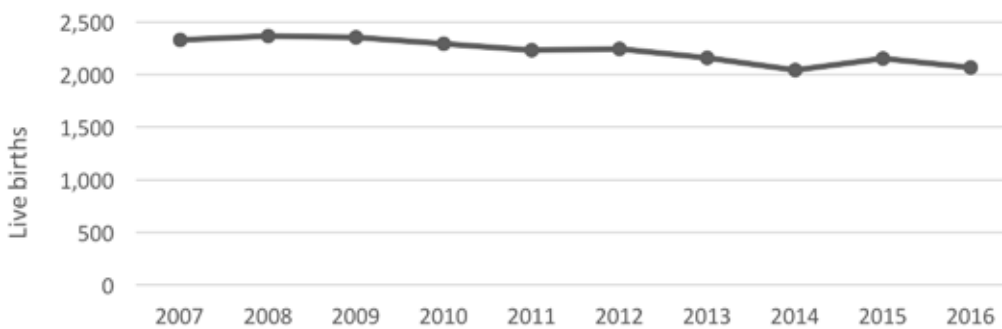
These population projections suggest that there will not be a decline of at risk populations in Hawke’s Bay. In fact, it appears that the paediatric population at highest risk of needing medical care will grow.

**Neonatal Outcomes**

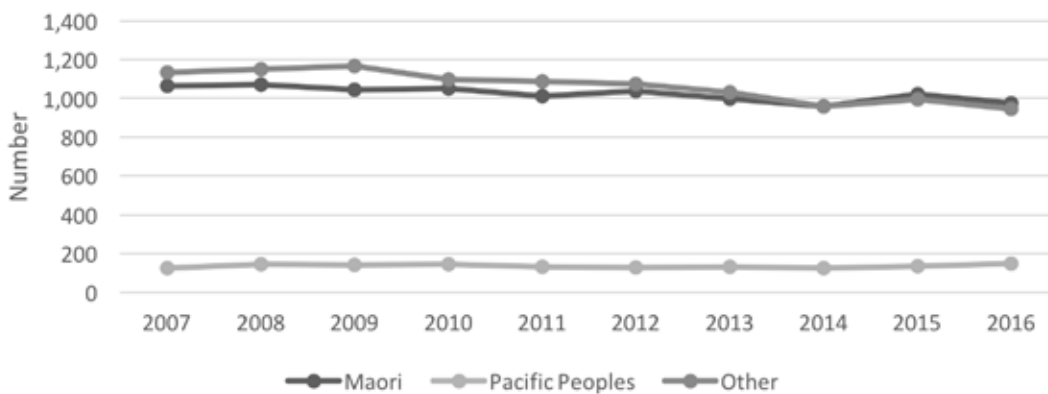
In 2016, there were 2064 live babies born in the Hawke’s Bay region. The mothers of 975 (47.2%) infants identified as Māori, of 147 infants as Pacific Islander (7.1%) and of 945 infants as other ethnicity. 2037 live babies were born at Hawke’s Bay DHB and 1969 (95.4%) at Hawke’s Bay Soldier’s Memorial Hospital.

While the overall birth rate in Hawke’s Bay has declined from over 2,300 births in 2007 to 2,064 births in 2016, the rate remains reasonably stable for Māori and Pacific peoples at about 1,000 and 130 births per year respectively (Graphs 1-2).

**GRAPH 1:** Live births at Hawke's Bay DHB, 2007-2016



**GRAPH 2:** Live births at Hawke's Bay DHB by ethnicity, 2007-2016



Data published by the Ministry of Health in 2016 demonstrates that between 1996 and 2013, there was a statistically significant decrease in the infant death rate. The rate fell by 32%, from 7.3 to 5.0 per 1000 live births. However, the fetal and neonatal death rates remained largely unchanged and fluctuated between 5.9 and 8.6 per 1000 total births and 2.7 and 4.1 per 1000 total births respectively over the same time period. There is no clear trend for neonatal or infant mortality in Hawke’s Bay over the same time period (Graph 3 and 4).

Independent risk factors for neonatal death are low birthweight, prematurity, Māori or Pacific ethnicity, socioeconomic deprivation and maternal age <20 years or >40 years (Table 1).

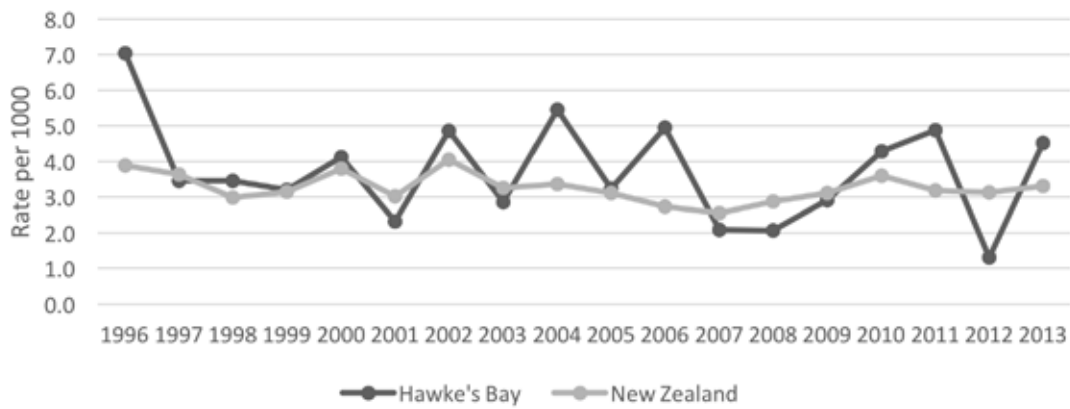
**TABLE 1: Neonatal death rate, by sex, ethnic group, maternal age group, deprivation quintile of residence, gestational age, birthweight and district health board, 1996–2013**

Year	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13
<b>Hawke's Bay</b>																		
<b>DHB Total</b>	7.0	3.5	3.5	3.2	4.1	2.3	4.9	2.9	5.5	3.2	5.0	2.1	2.1	2.9	4.3	4.9	1.3	4.5
<b>Neonatal death rates for New Zealand</b>																		
NZ average	3.9	3.6	3.0	3.2	3.8	3.0	4.1	3.3	3.4	3.1	2.7	2.5	2.9	3.1	3.6	3.2	3.1	3.3
<b>Sex</b>																		
Male	4.2	3.8	3.4	3.4	4.0	3.1	4.3	3.6	3.4	3.8	2.9	2.6	3.5	3.2	4.1	3.3	3.3	3.8
Female	3.5	3.5	2.5	2.9	3.5	3.0	3.7	2.9	3.3	2.4	2.6	2.5	2.2	3.0	3.1	3.1	3.0	2.9
<b>Ethnic group</b>																		
Māori	4.8	4.7	3.4	3.7	3.8	3.8	5.2	3.5	2.8	3.4	3.5	2.7	3.5	3.8	3.6	4.0	3.3	3.4
Pacific peoples	3.1	5.1	4.4	2.9	6.7	3.4	4.4	4.9	4.9	4.6	2.8	3.1	3.6	3.5	5.6	3.4	4.7	5.1
Asian	2.7	1.6	1.8	2.5	1.4	2.2	2.6	2.9	3.5	2.5	2.6	1.4	2.0	2.5	2.7	2.4	2.4	2.8
European or Other	3.7	3.1	2.7	3.0	3.5	2.6	3.6	2.8	3.3	2.8	2.3	2.5	2.5	2.7	3.3	2.8	2.8	3.0
<b>Maternal age group (years)</b>																		
<20	2.7	5.2	2.5	4.9	5.0	6.3	6.3	4.2	6.1	5.4	5.2	3.4	4.9	5.9	5.2	7.4	4.9	8.5
20–24	5.1	4.3	4.2	3.1	3.7	3.9	4.6	5.1	3.3	3.3	3.3	2.9	3.5	5.1	3.4	3.3	3.7	4.3
25–29	3.6	3.4	2.0	3.2	3.3	2.8	3.3	2.8	2.9	2.9	2.9	2.8	2.6	2.3	3.4	2.5	3.1	3.1
30–34	3.4	3.1	2.9	2.6	3.9	2.6	3.7	2.4	3.5	2.7	2.0	2.1	2.4	2.2	2.5	2.5	2.0	1.9
35–39	3.9	2.8	2.8	3.0	3.8	1.6	4.5	3.1	2.5	2.1	1.7	2.1	2.5	2.4	4.4	3.4	3.2	2.6
≥40	7.1	5.6	4.8	4.8	3.8	3.6	3.8	3.8	3.8	7.5	4.1	2.5	1.2	2.4	5.3	3.5	4.5	5.3
<b>Deprivation quintile</b>																		
1 (least deprived)	2.1	2.9	1.8	2.6	2.9	1.7	3.0	1.9	3.5	2.0	1.7	1.0	2.0	1.6	2.5	1.4	2.0	2.0
2	4.5	2.8	3.1	3.5	3.7	1.9	4.6	2.3	3.1	2.7	2.2	2.8	1.8	2.4	2.8	2.7	2.0	2.4
3	2.3	3.4	2.9	2.1	3.8	1.9	4.0	3.5	2.8	2.1	2.3	2.1	2.7	2.5	3.3	2.8	2.7	3.1
4	5.1	4.5	3.0	3.9	3.6	3.7	3.1	3.9	2.9	3.6	2.9	2.9	3.0	3.0	3.6	3.3	2.9	3.8
5 (most deprived)	4.4	3.9	3.5	3.4	4.5	4.6	5.2	3.9	4.3	4.4	3.8	3.3	3.9	5.0	4.9	4.7	5.0	4.4
<b>Gestation (weeks)</b>																		
<32	166 .4	167 .4	130 .7	155 .2	163 .2	141 .1	189 .7	138 .7	159 .4	138 .5	126 .7	116 .9	134 .7	152 .5	173 .5	168 .0	163 .9	178. 0
32–36	9.8	10. 8	7.8	5.6	6.4	5.8	5.7	7.4	4.6	6.9	5.6	4.7	5.2	6.4	6.7	6.4	3.8	6.7
37–41	1.2	1.0	1.0	0.9	1.1	0.8	1.0	0.9	1.0	0.9	0.7	0.7	0.8	0.9	0.8	0.7	0.8	0.7
≥42	2.6	1.2	1.2	0.5	1.1	1.7	3.7	0.6	1.8	0.5	1.1	1.6	0.5	0.0	1.1	3.1	0.7	0.9
<b>Birthweight</b>																		
Extremely low (<1000g)	406 .4	344 .7	303 .0	351 .4	383 .3	352 .1	381 .7	329 .8	381 .3	327 .3	317 .1	298 .6	322 .3	361 .8	421 .4	404 .4	398 .6	419. 9
Very low (1000g–1499g)	41. 0	53. 8	28. 3	45. 1	38. 4	23. 3	42. 0	36. 8	33. 3	27. 7	43. 8	17. 7	46. 2	26. 4	29. 2	39. 8	39. 3	28.4
Low (1500g–2499g)	13. 4	9.4	8.1	8.3	5.4	7.7	5.6	9.0	6.7	9.8	5.6	5.4	6.6	6.9	7.7	8.7	6.0	8.1
Normal (2500g–4499g)	1.2	1.2	1.1	0.7	1.2	0.8	1.1	0.9	1.1	0.9	0.9	0.8	0.8	1.0	1.0	0.8	0.7	0.7
High (≥4500g)	2.2	5.9	1.5	2.7	5.3	0.0	1.5	1.9	0.0	1.2	0.6	1.1	1.1	1.8	0.0	1.2	0.6	1.3

Fetal and Infant Deaths 2013, Analytical Services MoH, published on 14 June 2016. Data from the Ministry of Health's Mortality Collection (MORT).

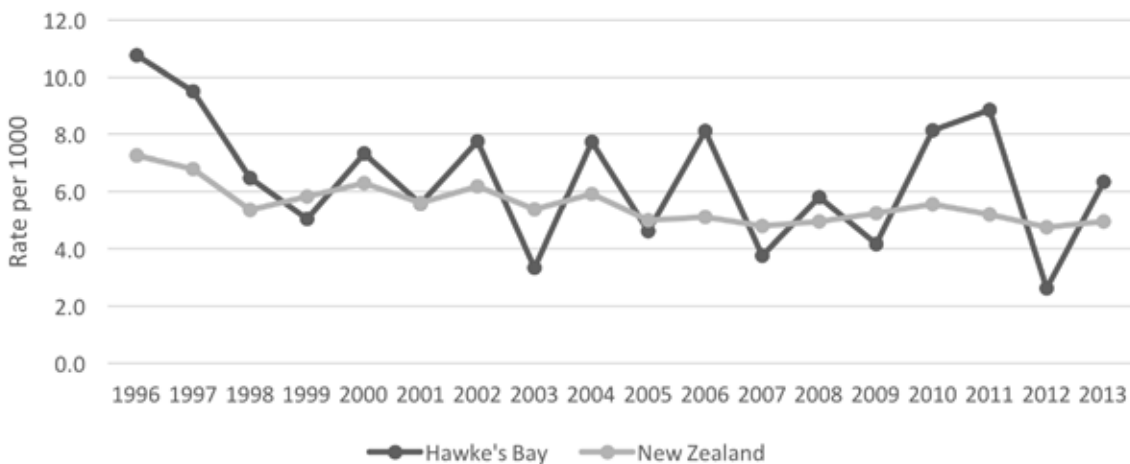
**GRAPH 3: Neonatal Death Rates in Hawke’s Bay vs. New Zealand (1996-2013)**

Fetal and Infant Deaths 2013, Analytical Services MoH, published on 14 June 2016. Data from the Ministry of Health’s Mortality Collection (MORT).



**GRAPH 4: Infant mortality rate in Hawke’s Bay vs. New Zealand (1996-2013)**

Fetal and Infant Deaths 2013, Analytical Services MoH, published on 14 June 2016. Data from the Ministry of Health’s Mortality Collection (MORT).



**Neonatal Condition at Birth**

The Apgar score (devised by Dr Virginia Apgar, 1952) gives a clinical indication of a baby’s condition immediately after birth. It is a numerical score based on five characteristics: heart rate, respiratory condition, muscle tone, reflexes and colour with a maximum possible score of 10. A low score (<4) at one minute of age indicates a baby is considerably compromised and requires specialised resuscitation.

**Admissions to the Special Care Baby Unit (SCBU)**

In 2016 there were 363 admissions to the SCBU of babies born in Hawke’s Bay. This is 17.8% of the 2,037 infants born in Hawke’s Bay DHB and 17.6% of the 2,064 infants born in the region. Including readmissions and infants who were born at a different DHB there was a total of 389 admissions.

The rate of babies admitted to SCBU seems to have gradually increased over the last decade and is higher in 2016 than it was in 2015 (table 2). There is a number of potentially contributing factors including the increasing rate of late-preterm and early-term deliveries, improved survival of extremely premature infants (<28 weeks) and Hawke’s Bay specific population demographics. Māori or Pacific ethnicity, socioeconomic deprivation, young maternal age, obesity and smoking are known risk factors for low birth weight and premature delivery. The rate of pregnancies at risk of neonatal morbidity and mortality is growing. This is associated with an increased need for specialised neonatal care.

## Baby gender

Admissions of male births exceeded female births in 2016 and accounted for 58.4%. The 5-year trend (2012–2016) for infant gender is represented in table 2. Male gender is associated with a higher risk of neonatal death (table 1).

**TABLE 2:** Transfers to SCBU by Gender - Discharge Year

	2012	2013	2014	2015	2016	Total
<i>FEMALE</i>	166	148	122	147	151	734
<i>MALE</i>	169	164	149	181	212	875
<b>Total SCBU admissions</b>	<b>335</b>	<b>312</b>	<b>271</b>	<b>328</b>	<b>363</b>	<b>1609</b>
<i>Total births at HBDHB</i>	2268	2137	2098	1995	2037	10535
<b>Per cent admitted</b>	<b>14.8%</b>	<b>14.6%</b>	<b>12.9%</b>	<b>16.4%</b>	<b>17.8%</b>	<b>15.3%</b>

## Method of Delivery

Method of birth can be dependent upon gestational age, presenting part of the baby and maternal factors. For 42% of the 2016 SCBU admissions the method of birth was caesarean section with 37.5% of caesarean sections occurring before the onset of labour. 4.5% of admissions were non-instrumental vaginal births. The rate of birth by caesarean section has mildly increased from 38.7% in 2015.

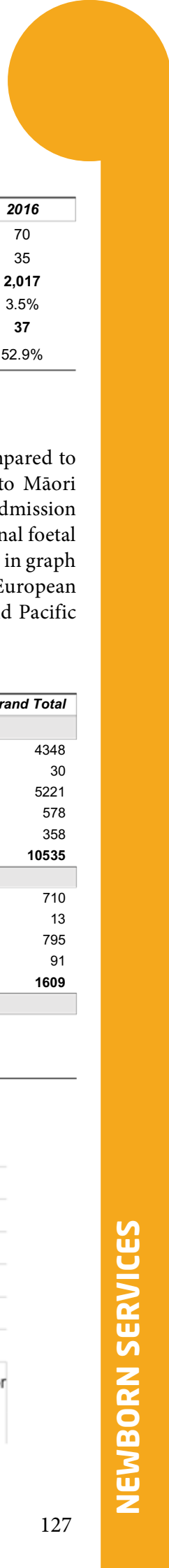
The risk of admission remains increased for assisted vaginal delivery (21.2% of all assisted vaginal delivery), elective caesarean section (21.2% of all elective CS) and emergency caesarean section (35.9% of all ECS) compared to spontaneous vaginal delivery (12.5% of all SVD). The 5-year trend (2012–2016) for method of birth is represented by Table 3.

**TABLE 3:** Transfers to SCBU per total by Delivery method - Discharge Year

	2012	2013	2014	2015	2016	Total
	<b>Number admitted vs. total number of method</b>					
<i>Breech delivery</i>	2/9	4/12	2/16	5/18	8/13	21/68
<i>Caesarean Elective</i>	35/205	36/195	42/219	29/174	42/198	184/991
<i>Caesarean Emergency</i>	118/399	97/336	78/89	98/311	112/312	503/1662
<i>Forceps delivery</i>	11/78	8/55	17/48	18/76	21/73	75/371
<i>null</i>	0/6	0/7	0/2	0/69	15/73	15/203
<i>Other</i>	0/4	1/8	1/2	0/2	0/0	2/16
<i>Spontaneous Vaginal Delivery</i>	157/1478	152/1453	122/1337	166/1272	156/1300	753/6840
<i>Ventouse delivery</i>	12/89	14/71	9/83	12/73	9/68	56/384
<b>Grand Total</b>	<b>335/2268</b>	<b>312/2137</b>	<b>271/2098</b>	<b>328/1995</b>	<b>363/2037</b>	<b>1609/10535</b>
	<b>Per cent admitted per method of birth</b>					
<i>Breech delivery</i>	22.2%	33.3%	12.5%	27.8%	<b>61.5%</b>	
<i>Caesarean Elective</i>	17.1%	18.5%	19.2%	16.7%	<b>21.2%</b>	
<i>Caesarean Emergency</i>	29.6%	28.9%	25.7%	31.5%	<b>35.9%</b>	
<i>Forceps delivery</i>	14.1%	14.5%	19.1%	23.7%	<b>28.8%</b>	
<i>Spontaneous Vaginal Delivery</i>	10.6%	10.5%	9.1%	13.1%	<b>12.0%</b>	
<i>Ventouse delivery</i>	13.5%	19.7%	10.8%	16.4%	<b>13.2%</b>	

## Multiple Births

Multiple birth pregnancies are often associated with labour and delivery complications, an increased risk of premature birth, low birth weight infants as well as an increased risk of perinatal mortality and morbidity. In 2016, 3.5% of all HB births were reported as being from a multiple pregnancy. Of the 2016 infants born from multiple births, 52.9% were being admitted to the SCBU. The 5-year trend (2012–2016) for multiple births is represented in table 4.



**TABLE 4:** Transfers to SCBU for multiple births - Discharge Year

	2012	2013	2014	2015	2016
<i>Multiple Births</i>	70	67	75	42	70
<i>Unique Mothers</i>	35	34	37	21	35
<b>Total Births</b>	<b>2,247</b>	<b>2,115</b>	<b>2,078</b>	<b>1,974</b>	<b>2,017</b>
<b>Percentage multiples</b>	3.1%	3.2%	3.6%	2.1%	3.5%
<b>Multiples that went to SCBU</b>	<b>35</b>	<b>41</b>	<b>26</b>	<b>33</b>	<b>37</b>
<b>% of multiples that went to SCBU</b>	50.0%	61.2%	34.7%	78.6%	52.9%

**Ethnicity**

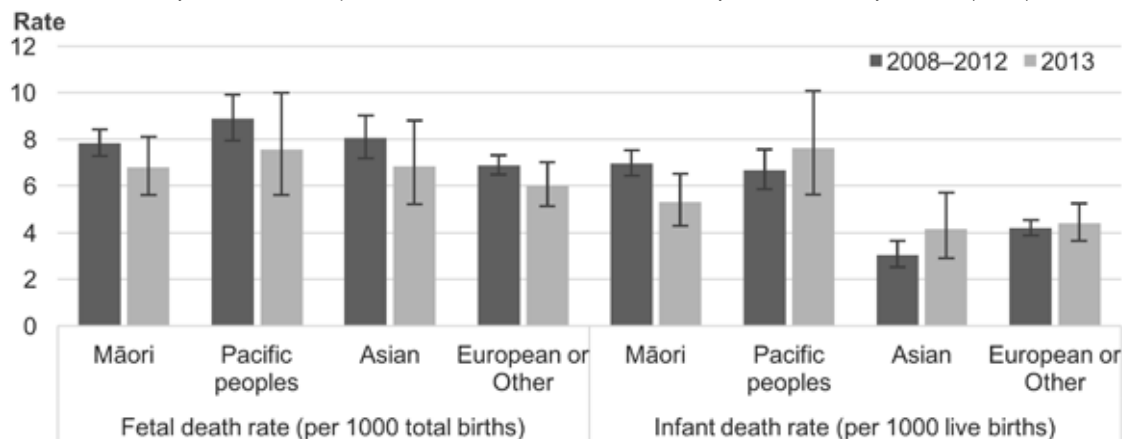
Among the registered SCBU admissions in 2016 the percentage of Māori mothers was 45.2% compared to 8.0% of mothers who identified as Pacific Islander. The admission rate is 19.1% of all infants to Māori mothers and 28.7% of all infants to mothers of Pacific peoples compared to 17.7% average rate of admission for other ethnicities. The 5-year trend (2012–2016) for ethnicity is represented in table 5. The national foetal and infant death rates by ethnic group in 2103 were published by the MoH in 2016 and are displayed in graph 5. Both rates were increased for Māori and Pacific peoples compared to infants of New Zealand European mothers. The rates of neonatal death for the years 1996 to 2013 were also increased for Māori and Pacific peoples as shown in table 1.

**TABLE 5:** Transfers to SCBU by Ethnicity - Discharge Year

	2012	2013	2014	2015	2016	Grand Total
<b>All births</b>						
<i>NEW ZEALAND MĀORI</i>	932	856	852	858	850	4348
<i>NOT STATED</i>	4	0	11	9	6	30
<i>OTHER</i>	1161	1103	1050	944	963	5221
<i>PACIFIC ISLANDER</i>	121	117	120	101	119	578
<i>#N/A</i>	50	61	65	83	99	358
<b>Grand Total</b>	<b>2268</b>	<b>2137</b>	<b>2098</b>	<b>1995</b>	<b>2037</b>	<b>10535</b>
<b>Number admitted to SCBU</b>						
<i>NEW ZEALAND MĀORI</i>	146	131	116	153	164	710
<i>NOT STATED</i>	2		6	2	3	13
<i>OTHER</i>	170	167	141	150	167	795
<i>PACIFIC ISLANDER</i>	17	14	8	23	29	91
<b>Grand Total</b>	<b>335</b>	<b>312</b>	<b>271</b>	<b>328</b>	<b>363</b>	<b>1609</b>
<b>Per Cent admitted to SCBU</b>						
<i>NEW ZEALAND MĀORI</i>	15.7%	14.1%	13.6%	18.0%	<b>19.1%</b>	
<i>OTHER</i>	14.8%	14.4%	12.8%	14.3%	<b>17.7%</b>	
<i>PACIFIC ISLANDER</i>	15.5%	11.6%	6.8%	19.2%	<b>28.7%</b>	

**GRAPH 5:** NZ foetal and infant death rates by ethnic group, 2008-2012 and 2013

Fetal and Infant Deaths 2013, Analytical Services MoH, published on 14 June 2016. Data from the Ministry of Health's Mortality Collection (MORT).





### Teenage birth

While there are many determinants of perinatal outcome, an important one is maternal age. In 2016, the proportion of all babies born to teenage mothers was 6.8% while the proportion of admitted babies born to teenage mothers was 9.9%. More than one quarter of all babies born to teenage mothers needed admission in 2016. The national foetal and infant death rates by maternal age group in 2103 are displayed in graph 6. Foetal and infant death rates were increased for maternal age <20. Table 1 shows the increased rate of neonatal death for mothers <20

**TABLE 6:** Transfers to SCBU by maternal age - Discharge Year

	2012	2013	2014	2015	2016	Total
	<b>All births</b>					
Teenage	177	182	179	138	139	815
Other	2091	1955	1919	1857	1898	9720
<b>Grand Total</b>	<b>2268</b>	<b>2137</b>	<b>2098</b>	<b>1995</b>	<b>2037</b>	<b>10535</b>
	<b>Number admitted to SCBU</b>					
Teenage	26	32	26	32	36	152
Other	309	280	245	296	327	1457
<b>Grand Total</b>	<b>335</b>	<b>312</b>	<b>271</b>	<b>328</b>	<b>363</b>	<b>1609</b>
	<b>Per cent admitted to SCBU</b>					
Teenage	14.3%	18.1%	14.3%	17.9%	26.1%	<b>18.6%</b>
Other	14.9%	13.4%	12.5%	15.4%	17.6%	<b>15.0%</b>

**GRAPH 6:** NZ foetal and infant death rates by maternal age group, 2008-2012 and 2013

Fetal and Infant Deaths 2013, Analytical Services MoH, published on 14 June 2016. Data from the Ministry of Health's Mortality Collection (MORT).



### Deprivation decile of residence

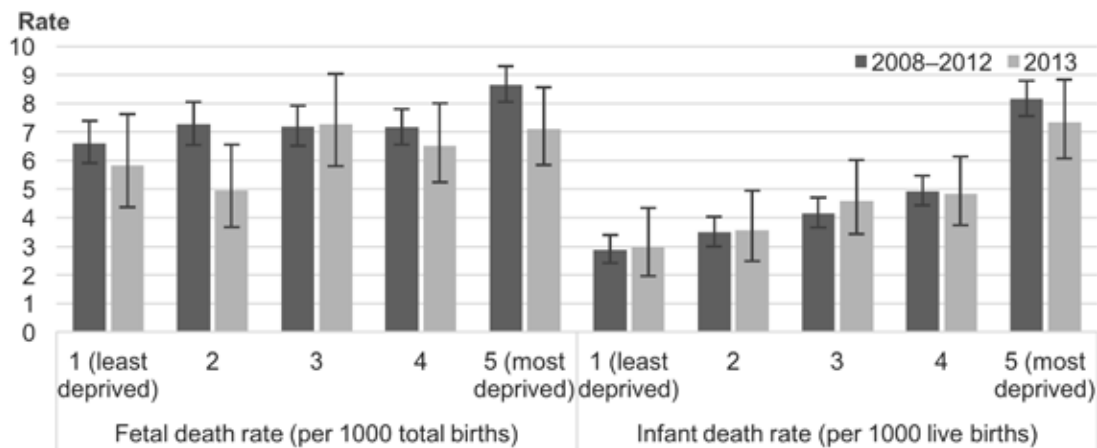
Socioeconomic deprivation is a risk factor for neonatal death. While there is a trend of increased admission rates for infants who are registered at a residence of high deprivation there is no significant increase in the 5-year average (2012-2016) as seen in table 7. In New Zealand the significantly increased infant death rate for those infants living in most deprived areas (7.1 per 1000 live births) is partially due to the high rate of SUDI/SIDS (2.4 per 1000 live births in the highest deprivation quintile of residence).

**TABLE 7: Transfers to SCBU by decile - Discharge Year**

Decile	2012		2013		2014		2015		2016		5-year total	
	SCBU	Total	SCBU	Total	SCBU	Total	SCBU	Total	SCBU	Total	SCBU	Total
Not available	2	70	4	77	2	78		93	2	106	10	424
1	2	23	4	28	4	23	3	13	3	16	16	103
2	21	145	16	124	14	136	9	97	15	121	75	623
3	14	98	12	94	8	85	22	92	15	88	71	457
4	33	229	39	216	30	221	29	186	36	223	167	1075
5	22	139	14	111	16	116	20	135	21	139	93	640
6	8	78	10	72	6	54	11	75	14	70	49	349
7	17	108	18	88	12	86	16	82	15	94	78	458
8	58	352	49	350	37	338	45	277	55	307	244	1624
9	64	428	65	402	61	398	66	367	74	333	330	1928
10	94	598	81	575	81	563	107	578	113	540	476	2854
<b>Grand Total</b>	<b>335</b>	<b>2268</b>	<b>312</b>	<b>2137</b>	<b>271</b>	<b>2098</b>	<b>328</b>	<b>1995</b>	<b>363</b>	<b>2037</b>	<b>1609</b>	<b>10535</b>
	<b>Per cent admitted to SCBU</b>											
1	14.3%		17.4%		14.3%		13.0%		23.1%		15.5%	
2	15.3%		11.0%		11.3%		6.6%		15.5%		12.0%	
3	13.2%		12.2%		8.5%		25.9%		16.3%		15.5%	
4	14.4%		17.0%		13.9%		13.1%		19.4%		15.5%	
5	16.2%		10.1%		14.4%		17.2%		15.6%		14.5%	
6	10.4%		12.8%		8.3%		20.4%		18.7%		14.0%	
7	14.9%		16.7%		13.6%		18.6%		18.3%		17.0%	
8	17.1%		13.9%		10.6%		13.3%		19.9%		15.0%	
9	15.9%		15.2%		15.2%		16.6%		20.2%		17.1%	
10	15.1%		13.5%		14.1%		19.0%		19.6%		16.7%	

**GRAPH 7: NZ foetal and infant death rates by deprivation quintile of residence, 2008-2012 and 2013**

Fetal and Infant Deaths 2013, Analytical Services MoH, published on 14 June 2016. Data from the Ministry of Health's Mortality Collection (MORT).



### Gestation at birth

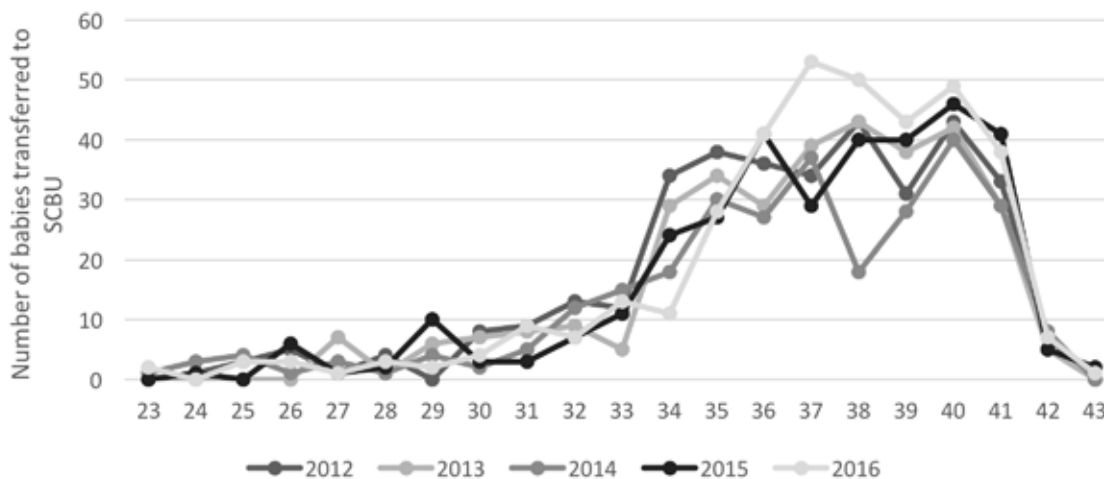
Of the 363 babies admitted to the SCBU in 2016, 1.9% were <28 week gestation (0.3% of all live born babies), 5.0% were 28-31 week gestation (0.9% of all live born babies), 27.3% were 32-36 week gestation (4.9% of all live born babies) and 65.8% were term or post-term. 11.7% of all term or post-term born babies were admitted. Of all admissions 34.2% were premature babies (<37 weeks).

In 2016, the rate of admissions of term infants (65.8%) was significantly higher compared to previous years (table 8). However, as seen in graph 8 there was a particular increase of admission for babies born early-term (37 or 38 weeks). As discussed in the ACR 2015, babies born at 37 or 38 weeks gestation have a greater risk of perinatal morbidity and mortality and long-term adverse outcomes than those born at full term (39-40 weeks gestation).

**TABLE 8:** Gestation of babies born live in HB and transferred to SCBU - Discharge Year

Gestation	2012	2013	2014	2015	2016	Total
23			1			1
24	1					1
25					3	3
26	3		1	6	3	13
27		2	3		1	6
<b>All babies &lt;28 weeks</b>	<b>4 (0.2%)</b>	<b>2 (0.1%)</b>	<b>5 (0.2%)</b>	<b>6 (0.3%)</b>	<b>7 (0.3%)</b>	<b>24 (0.2%)</b>
<i>Per cent of admitted babies</i>	1.2%	0.6%	1.8%	1.8%	1.9%	1.5%
28	2		1		3	6
29		5	2	7	2	16
30	7	6	2	3	4	22
31	9	8	5	3	9	34
<b>All babies 28-31 weeks</b>	<b>18 (0.8%)</b>	<b>19 (0.9%)</b>	<b>10 (0.5%)</b>	<b>13 (0.7%)</b>	<b>18 (0.9%)</b>	<b>78 (0.7%)</b>
<i>Per cent of admitted babies</i>	5.4%	6.1%	3.7%	4.0%	5.0%	4.8%
32	9	9	10	6	7	41
33	10	5	12	11	12	50
34	32	22	18	24	11	107
35	37	34	30	27	28	156
36	35	27	26	40	41	169
<b>All babies 32-36 weeks</b>	<b>123 (5.4%)</b>	<b>97 (4.5%)</b>	<b>96 (4.6%)</b>	<b>108 (5.4%)</b>	<b>99 (4.9%)</b>	<b>523 (5.0%)</b>
<i>Per cent of admitted babies</i>	36.7%	31.1%	35.4%	32.9%	27.3%	32.5%
37	32	38	37	27	51	185
38	43	42	18	39	50	192
39	31	38	28	40	43	180
40	43	42	40	46	49	220
41	33	29	29	41	38	170
>42	8	5	8	8	8	37
<b>All term babies</b>	<b>190 (8.4%)</b>	<b>194 (9.1%)</b>	<b>160 (7.6%)</b>	<b>201 (10.1%)</b>	<b>239 (11.7%)</b>	<b>984 (9.3%)</b>
<i>Per cent of admitted babies</i>	56.7%	62.1%	59.0%	61.3%	65.8%	61.2%
<b>All admitted babies</b>	<b>335</b>	<b>312</b>	<b>271</b>	<b>328</b>	<b>363</b>	<b>1609</b>
<b>All live births</b>	<b>2268</b>	<b>2137</b>	<b>2098</b>	<b>1995</b>	<b>2037</b>	<b>10535</b>

**GRAPH 8:** Babies transferred to SCBU by Gestation - 2012 to 2016



**Birth Weight**

Low birth weight is an important risk factor for neonatal death as seen in table 1. There were 8 babies admitted with a birth weight less than 1000g (2.2% of admissions and 0.4% of all live births), 9 babies with a birth weight of 1000-1499g (2.5% of admissions and 0.4% of all live births), 82 babies with a birth weight of 1500-2500g (22.6% of admissions) and 264 babies with a birth weight >2500g (72.7% of admissions). The five-year trend (2012-2016) is displayed in table 9.

**TABLE 9: Transfers to SCBU by Birth weight - Discharge Year**

<i>Birth weight match</i>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>Total</b>
<1000	6		2		8	16
1000-1499	12	9	11	12	9	53
1500-1999	32	30	32	27	27	148
2000-2500	72	68	58	63	55	316
>2500	213	205	168	226	264	1076
<b>Grand Total</b>	<b>335</b>	<b>312</b>	<b>271</b>	<b>328</b>	<b>363</b>	<b>1609</b>

### Occupancy

In 2016, 34.2% of all admissions to the SCBU were premature babies (<37 weeks) who had a significantly longer average length of stay (17.5 days) than term infants (5.2 days). The accumulated total length of stay for all preterm admissions was 2113 days (72.5%) compared to 800 days (27.5%) for term infants. It is apparent that prematurity contributes considerably to the overall occupancy. The average length of stay for all babies admitted to the SCBU has declined over the last five years from 12.2 days in 2012 to 9.4 days in 2016 (table 10).

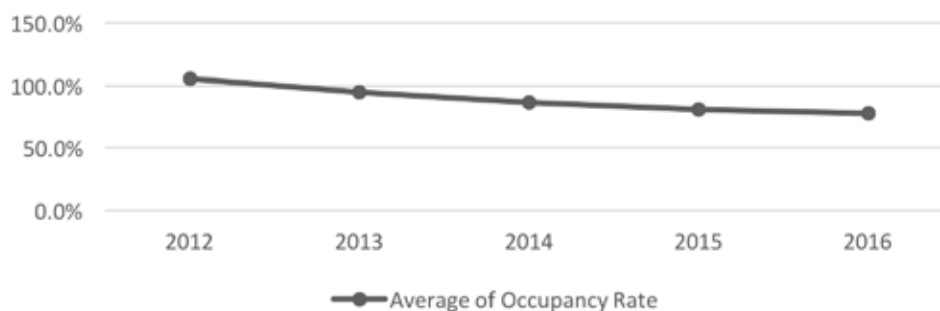
**TABLE 10: Total and average length of stay of babies admitted to SCBU per discharge year**

	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
	<b>Total SCBU LOS</b>				
36 weeks or less	3110	2556	2026	2503	2113
37+	785	727	585	586	800
	<b>SCBU ALOS</b>				
36 weeks or less	20.3	21.9	18.9	20.0	17.5
37+	6.1	5.6	5.6	4.4	5.2
<b>Grand Total</b>	<b>12.2</b>	<b>11.8</b>	<b>11.1</b>	<b>10.5</b>	<b>9.4</b>

The average occupancy and the number of days with occupancy greater than the recommended 80% is demonstrated in table 11. The decline of average occupancy over five years (2012-2016) is shown in graph 9.

**TABLE 11: Average occupancy per year**

<i>Census Year</i>	<i>Average of Occupancy Rate</i>	<i>Days greater than 80% occupancy</i>
2012	105.6%	316
2013	94.8%	266
2014	86.8%	228
2015	81.0%	174
2016	78.0%	181

**GRAPH 9: Average of Occupancy Rate - 2012 to 2016**

Reduction of AOLS has led to a decline in average occupancy. A number of changes to clinical practice implemented over the last years contribute to this statistically significant change. The discontinuation of antibiotic treatment for infants with suspected sepsis was dropped from 48

## Morbidities

Analysing the reason for admission by way of interpreting diagnoses as per ICD-10 coding at time of discharge has its limitations but allows an estimated overview of service provision. Observation and treatment of infants for suspected perinatal infection and early onset sepsis remained one of the main reasons for admission to the SCBU in 2016. This is illustrated by a high rate of intravenous anti-infective treatment (166 babies = 45.7% of admissions) but a relatively low number of confirmed bacterial sepsis (22 babies = 6% of admissions). Clinical indicators of infection may include signs of respiratory distress (RDS, transient tachypnoea and grunting) and hypothermia. Other ICD-10 codes that appear frequently included phototherapy, low birthweight and hypoglycaemia. Some of the most common ICD-10 codes at time of discharge from the SCBU are shown in table 12.

**TABLE 12:** Numbers of ICD discharge code by year (2012-2016)

<i>ICD Discharge Code - Description</i>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b> <i>(per cent of all admission)</i>	<b>Total</b>
<i>IV admin of pharmac agent anti-infective</i>	158	123	96	142	166 (45.7%)	685
<i>Respiratory distress of newborn</i>	95	95	91	119	98 (27.0%)	498
<i>Other phototherapy, skin</i>	118	118	92	93	82 (22.6%)	503
<i>Other low birth weight 1500 - 2499g</i>	107	90	73	79	65 (17.9%)	414
<i>Other neonatal hypoglycaemia</i>	36	44	43	55	98 (27.0%)	276
<i>Transient tachypnoea of newborn</i>	57	56	38	57	86 (23.7%)	294
<i>Hypothermia of newborn unspecified</i>	6	13	31	20	43 (11.8%)	113
<i>Grunting in newborn</i>	7	11	2	17	17 (4.7%)	54
<i>Bacterial sepsis of newborn</i>	20	20	33	33	22 (6.1%)	128

## Respiratory support

Clinical signs of respiratory distress are a common cause for medical intervention and admission of babies to the SCBU and may indicate significant underlying pathology. In 2016, 58 babies born at 37+ weeks gestation needed some form of respiratory support. This is 2.95% of babies born at Hawke's Bay Soldiers' Memorial Hospital. The national average of term infants who were given some form of respiratory support was 1.9%. The rate of term infants needing respiratory support per ethnicity is shown in table 12.

**TABLE 13:** Babies 37+ weeks requiring respiratory support per ethnic group - 2016

	<i>Number needing respiratory support</i>	<i>Total number of babies per ethnicity</i>	<i>Per cent</i>
<i>Māori</i>	24	841	2.85%
<i>Pacific Islander</i>	5	120	4.17%
<i>European</i>	27	831	3.25%
<i>Asian</i>	1	100	1.00%
<i>Other</i>	1	77	1.30%
<i>Total</i>	58	1969	2.95%

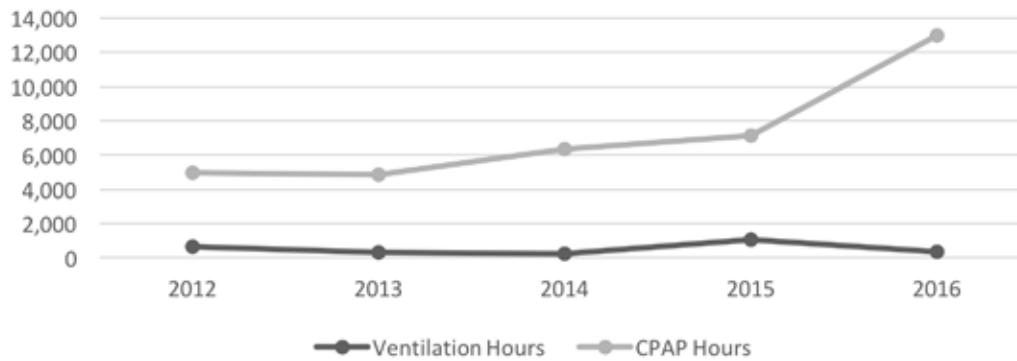
In 2016, there were 11 infants with pneumothorax and 11 infants with meconium aspiration syndrome. Non-invasive ventilation support (CPAP) was given to 64 (17.6%) babies for less than 24 hours, to 25 (6.9%) babies for more than one but less than four days and to 26 (7.2%) babies for more than four days. 13 (3.6%) babies received mechanical ventilation. The five-year trend (2012-2016) is displayed in table 14. While there is a significant fluctuation of ventilation hours per year CPAP hours have increased over the five-year period (graph 11).

Guidelines for minimally-invasive surfactant therapy (MIST) were introduced to the SCBU in 2016. One spontaneously breathing baby was given endotracheal exogenous surfactant using a semi-rigid narrow-bore vascular catheter.

**TABLE 14:** Total and average length of stay of babies admitted to SCBU per discharge year

ICD Discharge Code - Description	2012	2013	2014	2015	2016	Total
<i>Pneumothorax in perinatal period</i>	4	7	5	7	6	29
<i>Pneumothorax unspecified</i>	0	0	0	0	5	5
<i>Neonatal aspiration of meconium</i>	8	4	6	6	11	35
<i>Management NIV support &lt;= 24 hours</i>	69	59	45	67	64	304
<i>Management NIV support &gt; 24 &lt; 96 hr</i>	29	27	14	18	25	113
<i>Management NIV support &gt;= 96 hours</i>	15	11	14	12	26	78
<b>MV vs. NIV support</b>						
<i>Ventilation Hours</i>	637	314	236	1,070	365	2,622
<i>Babies on Ventilation</i>	12	7	9	15	13	56
<i>CPAP Hours</i>	4,981	4,870	6,360	7,147	13,007	36,365
<i>Babies on CPAP</i>	113	98	73	97	114	495

**GRAPH 11:** Hawke's Bay SCBU Ventilation Hours and CPAP hours - 2012 to 2016



**Central vascular access**

Early nutritional support from the first day of life is advocated in very low birth weight <1500g (VLBW) infants if there is an expected delay to establishing enteral feeding. The standard solution for neonatal parenteral nutrition at HBDHB can be given via peripheral venous access, however, central venous access should be considered if the anticipated requirement for parenteral nutrition is >48 hours. Parenteral Nutrition is preferably infused via peripherally inserted central catheter (PICC). Umbilical catheters (arterial and venous) are often required in the management of critically ill neonates. The five-year trend for numbers of central access per annum is shown in table 15.

**TABLE 15:** Numbers of central vascular access per year – 2012-2016

	2012	2013	2014	2015	2016	Total
<i>Umbilical vein cath/cannuln in neonate</i>	6	11	10	11	14	52
<i>Umbilical artery cath/cannuln in neonate</i>	5	4	6	8	8	31
<i>Central vein catheterisation in neonate</i>	1	5	0	2	5	13



## Complications of prematurity

What is perhaps of most importance to families of very preterm infants beyond survival is the quality of longer-term outcomes. Past studies have shown that although very low birth weight (VLBW) graduates had lower educational achievements and were more socially isolated than term born controls they rated their quality of life no differently.

Table 15 demonstrates the number of premature infants admitted to the SCBU regardless of birth location. This includes infants of extreme prematurity who were born in a tertiary care centre and transferred to Hawke's Bay at a later stage. Complications like retinopathy of prematurity (ROP), necrotising enterocolitis (NEC) and chronic neonatal lung disease occur rarely in babies of more than 30 weeks gestation.

**TABLE 15:** Complications of prematurity per year – 2012-2016

	2012	2013	2014	2015	2016	Total
23-24	1	0	4	1	2	8
25-27	9	7	8	7	7	38
<i>All babies &lt;28 weeks</i>	10	7	12	8	9	46
28-30	12	14	7	15	9	57
<b><i>All babies &lt;31 weeks</i></b>	<b>22</b>	<b>21</b>	<b>19</b>	<b>23</b>	<b>18</b>	<b>103</b>
<i>Retinopathy of prematurity</i>	6	3	5	7	11	32
<i>Necrotising enterocolitis</i>	1	0	1	2	4	8
<i>Chronic neonatal lung disease</i>	9	15	7	12	9	52

## Neonatal encephalopathy (NE)

Neonatal encephalopathy (NE) is a clinically defined syndrome of disturbed neurological function in the earliest days of life in the term infant, manifested by difficulty with initiating and maintaining respiration, depression of tone and reflexes, sub normal level of consciousness and often seizures. NE occurs in approximately 3.5 - 6/1000 live births.

Clinical staging as by the "Sarnat" criteria allows differentiating mild, moderate and severe presentations. Therapeutic hypothermia is indicated for moderate and severe cases and has shown to improve long-term outcomes. The terminology NE is preferred to Hypoxic Ischemic Encephalopathy (HIE) as it is not always possible to document a significant hypoxic-ischemic insult and there are a number of other potential aetiologies.

In 2016, there were six cases of neonatal encephalopathy. This is a rate of 2.9 per 1000 babies born in Hawke's Bay. One infant presented with seizures at 13 hours of age and did not receive therapeutic cooling. All infants were transferred to Wellington NICU for ongoing care and continuous EEG monitoring.

## *Neonatal Transfers to the Tertiary Centre*

In 2016, there were 24 babies born in Hawke's Bay (1.2% of all babies) who needed transfer to a tertiary centre for ongoing care. There was a total of 27 transfers as three babies needed transfer twice. This rate is considerably higher than the approximately 14 transfers per annum in previous years. There was one retrieval of a newborn baby from Wairoa.

The majority of infants were flown to the neonatal intensive care unit in Wellington (22 flight = 92%). Four infants required EEG monitoring and management of seizures (profound hypoglycaemia, withdrawal, Ohtahara syndrome, neonatal encephalopathy), five needed EEG monitoring and therapeutic hypothermia for moderate or severe neonatal encephalopathy. Three babies needed management of extreme prematurity and two babies needed ongoing mechanical ventilation complicated by pneumothorax. The other babies needed either surgical referral (NEC, oesophageal atresia) or laser therapy for ROP.

Two infants were referred to the cardiology service at Starship Children's Hospital in Auckland for management of congenital cardiac anomaly (pulmonary stenosis and VSD).

**TABLE 15: Transfer to other DHB in 2016**

<i>Retrieval from / Transfer to</i>	<i>Gestation</i>	<i>Birth weight</i>	<i>Reason for transfer</i>	<i>Procedure</i>
<i>RETRIEVAL WAIROA</i>	40	2630	MAS	
1. WELLINGTON NICU	26+6	900	Prematurity ROP for laser (2m)	
2. WELLINGTON NICU	35	2431	Suspected Hirschsprung's	
3. WELLINGTON NICU	32+6	2309	Suspected NEC	
4. WELLINGTON NICU	41+6	4145	MAS and NE Hirschsprung's disease	MV and cooling
5. WELLINGTON - STARSHIP	38	3081	MAS, VSD (cardiac surgery)	MV
6. WELLINGTON NICU	36+6	2605	NE	MV and cooling
7. WELLINGTON NICU	39	3440	Stridor	
8. WELLINGTON NICU	36+5	2605	NE	MV and cooling
9. WELLINGTON NICU	29+3	1100	Suspected NEC	
10. WELLINGTON NICU	33+2	2630	Oesophageal atresia	
11. WELLINGTON NICU	28+3	983	Prematurity	MV
12. WELLINGTON NICU	26+5	973	Prematurity	MV
13. WELLINGTON NICU	40+2	2841	MAS, NE	MV and cooling
14. WELLINGTON NICU	41	3000	NE	MV and cooling
15. WELLINGTON NICU	31+6	1882	Pneumothorax	MV
16. WELLINGTON NICU	31+6	2087	Twin 2, border	
17. WELLINGTON NICU	37+2	2650	Hypoglycaemic seizures	MV
18. AUCKLAND NICU	35+1	2240	Pulmonary stenosis (cardiac surgery)	
19. WELLINGTON NICU	39+0	3585	Withdrawal seizures	
20. WELLINGTON NICU	28+4	1092	PDA, NEC (died)	MV
21. WELLINGTON NICU	30	1752	Pneumothorax	MV
22. WELLINGTON NICU	37+5	2530	Suspected NEC Suspected NEC	
23. WELLINGTON NICU	32+6	1976	Seizures – Ohtahara (died)	
24. WELLINGTON NICU	39+5	3787	Seizures, NE	







# SUMMARY OF AUDITS



## Induction of Labour

(Dr Kirsten Gaerty, Dr Sally Gunderson, Dr Felicity Williams & Dr Vidhi Mehta)

### Audit Purpose:

- The audit was a follow up review from a similar audit performed in 2015.
- To gain an accurate understanding of the reasons and timing of induction of labour, including the methods, processes and outcomes.
- To identify areas where changes could be made to improve care and act as a benchmark against which changes to the IOL protocol can be measured.

### Scope/Approach:

- This audit reviewed all IOL's between 1<sup>st</sup> September and 31<sup>st</sup> October 2016, this resulted in 59 cases being included in the audit.
- The scope included primiparous and multiparous women and information regarding demographics and relevant factors to the IOL process.
- Data was collected from a review of clinical documentation in the patient's notes.
- The patient cohort was identified from the IOL booking diary and confirmed by checking past handover sheets.

### Findings:

- Of the women induced 58% were primips and 42% multips. The most common age was group was 26-30 years, with 32% of women falling into this category. There were no IOL's in women <15 years old or >40 years old.
- The largest ethnic group was European, with 49% being identified as; and 32% were Māori.
- The majority (83%) of IOL's occurred at or after 38 weeks, for the 5% that occurred beforehand the indications appear to be clinically appropriate.
- In our primips the most common reasons for IOL were postdates (41%), pre-eclampsia/ hypertension (26%) and PROM (18%).

- In our multips the most common reasons for IOL were IUGR/SGA (32%), postdates (16%) and PROM (12%).
- The primary method of IOL was with prostaglandin in 76% of cases for primips and 64% for multips. The remainder of cases were either induced by ARM or started immediately on syntocinon (if they were being induced for PROM).
- 88% of multips and 47% of primips delivered by spontaneous vaginal delivery, 29% of primips and 0% of multips delivered by instrumental and 24% of primips and 12% of multips delivered by caesarean sections.
- Within 12 hours of initiation of IOL delivery occurred in 53% of primips and 88% of multips.
- Within 24 hours of initiation of IOL delivery occurred in 97% of primips and all multips.
- Within 6 hours of initiation of Syntocinon delivery occurred in 33% of primips and 63% of multips.
- Within 12 hours of initiation of Syntocinon delivery occurred in 85% of primips and 94% of multips.
- In 65% of primips and 80% of multips delivery occurred between 8am-10pm.
- 64.5% of women used epidural analgesia.
- 12% had a postpartum haemorrhage (PPH) <1000ml and 5% had a PPH ≥ 1000ml.

### Issues Identified:

- Common delays in the process of IOL, with 60% of prostaglandin not given until after 9am, and subsequently those who required a second dose not receiving until >6hrs after the first dose.
- Lack of clarity around who is responsible for starting the IOL or syntocinon, lack of staffing to safely start IOL's or syntocinon, and delay relative to the medical team handover at 8am.
- Poor documentation of Bishops Score or vaginal examination, with no score recorded in 10% of cases prior to prostaglandin and in 44% of cases prior to an ARM.

## Recommendations:

- To continue the implementation of the new IOL protocol, focusing on:
  - Clear documentation of roles and responsibilities between LMCs and core staff at clinic appointment or when IOL booked.
  - Triaging of IOL prioritisation by the coordinating midwife and consultant on call in the evenings to ensure adequate staffing for IOLs for the following day.
  - Starting and continue IOLs prior to the doctor handover at 8am.
  - Timely re-examination between prostaglandin doses, ARM and syntocinon use as per the IOL protocol.
- Education around the importance of documenting the Bishop Score to allow the protocol to be followed.
- Consider implementing routine ecbolics beyond the standard syntocinon bolus to reduce PPHs.
- Consider a business case for the trial of a balloon catheter with a style for easier placement than the Foley catheters. This would aim to insert balloon catheters the night before so that an ARM could be performed prior to the doctors' handover at 8am.
- Conduct this audit annually.

# Primary Elective Caesarean Section

(Dr Delwyn Munn & Dr Jeremy Meates)

## Audit Purpose:

- There has been an increase in elective caesarean sections for primiparous women in 2016 (34 cases) compared to 2015 (21 cases).
- The audit was performed to assess whether there was a trend toward elective caesarean section delivery by maternal request (CDMR) or whether there were acceptable obstetric indications.

## Scope/Approach:

- This audit reviewed all primips who underwent an elective caesarean section in 2016, after excluding incorrectly pooled data and failed inductions, this resulted in 29/34 cases being included in the audit.
- Data was collected using maternity statistics from Healthware. Data was gathered pertaining to demographics including age. Medical comorbidities, indications for caesarean, and operation notes were reviewed.
- All 29 cases were reviewed individually to assess in greater detail the indications and timing of caesarean section.

## Findings:

1. Of the 29 primips who had an elective caesarean section:
  - 20 had a malpresentation – 18 were breech (3 cases had External Cephalic Version (ECV), attempted and failed), 2 transverse presentations
  - 2 placenta praevia
  - 7 'other' cases:



Three of these 'other' cases had clear medical indications and elective caesarean was recommended by both physicians as well as obstetric consultants due to co-morbidities/background.

Every case had been discussed in antenatal clinic with a consultant obstetrician.

- 39y, 39/40, severe Crohn's disease with perianal fistula
- 21y, 39/40, Maternal Gorlin Syndrome (cardiac fibromyoma), primary HSV at 32/40, Borderline Personality Disorder, Anxiety, Self-Harm
- 16y, 37/40, metastatic pulmonary adamantinoma, pneumothoraces, current DVT, on enoxoparin.

Of the four remaining cases, the clearest indication was maternal request (CDMR)

- A woman of advanced maternal age (41y) requesting elective caesarean, complete family, opted for a tubal ligation at the time of delivery
- A baby with an estimated fetal weight of 4.4kg on ultrasound at 40+1 presents at 41/40 patient declining induction of labour and requesting to proceed to caesarean
- DCDA twins, leading twin cephalic, reduced fetal movements, maternal anxiety
- Background of multiple sclerosis, patient requesting caesarean for 'bladder protection'

3. In this audit there are three women who technically meet the Ministry of Health definition for a standard primip, who underwent elective caesarean in 2016. However, two of these women have complex underlying medical co-morbidities which have impacted the mode of birth. The clinical indicator definition fails to recognise additional medical complexities in these patients and does not reflect their underlying complex conditions. Case 3 below, being the only case in 2016 that would reflect a true "standard primip" would be expected to have an uncomplicated pregnancy.

Below are the cases that meet the MoH definition:

- 1) LGA EFW 4.3kg, Maternal Gorlin Syndrome (cardiac fibroma), HSV, Anxiety, Self-Harm
  - 2) Multiple sclerosis, citing 'bladder protection'
  - 3) LGA EFW 4.4kg, maternal request
2. The percentage of primips undergoing elective caesarean section in 2016 was 4.0% (29 cases from 721 primips), compared with 3.4% in 2015 (19 case from 559 primips). When excluding women with complex medical comorbidities (four women), the percentage of primary elective caesarean in 2016 is 3.5%.

#### Issues Identified:

- This audit has identified patients who have been miscoded. This includes three multiples that were added into the dataset. This is likely to have occurred because the correct past obstetric history was not entered into Healthware.
- Incomplete data entry is a very significant risk for the department. All raw data from Healthware is sent to the Ministry of Health for analysis. There is a risk that any decisions made on the strength of this data will be skewed by its inaccuracies.

#### Recommendations:

##### 1. Documentation/Accuracy of Data Input

Data Integrity, cleansing, ensuring correct information on Healthware, parity found to be incorrect in three cases (8.8% of total cases). Clarification for coding around "failed inductions" and if these should be included in "elective" data sets, or emergency.

##### 2. Future Audit Suggestions

Audit of indications for all primip caesareans (elective and emergency) to compare to National Data Sets for the clinical indicators.

### Malpresentation Audit

Majority of the cases were for malpresentation, which in some cases can be modifiable via external cephalic version. Auditing ECV and documenting this on the operation note would help identify trends and whether we are routinely offering external cephalic version and what success we have with this when attempted.

A more developed system for the counselling of women around the use of ECV including a local patient information pamphlet and more structured process for providing ECV within the unit.

## Clinical Indicator 9 Audit: Episiotomy and 3/4D Tear among Standard Primiparae Women 2016

### **Audit Purpose:**

- The purpose of this audit was to review whether there was a common theme occurring in the standard primip women who had an episiotomy and sustained a 3<sup>rd</sup>/4<sup>th</sup> degree tear (e.g. instrumental vs spontaneous vaginal birth).
- The audit was also used to determine how effectively the 'pathway of care' was being undertaken.

### **Scope/Approach:**

- This audit reviewed the notes of the 5 standard primip women who had an episiotomy and sustained a 3<sup>rd</sup> or 4<sup>th</sup> degree tear in 2016.
- The patient cohort was identified from the MOH Clinical Guidelines Data collated for the Annual Maternity Clinical Report.
- Data was collected from a review of clinical documentation in the patient's notes.

- We specifically reviewed the patients demographic background, mode of birth, type of tear, labour type, was there a reason for the tear occurring and/or episiotomy being made, and was the 3/4<sup>th</sup>D tear pathway of care followed.

### **Findings:**

- Out of the 5 women: 2 were NZ European, 2 of Indian descent, and 1 Māori, 4/5 women were aged under 30 years old.
- The data demonstrates that 60% (3/5) of these women had an instrumental delivery. 2 were forceps and 1 was ventouse. Of these 3 women only one had an augmented labour.
- The women of both of the forceps deliveries sustained a 3B tear, and documented reasoning of the births was due to fetal distress. One resulted in a very fast delivery and the other required 5 moderate pulls of a large baby (above 90<sup>th</sup> centile on customised GROW chart).
- The woman of the 1 ventouse birth also sustained a 3B tear, the reasoning for the instrumental delivery was due to a prolonged 2<sup>nd</sup> stage of labour.
- The remaining 2 (40%) were spontaneous vaginal births. 1 of these was an augmented labour.
- Of these spontaneous births, 1 woman sustained a 3A tear, reasoning for the episiotomy was to reduce the likelihood of a tear as the perineum was beginning to tear on crowning. (The baby was an average size of 3.5kg)
- The other woman had no documented specified reason for an episiotomy, and she went onto sustain a 3C tear. She had an average size baby and gradually pushed over a 30 minute period from fully dilated.
- The audit also looked at how clinicians are following policy and guidelines in completing the 'pathway of care'. It revealed that 3/5 pathway of care forms had been completed upon discharge of a woman. Of the 2 not fully completed, 1 was by the obstetric team and the other by the maternity team.
- In all cases there was no record of warm compresses or perineal protection.

# Elective Caesarean Sections Jan-June 2016

(Dr Joseph Gudex & Dr Jeremy Meates)

## Audit Purpose:

- This audit was undertaken to review the primary indication for Elective Caesarean Sections (CS), in accordance with the recommendations by the Royal College of Obstetricians and Gynaecologists.
- In addition to the primary indication, this audit explores and identifies the gestation at which CS was performed, the rate of neonatal admission to SCBU post CS delivery, the rate of antenatal corticosteroid administration in patients with gestation <38+5 weeks, and whether VBAC recommendation guidelines were followed.

## Scope/ Approach:

- All Elective Caesarean Sections performed between January and June 2016 were audited.
- Data was obtained from the clinical coding department, to identify all women in this cohort, and then further explored through the use of ECA and patients medical records.
- A total of 88 cases were included in the audit, twin deliveries were treated as one individual case.

## Findings:

- **Indications** – Of the 88 women included in this audit for 29 (33%) the primary indication was for 1 previous CS, 25 (28.4%) women had had more than 1 previous CS, 8 (9.1%) were for multiple pregnancies, 7 (7.6%) were needed due to intrauterine growth restriction (IUGR), 7 (7.6%) were indicated for malpresentation, 4 (4.5%) had 'other' reasons, 3 (3.4%) for previous physical or emotional traumatic delivery, 3 (3.4%) were undertaken upon maternal request, and 2 (2.3%) were for placenta praevia or accreta.

- 3/5 women in this audit did not attend the routine postnatal follow up with an Obstetrician at 6 weeks postpartum, and there is no record of them receiving any follow up phone call or booking for further appointments.

## Issues Identified:

- There needs to be better description in patient's clinical records as to why the episiotomy is being performed.
- Not all pathway of care forms are being completed upon women being discharged.
- Where women have not attended their routine postnatal follow up, it doesn't appear that they are being followed up as to why they have not attended or being re-booked.

## Recommendations:

1. Remind clinicians on the importance of clear and detailed documentation in patient's notes.
2. Remind clinicians of the importance of ensuring the pathway of care forms are completed upon women being discharged.
3. Ensure women are being called if they have missed their postnatal follow up appointment and re-book them.
4. Roll out clinician education on the OASIS Bundle Care for 3<sup>rd</sup> and 4<sup>th</sup> degree tears that has been occurring in the UK.

**Timing** – The majority of CS (53 or 60.2%) were performed after 38+4 weeks gestation. There were 12 CS that were performed between 37 weeks and 37+6 weeks, and all appeared to have relevant reasons due to additional medical risks.

#### **Rate of Neonatal Admission to SCBU Post CS Delivery**

- 16 (18.2%) of the cases were associated with an admission to SCBU within 24 hours of birth, however the actual number of admissions were larger than this, given the 8 cases of twin delivery.
- The gestation of the 16 babies admitted to SCBU were; 6 (37.5%) at 37 weeks, between 37 to 37+6 weeks 5 (31.3%) babies, during 38 to 38+4 weeks 1 (6.3%) was admitted, and 4 (25%) babies greater than 38+4 weeks gestation were admitted to SCBU.
- There were also 3 additional SCBU admission cases after 24 hours; MCDA twins with hypoglycaemia and borderline temperature control, a singleton who needed antibiotics, and DCDA twins admitted with a 10% drop in weight, mild hypothermia and difficulty establishing feeds.

#### **Rate of Antenatal Corticosteroid Administration if less than 38+5 week's gestation**

- It is a RANZCOG recommendation to perform Elective CS at approximately 39 weeks gestation, for the purpose of this report this has been defined as being >38+4 weeks gestation.
- There were 34 (38.6%) Elective CS performed at gestation <38+5 weeks.
- Of these, 17 (50%) patients received steroids, in the majority of these cases this was given as a single course of two doses of 11.4mg betamethasone administered 24 hours apart.
- There were only 3 cases (3.4%) where the CS was performed before 38 weeks gestation and the patient did not receive steroids.

#### **VBAC Recommendations from Previous Operation Notes**

- Of the 44 cases that had had only one previous Caesarean Section, 68.2% either did not have documented on their previous operation notes whether they were for VBAC in their next pregnancy, or did not have previous operation note available.
- Of the remaining 14 cases that did have documentation available, 11 (78.6%) had been documented as being suitable for VBAC.
- 6 out of these 11 cases (54.5%) had no indication for CS other than having had 1 previous CS.

#### **Recommendations:**

- Ensuring adequate documentation including exact gestation, whether steroids have been administered and if the patient is suitable for VBAC in the future. It is suggested that this information is documented in the operation note.

## **Caesarean Section Women Requiring a Post-operative Blood Transfusion**

**(Dr Ikhwan Yusof & Dr Jeremy Meates)**

#### **Audit Purpose**

- This audit explores in further detail the data of the women identified in Clinical Indicator 10, it is a follow on from a previous audit in May 2015 where recommendations were made.
- This audit was undertaken to identify reasons for administration of blood transfusions with Caesarean Sections and to identify how this process could be improved, including how excess blood transfusions could be minimised.

- Documentation around the prescription of blood products and documentation at Caesarean Section was also reviewed for completeness.

#### **Objectives:**

- To identify if in each case;
  - Documentation regarding the use of blood and number of units was clear.
  - Blood was given appropriately, according to the available guidance.
  - Women received iron supplementation.
  - Whether the surgical estimated blood loss was reflected in the need for transfusion.

#### **Scope/ Approach:**

- This audit reviewed all women coded as undergoing a Caesarean Section and receiving Red Cell Bloods (RCB's) between 1<sup>st</sup> October 2015 and 28<sup>th</sup> February 2016.
- This included 7 sets of notes; specific characteristics of these relating to the aims of this study and maternity clinical indicators were recorded on the data collection tool.
- This data was then collated and analysed with regards to aims and objectives.

#### **Findings:**

- There were 193 Caesarean Sections performed within the timeframe of this audit. Of these 73 (38%) were electives and 120 (62%) were emergency.
- Of this cohort 7 (4%) patients required a blood transfusion. 3 (42%) of these women were electives, 2 for twin pregnancies and 1 for placenta accreta.
- The remaining 4/7 were emergency Caesarean Sections (58%). For the following reasons; 1 for placental abruption, 1 fetal distress, 1 antepartum haemorrhage (APH) and 1 failure to progress in 2<sup>nd</sup> stage.
- Of the 7 women 5 identified as Māori and 2 as NZ European.
- 5 of the pregnancies were >37 weeks gestation and 2 were below.

- The risks identified for postpartum haemorrhage (PPH) were twin pregnancies, gestational hypertension and APH.
- Of the 7 women in this audit 1 received intra-operative blood transfusion, 2 received intra-op and post-operative blood transfusion and 4 received post-operative blood transfusion.
- Of the patients receiving post-op blood transfusion, their Hb prior to transfusion was: in 1 case >80, in 3 cases between 70-80 and <70 in 1 case.
- It was found that the cumulative blood loss form was only used in 1/7 cases. 3 cases were discussed with an SMO prior to transfusion.
- None of the 7 women were given pre-operative blood transfusion.
- There were 2 cases where the Hb was checked after 1U RCC transfused, and 3 cases where parenteral iron was given antenatally (all elective caesareans).
- Of the 7 women, 4 were discharged on oral iron. Of the remaining 3 patients not receiving oral iron their Hb was 82, 89 and 107.

#### **Successful Improvements made from previous audit**

- In all cases reasoning for transfusion was obvious and clearly documented.
- We are now routinely using standard doses of ecbolic during Caesarean Section.
- Patients are being discharged home with prescribed iron supplements, where there is indication of iron deficiency or other reason.

#### **Issues Identified:**

When comparing the data from this audit against the recommendations that were identified and initiated in the previous audit we can see:

- There needs to be education given on specific indication for transfusion.
- It was recommended to use the cumulative blood loss form as it was highly informative and useful, this audit revealed that it had only been used once in this cohort of 7 women.

- It is recommended to check Hb after transfusion of 1 unit, this applied to 5/7 cases. However in only 3 of these cases the Hb was checked after 1 unit transfused.
- The current DHB standard indication for transfusion is not widely known or documented on the Blood Product Prescription form, it should be a priority to educate all junior staff regarding the use of this form.

**Recommendations:**

- The use of the cumulative blood form:
  - Where possible, blood loss should be quantified by weighing of swabs rather than visual estimation.
  - Routinely add to the CS pack.
- Use standard indicator on Blood Product Prescription form, include education on this.
- Check Hb after 1 unit in non-acute settings where there is no ongoing bleeding.
- Oral iron for patient with Hb <105 prior to discharge.
- Continue to use iron infusion judiciously. Monitor Fe infusion use in DAU.
- Monitor all cases of blood transfusion for Obstetric patients.







# MATERNITY CLINICAL GOVERNANCE GROUP



# MCGG 2016 Activities

**During 2016 the Maternity Clinical Governance Group met on twelve occasions, during which time they:**

- Welcomed the addition of a DHB Māori Midwife representative
- Reviewed and endorsed over 20 clinical guidelines
- Contributed to and approved a selection of new documents in preparation for the opening of the primary facility mid 2016 such as the 'Clinical Risk Assessment for Place of Birth' document
- Reviewed 8 clinical quality audits and with monitoring of audit the recommendations.
- Developed and implemented two patient information leaflets: "I'm having a Caesarean – What do I need to know?" and "I've just had a Caesarean Section - What now?"
- Reviewed twelve adverse events case reviews reports with monitoring of the recommendations from each review.
- Reviewed twelve monthly Maternity Governance Reports
- Reviewed and created actions against Four Quarterly Clinical Event Reports
- Reviewed thirteen Mid-Monthly Events Reports
- Received 14 Breastfeeding statistics reports
- Reviewed three quarterly reports of the Online General Maternity Consumer Survey
- Reviewed the first quarter results of the Online Primary Birthing Centre Survey
- Received and reviewed approximately 25 written consumer compliments and 14 written complaints

## Clinical Case Reviews

Between 1st January and the 31st December 2016, the Maternity Governance Coordinator facilitated thirteen, multidisciplinary, formal clinical case reviews.

Each case review included a multidisciplinary investigation panel, where excellent practice was recognised and areas for improvement identified. Recommendations for future practice and shared learnings were created and monitored for compliance by the MCGG

Some of the changes relating to clinical practice that have occurred as a direct result of our multidisciplinary case reviews are:

- Ensuring all complex or significantly vulnerable women see an O&G Consultant or O&G Senior Registrar at the initial Antenatal Clinic visit;
- The requirement to obtain Cord bloods for all babies with evidence of compromise.
- Education sessions ensuring all staff are familiar with the correct operation of the new oxygen blenders.
- Documentation to facilitate clear identification of care provision (i.e. primary or handover to secondary care team) and who is providing midwifery care element of the inpatient episode.
- Rural midwifery team commenced development of 'Action to undertake when awaiting patient retrieval' guideline, with support of the paediatric team.
- Ensuring a DHB midwife is identified to receive any incoming emergencies regardless of LMC presence. In addition an on-call \* number for O&G registrar to our Electronic Clinical Application to ensure prompt availability afterhours
- Amendments to the minimum observations expectations for maternity patients coming into the Emergency Department

- Development and implementation of the face to face consultation guideline.
- Ensuring that there is immediate On Call O&G Consultant communication when a woman presents with an undiagnosed breech on the labour and birthing suite
- O&G team establishment of the expected frequency / standard of review of all secondary care cases in labour on Ata Rangi labour and birthing suite.
- Multifaceted work to improve documentation and communication amongst clinicians and clinician to consumer
- Including orientation to maternity unit, resuscitation equipment and treatment room for all new paediatric registrars
- Ensuring that LMC's refer women with complex social situations into the secondary care team to improve awareness of potential issues.
- Providing an invitation for LMC's to join shift handover or conversation to provide an update of their woman's status/progress.
- Ensuring that midwifery antenatal care provision includes plotting of fundal height - symphysis pubis measurements appropriate to gestation on the woman's customised grow chart throughout her pregnancy, in addition to plotting the scan measurements.

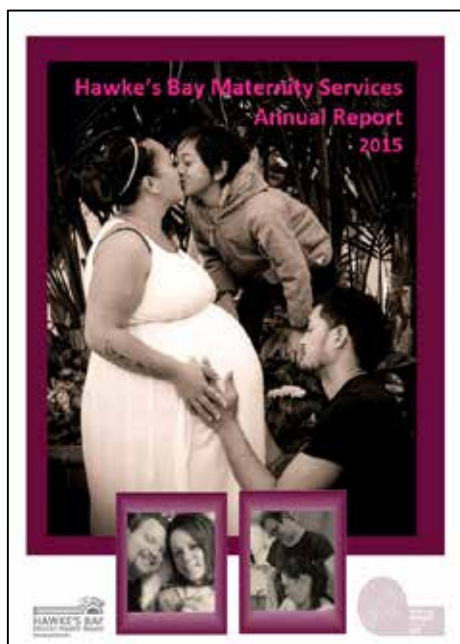
### Quality Initiatives and Collaboration

HBDHB evolved the Maternity Governance Coordinator position into a permanent role rather than a temporary contract part way through 2015. At this time the FTE for the MQSP administrator was also increased from 0.5FTE to 0.8FTE. This wise implementation of funding allowed for the completion of implementation of several ongoing quality initiatives but it has also expanded the capacity to focus on new objectives, adjust priorities for further service implementation and initiate new Hawke's Bay wide collaborations.

Many of the planned actions for 2016 were achieved, with numerous additional initiatives also being developed along the way. With many of these objectives running alongside or in addition to the creation and development of our along-side primary birthing centre 'Waioha', it has been a very busy and productive year.

This chapter showcases the Maternity Services quality initiatives that have been implemented or embedded into the service during 2016.

### The 2016 Maternity Quality and Safety Programme (MQSP) Implementations



## **Annual Clinical Report**

Without doubt the most substantial and comprehensive publication created in 2016 was the Annual Maternity Clinical Report 2015, written by the Maternity Governance Coordinator over the first half of 2016 to provide an annual presentation and analysis of extensive maternity data and a top to toe show case of our entire Maternity Services.

This all-encompassing report took approximately six months to compile, is disseminated across the organisation and the community. The report was discussed and utilised throughout our service on an ongoing basis throughout the remainder of the year.

## **Maternity Service Annual Clinical Report 2015 Presentation Day**

The HBDHB Maternity Services were delighted to host our 3rd Annual Maternity Clinical Report Presentation Day on Thursday 8th September 2016.

The presentation day was hosted to present and critique the Annual Maternity Services Report published in July 2016, as well as providing the opportunity to celebrate the positive quality initiatives that Maternity Services have implemented over the last twelve months.

Distinguished guest speakers, Dr Katie Groom, Senior Lecturer in the Department of Obstetrics and Gynaecology, University of Auckland and subspecialist in Maternal Fetal Medicine at National Women's Health, Auckland City Hospital and Emma Farmer, HOD of Midwifery at Waitemata District Health Board were invited to critique the content of the report from both an obstetric and midwifery perspective. Both speakers spoke highly of the report and its contents, including the consumer themes running through the text, level of statistical analysis presented, range of quality improvements and initiatives exhibited in the report and evident comprehensive delivery of the Ministry of Health's Maternity Quality and Safety Programme.

The critiques created excellent discussion for further quality improvements to enhance the service and highlighted areas of focus going forward.

The participants were fortunate to experience a second presentation delivered by Dr Groom as part of the 'Prematurity and Pre-term Birth' themed morning session. Dr Groom asked the question "can we predict and prevent pre-term birth?" following the presentation of our own Preterm Birth Clinical Audit findings by Dr Kirsten Gaerty. This provided further discussion as we examined the clinical risk factors and potential actions to take.

The session was further enhanced by a group presentation from the Paediatric / Children's Health Department, demonstrating the developmental and physical effects of preterm / early term birth to 'the individual, the family and the service'. Oliver Grupp, Paediatrician, Andrea King and Sarah Simpson, neonatal discharge coordinators & homecare nurses and Danni Atkins, neuro-developmental therapist from Child Development Services were able to provide variety and new information to the forum that was deemed highly valuable in the attendee feedback.

As always, the consumer voice was present throughout the day, brought to us in the form of two wonderful, humbling and thought provoking presentations from our two Maternity Services Consumer Members, Gabby Allen and Louise Curtis.

Gabby presented "from the mouths and hearts of our Hawke's Bay Teen Mums", a collection of raw and honest feedback gathered from her work with teen mums at the Teen Parent Unit over the last several months. Lou presented the beautiful and emotive true story of an extreme preterm birth experience of a lovely mum, who touched the hearts of many in the audience during her time within the service.

The final session of the day became interactive and responsive, providing participants the opportunity to break into groups, exploring how we can address the ‘Elephant in the room’: topics requiring hard conversations and the array of clinical challenges for our teams and the women themselves.

We explored maternal obesity, smoking in pregnancy, family violence and long term contraception. The multidisciplinary groups explored the barriers as a service and individual, how we can support the individual to make sound choices and how Maternity Services can make a difference.

Slotted in throughout the day were fun quality quizzes to test the attendee’s familiarity of the Annual Clinical Report, with a lovely luncheon allowing practitioners and speakers a more informal opportunity to exchange ideas and initiatives.

Overall, the day was a huge success with significant positive feedback received from those who attended. A new buzz of enthusiasm has again been generated around the Maternity Services Unit; we are looking forward to implementing the actions from the day, reaping the benefits they will bring us and to the birthing women of Hawke’s Bay.

**Social Media**

The Hawke’s Bay Maternity Facebook page was launched at the end of 2014 as a means for HBDHB Maternity Services to connect in a meaningful way with women and their families.

This social media venue was maintained daily by the Maternity Governance Team, primarily by the MQSP administrator. It has proven itself as a multipurpose tool for interactive consumer engagement, education and information sharing. New in 2016, was utilisation of the page for promoting breastfeeding and safe sleep awareness through The Big Latch and Safe Sleep Week consumer competitions.

**Maternity Governance Team Reporting & Publications**





The collection, reporting and analysis of maternity data was a key element and responsibility of the Maternity Governance Coordinator. The MGC reported to the large group of maternity unit clinicians initially on a weekly basis, moving to a comprehensive monthly bulletin style report during the second half of 2016. The demographics, outcomes and indications for interventions were demonstrated in these report with the purpose being to alert clinicians to areas of inappropriate or unsafe practice, to encourage reflection on practice, to learn from each other's practice and to alleviate harm to ourselves and our patients.

The statistical summary within the report identified the mode of birth and outcomes of the week's births highlighting significant data such as the postpartum haemorrhage rate, severe perineal tear occurrences and premature births, with additional information such as ethnicities, birth locations and the rationale behind elective Caesarean Sections and inductions of labour.

The Maternity Governance Coordinator also ensured the facility wide publication of all best practice recommendations that are established during our multidisciplinary case reviews and ensured these recommendations were visible for all to reflect on. Recommendations from clinical audits are also published in this way, along with changes to clinical practice, systems and processes.

Over the course of 2016, the MGC investigated around thirty adverse events related to clinical care and coordination each month, ranging from near misses to major consequences. Event resolution was shared as a summary in the bulletin and also published on a monthly basis in a separate more detailed event report disseminated across the service for shared learning and quarterly to allow for identification of trends.

### **MQSP Communication Board**

The Quality and Safety Communications Board was maintained on a regular basis during the year to provide a comprehensive range of information, reports and statistics to all clinicians that operate within the Hawke's Bay Maternity Service. The purpose of the board is to identify and showcases the work of the MCGG as well displaying all current audit and MQSP reports. The quality and safety communication board is specifically located in a central location to allow for optimal viewing by all clinicians that work within or visit maternity services.

### **Healthware Project**

Quality improvement work was undertaken by the MCG to upgrade the current electronic record system known as Healthware and the corresponding Labour & Birthing Summary documentation related to this. Weekly data reporting identified inaccuracies in both data presented on paper and data manually entered into the electronic record. Significant work was undertaken to simplify the format of the Labour & Birthing Summary while increasing capacity to capture vital information and prevent errors, along-side reworking the electronic system to ensure only plausible, accurate data be entered and stored.

### **Countdown Kids Hospital Appeal**

Amongst all of the quality improvement work undertaken by the MQSP team in 2016, a sizable amount of time was utilised early in 2016 to fundraise for the Countdown Kids Hospital Appeal, whom donate funds for equipment to the Women, Child and Youth Services.

Although this work commitment was not a direct quality initiative, the result creates donation of beneficial equipment improving patient care, quality and/or experiences and was a positive use of the MQSP Co-coordinator and administrator's time.

## Wound Infection Prevention Project

Four documents were finalised and implemented in 2016 around the Maternity Governance Team's Wound Care Prevention Project, began towards the end of 2015:

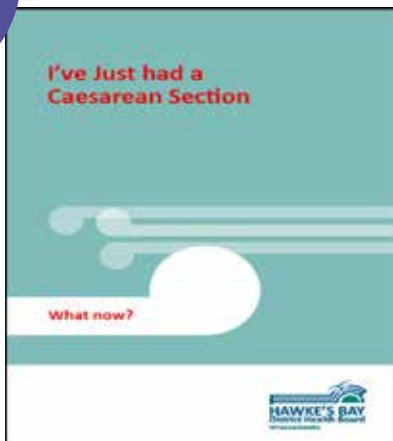
- Elective Caesarean Section Pre Admission Checklist
- Elective Caesarean Section Pre Admit Information for the Women Leaflet

Both pre admission lists are designed to trigger the clinician to provide education around several wound infection prevention methods, such as provision of pre-surgical chlorhexidine shower wash with instructions for correct use or advising women regarding pre-surgery pubic area waxing.



### “I’m Having a Caesarean” Patient Leaflet

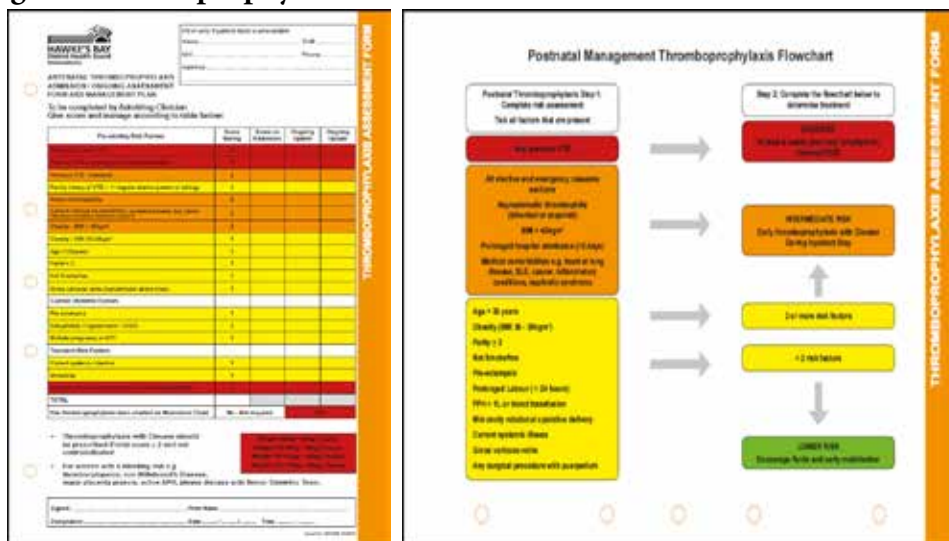
This leaflet is provided to all women as soon as an Elective Caesarean Section is planned. The contents provide clear information around Caesarean Section preparation in relation to wound infection prevention.



**“I’ve just had a Caesarean Section” Patient Leaflet**

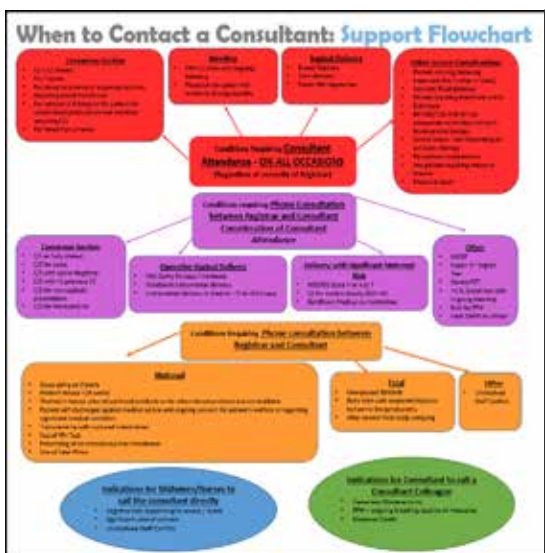
This leaflet is provided to all women who have had an elective or emergency Caesarean Section, providing post-surgical information and education for wound care, safe exercise, lifting for instance.

**Streamlining of Thromboprophylaxis Assessments**



This small quality initiative was initiated by one of the obstetricians who had utilised a similar form in a former work place. She felt there was a need to standardise assessment for thromboprophylaxis and streamline management of antenatal and inpatient requirements. The double-sided form allows the identification of pre-existing risk factors, prescribing doses and postnatal management. The colour coding used on the form simplifies the assessment process and ensures that women with multiple risk factors are recognised and prophylactically managed accordingly. The form has been embraced by the obstetric medical team and is well utilised, particularly in the antenatal clinic setting.

**Face to Face Consultant Consultation Flowchart Document**

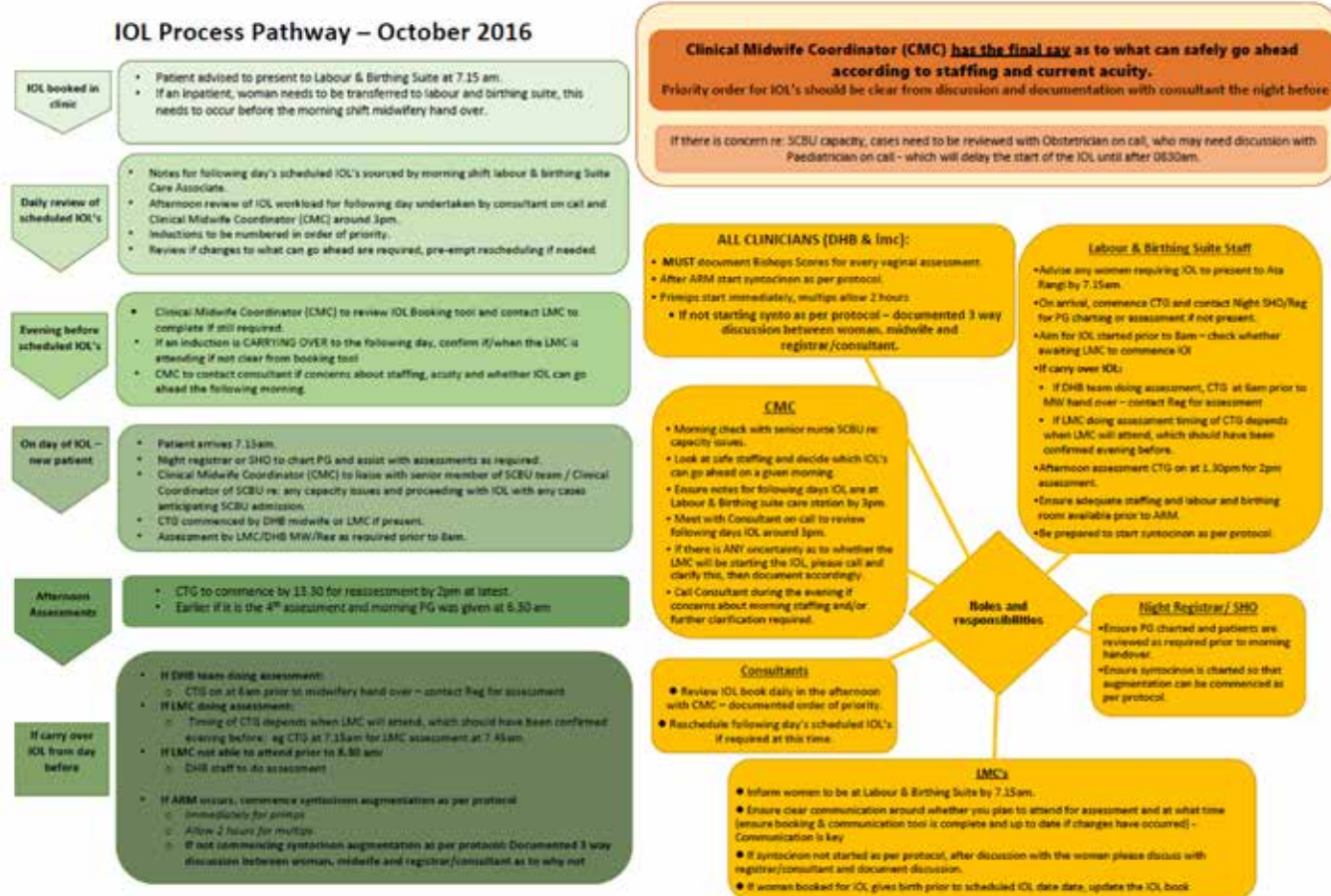


Early in 2016 the Maternity Governance Coordinator undertook a collaborative project with the team of seven obstetric specialists to gain a consensus and create a supporting document that identifies the appropriate clinical scenarios when a face to face consultant level consultation is mandatory as opposed to a telephone consult or a Register level decision. Extensive discussion occurred amongst the consultants, until a unanimous consensus was reached around which potential acute clinical scenarios warranted each level of support. The flowchart is displayed extensively around the unit and is referred to when acute situations present themselves. Since the implementation of this flowchart tool, there have been no clinical event reports logged around lack of consultant level presence when requested. The tool is also a useful quick guide for the face to face attendance expectations of locum consultants who work in our unit from time to time.

## Induction of Labour Efficiency Pathway

Another quality improvement project implemented by the Maternity Governance Coordinator was the Induction of Labour Efficiency Process. This initiative involved the collaboration of the Maternity Governance Coordinator, the team of clinical midwife coordinators and one of the obstetric consultants who has a strong passion for quality improvement. The project involved changes to the Induction of labour (IOL) process to improve efficiency and create consistency for all women, whānau and clinicians. A new pathway was developed to streamline several processes in response to an Induction of Labour clinical audit earlier in the year that indicated several causes of delay. It is hoped that by streamlining the process and creating consistency, we will be able to:

- Improve outcomes, in particular reduce the post-partum hemorrhage rate
- Allow for appropriate staffing and management of workload in the secondary care unit
- Improve the patient journey by being able to provide a more woman focused and defined agreed plan for induction.



At the time of writing this report the IOL efficiency process is in the midst of a six month trial, with review and appropriate changes to the IOL policy to come later in 2017. It is hoped that from an LMC perspective the IOL efficiency pathway will support LMC's to be involved in the elements of midwifery care provision that they so choose, and facilitate them to be actively involved at all or any stage of the process. Fundamentally, the trial process has removed the requirement to await the medical handover in the morning and allows for more consistently timed assessments.







# HAWKE'S BAY MATERNITY SERVICES ACTIONS





# Hawke's Bay Maternity Services Actions

Throughout 2016 the MQSP has achieved many of the planned deliverables that were outlined in the 2015 Maternity Service Report. Some of the planned actions will continue to be achieved and rolled out throughout 2017 and more have been planned.

This chapter is divided into two tables. The first identifies the planned deliverables that were outlined to be achieved by the end of 2016, demonstrating progress made and current status of each planned action. The table also reveals planned actions that continue to be ongoing and our planned actions are to address these over the coming year.

The second table illustrates the actions or deliverables for 2017 and our methods and initiatives towards achieving the 'excellence status' in the MQSP programme.

## Actions for completion in 2016 and Current Status

Planned Action for 2016	Progress in 2016	Status at end of 2016
Increase the overall percentage of women in Hawke's Bay who register with a Lead Maternity Carer before 12 weeks of pregnancy to 80% (national target) through targeted work with Women, GPs, Practice Nurses and Pharmacists	<ul style="list-style-type: none"> <li>Continued progress with the concept pilot project undertaken in 2015.</li> </ul>	Completed
	<ul style="list-style-type: none"> <li>Developed a sustainable project to ensure that the registration date data being collected is accurate and then annotated correctly.</li> </ul>	Completed
	<ul style="list-style-type: none"> <li>Increased numbers of women using the Napier Maternity Resource Centre as a one stop shop for registration.</li> </ul>	Completed with increasing numbers evident
	<ul style="list-style-type: none"> <li>Ongoing promotion of the find your midwife website throughout 2015 via our website and community Facebook page.</li> </ul>	Completed
Integrate the National Gestational Diabetes Mellitus into standard practice for Hawke's Bay Clinicians	<ul style="list-style-type: none"> <li>Establish the Clinical Midwife Specialist Diabetes role</li> <li>Audit current service delivery against national guideline</li> </ul>	Position starts Jan 17 Audit TOR completed and to start Jan 17
Establish a postdates assessment care pathway and a specific postdates clinic (virtual clinic also proposed)	<ul style="list-style-type: none"> <li>IOL process pathway inclusive of postdates completed and trialed from October 2016</li> </ul>	Completed
	<ul style="list-style-type: none"> <li>Majority of postdates referrals are seen in a Friday antenatal clinic</li> </ul>	Completed
	<ul style="list-style-type: none"> <li>Virtual clinics remain a work in progress</li> </ul>	Ongoing
Introduce consultant presence at full dilatation Caesarean Sections unless registrar is fully credentialed in order to reduce the Caesarean Sections rate.	<ul style="list-style-type: none"> <li>Face to face consultant consultation flowchart devised and published for use mid 2016</li> </ul>	Completed
	<ul style="list-style-type: none"> <li>Significant reduction in event reporting due to lack of consultant level presence when requested</li> </ul>	Completed
	<ul style="list-style-type: none"> <li>This tool also supports locum consultants awareness and expectations</li> </ul>	Completed

Create a Maternity Resource Centre in Central Hawke's Bay	<ul style="list-style-type: none"> <li>A decision was made to progress this in 2017 due to opening Waioha</li> </ul>	Ongoing
Adoption of the Auckland Induction of Labour Consensus Guideline by HBDHB	<ul style="list-style-type: none"> <li>Key elements of this consensus guideline have influenced the IOL process pathway</li> <li>Updating current policy has been deferred to 2017</li> </ul>	Completed Ongoing
Increase the percentage of normal births to over 70% within the next 10 years and Decrease the intervention rate in labour to less than 20% within the next 10 years.	<ul style="list-style-type: none"> <li>Waioha alongside primary birthing centre opened July 2016</li> <li>Data collection for first 6 months (Jul-Dec 16) demonstrate increases in SVBs (particularly standard primips) and a decrease in caesarean sections</li> <li>Full one year report to go to Board in September 2017</li> </ul>	Completed Completed Ongoing
Online Consumer Survey	<ul style="list-style-type: none"> <li>We have increased promotion of the online survey's for Ata Rangi and Waioha via local community Facebook pages.</li> <li>Redesigned promotional material to improve the access details to the survey on all promotional platforms.</li> <li>We have provided patients with access to a laptop on the postnatal ward so they can complete the survey before discharge.</li> </ul>	Completed and ongoing promotion Completed Completed
Consumer collaboration project	<ul style="list-style-type: none"> <li>As discussed in the MCGG section 2 Consumer Forums were held in 2016. There has been strong promotion from our Consumer Members, to have themselves known in the community</li> <li>Increased visibility and posting on social media sites</li> <li>Website refresh of current maternity pages</li> </ul>	Completed Completed Completed
Improve Data Capture	<ul style="list-style-type: none"> <li>Vacancies in IT/IS have delayed capabilities to progress this project for maternity</li> </ul>	Ongoing
Commence multidisciplinary SGA project to ensure all babies are identified and appropriate actions are taken	<ul style="list-style-type: none"> <li>Improve access to GROW application to improve identification antenatally</li> <li>Introduce Birthweight centile charting at birth to identify SGA babies</li> <li>Update SGA guideline to support best practice management of SGA babies</li> </ul>	Ongoing Commenced July 16 Completed Oct 16

## Planned Actions for 2017 Onwards

Planned Actions for 2017	Proposed Methods/ Initiatives
Early Engagement with a midwife Campaign	<ul style="list-style-type: none"> <li>• Roll out public campaign of “top 5 for my baby to thrive”</li> <li>• Working in partnership with GP, LMC’s and Smokefree team to ensure message received and responded to by key primary practitioners involved in confirming pregnancy – revisiting GP’s to provide resources, affirm messaging and offer ongoing support</li> <li>• Provision of pull up banners at CHB, Napier and Wairoa Health Centres with resources.</li> <li>• Visibility and support of Napier Maternity Resource Centre as drop in for pregnancy testing and finding a midwife.</li> <li>• Plan to establish a maternity resource centre in Central Hawke’s Bay (presentation to Health and Social Care Localities group 5/9/17).</li> </ul>
Re-development of a women centric maternal mental health pathway across primary/secondary landscape	<ul style="list-style-type: none"> <li>• Establish a key stakeholder group inclusive of community based agencies, primary and secondary MH services, WCPs, LMC, NZCOM, Consumers, Quality improvement and advisor, GP’s and O&amp;G.</li> <li>• Use Taranaki diagnostic referral pathway as a tool to support and initiate discussion.</li> <li>• Identify works streams, work plan and timeline</li> </ul>
Your Birth, Your Power – changing birth culture initiative	<ul style="list-style-type: none"> <li>• Establish project midwife and project team.</li> <li>• Identification of work plan and timeline.</li> <li>• Develop consumer and clinician healthy birth pathway resources.</li> </ul>
Introduction of Obstetric Anal Sphincter Injury Care Bundle	<ul style="list-style-type: none"> <li>• Midwifery Educator to establish education plan to include 4 steps of OASI bundle.</li> <li>• Engagement and socialisation of OASI bundle to all maternity care professionals.</li> <li>• Partnership with O&amp;G, LMC’s and DHB midwives as multi-disciplinary engagement required to support implementation.</li> </ul>

# Hawke's Bay Maternity Services Response to National Initiatives

## Our Response to the NMMG 2016 Annual Report Recommendations

### Response 1: Rise of Eclampsia

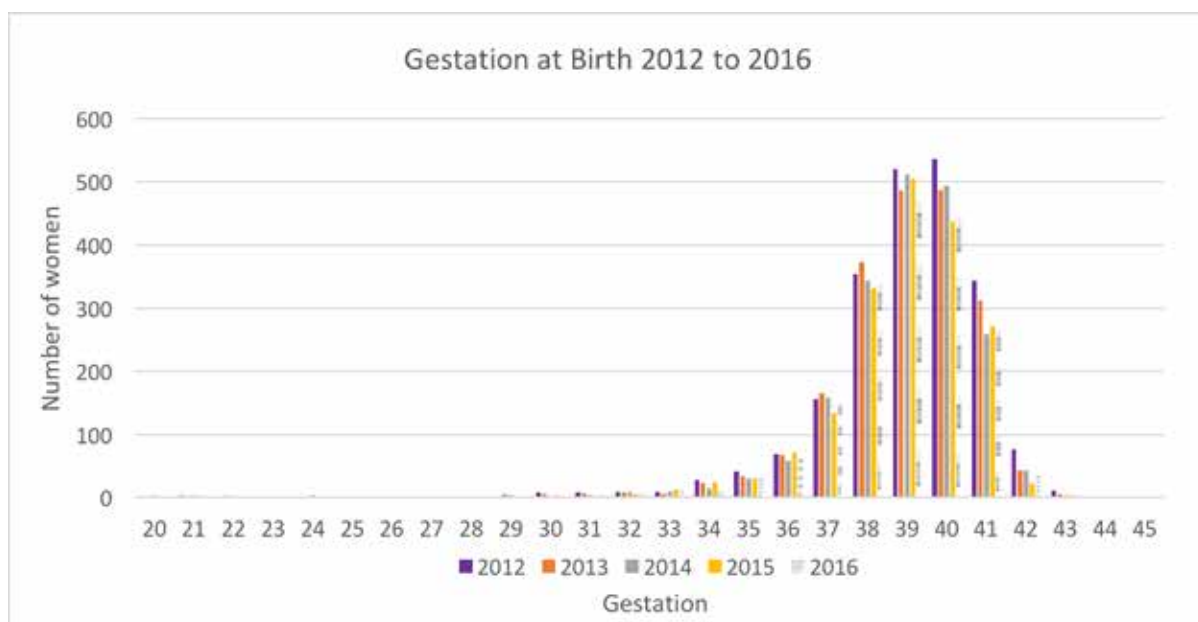
- Hawke's Bay DHB has no recorded incidences of eclampsia since collation of national data in 2012 and remain at 0% for 2016 clinical indicator data
- As per guideline/policy requirements our Hypertension guideline has been updated and awaiting the National Hypertension guideline

### Response 2: Screening, diagnosis and management of diabetes:

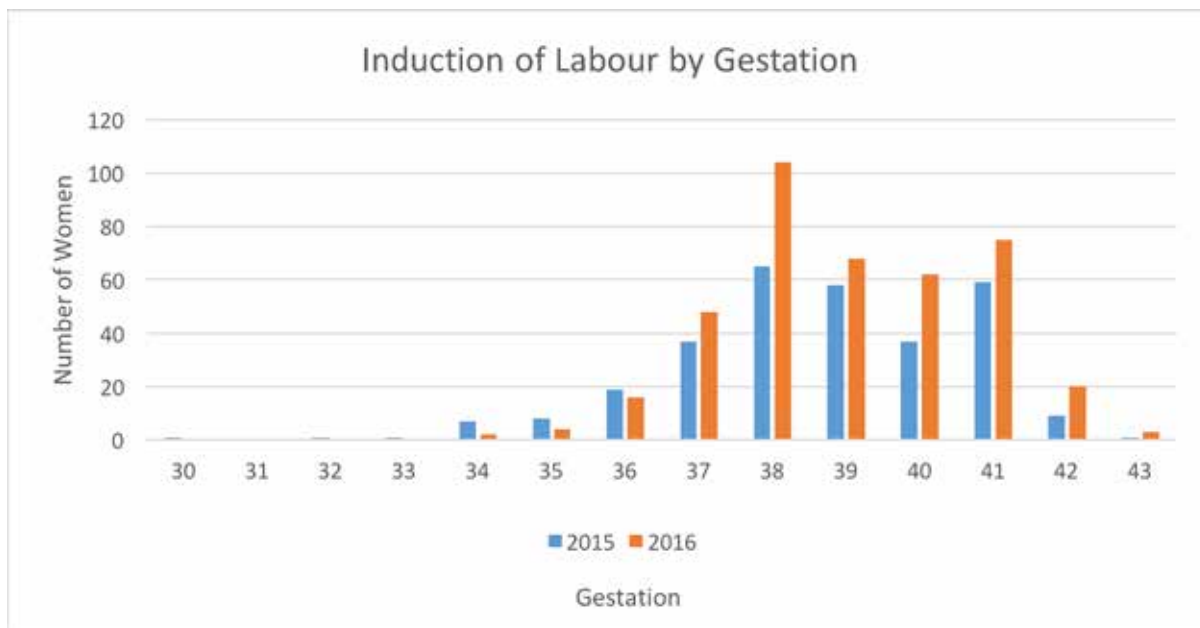
#### Has your DHB amended its gestational diabetes guidelines to align to the new national guidance?

- Yes our guidelines in relation to the management of diabetes during pregnancy, labour and birth and postpartum have all been updated in line with the national GDM guideline

#### Have these changes made an impact on the number of early inductions performed in your DHB and/or resulted in a rise in gestational age at birth?

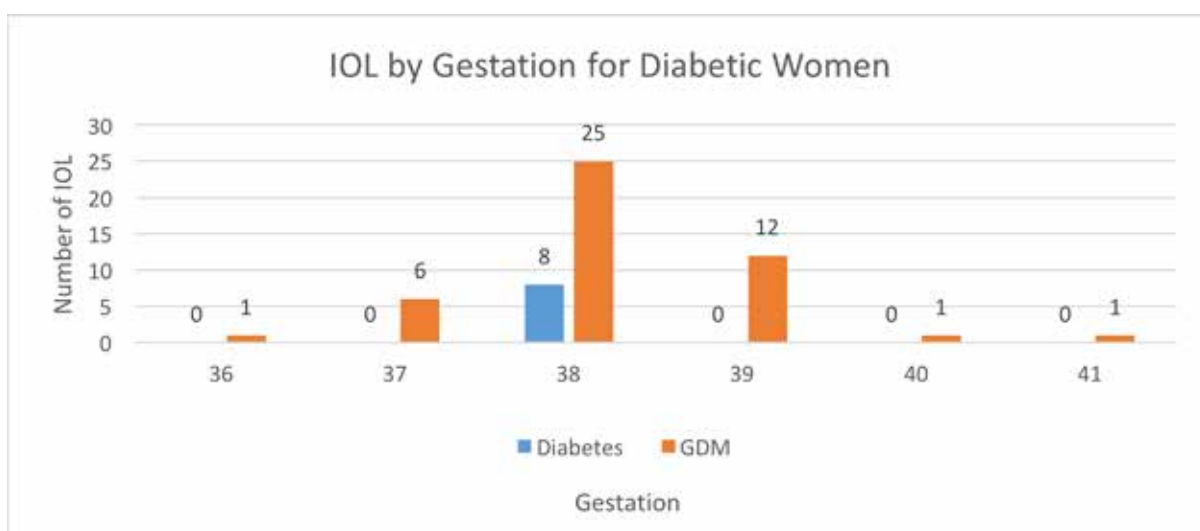


The above graph depicts the gestation at birth figures from 2012 to 2016. When comparing 2016 data with 2015 we can see that we have seen a rise in gestation at birth at 38, 40, 41 and 42 weeks. According to the graph 2012 saw the most positive gestation of birth outcomes, with the highest amount overall above 39 weeks gestation, however there were 216 more births that occurred in 2012 in comparison to 2016.



In 2015 there were 303 inductions of labour, with highest percentage (75.57%) of these occurring over 38 week's gestation. In 2016 there was a significant rise in inductions of labour with an overall of 402 occurring, however with an even higher percentage (82.58%) of these occurring over 38 weeks gestation.

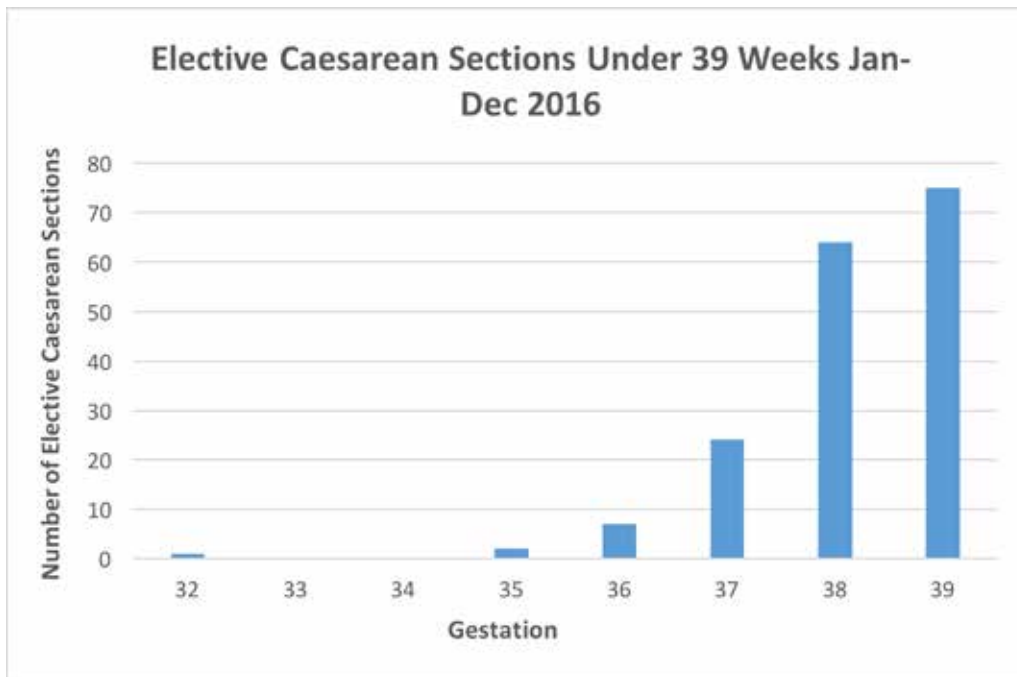
Of those women who were induced in 2015, 8 had diabetes (type 1 or 2) and 27 had gestational diabetes mellitus. In 2016 the same number of women (8) who had diabetes and were induced, however significantly more women who were induced had GDM (46).



As demonstrated in the above graph, the highest number of women with diabetes or GDM are being induced at 38 weeks gestation, in accordance with our new gestational diabetes guidelines.

### Response 3: Elective Caesarean Sections:

In 2016, 173 births were planned elective caesarean sections under 39 week's gestation. As shown in the graph below the majority occurred at 38 and 39 weeks gestation (139/173), however it is questionable as to why 24 of these planned elective caesareans have occurred at 37 weeks gestation and what the reasons were for the 3 that occurred under 35 weeks gestation. An audit is currently being undertaken on elective caesarean sections which will provide information on the reasons for these early elective Caesarean sections and an opportunity to review our current clinical decision making pathways.



### Response 4: Long-acting reversible contraceptives

**Please could you tell us if/what postnatal LARC is offered to women in your DHB? Is your DHB undertaking any work to improve access to postnatal LARC and how are you facing the cost/ equity barriers?**

- Currently those women with identifiable factors that would benefit from postnatal LARC are offered insertion of a Jadelle prior to discharge. The cost of this is un-resourced and significant but the benefits for the woman are considered paramount.
- Maternity services have supported attendance at training workshops to gain certification to insert Jadelle's to better support access to LARC on the postnatal ward for our midwifery, nursing and medical workforce. Currently working in partnership with our Public Health nurses to come and also provide LARC services in maternity services prior to discharge
- A significant barrier is the funding for LARC currently sits in primary care and access to this for our low-income whānau is extremely limited due to cost of attending general practice and the reasons why they may not already go to their GP. It would be highly beneficial if a programme that was able to be funded and commenced in the immediate postnatal period was available for DHB's to support primary care in the provision of contraception to often our most hard to 'reach'.



# Perinatal and Maternity Mortality Review Committee (PMMRC)

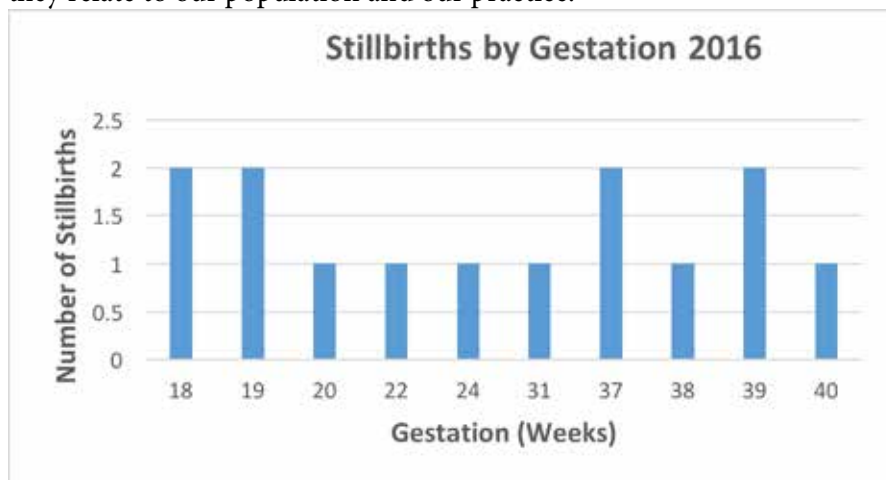
Hawke's Bay contributes to the national database providing information and influencing recommendations for practice through the yearly PMMRC reports. The PMMRC is a forum for the combined Maternity and Paediatric Service to review all of the stillbirths greater than 20 weeks and any neonatal deaths prior to 42 within a multidisciplinary forum. The forum held on a bi-monthly basis and is led by Obstetricians Dr. Croft and Dr. Gaerty.

The forum focuses around the PMMRC meeting which has been renamed the Perinatal Education meeting in 2016 and has been actively advertised to appropriate staff to aim to increase attendance. Presentations in this protected quality assurance multidisciplinary environment allows robust discussion around contributing factors to adverse outcome. Recommendations are made where possible regarding systems changes and plans for the woman and any future pregnancy which can then be discussed with her at her follow up appointment. After the meeting closes, the presented cases are classified by a small group including obstetricians, neonatologist and midwives. The classifications and findings of case discussion are sent to the National Perinatal Maternal Research Committee.

2016 saw the expansion of the meeting to include more neonatal and maternal morbidity cases. This has enabled us to maximise the opportunity for multidisciplinary discussion, widen learning opportunities and create greater dissemination of recommendations and changes to practice that result from the multidisciplinary adverse event case reviews, led by the Maternity Governance Team.

Our meetings are perceived as highly valuable and have good attendance from all DHB staff, obstetric and neonatology. Our local radiology providers are invited to attend as are other specialties depending on the cases presented. The attendance from our LMC community has been noted to be less than in the past and increasing, this will be a focus for the meeting in 2017.

We used the Perinatal Education meeting as an opportunity to present the summary of recommendations of the 10<sup>th</sup> Annual PMMRC, and the individual unit feedback from the Severe Acute Morbidity & Mortality committee to allow discussion of these recommendations and how they relate to our population and our practice.



As demonstrated in the graph above, amongst our HBDHB women 14 stillbirths occurred in 2016. 8 occurred under 31 weeks gestation and 6 occurred between 37-40 weeks gestation.

# Our Response and Update to the Perinatal Mortality and Morbidity Review Committee Report 2016

<b>PERINATAL MORTALITY</b>	
<p><b>1).</b> That all maternity care providers identify women with modifiable risk factors for perinatal related death and work individually and collectively to address these. Strategies to address modifiable risk factors include:</p>	
<b>Pre-pregnancy care for known medical disease</b>	This work is the focus of the primary care sector
Napier Maternity Resource Centre	<p>Now opened for three years with two key objectives:            Support early engagement with a midwife; particularly for our young Māori women</p> <p style="padding-left: 40px;">1) Provide an out of hours assessment hub to support closer to home assessments</p> <p>2016 report continues to demonstrate an increase in usage of the centre and meeting the two key objectives. This report is found in Chapter six of the report.</p>
Early Engagement with a LMC Midwife	This quality initiative has moved on to it's final phase with the development of public messaging and resource to support awareness of the importance of engagement with a midwife. This campaign is titled Top 5 for my baby to Thrive and will be rolled out into the community in early 2017
Access to antenatal care - Transport Go Well Travel Plan - HB Maternity Web Page Info	<p>- The Go Well Travel Plan has significantly improved access for consumers to the hospital site and the increase in bus routes supporting free travel with an outpatient appointment card has also seen improved engagement from our most vulnerable</p> <p>- A newly launched health website meant an opportunity to upgrade and refresh maternity pages making it a far more 'go to' place for information</p>
Accurate height and weight measurement in pregnancy, with advice on ideal weight gain	As part of improving capture of this information following on from the utilisation of the MOH resources, a triage booking team review all referrals for bookings and ensure all information is captured prior to entering into the IS system – this has seen a gradual improvement in the recording of BMI
Prevention and appropriate management of multiple pregnancy	Update of our current guideline has occurred in 2016

Smoking Cessation	A strong focus continues on smokefree pregnancies with the incentivised pregnancy smokefree programme extending to include whānau members. Our clinical indicator information is demonstrating how challenging it is proving to make significant change in this space
Antenatal recognition and management of fetal growth restriction	3.3% of babies born in Hawke's Bay are small for gestational age. Our current practice is that all women referred to ANC must have a customised grow chart and there has also been introduction of the Birthweight centile which has then further identified unrecognised SGA babies. This is demonstrating a significant increase in resource requirement both in terms of hypoglycaemic recognition and management and staffing demand
Prevention of preterm birth and management of threatened preterm labour (PTL)	We continue to follow our robust clinical guideline supporting evidence based management of threatened PTL with a planned re-audit in 2017
Following evidence-based recommendations for indications for induction of labour (IOL)	The development of a comprehensive referral form highlighting indications for induction and a consultant sign off process if the reason is outside these indications, has been introduced this year to better support decision making and reasons for IOL
All DHB's should report the availability and uptake of relevant services in their annual clinical report	Our 2016 maternity report provides this information
<b>2). Offer education to all clinicians so they are proficient at screening women, and are aware of local services and pathways to care, for the following:</b>	
Family Violence	Training for Family Violence is tailored to maternity and offered free to all maternity professionals inclusive of our LMC workforce. Our screening rates sit around 53% and work continues to support improved screening rates by maternity and LMC colleagues
Smoking	Clinicians are provided education that will assist them to support women and whānau to become smokefree on an annual basis within the maternity refresher training, on an elective basis through the Innov8 Te Hāpu Ora education programme and online as part of the ABC programme. The maternal and child health smokefree coordinator role continues to support education on a 1:1 or group basis as well as other interrelated quality initiatives

Alcohol and other substance abuse	Hawke's Bay DHB is currently involved in writing the national alcohol strategy; in particular fetal alcohol spectrum disorder policy. 2016 offered training opportunities for all clinicians on healthy conversations and screening questions in relation to alcohol intake, frequency and what this means for babies
<b>3).</b> That multi-disciplinary fetal surveillance training be mandatory for all clinicians involved in intrapartum care:	
This training includes risk assessment for mothers and babies throughout pregnancy as well as intrapartum observations	The multi-professional PROMPT training continues to be coordinated across the central region with opportunities for all clinicians to attend throughout the year. It is a mandatory requirement for all DHB maternity employees to attend PROMPT on an annual basis to support improved responses to obstetric emergencies
<b>4).</b> The PMMRC recommends that assessment of fetal growth incorporate a range of strategies including:	
Assessment and appropriate referral for risk factors for fetal growth restriction at first antenatal visit and throughout pregnancy. Accurate measurement of maternal height and weight at first antenatal visit. Ongoing assessment and plotting of fetal growth by measuring fundal-symphysial height in a standardised way.	It is a requirement that all women referred to ANC and for acute assessment have a GROW chart commenced. Compliance to this has improved although a significant number are completed by the ANC DHB midwives. As mentioned previously an ongoing focus on ensuring Height, Weight and BMI are calculated at booking is ongoing. The teaching video of a standardise approach to symphyial fundal height measurement from AUT has been made available to all clinicians to support a uniform approach
<b>MATERNAL MORTALITY</b>	
<b>1).</b> Seasonal or pandemic influenza vaccination is recommended for all pregnant women regardless of gestation, and for women planning to be pregnant during influenza season:	
Vaccination is also recommended for maternity care providers to reduce the risk to the women and babies under their care	HBDHB continues to run its flu vaccination programme for all DHB employees, contractors and LMCs with an improved uptake evident in 2016. The immunisation team continue to run an imm clinic alongside the high risk ANC for women to access both the flu vaccine and Boostrix
<b>2).</b> All pregnant women with epilepsy on medication should be referred to a physician:	
Women with a new diagnosis of epilepsy or a change in seizure frequency should be referred urgently	This is standard practice at HBDHB with all women with a history of epilepsy, a new diagnosis of epilepsy or a change in seizure frequency being referred to our endocrinologist who sits as part of our weekly multidisciplinary clinic. A clear care plan is adhered to appropriately.

### NEONATAL ENCEPHALOPATHY

**1).** Widespread multidisciplinary education is required on the recognition of neonatal encephalopathy with a particular emphasis on babies with evidence of intrapartum asphyxia (babies who required resuscitation at birth) for all providers of care of babies in the immediate postpartum period:

<p>Recognition of babies at increased risk by their history, signs suggestive of encephalopathy, knowledge of clinical pathways to induced cooling if required</p>	<p>Any cases where NE is suspected are reviewed individually and opportunity taken during PMMRC meetings to educate and discuss as a multidisciplinary team. Hawke's Bay DHB has representation attending the NE project work occurring through ACC to better support prevention of NE through education, clinical practice and policy writing</p>
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**2).** That all DHBs review local incident cases of neonatal encephalopathy:

<p>The findings of these reviews should be shared at a multidisciplinary local forum and form the basis of quality improvement activities as appropriate</p>	<p>All cases of NE are reviewed by a multidisciplinary team in a timely manner to identify areas of learning and recommendations for future practice. The implementations of these recommendations are monitored by the Maternity Clinical Governance group. The reviews and their recommendations are shared at the PMMRC which runs on a bi-monthly basis and is well attended by a multidisciplinary range of clinicians</p>
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# Appendix

<b>MATERNITY CLINICAL GOVERNANCE GROUP</b> <b>Terms of Reference</b> <b>May 2017</b>	
<b>Purpose</b>	<p>The purpose of the Maternity Clinical Governance Group is to provide a consultative and directive forum, inform strategic direction and contribute to maternity annual plan for managing quality and safety across maternity services, and to ensure coherence across the quality activities</p> <p>The delivery of healthcare will always involve a degree of risk. The Hawke’s Bay District Health Board (HBDHB) recognises that it is necessary to identify, assess, prioritise and manage risks appropriately. The maternity service is committed to being proactive to achieve an integrated system of governance focusing on continuous improvement in quality and in the control of risk.</p> <p>A transparent and effective shared communication and decision-making process will ensure an intentional and responsive approach to advancing maternity practice, to better meet the needs of the community we serve.</p>
<b>Functions</b>	<p>The Maternity Clinical Governance Group functions are to:</p> <ul style="list-style-type: none"> <li>• Align the maternity services with the needs of the community through consumer feedback and provide oversight to clinical quality and patient safety</li> <li>• Ensure maternity services are culturally safe</li> <li>• Ensure the National Maternity Standards are embedded in local practice</li> <li>• Review clinical indicators data and identify quality improvement activities arising from local variances from the national average</li> <li>• To promote and actively support risk management processes, procedures and techniques across the maternity service.</li> <li>• To share the work of the MCGG so individuals in the maternity service are aware of their responsibility for contributing to quality and safety and support them to work in a way that actively embraces that responsibility.</li> <li>• To review incident data via HBDHB electronic incident reporting system and the maternity service incident trigger list and encourage an open and learning culture to support their use.</li> <li>• To identify trends and remedial actions highlighted from risk identification tools and ensure lessons are learned to prevent future occurrence.</li> </ul>



	<ul style="list-style-type: none"> <li>• To discuss and review significant incidents and near misses, identifying trends and reviewing systems and practice where appropriate</li> <li>• To examine antenatal, intrapartum and postnatal care wherever this has an impact on quality and safety including case reviews.</li> <li>• To ensure that explicit action plans are developed from investigations that are subject to ongoing review and ensure the improvement process is completed.</li> <li>• To communicate changes and developments from quality and safety management via various media e.g. staff meetings, LMC/DHB meetings, Consultant and medical staff meetings and NZCOM meetings.</li> <li>• To encourage safe, evidence based practice by the provision of comprehensive multidisciplinary guidelines, in a format specified by the HBDHB policy for the development, ratification and management of procedural documents. The multidisciplinary team on the Maternity Governance Group will ratify the guidelines after the process of consultation and feedback is complete.</li> <li>• Review compliance with the guidelines as part of the annual maternity audit programme</li> <li>• To review benchmarking and action plans of National or International documents relevant to the maternity service within a year of publication.</li> <li>• To review and ratify patient information leaflets relevant to the maternity service</li> <li>• To review audits and action plans, complaints, legal cases – ongoing or settled and those pending Coroner’s inquests</li> <li>• To look at audits with the view of disparity between Māori, Pacific Islanders and the rest of the population</li> <li>• To identify new training needs.</li> <li>• To review the Maternity Risk Register quarterly.</li> </ul>
<b>Level of Authority</b>	<p>The Maternity Clinical Governance Group level of authority is:</p> <ul style="list-style-type: none"> <li>• To approve all maternity service clinical guidelines and policies</li> <li>• To govern clinical practice recommendations</li> <li>• To govern the sharing of learning from adverse events</li> </ul>
<b>Membership</b>	<p><b>Core Members</b></p> <ul style="list-style-type: none"> <li>• Midwifery Director (Chairperson)</li> <li>• Midwifery Educator (deputy chair)</li> <li>• Medical Director Community, Women and Children (CWC)</li> <li>• Obstetric and Gynaecology Consultants</li> <li>• Obstetric Anaesthetist Consultants</li> <li>• Māori Representative/Nga Maia representatives</li> <li>• New Zealand College of Midwives representative</li> <li>• LMC representative</li> <li>• DHB core midwife representatives</li> <li>• Rural midwife representative (Virtual)</li> <li>• Maternity Consumers</li> </ul>

	<p><b>Co-opted Membership</b> Various individuals that are appropriate to the key items for discussion per agenda</p> <p>Length of elected tenure is 3 yearly. The re-nomination and re-election process occurs 2 months before the end of tenure.</p> <p>Cover for extended leave is at the discretion of the group Process:</p> <p>All members for re-election will receive notice and an opportunity to put forward further Expressions of Interest (EOI).</p> <p>A 2 week EOI will run with the Chair and Deputy Chair short listing and interviewing prospective new candidates.</p> <p>Where there is more than 1 nomination for a position an interview process will occur</p>
<p><b>Operational Matters</b></p>	<p><b>Meetings</b> Usual meeting procedure is to be followed for all meetings</p> <ul style="list-style-type: none"> <li>• Agenda items are submitted one week prior to the meeting</li> <li>• Minutes will record issues, decisions and actions only</li> </ul> <p><b>Frequency</b> The Maternity Clinical Governance Group will meet bi-monthly with frequency reviewed annually The Maternity Clinical Governance Group will review the membership of the Group annually to ensure it best reflects the requirements for discussing clinical related risk issues. Individuals may be co-opted for specific projects or to provide specialist knowledge</p> <p><b>Apologies</b> Apologies must be communicated to the chair or MCGG administrative support in advance of the meeting</p> <p><b>Quorum</b> A quorum will consist of not less than seven members of the Group.</p> <p><b>Conflicts of Interests</b> Conflicts of interests will be declared and discussed at the beginning of each meeting</p> <p><b>Decision Making</b></p> <ul style="list-style-type: none"> <li>• Where possible, decisions will be made by consensus</li> <li>• Where voting is required, decisions will require 70% agreement of the attendees. Each elected member has one vote. No proxy vote will be accepted. In the event of a hung vote the Chair will have the casting vote</li> <li>• Where decisions are required outside of meeting times this may occur via email, and/or additional meeting and will still require 70% agreement for a decision to be made</li> </ul>

	<p><b>Responsibilities of individuals of the Maternity Clinical Governance Group are to:</b></p> <ul style="list-style-type: none"> <li>• Prepare for meetings by reading papers/material sent in advance of meeting</li> <li>• Actively engage in discussion and decision-making processes</li> <li>• Contribute to the development of and provide feedback on documents received.</li> <li>• Role model the values of HBDHB</li> <li>• Abide by the decisions of the Maternity Clinical Governance Group</li> <li>• Ensure confidentiality of information provided to the Maternity Clinical Governance Group and disseminate relevant information and liaise with the work group the member is representing.</li> <li>• Fulfil the requirement to engage with subcommittees and relevant stakeholders, as and when necessary, with an expectation to provide feedback to the group</li> <li>• Ensure all learning and opportunities for service wide improvement are shared through relevant meetings, forums and emails</li> <li>• Ensure that assigned actions are followed through and reported on in the time frame agreed to</li> <li>• Members to attend at least 80% of meetings on an annual basis Attendance record is maintained and presented to the group annually</li> </ul>
<p><b>Agenda &amp; Minutes</b></p>	<ul style="list-style-type: none"> <li>• Agenda will be sent out three (3) working days prior to the meeting.</li> <li>• Minutes of each meeting shall be recorded and distributed promptly to each member of the team within one (1) week of the meeting</li> <li>• The minutes are permanently retained on file in a secure location</li> <li>• Administrative support will be made available for this purpose</li> <li>• A summary of the agenda, recommendations and actions from the meetings will be shared with the wider maternity provider community</li> </ul>
<p><b>Communication &amp; Reporting</b></p>	<ul style="list-style-type: none"> <li>• Agenda will be sent out three (3) working days prior to the meeting.</li> <li>• Minutes of each meeting shall be recorded and distributed promptly to each member of the team within one (1) week of the meeting</li> <li>• The minutes are permanently retained on file in a secure location</li> <li>• Administrative support will be made available for this purpose</li> <li>• A summary of the agenda, recommendations and actions from the meetings will be shared with the wider maternity provider community</li> <li>• Feedback to and from other relevant committees will occur as required</li> </ul>
<p><b>Review Period</b></p>	<ul style="list-style-type: none"> <li>• The Terms of Reference will be reviewed every 3 years or more frequently if required</li> </ul>



