HUTTmaternity

Hutt Valley Maternity Care

Maternity Services Annual Clinical Report 2016

www.huttmaternity.org.nz

HUTT VALLEY DHB

We would like to acknowledge the contribution of:

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- Chris Mallon, Director of Midwifery
- Debra Betts, Acupuncturist
- Eleanor Martin, Educator
- Elle Ratcliffe, Admin Support, MQSP
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- Hutt Valley DHB Primary & Community Midwives Team
- Hutt Valley DHB Lactation Consultant Services
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- Julia Small, National Immunisation Register
- Jodi Caughley, Planning, Strategy and Outcomes
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- Maternity Clinical Governance Group members
- Meera Sood, Clinical Head of Department, Obstetrics and Gynaecology
- Nicky Jackson, MQSP Co-ordinator
- Sandra Hoggarth, Newborn Hearing Screening
- Sarah Ashill, BirthEd
- Sharon Morse, Business Information Analyst, Hutt Valley DHB
- Stephen Vega, Smoke free DHB Coordinator
- Tracey Mancktelow, CYF Liaison
- Vida Rye, Clare Dulver and Megan Telfar-Yates, Consumer Representatives

Thank you to the staff and families who have so generously agreed to us using their photos in this publication.

All care has been taken in the production of this publication. Data was accurate at the time of release, but may be subject to change over time as more information is received. Huttmaternity welcomes comments and suggestions for future reporting.

Published by Hutt Valley DHB June 2017

Message from Maternity

In our 2016 Maternity Services Annual Clinical report, we are pleased to report on the progress of our Maternity Quality and Safety Programme (MQSP) as part of our commitment to providing high quality care to women and their whānau in our region.

The improvement in early registration with an LMC and collaboration with our regional District Health Boards (DHBs) has been satisfying. The interface with our primary providers has been augmented with our second 'Huttmaternity Expo' where we gathered maternity stakeholders across the region to provide networking and opportunities to discover the maternity services our DHB has to offer. This and other initiatives of this programme will be highlighted in this report.

We have successfully strengthened our consumer engagement with a group of dedicated women forming part of our governance group. Our consumers have a strong quality focus and a real commitment to improving primary birthing and to represent all groups in our maternity community.

We continue to look critically at our performance by placing our service in the context of others through the National Clinical Indicator results (Section Four). Alongside recommendations from the National Maternity Monitoring Group (NMMG) and self audit using the New Zealand Maternity Standards, we identify the areas of our service needing improvement. Our two-year plan reflects this with actions to meet our objectives (Appendix 2).

Driving the changes inspired by our Maternity Quality and Safety Programme has been challenging due to significant changes to senior management. However, successes in the 2016 programme and our future objectives, give us incentive to continue improving our services and to further embed Maternity Quality and Safety practices as "business as usual" in our DHB.

Chris Mallon, Director Of Midwifery

Karen Daniells, Clinical Midwifery Manager

Dr Meera Sood, Clinical Head of Department, Obstetrics and Gynaecology

Nicky Jackson, Quality Facilitator MQSP

Hutt Valley DHB Vision, Mission and Values

Our Vision

Whānau Ora ki Te Awakairangi

Healthy people, healthy families and healthy communities

Our Mission

Working together for health and well-being

We commit to work cooperatively, as an active part of the health sector and the Hutt Valley community.

Our Values

'Can do' - leading, innovating and acting courageously

Hutt Valley DHB leads the New Zealand health sector. We are committed to quality and innovating to improve the health of our people.

Working together with passion, energy and commitment

We are passionate about our work. We direct our energy to doing the best for our clients and the community.

Trust through openness, honesty, respect and integrity

We regard trust as essential to success. The people we serve must have confidence in us. We are open, honest, and respectful. We act with integrity.

Striving for excellence

We aim for excellence, individually and as an organisation. This commitment defines us, the services we provide, the way we work with each other and how we shape our systems.

HuttMaternity Vision

Everyday we come to work and
remind ourselves what is really important in life:

healthy babies
healthy mothers
healthy families
healthy communities

We help to create new families and the best
start for the next generation of New Zealanders.

HUTT maternity
Hutt Valley Maternity Care

Ia rangi haere ai tātou ki te mahi me te whakamahara ki
a tātou anō he aha te mea hira rawa o tēnei ao

He kōhungahunga hauora

He kōkā hauora

He whānau hauora

He hāpori hauora

Ko ta mātou mahi, he āwhina kia waihanga whānau
hou me te whakarite tīmatanga tino pai rawa atu mā te
reanga kei Aotearoa e haere ake nei.

HUTT maternity
Hutt Valley Maternity Care

Contents

Executive Summary

It is a privilege to present our fifth Maternity Services Annual Clinical report which outlines how we have risen to the challenge of Maternity Quality and Safety, and the workstreams undertaken in 2016. Each year we redefine and expand the information we report on to demonstrate an ever improving service.

In 2016 we moved forward with several work streams reflecting localised needs and with consideration to the priorities and recommendations from both the National Maternity Monitoring Group (NMMG) and the Perinatal and Maternal Mortality Review Committee (PMMRC). Our self audit identified Huttmaternity as on the 'established' tier of the Maternity Quality and Safety Programme (MQSP) framework.

We have delivered on a broad range of our MQSP objectives including promoting early engagement with a LMC with the '5 things' campaign. We have established a stronger consumer voice by elevating our consumer status and numbers within the MCGG and we have held our second networking maternity expo to improve intersectoral collaboration. We have also developed a robust structure for our document control, reviewed our lactation service and improved our uptake of flu vaccinations by offering maternity unit onsite vaccinations.

We are making good progress on our ongoing work including improving perineal care and we are pleased to see a reduction in our 3rd and 4th perineal trauma rate from our own 2016 clinical indicator data. Other ongoing initiatives include providing a primary birthing environment to promote primary birth, embedding our consumer feedback process by rolling out an online consumer survey, and completing our virtual birthing unit tour.

Our review of our 2016 clinical indicator data identifies our caesarean section rate, including our caesarean section rate under general anaesthetic, as key areas for investigation. A plan for the multi-disciplinary audit of our caesarean sections within an improvement methodology framework has been initiated. Other streams of work include improving the journey for women with high BMI's through our service and strengthening education around perinatal mental health.

The Huttmaternity team is to be congratulated on its admirable quality improvement performance despite considerable organisational re-structuring, data collection and stresses on the maternity service in 2016.

Chris Mallon
Director of Midwifery

Purpose

The purpose of the Huttmaternity Annual Clinical Report is to:

- Assess and report on our performance over the previous year.
- Provide information about the quality improvement work underway in the Hutt Valley area for women living and birthing in our district as well as the Maternity workforce.
- Provide the Ministry of Health with the contractually required information as set out in Section 2 of Maternity Quality Safety Programme (MQSP) Crown Funding Agreement Variation.
- Demonstrate self audit of the New Zealand Maternity Standards.
- Provide feedback to the NMMG on their recommendations.
- Benchmark against New Zealand Maternity Clinical Indicators.
- Document Huttmaternity's progress towards meeting the MQSP Work Plan objectives in 2016.
- Describe the work planned to improve the quality and safety of maternity services delivered in the 2017-2019 period.

Section One: About Hutt Valley District Health Board

Our Population

The Hutt Valley district is spread across 916 square kilometres, covering the Lower Hutt City and Upper Hutt City local authorities. For the 2016/17 years, Hutt Valley District Health Board had a projected population of around 144,550 people. With 17% of our population identifying as Māori (24,060), 8% as Pacific, and 11% as Asian. This is a slightly higher proportion in each of these groups compared to the national average (MOH 2016)[1]. Our Māori and Pacific populations are younger than average and have higher fertility rates and this is reflected in our birthing population (Maori 19.65%, Pacific 9.66%). There are recognised health disparities for several population groups due to accessibility, social determinants of health, cultural responsiveness, and current models of care. Women can find it hard to access services or to know how to manage their health if services are not culturally competent. We acknowledge our responsibility to design and deliver maternity services that are accessible and responsive to our population's needs, in line with the refreshed New Zealand Health Strategy.

1. http://www.health.govt.nz/new-zealand-health-system/my-dhb/hutt-valley-dhb/population-hutt-valley-dhb *Accessed 13 April 2017*

Quality - at the heart of what we do

Our District Health Board (DHB) continues to strive for the highest quality health and wellbeing services for our local population. We develop, review, and update our plans under the lens of the 'Triple Aim' - an international healthcare improvement strategy that outlines a plan for better healthcare systems by pursuing three aims: to improve our patients' experience of care; to improve health outcomes and equity for our people; to get the best value out of our allocated resources; and to build a thriving organisation.
Integration enables delivery of each of these aims. In New Zealand this policy has been adapted by the Health Quality & Safety Commission, who works alongside District Health Boards to support us in maintaining a strong quality improvement focus.

We have a strong, positive culture of continuously improving the quality and safety of the services we provide. Our quality goals are underpinned by working together at all levels of our DHB to achieve patient centred care, openness and transparency, learning from error or harm and ensuring that the contributions of staff for quality improvement and innovation are truly valued. Our clinical and corporate governance framework ensures that systems are in place to guarantee the Board, clinicians and

managers share responsibility, and are held accountable, for patient care and minimising risks whilst continuously monitoring and improving the quality of clinical care. Working together with our neighbouring DHBs is important to protect and develop the quality and safety of our services.

We would like to acknowledge the above information has been sourced from the Hutt Valley DHB Annual Plan 2016-17 and SOI.

Full copies of the Hutt Valley DHB Annual Plan 2016-17can be found at: http://www.huttvalleydhb.org.nz/content/286a32c2-bcfb-4cb8-bdd3-0b0c2e268040.html

Section Two: Maternity Service Configuration and Facilities

Maternity Services

The Hutt Valley DHB is the only birthing facility in the Hutt Valley and provides both primary and secondary care facilities for a largely urban population of approximately 144,300. Hutt Valley DHB supports approximately 1870 births per year. Our birthing population consists of NZ European 53.4%, Maori 19.6%, Asian 8.8%, Pacific Island 9.6% and Indian 6.3%.

Hutt Valley DHB has had a slight increase in the 2016 year; however, this rate was comparable to the mean average over the past five years. There has also been a slight increase in the number of non-delivery assessments in the Birthing Suite.

Our facilities include our Birthing Suite, Antenatal & Postnatal Unit, and a Maternity Assessment Unit. We also provide a community based midwifery service.

Table 1: Births in New Zealand and Hutt Valley DHB Facility

	2012	2013	2014	2015	2016
Births in NZ (NZ Statistics) [1]	61178	58717	57242	61038	59430
Births at Hutt Valley DHB	1982	1850	1791	1856	1871
% of all NZ births in Hutt	3.2%	3.1%	3.1%	3.0%	3.1%

LMC providers

In the Hutt Valley DHB region, women can choose a midwife or private obstetrician LMC. These practitioners have an access agreement to use the facilities. For women unable to access the services of a LMC midwife, the DHB Huttmaternity midwifery team provide this service. (There are no GPs practising obstetrics in the Hutt Valley).

LMC midwives: The DHB fluctuates between 35 and 45 LMC midwives; currently there are 36 community-based case-loading midwives with primary access agreements providing lead maternity care.

LMC private obstetricians: There are three LMC obstetricians (two of whom are also employed by the DHB). For women who choose a private obstetrician as their lead maternity carer, midwifery care is subcontracted either by the hospital and/or community-based midwives, or by private arrangement with LMC midwives.

Women requiring Secondary Care services as outlined in the Guidelines for Consultation and Referral (MOH 2012) are cared for by their LMC midwives with oversight from hospital obstetricians and either LMC midwives or our primary midwifery team.

1. http://www.stats.govt.nz/browse_for_stats/population/births/BirthsAndDeaths_HOTPYeDec16.aspx *Accessed 17th May 2017*

Workforce

In our midwifery workforce, there continues to be a reciprocal flow between those in LMC practice and those employed by our DHB. This enhances a collaborative working environment and develops important skill sets across the midwifery workforce.

Childbearing women have increasingly complex maternity needs including those associated with increasing rates of maternal diabetes (MOH 2014)[1], advanced maternal age (MOH 2015)[2] and elevated Body Mass Index (OECD 2014)[3]. The midwifery workforce and the models of care required to deliver accessible, appropriate services, need to be responsive to changing population needs and the high expectations consumers have for their maternity care. By strengthening the consumer voice within our service and assessing midwifery workloads more effectively with the TrendCare acuity tool, we hope to continuously develop more robust and responsive maternity services.

The maternity service includes the following clinical staff:

- Director of Operations, Surgical Women's and Children's
- Clinical Head of Department, (CHOD) Obstetrics and Gynaecology
- Director of Midwifery (DOM) 0.5 FTE
- Clinical Midwifery Manager (CMM) 1.0 FTE
- Associate Clinical Midwifery Managers – two (ACMM) 2.7 FTE
- Midwifery Educators (two) 1.0 FTE
- Lactation Specialists (two) 1.7FTE
- Obstetric and Gynaecology Consultants (six), Registrars (five), Senior House Officer (one)
- A core DHB employed team of approximately 54 midwives, 3 registered nurses, 2 enrolled nurses giving 27.0 FTE and 9 healthcare assistants 5.1 FTE.

Birthing Suite

Birthing Suite consists of eight birthing rooms and an acute assessment room. Each birthing room is fully equipped for labour and birth, including a neonatal resuscitation station and private bathroom facilities. The rooms have a large deep corner bath for water births.

Birthing suite is staffed by core midwives providing midwifery care for DHB primary and secondary care women, as well as those women under a private LMC obstetrician. The midwives provide emergency care 24 hours a day, seven days a week and support LMC midwives as required. Medical staff, consisting of a Consultant Obstetrician, Senior Registrar or House Officer are rostered to cover an on call system 24 hours a day. We aim to have more Senior Medical Officers to comprehensively to support our services.

1. *Ministry of Health 2014. Screening, Diagnosis and Management of Gestational Diabetes in New Zealand: A clinical practice guideline. Wellington: Ministry of Health. Pg. xvi*
2. *http://www.health.govt.nz/publication/report-maternity-2015 pg. 6 accessed 20 June 2017*
3. *OECD (2015), Health at a Glance 2015: OECD Indicators, OECD Publishing, Paris. DOI: http://dx.doi.org/10.1787/health_glance-2015-en pg. 74 accessed 20 June 2017*

Table 2: Births at Hutt Valley DHB Facility

	2012	2013	2014	2015	2016
Single Liveborn	1943	1813	1752	1823	1843
Single Stillborn	11	12	12	13	7
Twin Liveborn	28	25	27	20	22
Total births at facility	1982	1850	1791	1856	1871

Figure 1: Maternity Unit and Birthing Suite Maternity Assessments and Birth Events new figure one

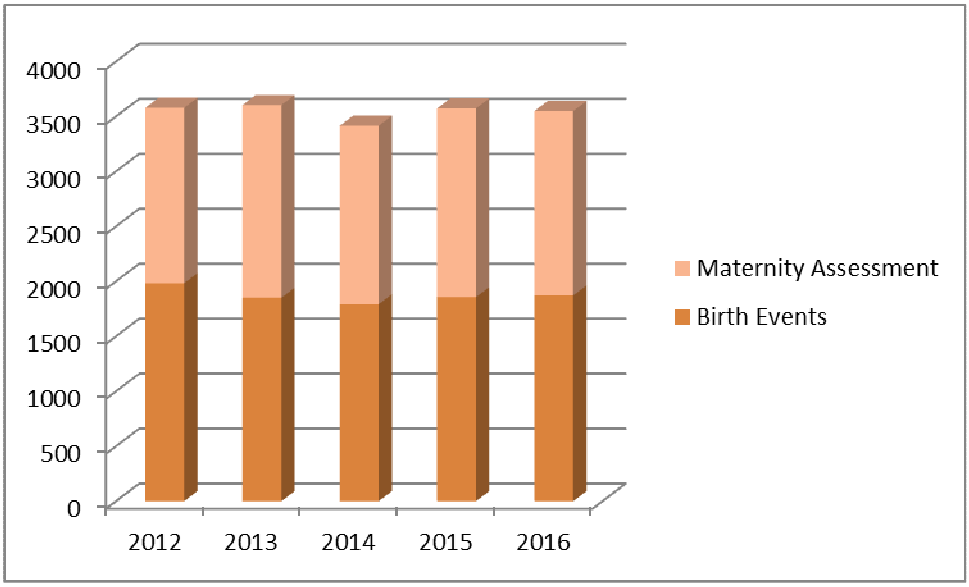


Table 3: Birthing Suite Events by Type

	2012	2013	2014	2015	2016
Birth Events	1982	1850	1791	1856	1871
Maternity Assessment	1596	1754	1624	1717	1678

Maternity Assessments are acute, non-delivery assessments in pregnancy, undertaken within the birthing unit environment. (These figures exclude Maternity assessments undertaken in the Maternity Assessment Unit on the ground floor).
The following tables/figures demonstrate Birth Events in Hutt Valley DHB Facilities by: Parity, Age, and Ethnicity.

Our analysis of the following data by Parity, Age and Ethnicity show little change in the demographic of the birthing population at Hutt Valley DHB. Of note is a decrease in the birth rate of women under 19 years of age with 82 women in this category in 2016 compared to 112 in 2015.
This is a reflection of national rates decreasing with 4 percent of the 59,430 births in 2016 being to teen mums, compared with 8 percent of births in 2008.[1]

1. http://www.stats.govt.nz/browse for stats/population/births/BirthsAndDeaths_MRYeDec16.aspx *Accessed 26 June 2017*

Figure 2: Births in Hutt Valley DHB Facility by Parity

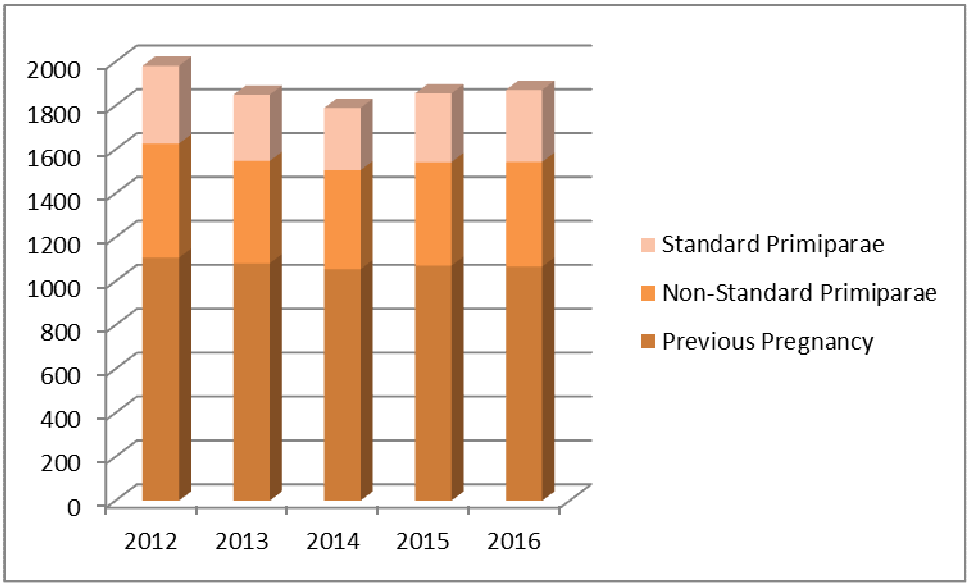


Table 4: Births by Parity type at Hutt Valley DHB Facility

	2012	2013	2014	2015	2016
Previous Pregnancy	1107	1082	1055	1071	1067
Non-Standard Primiparae	520	466	451	472	477
Standard Primiparae	355	302	284	313	328
Total	**1982**	**1850**	**1790**	**1856**	**1871**

"Every single midwife and doctor was amazing and went above and beyond. I didn't know what to expect as it was my first baby but couldn't believe how lovely everyone was – all really knowledgeable, supportive, caring and really couldn't be better. Very impressed!"

Figure 3: Birth Events by Maternal Age

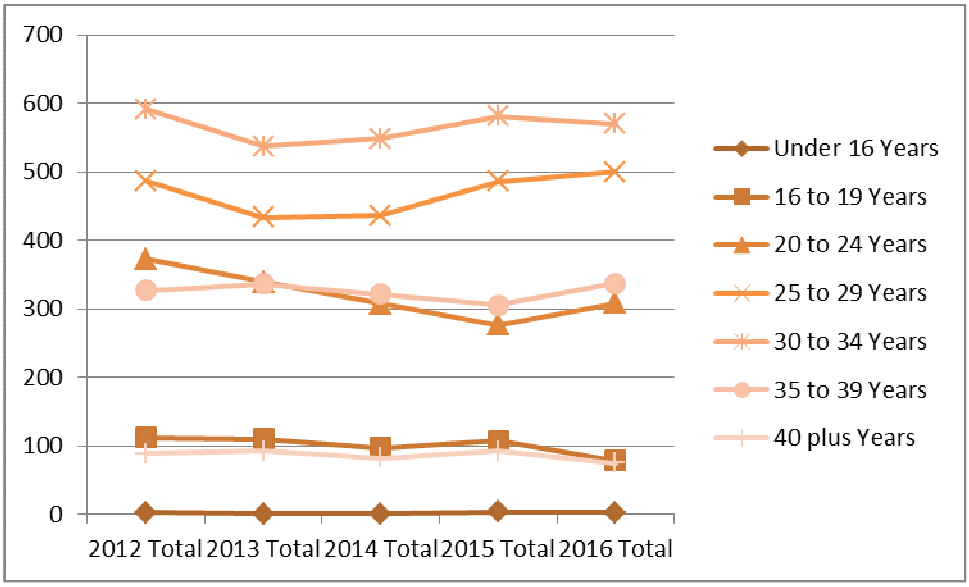
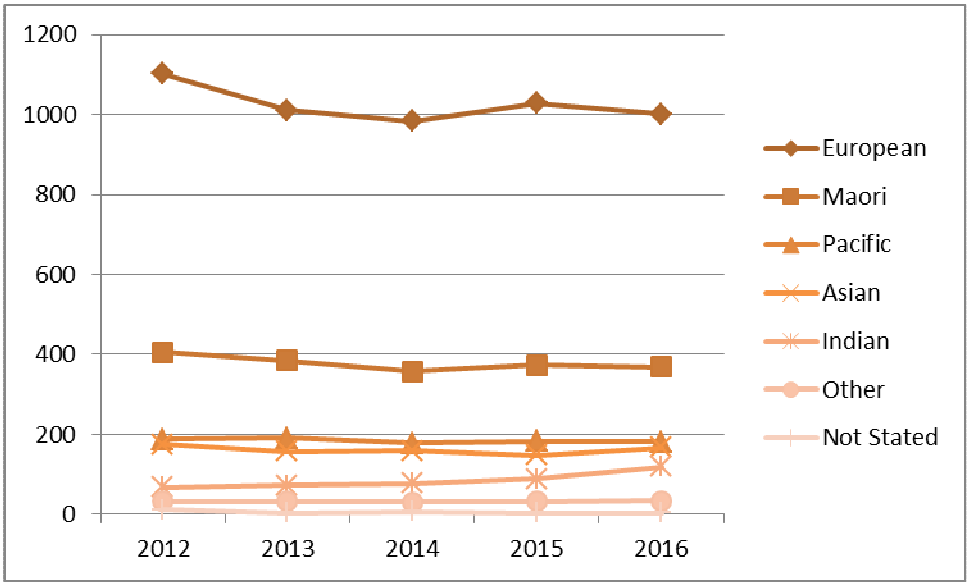


Figure 4: Birth Events by Ethnicity



Maternity Unit

The maternity unit is made up of 13 single rooms and two double rooms with shared ensuite facilities (an additional four bed spaces can be utilised when the need arises).

Our unit caters for both antenatal and postnatal inpatients as well as providing rooms (if available) for women 'rooming in' with babies in the Special Care Baby Unit (SCBU). The unit is staffed by Midwives with assistance from Nurses and Health Care Assistants.

Maternity Assessment Unit (MAU)

MAU is an acute assessment area, open Monday to Friday, and works as an outpatient facility. The unit is easily accessible to women and their families and is located on the Ground Floor in the main foyer of the Hospital. It is close to both the Radiology and Laboratory departments. The facility is utilised by community-based LMCs and women under DHB maternity care (Primary and Secondary). Women requiring inpatient care are transferred to birthing suite or the unit. The unit incorporates the Secondary Care Obstetric Clinics, Maternity Assessments and an Early Pregnancy Assessment Clinic (EPAC).

Figure 5: Maternity Assessment Unit (MAU) Total Events

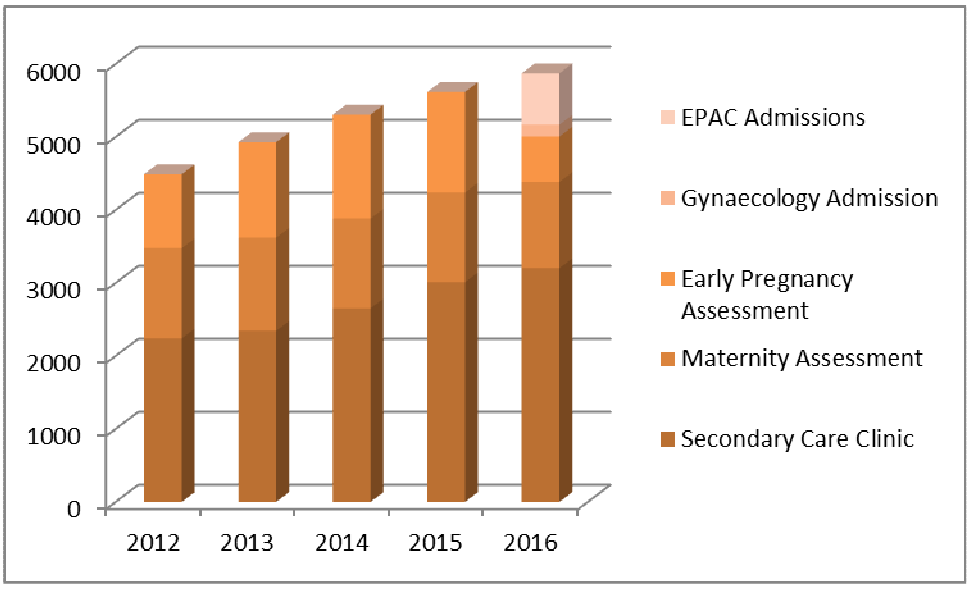


Table 5: Maternity Assessment Unit (MAU) Events

	2012	2013	2014	2015	2016
Secondary Care Clinic	2240	2342	2652	3010	3202
Maternity Assessment	1236	1277	1229	1228	1180
Early Pregnancy Assessment	1014	1309	1424	1377	623
Gynaecology Admission	n/a	n/a	n/a	n/a	162
EPAC Admissions	n/a	n/a	n/a	n/a	704

Note: Partway through the Annual Report timeframe for 2016 there was a change in process. Previous Early Pregnancy Assessments are now collected separately on an EPAC Admission, Early pregnancy Assessment and Gynaecology admission since 01/07/2016.

There are three main work streams in MAU covering the following: Maternity Assessments, Early Pregnancy Assessments and Secondary Care Clinic. Assessment of women with postnatal complications such as wound infections and endometritis also occurs in MAU. They are included in the assessment numbers above.

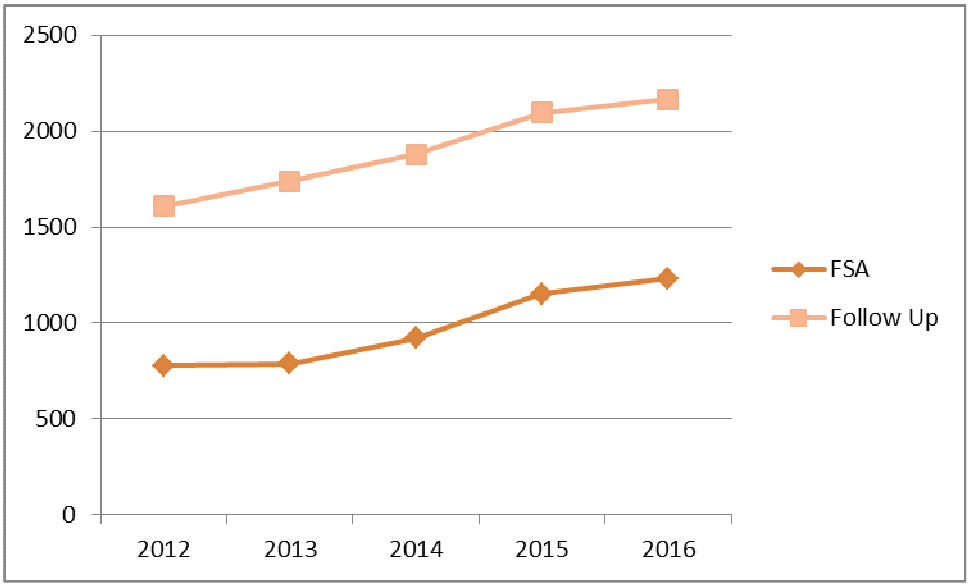
Maternity Assessments in the MAU include acute assessments of women who are stable enough to be seen in an outpatient setting. Those that require assessment outside of MAU hours or need a higher level of care are assessed in the Maternity Unit on level 2 and are included in the Figure 1 statistics. Examples of this include women with pre-eclampsia for day case assessment, women with reduced fetal movements, or those requiring Anti D administration etc.

Early Pregnancy Assessments include women experiencing pain and/or bleeding in early pregnancy who are seen for assessment and management, less than 20 weeks' gestation.

Secondary Care Clinic episodes refer to women seen by a member of the Obstetric team in the Obstetric Clinic in MAU. These women have been referred under the Guidelines for Referral and Consultation (2012) for an obstetric opinion.

Over the last five years, there has been a significant increase in referrals to the Secondary Care Clinic. In response to this we have had an increase in Obstetric SMO clinics and used locum cover for annual leave. This increase may reflect increasing familiarity with changes to Section 88 referral guidelines in 2012, as well as increasing numbers of women meeting criteria for referral.

Figure 6: Secondary Care Obstetric Clinic FSA and Follow Up Events



Note: FSA = First Specialist Assessment (new referral)

"Thank you for your care and dedication to what you do every day! Thank you for all the care you have done for me over the past few months – it is very much appreciated. Keep being amazing!"

Overall Service Workload

The following tables demonstrate the overall workload across the Maternity Unit, Birthing Unit and the Maternity Assessment Unit. The demand in the secondary care clinics suggests an increasing rate of referral (1489) as the service becomes more familiar to General Practitioners, particularly our Early Pregnancy Assessment Clinic (EPAC).

Figure 7: Total Maternity Services Events

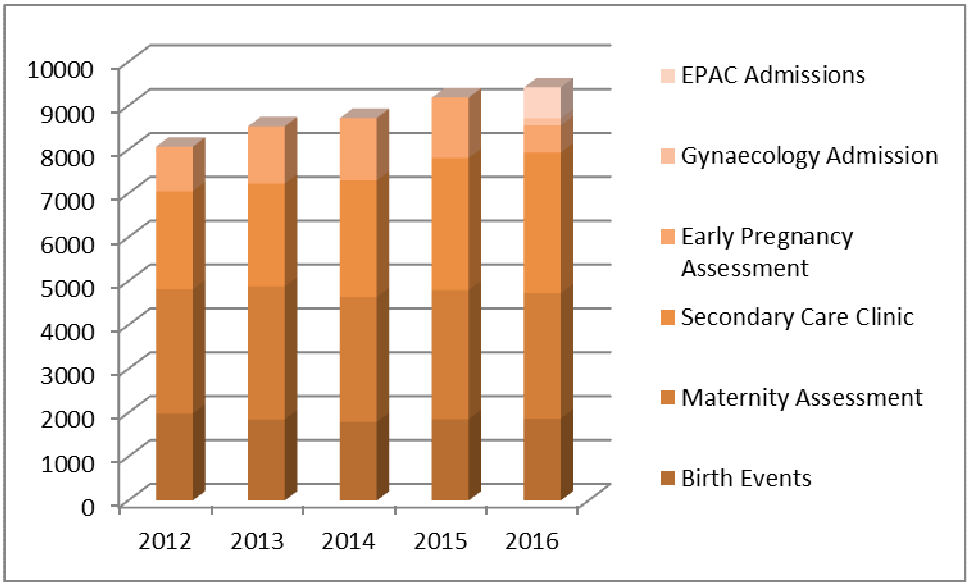
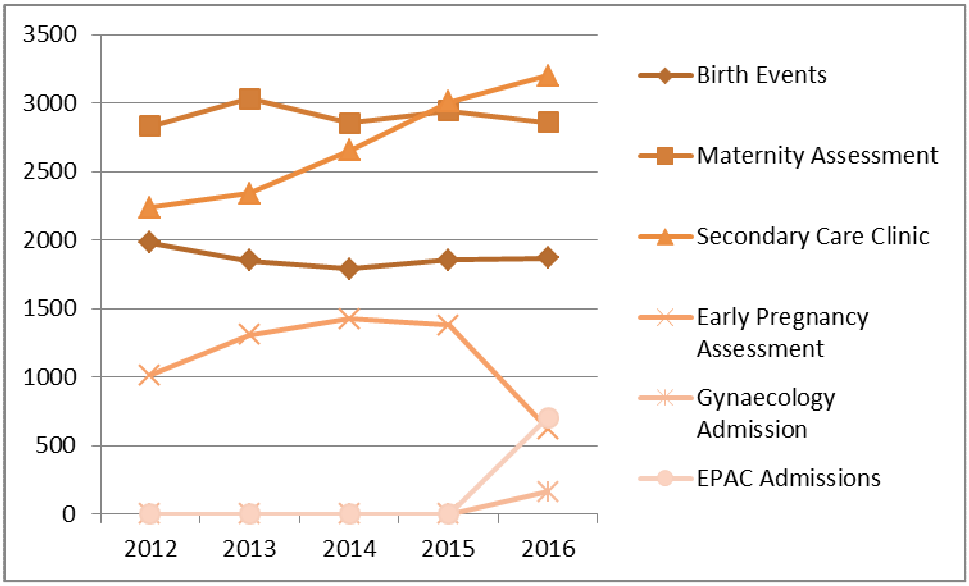


Figure 8: Maternity Services Events by type



Huttmaternity Primary Midwives Team (PMT)

Historically we have had a small team of community midwives providing postnatal care for women with our Secondary Care Obstetric team as LMC or those women who have a private obstetrician LMC.

However, in early 2002, in response to a fluctuating population and workforce needs in the community, our midwives team evolved to include primary community maternity care, with the intrapartum service being provided by core midwives on birthing suite. This is now a well established service, with many women choosing to return to our team for subsequent pregnancies. Initially this team worked in community based clinics in several locations across the valley, but are now home visit based. The team is referred to as our Community Midwives or our Primary Midwives Team (PMT).

Our client demographic:

The PMT provides a maternity service for some of the most vulnerable women in our community. Numbers alone do not reflect the demands on this service. More time is required by these midwives to enable their caseload to access and navigate the services they need in ways that are appropriate to their circumstances. Their range of social complexity increases their obstetric risk and requires additional resources to enable timely access to the care they need. Additional effort is also required to arrange multi-disciplinary professional input and develop plans that deliver wrap around services involving cross sector collaboration. The PMT attend our fortnightly Vulnerable Women and Unborn Baby Group Meetings as able.

Other Women come to the team for various reasons which include:

- Lack of available LMCs
- Preference for Hutt Valley DHB midwives over LMCs
- Lack of eligibility for free maternity care due to residency status
- English is a second language
- The woman is late booking
- Lack of engagement with other maternity or health care
- Vulnerable women with complex social needs

As part of a 'people-powered' approach (MOH, 2016)[1] to this arm of our service, we will endeavour to improve our understanding of our vulnerable population and develop a maternity service that responds effectively and aligns with other services, to achieve greater equity of outcomes.

Women who are under the clinical responsibility of the Secondary Care Obstetric Clinic are also referred to our PMT for primary midwifery input, if they do not have an LMC Midwife. We are developing a consumer survey to evaluate consumer experience of our secondary care service.

Workload:

It is difficult to anticipate the work of the PMT, and the subsequent data gives an indication of the work loads across the year. This is partially due to the transient nature of the client base, and scenarios of partial care at some point in the women's journey.

The figures below give an indication of the number of women booked with the PMT each month because they do not have a LMC midwife. This includes women under the PMT, Secondary Care Team and Private Obstetricians. The three private obstetricians have midwives subcontracted to undertake their 'bookings', but our PMT will back up these midwives when required. These are included in the "other" figure.

There is a fluidity of the population base between the two regional DHBs, Hutt Valley DHB and Capital Coast DHB, and women who reside outside our DHB domicile. This means there is a fluctuating number of women who may commence care here, but end with another provider outside the area, or transfer into our services part way through their journey.

Table 6: Total Number of Pre-admissions by LMC type

	2012	2013	2014	2015	2016
Primary Midwives Team Pre-admissions	66	54	40	40	47
Private Obs Patients Pre-admissions	232	192	205	184	152
Secondary Care Pre-admissions	68	80	60	47	75
Number of Pre-admissions TOTAL	366	326	305	271	274

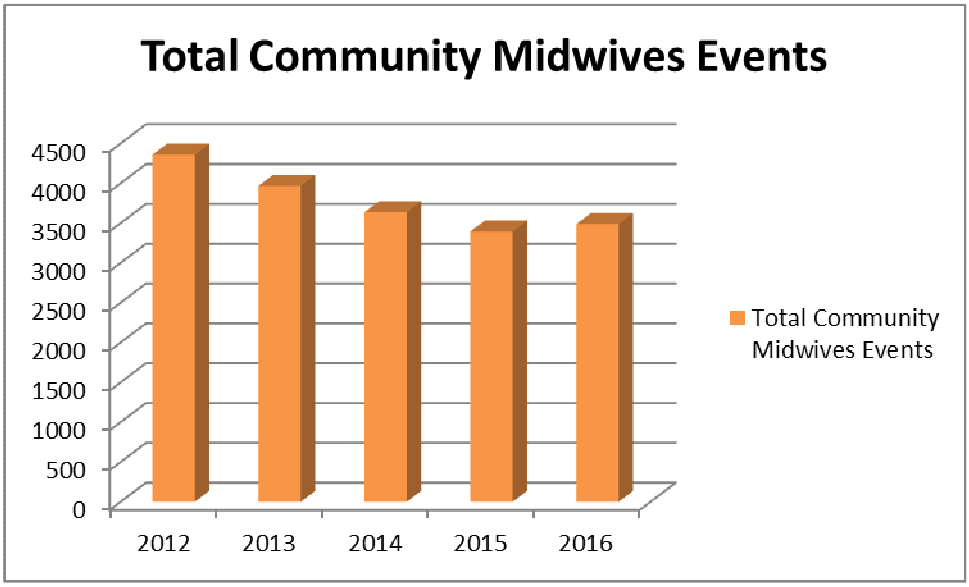
The following table demonstrates the actual visits by our Primary Midwives Team. Antenatal Visits include full Primary Midwives Team LMC cases and Bookings. The PMT has undertaken visits for birth planning in recent years for Secondary Care women and private obstetrician clients under PMT care. This may account for the general increase in antenatal visits.
A point to note is that not all women continue care postnatally with the PMT. Some women move out of area, or are not within our catchment for postnatal care. Some women may also have transferred to a private LMC Midwife for postnatal care.

1. Minister of Health. 2016. New Zealand Health Strategy: Future direction. Wellington: Ministry of Health. Pg. 16

Table 7: Total number of Primary Midwives Team Visits

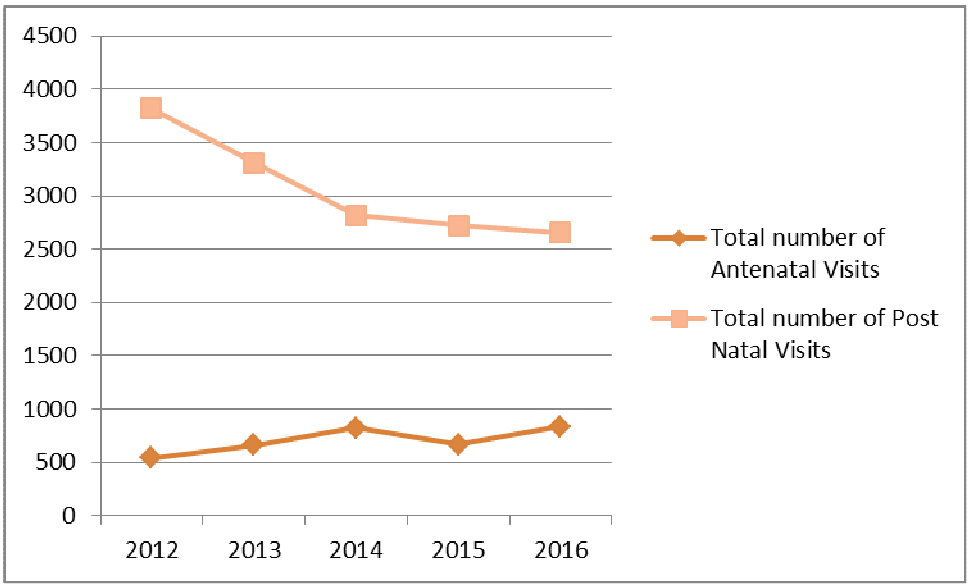
	2012	2013	2014	2015	2016
Total number of Antenatal Visits	539	659	821	670	835
Postnatal Visits Hutt Valley DHB	2551	1770	1369	1313	1668
Postnatal Visits Private Obs Pts	1269	1539	1446	1411	985
Total Community Midwives Events	4359	3968	3636	3394	3488

Figure 9: Total number of Primary Midwives Team Visits



"Thank you so very much for all the kindness you showed me and my family. I feel very blessed to have shared my journey of pregnancy with you as my midwife. You are the best midwife I've ever had. Thanks for the chats and the listening to me when I needed you, to let things out. Also for including the kids and the rest of the tribe."

Figure 10: Total Number of Antenatal and Postnatal visits by the Primary Midwives Team



Overall there has been a decrease of 29% in the work of the PMT. The reason for this drop is unclear and may be for several reasons including more LMCs providing care in consultation with secondary care. There has also been an increase in the number of LMC midwives working antenatally and postnatally with private obstetricians.

Lactation Service

The service offers breastfeeding support to mothers and babies on the postnatal floor, special care baby unit, and throughout the main hospital campus as requested. Outpatient appointments are offered for mothers and baby up to six weeks old, following referral from the Lead Maternity Carer or Well Child providers. Our service also accepts antenatal referrals for women with complex breastfeeding needs.

In addition to these services a Breastfeeding Support Clinic is run weekly. In this reporting time we also offered assessment and possible frenotomy for ankyloglossia (tongue tie) if the condition was impacting on optimal breastfeeding. Follow-up is available up to six weeks as required. This service had additional .2 FTE Lactation Consultants assigned to it.

During 2016 our two Lactation Consultants (1.1 FTE) prepared for the Baby Friendly Hospital Initiative (BFHI) audit by New Zealand Breastfeeding Alliance (NZBA). This was achieved by ensuring staff education was up-to-date across the DHB, including theatre and paediatric staff, monthly overview of breastfeeding status on discharge statistics and improving on recommendations from previous audits such as discharge information.

Helping to maintain our BHFI accreditation is a significant component of our Lactation service. Huttmaternity are thrilled to have recently heard that we have accreditation through until 2019.

Table 8: Lactation Consultant workload by Clinic Type

	2012	2013	2014	2015	2016
BFCONS – Breastfeeding Consultation (outpatients)	239	287	218	n/a	n/a
LSINPT – Inpatient Assessment	n/a	n/a	n/a	557	560
LSOPD – Outpatient Assessment	n/a	n/a	n/a	354	353
LSOTH – Assessment other DHB Department	n/a	n/a	n/a	23	11
LSSCBU –Special Care Baby Unit Assessment	n/a	n/a	n/a	164	104

Comment: the BFCONS is now a defunct clinic, having been replaced by the LS clinics. This data collection has been problematic and will be reviewed.

Lactation Services Workload:

In this reporting timeframe a new BFHI co-ordinator is planned to be appointed and their role will be to assess the ongoing needs of the service and education requirements of the staff.

"Access to so much information and support when in hospital - lactation, feeding and sleeping etc. Great how the hospital staff ease you into it as much as possible."

Breastfeeding Support Clinic

We completed the development and launch of a referral guideline for the Lactation Specialist and Breastfeeding support clinic.

The guideline was launched early 2016 and includes the pathway for referral to our Breastfeeding Support Clinic, for babies with suspected ankyloglossia (tongue tie). Referrals are accepted from all health care providers who suspect that the mother and baby dyad are experiencing feeding difficulties as a result of ankyloglossia.
A policy around this and an information booklet for whānau was in production during this reporting timeframe.

Table 9: Number of events, Breastfeeding Support Clinic by Type

	2014	2015	2016
Breastfeeding Support Clinic – Referrals New	142	196	144
Breastfeeding Support Clinic – Follow Ups	84	52	27
	226	248	171

Comment: This data collection has been problematic and will be reviewed.

Ankyloglossia Data:

With the establishment of our Breastfeeding Support Clinic we have worked with our IT department to create a report via our clinical system Concerto. With the development of this we now have an almost paperless system for this clinic. This is recorded under the baby's NHI under lactation services and we hope to improve data collection and documentation.

We are currently implementing systems to monitor demand and evaluate our service.

Breastfeeding Information:

Based on patient information "Breastfeeding your baby – Commonly asked questions" in use at Hawkes Bay DHB, with consent we localised a series of flip cards. These are now in every room within our unit, SCBU and the Children's Ward. They are based on questions like "Why breastfeed?", "When to breastfeed?", "Is baby getting enough?" and use a range of easy to view images/diagrams and pictures.

BirthEd is the provider arm delivering antenatal education. In this reporting period, all standard twelve-hour antenatal courses had two hours of breastfeeding education. This includes courses for women under 24 years and their support persons, and courses held on a Marae. Women in Hutt Valley DHB region also have the opportunity to access an add-on breastfeeding course run for three hours each month. These courses are taught by breastfeeding specialists with the content and resources shared with the DHB and subject to audit by NZBA.

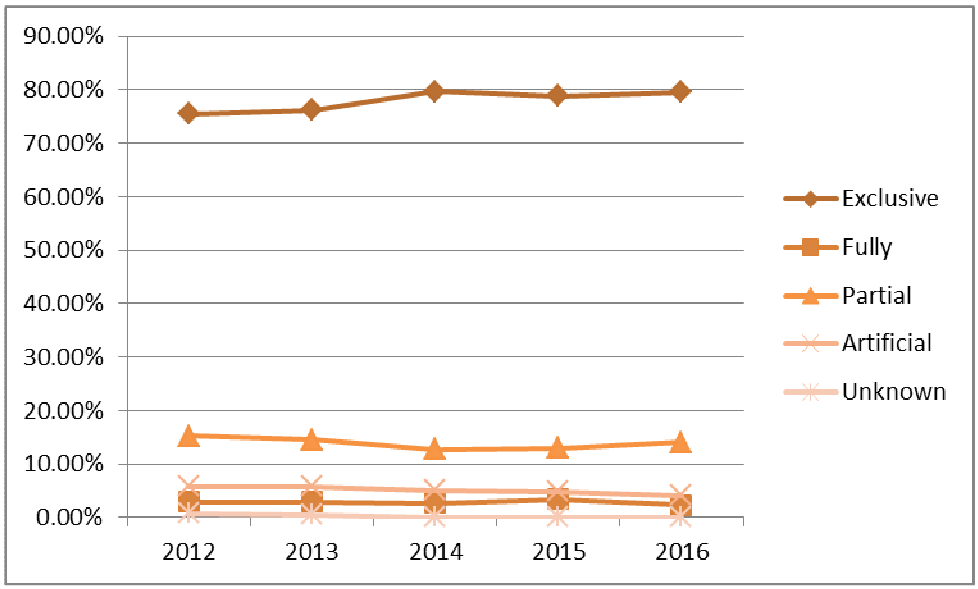
Infant Feeding

Infant feeding status is recorded at time of discharge from our facility. For some, this is following Planned Early Discharge from the Birthing Suite, for some following an inpatient stay in our Postnatal Unit. Babies admitted and discharged from the Special Care Baby Unit are excluded from the data presented here.

Table 10: Breastfeeding Percentage by Feeding Type

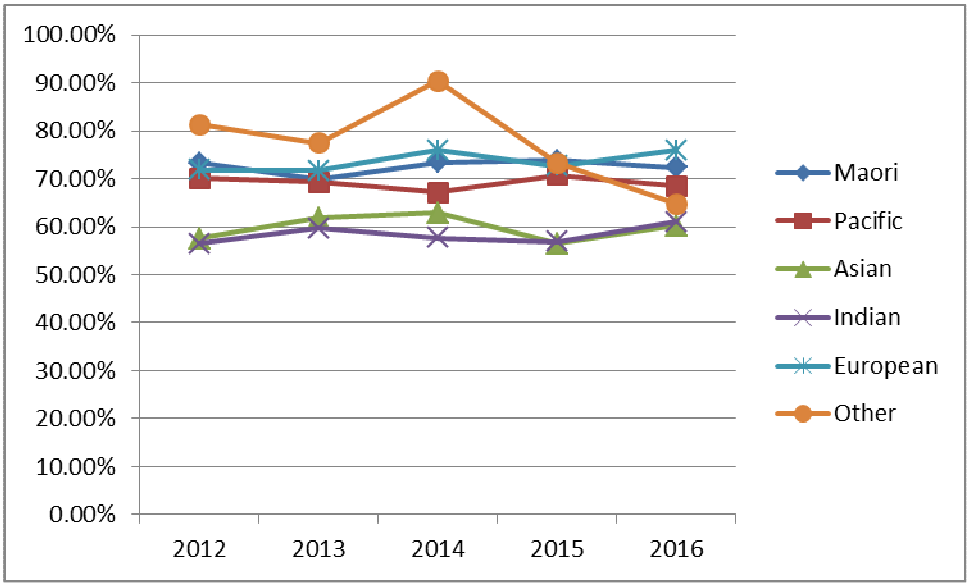
	2012	2013	2014	2015	2016
Exclusive	75.47%	76.24%	79.62%	78.80%	79.61%
Fully	2.88%	2.89%	2.69%	3.42%	2.25%
Partial	15.19%	14.56%	12.67%	12.95%	14.01%
Artificial	5.75%	5.78%	5.02%	4.83%	4.14%
Unknown	0.71%	0.53%	0.00%	0.00%	0.00%

Figure 11: Breastfeeding Percentage by Feeding Type



"Caring and very generous support in a time of real need. I'm very grateful for such kind staff at the hospital and my midwife."

Figure 12: Exclusive Breastfeeding Rates by Ethnicity



Note: Other = Women who have identified their ethnicity as Middle Eastern, Latin American/Hispanic and African

There is a reduced breastfeeding rate among women who identify as Indian or Asian ethnicity. Whether cultural beliefs and increased morbidities such as an increase in rates of small for gestation age babies and induction of labour rates are confounding variables, requires further exploration, as does the deterioration of our 'other' group. Dedicated culturally appropriate breastfeeding education antenatally may be feasible to address this.

Table 11: Breastfeeding type by Age of mother

	Artificial	Exclusive	Fully	Partial	Other *	Total number
Under 16 Years	0%	100%	0%	0%	0%	3
16 to 19 Years	2.5%	78.5%	1.3%	7.6%	10.1%	79
20 to 24 Years	5.2%	70.8%	2.3%	11.7%	10%	308
25 to 29 Years	4.8%	72%	2.4%	12.8%	8%	500
30 to 34 Years	3.3%	71.2%	1.9%	13.3%	10.3%	570
35 to 39 Years	2.4%	72.3%	1.5%	12.5%	10.3%	337
40 plus Years	1.3%	66.6%	2.6%	17.4%	12.1%	75
Total	**3.7%**	**71.9%**	**2.1%**	**12.6%**	**9.7%**	**1871**

** Note: For table 12, 13 and 14 - Other = Includes babies discharged from SCBU where BF status is not recorded in maternity documentation, or status has not been documented.*

Table 12: Breastfeeding type by Mode of Delivery

	Artificial	Exclusive	Fully	Partial	Other *	Total number
Breech Delivery	0%	100%	0%	0%	0%	.05%
Caesarean Acute	3.40%	59.4%	2.9%	17.9%	16.4%	20.3%
Caesarean Elective	7.6%	63.3%	2.6%	15.9%	10.6%	12.1%
Instrumental Delivery	2.9%	74.5%	1.4%	12.8%	8.4%	10.8%
Vaginal Delivery	3.2%	78%	1.6%	10.1%	7.1%	56.7%
Total	**3.7%**	**72%**	**2%**	**12.6%**	**9.6%**	**1871**

Table 13: Breastfeeding type by Gestation at birth

	Artificial	Exclusive	Fully	Partial	Other *	Total number
20 to 23 Weeks	0%	0%	0%	0%	0%	0
28 to 31 Weeks	0%	33.3%	0%	0%	66.7%	6
32 to 36 Weeks	3.3%	22.8%	5.9%	12.7%	55%	118
37 to 41 Weeks	3.9%	75.8%	1.7%	12.7%	5.9%	1727
42 Plus Weeks	0%	66.6%	0%	25%	8.4%	12
Not Stated	0%	0%	0%	0%	100%	8
Total	**3.7%**	**72%**	**2%**	**12.6%**	**9.6%**	**1871**

There are well documented associations between mode of delivery, gestation and rates of successful breastfeeding. We recognise the need to improve our data collection for babies who have been admitted and discharged from SCBU as we have data missing on breastfeeding status for nearly 10% of our babies.

Home Births in Hutt

Hutt Valley DHB does not collect data on home births. However, women are usually booked into the facility by their LMCs in case of transfer and our administrators record the known homebirths. This was 41 for 2016 representing 2.1% of our total number of births. The Ministry of Health has provided the data for the 2012 – 2015 years which are sourced from the National Maternity Collection but not yet available for 2016. The figure of 2.1% for 2016 is below the average of 2.52% for the past five years, though not as significant a decrease as might be expected given the increased numbers of women requiring referral for obstetric risk factors.

Table 14: Home Births in Hutt Valley DHB catchment

	2012	2013	2014	2015	2016*
Number of Homebirths	49	63	38	48	41
Percentage of total birth number	2.5 %	3.3%	2.1%	2.6%	2.1%

*Provisional Data from Administrator Maternity Unit, Hutt Valley DHB.

Section Three: Links with Other Services

Operating Theatre

There are no operating theatre facilities attached to the Birthing Suite. Trial of forceps, caesarean sections and manual removal of placenta or any other procedures requiring an operating theatre require women to be transferred to the main DHB theatres on the first floor of the Heretaunga Wing. In 2016 there were 606 elective and emergency caesareans and a total of 708 theatre cases (includes other obstetric procedures).

Anaesthetic Department

Our obstetric anaesthetic service is part of the multidisciplinary team and is represented on the Maternity Quality Committee. They provide an obstetric pre-assessment clinic and made 79 pre-labour assessments in the 2016 period.
Labour analgesia and anaesthesia for caesarean and other obstetric procedures are provided 24 hours a day. In 2016, there were 547 epidurals administered by the obstetric anaesthetic service. In 95 caesarean cases, a general anaesthetic was used.

SCBU

There is a level 2 Special Care Baby Unit, with 12 cots and 2 ventilators. This unit provides care for babies above 32 weeks' gestation. Babies under this gestation are transferred to the tertiary level Capital and Coast DHB; an attempt is made wherever it is safe to do so, to transfer women prior to birth at gestations earlier than 32 weeks. In 2016, there were 438 admissions and 55 transfers in from other hospitals, primarily Capital and Coast DHB, for ongoing care.

"SCBU took great care for my baby and we are very grateful! Thank you!"

Universal Newborn Hearing Screening and Early Intervention Programme (UNHSEIP)

Newborn Hearing Screening is offered nationally through all the District Health Boards. The aim of the programme is the early identification of permanent congenital hearing loss with specific goals of completing screening by one month, diagnosis by three months, and early intervention offered by six months. Early intervention before six months has been demonstrated to significantly improve long-term outcomes for children with hearing loss and their whānau.

Screening is offered to all newborn babies in the Hutt Valley DHB area through inpatient and outpatient services. The service operates six days per a week in the Maternity and Special Care units and three weekly outpatient clinics are run in the Audiology Department. We have a staff resource of two Screeners and one Screener/Coordinator (2.3 FTE).

The programme is managed through the Audiology Department under the Service Manager; Plastics, Dental, Maxillofacial, ENT, Audiology & Ophthalmology and under the Service Group Manager Surgical and Women's' & Children's Health. In addition, it is included in the Maternity Clinical Governance Group. Data is collected daily, analysed monthly, and reported quarterly to the NSU. The service continues to maintain a high quality screening programme, having again this year remained amongst the top performing DHBs in the country in NSU national monitoring reporting. For the first quarter of 2016, we achieved the highest completion of screening by four weeks of age (99.2%), and completion of diagnostic Audiology by three months of age (100%).

This year has seen continued bedding in of the new national screening regime after its April 2015 implementation. Our focus has continued to be on further improvement of the diagnostic referral and rescreen rates and maintaining a high quality patient experience of screening.

In that regard the service has undertaken work across several areas. Firstly, a quality improvement project analysis was completed on the timing of re-screens and the impact on diagnostic assessment rates. The results from this have seen further reduction to and maintenance of a lower diagnostic referral rate from 3.6% in 2015 to 2.2% in 2016. An ethnicity data review analysis also confirmed that a significant reduction in DNA & Incomplete rates in particular for Maori has been achieved. In addition, a repeat newborn hearing screening specific patient survey was conducted in August 2016 which confirmed a high level of patient satisfaction and confirmed the Newborn Hearing Screening programme is being well received by our Hutt Valley families/whānau. The results compared to the previous survey conducted in 2014 saw an overall further improvement across all areas surveyed.

The second round of UNHSEIP national audits began in the form of a desk top audit this year with DHBs required to submit all audit documents to the NSU in November. The audit report is expected for the Hutt Valley DHB in early 2017 and this will be the basis for focus in the coming year.

Table 15: Hutt Valley DHB UNHSEIP Volumes 2016

Newborn babies Offered Screening	1946
Completed Screening	1936 (99.5%)
Declined Screening	8
Screening Not Completed	2

Table 16: Location of First Screen

First screen as Inpatient	1464 (75.6%)
First screen as Outpatient	472 (24.4%)

Table 17: Referral for Audiology Assessment

Ref for Audiology Assessment	44

Table 18: Referral Outcome

Audiology	Confirmed Permanent Hearing Loss	Unilateral	Bilateral
		3	2
Early Intervention	Referred to ENT Specialist	2	
Referred to AODC	1		

Pregnancy and Parenting Education (PPE)

There are two primary providers of PPE within the DHB region, Parents Centre which is privately run, and Hutt Valley DHB contracted services from BirthEd.

BirthEd

BirthEd is contracted by Hutt Valley DHB (and Capital and Coast DHB) to provide a range of free courses for adults and youth in the Hutt Valley and in the greater Wellington area. BirthEd provides high quality childbirth and early parenting education and support to women and their whānau or support people, so they can make safe, well informed choices about the birth of their baby and their parenting. They are based both in the hospital and in the community with courses running from Upper Hutt to Petone, including youth classes at Vibe. Breastfeeding is an important component of BirthEd's nine-week course outline and is taught by breastfeeding specialists. A one-off three-hour breastfeeding course building on the basic information is well subscribed to, and open to antenatal and postnatal women and their breastfeeding support persons. Homebirth as an option is another three-hour add-on course which has had increasing enquiries and attendance. This is run every three months. Baby safety is held monthly on a Saturday afternoon and conveys important messages including shaken baby prevention, safe sleep, smoking cessation and infant CPR with Red Cross.

The Marae-based antenatal course known as Kaupapa M.A.K.E (Māori Antenatal and Kaiāwhina Education) where women and their whānau stay overnight on the Marae, has successfully continued in this reporting timeframe. Alongside other antenatal education safe sleep, smoking cessation and tāne only sessions are incorporated in this programme. BirthEd works collaboratively with many agencies on this programme, including services from Kokiri Marae.

BirthEd continuously evaluate their courses and changes in this reporting period have been the launch of an updated website, www.birthed.co.nz to improve user friendliness and a course in 2017 called Out of the Blues, to provide information to women and families about antenatal and postnatal anxiety and depression.

In 2016, 663 women enquired about BirthEd classes, with 570 actually commencing and a completion rate of 72%. 94% of attendees were first time mothers and 17% of attendees were under 24 years of age.

Table 19: Number of Courses Offered

	2014	2015	2016
Mainstream	19	20	20
Youth	6	5	5
Mainstream Postnatal	19	20	20
Youth Postnatal	6	5	5
Baby Cares	12	11	9
Breastfeeding	12	11	12
Baby Safety	11	11	8
Homebirth Option			3
Marae Option			4
Out of the Blues			0
TOTAL	85	83	86

Table 20: Attendance by Ethnicity

	2014	2015	2016
African	3	13	8
Chinese	36	27	62
Pacific Island	41	20	14
Indian	33	34	31
Maori	64	57	63
Middle Eastern	4	2	5
NZ European	338	311	284
NZE/NZM	40	40	29
NZE/Pacific Island	1	3	1
NZM/Pacific Island	0	5	1
Other European	33	48	57
South East Asian	41	27	14

Parents Centre Lower Hutt

Parents centre Lower Hutt is one of 50 centres nationwide. Their mission is “positive birth experiences and informed parenting in a community where parents are highly valued and supported in their role”. Lower Hutt delivered 14 antenatal classes and had 158 couples attend during 2016. There is a charge for these courses.
No figures were available from Upper Hutt branch.

Well Child Providers

Plunket

Plunket offers parenting information and support as well as developmental assessments of children. Plunket Registered Nurses provide support through home and clinic visits, mobile clinics and PlunketLine, a free telephone advice service for parents. Plunket also organises parent groups, parenting education, toy libraries, drop in centres and play groups. In the 2015/16-time period, Plunket saw 1897 new babies in the Hutt Valley. (This figure includes babies moving into the area or born at CCDHB)

Thriving Cores (formerly known as Pacific Health Well Child)

The aim of this service is to support parents and families to ensure that children achieve a strong foundation of health which will lead to overall wellbeing as they grow. Trained Well Child Nurses work around families to ensure that health assessments take place, and are on time according to the Ministry of Health schedule. These can be clinic or home visits. The service works collaboratively with many agencies to ensure that additional support is given where required. Referrals out to other agencies with permission may be made. Other services include support at medical appointments, extra visits and education sessions. Thriving Cores had a name change in this reporting timeframe and saw 50 new babies in the Hutt Valley in 2016 with 39 referrals coming from midwives.

Tamariki Ora

Children are entitled to 8 free health visits under the Government's Well Child/Tamariki Ora service with the 8th visit being the B4 School check. These visits, along with other Well Child/Tamariki Ora services, aims to give children the best start in life by protecting against illness, detecting problems early and providing support to whānau. The checks take place at home or at the Well Child Clinic based opposite Waiwhetu Marae. Clinics are also held at Kokiri Pukeatua (Wainuiomata), Tui Glen School (Stokes Valley) and at the Orongomai Marae Health Clinic (Upper Hutt). The Tamariki Ora service saw 148 new babies in 2016 with 50 referrals from the PMT and 98 from midwife LMCs.

Breastfeeding Support at Tamariki Ora

Te Runanganui o Te Atiawa and the DHB support a free confidential community breastfeeding service run by a Lactation Consultant offering clinic and home visiting. The new referrals for 1st January 2016 until 31st December 2016 were 131 for this service which has ongoing funding for two years.

Violence Intervention Programme (VIP)

Background

Hutt Valley DHB and all DHBs have been contracted by the Ministry of Health to deliver VIP since 2007. VIP aims to reduce and prevent the negative health and social impacts of family violence and child abuse and neglect through early identification, assessment and referral of victims presenting to health services in hospital and community settings, by improving DHB responsiveness.

Rationale

Victims of abuse use health services at a significantly higher rate than those not abused. As health harm from abuse is cumulative, early intervention is instrumental for improving long term physical and mental health outcomes. The significant health, social and economic costs of family violence has been well documented internationally and in New Zealand. Health service settings provide opportunities to identify victims of violence and provide support and referral to appropriate services which, can reduce and prevent its reoccurrence.

Evidence

Routine enquiry (for adults) and thorough health and risk assessment (for children) increases identification that can lead to appropriate interventions, and decrease subsequent exposure to violence and related problems.

Family violence assessment and intervention in health services as part of a coordinated systematic approach includes policy development, evidence-based best practice guidelines, leadership, documentation, staff training, monitoring and evaluation can be effective.

Adequate staff knowledge and skills, privacy in care settings and ownership and acceptance of programmes and practices by staff and organisation leaders support effective interventions. Evidence-based best practice screening tools are most beneficial when complemented by protocols incorporating victim identification and support in routine practice. Training and support are required to implement partner abuse and child abuse and neglect protocols.

Compliance against protocols through, monitoring (including self-audits) and other forms of evaluation are required to support sustainable programme implementation and development.

Hutt Valley DHB Violence Intervention Programme

- Two Clinical Nurse Specialists: shared the 1.0fte to implement the Ministry's VIP at Hutt Valley DHB.
- VIP management is led by Service Manager Women & Children's Health Hutt Valley DHB.
- VIP Sponsorship: Chief Operating Officer will act as the sponsor for the VIP Programme.
- The VIP Advisory Group manages and supports programme implementation. This Advisory group meets quarterly.

Publication of the Ministry of Health's Family Violence Assessment and Intervention Guideline: Child Abuse and Intimate Partner Violence.

This Ministry of Health's Guideline is the foundation document for the Ministry's response to intimate partner violence and child abuse and neglect, and in particular the Violence Intervention Programme. The initial guideline was published in 2002 and has been refreshed and was officially launched by the Ministry of Health on 16 June 2016.

The VIP Programme has an implementation plan for July 2017 to align the VIP policies, training, documentation and resources to align to the revised guidelines in the services where VIP has been implemented.

Violence Intervention Programme Training

At Hutt Valley DHB, the VIP core 8-hour VIP training was approved by the National Training Provider and there is ongoing external evaluation of the VIP training to align to the national training package.

Services trained and ongoing:

- Children's Health Service including:
- Children's Ward, SCBU, Children's Outpatients, Children's community nursing, Child Development Service, ICAFS and School Health Nurses at Regional Public Health.
- Emergency Department and Medical Assessment Planning Unit (MAPU).
- Community Mental Health Services including Alcohol and Drug services.
- Cultural units: Pacific Health Service and Maori Health Unit.
- Maternity service.

The future annual VIP Training Plan will focus on bridging training where VIP has already been implemented, refresher training for staff in the designated areas and the development of the clinical champions in each of the designated services where VIP has been implemented.
The core 8-hour VIP training is only available for staff working in the designated services: Child health services, ED, MAPU, Maternity Services and Mental Health Services.

VIP Highlights since implementation at Hutt Valley DHB

- Implementation of the National Child Protection Alert System at Hutt Valley DHB and the development of a working MDT team to review all CYF reports of Concern.
- Development of the electronic process for DHB staff referring to CYF with an increase of the number of children referred to CYF.
- The recruitment of an administrative support person with a combined 0.5FTE to Hutt Valley DHB VIP and Gateway Assessment Programmes.
- Maintaining the Hutt Valley DHB Partner Abuse Programme and the Child Abuse and Neglect Programme audit scores of >80 in the annual self-audits to the national VIP evaluator. This reflects the maturation of our VIP programme at Hutt Valley DHB.

- Approval and implementation of the Shaken Baby Prevention Programme project in June 2016 commencing with an identified project lead, Abby Hewitt. It was launched on 26 May 2016 with a 2-hour Train the Trainer session held on the same day. Auditing is planned as part of the VIP Clinical Audit data.
- The establishment of the CYF DHB Liaison Social Worker position. Jamie Lowe was in this position for most of 2016 with Tracey Mancktelow coming into this role in April 2017. The liaison Social Worker works closely with the VIP and in particular the child and maternity services.
- Gaining appropriate cultural representation at various VIP forums/groups has been achieved and is ongoing.
- An established 24/7 DSAC (Doctors of Sexual Abuse Care) Nurses roster for the assessment and management of child sexual abuse at Hutt Valley DHB.

National Child Protection Alert System

In December 2014, Hutt Valley DHB was the ninth DHB approved to lodge alerts using the National Medical Warning System. Child protection alerts can be placed on the mother's file antenatally. The alert appears as *CHILD PROTECTION CONCERNS* CONTACT Hutt Valley DHB. The alert can transfer to the child's file when the baby is born and their NHI number is generated. MDT review occurs prior to discharge from maternity services (6 weeks).

Evaluation and monitoring

As part of the ongoing evaluation and monitoring, VIP completes quarterly clinical audits in the designated services where routine enquiry for intimate partner violence is expected. In maternity service, there have been quarterly audits commenced since 2016. In the next reporting period, the audits will be reported on.

Vulnerable Women and Unborn Baby Group

In 2012, Hutt Valley DHB implemented a Vulnerable Women and Unborn Baby (VWUB) Group to identify vulnerable pregnant women and to strengthen collaborative support for these women and their families. This Multi-Agency Group continues to meet fortnightly.

External DHB members include: Police Family Safety Team members, CYF DHB Liaison Social Worker, Naku Enei Tamariki Early Intervention Service Manager, Kokiri Marae Whānau Ora Social Services Manager, Well Child Providers (Tamariki Ora and Plunket Team Leaders) and a Vibe Youth Health Service senior nurse clinician.

The group continues to maintain strong working relationships since the establishment of this forum and the group membership highlights a commitment to work together to support these vulnerable pregnant women and their families who reside in the Hutt Valley area.

The VWUB group 2017 milestone is to support and implement the national Maternity Care, Wellbeing and Child Protection resource toolkit by December 2017 at Hutt Valley DHB.

Referrals to the VWUB Group

Minutes are recorded at each forum with updates and actions related to each woman who are discussed by the group. A virtual event is created on WebPAS for data purposes. From this clinic 2014 data, 85 women were referred to the VWUB Group, in 2015, 88 women were referred and in 2016, 108 women were referred and increased by 23%.

The referral sources are LMC 9%, Child Youth and Family (CYF) 34%, Police Family Safety Team 19%, DHB 32% and other 6%.

Oranga Tamariki – formerly known as Child Youth and Family Liaison

The Hospital Liaison Social Worker role provides a link between the DHB and Oranga Tamariki/CYF. The role involves working collaboratively with health professionals and Police to ensure a quality service delivery to children and young people who present to the DHB with child protection concerns. The Oranga Tamariki/CYF Liaison ensures that a multi-agency safety plan is put in place for all children and young people admitted to Hutt Valley DHB whom are suspected of, or confirmed as having a non-accidental injury. Additionally, the role works collaboratively with hospital personnel to enhance earlier identification of children at risk of child abuse and neglect.

The two key objectives of the Hospital Liaison Social Worker are:

- Ensuring that CYF and DHB work together for all children when there are care and protection concerns.
- The early identification and appropriate response for children at risk of abuse and or neglect. This includes risk to unborn babies.

The Hospital Liaison Social Workers role is to:

- Build strong functional working relationships across the DHB and promote collaborative practice.
- Be the Oranga Tamariki/CYF liaison point within the DHB.
- Be available to share information and child protection expertise with DHB staff.
- Provide support and liaison for DHB staff to ensure that children and young people admitted with child protection concerns receive a quality service from Oranga Tamariki/CYF.
- Be a first point of contact for advice on working with the DHB. They will support and guide staff when they need assistance. For example, if help is needed with developing a multiagency safety plan, or advice on how to work through an issue that has arisen with a particular case involving the DHB.
- Be available to work with Oranga Tamariki/CYF and DHB staff to resolve interagency issues or disputes.

Social Worker

The Hutt Valley DHB Social Work Department provides social work service to both inpatients and outpatients who are experiencing health-related difficulties. Social workers advocate for and assist patients to access services or support within the hospital or in the community to maximise independence, wellbeing and coping abilities.

Our services also provide supportive counselling to assist patients to adjust to changes in physical health and provide support related to maternal mental health issues or pregnancy/birth-related difficulties.

Maternal Mental Health

The Specialist Maternal Mental Health Service (SMMHS) is a community-based, tertiary service. The focus is on providing perinatal care for women and babies within the Hutt Valley, Kapiti and Wellington areas. Referrals for women living in the Hutt Valley can be made through Te Haika (Mental Health Intake Centre) or our Secondary Care Clinic where a multidisciplinary team operates a clinic fortnightly. A specialist maternal mental health nurse works alongside one of our obstetricians to provide this clinic. The service is available to:

- Women who are pregnant or post-partum with an infant up to 12 months; who are experiencing a moderate to severe mood disorder/mental illness; (this may be new onset) or previous history re-triggered in the perinatal period.
- Women with existing mental illness requiring specialist consultation or advice related to conception/pregnancy or who are not already with another mental health service or provider.

The SMMHS also provides consultation and liaison to all DHBs in the Central Region. This can include:

- Specialist advice e.g. duty worker advice and medication requests.
- Specialist consultation clinics.
- Telephone and video conferencing.
- Regional education and training is provided to local primary and secondary providers (e.g. GPs, midwives, Plunket and Well-child providers, Women's Health and other relevant hospital services, NGOs) mental health services in the Central Region and by negotiation to others.

Fifty-five women were seen at the clinic in our maternity assessment unit in 2016.

A Maternal and Infant Mental Health conference was held in May 2016 as a joint venture with Otago University and our neighbouring DHBs Capital and Coast and Wairarapa. This conference was very well received.

The consumer patient information sheet "Caring for pregnant women, postnatal mothers & babies and their families/whānau" has been produced. Health professionals can access the Health Pathways, Maternal Mental Health Pathway which serves our 3 DHBs and was revised in 2014 (Appendix 4).

Acupuncture Clinic

A maternity acupuncture service has been operating within the Hutt Valley Hospital outpatient department since 2008, and offers women free acupuncture care for pregnancy and postnatal related conditions.

NEW ZEALAND SCHOOL OF ACUPUNCTURE AND TRADITIONAL CHINESE MEDICINE

This is the first, and to date, the only clinic of this type within a New Zealand hospital. This clinic is managed by the New Zealand School of Acupuncture and Traditional Chinese Medicine (NZSATCM). Women access this outpatient's service directly, making an appointment through maternity administration staff. Treatment rooms are provided two afternoons a week for 30 weeks of the year. NZSATCM fourth year acupuncture students provide treatment under supervision of professionally registered acupuncturists experienced in pregnancy related care. All women sign consent forms for treatment and data collection.

Number of women treated and referral pathways

One hundred and twenty-four women sought treatment in 2016 with 348 treatments delivered over the 30 weeks that the clinic operates. This is consistent with the numbers of treatments delivered in 2013, 2014 and 2015 (Table 21). This clinic is operating at maximum capacity with a waiting period of up two weeks for new patients.

Table 21: Number of Acupuncture treatments delivered

	2013	2014	2015	2016
Number of women - Initial visit	134	127	131	124
Total number of treatments delivered	370	408	348	384
Mean number of treatments per woman	2.8	3.2	3.8	3.1

The main referral to the clinic is through midwives acting as Lead Maternity Carers (LMCs) recommending women to make an appointment (Table 21).

Table 22: Referral to clinic by source

	2013 N=134	2014 N=127	2015 N=131	2016 N=124
LMC Midwife	94 (70%)	80 (63%)	97 (74%)	102 (82%)
Self-referral	20 (15%)	23 (18%)	23 (18%)	16 (13%)
Acupuncturist	2 (1%)	9 (7%)	3 (2%)	3 (2%)
Antenatal /Physio/hospital	3 (2%)	10 (8%)	8 (6%)	3 (2%)
Yoga	11 (8%)	5 (4%)	0	0

Treatment delivered

In 2016 a variety of treatments were provided on the woman's initial visit. As in 2015, the majority of women initially presented for treatment of lumbo-pelvic pain (LPP) – a term that includes back, pelvic and hip pain - and labour preparation (pre-birth treatment). Once again, only a minority of women presented for acupuncture use in assisting a medical induction or use of moxibustion for breech presentation (Image 1). A range of other treatments were delivered at this first clinic visit; this included treatment for nausea, heart burn, headaches or migraines, emotional concerns, insomnia and varicosities (which includes women presenting for treatment of vulvar varicosities, varicose veins and haemorrhoids), blood pressure problems, rib, abdominal and neck pain, carpel tunnel, anaemia, hay fever, sinus and bleeding in pregnancy.

Image 1: Moxibustion

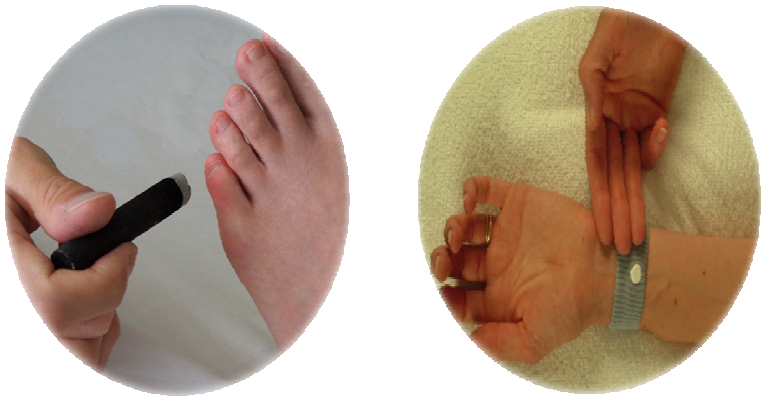
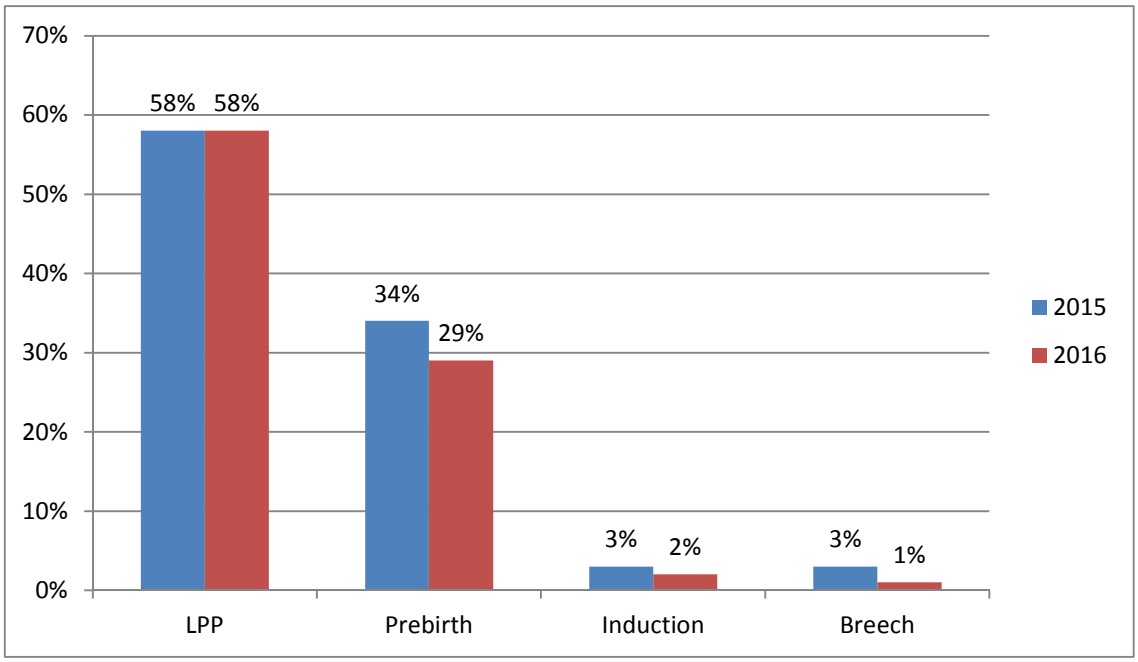


Figure 13: Treatments delivered on Initial visit



Data collection for lumbo-pelvic pain

Please see Appendix 3 for data and outcomes for lumbo-pelvic pain treatment at the Acupuncture clinic.

Clinic Future

At the time of writing this report it can be confirmed that this clinic continues to operate as a free outpatient service at Hutt Valley hospital. Data collection continues for future reporting.

Physiotherapy Services

There is an allocated Women's Health Physio working across the Obstetrics & Gynaecology department five days a week, at 0.8 FTE. This covers both inpatient and outpatient physiotherapy services. The physiotherapist also runs a free Antenatal Stretch Class once a week.

Common reasons for antenatal referral include abdominal, back and/or pelvic pain, carpal tunnel syndrome and pelvic floor disorders. Postnatally, women are referred for pelvic floor issues, third degree perineal tears and pelvic/back pain.

Table 23: Physiotherapy Outpatient events (Antenatal and Postnatal)

	2014	2015	2016
New assessments - Obstetrics	235	284	227
Follow Up assessments – Obstetrics	126	145	189
Total	361	429	416

Ionozone: The Allied Health Department offered Ionazone treatment for women with painful nipples in 2016. The future of this service is being reviewed.

Table 24: Ionozone Outpatient Events

	2014	2015	2016
New	185	228	239
Follow Up	294	340	260
Total	479	568	499

Section Four: Maternity Services Clinical Outcomes 2016

This section outlines Huttmaternity data based on the Ministry of Health's (MOH) twenty New Zealand Maternity Clinical Indicators. The data has been sourced from Hutt Valley DHB events, stored in the Hutt Patient Management System (WebPAS) and the Huttmaternity Database (Concerto), and has been extracted from the National Minimum Dataset (NMDS) and coded using ICD-10-AM-v6.

MOH produce New Zealand Maternity Clinical Indicator reports annually, but are two years behind in the data they provide. We have developed an internal data report based on the above system that enables us to look at our data from the previous year in order to react more responsively, instigating audits and changes in clinical practice. We have retrospectively compared our reporting to that in the New Zealand Maternity Clinical Indicators to assess for major inconsistencies.

The data in this report is based on births at our facility and does not include homebirths, or births by women from Hutt Valley DHB domicile who birth at other facilities. Due to this there will always be a slight difference in what is within our report and that of the MOH report.

During the compilation of this report we have been confronted with a number of data integrity issues. We will continue to work on this and have put this report together to the best of our ability.

See appendix 1 for 2015 Maternity Clinical Indicator description.

Maternity Clinical Indicators

Indicator One: Registration with a Lead Maternity Carer in the first trimester of pregnancy (by facility)

We are pleased to report an increase in the percentage of women who registered with a Lead Maternity Carer in the first trimester, from 60.1% in 2014 to 64.1% in 2016. This figure (64.1%) is closer to the national average (70%) than previous years. Whilst this increase cannot be attributed to any one strategy, our investment in the "Pregnancy Checklist" campaign, delivered to all General Practices in the region and awareness on our Huttmaternity Website and Facebook page, may have influenced this. Our Networking Expo was an effort to improve the interface between the Community and DHB and promote early engagement.

We have continued to work with MOH to provide data for women under DHB care via the Primary Maternity Data Collection System. Gestation at registration for women with a LMC is not collected at a local level. We hope to improve our data collection in this regard.

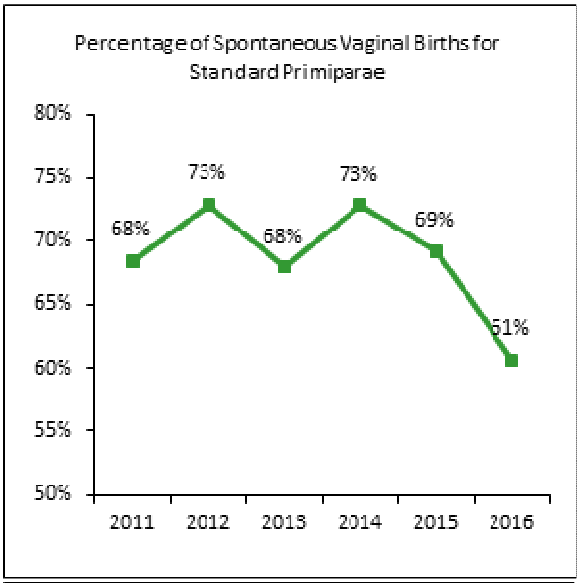
Table 25: Registration with LMC in First Trimester by % (by facility)

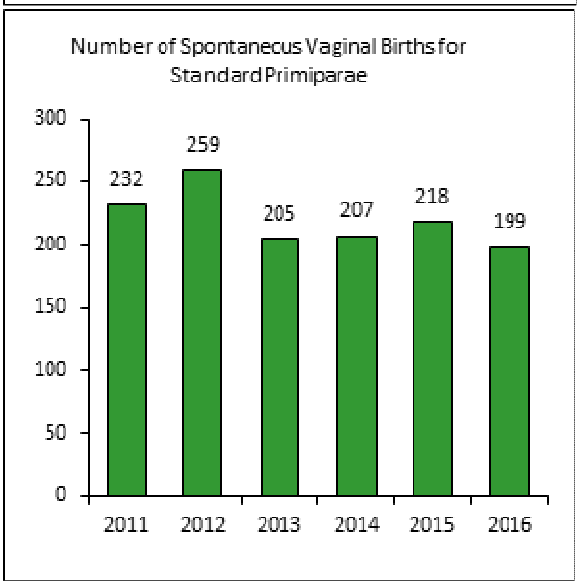
	2012	2013	2014	2015
Huttmaternity	55.9%	52.6%	60.1%	64.1%
Secondary and Tertiary Facilities	64.2%	65.6%	68%	70.3%
National	63.5%	64.9%	67.7%	70%

Numerator: Total number of women who register with a LMC in the first trimester of their pregnancy.
Denominator: Total number of women who register with a LMC.
Numerator: Total number of standard primiparae who have a spontaneous vaginal birth at a maternity facility.
Denominator: Total number of standard primiparae.

Comment:
The National rate for standard primiparae spontaneous vaginal birth in 2015 was 68.7% (by facility), and 62.7% for all Secondary and Tertiary Facilities. The Hutt DHB had a rate of 68.3% (by facility) in 2015. Our data for 2016 suggests that our rates of spontaneous vaginal birth in the standard primaparae have significantly declined to 61%. To investigate and action this decline we are conducting a multi-disciplinary audit of our C/S in the standard primiparae and are awaiting the release of the maternity clinical indicator data for 2016 to put our performance in national context.

Indicator Two: Standard Primiparae who have a spontaneous vaginal birth (by facility)

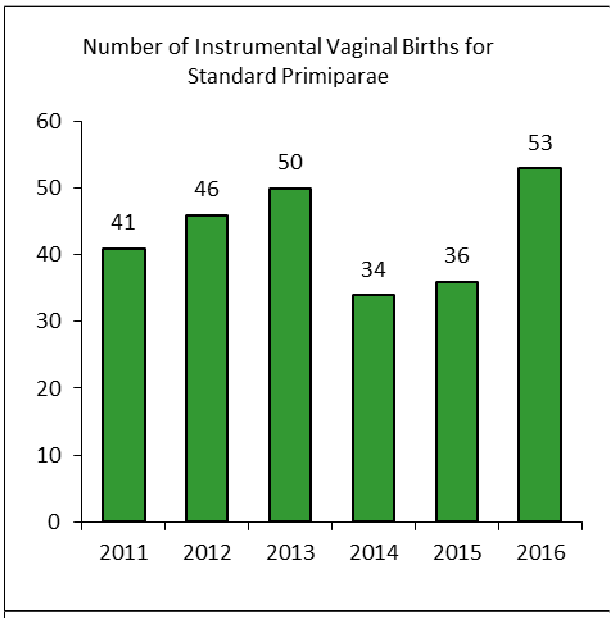


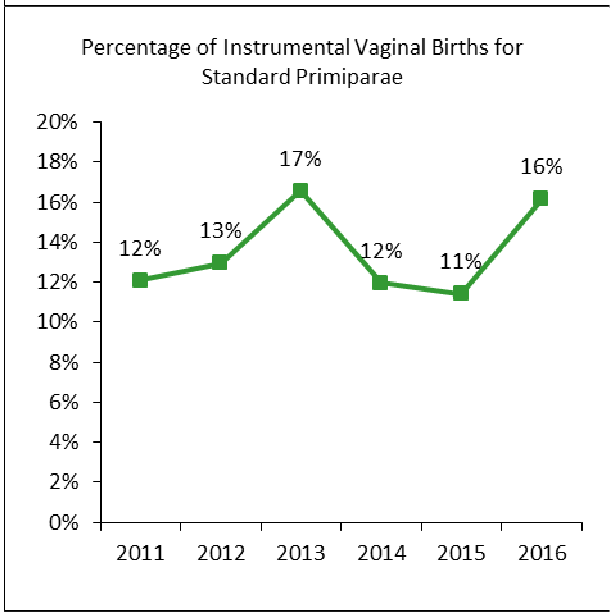


Numerator: Total number of standard primiparae who have a spontaneous vaginal birth at a maternity facility
Denominator: Total number of standard primiparae

Comment:
The National rate for standard primiparae spontaneous vaginal birth in 2015 was 68.7% (by facility), and 62.7% for all Secondary and Tertiary Facilities. The Hutt DHB had a rate of 68.3% (by facility) in 2015. Our data for 2016 suggests that our rates of spontaneous vaginal birth in the standard primaparae have significantly declined to 61%. To investigate and action this decline we are conducting a multi-disciplinary audit of our C/S in the standard primiparae and are awaiting the release of the maternity clinical indicator data for 2016 to put our performance in national context.

Indicator Three: Standard primiparae who undergo an instrumental vaginal birth (by facility)

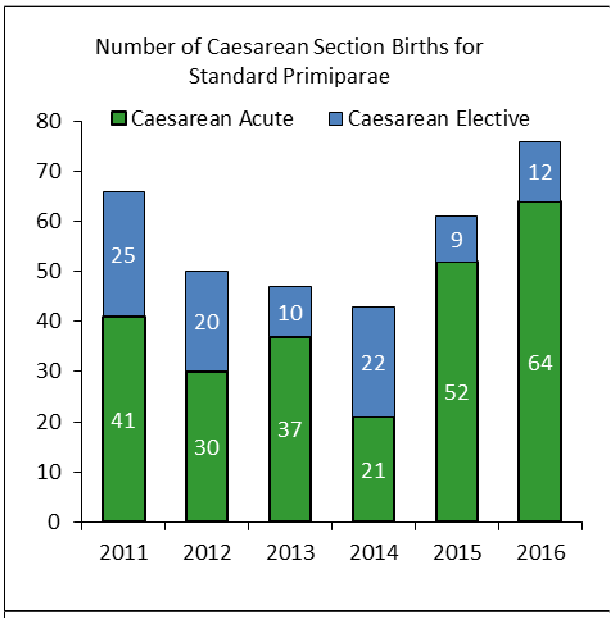


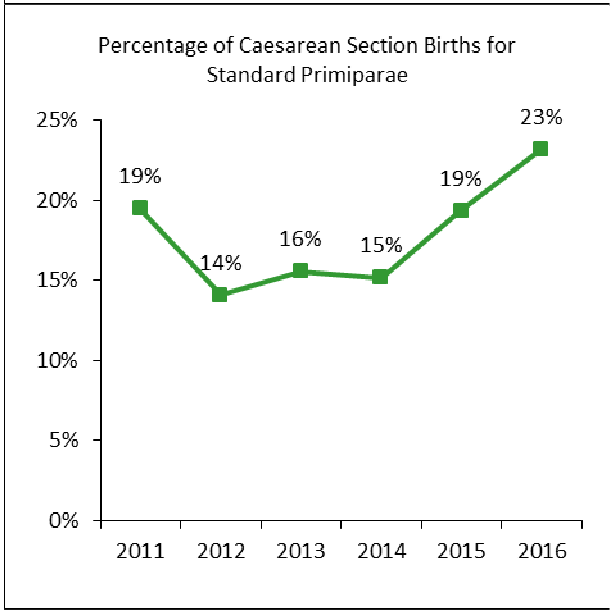


Numerator: Total number of standard primiparae who undergo an instrumental vaginal birth.
Denominator: Total number of standard primiparae.

Comment:
The National rate for standard primiparae undergoing an instrumental vaginal birth in 2015 was 16.3% (by facility), and 19.5% for all Secondary and Tertiary Facilities. In comparison, the Hutt Valley DHB had a rate of 12.3 % (by facility) in 2015. Trends in data collection including 2016 suggest that our rates of instrumental vaginal birth have increased. We are awaiting the release of the maternity clinical indicator data for 2016 to put this in the context of national data.

Indicator Four: Standard primiparae undergoing caesarean section (by facility)





Numerator: Total number of standard primiparae who undergo caesarean section
Denominator: Total number of standard primiparae

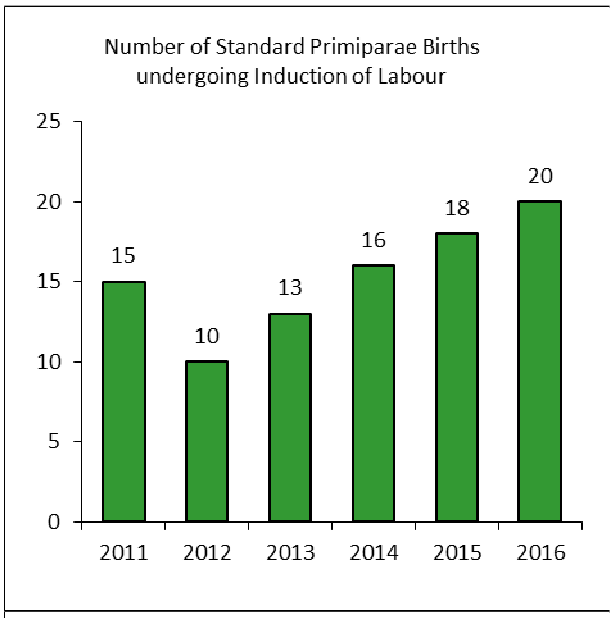
Comment:
The national rate for standard primiparae undergoing caesarean section in 2015 was 14.9% (by facility), and 17.8% for all Secondary and Tertiary Facilities. This shows a small decline nationally however in the same year Hutt Valley DHB had a rate of 19.3% (by facility) showing an increase from the rate of 15% in 2014. Trends in data collection including 2016 suggest that our rates of caesarean section have increased to 23%. To investigate this and take remedial action, we are conducting a multi-disciplinary audit of caesarean sections undertaken on standard primiparae within the context of a PDSA improvement methodology. We are awaiting the release of the maternity clinical indicator data for 2016 to put our performance in the context of national data.

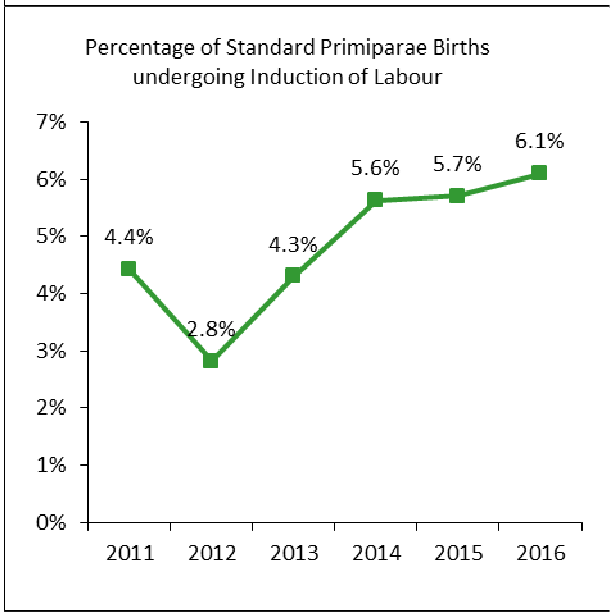
Table 26: Gestation of Standard Primiparae Undergoing Caesarean Section

	37	38	39	40	41	Total
Caesarean Acute	1	6	15	23	19	64
Caesarean Elective		2	7	2	1	12

Comment:
Of the twelve elective caesarean sections: seven were for breech presentation, three for large for gestational age, one for previous gynaecology history, and one for maternal request. All elective caesareans on these women were performed under regional anaesthesia.

Indicator Five: Standard primiparae who undergo induction of labour (by facility)





Numerator: Total number of standard primiparae who undergo induction of labour.
Denominator: Total number of standard primiparae.

Comment:
Hutt Valley DHB induction rates in the standard primiparae have more than doubled since 2012, rising from 2.8% to 6.1% in 2016. Data from the 2015 Clinical indicators show the national rate of standard primiparae women undergoing induction of labour at 5.7% and 6.6% for all secondary and tertiary facilities. The Hutt Valley DHB rate was similar at 5.7% in 2015. As part of our overall review of caesarean sections, a review of reasons for induction for standard primiparae (20) will be undertaken as some have been categorised incorrectly as standard primiparae.

Table 27: Induction of labour 2016 Standard Primiparae (by facility)

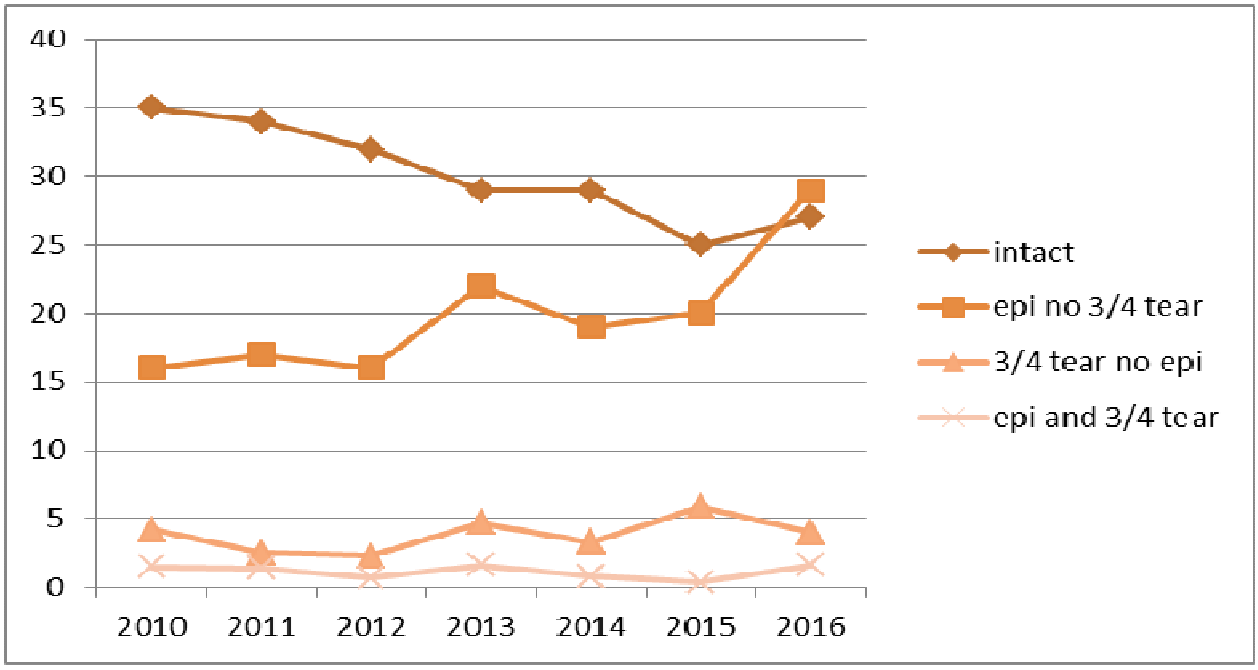
Reason for Induction	Number	Mode of birth
Pre-Eclampsia	2	Spontaneous vaginal birth (1) Caesarean section (1)
Abnormal cardiotograph	1	Caesarean section
Confirmed decreased fetal movements	2	Caesarean section (2)
Elevated liver function test	1	Spontaneous vaginal birth
Decreased amniotic fluid volume including anhydramnios	3	Spontaneous vaginal birth (1) Caesarean section (2)
Spontaneous ruptured membranes with no labour	4	Spontaneous vaginal birth (2) Instrumental assist (1) Caesarean section (1)
Large for gestational age	1	Instrumental assist
Thrombocytopenia	1	Spontaneous vaginal birth
Antepartum haemorrhage	1	Caesarean section
Augmentation	1	Spontaneous vaginal birth
Placental insufficiency	1	Spontaneous vaginal birth
Social	2	Caesarean section (2)

Indicators Six to Nine: Perineal Outcomes

Figure 15 presents an overview of the MOH New Zealand Clinical Indications 6 – 9, around perineal status at delivery for Standard Primiparae. This includes Intact, Episiotomy with no 3rd or 4th degree tear, 3rd or 4th degree tear with no Episiotomy and those with both Episiotomy and 3rd or 4th degree tears.

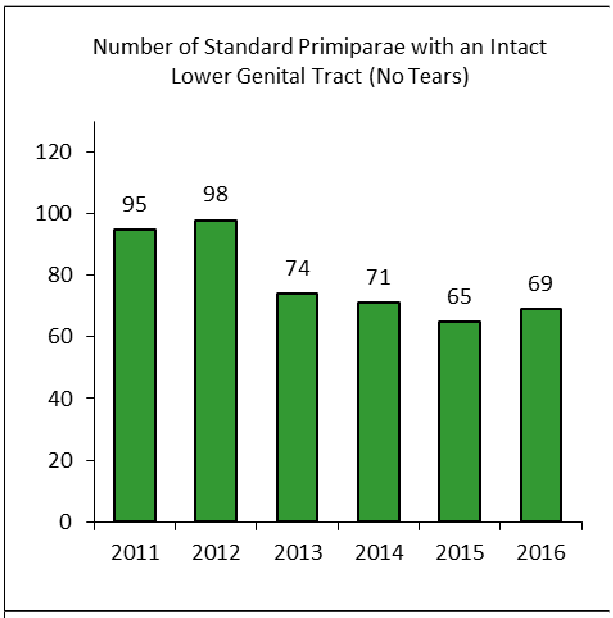
A further detailed break down of each indicator is on the following pages.

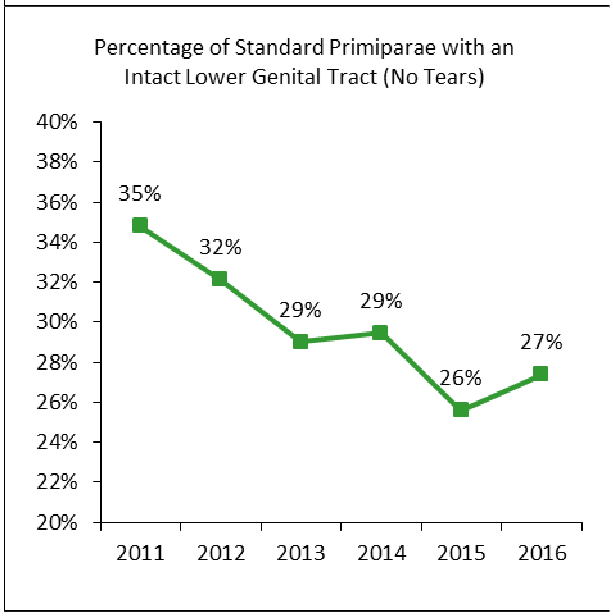
Figure 14: Overview of Perineal Status for Standard Primip



Comment:
Our intact perineum rate for standard primiparae has remained fairly static at 26% in 2015 to 27% in 2016 (Indicator 6). We have had an increase in episiotomy rates (with no tears) from 20% in 2015 to 29% in 2016. Standard primiparae sustaining a 3rd degree tear has decreased from 5.9% to 4.0% in 2016 but 4th degree tears have increased from 0.4% in 2015 to 1.6% in 2016. An audit of perineal trauma in 2016 was carried out. This information will be presented to clinicians and education regarding evidence based use of mediolateral episiotomy and perineal support in 2017. We plan to introduce towel warmers in our delivery suite to reduce the rate of 3rd and 4th degree tears. See pg. 74 for a summary of this audit.

Indicator Six: Standard primiparae with an intact lower genital tract (no 1st - 4th degree tear or episiotomy) (by facility)



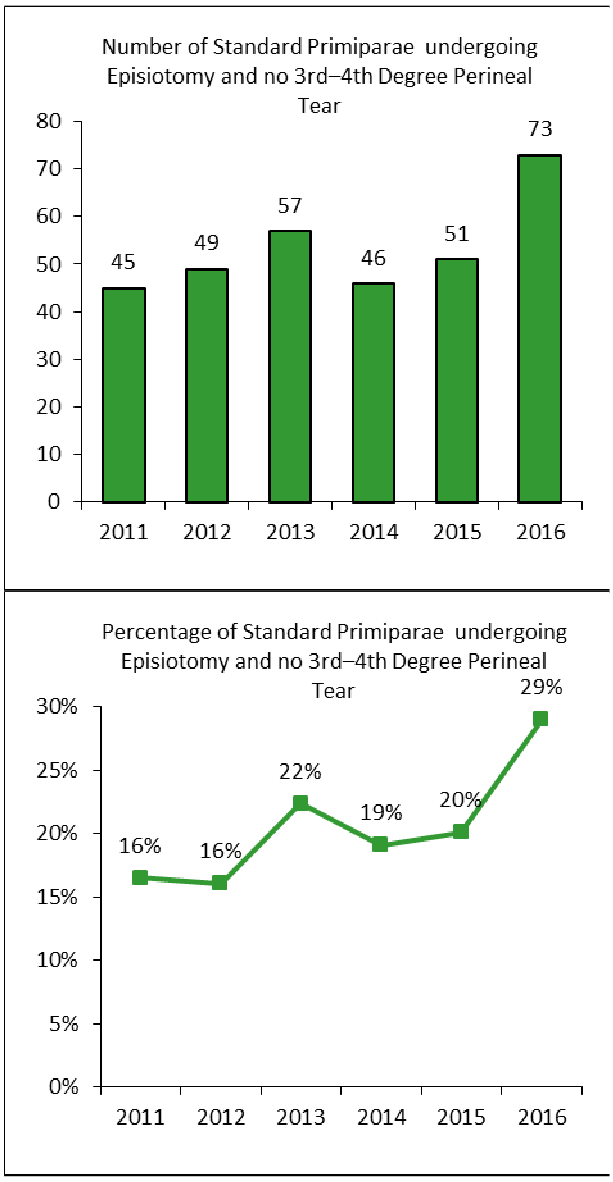


Numerator: Total number of standard primiparae with an intact lower genital tract with vaginal birth.
Denominator: Total number of standard primiparae who gave birth vaginally.

Comment:
The numerator for this clinical indicator shows a static rate in standard primiparae women giving birth vaginally with intact lower genital tract, however in 2015 the national rate was 28.3% by facility compared to our rate of 25.8% which placed Hutt Valley DHB on the median and ranking 13th out of 20 other DHBs.

We are awaiting the release of the maternity clinical indicator data for 2016 to verify this is a continuing trend and have begun to address this with education sessions on perineal care for our staff. See pg. 76 for a summary of our audit of perineal trauma.

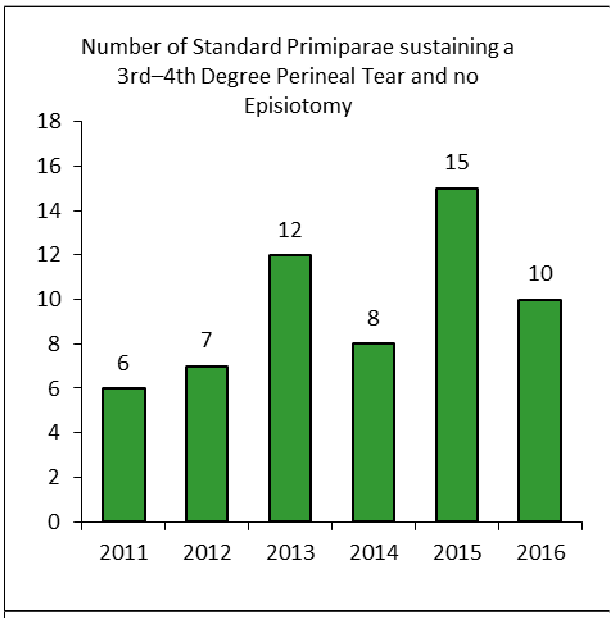
Indicator Seven: Standard primiparae undergoing episiotomy and no 3rd/4th degree perineal tear (by facility)

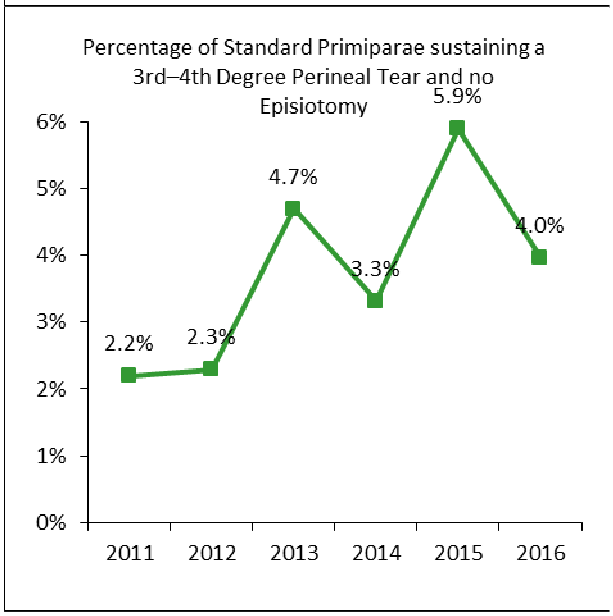


Numerator: Total number of standard primiparae undergoing episiotomy and no 3rd or 4th degree perineal tear with vaginal birth.
Denominator: Total number of standard primiparae who gave birth vaginally.

Comment:
National overall rates of standard primiparae undergoing episiotomy and no 3rd or 4th degree perineal tear were 27.1% in 2015. The Hutt Valley DHB rates were 19% in 2014 and 20% in 2015. However, there is a significant increase in our overall use of episiotomy at 29% in 2016 which cannot wholly be explained by our increased instrumental delivery rate.

Indicator Eight: Standard primiparae sustaining a 3rd/4th degree perineal tear and no episiotomy (by facility)

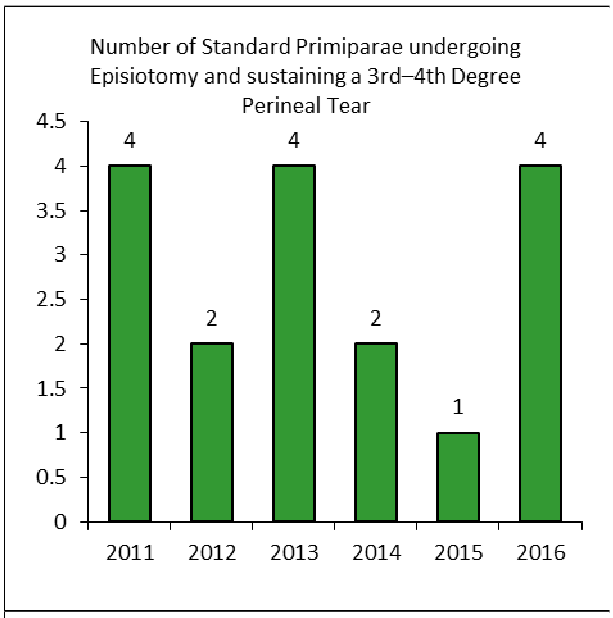


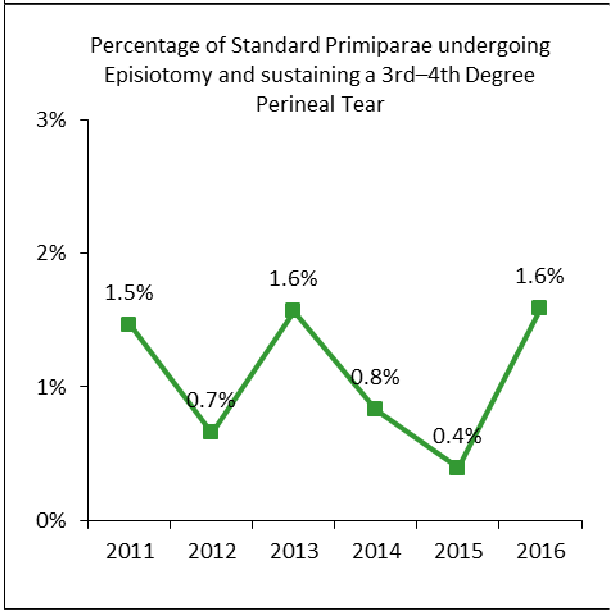


Numerator: Total number of standard primiparae sustaining a 3rd or 4th degree perineal tear and no episiotomy with vaginal birth.
Denominator: Total number of standard primiparae who give birth vaginally.

Comment:
Our rate of third degree tears has decreased since our highest rate in 2015. This is not reflected in our overall rate for all women from an audit in 2016 which showed an increase since 2013. (See pg. 74) Further work on improving perineal care is planned for 2017 with education and the introduction of towel warmers for perineal compresses at the time of birth. Our audit sought to discover this and recommendations included improving education around perineal care in labour.

Indicator Nine: Standard primiparae undergoing episiotomy and sustaining a 3rd/4th degree perineal tear (by facility)

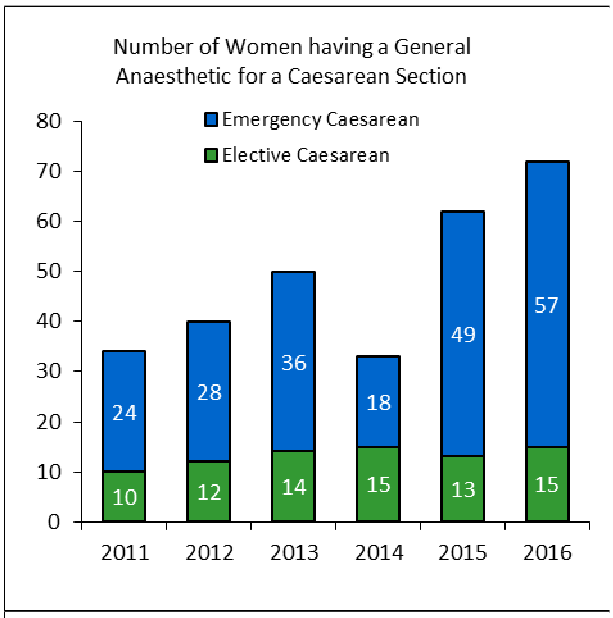


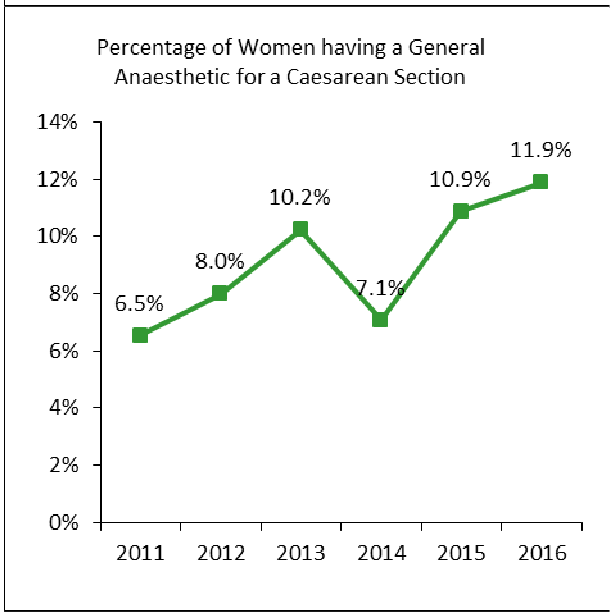


Numerator: Total number of standard primiparae undergoing episiotomy and sustaining a 3rd or 4th degree tear with vaginal birth.
Denominator: Total number of standard primiparae who give birth vaginally.

Comment:
The rate of standard primiparae undergoing episiotomy and sustaining a 3rd or 4th degree tear has increased which is in keeping with our overall increased rate of episiotomy. We have undertaken a perineal audit which sought to investigate our high perineal trauma rates. Recommendations included improving education around perineal care in labour.

Indicator Ten: General anaesthesia for all Caesarean sections (by facility)





Numerator: Total number of women having a general anaesthetic for a caesarean section.
Denominator: Total number of women who undergo caesarean section.

Comment:
Our rates of caesarean sections under general anaesthetic have increased. An audit of caesarean sections converting from regional to general anaesthesia was carried out on 2015 data. Audit standards included the percentage of caesarean sections carried out under regional anaesthesia and the percentage converting from regional to general anaesthesia, this revealed that the standard was not met for number of caesareans conducted under regional.

Table 28: Percentage of caesarean sections carried out under regional anaesthesia 2015

	Huttmaternity	Audit Standard	Standard Met
Category 1	47% (21/45)	>50%	No
Category 1-3	85% (291/341)	>85%	Yes
Category 4	94% (206/218)	>95%	No
Total	88% (497/564)	N/A	N/A

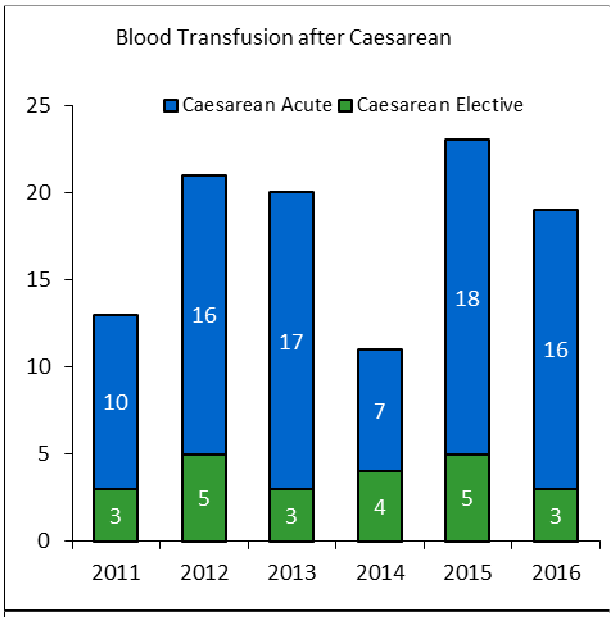
Table 29: Percentage of caesarean sections converted from regional to general anaesthesia 2015

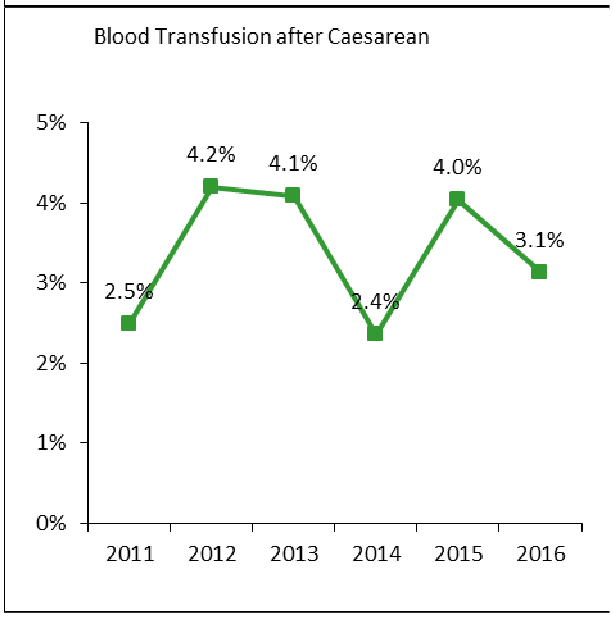
	Huttmaternity	Audit Standard	Standard Met
Category 1	16% (7/45)	<15%	No
Category 1-3	7% (23/344)	<5%	No
Category 4	3% (7/218)	<1%	No
Total	5% (30/562)	N/A	N/A

Comment:
Recommendations included better clinical management of epidurals, earlier communication and improved pre-assessment of women in the birthing suite would help to reduce these rates. Patient-controlled epidural analgesia pumps are being introduced to our unit in 2017 and input from the anaesthetic department on education of epidural use continues to ensure all staff are epidural certified.

A comprehensive multi disciplinary audit of our standard primiparae caesarean sections will be undertaken to address our increasing overall caesarean section rate including those under general anaesthetic.

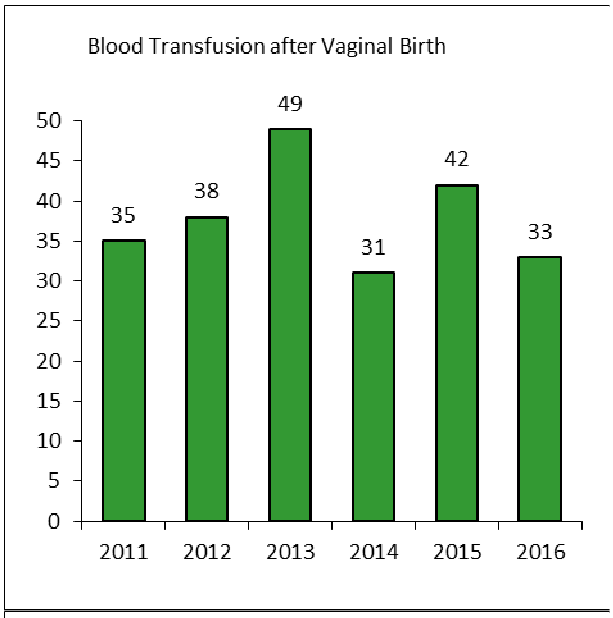
Indicator Eleven: Women requiring a blood transfusion with Caesarean Section (by facility)

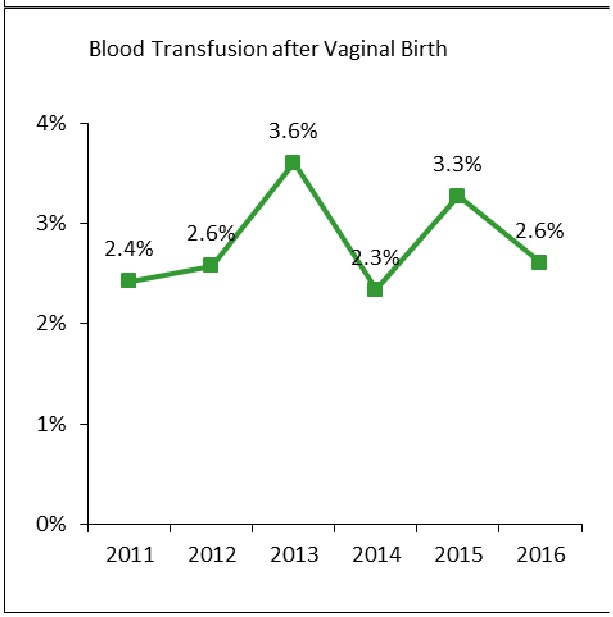




Numerator: Total number of women requiring a blood transfusion with caesarean section.
Denominator: Total number of women who undergo caesarean section.

Indicator Twelve: Women requiring a blood transfusion with Vaginal Birth (by facility)





Numerator: Total number of women requiring a blood transfusion with vaginal birth.
Denominator: Total number of women who give birth vaginally.

Comment:
Our rates of blood transfusions required with both caesarean and vaginal births (3.1% and 2.6% respectively) have shown a decline. In 2016, a plan to change to the use of Ferinject iron for transfusion was presented because of its superior tolerance rate, reduced staffing time to administer and clinical outcome. This is still to be approved. Increased prescribing of iron antenatally and administration intra-operatively for pre-birth anaemia may correlate with this decrease in blood transfusions and requires analysis to measure the impact. See clinical audit. pg. 74.

Indicator Thirteen: Diagnosis of Eclampsia at birth admission (by facility)

Data provided by Ministry of Health from the New Zealand Maternity Indicators state there was one woman in 2015 diagnosed during labour and this is the same as the aggregated rate for all secondary/tertiary figures.

Table 30: Diagnosis of Eclampsia at birth admission

Rate (%)

Facility	2011	2012	2013	2014	2015
All secondary/tertiary facilities	0	0	0	0	0.1
Hutt	0	0	0	0	0.1

Numerator: Total number of women diagnosed with eclampsia during birth admission.
Denominator: Total number of women giving birth.

Indicator Fourteen: Women having a peripartum hysterectomy (by facility)

There was one woman who had a peripartum hysterectomy at Huttmaternity Facility for 2015. This is the same aggregated rate for all secondary/tertiary figures.

Table 31: Women having a peripartum hysterectomy

Rate (%)

Facility	2011	2012	2013	2014	2015
All secondary/tertiary facilities	0.1	0.1	0	0.1	0.1
Hutt	0	0.1	0	0	0.1

Numerator: Total number of women having an abdominal hysterectomy within 6 weeks after birth.
Denominator: Total number of women giving birth.

Comment:
For indicators 13 – 14 numbers are small. In 2016 nine women were admitted to ICU however we need to improve our data collection to determine whether they were ventilated or not. The 2016 rates will be further discussed in our 2017 report.

Indicator Fifteen: Women admitted to ICU and requiring ventilation during the pregnancy or postnatal period (by facility)

Ministry of Health have provided data and there were no women requiring mechanical ventilation during the pregnancy or postnatal period in this reporting timeframe of 2015.

Table 32: Women admitted to ICU and requiring ventilation during the pregnancy of postnatal period

Rate (%)

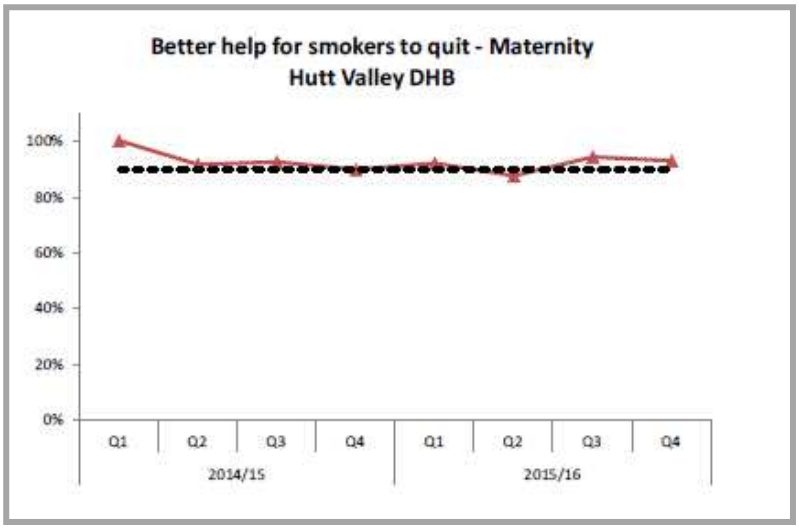
Facility	2011	2012	2013	2014	2015
All secondary/tertiary facilities	0	0	0	0	0
Hutt	0.1	0	0.1	0	0

Numerator: Total number of women admitted to ICU and requiring over 24 hours of mechanical ventilation during admission anytime during the pregnancy or postnatal period.
Denominator: Total number of women giving birth.

Indicator Sixteen: Maternal tobacco use during postnatal period (by facility)

We know from both coded data that women delivering in Hutt Hospital and from MMPO data, that LMCs and core midwives are consistent in asking about smoking status and offering quit advice. Better help for smokers to quit was one of the Ministers' Health Targets as outlined in the DHB Annual Report 2016. Results indicate the target of 90% was exceeded at 93%.

Figure 15: Better help for smokers to quit – Maternity Hutt Valley DHB



Source: Hutt Valley District Health Board Annual Report 2016 pg. 12.

Data on smoking status, at discharge from this facility is collected. (Table 31)
This is only data for DHB employed midwives providing pregnancy care.

Table 33: Smoker at time of Birth by %

Delivery Year	Maori	Pacific	Asian	Indian	European	Other	Not Stated	All ethnicities
2012	42%	10%	1%	0%	9%	0%	0%	15%
2013	43%	13%	1%	1%	11%	0%	25%	16%
2014	38%	11%	0%	0%	9%	0%	11%	13%
2015	40%	9%	0%	0%	11%	3%	0%	15%
2016	42%	13%	1%	0%	9%	0%	0%	15%

Table 34: Maternal tobacco use during postnatal period (2 weeks after birth), by facility

	2012	2013	2014	2015
Number of smokers at 2/52	160	193	172	202
Number of all smokers	1750	1709	1686	1770
Our rate %	9.1%	11.3%	10.2%	11.4%
All Secondary and Tertiary Facilities	12.8%	12.6%	11.0%	11.3%
All Primary Facilities	22.5%	20.6%	20.2%	18.3%
All home births	13%	14.5%	12.2%	11.6%
New Zealand	13.9%	13.5%	12.8%	12.0%

Numerator: Total number of women identified as smokers at 2 weeks after birth.
Denominator: Total number of women with smoking status at 2 weeks after birth reported.

Comment:
At a National level MOH introduced a Key Performance Indicator, maternal tobacco use during postnatal period, into the New Zealand Maternity Clinical Indicators for 2012. This provides data on smoking status at two weeks following birth, or those women registered with an LMC. It does not currently include women who receive DHB funded Primary Care. The most recent data (2015) NZ Clinical Indicators) shows our rate at 11.4%, which is below the national average of 12.0% but tracking upwards.

Indicator Seventeen: Women with BMI over 35 (by facility)

2015 was our first full year of data within the BMI ranges set by the PMMRC and is for all women birthing at Huttmaternity regardless of parity.

Table 35: Body Mass Index for all Births in 2013 – 2016 Huttmaternity Data

	2013	2014 *	2015	2016
< 35	1560	786		
>= 40		23	84	85
<= 18.4		29	28	26
18.5 - 24.99		418	833	791
25 - 29.99		242	534	546
30 - 34.99		110	230	299
35 - 39.99		48	119	116
35 - 49	258	116		
>= 50	17	6		
Unknown	15	12	28	8
Total	1850	1790	1856	1871

For 2015 MOH have provided the following data for standard primips.

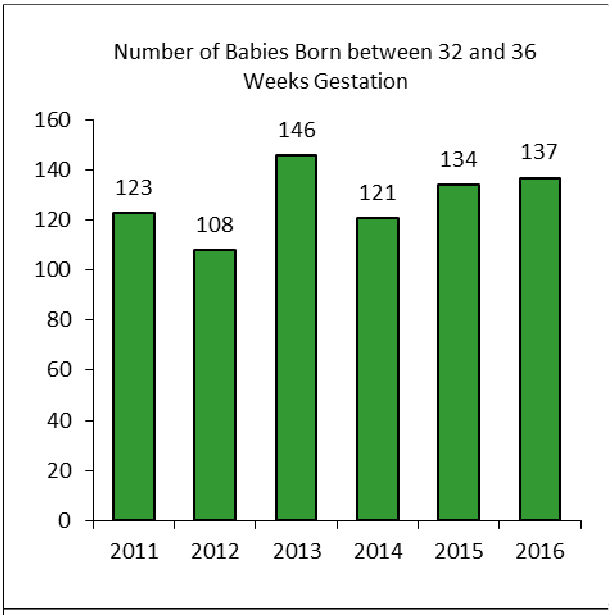
Table 36: BMI for Standard Primiparae

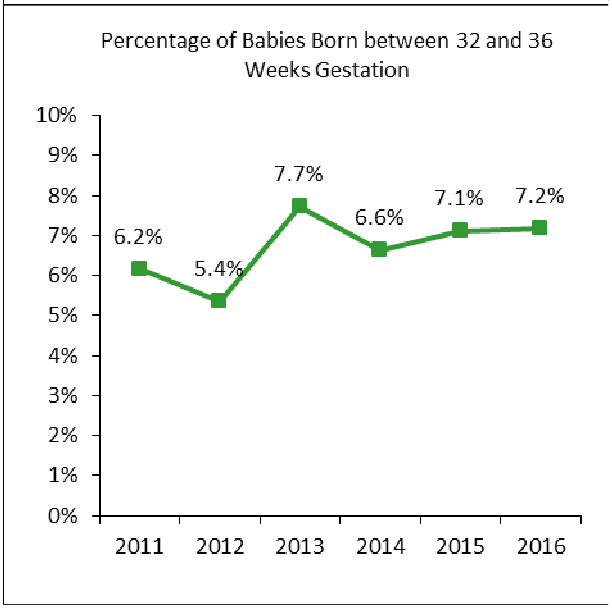
	2013	2014	2015
BMI 36-40	104	103	
BMI >40	78	59	
Total > 35	182	162	182
all women	1746	1718	1769
Hutt Valley DHB %	10.4%	9.4%	10.3%
Secondary and Tertiary Facilities	8.6%	9.3%	9.9%
National %	8.2%	8.8%	9.3%

Numerator: Total number of women with BMI over 35.
Denominator: Total number of women with BMI recorded.

Comment:
As with other indicators such as tobacco use, this information is collected and reported with different ranges i.e. PMMRC and MOH. This makes it difficult to benchmark and compare our status.

Indicator Eighteen: Preterm birth (by facility)





Numerator: Total number of babies born under 37 weeks' gestation.
Denominator: Total number of babies born (live births).

Comment:
In 2012 this indicator was further broken down to <32 weeks and 32-36 weeks in the New Zealand Maternity Clinical Indicators. Our above figures don't include the <32 week figures as these babies would be transferred to a Level 3 facility. This makes it difficult to benchmark against MOH data. By facility we recorded 7 births under 32 weeks but 24 by DHB or residence (transferred).

Indicator Nineteen: Small babies at term (37-42 weeks' gestation) (by facility)

Table 37: Small babies at term (37-42 weeks' gestation)

Facility	2011	2012	2013	2014	2015
All secondary/tertiary facilities	3.5	3.4	3.2	3.3	3.4
Hutt	3.5	3.5	2.4	2.9	3.4

Numerator: Total number of babies born at 37-42 weeks' gestation with birthweight under the 10th centile for their gestation.
Denominator: Total number of babies born at 37-42 weeks' gestation.

Comment:
Our rate of 3.4% for 2015 is comparable to the national rate. Our numerator is 62 babies with the denominator 1762 by facility. This puts us at the 75th percentile in the context of the national data.

Indicator Twenty: Small babies at term born at 40-42 weeks' gestation (by facility)

Table 38: Small babies at term, born 40-42 weeks' gestation

	2013	2014	2015
Huttmaternity	39%	30.6%	41.9%
Secondary and Tertiary Facilities	34.9%	37.9%	37.0%
National	36.7%	39.4%	38.4%

Numerator: Total number of babies born at 40-42 weeks' gestation with birthweight under the 10th centile for their gestation.
Denominator: Total number of babies born at 37-42 weeks' gestation with birthweight under the 10th centile for their gestation.

Comment:
The numerator for Hutt Valley District Health Board of babies born at 40-42 weeks' gestation with birth weights under the 10th centile for their gestation is 26 babies by facility and the denominator is 62 by facility.
Our rate of 41.9% for 2015 is slightly over the national rate but puts us at the 75th percentile in the context of the national data.

Indicator Twenty-One: Babies born at 37+ weeks' gestation requiring respiratory support (by facility)

Table 39: Babies born at 37+ weeks' gestation requiring respiratory support

Facility	2011	2012	2013	2014	2015
All secondary/tertiary facilities	1.7	1.8	2.1	2.2	2.1
Hutt	1.3	2.1	2.1	2.1	2.3

Numerator: Total number of babies born at 37+ weeks' gestation requiring over 4 hours of respiratory support.
Denominator: Total number of babies born at 37+ weeks' gestation.

Comment:
Hutt Valley DHB shows a slight increase compared with the national rate of 2.1% for 2015 within this indicator. The numerator is 40 and the denominator 1726. This puts us at the 75th percentile in the context of national data.

Section Five: Maternity Quality & Safety Programme Activities 2015

The Maternity Quality and Safety Programme (MQSP) had a number of quality initiatives underway for the 2016 year. This was a combination of building on work commenced in 2015, review of work undertaken to ensure embedded processes and new work streams.

For the new Maternity Quality and Safety Programme year, a three tier structure has been introduced: Emerging, Established and Excelling. Based on self assessment against the New Zealand Maternity Standards and our programme objectives, it was agreed between MOH and Huttmaternity that we are in the Established Tier.

The MQSP at Hutt is supported by a Coordinator at 0.5 FTE, and Administration support at 0.5 FTE.

Governance and Clinical Leadership

There were some minor changes in the member composition of our Maternity Clinical Governance Group (MCGG), with new Paediatric Staff and Consumer Members and a representative from our Maori Health Unit. Our range of meetings and forums are well embedded within our governance structure and are working well. (Figure 18).

In 2015 we initiated a Sector & Consumer Engagement Group which meets on alternate months. This is to support progression of the Sector and Consumer work streams.

We have tried to engage representation from General Practice on our MCGG without success in this reporting period. However, there is this representation in the DHBs newly formed Clinical Council where our Director of Midwifery represents maternity.

Consumer Members

There is growing evidence to support the relationship between consumer engagement and improved outcomes from health care. The Health Quality and Safety Commission (2015) defines consumer engagement as:

"A process where consumers of health and disability services are encouraged and empowered to actively participate in decisions about the treatment, services and care they need and receive. It is most successful when consumers and clinicians demonstrate mutual respect, active listening and have confidence to participate in full and frank conversation. Systems that support consumer engagement actively seek input from consumers and staff at all levels of an organisation."

1. *Health Quality and Safety Commission. (2015). Engaging with consumers: A guide for District Health Boards. Health Quality and Safety Commission, Wellington, New Zealand. Accessed 14 May 2017.* *http://www.hqsc.govt.nz/assets/Consumer-Engagement/Publications/DHB-guide/engaging-with-consumers-3-Jul-2015.pdf*

Comment from our Consumer Members (Megan Telfar, Vida Rye and Clare Dulver)

The current consumer members of our MCGG have been in position since the latter part of 2015 and are more used to the way things work within the DHB in this reporting timeframe.

They are committed to attending meetings and assisting with the work streams. These work streams have included completing the BUDSET (Birth Unit Design Spatial Evaluation Tool) on the maternity unit and suggesting ways to improve the space, signage and comfort of the rooms, always trying to represent how it is for a mum-to-be or new mum or their whānau when presenting at the hospital. They look forward to working with the DHB to further improve the unit in the coming year with some innovative, low cost solutions to affect updates, particularly to areas in the unit such as the whānau room.

Our consumers have been involved in evaluating the National Maternity Survey in the past year and had input into the process of developing a Huttmaternity consumer feedback mechanism, based upon the national tool from the Ministry of Health. The consumers are also keen to find alternative and inclusive means of gaining feedback across various modes e.g. paper, verbal, online via website, Facebook or email.

The Huttmaternity website has had its revamp and the consumers are pleased that all Huttmaternity policies and guidelines are now easily accessible. A large part of their work in 2016 involved reviewing the current maternity information content and suggesting ways to make this more whānau-friendly, consistent in approach/design and simple to read. It is recognised that this is an ongoing project due to the overwhelming amount of information currently in circulation. One of the other larger reviews was of the pre and post pregnancy resources directory.

The consumer members of MCGG continue to be driven by their passion to ensure the maternity consumer voice is heard and are working towards being able to truly represent all women in our community.

MCGG Members

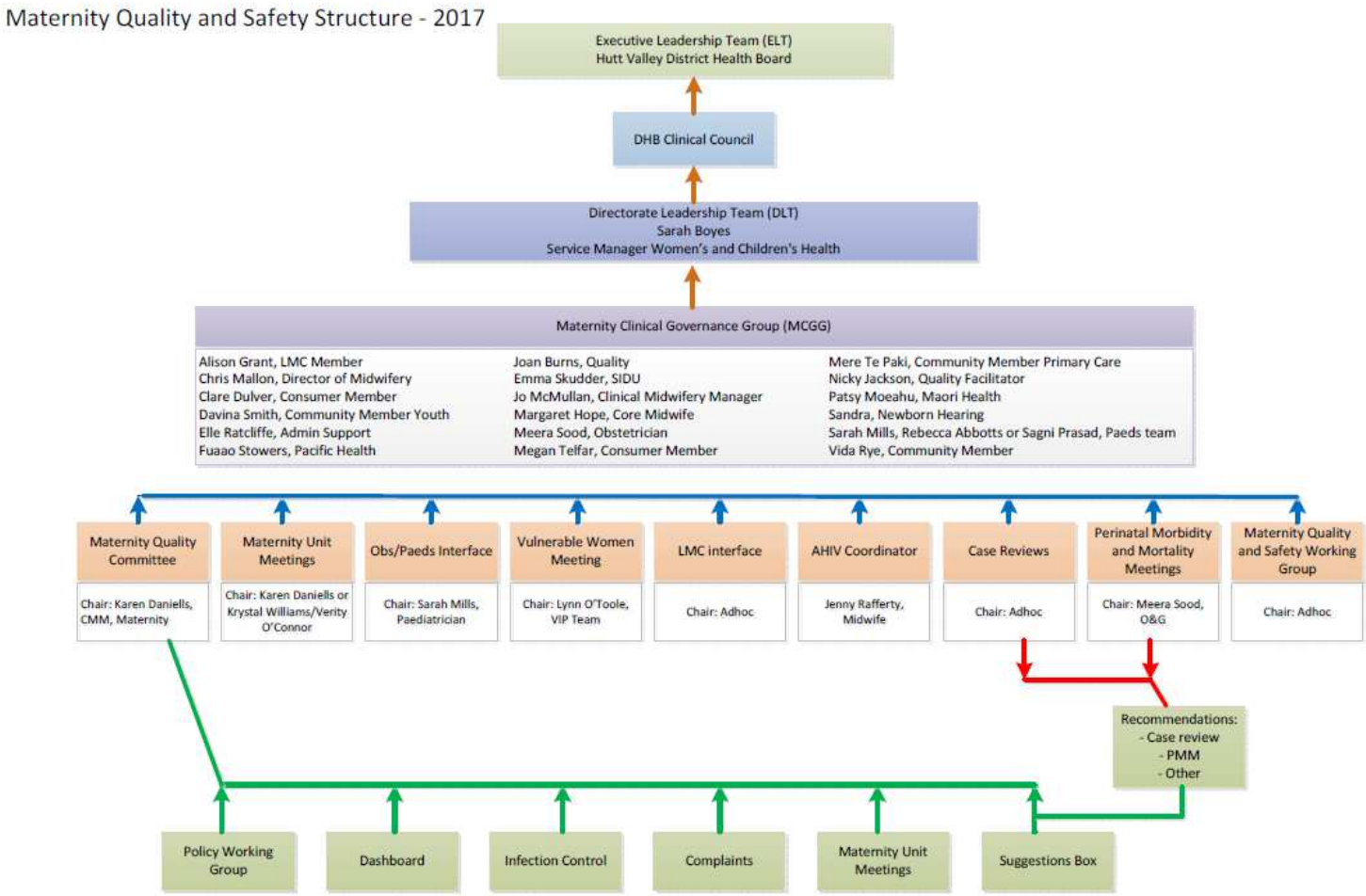
Left to Right are:

Elle Ratcliffe, Admin Support, MQSP Programme
Patsy Moeahu, Maori Health
Vida Rye, Consumer Member
Meera Sood, Obstetrician
Davina Smith, Community Member Youth
Megan Telfar, Consumer Member
Clare Dulver, Consumer Member
Nicky Jackson, Quality Facilitator
Sarah Mills, Paediatrician
Alison Grant, LMC Member
Karen Daniells, Clinical Midwifery Manager
Margaret Hope, Core Midwife Member
Chris Mallon, Director of Midwifery
Jodi Caughley, SIDU
Joan Burns, Quality - DHB Quality Team

Absent
Fuaao Stowers, Pacific Health
Sandra Hoggarth, Newborn Hearing
Mere Te Paki, Community Member Primary Care

Maternity Quality and Safety Structure - 2016

Figure 16: Maternity Quality and Safety Structure - 2016



Quality Initiatives

3DHB Campaign:

Each year Capital Coast, Wairarapa and Hutt Valley DHBs meet quarterly to discuss and share our ongoing projects. We plan an annual sub-regional campaign with a different focus each time. In 2014, we ran a successful regional campaign on the Top Five Things to do in the First Ten Weeks of Pregnancy. For 2015, our topic was the importance of monitoring Baby Movements. In 2016, we focused on a pregnancy checklist for women to tick off throughout their pregnancy. We chose this topic to encourage women to engage a LMC, to update their doctor that they are pregnant and to take folic acid and iodine etc. We feel this has been a successful campaign to promote important messages and a healthy pregnancy start.

Audits

Blood transfusions

Hutt Valley DHB Maternity Clinical Indicators for 2015 identified that we had one of the highest rates for blood transfusions in New Zealand. (4.7% for women after a caesarean, compared to the national figure of 2.9% and 3.3% for women after a vaginal birth compared the national rate of 2.0%).

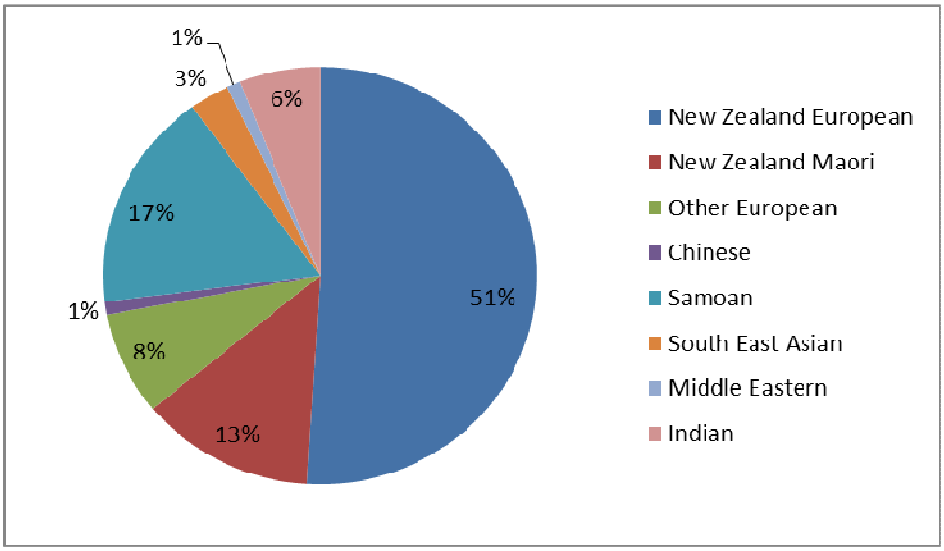
A retrospective audit of haemoglobin (Hb) levels and ferritin levels in women receiving blood transfusions between 1 January 2015 and 31 December 2015 was completed at the end of 2016.

Results

Sixty-five women ranging in age from 16-42 years old, who birthed between 1 January 2015 and 31 December 2015, were identified as having had a blood transfusion. This was 3.4% of the total births within the Hutt Valley DHB catchment. Of these 36% (n=23) were birth by caesarean section (C/S) and 64% (n=42) were post vaginal birth.

61% (n=40) were primiparous and 39% (n=25) were multiparous, with parity ranging from 1-8. 4% (n=3) had parity greater than 3.

Figure 17: Ethnicity of women receiving blood transfusions



The majority of women (86%) receiving blood transfusions were as the result of a primary postpartum haemorrhage (PPH). Only 13% (n=8) had a documented estimated blood loss EBL of < 500 mls. 23% (n=15) had a documented EBL loss between 500 – 1000 mls. 38% (n=25) had a documented EBL loss of 1000 – 2000 mls and 25% (n=16) had a documented EBL loss of > 2000 mls. One person did not have any documented blood loss.

Figure 18: Percentage of estimated blood loss per category

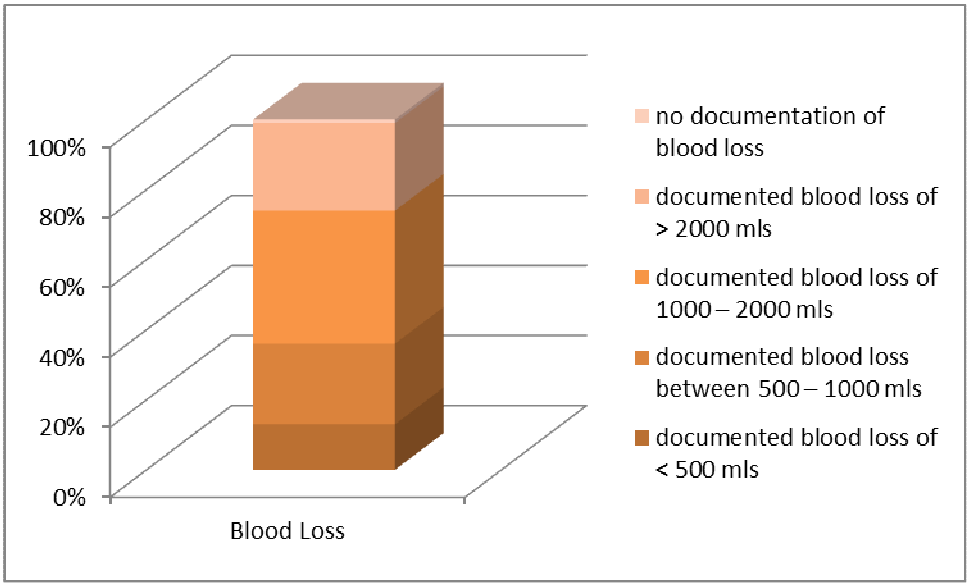


Table 40: Comparison of estimated blood loss with pre-birth Hb and ferritin levels

EBL	Pre-birth Hb < 110	Pre-birth Hb >110	Final documented ferritin level <30	No ferritin level available post booking.
≥1000 mls (n=41)	17 % (n=7)	83 % (n=34)	49 % (n=20)	34 % (n=14)
500 – 1000 mls (n=15)	26 % (n=4)	74 % (n=11)	33 % (n=5)	33 % (n=5)
0 – 500 mls (n=8)	37 % (n=3)	63 % (n=5)	63 % (n=5)	38 % (n=3)

Note: the percentage is per category of blood loss.

From the analysis of the data comparing pre-birth haemoglobin levels and/or pre-birth ferritin levels with estimated blood loss, anaemic or iron deficient women make up a large proportion of those women receiving blood transfusions as a result of primary post-partum haemorrhage.

During 2015, Huttmaternity did not have any protocol around postpartum provision of iron infusion over blood transfusion for those women with Hb levels under 90. A significant proportion of women with a postpartum Hb level of between 80 and 100 were transfused. We suspect this is the reason behind Hutt Valley DHB reporting a higher number of blood transfusions than the national average.

The first recommendation from this audit was the adoption of a new guideline “Management of anaemia in Pregnancy” developed in conjunction with the Hutt Valley DHB Anaesthetic department. This is currently awaiting approval from the quality committee. This guideline recommends commencing iron supplementation treatment antenatally if Hb < 110 and or ferritin <30. Postnatally, the recommendation is for iron infusion if Hb levels are between 70 and 90.

A second recommendation is that clinicians caring for postpartum women in the maternity unit with iron deficient anaemia should have easier access to carboxymaltose (Ferinject) as it has less adverse reactions than polymaltose. Postnatal women symptomatic of iron deficient anaemia with an Hb level over 70 can have access to a safer method of iron infusion rather than blood or polymaltose.

Huttmaternity looks forward to the revision of the National Consensus Guideline for the treatment of postpartum haemorrhage and agreement to a local policy guiding blood transfusions versus iron supplementation or transfusion. A business case was put forward in this reporting period and currently iron carboxymaltose is only being used for outpatient services.

Third and fourth degree perineal trauma

From the 2015 Clinical Indicator Data, Hutt Valley DHB demonstrated an increase in the number of our standard primaparae women sustaining perineal trauma diagnosed as third or fourth degree, particularly for standard primiparae not having an episiotomy (3.4% in 2014 to 6.1% in 2015). This had been previously audited using data from 2013 (6mths only).

In 2016, an audit was undertaken with the purpose of reviewing our current practice and the application of the evidence to improve outcomes in this area.

Notes of all women birthing at Hutt Valley for 11 months September 2015-2016 (excluding June) were reviewed and compared to a previous audit.

Table 41: Comparison with 2013 and 2015-16 Audits

	2013 (6 mths)	2015-2016 (11 months)
Live births	942	1928
Normal vaginal birth	601	1328 (68%)
3rd degree tear	2.2%	(2.6%)
4th degree tear	0.2%	(0.6%)

Findings requiring further analysis are as follows:

- 43 women sustained a 3rd or 4th degree tear.
- 67% of women who sustained 3rd and 4th degree perineal tears were women having their first baby.
- 74% of the new-born in this study were less than >4kgs.
- None of the women were cigarette smokers.
- 9 Episiotomy were performed.
- Age and weight of the mother were recorded but not analysed in relation to results.
- Limitations noted were the difficulty to obtain the data on the technique used during second stage due to poor documentation of perineal

support. Only two midwives documented supporting the perineum during second stage.

Figure 19: 3rd and 4th degree tears by Mode of delivery (%)

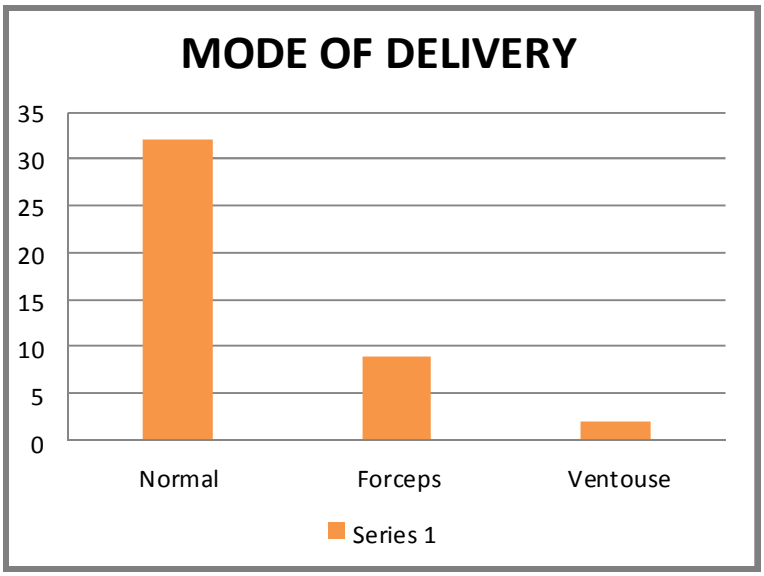
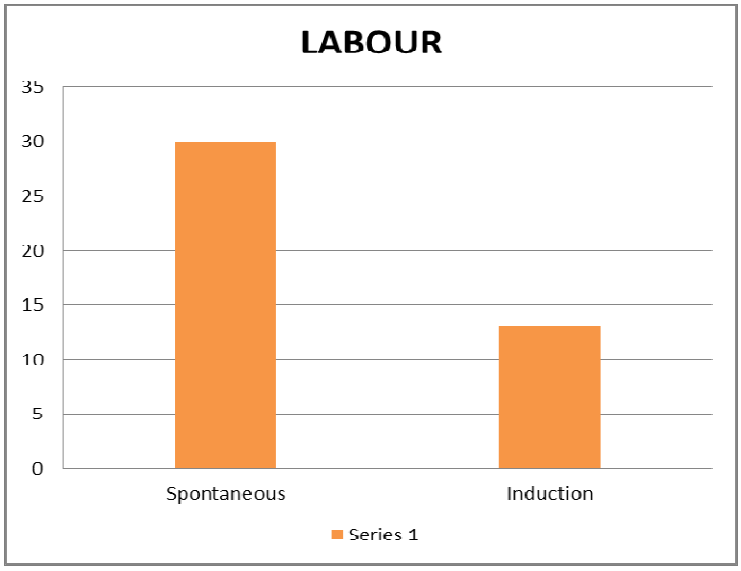


Figure 20: 3rd and 4th degree tears by onset of labour (%)



As a result of this audit, plans to develop education sessions to staff on perineal care and introduce warm compresses as standard practice are in progress. We would like to encourage improved documentation of perineal care given and outcomes for the purposes of future audits to gauge opportunities for improvement.

Huttmaternity Facebook

Our Huttmaternity Facebook went live in December 2014. Two years on maintenance has sought to increase our exposure and give important messages. In December 2016, Huttmaternity ran our annual Christmas themed Photo Competition. The photo had to be Christmas themed and the baby born in 2016 in the Hutt Valley. This served a dual purpose as users were also asked to provide two comments about Huttmaternity a) something they liked and b) something that could be improved. The competition received 28 entries over the three weeks. The competition increased our engagement and created multiple conversations in this form of social media and our following continues to grow.

Figure 21: Growth of Huttmaternity's Facebook Page - 2016

Huttmaternity Website

Over the latter half of 2015 the Huttmaternity website had a revamp. This has made the site more user friendly with quick links. The complete content of the site was also reviewed and updated. We have also included a Health Professionals section which has links to our Policies, Publications and Training/Education Calendar. The site also now includes a live feed to our Huttmaternity Facebook page. Below are the sessions, users and page view numbers for 2016.

Figure 22: Huttmaternity website engagement - 2016

Expo

In July 2016 we held our second Huttmaternity Expo. The aims of the Expo were to:

- encourage sector engagement and networking with maternity providers.
- encourage networking and understanding of NGOs and community groups available to women and families.
- showcase Huttmaternity services.

Power point presentations ran on slide shows across the three rooms with pregnancy care information, HuttMaternity website and Facebook pages and our top 5 Things to do within the first 10 Weeks.

Local NGOs and community groups were asked to display information about their groups. Fifty-five groups were invited to participate with 34 confirming their attendance.

It was decided by the MCGG to run this as an event every two years and to plan for increasing the engagement of General Practitioners and Practice Nurses who commonly see women early in their pregnancies.

Pre and Post Pregnancy Community Resources Directory

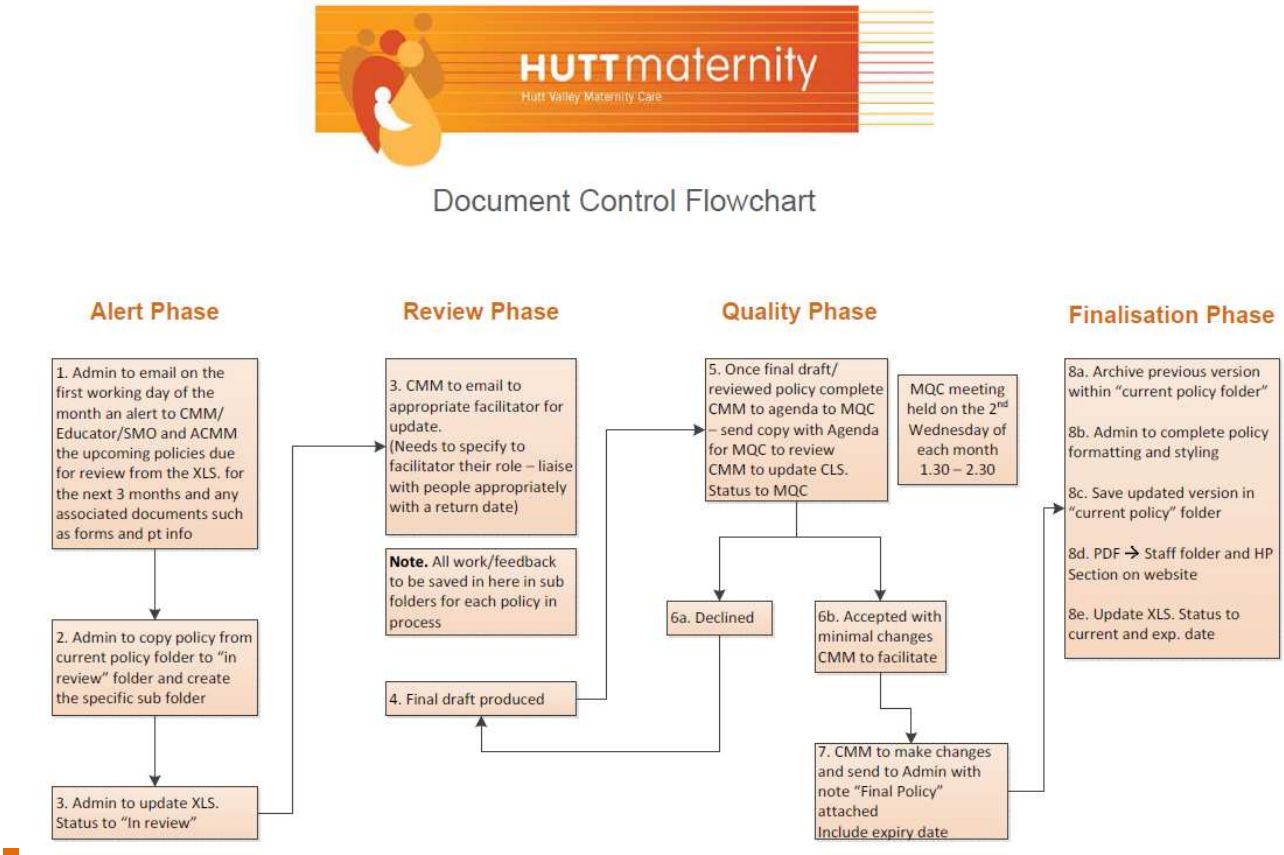
Our directory is a collection of agencies, NGOs and community groups in the wider Valley region which provide a pregnancy or postnatal based service. The directory is the first of its kind in this DHB for maternity users, although currently aimed at health professionals the directory is available for anyone to access on our website. In 2017, we will be working with our consumers on making this user friendly for health professionals and women and families. The directory will also be reviewed in 2017 to make sure all contact details are up to date and if any new agencies, NGOs or community groups need to be added.

GP Notification of Registration for LMC care with DHB Primary or Secondary Care teams

As a result of feedback from Primary Care, we have developed an electronic system where the GP practice is notified when a woman engages and is booked under the DHB Primary Midwives Team or Secondary Care Team. Some midwifery provider organisations automatically notify a known GP and LMCs not using these systems have been encouraged to inform the GP and where there is no GP encourage engagement.

Document Control

These systems ensure a robust revolving system for reviewing all Huttmaternity documents in a timely manner. This is an ongoing MQSP activity but relies on input from the whole unit to review documents according to the deadline set.



Newsletter review

When we commenced the MQSP, we investigated ways to communicate with primary practices and stakeholders. We created an external newsletter, which is produced 3-4 times a year. This was reviewed in 2015 and felt inadequate to meet the more frequent communication requirements for core staff and LMCs of the day to day operation issues within the service. We now produce an internal newsletter for core staff and LMCs which is emailed out on the first and third Fridays of the month. There are multiple contributors to these newsletters and it is open to everyone to submit items. By having this planned approach, it has reduced the amount of information sent out separately. We include items like: news items, education and training, staff news, upcoming meetings, recommendations, policy updates, and meeting minutes. We have included short surveys for staff to encourage wider consultation on issues pertaining to our maternity service. Our external newsletter continues for communication to primary practices and other maternity stakeholders. We continue to look for ways to improve readership such as ensuring we have up to date emails, a few hard copies left in the unit and on noticeboards and incentivising occasionally such as draws to win a voucher for the café.

Screening, Diagnosis and Management of Gestational Diabetes in New Zealand; A clinical practice guideline

In 2015, the MOH asked all DHBs to align their screening and care of women with GDM to those recommendations identified in the document, Screening, Diagnosis and Management of Gestational Diabetes in New Zealand: A clinical practice guideline. Most of the 37 recommendations were already part of our normal care but the following are the changes that we made.

- HbA1c is now included routinely with the antenatal booking bloods for all women. This should help identify early in pregnancy those women with undiagnosed pre-existing diabetes (HbA1c≥50) plus those women with likely pre-diabetes. At Hutt Valley DHB we have decided to offer these women (HbA1c 41-49) a glucose tolerance test at 14-16 weeks. If raised, which it usually is, they will be referred to the antenatal diabetes clinic. If normal, they should have a GTT at 24-28 weeks as per the National GDM guidelines, plus may be referred to the dieticians for extra nutrition advice.
- Postnatally, women with GDM are no longer asked to do a GTT or fasting glucose, but their GP is asked to follow them up at 3 months with an HbA1c, then annually thereafter.

There was concern initially that the routine HbA1c might increase pressure on the Antenatal Diabetes service. However, after a year of implementation, though the number of women in total coming through the clinic has risen steadily, in 2016, of 120 women seen, only 9 were diagnosed with GDM before 20 weeks.

- Blood glucose target levels were changed by the diabetes team to reflect the tighter control recommended by the guidelines.
- Postnatally, as well as the HbA1c at 3 months, the dietician service is planning to offer women who have had GDM an appointment with a dietician.

Dashboard

A review of our Maternity Dashboard was undertaken in 2015. This was to make changes in the different views of data, our own KPIs and MOH, and benchmarking against our own statistics. This involved a dedicated team from IT and maternity, to undertake changes in our clinical documentation and the dashboard. Our Dashboard is a visual snap shot and alert system for monitoring KPIs. We are proposing to review our data collection systems, particularly with regard to accuracy of coding.

This is not live data, but our Dashboard looks like this:

Figure 23: Dashboard example (Not live data)

Maternity KPI: HVDHB All	2016 Jan	2016 Feb	2016 Mar	2016 Apr	2016 May	2016 Jun	2016 Jul	2016 Aug	2016 Sep	2016 Oct	2016 Nov	2016 Dec	Total
01 Number of babies born	161	144	156	159	176	128	166	152	169	163	149	167	1,890
02 Number of women delivered	159	143	154	157	174	126	163	151	167	161	147	165	1,867
03 Spontaneous Vaginal Birth	59.6% 96	54.2% 78	57.7% 90	53.5% 85	52.3% 92	60.9% 78	58.4% 97	61.2% 93	58.6% 99	50.9% 83	49.7% 74	52.1% 87	1,052
04 Instrumental Vaginal Birth	14.9% 24	16.0% 23	8.33% 13	10.1% 16	16.5% 29	7.81% 10	9.04% 15	11.2% 17	6.51% 11	11.0% 18	13.4% 20	7.19% 12	208
05 Caesarean Section	24.8% 40	29.2% 42	32.7% 51	35.9% 57	30.7% 54	31.3% 40	32.5% 54	27.0% 41	34.9% 59	38.6% 63	36.2% 54	40.7% 68	623
06 Acute Caesarean Section	16.8% 27	16.0% 23	23.7% 37	24.5% 39	18.8% 33	18.8% 24	19.3% 32	19.7% 30	23.1% 39	27.0% 44	27.5% 41	28.7% 48	417
07 Elective Caesarean Section	8.07% 13	13.2% 19	8.97% 14	11.3% 18	11.9% 21	12.5% 16	13.3% 22	7.24% 11	11.2% 19	11.7% 19	8.72% 13	12.0% 20	205
08 Induction of Labour	21.7% 35	24.3% 35	21.1% 33	25.2% 40	26.1% 46	16.4% 21	23.5% 39	24.3% 37	27.2% 46	21.5% 35	18.8% 28	22.8% 38	433
09 Vaginal birth after CS	0.62% 1	1.39% 2	1.92% 3	0.00% 0	0.57% 1	1.56% 2	0.60% 1	2.63% 4	1.78% 3	1.84% 3	0.00% 0	1.20% 2	22
10 Epidural	33.5% 54	29.2% 42	25.6% 40	37.1% 59	25.0% 44	18.0% 23	27.1% 45	30.3% 46	30.8% 52	22.7% 37	23.5% 35	26.9% 45	522
11 Third or fourth degree perineal tear	0.00% 0	2.08% 3	1.28% 2	3.14% 5	1.70% 3	3.13% 4	4.22% 7	2.63% 4	2.37% 4	0.61% 1	0.67% 1	1.20% 2	36
12 Maternal admission to ICU	0.00% 0	0.00% 0	1.28% 2	0.00% 0	0.00% 0	0.78% 1	1.20% 2	0.00% 0	1.18% 2	0.00% 0	0.67% 1	0.60% 1	9
13 Estimated blood loss > 1 litre	3.11% 5	2.08% 3	3.85% 6	3.14% 5	5.11% 9	4.69% 6	1.20% 2	1.97% 3	4.14% 7	3.68% 6	3.36% 5	1.80% 3	60
14 Blood transfusion with CS	0.00% 0	0.69% 1	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	1.18% 2	0.61% 1	1.34% 2	0.00% 0	6
15 Blood transfusion with VB	0.00% 0	0.00% 0	0.64% 1	0.63% 1	0.00% 0	0.78% 1	1.20% 2	0.66% 1	1.78% 3	1.23% 2	0.00% 0	0.60% 1	12
16 Admission to SCBU	13.0% 21	11.8% 17	14.7% 23	9.43% 15	11.4% 20	12.5% 16	14.5% 24	9.87% 15	7.10% 12	9.82% 16	14.1% 21	11.4% 19	219
17 Stillbirth	0.00% 0	0.69% 1	1.28% 2	0.00% 0	0.57% 1	0.00% 0	0.00% 0	0.66% 1	0.00% 0	0.00% 0	0.00% 0	0.00% 0	5
18 Neonatal death	0.00% 0	0.00% 0	0.64% 1	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	1
19 Preterm birth	5.59% 9	7.64% 11	5.77% 9	3.14% 5	8.52% 15	7.03% 9	5.42% 9	5.92% 9	5.92% 10	9.82% 16	8.05% 12	7.19% 12	126

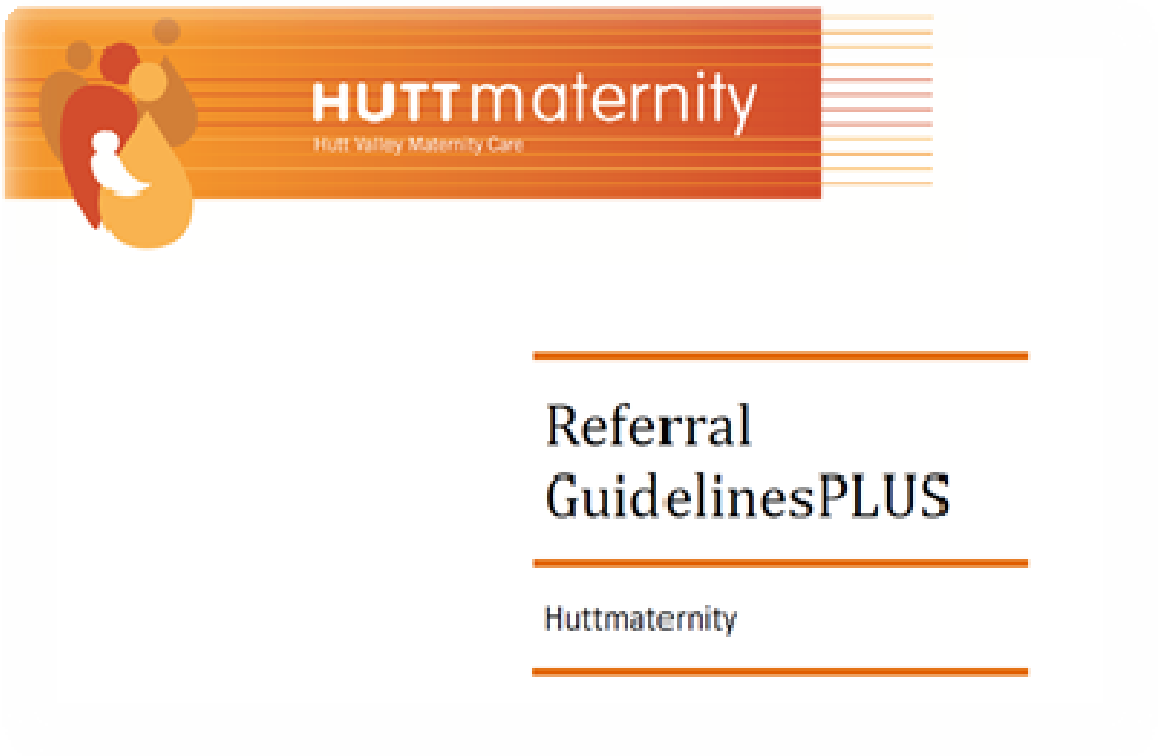
Staff Flu Vaccinations

During the 2016 flu season, 28 midwives (employed) out of 54 were vaccinated by the DHB occupational health team. Numbers of Lead Maternity Carers were not categorised separately in this reporting period. Huttmaternity are please to report that two of our staff members are now qualified to administer flu vaccinations to women and one of these can administer to staff. We are hoping this in house service will further increase uptake.

Referral Plus

Huttmaternity Ref Plus was based on a version at Waitemata DHB, and is an additional guideline tool for LMCs and Primary Care regarding referral to Secondary Care Obstetric Services. The Huttmaternity Ref Plus expands MOH Guidelines for Consultation with Obstetric and Related Medical Services (Referral Guidelines) with localised information, guidelines on when to refer women, clinical recommendations and rationale. It encompasses all the referral reasons to Secondary Care Obstetric Services Clinics, with the aim of encouraging timely referrals. This is an additional tool to sit alongside the Referral Guidelines and will inform our Health Pathways for GP's, currently being developed.

This was launched in January 2016 and was widely circulated to stakeholders and available on our Health Professional Section on the Huttmaternity Website.



Section Six: National Maternity Monitoring Group Recommendations

Along side our own MQSP Objectives we have allocated high priority to the National Maternity Monitoring Group (NMMG) work streams. NMMG have both recommendations of work streams and priorities. We have outlined our progress or plans to date, in each of these priorities.

Connecting and supporting consumer members

We have three consumer members of our Maternal Clinical Governance Group. They have contributed to this annual report which outlines activities undertaken in this reporting period. Our consumers have been instrumental in instigating our Consumer survey. They are wanting to promote this through their networks and for women prior to discharge as a means of engaging with our community and making improvements to our service which meet the community's needs.

Other national groups and committees involved in maternity quality improvement

Our DHB responds promptly to national groups such as the Perinatal and Maternal Mortality Review Committee (PMMRC) and within that the Maternity Morbidity Working Group. Recommendations and enquiries from National Maternity Monitoring Group are escalated to our Maternity Clinical Governance Group for guidance on meeting recommendations to improve the quality of maternity care delivered.

New Zealand Maternity Clinical Indicator data

As outlined, we have commenced work around improving our systems for the collections of accurate data in order to reflect our outcomes. This involves working closely with our clinical coding team and IT Department. Our reporting period is one year ahead of the availability of annual Maternity Clinical Indicator Data and means we are retrospectively benchmarking our DHB. We have developed an internal data report based on the indicators which enables us to look at our data from the previous year in order to react more responsively, instigating audits and changes in clinical practice.

Primary maternity facilities

In this reporting timeframe there are no stand alone primary facilities in our DHB. However, we propose to increase the number of primary births in our unit by promoting normal birth and providing an option for an environment of low technology. Our consumers are involved in this project.

Consistency in the quality of first trimester care

Hutt Valley DHB are involved in creating localised health pathways for ensuring health professionals are providing evidence based care. We have made attempts to

appoint a practising General Practitioner GP to our Maternity Clinical Governance Group and will keep pursuing this to ensure representation of this part of the maternity sector.

Anti-D

Our DHB has a comprehensive guideline and pathway for the administration of Anti D in a timely manner. We will work with our laboratory service to review ways of monitoring the uptake of prophylactic anti D immunoglobulin.

Perineal trauma

An audit was performed in this reporting timeframe and plans for education to staff and the installation of towel warmers to reduce our rates of perineal trauma. (See pg.76)

The refreshed New Zealand Health Strategy

We plan to use the Roadmap of Actions to inform our future planning of maternity quality and safety initiatives and align our reporting to this model. Examples include the identification of women declining referral for reasons of high BMI but not diabetes. Work has commenced on consulting with consumers and other stakeholders (people powered) to improve the journey for these women.

Section Seven: Perinatal and Maternal Mortality Review Committee Recommendations at Huttmaternity

PMMRC is an independent committee that reviews the deaths of babies and mother in New Zealand. Every year the PMMRC release a range of recommendations. The following are recommendations from the 10th Annual Report released in 2016, and actions undertaken at Huttmaternity in direct relation to each recommendation.

Perinatal mortality

1. **That the Perinatal Society of Australia and New Zealand perinatal death classification (PSANZ-PDC) system be modified to allow the classification of babies dying with placental pathology outside of unexplained antepartum death.**

   The changes will be applied from 2017

2. **That district health boards with rates of perinatal related mortality and neonatal encephalopathy significantly higher than the national rate review, or continue to review, the higher rate of mortality or morbidity in their area and identify areas for improvement.**

   Our DHB has developed a trigger form and pathway for cases of neonatal encephalopathy. All cases are reviewed by a paediatrician and obstetrician at our Maternity Quality Committee meeting. Should a case review be recommended then this is instigated from a review of the trigger and recommendations for practice improvement formulated.

3. **That a Perinatal and Infant Mental Health Network be established to provide an interdisciplinary and national forum to discuss perinatal mental health issues.**

   This is a national initiative. At a local level, a maternal mental health clinic has been in existence at Hutt Valley DHB since 2014 and is assessing increasing numbers of women for perinatal mental health issues. Our Vulnerable Women and Unborn Baby Group includes primary care, maternity carers and social services such as Violence Intervention Programme nurse specialists, police, Child Youth and Family social workers and Well Child providers. Referrals include women with mental health concerns.

4. **All clinicians involved in the care of pregnant women should undertake regular multidisciplinary training in management of obstetric emergencies.**

   Multi disciplinary training in management of obstetric emergencies is available to all clinicians in our unit. The PROMPT (Practical Obstetric Multi-Professional Training) has been adopted and is an evidence based multi-professional training package for obstetric emergencies. It is associated with direct improvements in perinatal outcomes. This is held three times per year. Alternatively, our midwifery workforce attends compulsory emergency training in maternal obstetric emergencies and maternal and infant resuscitation annually.

Section Eight: Quality and Safety

Compliments

We have had 24 praises registered with the DHB Quality Team for 2016. The themes of these compliments relate to care and staff professionalism:

"Everyone here is so amazing and helpful I don't event want to go home. Thank you so much for all your hard work and help."

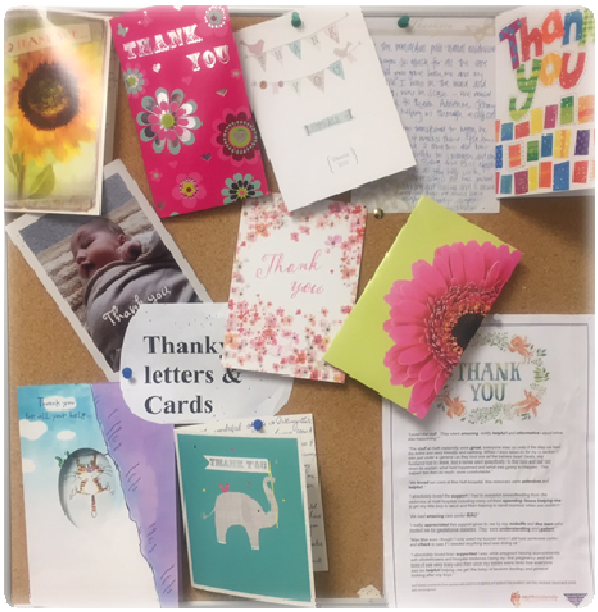
"Happy with advice about breastfeeding, and care and support following caesarean section."

"I had a number of midwives/nurses attend to me & was blown away with how helpful, friendly & informative they were. Although it was almost a different person attending to us each time, information & advice was really consistent across the board."

"Loved all the midwives that helped after my unplanned C-section, including the team who delivered our baby and the consultants. Everyone went above their job description to make our stay as comfortable as possible."

"Thanking staff for the support and the different services that are available including acupuncture for pre-natal services."

It should be acknowledged that not all compliments are registered through the Quality Team and many thank you cards are given collectively and to individual staff members in our unit.



Complaints

In the 2016 year there were six complaints registered with the DHB Quality Team. These can be summarized into the following categories:

Table 42: Complaints and Compliments by Category

Communication:	3
Standard of Clinical Care	2
Environment:	1

Twenty-four Compliments were received about the following aspects of care: Discharge Planning 1, Communication 9, Care received 14.

All complaints were responded to in writing. If appropriate, a meeting was held with the complainant and their family and clinical staff.

Our compliments, complaints and recommendations from all sources are reviewed by the Maternity Quality Committee. Appropriate actions are planned, documentation altered as needed and decisions communicated to relevant parties. Feedback from the Maternity Quality Committee is a standard item on our MCGG agenda.

All compliments and complaints are co-ordinated through the DHB Quality Team. There is a suggestions box at the Maternity Unit reception.

A planned work stream for 2016 is to initiate a consumer survey using the National Consumer Survey Tool provided by MOH. Our plan is to have quarterly or six monthly reporting on the responses to be able to act sooner. This may either reduce the number of complaints received or potentially increase the numbers. This will be looked at as part of the review process.

We have a main DHB generic Health Care Events reporting system and a complementary process to capture specific maternity events. See our pathway below.

Health Care Events - SQUARE

For our internal event reporting there were 50 inpatient and unit events and 8 events for employees and affiliates. These include such events as needle sticks, slips and trips, and strains. All events are reviewed by the Clinical Midwifery Manager and Line Managers as appropriate.

The main categories of the events concerning the ward environment and inpatients were:

- Care service coordination issues: These include such issues as equipment problems and handover between staff members.
- Equipment staffing and resource: Events concerning the availability of staff or equipment, and equipment failure.
- Medication and Fluid events.

- Maternal and Childbirth: Where the process did not go smoothly due to staffing or equipment issues.

Trigger List/Event Reporting

In mid-2014, we reviewed our pathway for events and reporting, looking at events that are not collected on the DHB Health Care Events (HCE) reporting system. Our aim was to improve services and learning opportunities based on these events. We developed a localised Obstetric Trigger list, which underwent a trial phase and was reviewed.

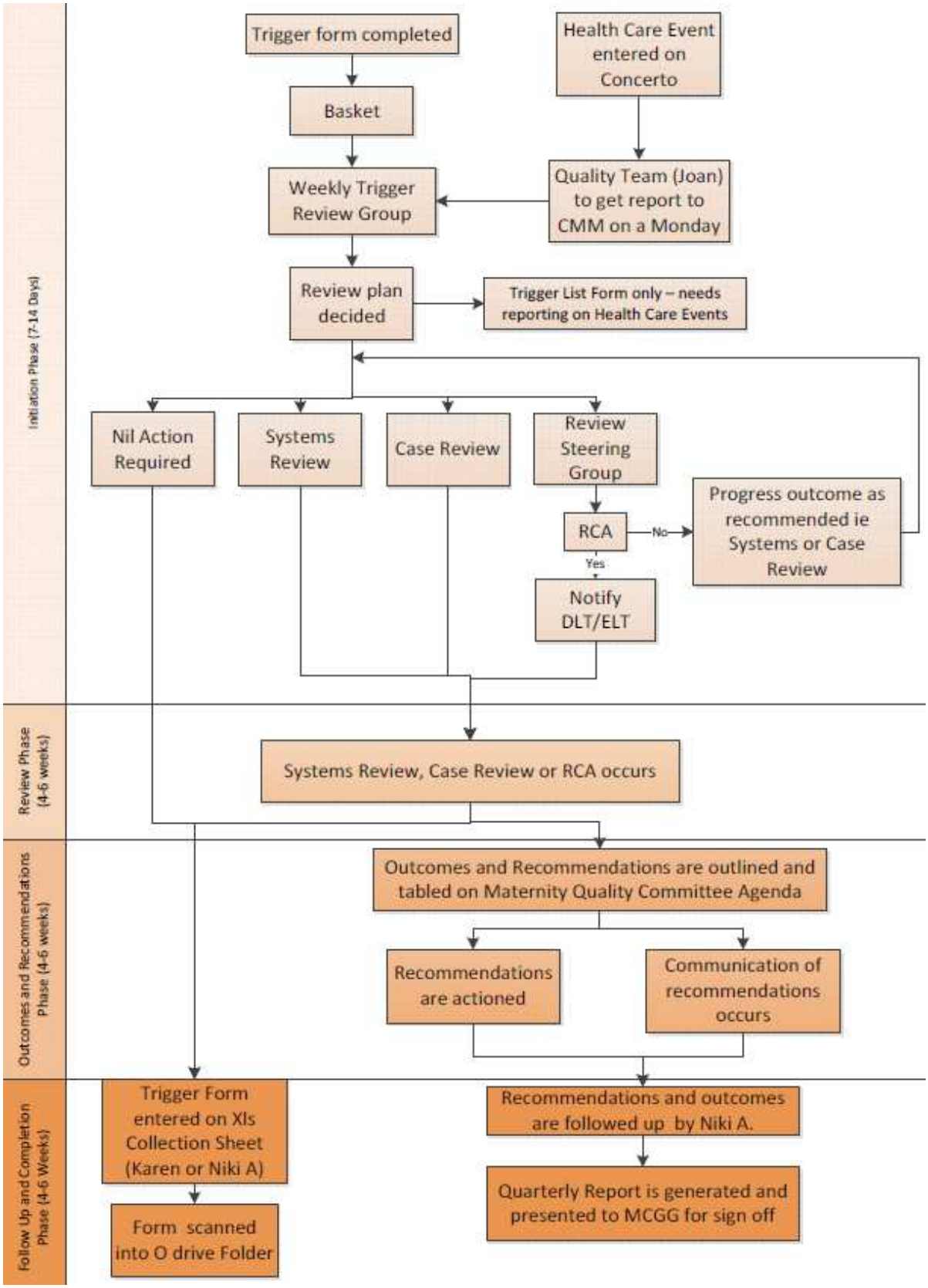
Each event is reviewed by the Weekly Trigger Review Group and a review plan decided. Options include; nil action required, systems review, case review or refer on to the Review Steering Group for consideration of Root Cause Analysis (RCA).

The Trigger Pathway Review also enabled us to further define cases for review and a RCA process at DHB level. This pathway currently sits alongside our DHB Health Care Events.

The DHB has updated its electronic reporting system/pathway in 2016 and the Obstetric Trigger List has been incorporated in this pathway.

Trigger Reports are produced quarterly on the number of events and unexpected outcomes which are presented to the MCGG and recommendations are circulated to Maternity Staff via our internal newsletters and in our online staff folders.

Trigger / Event Reporting Pathway - Huttmaternity



Clinical reviews and recommendations from 2016

As an outcome of the use of the trigger forms, there were 72 events triggered and 10 clinical reviews. The cases of abnormal lactates made up 50% of reviews (five), others were unexpected re-admission (one), unexpected admission to SCBU (one), physical trauma to a baby at birth (one), a category 1 transfer to theatre (one) and a 4th degree perineal tear (one).

Recommendations included improvements in communication, education on cardiotocograph (CTG) monitoring and interpretation through weekly CTG meetings and attendance at RANZCOG Fetal Surveillance Education Programme (FSEP) education and on online FSEP. Regular emergency drills and transfers to theatre scenarios were recommendations. Staffing shortages and escalation of reporting to Senior Medical Officers were examined and new protocols developed. Individualised education plans were prepared for two staff members.

Adverse serious (SAC2) and sentinel (SAC1) events

The Severity Assessment Code (SAC) is a numerical rating which defines the severity of an adverse event and as a consequence the required level of reporting and investigation to be undertaken for the event.

Source: http://www.hqsc.govt.nz/assets/Reportable-Events/Resources/guide-to-using-sac-2008.pdf Accessed 28 June 2017.

There were no SA 1 or 2 events reported in 2016.

Perinatal Mortality Cases

In the 2016 reporting timeframe there were seven stillbirths. One mother was under 20 years of age and four over 35 years. Four mothers were nulliparous and none of them were considered standard primiparae. Four identified as New Zealand European, other European (n=1), Maori (n=1) and Indian (n=1). There were a variety of reasons for fetal demise with no trend. There were no maternal deaths in 2016. Perinatal Morbidity and Mortality Meetings are scheduled quarterly.

The small numbers do not allow for any statistically significant analysis, however, we are cognisant of the PMMRC recommendations and endeavour to incorporate any recommendations into practice. See section seven.

Section Nine: Forward Planning 2016-17

As part of the Maternity Quality and Safety contract we reviewed our 2-year plan. This is included and summarises activities in 2016 and objectives for 2017-2019. See appendix 2.

Appendix One to Four:

Appendix One: Background Information

Appendix Two: Maternity Quality Safety Programme Plan 2017 - 2019

Appendix Three: Measure Yourself Medical Outcome Profile (MYMOP) data collection for Lumbopelvic pain

Appendix Four: Maternal Mental Health Pathway

Appendix One: Background Information

Our Maternity Quality and Safety Programme work is guided by the following documents.

The NZ Maternity Standards

The New Zealand Maternity Standards provide guidance for the provision of equitable, safe and high-quality maternity services throughout New Zealand. They consist of three high-level strategic statements to guide the planning, funding, provision and monitoring of maternity services by the Ministry of Health, DHBs, service providers and health practitioners.

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

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

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

The National Maternity Monitoring Group

The NMMG acts as a strategic advisor to the Ministry of Health on areas for improvement in the maternity sector, provides advice to District Health Boards on priorities for local improvement and provides a national overview of the quality and safety of New Zealand's maternity services.

An annual report is produced by the NMMG detailing work carried out, conclusions reached and recommendations made during the previous year. Also its priorities and work programme for the following year.

During 2015/2016, the NMMG's work was also guided by the development of the refreshed New Zealand Health Strategy. The New Zealand Health Strategy outlines a high-level direction for New Zealand's health system to 2026. It is accompanied by a Roadmap of Actions, many of which have a focus on our maternity system, our pregnant women and our babies.

Together, the Maternity Quality Initiative, the Maternity Standards and the New Zealand Health Strategy with the Roadmap provide guidance on how the NMMG and maternity stakeholders can work together in the future to ensure that women and babies live well, stay well and get well if they are sick.

The New Zealand Maternity Clinical Indicators

The New Zealand Maternity Clinical Indicators show key maternity outcomes for each DHB region and maternity facility.

The purpose of the New Zealand Maternity Clinical Indicators is to:

- Highlight areas where quality and safety could be improved at a national level.
- Support quality improvement by helping DHBs to identify focus areas for local clinical review of maternity services.
- Provide a broader picture of maternity outcomes in New Zealand than that obtainable from maternal and perinatal mortality data alone.
- Provide standardised (benchmarked) data allowing DHBs to evaluate their maternity services over time and against the national average.
- Improve national consistency and quality in maternity data reporting.

The New Zealand Maternity Clinical Indicators are evidence-based and cover a range of procedures and outcomes for mothers and their babies. Where possible, the New Zealand Maternity Clinical Indicators are aligned with international maternity indicators to enable international comparison.

The definition of Standard Primiparae is women who meet all the following criteria:

- No previous pregnancy of 20+ weeks, and
- Maternal age 20-34, and
- Cephalic presentation, and
- Singleton, and
- Term gestation, and
- There have been no recorded obstetric complications that are indications for specific obstetric interventions.

New Zealand Maternity Clinical Indicators

		Indicator	Numerator	Denominator
Women registered with an LMC	1	Registration with a LMC in the first trimester of pregnancy	Total number of women who register with a LMC in the first trimester of their pregnancy	Total number of women who register with a LMC
Standard Primiparae	2	Standard Primiparae who have a spontaneous vaginal birth	Total number of standard Primiparae who have a spontaneous vaginal birth at a maternity facility	Total number of standard Primiparae
	3	Standard Primiparae who undergo an instrumental vaginal birth	Total number of standard Primiparae who undergo an instrumental vaginal birth	Total number of standard Primiparae
	4	Standard Primiparae who undergo caesarean section	Total number of standard Primiparae who undergo caesarean section	Total number of standard Primiparae
	5	Standard primiparae who undergo induction of labour	Total number of standard primiparae who undergo induction of labour	Total number of standard primiparae
	6	Standard Primiparae with an intact lower genital tract (no 1st- to 4th-degree tear or episiotomy)	Total number of standard Primiparae with an intact lower genital tract with vaginal birth	Total number of standard Primiparae who give birth vaginally

		Indicator	Numerator	Denominator
	7	Standard Primiparae undergoing episiotomy and no 3rd- or 4th-degree perineal tear	Total number of standard Primiparae undergoing episiotomy and no 3rd- or 4th-degree perineal tear with vaginal birth	Total number of standard Primiparae who give birth vaginally
	8	Standard Primiparae sustaining a 3rd- or 4th-degree perineal tear and no episiotomy	Total number of standard Primiparae sustaining a 3rd- or 4th-degree perineal tear and no episiotomy with vaginal birth	Total number of standard Primiparae who give birth vaginally
	9	Standard Primiparae undergoing episiotomy and sustaining a 3rd- or 4th-degree perineal tear	Total number of standard Primiparae undergoing episiotomy and sustaining a 3rd- or 4th-degree perineal tear with vaginal birth	Total number of standard Primiparae who give birth vaginally
Women giving birth	10	Women having a general anaesthetic for caesarean section	Total number of women having a general anaesthetic for caesarean section	Total number of women who undergo caesarean section
	11	Women requiring a blood transfusion with caesarean section	Total number of women requiring a blood transfusion with caesarean section	Total number of women who undergo caesarean section
	12	Women requiring a blood transfusion with vaginal birth	Total number of women requiring a blood transfusion with vaginal birth	Total number of women who give birth vaginally

		Indicator	Numerator	Denominator
	13	Diagnosis of eclampsia at birth admission	Total number of women diagnosed with eclampsia during birth admission	Total number of women giving birth
	14	Women having a Peripartum hysterectomy	Total number of women having an abdominal hysterectomy within 6 weeks after birth	Total number of women giving birth
Women giving birth	15	Women admitted to ICU and requiring ventilation during the pregnancy or postnatal period	Total number of women admitted to ICU and requiring over 24 hours of mechanical ventilation during admission any time during the pregnancy or postnatal period	Total number of women giving birth
	16	Maternal tobacco use during postnatal period	Total number of women identified as smokers at 2 weeks after birth	Total number of women with smoking status at 2 weeks after birth reported
	17	Women with BMI over 35	Total number of women with BMI over 35	Total number of women with BMI recorded
Live-born babies	18	Pre-term birth	Total number of babies born under 37 weeks' gestation	Total number of babies born (live births)
	19	Small babies at term (37–42 weeks' gestation)	Total number of babies born at 37–42 weeks' gestation with birthweight under the 10th centile for their gestation	Total number of babies born at 37–42 weeks' gestation

		Indicator	Numerator	Denominator
	20	Small babies at term born at 40–42 weeks' gestation	Total number of babies born at 40–42 weeks' gestation with birthweight under the 10th centile for their gestation	Total number of babies born at 37–42 weeks' gestation with birthweight under the 10th centile for their gestation
	21	Babies born at 37+ weeks' gestation requiring respiratory support	Total number of babies born at 37+ weeks' gestation requiring over 4 hours of respiratory support	Total number of babies born at 37+ weeks' gestation

1. *Ministry of Health 2011 New Zealand Maternity Standards: A set of standards to guide the planning, funding and monitoring of maternity services by the Ministry of Health and District Health Boards. Wellington: Ministry of Health*
2. *National Maternity Monitoring Group 2016 National Maternity Monitoring Group Annual report 2016. Wellington: Ministry of Health*
3. *Ministry of Health 2016 New Zealand Maternity Clinical Indicators 2015. Wellington: Ministry of Health*
4. *Ministry of Health 2016 New Zealand Health Strategy: Roadmap of Actions 2016. Wellington: Ministry of Health*

Appendix Two: MQSP 2-year Plan 2017 - 2019

HUTT maternity
Hutt Valley Maternity Care

Maternity Quality and Safety

2 Year Programme Plan 2017-2019

Established January 2017

Reviewed June 2017

Contents

Background

Huttmaternity has engaged in quality and safety activities since 2011, initially as a 'Demonstration Site' for MOH, the prequel to the formal Maternity Quality and Safety Programme (MQSP) which rolled out nationally in 2012. Over this time, we have made great inroads in establishing a quality and safety framework led by our Maternity Clinical Governance Group (MCGG). Our MCGG consists of clinical leaders from Obstetrics and Paediatric services, consumers, midwives and obstetricians, core midwifery staff, primary care, youth care, DHB Quality, Pacific Health Unit and SIDU members

Foundation work was undertaken to review our forums and quality structure, education framework, data monitoring and consumer engagement. Further work was undertaken and has been ongoing within the umbrella of the seven elements introduced in the "Implementing the MQSP: a Guide" document from MOH in 2012.

A review of the MQSP took place in 2014/15 and ongoing Service Specifications are aimed at 3 tiers: Emerging, Established or Excelling. Huttmaternity and MOH have agreed that we are in the "Established" tier.

The MQSP has multiple influences at both national level with MOH and the National Maternity Monitoring Group (NMMG) workstreams, National Clinical Indicators, the New Zealand Maternity Standards and at local level with service requisites.

It has been these influences that have guided Huttmaternity to develop its work streams and objectives to date. Further information on the objectives and MQSP work previously completed is detailed in the Maternity Clinical Annual Reports for 2012, 2013, 2014 and 2015; these are all available on the Huttmaternity website:

www.Huttmaternity.org.nz

Moving forward into the end of 2017 to 2019 period we have identified current objectives for completion and established new objectives with a localised focus. The below objectives are in no significant order or priority, see the timeline for further detail.

The MQSP Coordinator will facilitate all work streams and monitor progress until completion, with the support of the Huttmaternity Clinical Governance Group.

Summary 2016 Activities

Objective	Summary
1.	Breastfeeding Working Group workstreams
2.	Huttmaternity Website Update
3.	Consumer Workstreams
4.	Referral Plus launch
5.	Document Control
6.	Implementation National Guidelines for GDM
7.	Maternity Assessment Unit Health Check outcomes
8.	Huttmaternity Dashboard update
9.	Annual Report 2016
11.	3 DHB Regional Campaign
12.	Self Audit against NZ Maternity Standards and corrective measures
13.	Clinical Indicators Audit
14.	NE Pathway

Planned 2017 – 2019 Objectives and actions

Objective	Summary
	MQSP Activities
1.	Facilitating Maternity Clinical Governance Group
2.	Contribute to Maternity Quality Committee
3.	Self Audit of NZ Maternity Standards
4.	Annual report compilation
5.	Collecting smoking cessation advice data (DHB team)
6.	Facilitate quality improvement initiatives as recommended by Localised objectives set by MCGG
7.	PMMRC
8.	NMMG
9.	Quality improvement Initiatives (see below)
	Increasing registration with LMC in first trimester
10.	Te Ra o te raukura hauora expo
11.	Marae based clinic
12.	3 DHB campaign
	Improving consumer engagement
13.	Consumer MCGG rep meetings
14.	Consumer workstreams – directory, liaising with community
15.	Info for women
16.	Consumer survey
17.	Improving facilities
18.	Website and facebook maintenance
19.	Virtual tour of unit
	Improving perineal care outcomes
20.	Audit
21.	Education sessions
22.	Installing towel warmers
	Increasing primary births
23.	Primary birthing room
24.	Reviewing c/s, acupuncture
25.	Review IOL processes and C/S processes
	Improving journey for women with high BMI's
26.	Workshop and working party
	Monitoring consumer feedback
27.	Consumer survey
28.	Liaising with DHB Business Unit and Quality teams
	Monitoring Clinical Indicators
29	Maternity dashboard improvements
	Perinatal Mental Health
30	Promoting Perinatal Mental Health pathways
31.	Education for staff

Detailed Objectives and Activities and Rationale

1. MQSP Activities

a) Annual report compilation

As a requirement of MQSP Programme a Clinical Annual Report is produced each year. Several consultations with stakeholders before final sign off by our MCGG are undertaken. The Report is due to MOH by 30th June each year, and facilitated by the MQSP Coordinator.

b) Collecting smoking cessation advice data (DHB team)

This is a 'business as usual' activity initiated in the later half of 2015 where mandatory data reporting to MOH on screening, brief advice and cessation support offered, is reported. This data is for DHB employed midwives providing pregnancy care. (See Indicator Sixteen table pg. 72).

c) Contribute to Maternity Quality Committee

The facilitator of the MQSP now sits on the Maternity Quality Committee which feeds into the MCGG. This Committee is the operational arm of Maternity Quality in the DHB, with such activities as approval of audit applications, policy reviews and approval and day to day running of the unit, infection control, health and safety, new protocols (see Maternity Quality and Safety structure pg. 72).

d) Document Control

This is an ongoing activity to ensure policies and consumer information are reviewed, updated to align with latest evidence and accessible. Our consumer representatives are involved in reviewing the consumer information which has been highly valued.

e) Facilitating Maternity Clinical Governance Group

Terms of reference for the Maternity Clinical Governance Group (MCGG) are reviewed annually. The facilitation of this group is by the Co-ordinator supported by the Administrator for the Maternity Quality and Safety Programme (MQSP) and is running well. Meetings are bi-monthly with the wider membership, with meetings on alternate months for the consumers, co-ordinators and management to progress Consumer workstreams (see outline pg. 69). This governance group has representatives from all disciplines; Obstetric, Paediatric, Midwifery, the Primary and Secondary sector and Consumers and the DHB Maori Health Unit, Quality Team and Service Integration Unit. This group feeds into the newly created (2016) overall Clinical Council with our Director of Midwives, sitting on both groups.

f) Facilitate quality improvement initiatives as recommended by MCGG guided by: Perinatal and Maternal Mortality Review Committee Recommendations, and National Maternity Monitoring Group Priorities

See sections six and seven of the Maternity Services Annual Clinical Report 2016 for more detail on recommendations.

g) Planning for embedding MQSP activities as business as usual

Such activities as directing document control and quality actions around feedback are examples of how we plan to embed MQSP activities. Self audit of the NZ Maternity Standards will further guide the MCGG as to which contract tier we will be at in 2018.

h) Tool for Self Audit of New Zealand Maternity Standards

An annual process to guide remedial actions and setting of objectives for the Maternity Clinical Governance Group. This was carried out in July 2016 and repeated in January 2017.

2. Increasing registration with LMC in the first trimester

a) 3DHB Campaign

The 2016 Campaign in conjunction with neighbouring DHBs Capital and Coast and Wairarapa, was titled “Your Pregnancy Checklist” and promotes such activities as registering with a LMC early, choosing place of birth, screening, vaccinations during pregnancy, supplements (folic acid and iodine) and registering with a General Practitioner. Quarterly meetings are held with personnel involved in the MQSP in the respective DHBs to promote sharing of ideas and progressing the annual shared campaign.

b) Marae based clinic

This is an initiative still in planning with local Iwi, again with the aim of improving access, directing women to Huttmaternity services and early engagement with a LMC.

c) Te Ra o te raukura hauora expo

Planning for this expo began in the last quarter of 2016 for an event held January 2017. Engagement with local Iwi to organise a DHB stand at this event was established, with communication of our goal to increase the visibility of Huttmaternity services and promote early engagement with a LMC.

3. Improving Consumer engagement

a) Consumer MCGG rep meetings

These meetings are held every two months with MQSP and management personnel. This was a change initiated in 2015 to progress the following workstreams:

b) Consumer survey

Late in 2016, a consumer survey based on the Ministry of Health's Maternity Consumer Survey, was localised and created with a high level of input from our consumer members. The survey is electronic but available in hard copy and was piloted to 20 women to test. Results will be analysed to shape ongoing objectives and will be available in the next reporting year.

c) Consumer workstreams – directory, liaising with community

A local directory for health professionals, describes the services of agencies, NGO's and community groups for pregnancy and postnatally. This was compiled and circulated widely by the MCGG in 2015. An ongoing objective is to update and create this as a consumer directory. Liaising with community to ensure representing all groups.

d) Information for women

Consumer members of the MCGG have reviewed our information for women and whānau in this reporting period. The plan is to create a series of consumer information pamphlets and align the review of this with the associated policies. This was an outcome of the document control work done in 2015.

e) Improving facilities

Our consumers carried out an assessment of our facilities in late 2015 using BUDSET (Birthing Unit Design Spatial Evaluation tool). Work has continued where able but has been constrained by finances, to improve the unit with an aim being to increase our primary birth rate. Quality initiatives with this in mind will continue in 2017-2019.

f) Website and Facebook maintenance

This is ongoing work and contributions are made by Consumers and the MQSP team to improve engagement of our community. Activities such as competitions at Christmas or Mothers Day have been used. See pg. 69 for a more detailed report.

g) Virtual Tour

Planning for a virtual tour of the unit was done in late 2016 with filming planned to take place in 2016. The purpose is to allow people to see the facilities, to use the opportunity to provide information to women and their whānau and to reduce the large group foot traffic of antenatal education provider tours.

4. Improving perineal care outcomes

a) Audit

An audit was undertaken of all births from September 2015-2016 to ascertain the rate of third and fourth degree tears. This was as a result of our increase in standard primiparae sustaining a 3rd/4th degree perineal tear with no episiotomy and with episiotomy. (Clinical Indicators 8 and 9). See summary of results pg. 76.

b) Education sessions and information

Planning for education sessions to present audit findings and improve evidence-based care in 2017. Alongside the education, a consumer information booklet was produced with regard to care of third and fourth degree tears.

c) Installing towel warmers

Investigation is ongoing of this option for enabling the evidence-based practice of warm compresses to the perineum during second stage of labour.

5. Increasing primary births

a) Observational study: acupuncture for ruptured membranes at term (with no labour)

Indicator five results in 2015 demonstrated a rise in induction of labour rates in our standard primiparae women. Work with our in-house Registered Acupuncturists and to capitalise on skills of some staff members to offer and evaluate this as a way of reducing inductions of labour has been outlined as an action to meet the objective of increasing primary births in our unit.

b) Primary birthing room

Plans to create a specific primary birthing room are ongoing and will involve broad consultation with staff, LMCs, Consumers and the wider hospital services.

c) Review inductions processes

This is ongoing work to monitor reasons for women being induced and at which gestation. This will be carried out at an operational level in the Maternity Unit.

d) Review Caesarean processes

This is on-going work to streamline and reduce rates of caesarean and improve the journey for women needing to have both elective and acute caesareans.

6. Improving journey for women with High BMI

a) Workshop and working party

Whilst our guidelines have been aligned with "Screening, Diagnosis and Management of Gestational Diabetes in New Zealand: A clinical practice guideline", some women are declining referral to secondary services for having a high BMI but no gestational diabetes. Planning for a workshop and as a result a working party to progress this is in hand to improve services to these women. A plan to consult extensively with consumers is being developed. This is to address Indicator 17 where in 2016, 85 women had a BMI >40. Of these 35% identified as NZE, 31% Maori and 30% Pacific Island.

7. Consumer Survey

a) Ongoing management and monitoring

Development of survey, increasing audience access through emails and offering hard copy and oral survey options was developed in 2016. Work on improving uptake and distribution of the survey quarterly is ongoing.

b) Liaising with DHB Business Intelligence Unit and Quality teams for consumer survey

This is an objective to ensure accurate objectives are set determined by findings from the survey.

8. Maternity Clinical Indicators Dashboard

a) Ongoing updating and maintenance

An audit of the data collected to ensure alignment with MOH data will be undertaken in 2017.

9. Perinatal maternal mental health

a) Promotion of maternal mental health pathway for referrals

Creation of tear off pads with pathway and Edinburgh Postnatal Depression Scoring for staff to use.

b) Education session on perinatal maternal health

Including screening and referral.

Timeline: MQSP Programme Huttmaternity 2017

Objective	Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	**MQSP Activities**												
	Annual report compilation		✓	✓	✓	✓	✓						
	Collecting smoking cessation advice data (DHB team)	✓			✓			✓			✓		
	Contribute to Maternity Quality Committee	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Document Control	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Facilitating Maternity Clinical Governance Group	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Facilitate quality improvement initiatives as recommended by: Localised objectives set by MCGG	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	NMMG	✓											
	PMMRC	✓					✓						
	Planning for embedding MQSP activities as business as usual	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Tool for Self Audit of NZ Maternity Standards		✓	✓	✓								
2	**Increasing registration with LMC in first trimester**												
	3 DHB campaign		✓	✓	✓	✓							
	Marae based clinic						✓	✓	✓	✓	✓	✓	✓
	Te Ra o te raukura hauora expo	✓											
3	**Improving consumer engagement**												
	Consumer MCGG rep meetings		✓		✓		✓		✓		✓		
	Consumer survey	✓			✓			✓			✓		
	Consumer workstreams – directory				✓	✓	✓	✓	✓				
	Info for women	✓	✓	✓									
	Improving facilities	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Website and Facebook maintenance	✓			✓			✓			✓		
	Virtual tour of unit				✓	✓							
4	**Improving perineal care outcomes**												
	Audit	✓	✓	✓	✓								

	Education sessions			✓						TBA			
	Installing towel warmers							✓					
5	**Increasing primary births**												
	Observational study: acupuncture for ruptured membranes at term (with no labour)									✓	✓	✓	
	Primary birthing room							✓	✓	✓	✓	✓	✓
	Review inductions processes							✓	✓	✓			
	Reviewing c/s and processes							✓	✓	✓			
6	**Improving journey for women with high BMI's**												
	Workshop and working party						✓	✓	✓	✓	✓	✓	✓
7	**Monitoring consumer feedback**												
	Consumer survey – ongoing management and monitoring	✓			✓			✓			✓		
	Liaising with DHB business unit and Quality teams		✓			✓			✓			✓	
8	**Monitoring Clinical Indicators**												
	Maternity dashboard – ongoing management and monitoring	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
9	**Perinatal mental health**												
	Production of tear off pads with pathway and EPNDS									✓			
	Education session for staff – screening and referring										✓		

Appendix One MQSP Plan 2017-19: Actions and Tasks for Objectives 2017

The following outlines a further break down of the actions and tasks for the MQSP Objectives 2016, with an allocation of persons responsible. Ultimately all workstreams are facilitated by the MQSP Coordinator.

No.	Theme	Timeline	Actions	Who
1	**MQSP Activities**			
	Annual report compilation	Feb - Jun		NJ/ER
	Collecting smoking cessation advice data (DHB team)	Quarterly	Collate data	ER
			request feedback	
			Send to required	
	Contribute to Maternity Quality Committee	Monthly		NJ
	Document Control	Monthly		ER
	Facilitating Maternity Clinical Governance Group	Monthly		NJ
	Facilitate quality improvement initiatives as recommended by:			
	Localised objectives set by MCGG	Monthly		NJ/ER
	NMMG	January		NJ
	PMMRC	January and June		NJ
	Planning for embedding MQSP activities as business as usual	Monthly		
	Tool for Self Audit of NZ Maternity Standards	Feb - Apr		
2	**Increasing registration with LMC in first trimester**			
	3 DHB campaign	Feb - May	X3 meetings a year	3DHBs (Wellington, Wairarapa and Hutt Valley)
			decide on idea	
			create campaign	
	Marae based clinic	June - December		
	Te Ra o te raukura hauora expo	January		
3	**Improving consumer engagement**			
	Consumer MCGG rep meetings	Feb, Apr, Jun, Aug and Oct		
	Consumer survey	Quarterly	Request spreadsheet of all births in last quarter from IT	ER
			Email out consumer survey	
			Collate responses from survey	
			Circulate to required group	
	Consumer workstreams – directory	Apr - Aug	Ring around and update details	Consumers/ER
	Info for women	Jan - Mar	Cosnumers to review pt info and make consumer friendly	Consumers/ER
	Improving facilities	Monthly		
	Website and facebook maintenance	Quarterly	Ongoing	ER
	Virtual tour of unit	Apr - May	Contact film crew	NJ
			Organise date to film	
			View final draft	
			Show MCGG and selected others before launching	
4	**Improving perineal care outcomes**			
	Audit	January - April		
	Education sessions	March and September (TBA)		EM
	Installing towel warmers	July		NJ
5	**Increasing primary births**			
	Observational study: acupuncture for ruptured membranes at term (with no labour)	September - November		NJ
	Primary birthing room	July - Decemmber		ER/NJ/KD/CM
	Reviewing c/s and processes	July - September		KD
	Review inductions processes	July - September		KD
6	**Improving journey for women with high BMI's**			
	Workshop and working party			NJ

7	**Monitoring consumer feedback**			
	Consumer survey	Quarterly	Review responses	NJ/ER
			Circulate to required group	
			Contact those who request it	
			Analysis data via HVDHB team	
	Liaising with DHB business unit and Quality teams	Quarterly		
8	**Monitoring Clinical Indicators**			
	Maternity dashboard	Monthly		ER/KD
9	**Perinatal mental health**			
	Production of tear off pads with pathway and EPNDS	September		NJ/ER
	Education session for staff - screening and referring	October		TBA

Appendix three: Measure Yourself Medical Outcome Profile (MYMOP) data collection for Lumbopelvic pain

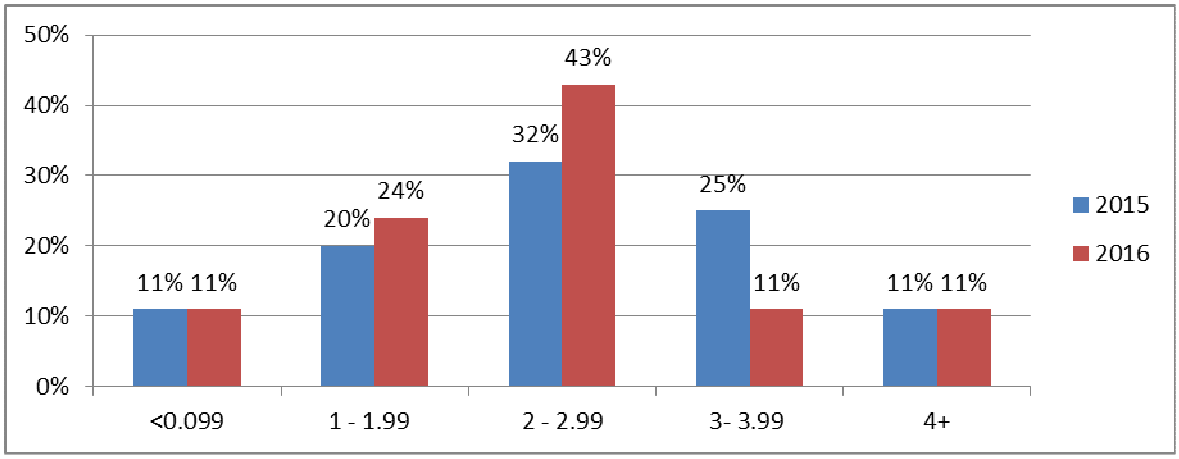
Lumbopelvic pain is a common complaint for women in pregnancy. It frequently interferes with a woman's ability to carry out every day living activities, continue working and quality of sleep. It is also usually increases in severity as the pregnancy progress until the baby is born. A Measure Yourself Medical Outcome Profile (MYMOP) form was commenced to collect women's treatment satisfaction for Lumbopelvic pain following acupuncture.

MYMOP is a validated patient centred questionnaire that asks the patient to describe their problem in their own words and then rate it on a scale from 0 to 6. This is a scale with 0 being "as good as it could be" and 6 being "as bad as it could be." The same scale of 0-6 is used for any associated symptom, an associated activity they find difficult and a general wellbeing scale.

The questionnaire was completed during the first and then all subsequent visits. A mean change was calculated from the initial and final score to obtain a profile score. This represents a score that is clinically significant rather than statistically significant; with a reduced change above one representing a positive change seen as important to the patient receiving the treatment.

Table 43 shows percentages of women by the magnitude of symptom change. In 2015, 39 (89%) of those treated for LPP had a profile score reduction of one point or more, viewed as clinically significant and as of importance to the individual who received the treatment. Only five women (11%) had profile scores indicating a lack of clinically meaningful change. Similarly, four women (11%) in 2016 had profile scores indicating a lack of a meaningful change with 33 (89%) indicating they found the changes clinically significant. These findings reflect only women's subjective experiences of symptom change. As lumbopelvic pain is expected to worsen as pregnancy progresses. It is interesting that women report beneficial changes to their pain. However, without a control group it is not possible to determine if the treatment benefits reflected in these MYMOP scores could have been confounded by nonspecific treatment factors such as focused time to rest, social desirability, and/or gratitude for a no-cost treatment.

Table 43: MYMOP Magnitude of Symptom Change Frequencies for 2015 (n = 44) and 2016 (n=37)



Patient feedback and adverse events

All women receiving three or more treatments were asked to complete an anonymous feedback form on their third visit to identify any concerns about the treatment they received. This form asked for comments about what had been beneficial or, not beneficial and if they had experienced any uncomfortable pain at needle site, bleeding or bruising from treatment, had felt faint during or after treatment, had symptoms that became worse or had any other concerns. In 2016, of 43 women completing a feedback form, ten (23.2%) reported a minor AE. The majority involved pain or bruising at needle site 8 (80%). The remainder involved pain from cupping 3 (30%) or feeling faint/dizzy 2 (20%) Of these ten women, nine left comments indicating that they did not view the AE's as detracting from an overall positive treatment experience.

Comments left by nine women experiencing a minor adverse event

"There was instant relief when the needles and cups were administered and the improvement of back pain at home. I love this treatment as a pregnant woman."

"No more back pain – would definitely continue after pregnancy for back pain."

"No more back pain –great treatment."

"Both cupping and needles made a huge difference to my back pain and made my last trimester a lot more bearable – love this clinic."

"Pregnancy rash relived and helps with back pain, nausea/acid reflux – really good experiences and helped me through the pregnancy a lot. Hope to get extended treatment and come back for postnatal too."

"I walk away feeling better but it does come back – still to see full effects from it - but lovely people."

"Sleeping improved – very friendly staff."

"I am so grateful for the help I have received - easing of sickness."

"Relaxing, fantastic that this is offered through the hospital."

Our thanks to Debra Betts for providing the above information. Debra, alongside her qualifications as RN, CHSc (Ac), PhD, is an Adjunct Fellow at the National Institute Complementary Medicine, Western Sydney University, the Director of Postgraduate Programmes New Zealand School of Acupuncture and Traditional Chinese Medicine, and Supervisor Hutt Hospital Maternity Acupuncture service.
http://www.acupuncture.ac.nz http://acupuncture.rhizome.net.nz

Appendix Four: Maternal Mental Health Pathway

If you have any enquiries about this report, or wish to contact Hut Valley DHB, please contact the Hutt Valley DHB Director of Midwifery:

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