West Coast District Health Board

Te Poari Hauora a Rohe o Tai Poutini

MATERNITY QUALITY AND SAFETY PROGRAMME

Annual Report 2016 -17

Acknowledgements

The following people are acknowledged for their participation in compiling this report:

Anita Hyde – Maternity Services Consumer representative

Karyn Bousfield - Director of Nursing, West Coast DHB; Chair, CDHB & WCDHB Maternity Clinical Governance Committee

Norma Campbell – Director of Midwifery, Canterbury & West Coast DHBs

Chris Davey – Former Clinical Midwife Manager, WCDHB

Linda Monk - Midwifery Educator, WCDHB

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Jenni Stephenson - Project Manager, Planning and Funding, WCDHB

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Lee Harris - Senior Communications Advisor, WCDHB

Vicki Piner - Maternity Quality and Safety Programme Coordinator, WCDHB

West Coast DHB Maternity Operations Group members

West Coast DHB Maternity Quality and Safety Group members

Canterbury DHB & West Coast DHB Maternity Clinical Governance Committee members

A big thank you to the families and staff that so kindly gave their time and permission to take photographs to illustrate our Annual report.

Disclaimer

Foreword

The Canterbury and West Coast District Health Boards are pleased to present the Maternity Quality and Safety Programme Annual Report for 2016/17.

Canterbury and the West Coast work collaboratively under a transalpine arrangement to provide health care services to a large portion of the South Island. This way of working across the Southern Alps ensures a partnership approach and supports seamless service delivery, continuity and excellence in care.

The combined Canterbury and West Coast Maternity Quality and Safety Programme, structure and governance has provided a platform for our respective and combined maternity services to develop robust quality processes and improved outcomes for our mothers and babies. This year sees us presenting our own separate reports. The West Coast now stands proudly on its own within the shared Maternity Quality and Safety Programme.

Whilst both District Health Boards share many policies, procedures and expertise, they are very different services, reflective of their unique geography and demographics. For this reason, while we share the transalpine approach and come together to drive the programme, we do have by necessity our own respective programmes of work.

The Maternity Quality and Safety Programme continues to add significant value to our maternity systems, and planning is underway for progression of the DHBs to the excelling tier of the national programme.

As the outgoing and incoming Chairs, we are pleased to present the respective reports for both the Canterbury and West Coast District health Boards.

Karyn Bousfield
Director of Nursing, West Coast DHB

(Immediate past Chair, CDHB & WCDHB Clinical Governance Committee)

Norma Campbell
Director of Midwifery, Canterbury and West Coast

(Chair, CDHB & WCDHB Maternity Clinical Governance Committee)

Overview

Background

This is the fifth West Coast DHB Maternity Quality and Safety Annual Report since the establishment of the Ministry of Health (MoH) Maternity Quality and Safety Programme (MQSP) in 2011. The National Maternity Monitoring Group (NMMG) came into operation in 2012, as part of this programme, to oversee the maternity system in general and the implementation of the New Zealand Maternity Standards.

The high-level strategic statements of the New Zealand Maternity Standards (MoH, 2011) are:

- Provide safe, high-quality maternity services that are nationally consistent and achieve optimal health outcomes for mothers and babies;
- Ensure a women-centred approach that acknowledges pregnancy and childbirth as a normal life stage;
- 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.

Aims and Objectives

The West Coast DHB is committed to improving the quality and safety of maternity services for consumers.

The Canterbury DHB and West Coast DHB Maternity Services' aims and objectives are to:

- Provide woman-centred maternity care that meets the needs of the population;
- Continue to implement, review and establish as required, systems and processes to support the provision of quality and safe care;
- Take a whole of systems approach towards improving the health of women and children as guided by the Ministry of Health's goals and targets;
- Align the maternity workforce to meet the needs of the population;
- Align and strengthen regional links.

Purpose

The purpose of this report is to provide information about the DHB's:

- Improvements in relation to the overall aims and objectives
- Achievements against the quality improvement goals set for 2016/17
- Contribution towards addressing the priorities of the NMMG and Perinatal and Maternal Mortality Review Committee (PMMRC)
- Performance in relation to the Ministry of Health's New Zealand Maternity Clinical Indicators 2013 (MoH, 2015) ;
- Response to consumer feedback and ongoing consumer involvement
- Quality initiative goals for 2016/17

West Coast 'Transalpine' Relationship

Canterbury provides many services for the population of the West Coast DHB. The shared service and clinical partnership arrangements that have been developed are also part of the MQSP. This 'transalpine' approach to service provision has allowed better planning for the assistance and services Canterbury DHB provides to the West Coast DHB, so people can access services as close as possible to where they live.

The Transalpine approach is reflected in our shared governance model and relationship, whilst acknowledging the DHB's differences. We share opportunities for education, policy and procedure review and case review.

The content in this report demonstrates the collaboration between professional disciplines, managers and consumers and it should therefore serve as a useful resource for a range of stakeholders including the NMMG, local clinicians, planners and funders as well as consumers.

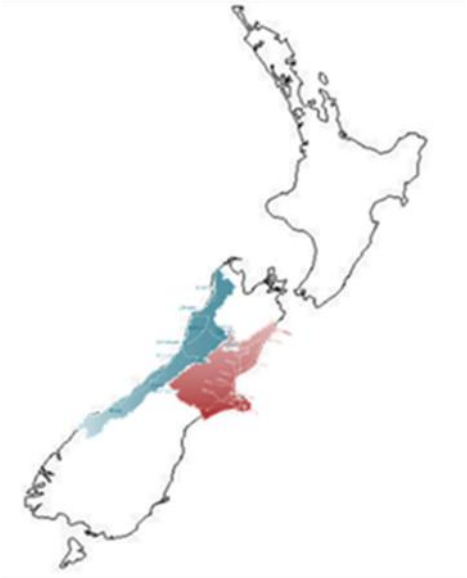

FIGURE 1 WEST COAST DHB / CANTERBURY DHB BOUNDARIES

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Glossary

Caesarean section	An operative birth through an abdominal incision.
Episiotomy	An incision of the perineal tissue surrounding the vagina to facilitate or expedite birth.
Gravida	Number of pregnancies a woman has had.
Maternity facilities	A maternity facility is a place that women attend, or are resident in, for the primary purpose of receiving maternity care, usually during labour and birth. It may be classed as primary, secondary or tertiary depending on the availability of specialist services (Ministry of Health 2012). This section describes women giving birth at a maternity facility.
Neonatal Death	Death of a baby within 28 days of life.
Parity	Number of previous births a woman has had.
Primiparous	A woman who has given birth once; multiparous is a woman who has given birth two or more times.
Primary facility	Refers to a maternity unit that provides care for women expected to experience normal birth with care provision from midwives. It is usually community-based and specifically for women assessed as being at low risk of complications for labour and birth care. Access to specialist secondary maternity services and care will require transfer to a secondary/tertiary facility. Primary facilities do not provide epidural analgesia or operative birth services. Birthing units are considered to be primary facilities. Primary maternity facilities provide inpatient services for labour and birth and the immediate postnatal period.
Postpartum Haemorrhage	Excessive bleeding after birth that causes a woman to become unwell.
Primary Maternity Services	Primary maternity services are provided to women and their babies for an uncomplicated pregnancy, labour and birth, and postnatal period. They are based on continuity of care. The majority of these maternity services are provided by Lead Maternity Carers (LMCs).
Secondary facility	Refers to a hospital that can provide care for normal births, complicated pregnancies and births including operative births and caesarean sections plus specialist adjunct services including anaesthetics and paediatrics. As a minimum, secondary facilities include an obstetrician rostered on site during working hours and on call after hours, with access to support from an anaesthetist, paediatrician, radiological, laboratory and neonatal services.
Standard primiparae	A group of mothers considered to be clinically comparable and expected to require low levels of obstetric intervention. Standard primiparae are defined in this report as women recorded in the National Maternity Collection (MAT) who meet all of the following inclusions: • delivered at a maternity facility • are aged between 20 and 34 years (inclusive) at delivery • are pregnant with a single baby presenting in labour in cephalic position

- have no known prior pregnancy of 20 weeks and over gestation
- deliver a live or stillborn baby at term gestation: between 37 and 41 weeks inclusive
- have no recorded obstetric complications in the present pregnancy that are indications for specific obstetric interventions.

Intervention and complication rates for such women should be low and consistent across hospitals. Compiling data from only standard primiparae (rather than all women giving birth) controls for differences in case mix and increases the validity of inter-hospital comparisons of maternity care (adapted from Australian Council on Healthcare Standards 2008, p 29).

Stillbirth The birth of an infant after 20 weeks gestation, which has died in the womb and weighed more than 400 grams.

Tertiary facility Refers to a hospital that can provide care for women with high-risk, complex pregnancies by specialised multidisciplinary teams. Tertiary maternity care includes an obstetric specialist or registrar immediately available on site 24 hours a day. Tertiary maternity care includes an on-site, level 3, neonatal service.

Weeks' gestation The term used to describe how far along the pregnancy is. It is measured from the first day of the woman's last menstrual cycle to the current date.

FIGURE 2 BABY AYVA

Abbreviations

CDHB	Canterbury District Health Board
DHB	District Health Board
GDM	Gestational Diabetes Mellitus
GP	General Practitioner
HDU	High Dependency Unit
ICU	Intensive Care Unit
IOL	Induction of Labour
LMC	Lead Maternity Carer
MCGG	Maternity Clinical Governance Group
MOG	Maternity Operations Group
MOH	Ministry of Health
MQSG	Maternity Quality & Safety Group
MQSP	Maternity Quality and Safety Programme
NICU	Neonatal Intensive Care Unit
NMMG	National Maternity Monitoring Group
PMMRC	Perinatal and Maternal Mortality Review Committee
PPH	Postpartum Haemorrhage
RMO	Resident Medical Officer
SUDI	Sudden Unexpected Death in Infancy
SMO	Senior Medical Officer
VBAC	Vaginal birth after caesarean
WCDHB	West Coast District Health Board
W&CH	Women's and Children's Health

Meet our Maternity Services Consumer

As a part of implementing the Maternity Quality and Safety Programme we have been fortunate in recently recruiting a consumer representative for the West Coast maternity service.

Our consumer representative Anita, although new to the position, is linked well to provide feedback from the women in our community on our quality activities. She is a new, but valuable member of our CDHB/ WCDHB Maternity Clinical Governance Committee governance group and West Coast DHB Maternity Quality Safety Group.

As a part of our MQSP Priorities and Action Plan 2017/18 (page 44) we have included further project work to engage our higher needs consumers (young mothers, Māori, Pacific and women with mental health issues).

"My aim as Consumer Representative is to provide a connection between the families of the West Coast who use Maternity Services and the people providing them.

Within the maternity groups I hope to be able to assist members in their understanding of the consumer perspective to ensure that planning and decisions made are people centred and that likely impacts on consumers are well understood.

By utilising my already established networks within the local parenting community I hope to gain a good understanding of community views and to also provide awareness and feedback on the many great initiatives that the DHB is undertaking to ensure that it is providing a quality service suited to the unique needs of the people of the West Coast."

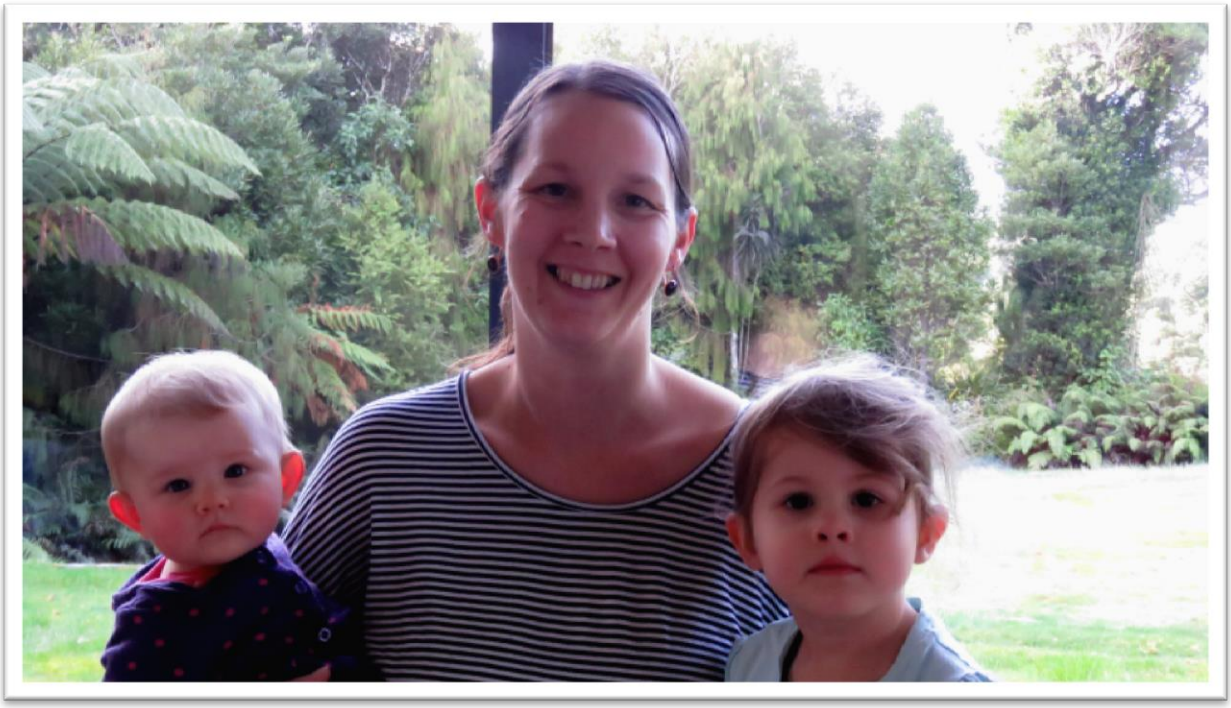


FIGURE 3 CONSUMER REPRESENTATIVE ANITA HYDE, BABY ELLA AND CAITLIN

WCDHB Maternity Management & Administration Team 2016

		
Karyn Bousfield Director of Nursing & Midwifery	Chris Davey Former Clinical Midwife Manager	Meike Seibelink Kawatiri Maternity Unit Manager
		
Clarissa Seibelink Kawatiri Administration Manager	Dr Ravi Vemulapalli Obstetrician & Gynaecologist HoD, Obstetrics	Dr Sherif Mehrez Obstetrician & Gynaecologist
		
Dr Sam Henalla Obstetrician & Gynaecologist	Dr Vicki Robertson Obstetrician & Gynaecologist	Linda Monk Midwifery Educator
		
Kerri de Klerk Maternity Services Administrator	Vicki Piner MQSP Co-ordinator	Silvie Saskova PA to Director of Nursing & Midwifery

1. Maternity Service Delivery

1.1 Vision and Values

The West Coast DHB's Maternity Vision and Values in the delivery of maternity service:

Vision:

"Providing safe, high quality maternity care in partnership with West Coast women and their whanau."

Values:

- *Respect*
- *Protection / Care*
- *Education / Learning*
- *Efficient / Resourceful*
- *Accountable / Accountability*

1.2 Maternity Facilities

There are two facilities available to women living on the West Coast and most births are at the larger Grey Base Hospital. Kawatiri Maternity Unit is at Buller Hospital in Westport and is a primary unit. Christchurch Women's Hospital is the only tertiary facility for the West Coast and is located in Canterbury. They accept referrals from the West Coast and we work closely with their team when women and/or their babies are more complex and require that level of support at any point in their maternity journey.

	WCDHB
Primary	Kawatiri Unit at Buller Hospital in Westport
Secondary	McBrearty Ward at Grey Base Hospital
Tertiary	Christchurch Women's Hospital

TABLE 3 WEST COAST DHB MATERNITY FACILITIES

The number of total deliveries at the West Coast DHB for the 2016 year was 276. Slightly more than 1% of the population identifies as Asian and less than 1% as Pacific. 10% of the population identifies as Māori.

Compared with New Zealand as a whole, the West Coast DHB has a lower median personal income (2006 Census data $26,900 per compared with $28,500 nationally) and a higher proportion of our population are receiving unemployment or invalid benefits, have no educational qualifications and lack access to a mobile phone or motor vehicle.

From 2016 data, the average number of births across the West Coast, including home births was approximately 23 babies per month.

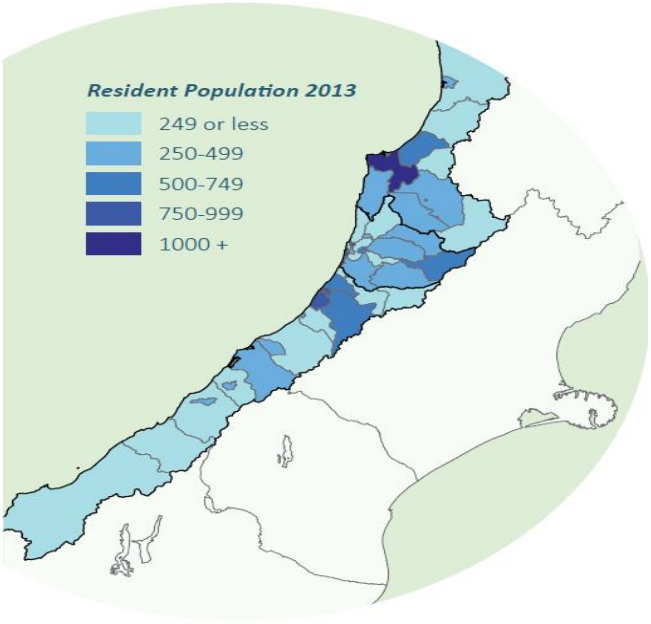
Maternity Facility	Number of Deliveries 2016	
McBrearty Ward, Grey Base Hospital	217	79%
Kawatiri, at Buller Hospital in Westport	26	9 %
Home Births	33	12%
Total	**276**	**100%**

TABLE 4 WCDHB BIRTH NUMBERS 2016

1.3 Demographics

The West Coast DHB serves a population of 32,900 people; the smallest population of the 20 DHBs and the most sparse with a population density of 1.4 people per square kilometre and a population of less than 1% of New Zealand's total estimated resident population.

The West Coast population tends to be older than the national average.



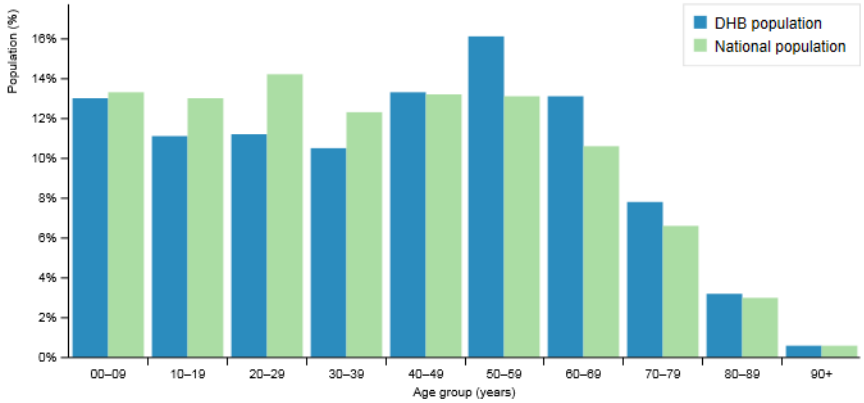


FIGURE 4 WEST COAST POPULATION BY AGE

There is a lower proportion of Māori living here compared to the national average and very few Pacific people.

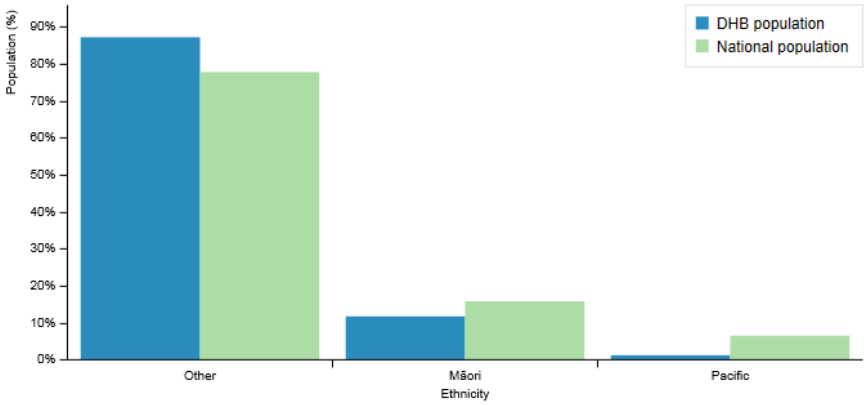
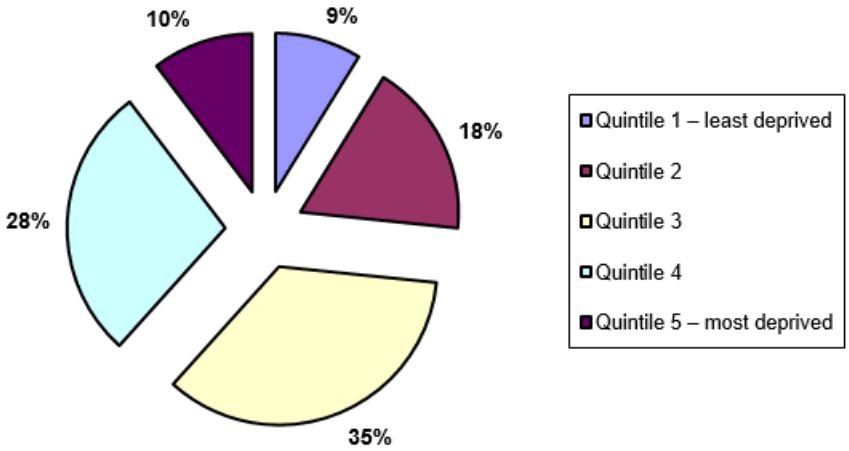


FIGURE 5 WEST COAST ETHNIC MIX

More people on the West Coast fall within the “deprived” population segment than the national average.

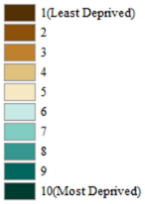


Deprivation is reported in ‘quintiles’. Quintile 1 represents the least deprived section of the population whilst quintile 5 represents the most deprived section.

Nationally, each quintile represents 20% of the population. The percentages in each quintile will vary for each DHB.

- If a DHB has more than 20% of people within a quintile, it means there are more people in that deprivation group than the national average.
- If it has less than 20% of people within a quintile, it means there are fewer people in that deprivation group than the national average.

The short facts table on the next page provides a ‘snapshot’ of the demographics of the WCDHB. It is based on the National Maternity Collection (MAT) 2015 collated by the Ministry of Health, which presents statistical, demographic and clinical information about selected publicly-funded maternity services up to nine months before and three months after a birth.

Category		WCDHB – 2015 Birth Data
	**Birth Rate**	**359 deliveries in 2015**
	162 babies born every day in New Zealand	**29 babies per month are born to WCDHB mothers**
	**Maternal age**	Highest percentage of WCDHB mothers are in 25-29 years bracket (26%)
	**Maternal ethnicity**	76% European / Other descent 19% Māori 4% Asian 1% Pacific
	**Deprivation**	Quintile 5 – 7% Quintile 4 – 50% Quintile 3 – 22% Quintile 2 – 16% Quintile 1 – 5%
	**Birth by Facility Type**	66% of WCDHB at Grey Base Hospital 6% - Primary Facility (Kawatiri) 13% - Christchurch (Tertiary) 14% - Home birth
	**Parity**	40% Primiparous 60% Multiparous
	**Body Mass Index**	46% of WCDHB women were a healthy weight
	**Smoking at first LMC Registration**	19% of women were smoking at time of registering with an LMC
	**Smoking 2 weeks postnatal**	86% of those women smoking at registration were smoking 2 weeks postnatal

"I'm really pleased with my experience. My midwife was very calm and positive".

Greymouth Hospital

2. Governance and Leadership

The CDHB & WCDHB have layers of governance and reporting lines. The table below illustrates the governance levels of the various groups.

Governance level	CDHB General Managers' Group	CDHB Clinical Board WCDHB Clinical Board	WCDHB Executive Management Team
	Women & Children's Health (W&CH) Clinical Governance Committee	CDHB & WCDHB Maternity Clinical Governance Committee	
Reporting level	W&CH Clinical Audit Committee	W&CH Maternity Operations Group	Ashburton and Rural Health Services Maternity Continuum Team
	St George's Obstetric Committee	WCDHB MQSP Group	WCDHB Clinical Quality Improvement team
Operational Level	Perinatal and Maternal Mortality Review Committee	Incident Review Groups	Maternity Operations Group

TABLE 5: CDHB/WCDHB GOVERNANCE STRUCTURE

2.1 Governance Committee Structure

The committee structure in Figure 16 below is complex due to the spread of maternity services and associated groups and committees both within and across the two DHB's.

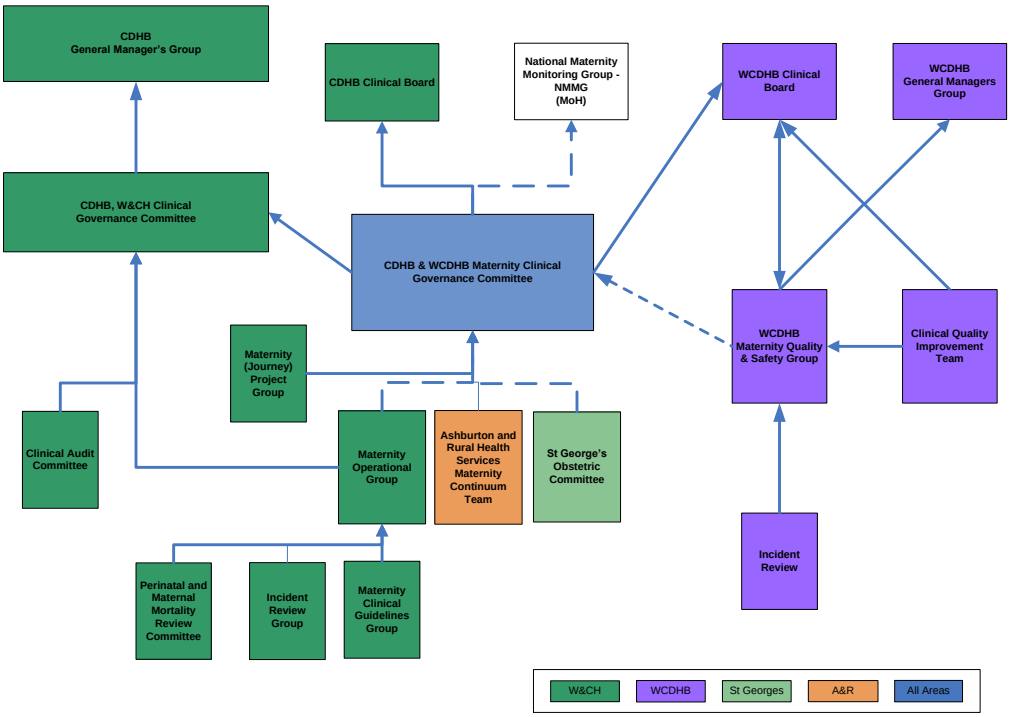


FIGURE 6 GOVERNANCE COMMITTEE STRUCTURE AND REPORTING LINES

2.2 Contract Funding for the MQSP Programme

In 2015 the MoH asked each DHB to self-audit and identify themselves within one of the three tiers:

- Emerging
- Established
- Excelling

Meeting the requirements of each tier was based on the New Zealand Maternity Standards (2011) and the service specification for each tier as prescribed by the MoH.

During 2016 the West Coast DHB, moved from an "Emerging" tier and we now identify ourselves as meeting the "Established" tier. As part of our continued momentum we have developed a Work Plan for the 2017/2018 year and this is included as an Appendix to this report.

3. Overview of MQSP Priorities 2016/17

The table below outlines the priorities of both the NMMG and the WCDHB Maternity Quality & Safety Programme for 2016/17.

MINISTRY OF HEALTH MATERNITY SECTOR GOAL

Ensure the same high standard of care throughout New Zealand for all women using maternity services

NATIONAL MATERNITY MONITORING GROUP

Oversees the maternity system in general
Oversees the implementation of the New Zealand National Maternity Standards
Acts as a strategic adviser to the Ministry of Health on areas for improvement in the maternity sector

NMMG PRIORITIES

Access to rural and primary maternity facilities	Consistent quality first trimester antenatal care	Access to Anti-D	Timely access to community level non-acute MH services	Review and monitor Maternity Clinical Indicators	Monitor maternity workforce recruitment and retention	Monitor outcomes of Maternity Ultrasound Advisory Group	Support national maternity clinical guidelines	Review key sector reports	Monitor DHBs' MQSPs

WCDHB MATERNITY QUALITY AND SAFETY PROGRAMME

MATERNITY CLINICAL GOVERNANCE COMMITTEE

QUALITY INITIATIVES AND PRIORITIES

Reduce waste and variation – Transalpine approach	Improve /refine guidelines, standards, policy, procedures, patient information	Analyse and review local performance in view of the NZ clinical indicators	Continue to audit outcomes of care, service provided	Define and develop processes for clinical case review and formal review of serious and sentinel events	
Promote Māori, Pacifica and younger women attend pregnancy and parenting support classes	Encourage early pregnancy registration with an LMC	Reduce smoking rates in pregnant women	Promote and support breastfeeding	Promote use of primary birthing facilities	Promote access to maternal mental health services

INFORMATION AND COMMUNICATION SYSTEMS		**DATA MONITORING**				
Continue to refine design and content of WCDHB Maternity Services website and develop social media site	Prepare for the introduction of the National Maternity Clinical Information System	Monitor access rates to Breastfeeding support services	Review cases / maternity incidents at Maternity Operations Group meeting	Continue audits of Caesarean sections, and Inductions of Labour	Audit pre-term births 32-36 weeks gestation & mode of birth	Implement trigger tool for reporting all maternity incidents via Safety1st – °1 & °2

CONSUMER ENGAGEMENT			**SECTOR ENGAGEMENT**	
WCDHB Maternity Services website	Actively engage and increase profile of consumers	MQSP Annual Report published yearly	Offer education to clinicians working within the maternity setting to ensure proficiency in screening and knowledge of pathways	

4. Quality Initiatives - Achievements against Priorities 2016/17

This table summarises the quality improvement work undertaken in Maternity Services across **the West Coast DHB** in the 2016/17 year.

Indicates that the work has been completed and / or in business as usual phase

Indicates that the work is in progress / underway and nearing completion

Indicates that there is still a significant amount to achieve before completion

Priority Area		Progress Report	Status
1	Monitor the involvement of maternity consumer members in DHBs' MQSPs	Although we now have consumer representation into our maternity services programme, we have not met our objective to have consumer representation in at least 6 meetings per annum. We are confident this will be achieved in the next annual period. We will continue to try and recruit another consumer representative, particularly from one of our target groups: young mum, Maori. We will continue to offer regular maternity forums at localities across the Coast.	
2	Review the outcomes of work undertaken by the maternity ultrasound advisory group as directed by the NMMG	Audit of primary maternity ultrasounds demonstrates appropriate referral. Documents are up to date and easily accessible by consumers and health professionals.	
3	Support the ratification of national maternity clinical guidelines and implementation of existing guidelines	Guidelines have been implemented. Documents are updated regularly and easily accessible by staff via the Maternity Section on the Intranet (this includes community based LMCs who have access to the West Coast DHB intranet).	
4	Continue to review the NZ Clinical indicators data and monitor DHBs' variation	Data is used to evaluate the effectiveness of previous actions and plan our future directions. There is evidence of a direct correlation between clinical indicator data and relevant quality improvement initiatives and/or changes in practice.	
5	Promote access to maternal mental health services and the use of the maternal mental health pathway	Health professionals are aware of and are using the maternal mental health pathway. Information about the maternal mental health pathway is available on our web pages for consumers to access. Audit of referrals to maternal mental health demonstrates correct use of the pathway. Mental Health representation on the MQSP Safety Group.	
6	Review key maternity sector publications including the MoH's Report on Maternity, 2014	Key publications are used to inform change and quality activities.	
7	Increase use of primary birthing facilities	During 2016 there were 26 births in our primary birthing facility. Some of the Buller Mothers who birthed at our secondary facility transferred back to the primary facility for post natal care as soon as it was safe to do so.	
8	Identify women with modifiable risk factors for perinatal related death and work individually and collectively to address these	Early identification of women with modifiable risk factors with referral to appropriate health professionals including referral to tertiary sector if required. On line resources are available for women on our maternity website and we regularly update information provided on our Facebook page.	
9	Offer education to all clinicians (working in the maternity setting) so they are proficient at screening women, and are aware of local	Opportunities for education are offered to staff and community based clinicians working in maternity services. A report on the education provided during the period is available further within this report. As guidelines / procedures are updated they are put up on our intranet and	

Priority Area		Progress Report	Status
	services and pathways to care, for the following: • family violence • smoking • alcohol and other substance abuse	clinicians advised. Family violence is a focus area for screening. Smoking cessation is offered to all women and their partners. The incentive programme is working well for those women and their partners that take it up.	
10	Multi-disciplinary fetal surveillance training be mandatory for all clinicians involved in intrapartum care	Ongoing education offered annually for all midwives and clinicians working in this field.	
11	Improved detection of fetal growth restriction to reduce perinatal morbidity and mortality rates	All women have GROW charts commenced and monitored throughout their pregnancy.	
12	Seasonal or pandemic influenza vaccination is promoted for all pregnant women regardless of gestation, and for women planning to be pregnant during the influenza season Vaccination is also recommended for maternity care providers to reduce the risk to the women and babies under their care.	Links to our web pages and to our FB page refer women to the MoH website for vaccination information. Vaccinations are offered free to all staff.	
13	Utilisation of the CDHB Newborn Observation Chart and Newborn Early Warning Score (NEWS)	These charts have been implemented and are now part of normal practice.	
14	8.6 Raise awareness about newborn immunisation	Education around immunisation is ongoing, however the West Coast has a cohort of women who choose not to vaccinate.	
15	Develop a relevant multidisciplinary review process for maternity incidents	A trigger list of maternity events is used to report incidents that go to the maternity operations group for review. Serious and adverse events are first reviewed by the West Coast DHB's Serious Incident Review Committee to provide a quick response to these types of events.	
16	Review, restructure and evaluate effectiveness of lactation support services	Lactation consultants are available on site at WCDHB birthing facilities. Maternity units continue to maintain BFHI status. Breastfeeding is actively encouraged and promoted. Mums have access to lactation support services in both the primary and secondary birthing units. Grey Base Hospital has retained its Breastfeeding Hospital Initiative status. Community based clinicians can refer women to lactation support services.	
17	Promote and support breastfeeding		
18	Prepare for introduction of National Maternity Clinical Information System	The programme has not been rolled out nationally as yet, however it is being rolled out in additional DHBs during the next twelve months.	
19	Promote Māori, Pacifica and younger women attending pregnancy and parenting support classes	More work needs to be done in this area to identify the barriers to access pregnancy and parenting education classes. WCDHB is working with the PPE and Māori providers to improve these figures and it is an area we are focussing on for 2017/18.	

Priority Area		Progress Report	Status
20	Implement Guidelines for Consultation with Obstetric and Related medical Services (Referral Guidelines) 2012	Embedded.	
21	*Evidence based clinical case review and representation of community based clinicians and consumers in the formal and informal clinical review processes to ensure their perspective is considered*	The Governance structure supports the refinement of ongoing clinical practice. Journal clubs, peer review and case review identify areas for improvement.	
22	Define processes to: • Implement changes in clinical practices • Reduce unnecessary variation in clinical practice • Define and strengthen clinical pathways • Influence local service delivery, planning and policy Consumer engagement – actively engage and increase the profile of consumer members	Multi-disciplinary membership on Maternity Operations Group, Maternity Quality Safety Group including mental health, consumer representation, theatre, community based LMCs, etc.. This allows continual refinement of process and practice.	

FIGURE 7 ANITA FEEDS BABY ELLA WITH BIG SISTER CAITLIN SNUGGLED IN

4.1 Addressing NMMG Priorities

The National Maternity Monitoring Group (NMMG) oversees the New Zealand maternity system and provides strategic advice to the Ministry of Health for improvement. We report against their national areas of focus for our West Coast population during the 2016/17 period below.

Eclampsia

The West Coast DHB did not have any admissions for women with eclampsia. The patients with severe pre-eclampsia were transferred to Canterbury DHB; our closest tertiary centre.

Screening, Diagnosis and Management of Gestational Diabetes Guideline

The gestational diabetes guideline has been implemented across the WCDHB. We have not seen any significant variance in the number of inductions of labour for women with gestational diabetes. There was a slight increase in the gestational age for induction for gestational diabetes and these are now done at 39 weeks. We also modified our induction of labour guideline to take into consideration the new recommendations for GDM management.

Elective Caesareans

Our elective caesarean rate is less than the national average. We actively encourage VBAC.

Long-acting reversible contraceptives

We are currently offering our women LARC which includes IUCDs, implants and Deprovera injections. Up to early 2017 women could access LARC via Family Planning in a clinic located within Grey Base Hospital. With Family Planning withdrawing the clinic from the West Coast this has meant women have had to go back to their GP and not all GP practices offer this service. To address this lack of suitably trained staff to provide LARC insertion we are currently rolling out training across the West Coast within our primary facilities.

From 1st July, the West Coast PHO increased their free contraception consultations from the age of 22 to the age of 25 which means more women can now access this free contraception. Women who quality for a community services over the age of 25 can access funding via WINZ. We do not currently have any provision within our Gynae services to offer LARC free to any women not meeting these criteria.

FIGURE 8 BABY ELLA

5. Quality Improvement Initiatives

5.1 Smokefree Pregnancies Incentive Programme

Smoking during pregnancy can have a harmful effect on baby, both before, during, and after the birth. Maternal smoking increases the risks of miscarriage, pre-term births, low birth-weight babies, difficulties during childbirth, sudden infant death syndrome, and childhood asthma and glue ear. And smoking at any time is harmful for mothers too.

The Smokefree Pregnancies Incentive Programme was established in 2014; a collaboration between the West Coast PHO and the West Coast DHB.

The West Coast Quit Smoking service assists pregnant mothers in having a smokefree pregnancy. The programme provides the support of a quit smoking counsellor and rewards mothers being smokefree, also helping mothers keep on track for a smokefree pregnancy and beyond pregnancy. Once baby is born, counsellors follow up with the mother and family to assist them in maintaining their smokefree status.

The programme provides grocery or petrol vouchers over a 12 week period for every week that pregnant mothers are smokefree after their quit date, up to a total value of $300. As a bonus mothers will receive a $50 pharmacy voucher if they are still smokefree two weeks after baby's arrival. Smoking/smokefree status is confirmed by a simple breath test that checks for carbon monoxide in the breath (called CO_2 monitoring). The cut-off level for showing that mothers are smoke-free is under 6ppm.

Partners are also assisted by the programme if they want to quit at the same time and if they join the 12–week programme they are eligible to receive incentives up to a total value of $150.

To be eligible for the incentives programme mothers must be no more than 28 weeks pregnant, and agree to keep weekly contact for the first 8 weeks with fortnightly contact for the next 4 weeks.

During 2016:

- 28 pregnant women and five partner supports were involved in the programme. This number includes one woman already on the programme at the start of the year and two who had completed the programme in 2015, but were awaiting pharmacy vouchers at two weeks post-delivery if still smokefree [since achieved].
- Three of the 28 signed-up to the programme but did not set a quit date.
- During the year, ten women completed the full 12 weeks with six of these having received their pharmacy voucher and the remaining four awaiting at the time of data review (May 2017).
- Since the partner support option became available in March 2016, one partner completed the full 12 weeks, one was at eleven weeks at year's end, and another two were still part-way through the programme at the time of data review.
- At the end of 2016 there were five pregnant women and two partners undertaking the programme.
- 15 of the 21 who set a target quit date between January 1st and December 5th were abstinent at 4 weeks (71% quit rate).
- Weeks of achievable abstinence (i.e. weeks of validated abstinence as a proportion of weeks potentially eligible for incentives): Primary participants, 159 out of 239 (66%) [Māori, 70 out of 91 (77%), Non-Māori, 89 out of 148 (60%)]; Partner supports, 39/49 (79%).
- Ethnicity of primary participants: 9 Māori; 17 NZ European/Other; 2 ethnicity not stated.
- Number referred, January to December: 55

5.2 Trigger Tool for Maternity Incident Reporting using Safety1st

Safety1st is the database used by all South Island DHBs for reporting incidents occurring within their DHBs and provides a comprehensive system for recording of incidents and the investigation and subsequent follow up of these incidents.

During 2016 the Maternity Operations Group developed and introduced a Trigger Tool for recording maternity events within Safety1st. The purpose of the trigger tool list is to:

- Identify and review the severe complications of pregnancy and the puerperium;
- Help learn lessons to improve future care and not finding the fault.

The focus is on identifying opportunities for system improvement. West Coast LMCs and Core Midwives have access to Safety1st via their DHB login and submit the incidents which are then investigated by the Clinical Midwife Manager. A Severity Assessment Code (SAC) is applied to the degree of harm suffered as a result of healthcare, in line with the Health Quality Safety Commission's consequence matrix. The trigger list has allowed a number of cases to be reviewed and changes made to guidelines without serious events occurring. An unexpected advantage of the list is that staff now have a different attitude to reporting incidents; instead of feeling they are reporting a person they are now aware that they are reporting an incident and it is expected that they will complete an incident report.

Events recorded as serious and adverse (SAC1 and SAC2) are reported to the HQSC and a full investigation is carried out using the Root Cause Analysis methodology of review. SAC3 and SAC4 events are reviewed at Incident Review Group (multidisciplinary group reviewing all incidents occurring at the West Coast DHB) and are also reported through to the Maternity Operations Group for information and follow up.

The West Coast DHB is the only South Island DHB that has implemented Safety1st across both primary and secondary sectors.

5.3 Kawatiri Maternity Unit – Primary birthing facility

The WCDHB maternity services review undertaken in 2013 identified safety concerns in regard to the primary birthing unit in Buller. The West Coast District Health Board (WCDHB) decided to cease the provision of planned birthing in the unit for a period of time, however it remained available for antenatal and postnatal care. Over the following 18 months work was undertaken to implement the recommendations outlined in the review, including addressing the issues specific to Kawatiri.

Following the transformation of the maternity service on the Coast which included updated processes, improved transfers, the recruitment of a midwifery educator and the implementation of the Primary LMC model, Kawatiri was reopened for full primary service provision in March 2015. Since this time there have been over 30 births in the unit and feedback from women as been very positive with 99 – 100% satisfaction with the service.

FIGURE 9 KAWATIRI BIRTHING UNIT

FIGURE 10 BRONSEN AND ACE - KAWATIRI BABIES

During 2016 Kawatiri primary birthing unit has continued to provide birthing facilities and postnatal care to the women of Buller. The unit is fully staffed and LMCs working within the unit have strengthened the communication and links to Buller Hospital staff.

There is a growing number of Buller women who, for various reasons, have not been able to birth at Kawatiri, but have chosen to return to the Kawatiri Unit for their postnatal care indicating the increased confidence in the facility. The Post natal care model is fully supported by the collaborative efforts of Kawatiri staff, GPs and Buller Hospital staff.

Kawatiri LMCs meet with GPs for regular peer review meetings. These meetings are proving to be of great value, not only improving communication links, but also providing better continuity of primary care for Buller women.

Good progress has been made in the following areas during 2016:

- **Bedside Fibronectin Kits** – the introduction of these has proven to be functional in avoiding unnecessary emergency transfers.
- **Pertussis and Flu Vaccines** – routinely offered to all women from 28 – 34 weeks gestation via text. Many women have taken up the opportunity to receive the vaccination at Kawatiri at their time of appointment.
- **Physio Classes for pregnant women** – offered to all women at 20 weeks gestation. There is excellent take up and attendance at these classes.
- **Cervical Screening** - in collaboration with local cervical screening staff, Kawatiri staff are able to access results enabling timely referrals to obstetric services.
- **Primary Unit Birthing Numbers increasing** – due to the increased confidence in the unit.

"Thank you very much Meike for continuing to run Kawatiri Birthing Unit; we love that we have had the opportunity to birth our babies in this special place (Westport) we call home."

Mother providing feedback on her experience of Kawatiri Primary Birthing Unit

As part of WCDHB certification Kawatiri maternity unit was audited in August 2017. Auditors noted how impressed they were with the way the unit was operating and issued no corrective actions; an excellent outcome showcasing the excellent work that has occurred within the unit from the whole

team during the past 2½ years. Auditors made specific comments on the evidence of education around the environment and support for breastfeeding and the team approach between unit staff and the Buller Hospital staff.

5.4 WCDHB – Maternity Services Changed Model of Care

Where we were

A Maternity Services Review in 2013 reported:

- A number of serious adverse events
- Workforce shortages
- Over-reliance on locums
- DHB cease planned birthing in our Kawatiri Unit in Buller due to safety concerns and workforce issues

Maternity services across the West Coast needed a transformative change to ensure a safe and consistent maternity service for women and their babies, a better environment and processes for our staff and for West Coast self-employed midwives. Services needed to be provided more efficiently and to be innovative in developing a safe and sustainable service in an area, part of which is quite remote. We needed to plan a way of reopening Kawatiri; our primary maternity unit for planned birthing in Buller.

Where we are now

It has been two years since the implementation of the changed model of care. We moved from DHB-employed case-loading midwives to self-employed midwives based in the community supported by a Rural Sustainability Package to work in our rural and remote community; a key factor in maintaining our workforce. We regularly survey our women and almost all women responding say they are satisfied with our maternity services (up from 60% to 99%). Those that have birthed under both systems indicate their increased satisfaction with maternity services.

The following roles were appointed to provide support to the wider maternity team: Midwifery Services Educator, Administration Assistant, Maternity Quality and Safety Coordinator and a joint Canterbury DHB / West Coast DHB Director of Midwifery.

The innovative changes made have improved clinical outcomes with:

- Fewer women now have interventions like inductions – reduced rates of IOL
- Women are accessing care earlier in their pregnancies – primarily within the first trimester (last count up from 60% to 100%)
- The development of a highly functioning Maternity Quality and Safety Group
- An established Maternity Operations Group to ensure operational issues can be discussed regularly within a multidisciplinary context
- Reduction in serious and adverse events

"It was easier to talk to my midwife; she was more interested in me and seemed to want to be there for me. Under the old system I felt like I was just a number."

Mother providing feedback on her experience Pre and post implementation of changed model of care

Kawatiri Maternity Unit reopened for planned birthing in March 2015. Confidence in the unit is growing and it is currently fully staffed.

The CDHB/WCDHB Director of Midwifery was appointed in April 2017 and we are now looking how this role best supports maternity services across both DHBs.

Our Clinical Midwife Manager resigned in May 2017. Special thanks to Christine Davey, former Clinical Midwife Manager for the extensive part she played in driving this programme and for the success of the changed model of care. Recruitment for this role is ongoing.

5.5 Midwife Educator for West Coast Maternity Services

The role of the Midwifery Educator was established in June 2015 to facilitate education for the maternity service staff. Although training is organised specific to midwives and LMCs, the Midwife Educator offers training to all West Coast DHB staff and clinicians working in the maternity setting. She also facilitates training on the West Coast to ensure that the midwives here can meet the requirements of their annual recertification programme without having to leave the Coast.

Training over the past year has included:

- **Neonatal Resuscitation**
  Neonatal resuscitation including resuscitaire familiarisation commenced in February and ran throughout the year on the first Tuesday of the month. A total of 48 attended the 3 hour course including RMIP students, RMOs and registered nurses.

- **Helicopter Familiarisation Refresher**
  Annual helicopter training was run in March; however, the afternoon refresher session was cancelled due to the rescue helicopter being called out.

- **Perinatal Anxiety and Depression (PADA)**
  The first PADA (Perinatal Anxiety and Depression) seminar on the West Coast was held in February. Funding from the WCDHB meant it was free for participants to attend, some even coming from as far as Nelson to attend. Various speakers from mental health and social work backgrounds gave talks about the challenges facing pregnant and post natal women with these disorders.

- **Fetal Fibronectin (FFN) Detection Kits**
  Foetal Fibronectin detection kits were provided for rural nurses and Westport colleagues in conjunction with the updated Premature Labour and Transfer Guideline. The Nurse Educator travelled throughout the West Coast with the Clinical Practice Development Team delivering education on the use the of the FFN Kit.

- **Sunnyside UP**
  Claire Eggleston visited the West Coast to provide a workshop called “Sunnyside Up” about posterior births and incorporating techniques such as Roboso to encourage these babies to turn in to an anterior position a more favourable presentation for birth. It was a fun interactive workshop enjoyed by all 20 midwives that attended.

- **Journal Club & Maternity Case Review meetings**
  Journal Club meetings on the last Wednesday of the month continued. West Coast staff joined their Canterbury colleagues via video conference on occasion. A wide variety of topics were discussed including second stage management and improving inter-professional co-ordination and breech births.

  Maternity case review meetings to discuss interesting and complicated clinical cases continued to be held on McBrearty Ward and were well attended by core staff and community based LMCs.

- **On site education from resident Obstetricians**
  Dr Ravi Vemulapalli and Dr Sherif Mehrez, WCDHB resident O&G specialists provided educational talks throughout the year:
  - Nausea and Vomiting in Pregnancy
  - Abdominal Pain in Pregnancy
  - Early Pregnancy Problems
  - Hypertension in Pregnancy
  - Rhesus Isoimmunisation

- **"Dotting your I's and Crossing your T's" – NZ College of Midwives Workshop**
  This workshop aimed at improving documentation and reporting skills in clinical practice was well attended with 15 midwives attending.

- **Maternity Skills Workshops – facilitated by the Nurse Educator**
  - Three Maternity Skills workshops were held during the year; two in Westport and one in Franz Josef. This is to upskill the rural nurses, GPs and ambulance staff who work in rural practice or primary care units. The course includes neonatal resuscitation, normal labour and birth and obstetric emergencies.
  - 2 x Emergency Skills Days held for midwives as part of their compulsory recertification training.

- **PROMPT (Practical Obstetric Multi-Professional Training)**
  With assistance from the super PROMPT team two PROMPT days were held during the year with a total of 30 attending training. A large number of RMOs attended which is excellent for them to be part of this multidisciplinary training.

FIGURE 11 PROMPT TRAINING

- **Education links with Canterbury DHB**
  West Coast staff were able to link with their Canterbury colleagues to attend the following training:
  - Monthly Perinatal Maternal Morbidity Review Committee (PMMRC) meetings – with cases from Christchurch and the West Coast reviewed
  - Monthly Journal Club meetings

- **Breastfeeding Education**
  The West Coast DHB received approval from the Midwifery Council for their breastfeeding education with points approved. The two WCDHB lactation consultants ran 4 hour sessions as part of the midwives' annual recertification; one in Buller and one in Greymouth with excellent attendance.

- **Foetal Surveillance Education (FSEP) Workshop**
  This workshop covered the following topics:
  - Foetal physiology
  - CTG interpretation and management
  - Maternal monitoring and the complete overall picture.

  The day concluded with a 60 question multiple choice exam. Twenty-two midwives and one RMO attended the full day workshop and 8 midwives and one SMO attended the ½ day workshop. Feedback from those attending was that it was a great informative day and attendees gained a lot of knowledge. It was well worthwhile bringing the workshop here.

- **Updates for Midwives**
  Updates for midwives included:
  - Epidural Certification
  - Use of oral dextrose for neonatal hypoglycaemia
  - The use of Cervidil for induction of labour
  - Foetal fibronectin detection in Prem labour
  - ISBAR
  - The new Neonatal NEWS (Newborn Early Warning Score) chart

5.6 Consumer Engagement - We Care about Your Care – Maternity Services Feedback Form

FIGURE 12 ASHLEIGH AND BABY MILLIE

"We Care about Your Care" – maternity services feedback from was launched in July 2015. The form was developed via collaboration by West Coast and Canterbury DHBs AND is used across transalpine maternity services. West Coast birthing mothers are provided with a copy of the feedback form which they can complete prior to leaving birthing facilities, or they can take it home, complete it later and return it via freepost.

Results from the surveys are collated and reported monthly to the West Coast DHB Maternity Quality and Safety Group, CDHB / WCDHB Maternity Services Clinical Governance Group, to all maternity facilities and West Coast based LMCs. Feedback has assisted in informing where systems improvement can be made and allows us to identify trends. For example, from the survey results we are seeing an increase in the early registration with an LMC within the first trimester and an increase in the use of the Find Your Midwife website.

However, it is now time to revisit this form and a project is currently underway across Transalpine maternity services to streamline this form and make it easier for Mums and their family / whānau to identify what was important to them during their care and to gain their suggestions of what could be done to improve consumer experiences.

A Transalpine group is currently working on the redevelopment of this form, led by the MQSP Co-ordinator at Canterbury DHB. There is very active consumer involvement via our maternity consumer representatives.

5.7 Consumer Engagement - Maternity Services Consumer Forums

To ensure the West Coast DHB is meeting the needs in the delivery of maternity Services to West Coast Women and their families / whānau we plan regular consumer forums across the West Coast. Women who used maternity services within the last 12 – 18 months were invited to attend a morning tea to discuss their experiences to provide us with feedback on how we are doing and suggestions for improvement, particularly given the changed model of care introduced over the last two years.

> ***"Between Grey / Chch / Buller the services were co-ordinated even though we moved through all these services."***
>
> **Buller Mother's comments at forum**

What we found was that the women who had birthed under both models of care: DHB employed case loading midwives and then the model of community based LMCs, reported improved birth experiences and improved continuity of care.

We met with Buller, Hokitika and women from South Westland who provided feedback on the quality of care they received and the positive impact the changed model of care has had on the service. They provided some suggestions for improvement for follow up. Forums will continue to be rolled across main centres on the West Coast over the coming year. We have begun discussions with the local Māori Health provider to identify ways to improve access to parenting and pregnancy education and maternity services for our Māori Health / Pacific Island population.

6 The Year's Highlights

6.1 Wireless CTG Donation

Countdown Supermarket generously donated the cost of a wireless CTG for McBrearty Ward. This wireless machine allows women to bath, shower and walk around whilst they are being monitored via CTG. This machine has been well received by West Coast LMCs, core midwives and most importantly our West Coast women.

6.2 Fetal Fibronectin Tests introduced

Fetal Fibronectin (fFN) is a protein that is believed to assist in keeping the amniotic sac "glued" to the lining of the uterus. fFN begins to break down and can be detected in vaginal discharge towards the end of pregnancy. fFN can be tested. If a positive fFN result is obtained it indicates that a woman is more likely to have a premature labour. A negative test result provides 99.2% assurance that a woman will not deliver within the next two weeks. During 2016 we introduced fFN test kits to assist in detecting whether or not women would go into premature labour. Training was conducted for midwives and rural nurse specialists (RNS) and guidelines developed to support the roll out of this cost effective test.

At the time of writing this report, 100% of the women who we had tested and who had received a negative fFN test result, did not go into labour within one week. This is an excellent result as preterm labours are transferred to the tertiary sector (Canterbury DHB), some of which may prove to be unnecessary if the woman does not go on into full labour. The benefits of this test are multiple; primarily it saves our pregnant women and their families the inconvenience and sometimes the emotional and financial stress of having to travel to Christchurch unnecessarily. Eliminating unnecessary travel also has a financial benefit to the DHB and the National Travel Assistance Programme.

6.3 Countdown Kids Appeal

Over $30,000 was gifted to the DHB from the Countdown Kids Appeal. This donation enabled the purchase of equipment for the Maternity and Children's wards. It also enabled the purchase of a new birthing bed for Kawatiri maternity unit meaning that all birthing beds are now of the same type.

6.4 Newborn Screening – return rates

Our return rates for New Born Screening improved by 8% giving the West Coast DHB the second best return rate in New Zealand; testament to the commitment from the LMCs and core staff, particularly given rurality factors present on the West Coast. This result has been noted in the National Screening Unit's annual report.

6.5 Improved Breastfeeding rates on Discharge

The rates of West Coast women breastfeeding baby / pepi on discharge improved to 91.1%; the second highest rate in New Zealand. This increased rate can be attributed to the increase in breastfeeding education and the excellent advice and support women are received from their LMC and lactation support staff.

6.6 Safe Sleep Policy adopted

West Coast DHB introduced the Safe Sleep Policy and appointed a local champion to talk to Mums and their families/whanau about safe sleep practices. An information brochure "Keep Your Baby Safe during Sleep" is provided and infants are audited in the maternity and paediatric units. Cards about safe sleep practices are placed on the side of each baby's cot. Staff discuss smoking cessation, provide breastfeeding support, and discuss safe beds and pepi pods. We have a stock of pepi pods that we are able to provide to our mums. We were the first DHB in the South Island to complete the first three month audit of the policy's implementation.

7. A Patient's Story – My birth experience

"I wanted to have a home birth, but my partner wasn't sure. My LMC Lian gave me enough information for me to make my own decisions about how I wanted my birth to be and supported me in my decision to have a home birth.

However, when the day came for Lucas to be born, there was meconium present in my waters, so he had to be born at Grey Base Hospital. Lian was with me – helping me to deal with the pain and helping me to have an active birth. She gave me lots of good tips and I felt relaxed and in control during the whole process, although my experience could have easily been different. My partner was able to be involved. He supported me and participated in the birth of our son.

Although the staff were good at Grey Base Hospital, the room was small and I'm looking forward to seeing the new Hospital when it's completed.

I wanted to breastfeed my baby, so after Lucas was born Lian provided me with advice and support and Lucas has been exclusively breastfed. As a Mum I feel I've been able to give him the best possible start in life. After Lucas was born, I was able to contact Lian with any questions I had and I felt really supported.

I feel that I was given enough information to make the decisions that were right for me and I am comfortable in the decisions I made. I would not change a thing.

I couldn't recommend Lian enough, she was really great."

Jessica

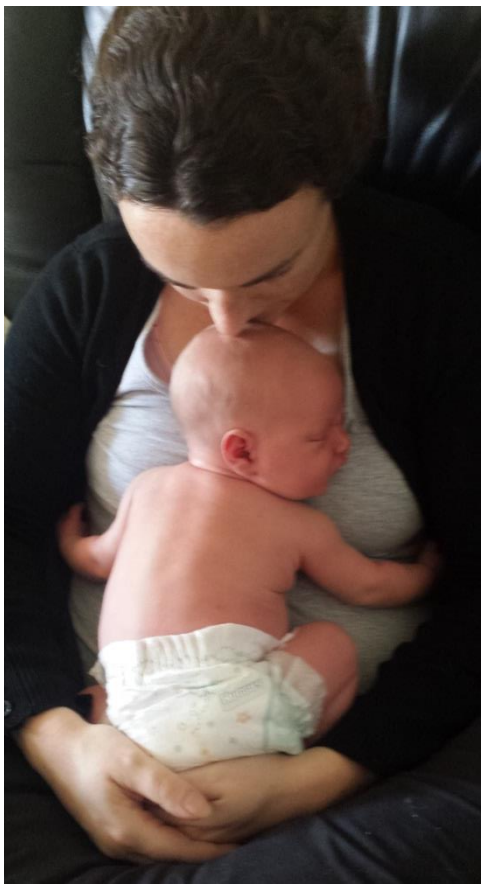


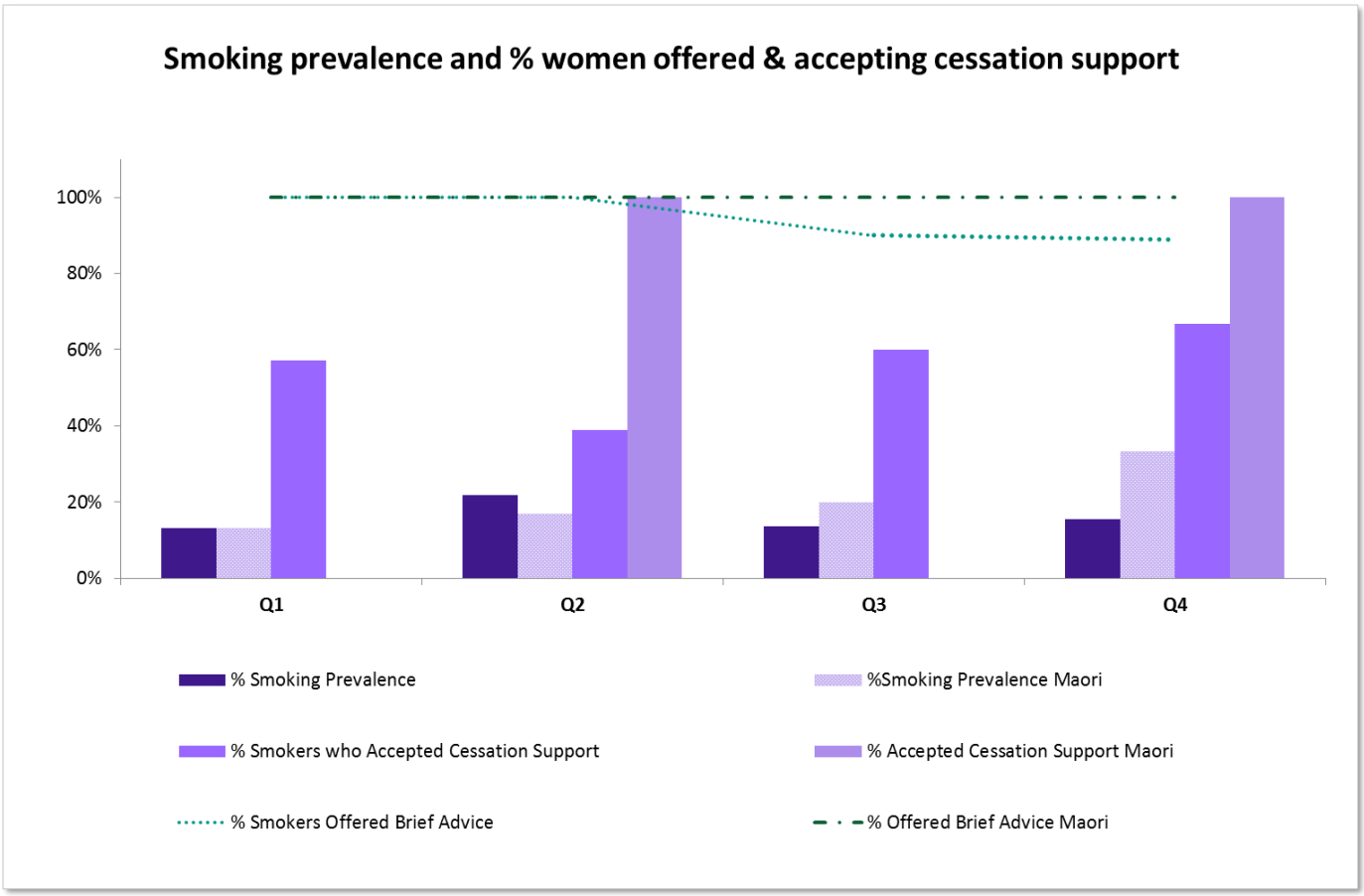
FIGURE 13 JESSICA AND BABY LUCAS

8. WCDHB Goals for Pregnant Women who smoke

Smoking is the main preventable cause of problems in pregnancy. There is NO safe level of smoking while pregnant.

Our aim is to provide every woman high quality support to be smoke free during pregnancy and beyond.

Focus	Target	Goal
Booking	80%	Women have enrolled with an LMC midwife by 12 weeks.
Advice	90%	Pregnant women who identify as smokers are offered advice and support to quit at first registration visit.
Referral	75%	Pregnant women who accept a referral to smoking cessation support during pregnancy commit to setting a quit date.
Hospital	95%	Women who smoke will be given support to stop smoking while in hospital.
Home	86%	Mothers are smoke free at two weeks postnatal.



West Coast DHB	2016/17							
	Q1		Q2		Q3		Q4	
	Total	Maori	Total	Maori	Total	Maori	Total	Maori
Smokers Gestation at Registration (weeks)	13	9	22	11	12	8	16	8
% Smoking Prevalence	13%	13%	22%	17%	14%	20%	16%	33%
% Smokers Offered Brief Advice	100%	100%	100%	100%	90%	100%	89%	100%
% Smokers Offered Cessation Support	71%	0%	100%	100%	100%	100%	89%	100%
% Smokers who Accepted Cessation Support	57%	0%	39%	100%	60%	0%	67%	100%
Number of events	**53**	**2**	**73**	**11**	**73**	**10**	**58**	**6**

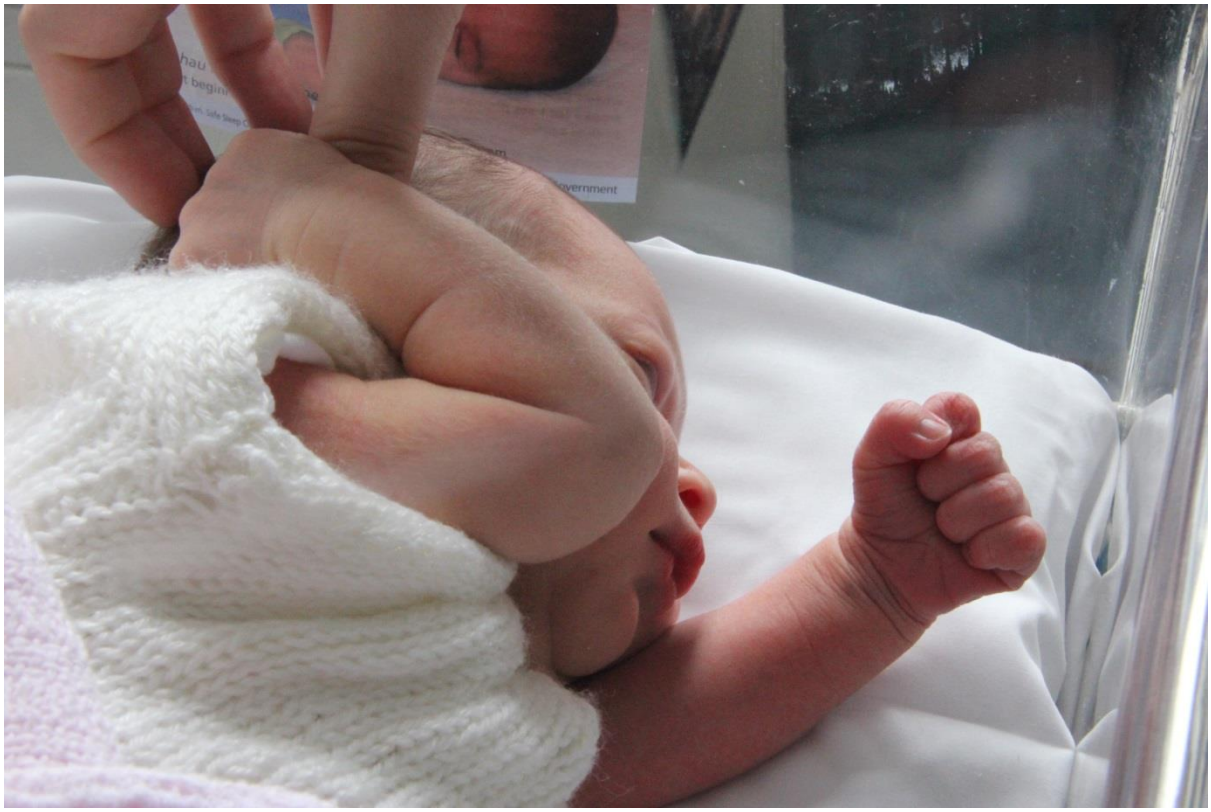


FIGURE 14 BABY JAMES

9. Clinical Indicators Analysis

The Ministry of Health's data New Zealand Maternity Clinical Indicators (2015) was published in December 2016. The publication shows key maternity outcomes for each DHB for 2015.

The analyses below, shows the DHBs' performance and position in relation to both the Indicators and national averages. Percentage figures are from either the 'DHB of Domicile' set or the 'facility of birth' as indicated and are based on standard primiparae only (rather than all women giving birth / all deliveries).

9.1 Introduction

The purpose of these indicators is to increase the visibility of the quality and safety of maternity services, and to highlight areas where quality improvements could be made. The data largely refer to 'standard primiparae' (SP) who make up 11.4% of all births in the WCDHB. This group (aged 20-34 years, uncomplicated singleton pregnancy, full term, cephalic i.e. head presentation) represent the least complex situations in which intervention rates would be expected to be low, and can be compared between institutions.

9.2 Analysis of Individual Indicators for Whole West Coast 2015

Indicator	Title	2014 WCDHB Rate (n)	2015 WCDHB Rate (n)	Change from 2014	Higher or lower than national average	National Average 2015
Indicator 1	Registration with a Lead Maternity Care	55.9% (95)	53.9% (186)	▼ -2.0%	▼	70.0%
During 2015 the WCDHB moved to an independent LMC model of maternity care and it can take time for this information to disseminate. The remoteness of the area can also make it difficult for women to make first contact with their LMC. However, we are targeting this indicator extensively and figures from 2016 suggest that this has improved.						
Indicator 2	Standard primiparae who have a spontaneous vaginal birth (%)	60.0% (24)	58.6% (34)	▼ -1.4%	▼	68.7%
Spontaneous vaginal delivery rate could be partly attributed to the environment and the facilities available. Clinicians may not be willing to take a higher risk if it impacts on the mother and/or baby as WCDHB does not have an established special care baby unit. This remains an issue for us and we are conducting an audit of all caesarean sections.						
Indicator 3	Standard primiparae who undergo an instrumental vaginal birth (%)	15.0% (6)	12.1% (7)	▼ -1.9%	▼	16.3%
This rate sits around the national average. Again low numbers impact on percentage rates, however it is good to see this number decreasing.						
Indicator 4	Standard primiparae who undergo a caesarean section (%)	22.5% (9)	29.3% (17/58)	▲ +6.8%	▲	14.9%
Obesity numbers on the West Coast are similar to the national average, however women delivering at Grey Base are one third higher which may be contributing to the higher rate of c/sections compared to the national average. WCDHB regularly review all emergency C/sections.						

Indicator	Title	2014 WCDHB Rate (n)	2015 WCDHB Rate (n)	Change from 2014	Higher or lower than national average	National Average 2015
Indicator 5	Standard primiparae who undergo an induction of labour (%)	5.0% (2)	6.9% (4)	▲ +1.9%	▲	5.7%
This rate is being interrogated, however there are only 4 patients fitting this category, hence small numbers impacting on data. All IOLs are regularly reviewed and none are performed for non-medical reasons.						
Indicator 6	Standard primiparae with an intact lower genital tract (no 1st – 4th degree tear or episiotomy) (%)	29.0% (9)	29.3% (12)	▲ +0.3%	▲	28.3%
WCDHB rate is slighter higher than the national average. LMCs skills are contributing positively on this measure.						
Indicator 7	Standard primiparae undergoing episiotomy with no 3rd – 4th degree perineal tear (%)	22.6% (7)	19.5% (9)	▼ -3.1%	▼	22.2%
This sits around the national average. Training has been provided to LMCs on the assessment of tears and suturing techniques.						
Indicator 8	Standard primiparae sustaining a 3rd – 4th degree perineal tear with no episiotomy (%)	3.2% (1)	4.9% (2)	▲ +1.7%	▲	4.4%
Improved skills, education and the identification of tears appropriately and appropriate repair has impacted on this figure. WCDHB is within the national average. As above re training. Even though it appears to be increasing the actual numbers are low.						
Indicator 9	Standard primiparae undergoing episiotomy and sustaining a 3rd or 4th degree perineal tear (%)	3.2% (1)	2.4% (1)	▼ -0.8%	▲	1.5%
WCDHB has improved this figure since 2014 and may be as a result of the identification of degree of tear and following up women so they receive more appropriate treatment based on the degree of tear. Again low numbers impact on the figures significantly.						
Indicator 10	Women having a general anaesthetic for caesarean section (%)	8.1% (8)	11.2% (11)	▲ +3.1%	▲	8.8
The rate is within the national average. Low figures contribute to increased percentage. In 2015 we reviewed the GA rate and in discussion with the Anaesthetic team we made a policy change whereby regional anaesthetic would be used as the primary choice of anaesthesia in C/section unless the clinical situation dictates GA.						
Indicator 11	Women requiring a blood transfusion during birth admission for caesarean section delivery (%)	1.0% (1)	5.1% (5)	▲ +4.1%	▲	2.9%
Improved data collection since 2013 have contributed to figures. Within the national average; numbers are very small.						

Indicator	Title	2014 WCDHB Rate (n)	2015 WCDHB Rate (n)	Change from 2014	Higher or lower than national average	National Average 2015
Indicator 12	Women requiring a blood transfusion during birth admission for vaginal birth (%)	0.4% (1)	1.2% (3)	▲ +0.8%	▲	2.0%
The rate has increased slightly; but low numbers. Blood transfusion rate is lower than the national average. Most high risk patients are transferred to the tertiary centre.						
Indicator 13	Women with eclampsia at birth admission (numerator)[2]	N=0	N=0			
We have no patients in this group.						
Indicator 14	Women having a peripartum hysterectomy (numerator)[2]	N=0	N=0			
Indicator 15	Women admitted to ICU and requiring ventilation during the pregnancy or postnatal period (numerator)[2]	N=0	N=0			
Not applicable as there are no patients for indicators 13, 14 or 15.						
Indicator 16	Maternal tobacco use during postnatal period (%)	16.6% (26)	19.5% (66)	▲ +2.9%	▲	12.0%
WCDHB has improved reporting of smoking rates and the data is more accurate which contributed to the increase in overall number. There are incentive packages for pregnant mothers to quit smoking which are proving effective, however we continue to focus on this indicator.						
Indicator 17	Women with BMI over 35 (%)	8.8% (15)	9.3% (32)	▲	▼	9.3%
Our BMI rates sit at the national average, however there seems to be a tendancey towards an increase in the number of high BMI patients. There is a small group of patients with BMI greater than 50 where we have put policies in place to provide antenatal and intrapartum care for these women. The BMI of women delivering at our facilities and in the home is increasing. This higher BMI may contribute to the higher c/section rate.						
Indicator 18	Preterm birth (%)	9.1% (32)	8.1% (29)	▼ -1.0%	▲	7.3%
WCDHB tries to avoid preterm deliveries within the unit by the use of effective diagnostic procedures within the rural setting to identify a group of women that require transfer to the tertiary faciliites early. Our guidelines and systems identify this group and our aim is to transfer to the tertiary unit in utero where more appropriate services can be provided. This figure has decrased since the implementation of these guidelines.						

Indicator	Title	2014 WCDHB Rate (n)	2015 WCDHB Rate (n)	Change from 2014	Higher or lower than national average	National Average 2015
Indicator 19	Small babies at term (37-42 weeks' gestation) (%)	1.3% (4)	2.8% (9)	▲ +1.5%	▼	3.1%
There seems to be an improvement in identifying the small for gestational age babies and this may be related to our changed model of care (self employed LMCs) on the West Coast. WCDHB figures sit below the national average. GROW charts are used throughout pregnancy. We review babies who are less than 10% of the percentile. We believe the increase may be due to our increased Indian population which contributes to lower birthweight.						
Indicator 20	Small babies at term born at 40-42 weeks' gestation (%)	0% (0)	33.3% (3)	▲ +33.3%	▼	38.4%
There were 3 babies during the 2015 year that were small at term. As above an increased Indian population may have contributed to this. We believe that improved data collection has increased this figure.						
Indicator 21	Babies born at 37+ weeks' gestation requiring respiratory support	1.2% (4)	1.3% (4)	▲ +0.1%	▼	1.9%
This rate sits within the national average. Basic neonatal support is provided by WCDHB employed Rural Hospital Medical Specialists and physicians providing paediatric support for the babies who require it.						

10. West Coast DHB Maternity Data

The data in this section is from local WCDHB Maternity data sources and shows 2014 and 2015 in comparison, with increase or decrease noted. Data here is counted in terms of all 'deliveries' in a DHB facility (as opposed to a count of exclusively standard primiparae as used by the New Zealand Maternity Clinical Indicators.

Gestation at Delivery	2014		2015		Trend
	Number	%	Number	%	
Extremely preterm (<28 weeks)	0	0	1	0.4	▲
Very preterm (28-31 weeks)30	0	0	1	0.4	▲
Moderately preterm (32-33 weeks)	2	0.7	0	0	▼
Later preterm (34-36 weeks)	14	5.0	3	1.2	▼
Term (37-41 weeks)	263	93.6	245	90.5	▲
Prolonged (>42 weeks)	2	0.7	4	1.6	▲

Type of Labour	2014		2015		Trend
	Number	%	Number	%	
Spontaneous	112	39.9	116	45.7	▲
Induction	45	16.0	29	11.4	▼
Artificial Rupture of Membranes	62	22.1	50	19.7	▼
Augmented	21	7.4	35	13.8	▲
Did not labour	41	14.6	24	6.8	

Method of Delivery	2014		2015		Trend
	Number	%	Number	%	
Elective Caesarean	41	14.6	24	6.8	▼
Vaginal	162	57.7	143	56.3	▼
Vaginal Water Birth	13	4.6	14	5.5	▲
Kiwi Cup	17	6.0	6	2.4	▼
Ventouse	2	0.7	0	0	▼
Forceps	7	2.5	16	6.3	▲
Emergency Caesarean	39	13.9	51	20.1	▲
VBAC	0	0	0		

Breech	2014		2015		Trend
	Number	%	Number	%	
No	270	96.1	248	97.6	▲
Yes	11	3.9	6	2.4	▲

Anaesthetic	2014		2015		Trend
	Number	%	Number	%	
None	154	54.8	138	54.3	▼
Local	18	6.4	13	5.1	▼
Epidural	16	5.7	26	10.2	▲
Spinal/Epidural	87	31.0	69	27.2	▼
General	6	2.1	7	2.8	▲

Perineum	2014		2015		Trend
	Number	%	Number	%	
Intact	171	60.9	63	24.8	
1st Degree tear	53	18.9	50	19.7	
2nd Degree tear	30	10.7	40	15.7	
3rd or 4th Degree tear	5	1.8	7	2.8	
Episiotomy	17	6.0	25	9.8	
N/A	5	1.8	69	27.2	

Post-Partum Haemorrhage	2014		2015		Trend
	Number	%	Number	%	
No	261	92.9	226	89.0	
Yes	20	7.1	28	11.0	

Blood Loss Amount	2014		2015		Trend
	Number	%	Number	%	
>1500mL	1	0.4	5	2.0	
<1000mL	240	85.4	235	92.5	
≥1000mL ≤1500mL	8	2.8	13	5.1	
N/A	32	11.4	1	0.4	

Admitted to Neonatal Intensive Care	2014		2015		Trend
	Number	%	Number	%	
No	275	97.9	254	100	
Yes	6	2.1	0	0	

Neonatal Outcomes	2014		2015		Trend
	Number	%	Number	%	
Well Neonates	279	99.3	253	100	
Neonatal Deaths	2	0.7	0	0	

Stillbirth	2014		2015		Trend
	Number	%	Number	%	
No	280	99.6	253	99.6	
Yes	1	0.4	1	0.4	

Small for gestational age	2014		2015		Trend
	Number	%	Number	%	
No	275	97.9	251	98.8	
Yes	6	2.1	3	1.2	

Feeding Method	2014		2015		Trend
	Number	%	Number	%	
Bottle	8	2.8	2	0.8	
Breast	272	96.8	251	98.8	
N/A	1	0.4	1	0.4	–

FIGURE 15 SIOUX AND BABY AYVA

11. FOCUS FOR 2017 / 2018

The WCDHB has identified the following areas as our priorities / focus for the coming 2017/18 year:

Actively seek Consumer Feedback / Engagement

- The WCDHB has a continual challenge to deliver equitable maternity services despite small population spread across a large geographical area. In order to ensure we continue to address the needs of our women it is important to talk to our women so we can learn about their experiences. We plan to continue regular consumer forums where we go to our women, in their rural setting, to gather their feedback. We have also set up a Facebook page to post information and links back to our maternity website. As noted earlier in this report, the feedback form is currently under review and is being updated for ease of response from our women.

Young Māori Women and access to services

- Around 19% of our mothers are Māori, yet they are under-represented in the feedback we receive about our services. We will work with Poutini Waiora (our local Māori health services provider) and our WCDHB Māori Health team to address the needs of our young Māori women and to ensure that our services are culturally appropriate. Our aim is to raise the voice of young Māori women in maternity services. Our Māori women are not engaging in PPE and this is also an area of focus.

Loss / Grief Forum

- We recognise that the loss and grief experienced by a woman and her family after losing a baby (miscarriage or stillborn) significantly impacts on the whole family and that specialised support is needed by health professionals to help families in coping with the loss and grief of their baby.

- The women experiencing a miscarriage or still-birth may come into contact with a number of health professionals including those working in the Emergency Department, Radiology or the Obstetric Ward who may have not had specific training in this field. To support staff to provide the critical care that families need during the hospital and post-discharge process a Loss/Grief Forum will be held in 2018 in Greymouth with health practitioners and community groups to raise awareness and discuss how we as practitioners and a community can best support our families. The Forum will also address the supports needed for staff working in this field.

Plan for the move to the new maternity facility

The West Coast DHB received funding from the Government for the building of a new hospital and integrated family health centre on the Grey Base Hospital site. Construction is currently underway with a projected completion date of mid-2018. The maternity leadership team contributed to the design process to ensure the maternity suite is a modern and fit for purpose clinical area for mums, their babies/pepi and families/whānau. The unit has two birthing rooms and six individual rooms with en suites, with a shared lounge. Planning has also occurred to ensure the move to the new facility minimises disruption to service and enables a continued high standard of care and clinical safety.

12. Appendices

Appendix One – West Coast DHB Annual Work Plan 2017 / 2018

Initiative / Priority		Action	Expected Outcome / Measure	Measure
1	Monitor the involvement of maternity consumer members in the WCDHB's MQSP	Develop good communication systems for consumer representatives to provide input into the MQSP programme and maternity service delivery	• Regular meeting with the maternity consumer representative/s	Consumer representatives attend at least 6 meetings per annum (2 meetings attended in 16/17)
2	Continue to review the NZ Clinical indicators data and monitor DHB's variation	• Multi-disciplinary review of the maternity clinical indicator data for 2016 • Evaluate whether previous actions have impacted on data • Formulate action plan to address areas for improvement	• Data is used to evaluate the effectiveness of previous actions and plan future actions • Capture quality improvement activity resulting from comparing DHB outcomes to national trends	There is evidence of a direct correlation between clinical indicator and relevant quality improvement initiatives and/or changes in practice – i.e. improvement can be monitored. Clinical Indicator performance is reported in the annual report.
3	Review key maternity sector publications including the MoH's Report on Maternity 2015	• Establish multidisciplinary review of the key maternity sector publications • Develop KPIs for maternity to match or exceed national performance indicators	• Data is used to evaluate the effectiveness of previous actions and to plan future actions • A positive movement in the identified trend from the previous year	Action in the MQSP Quality Improvement Plan links to key outcome results in maternity publications
4	Increase use of primary birthing facilities	• Promotional material / information reviewed and distributed • Facility promoted via Facebook and good news stories	• Increase in number of women choosing to birth or have post natal care in the DHB primary birthing facility	Bed occupation and birth location indicates increasing usage of primary birthing unit (2016 = 26 births in primary facility)
5	Promote access to maternal mental health services and use of the maternal mental health pathway	• Resources promote the mental health pathway so all health professionals working in maternity services are aware of and know how to refer to the pathway. Resources include hard copy printed material and on line guidance	• All health professionals are aware of and utilising the maternal mental health pathway • Information about accessing the maternal mental health pathway is available for consumers • Women are able to use the pathway to access advice and support	An audit of referrals to maternal mental health demonstrate correct use of pathways Hits to the West Coast DHB Website / FB page indicate that people are accessing this information

6	Identify women with modifiable high risk factors for perinatal related death and work individually and collectively to address these	Review and update educational and promotional material including online resources to promote: • Uptake of peri-conceptual folate • Pre-pregnancy care for known medical diseases such as diabetes • Access to antenatal care • Accurate height and weight measurement in pregnancy with advice on ideal weight gain • Prevention and appropriate management of multiple pregnancy • Antenatal recognition and management of fetal growth restriction	• Women and health professionals are accessing online resources • Up to date information is accessible in appropriate formats (paper/electronic) • Referrals for pregnancy and parenting education to Plunket • Appropriate referrals to the tertiary provider for women identified as at risk	Regular updates from Plunket indicating increasing numbers of first time mothers attending PPE (16/17 = 80 first time mothers) Hits on website / Facebook page indicates women are accessing information Review of referrals indicate that they are timely and appropriate
7	Offer education to all clinicians (working in the maternity setting) so they are proficient at screening women, and are aware of local services and pathways to care for the following: • Family violence • Smoking • Alcohol and other substance abuse	• Regular training is available and mandatory for WCDHB employed staff working in maternity services • Funded regular training is available for community based LMC/midwives through the WCDHB and College of Midwives	• Health professionals in the maternity setting are able to screen for family violence, smoking and alcohol and other substance abuse effectively • Health professionals are familiar with the appropriate referral process and can access correct pathways	Evidence of audit shows: • 70% of pregnant women accessing DHB maternity services are asked questions about family violence (Q4 16/17 = 74%for postnatal visits) • Audit identifies appropriate referral for those women who indicated that they had been exposed to FV • 90% of pregnant women who identify as smokers upon registration are offered brief advice and support to quit smoking (Q4 16/17 = 88.9%) • Audit of number of referrals to the Smoking Cessation Incentivise programme indicates an increase in the referral numbers (Calendar year 2016 = 55)

8	Increase the number of women who are referred to the Smokefree Pregnancy Incentives Programme to set a quit date	• Review the schedule for incentives to support engagement with the cessation service following referral • Continue to offer support to women who chose not to set a quit date immediately, throughout their pregnancy and beyond • Celebrate the success of women who have successfully quit through media stories	By June 2018: • 75% of women (both Māori and non-Māori) set a quit date following referral to Smokefree Pregnancy Incentives Programme	The number of women referred to the programme who set a quit date increases to 75%. (Calendar year 2016 = 45.5%)
9	Multi-disciplinary fetal surveillance training be mandatory requirement for all employed maternity clinicians and will be facilitated for all self-employed access holders	Fetal surveillance training includes: • Risk assessment for mothers and babies throughout pregnancy as well as intrapartum observations • Strengthening of supervision and support to promote professional judgment, interdisciplinary conversations and reflective practice	• Health professionals working in the maternity setting are offered and attend mandatory training in intrapartum fetal surveillance	There is available education each year either face to face or online. (Target = 100% maternity services staff have completed training each year and 100% of LMC midwives are offered training)
10	Improved detection of fetal growth restriction to reduce perinatal morbidity and mortality rates	Develop evidence based guideline encompassing *The New Zealand Maternal Fetal Medicine Guideline 2013* for the management of suspected small for gestational age, singleton pregnancies after 34 weeks gestation	Evidence in practice of: • Assessment and appropriate referral at first antenatal visit and throughout pregnancy • Accurate measurement of maternal height and weight at first antenatal assessment • Ongoing assessment of fetal growth by measuring fundal-symphasial height in a standardised way, recorded at each antenatal appointment, preferably by the same person • Plotting of fundal height on a tool for detection of fetal growth restriction, such as a customised growth chart, from 26 weeks gestation • If fetal growth restriction is confirmed by ultrasound, appropriate referral and assessment of fetal and maternal wellbeing and timely delivery are recommended	Audit of 100% of cases where fetal growth restriction has been identified compliance with referrals, measurements, use of growth charts and action on ultrasound findings are reviewed and lessons shared through the staff and LMC forum meetings.

11	Continue to promote seasonal or pandemic influenza vaccinations for all pregnant women regardless of gestation, and for women planning to be pregnant during the influenza season Vaccination recommended and provided to maternity care providers to reduce the risk to women and babies under their care	Consult with women and maternity care providers to address barriers to uptake of influenza vaccination in pregnancy and implement strategies to increase access to and awareness of the benefit of vaccination	• Raise awareness of pandemic influenza vaccination available to women and health care professionals • Continue to promote influenza and vaccination resources on our Website and Facebook page	Establish a baseline for numbers of pregnant women receiving the pandemic influenza vaccination. Establish a baseline for percentage of maternity staff receiving the pandemic influenza vaccination.
12	Promote and support breastfeeding	Continued implementation of the Breastfeeding priority plan Retention of BFHI status Continue to promote annual Breastfeeding education to staff working in the maternity setting	• Mothers are supported to continue to breastfeed to at least 6 months post birth • Referral to lactation consultants for mothers as required • Information provided on FB / Website for mothers requiring further support	By June 2018: • 90% of babies born on the West Coast are exclusively or fully breastfed on discharge from their LMC care. (Sept 16 result = 78%) • 60% of babies born on the West Coast are breastfed to 3 months post birth (Sept 16 result = 57%) • An increase in the number of babies breastfed to 6 months post birth (Sept 16 result = 64%) Closer working relationships between maternity services (LMC and facility) with Well Child Tamariki Ora providers and primary care teams to support these goals.

13	Promote Māori, Pacific and younger women attending pregnancy and parenting education classes	Receive regular updates on initiatives to meet this priority from Plunket, the contracted service Identify the barriers to access for these women to PPE	• Increased attendance of Māori, Pacific and younger women attending pregnancy and support classes	Reported increased attendance and positive feedback from Māori, Pacifica and younger women attending PPE (16/17 Māori = 5.8%, Pacific =2.3%, <24 years old = 21.0% of all PPE attendances)
14	Actively seek feedback from consumers of West Coast DHB maternity services	• Review information for women leaflets e.g. for content, availability, languages • Evaluate the effectiveness of the Feedback Form	• All consumer information due for review is reviewed, updated and readily available • Use of written and electronic submission of feedback to improve consumer experience • Feedback is easy for consumers to provide	Evaluate effectiveness of social media in seeking feedback (16/17 response rate = 28% (range 24-35%) Annual forums with consumers in their locations to discuss their experiences of West Coast maternity services
15	Early detection of women with high BMI at time of booking with their LMC	• Early referral to clinics for women identified as high BMI • Continued monitoring of BMI throughout pregnancy • Provision of information to LMCs re risks of high BMI during pregnancy so they can pass this to their women	• Women identified as having high BMI during pregnancy are referred to appropriate services and are monitored • Information around the risks associated with high BMI during pregnancy is communicated to women	Audit that identifies women with BMI higher than 35 are referred appropriately for monitoring and management