MATERNITY QUALITY AND SAFETY PROGRAMME

Canterbury District Health Board

Annual Report

2017 - 18

Canterbury
District Health Board
Te Poari Hauora ō Waitaha

Acknowledgements

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

Jon Amos - Service Development Manager, Planning & Funding, CDHB

Marcia Annandale – Lactation Consultant, CDHB

Nicola Austin – Neonatal Consultant, CDHB

Sam Burke – Maternity Quality and Safety Programme Coordinator, CDHB

Margaret Burns - Project Facilitator, Corporate Quality and Patient Safety, CDHB

Mary Campbell - Midwife, CDHB

Norma Campbell, Director of Midwifery, CDHB and WCDHB

Jen Coster - Maternity Consumer representative, CDHB

Ngaere Dawson - Team Facilitator, Business Development Unit, CDHB

Julie Dockrill – Charge Midwife Manager, Ashburton Maternity

Prof Brian Dolan - Director of Service Improvement, Business Development Unit, CDHB

Christine Dwyer – Midwife Coordinator - Quality, CDHB

Sandra English - Business Analyst, CDHB

Helen Fraser – Lead Maternity Carer and LMC Liaison, CDHB

Katherine Gee –Midwifery Manager, Women's & Children's Health, CDHB

Michele Kane – Diabetes Midwife, CDHB

Dianne Leishman – Midwife Coordinator – PMMRC, CDHB

Bridget Lester - Project Specialist, Planning & Funding, CDHB

Chris Mahon - Medical Photographer, Medical Illustration, CDHB

Lisa McKechie - Quality Manager, Women's & Children's Health, CDHB

Renee Parsons - Senior Communications Advisor, CDHB

Andrea Robinson – Charge Midwife, St. George's Hospital, Maternity Centre, CDHB

Suzanne Salton – Charge Midwife /Nurse Manager, Rangiora Hospital

Kathy Simmons - Kaiawhina Whaea me ngā pēpi, Māori Health Worker, CDHB

Bronwyn Torrance - Charge Midwife Manager, Lincoln Maternity Hospital

Anna van Uden – Charge Midwife Manager - Maternity Ward, Christchurch Women's Hospital

Jacqui Venning – Lead Maternity Carer

Graeme Webb – Quality Coordinator – Child Health, CDHB

Canterbury Maternity Operations Group members

Women's Health Advisory Forum members

A big thank you to the families, staff and LMC's that so kindly gave their time and permission to take photographs to illustrate our Annual Report.

Disclaimer

While every effort is made to ensure the accuracy of the information contained in this report, Canterbury District Health Board cannot guarantee the accuracy of the information or data supplied.

Front cover photo – Lincoln Maternity Hospital.

Foreword

The Canterbury District Health Board is pleased to present the Maternity Quality and Safety Programme Annual Report for 2017/18.

Canterbury has had a busy year again this year building on the work of the past years. The report last year has been shared widely and has prompted more discussion about how we can continue to improve the maternity system for our mothers and their babies.

We also continue to work closely with our colleagues on the West Coast and have commenced sharing Clinical Guidelines this year with the West Coast team now being on some of the committees in Canterbury and vice versa, including for education updates. Both the Canterbury and West Coast Maternity Quality and Safety Programmes have now separated to ensure that the unique nature of both DHBs and how their services are provided are better reflected.

The Maternity Quality and Safety Programme continues to add significant value to our maternity system in Canterbury. Considerable work has also commenced to look at how we realign our maternity system in Canterbury to have less focus on the tertiary maternity facility of Christchurch Women's Hospital, and an increased focus on a system that reflects more the care that occurs in the community and how we provide all care closer to women's homes. This report starts to discuss some of these projects and also the completion of projects we commenced in the previous year. We are delighted that we have formed a Maternity Consumer Council who are providing us with excellent advice and recommendations. We have also filled the vacant role of LMC Liaison through a shared appointment with the local region of the college of Midwives.

Thank you very much to our MQSP Coordinator Sam Burke and our excellent quality team in maternity who keep us all motivated and focused on improving our maternity services in Canterbury. I hope you enjoy reading our report.

Norma Campbell

Director of Midwifery, Canterbury and West Coast DHB

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Overview

Background

This is the fifth Canterbury 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

Canterbury DHB is committed to improving the quality and safety of maternity services for consumers.

The Canterbury 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

The Maternity service aims and objectives align with the wider CDHB Mission, Vision, Values and Way of working as outlined on Page 12.

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 2017/18
- Contribution towards addressing the priorities of the NMMG (NMMG, 2018) and recommendations from the Perinatal and Maternal Mortality Review Committee (PMMRC, 2018) and Maternal Morbidity Working Group (HQ&SC, 2018).
- Performance in relation to the Ministry of Health's New Zealand Maternity Clinical Indicators 2016 (MoH, 2018)
- Response to consumer feedback and ongoing consumer involvement
- Quality initiative goals for 2018/19

Canterbury and 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.

In previous years we have submitted a joint Annual Report to reflect the shared governance model and 'transalpine' relationship, whilst acknowledging the DHB's are at different stages of progress in terms of the Maternity Quality and Safety Programme national tiers. This is the second year that each DHB will produce a separate Annual Report to acknowledge the very different community demographics and needs.

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.

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	A pregnant woman.
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.
Multiparous	Multiparous is a woman who has given birth two or more times.
Neonatal Death	Death of a baby within 28 days of life.
Parity	Number of previous births a woman has had.
Primiparous	A woman who is pregnant for the first time.
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.

Abbreviations

ACC	Accident Compensation Corporation
BFHI	Baby Friendly Hospital Initiative
CDHB	Canterbury District Health Board
DHB	District Health Board
GP	General Practitioner
ICU	Intensive Care Unit
IOL	Induction of Labour
LMC	Lead Maternity Carer
MOG	Maternity Operations Group
MMWG	Maternal Morbidity Working Group
MQSP	Maternity Quality and Safety Programme
NE	Neonatal Encephalopathy
NEWS	Newborn Early Warning Score
NGO	Non-government Organisation
NICU	Neonatal Intensive Care Unit
NMMG	National Maternity Monitoring Group
NOC	Newborn Observation Chart
PMMRC	Perinatal and Maternal Mortality Review Committee
PPH	Postpartum Haemorrhage
RMO	Resident Medical Officer
SMO	Senior Medical Officer
SP	Standard Primiparae
SUDI	Sudden Unexpected Death in Infancy
WCDHB	West Coast District Health Board
W&CH	Women's and Children's Health

Our Mission

To improve, promote and protect the health of the people in the community and foster the well-being and independence of people who experience disabilities and reduce disparities.

Our Vision - Tā Mātou Matakite

To improve, promote, and protect the health and well-being of the Canterbury community.
Ki te whakapakari, whakamanawa me te tiaki i te hauora mō te oranga pai o ngā tāngata o te rohe o Waitaha.

Our Values - Ā Mātou Uara

Care and respect for others.	Manaaki me te whakaute i te tangata.
Integrity in all we do.	Hāpai i ā mātou mahi katoa i runga i te pono.
Responsibility for outcomes.	Te Takohanga i ngā hua.

Our Way of Working - Kā Huari Mahi

Be people and community focused.	Arotahi atu ki te tangata me te hapori.
Demonstrate innovation.	Whakaatu te ihumanea hou.
Engage with stakeholders.	Kia tau ki ngā tāngata whai pānga.

Our Region

The Canterbury DHB is the second largest DHB in the country by both geographical area and population size - serving 599,900 people (12.7% of the New Zealand population) Stats NZ 2018 (NZ, 2018) in 2016, and covering 26,881 square kilometres.

There are three separate divisions within Canterbury DHB responsible for providing the maternity services; Women's and Children's Health (W&CH), Ashburton and Rural Health services, which includes the Chatham Islands. The DHB also has a contract with St George's Hospital, Maternity Centre to provide maternity care.

The Canterbury DHB provides an extensive range of specialist services on a regional basis to people referred from other DHBs where these services are not available. This includes neonatal services.

Canterbury remained one of the fastest growing regions nationally in 2016 with a growth rate of 2.3%.

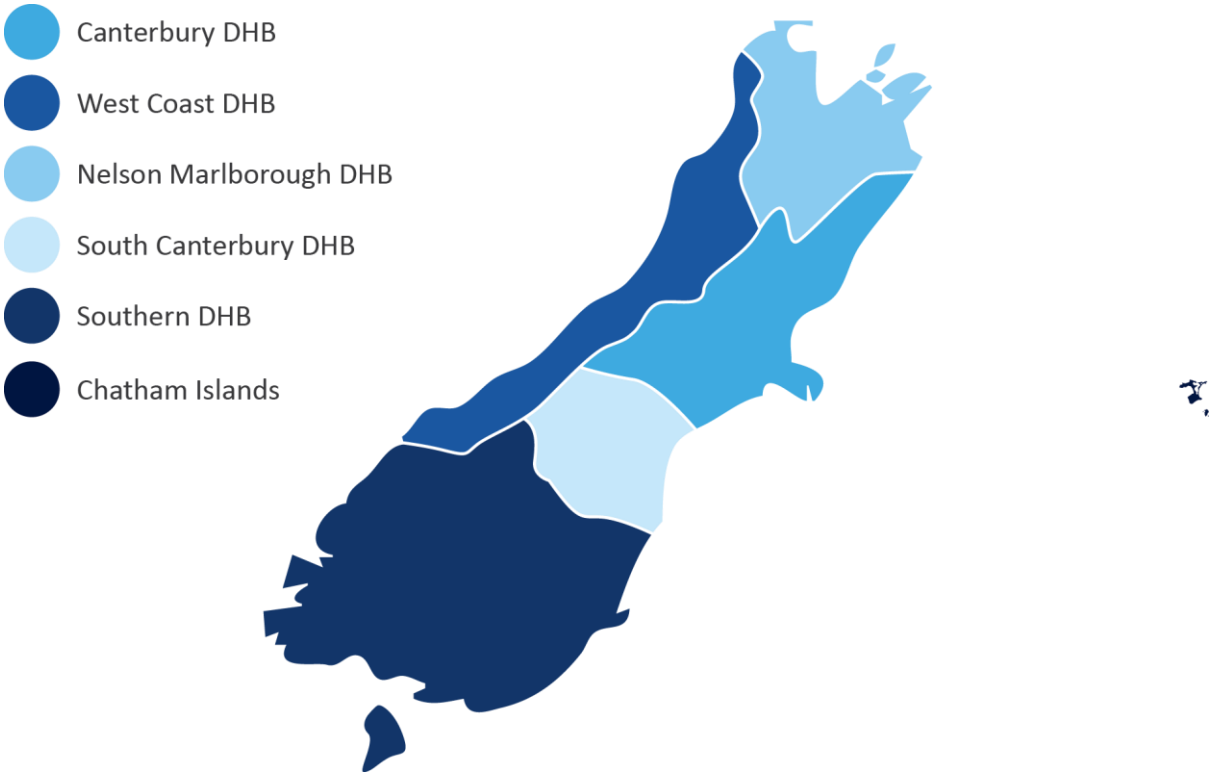


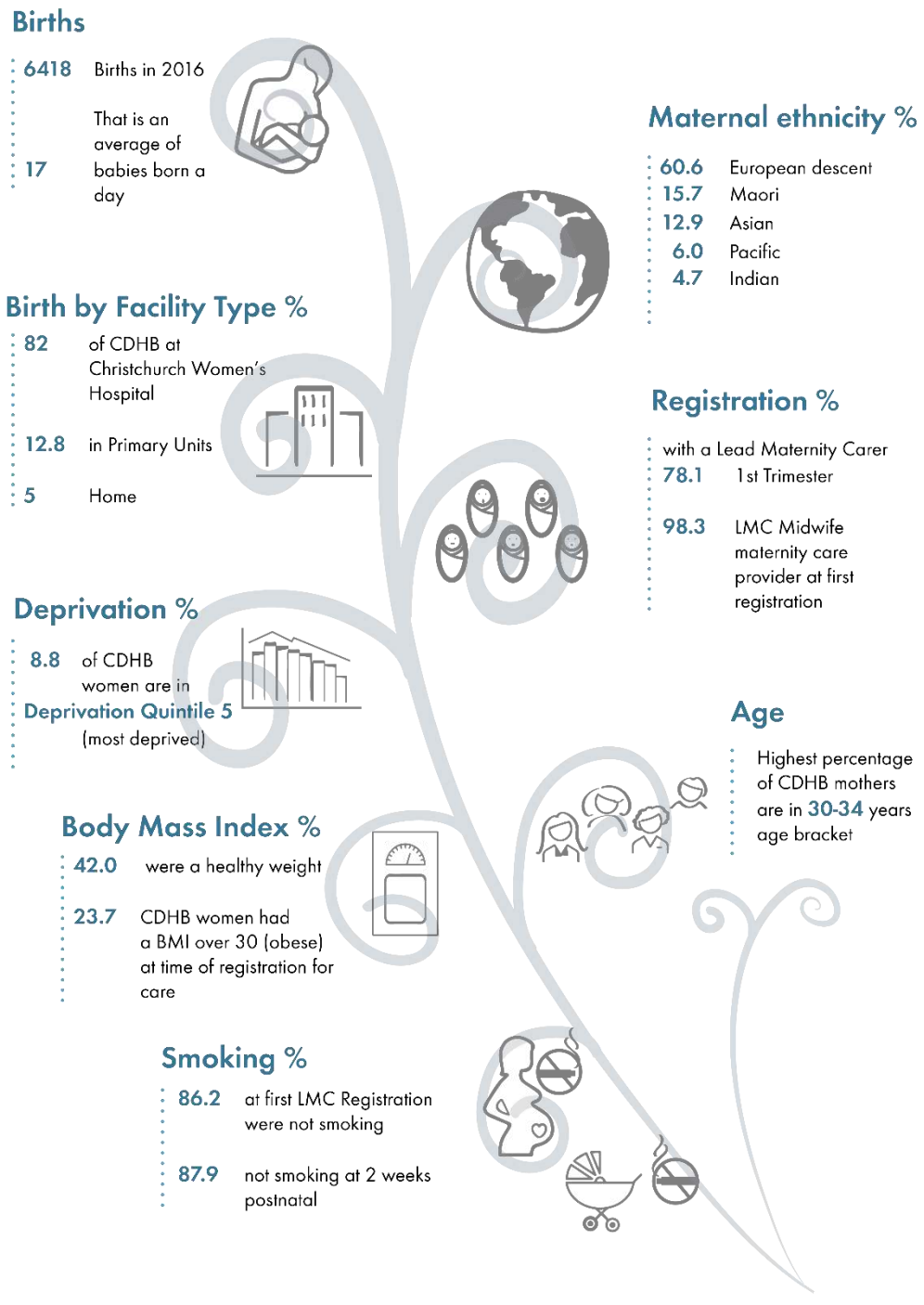
FIGURE 1. SOUTH ISLAND DHB BOUNDARIES

Our Community

Our community demographics are taken from the New Zealand Maternity Clinical Indicators 2016 (MoH, 2018), National Maternity Dataset (MAT), (MoH, 2018) and our CDHB database.

Table 1 provides a visual picture of health statistics for women giving birth in Canterbury in 2016.

TABLE 1. CANTERBURY DHB SNAPSHOT FOR WOMEN GIVING BIRTH IN 2016



Our Maternity Services

There are a range of Maternity facilities available to women in Canterbury (Table 2). Christchurch Women's Hospital (CWH) is the only tertiary facility and accepts referrals from Canterbury and the West Coast regions as well as throughout the South Island for women who are presenting with complex pregnancies.

All referrals for tertiary care from West Coast DHB primary and secondary units, Canterbury DHB primary units and homebirths go to Christchurch Women's Hospital.

Women on the Chatham Islands have antenatal and postnatal care provided by a Lead Maternity Carer (LMC). This is a contracted service between the DHB and LMC. Chatham Islands have a backup emergency service through the health centre in Waitangi. Almost all women leave the Islands to birth.

TABLE 2. CANTERBURY MATERNITY FACILITIES

	Women's and Children's Health Division	Ashburton	Rural Health Services
Primary	○ Lincoln Maternity Hospital ○ Rangiora Health Hub ○ Burwood Birthing Unit (Closed June 2016) ○ St George's Maternity Centre (contract with CDHB)	○ Ashburton Maternity Centre	○ Chatham Islands (since 2015) ○ Darfield Hospital ○ Kaikoura Health Hub ○ Waikari Hospital (Closed for maternity care August 2016)
Tertiary	Christchurch Women's Hospital		

TABLE 3. BIRTH NUMBERS AT OUR DHB MATERNITY FACILITIES AND HOME BIRTH RATE 2014, 2015 AND 2016

CDHB Maternity Facility	Number of Births		
	2014	2015	2016
Ashburton Maternity	117	134	144
Burwood Birthing Unit Closed June (2016)	147	185	54
Christchurch Women's Hospital	5165	5220	5259
Darfield Hospital	6	5	4
Kaikoura Health Hub	11	9	13
Lincoln Maternity Hospital	107	129	140
Rangiora Health Hub	125	178	215
St. George's Maternity	141 (from February 2014)	214	255
Home birth	262	280	334
Grand Total	6055	6256	6418

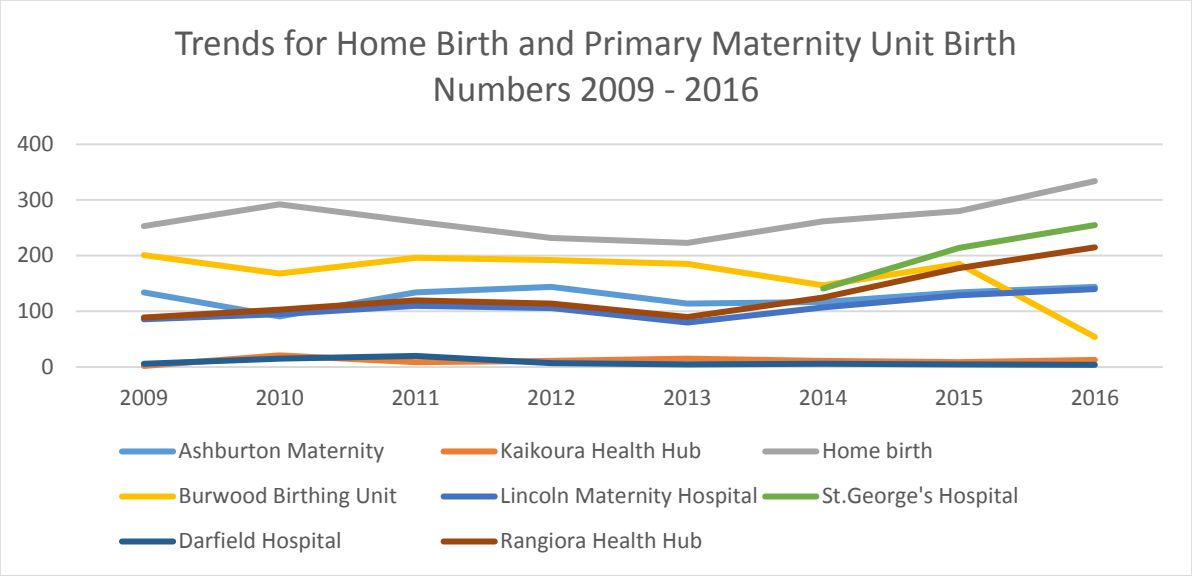


FIGURE 2. CDHB TRENDS FOR HOME BIRTH AND PRIMARY MATERNITY UNIT BIRTH NUMBERS 2009-2016

Birth rates in our primary maternity units have historically been low, with a high proportion of our birthing women choosing Christchurch Women's Hospital as their place of birth. As Table 3 demonstrates 82% gave birth at the tertiary maternity facility in 2016, with only 12.8% birthing at a primary maternity unit. This is consistent with birthing populations nationally.

Canterbury's home birth rate numbers have historically been difficult to capture as the births are not recorded by the DHB, and previous years have shown the rates to be much lower than they actually were.

Figure 2 shows revised MOH data for the years 2010 through to 2016, this shows that home birthing numbers continue to increase in Canterbury.

Work to increase birth numbers in our primary units has been active and ongoing since 2010, and it remains a priority as a part of our planned work for 2018/19.

Figure 2 shows the consistent and upward trend in primary unit birthing, due to the continued work in this area.

Rangiora and Kaikoura Health Hubs were officially opened in 2015 and 2016 respectively. Providing new and fresh facilities for the community and continued provision of antenatal, intrapartum and postnatal care, these are meeting the CDHB commitment to have better access to services closer to home. Further primary maternity units are also being considered as a part of the renewed maternity strategy.

"All the midwives here are so caring, helpful and kind, provide all the needs for me and baby. I feel fully supported by them."

Lincoln Maternity Hospital

CDHB Maternity Hospitals and Primary Maternity Units

Our Maternity facilities extend across Canterbury from Kaikoura to Ashburton. Despite the high birth rate at our main centre, Christchurch Women's Hospital, a high proportion of women will transfer for postnatal care to one of our primary maternity units. The following information provides an overview of these facilities and their activity during 2016.

Christchurch Women's Hospital

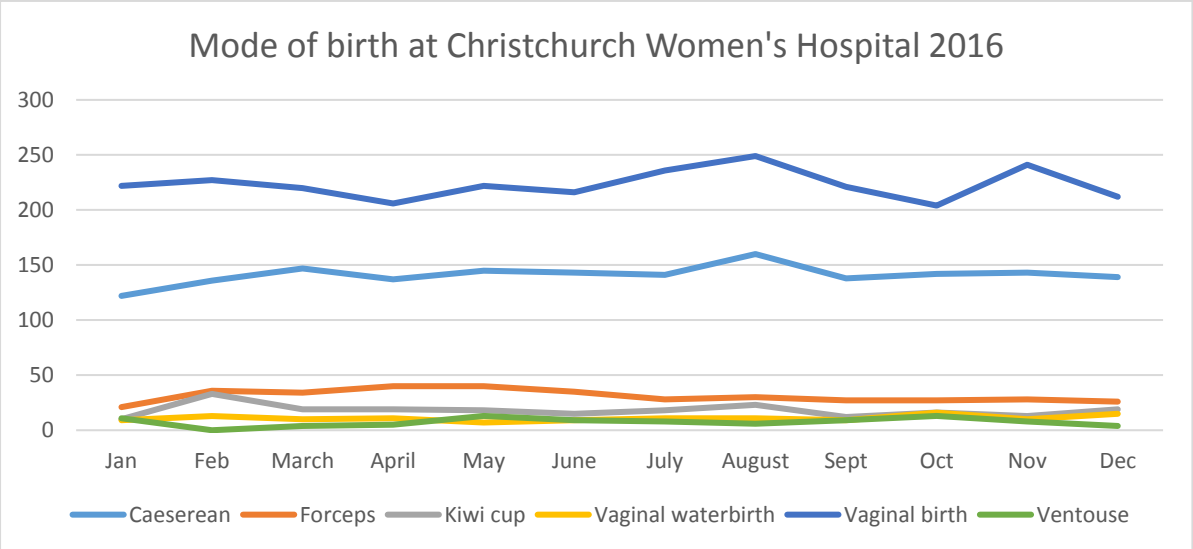
Births = **5259**

Transfers in for postnatal care = **48**

Overview:

Tertiary Hospital - designed for women with complex maternity needs which require specialist multidisciplinary care.

- **13** Rooms for labour and birth
- **2** Pools for water birth
- **2** Acute Observation beds
- **2** Multi-purpose rooms
- **5** Assessment rooms
- **2** Operating theatres
- **45** Antenatal / postnatal unit beds
- **16** Clinic rooms
- **11** Intensive care cots
- **30** Special care cots
- Day Assessment Unit
- Fetal Medicine Unit
- 'The Garden Room' is available for women experiencing fetal loss in the latter half of pregnancy



Rangiora Health Hub

Births = **215**

Transfers in for postnatal care = **425**

Distance **35km, 41mins from Christchurch**

Overview:

Primary Maternity Unit - designed for well women who have no complications during pregnancy.

- **2** Rooms for labour and birth
- **2** Pools for water birth
- **4** Assessment rooms
- **12** Postnatal rooms

Rangiora birthing room

Burwood Birthing Unit

(Closed June 2016)

Births = **54**

Transfers in for postnatal care = **155**

Distance **10.3km, 19mins from Christchurch Women's Hospital**

Overview:

Primary Maternity Unit.

- **2** Rooms for labour and birth
- **1** Pool for water birth
- **3** Assessment rooms
- **6** Postnatal rooms

Lincoln Maternity Hospital

Births = **140**

Transfers in for postnatal care = **569**

Distance **19.7km, 30mins from Christchurch**

Overview:

Primary Maternity Unit.

- **2** Room for labour and birth
- **2** Pools for water birth
- **6** Postnatal rooms
- **1** Assessment room

Ashburton Maternity

Births = **144**

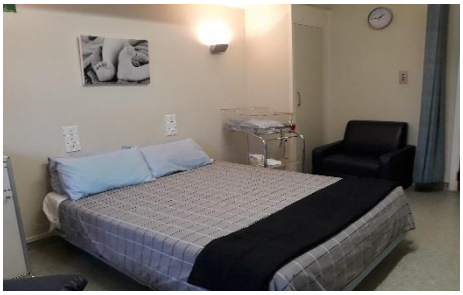
Transfers in for postnatal care = **173**

Distance **87km, 1 hour 8mins from Christchurch**

Overview:

Primary Maternity Unit.

- **2** Rooms for labour and birth
- **1** Pools for water birth
- **5** Postnatal rooms



Ashburton maternity postnatal room

Darfield Hospital

Births = **4**

Transfers in for postnatal care = **20**

Distance **44km, 40mins from Christchurch**

Overview:

Primary Maternity Unit.

- **1** Room for labour and birth
- **1** Pool for water birth
- **2** Postnatal rooms

Waikari Hospital

(Closed for maternity care August 2016)

Births = **Not Applicable**

Transfers in for postnatal care = 1

Distance **73km, 1hour from Christchurch**

Overview:

- **2** Postnatal rooms

"The lovely midwives…a constant feeling of being supported."

Ashburton Maternity

Kaikoura Health Hub

Births = **13**

Transfers in for postnatal care = **2**

Distance **181km, 2 hours 10mins from Christchurch**

Overview:

Primary Maternity Unit.

- **1** Room for labour and birth
- **2** Postnatal rooms

Kaikoura birthing room

Kaikoura birth pool room

St. George's Hospital

Births = **255**

Transfers in for postnatal care = **1252**

Distance **5.1km, 12min from Christchurch Women's Hospital**

Overview:

Primary Maternity Unit.

- **2** Rooms for labour and birth
- **1** Pool for water birth
- **10** Postnatal rooms

Chatham Islands

"I hold a contract with Canterbury District Health Board to provide midwifery care to the women who live on the Chatham Islands. I am a community midwife based in the Hutt Valley, Wellington. I practice with five other inspiring and supportive midwives protecting physiological birth with a homebirth focus.

The Chatham Islands contract is a unique challenge. It requires a different way of thinking and relating to my clients. Women on the Chatham's are incredibly self-sufficient and the resources available to them, and myself, are limited.

I visit the Chatham Islands every two to four weeks, providing midwifery care as per Section 88. Most of my clients choose to birth in New Zealand, transferring at around 36 week's gestation to cities or towns where they have family or friends. Some women come to the Hutt Valley where I continue to provide their midwifery care.

In the past ten years there have been three planned births on the Chatham Islands. The local women are able to choose to birth on the Island if they are a low risk multiparous woman. Most women return to the Chatham's within the six week postnatal period and I complete their care. There is no resident Well Child provider so I often fill a need beyond discharge. At any time the number of pregnant women in my care varies considerably, ranging from 11 to just a couple. The women travel to New Zealand for all their scans and to Christchurch Women's Hospital for any obstetric care they may require.

My midwifery practice on the Chatham's is supported by the resident nurses and GP. When I am not on the Chatham's, myself or a colleague are available by telephone for urgent and non-urgent calls. I have a good working relationship with Jane, Obstetric & Gynaecology Consultant CDHB, who understands the challenges of caring for pregnant women on the Chatham's. I am able to contact her directly.

The Chatham Islands is situated in the South Pacific Ocean, about 800km to the east of Christchurch and are New Zealand's most Easterly territory. They are an archipelago of 10 main islands, two of which (Chatham and Pitt) are inhabited. There are about 600 people residing on Chatham and 50 on Pitt Island. Pitt Island is roughly a 90 minute fishing boat journey on big seas. This is a trip I have had to take several times when the flight in the small fixed wing aircraft has not been possible due to poor weather or the air strip paddock being too wet or muddy to land.

I generally fly to the Chatham's from Wellington, however, flights also depart from Christchurch and Auckland. Travel delays due to the weather are common. I learned early on that flexibility around my travel dates is a necessity. I run an antenatal clinic from the Health Centre and I have access to a vehicle which allows me to visit the women in their homes.

I have enjoyed caring for the women on the Chatham Islands over the past nine years. The support of my family and midwifery group in the Hutt Valley has allowed me the flexibility that is necessary to provide this care for the women and their whānau".

Jacqui, LMC

Maunganui Bluff, Chatham Islands
(Used with permission)

Our Workforce

Canterbury's maternity service is provided by our multidisciplinary team of Midwives (Lead Maternity Carers (LMC's) and DHB employed Midwives), Obstetric Doctors, GP's, Physicians, Nurses, Lactation Consultants, Allied Health and support staff.

Christchurch Women's Hospital, which is Canterbury's tertiary unit, provides antenatal clinic care, which includes specialised clinics for high risk pregnancies, diabetes, methadone in pregnancy and fetal maternal medicine. In 2017 some of the diabetes clinics were moved out to Burwood Hospital with the aim of improving access to our services with better car parking availability and reduced need to travel to and from the city centre. We are continuing to look at further opportunities to provide specialist consultation and care closer to home, and this is included in our 2018/19 priorities and action plan.

The outpatient clinic at Christchurch Women's Hospital also provides antenatal care for women unable to initially secure an LMC.

A day assessment unit provides observational care for women under the care of the obstetric team, reducing the need for inpatient care.

A specialist obstetric clinic is provided at Ashburton Hospital every week to help women stay closer to home.

Christchurch Women's Hospital provides a 24 hour service for consultation and acute care. This includes anaesthetic cover for birthing suite. The medical team consists of:

- 16 Senior Medical Officers
- 20 Registrars
- 9 House Officers

In 2016, 319 Midwives identified Canterbury DHB as the primary place of work as a midwife (MCNZ, 2016), and 209 as Midwives who had an access agreement with Maternity facilities across Canterbury, enabling them to practice as a Lead Maternity Carer. This equated to 6.9% of the national workforce.

The head count of Midwives and Nurses employed by the Canterbury DHB to work in the maternity setting fluctuates but is approximately 150, with a majority working at Christchurch Women's Hospital.

In 2016 there were eight primary maternity units providing birthing and postnatal care in the primary setting, there are currently six.

Of note Kaikoura, Waikari (now closed) and Darfield are staffed by Registered Nurses and supported by the woman's Lead Maternity Carer.

Two new graduates Midwives were employed in the CDHB new graduate programme in 2016 and eight in 2017.

Four human resource projects were completed pertaining to the midwifery workforce in 2017/18. Two of these were reviews of the existing position descriptions to clarify and better acknowledge the roles and responsibilities of DHB employed midwives. The third project was initiated to improve how as a service we welcome and engage new staff. The fourth project focused on how as a service we could work smarter in our environment.

Clinical Midwife Coordinator to Associate Clinical Midwife Manager

The Clinical Midwife Coordinator (CCO) group (a group of 12 senior midwives working across the maternity ward and birthing suite at Christchurch Woman's Hospital), met with the Clinical Midwife Managers and Director of Midwifery to examine their position description (PD) and subsequent role. The CCO position description had last been formally updated as a part of a proposal for change when clinical midwifery coordinators were instigated in the maternity ward in 2012.

A review of the current roles and responsibilities demonstrated that the previous PD no longer captured the role as it is now performed, and so it was timely to update it. Following a discussion and written feedback, a revised draft PD was circulated for consultation.

The feedback was that the revised draft PD described the current roles and responsibilities and this was approved with a change of title to acknowledge an increased focus on the operational aspects of the role.

The new PD also aligns the now titled Associate Clinical Midwife Managers group with colleagues elsewhere on the wider hospital campus.

Review of Position Description Registered Midwife

A consultation process to review and revise the current PD for registered midwives commenced during September 2017 as the document no longer adequately reflected the DHB employed midwifery role. The PD was noted to require further development to reflect the principals of cultural safety including Turanga Kaupapa. Turanga Kaupapa provides guidelines for cultural competence to support midwives, wāhine and whānau. The PD also needed to clearly reflect midwifery competencies and standards at a national level to assist staff with the national quality leadership programme requirements. The process included the two representative nursing and midwifery unions. The new PD has been welcomed by the midwifery staff and is a document that is not specific to one area but transferrable across the wider maternity service.

Review of the Orientation Programme for Midwives

Historically the induction of new midwives had not been consistently completed within the maternity department. We embraced the notion of a different tool to present descriptors of successful outcomes as a result of the induction process. The new outcome indicators are: *quality of care, engaged well performing staff and a positive resilient workforce*.

Due to a committed working group, a large review of the orientation programme was undertaken and included feedback from recent new employees. Outcomes/changes resulting from the project are:

1. There are scheduled regular opportunities for the new employee to meet with their preceptor during the first three weeks. The improved completion process also includes regular feedback and planning followed by a three-monthly review by the nominated Associate Clinical Midwife Manager.

2. Despite the financial costs, the current financial/time commitment to the induction period has been maintained for two reasons - safety for the staff and safety for the women and whānau we care for.
3. The new employee is supported to demonstrate being both comfortable and competent working in our environment and being able to make decisions at the tertiary level of care within a three-month period.
4. The orientation manual has been updated with the inclusion of evidence of completion of the programme. A copy is held in the midwife's personnel file.
5. The induction programme mirrors the value statements of CDHB so the inductee feels welcome, safe and supported, and aware of the expectations of employment, as outlined on page 12.
6. A plan to evaluate the programme and reflect on how we can do things better or differently.

Geographical Team Care

Geographical team care was introduced on the Maternity Ward at the end of 2017 following a staff member's participation in the CDHB Collabor8 workshop, and recognition of the need to reduce the large geographical area staff were covering to provide care to women and babies each shift.

FIGURE 3. FLOOR LAYOUT OF CHRISTCHURCH WOMEN'S HOSPITAL MATERNITY WARD

The outcomes that the project sought to achieve included maintaining a fair workload whilst reducing the distance staff walked by encouraging use of staff pairs to manage zones or geographical areas. This would reduce the wasted time between clinical cares and release that time to enable more focused and direct patient contact. It would also improve work flow and staff satisfaction.

In addition by enabling staff to work in pairs supporting one another in a more structured manner it was envisaged that this would provide opportunity for staff to develop their clinical skills. The 'pairing' provides a staff member with whom drugs could be checked and therefore cares are provided in a more timely manner. Additonally meal/break cover is now more easily facilitated further supporting staff wellbeing. This project is ongoing, especially as we look at how we provide services across our system and will be further developed as we undertake this future work.

Our Maternity Quality Governance and Leadership

Who are we?

The Canterbury DHB Maternity Operations Group (MOG) is comprised of members of the hospital multidisciplinary team as well as primary community and consumer representation.

The group meet once a month and videoconferencing brings together staff from Women's and Children's Health, Ashburton, Rural Health services and St. George's (CDHB).

CDHB Maternity Operations Group. From back left to right: Suzanne Esson, Jo Gullam, Daniel Mattingley, Debbie O'Donoghue, Anna van Uden, Sonya Matthews, Ann Johnson, Jen Coster, Sam Burke, Sonya Conner, Norma Campbell, Violet Clapham, Katherine Gee

Not Pictured: Andrea Robinson, Charmaine Norton, Fiona De Ryke, Christine Dwyer, Julie Dockrill

Governance Structure

The governance structure for the Maternity Quality and Safety programme was revised in 2017 as a part of a wider review of various groups within the maternity services both in Canterbury and West Coast.

In the same year Canterbury DHB and West Coast DHB produced separate quality plans and annual reports, this was reflective of the very different population groups, the needs of the community and the different work programmes planned for the two services.

It was acknowledged that both DHB's needed to continue to interact closely with clinical guideline development and existing operational groups were strengthened to ensure good representation from clinicians, community providers and consumers.

Quality Planning and Reporting

Figure 4 below gives a pictorial representation of the numerous inputs that inform and drive the Maternity Operations Group in developing an annual quality plan. It also outlines the governance structure and reporting lines within the CDHB.

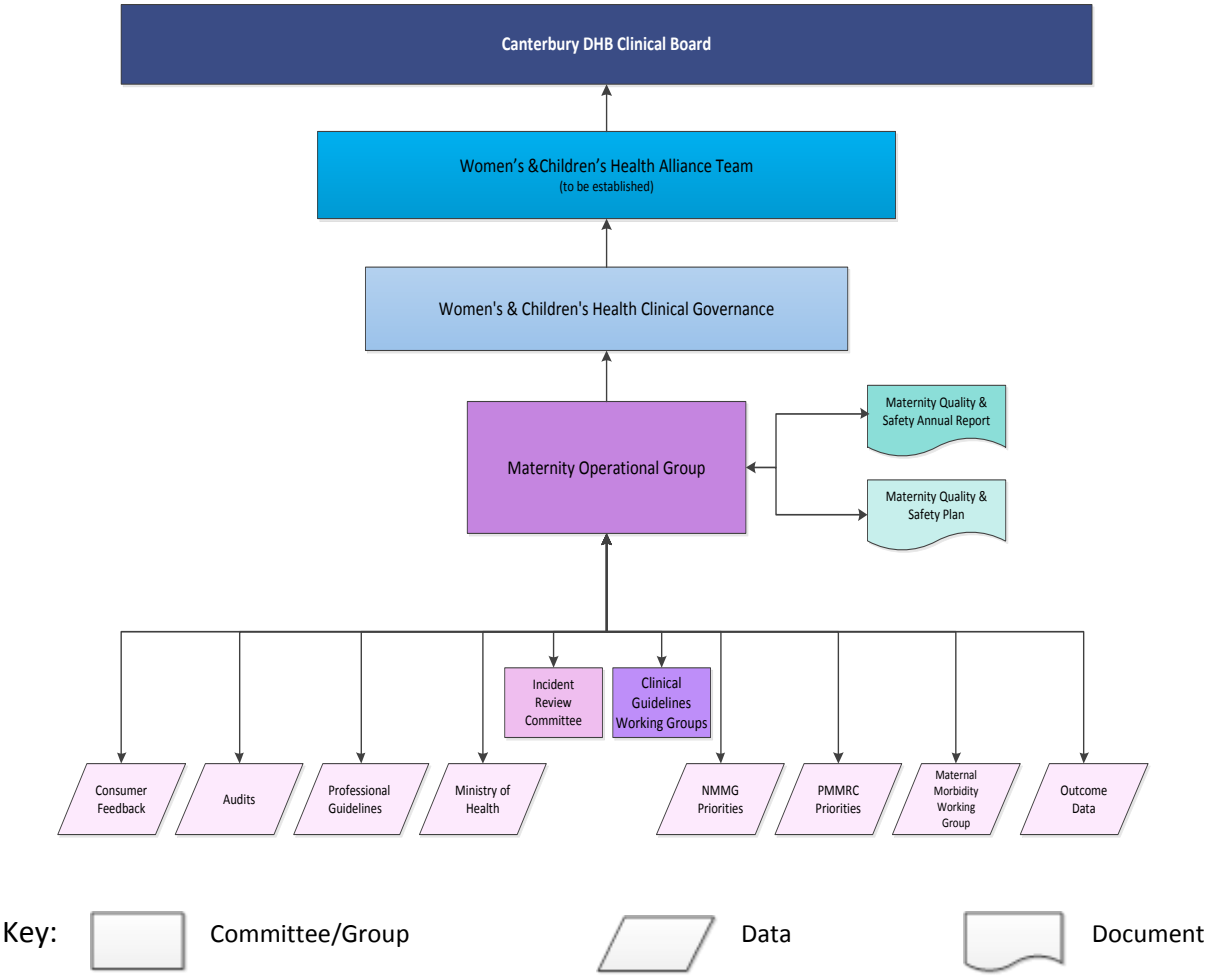


FIGURE 4. GOVERNANCE COMMITTEE STRUCTURE AND REPORTING LINES

CDHB self-audit of the MQSP Programme

In 2017 the MoH asked each DHB to self-audit and identify themselves within one of three tiers (Emerging, Established and Excelling). Meeting the requirements of each tier were based on the New Zealand Maternity Standards (MoH, 2011) and the service specification for each tier as prescribed by the MoH.

Canterbury DHB have identified themselves as meeting the "Established" tier and this remains the same as the programme continues to be embedded in business as usual with the DHB. We have developed a one year plan in line with the service specifications for the programme. This action plan has been included in our priorities for 2018/19.

Consumer Engagement

Engaging with our community through consumers of our maternity service continues to be one of the priorities of the CDHB Maternity Quality and Safety Programme (MQSP).

A key priority for our DHB for 2017/18 was to further develop our consumer representation, and be consulting with the local community and Tangata Whenua that aligned with maternity services.

An inaugural Women's Health Advisory Forum was held in July 2017 and attended by various community groups, with representation from Manawhenua ki Waitaha who are a representative collective of the seven Ngāi Tahu Rūnanga that are in the CDHB's district of responsibility.

The forum has grown organically since the first meeting and provides the opportunity for information sharing, presentations, updates on maternity projects and networking. The meetings are held every quarter at Burwood Hospital and as a DHB we actively seek feedback and consultation on quality work that we are reviewing or developing.

This Forum sits within the portfolio of the Maternity Quality and Safety Coordinator and is supported by the Director of Midwifery.

"Our role as consumer representatives is to give a consumer perspective to the various committees and groups within the Women's Health Division of the CDHB. Our backgrounds and experiences are different from one another and unique to us as individuals, we all have connections within the community to bring those grassroots experiences from women/wāhine and family/whānau to our roles within the CDHB. Our, aim is to take the consumer perspective from our communities into the health sector within the CDHB, to provide a more holistic view for the policy makers about decisions being made for the women/wāhine and family/ whānau within the CDHB community."

Jen, Chair, Women's Health Advisory Forum

Some of Women's Health Advisory Forum members. From back left to right: Shanti Paudel, Jen Coster (Chair), Brogan MacKinnon, Kiri Williams, Norma Campbell (CDHB), Sonya Conner, Lou Cootes, Mary Cronin, Sam Burke (CDHB)

Strengthening and Supporting our Maternity Team

LMC Liaison role

The LMC Liaison role was developed as a part of establishing our Maternity Quality and Safety Programme. This was in recognition that the maternity workforce extends across the community, with approximately half of the midwifery workforce working in the primary sector. The purpose of the LMC liaison role is to:

- improve two way communication for the primary-secondary interface as a key stakeholder in the provision of maternity services;
- actively contribute to the maternity clinical governance framework as a representative of the primary midwifery workforce;
- be an advocate for primary care in planning services within limited resource

"My name is Helen and I am the newly appointed LMC Liaison. I am also an LMC Community Midwife running a full caseload and I coordinate the Christchurch Midwifery Resource Centre.

Since I started as the LMC Liaison in July I have attended meetings such as the Maternity Operations Group, Child and Youth Workstream, Women's Health Incident Review Group, and I am actively involved in the Neonatal Transitional Care Project. There are also discussions with Planning and Funding regarding other community projects.

One of my main objectives is to improve communication between the LMC Midwives and the maternity staff at all levels; doctors, midwives and managers.

I recently encouraged midwives to attend an LMC forum with Norma Campbell, Director of Midwifery, a regular face to face meeting in which many items are discussed and issues can be acted upon. I am also involved in clinical analysis and ways to improve our clinical outcomes.

I liaise daily with midwives, both LMC and DHB employed, and have been involved in discussions designed to improve outcomes for all involved.

I meet regularly with the Director of Midwifery and the Midwifery Manager and am in close contact with the Chair of the NZCOM Canterbury West Coast Region. I attend the monthly meetings of the NZCOM Region where I feedback to the members both as a group and individually".

Helen, LMC Liaison Midwife

Improving Communication

The Associate Charge Midwife Managers (ACMM) group had four sessions over a nine month period with Professor Brian Dolan, Director of Service Improvement where they explored team dynamics, making an impact, influencing skills, creating role clarity, effective teams etc. Two further sessions, one with Lead Maternity Carers (LMCs) on their own and then combined with the ACMMs were held to identify and further enhance improved ways of working through shared understanding of workloads and each other's pressures.

These sessions were originally created in response to critical team feedback in relation to the Releasing Time to Care staff survey and a recognition that because as a group the ACMMs rarely got together to discuss consistency of approach, process and ways of working. Frequently, the sessions were used as an opportunity to safely explore how they could become a more cohesive supportive team and were well received.

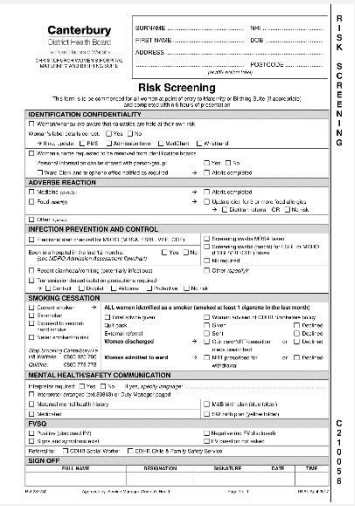
Overview of MQSP Priorities 2017/18

This table summarises the quality improvement work undertaken by our Maternity Services in the 2017/18 years. The work is the result of interdisciplinary collaboration and the involvement of consumer representatives.

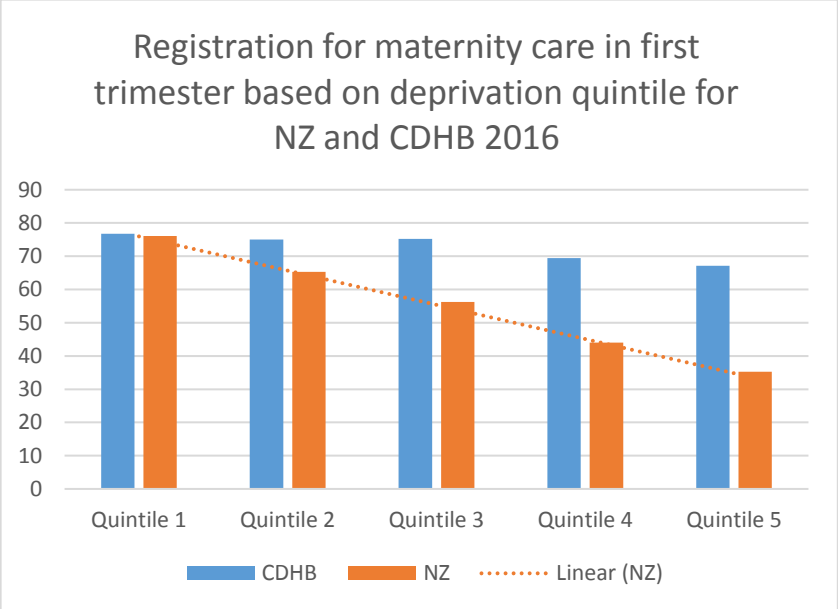
- Indicates that the work has been completed and / or in business as usual phase
- Indicates that the work is in progress / underway and nearing completion
- Indicates that there is still a significant amount to achieve before completion

	Priority area	Progress Report	Status
1.	Maternity consumers are engaged and actively involved in the work of the DHB MQSP (1 of 2016/17 priorities and action plan) NMMG Work plan (2 of 2016/17 priorities and action plan) NMMG Work plan	In July 2017 we held our first Women's Health Advisory Consumer forum. Attendees were invited from various community groups across Canterbury actively engaged in maternity matters. We also sought representation from the Manawhenua ki Waitaha who are a representative collective of the seven Ngāi Tahu Rūnanga that are in the CDHB's district of responsibility. Since this time meetings have been held quarterly. The meeting is facilitated by the MQSP Coordinator and is now chaired by a nominated consumer. The Director of Midwifery also attends the meetings and there are regular speakers to present work under development, update on project work and give an overview of incident trends. The consumer forum has grown in strength over the last year and continues to grow to ensure representation from the wider community groups, i.e. remote rural, which is enabled via videoconferencing. The group is actively engaged in the review of feedback from women about their care and how to tangibly improve quality service provision as a result. This has included the regular review of concerns and complaints as well as any positive feedback, which has guided project work around visiting times and food services in the maternity ward. The consumer group are also involved in the review of any patient information for women and whānau, including the recent redevelopment of the "What matters to you?" feedback forms and Induction of labour information for women. The consumer forum members have been a key input into forming the renewed maternity strategy and presentation to the Hospital Advisory Committee and CDHB board.	     

	Priority area	Progress Report	Status
2.	Engage in the 'Choosing Wisely' campaign to review evidence for tests and procedures e.g. primary ultrasound, laboratory tests, induction of labour timing etc. NMMG Work plan	In collaboration with the Canterbury Initiative written information was developed for both health professionals and women on early dating scans. This was rolled out to LMCs, but there is still a need to revisit this, and we are hoping to do so now the NZ College of Midwives and RANZCOG have also entered this debate under the 'Choosing Wisely' campaign. This project work was presented at the first MQSP Annual Report presentation in December 2017. Further work using the principles of the 'Choosing Wisely' campaign has been identified in the MQSP priorities and action plan for 18/19 and will be a focus of the renewed CDHB Maternity strategy.	 
3.	Support the ratification of national maternity clinical guidelines and implementation of existing guidelines (4 of 2016/17 priorities and action plan) NMMG Work plan	Any nationally developed guidelines have been reviewed, published and disseminated to clinicians and are readily available online at CDHB Maternity Guidelines . In 2017 there were no national maternity guidelines released for implementation. The Maternity Guidelines Group (MGG) was reviewed in 2017, which included the provision of extra resource to undertake literature reviews required in guideline review or development. The group meet on a four weekly basis and comprises of clinical representation (community and hospital) from both the Canterbury DHB and West Coast DHB. A collaborative approach to developing and sharing guidelines promotes consistency across the two DHBs and the 'transalpine' approach to provision of care. The group reports directly the Maternity Operations Group which provides direction regarding priorities, assistance in the identification of guideline review group members, approval on guideline dissemination strategies and final sign off. In the last 12 months, 2 new guidelines were developed and 19 guidelines were reviewed and updated.	  
4.	Continue to review the NZ Clinical Indicator data and monitor DHBs' responses to variation (5 of 2016/17 priorities and action plan) NMMG Work plan	A multidisciplinary review of the maternity clinical indicator data is undertaken with each publication from the MoH. A request from the CDHB was made to the MoH to review the total population data against the clinical indicators for 2016, given that as a DHB we have deliberated that the standard primiparae (SP) is not reflective of the total wider birthing population due to the narrow criteria and consequently small numbers. Trends were identified using both local data and the clinical indicator data, and any outlier has been recognised for further review and included in our MQSP priorities and action plan for 2018/19.	  

	Priority area	Progress Report	Status
5.	Continue to increase use of primary birthing units (8 of 2016/17 priorities and action plan) NMMG Work plan	Increasing birthing numbers and occupancy of our primary maternity units has continued to be a focus for the CDHB, and a number of projects have been undertaken to promote our maternity units including developing a virtual tour for both Rangiora and Lincoln, as showcased further in the report.  We have also continued to promote our primary maternity units by using women's stories and print media to inform the public on having a baby in Canterbury. Further opportunities to focus on the promotion of primary birthing will continue with the renewed maternity strategy, and it is included as ongoing work in our MQSP priorities and action plan for 2018/19. To support, promote and incentivise LMC's to use primary maternity units St. George's now have two antenatal clinic rooms available for use by LMCs free of charge. Currently fourteen half day clinics are booked by twelve LMCs. The rooms are also available for casual appointments and used for assessments that do not require a woman to be at a tertiary facility. Anecdotal comments from women, their whānau and LMCs have been very positive finding the ease of parking and a friendly, calm environment very appealing. This compliments the antenatal clinic rooms available also at the Rangiora Health Hub and Lincoln Maternity Hospital. There has been a continued increase in primary and home birthing since 2013 as shown in Figure 2, page 16.	
6.	Continue to improve the screening and referral rates of women for family violence (10 of 2016/17 priorities and action plan)	This priority came directly from the Perinatal and Maternal Mortality Review Committee recommendations (PMMRC, 2015) and was rolled over from the 16/17 quality plan as the work continued. It was considered a priority not only because of the PMMRC recommendations, but also as our local Violence Intervention Programme (VIP) audit results (that are routinely reported to the MOH) demonstrated that our rates for screening were low compared to the rest of the Christchurch Hospital campus.  This was in part because of our documentation and so we simplified the way we captured our risk screening. In November 2017, after a trial in our primary maternity units, we launched a risk screening form for all admissions, in order to provide a 'one stop shop' and be able to better capture the work we were doing. It also simplified where we capture other important information we ask as a part of the admission process.	

	Priority area	Progress Report	Status
		Regular training is available and mandatory for CDHB employed staff working in maternity services and has also been a part of the Core Competency day for midwifery and nursing staff for 2018. Family violence routine enquiry results for data gathered in January and April 2018 show we are gradually improving our screening results. The risk screening form is now under review and will be re audited, and this work has been rolled over into the MQSP priorities and action plan for 2018/19.	
7.	Embedding of the CDHB Newborn Observation Chart and Newborn Early Warning Score (NEWS) (14 of 2016/17 priorities and action plan)	Formal evaluation and validation of the CDHB Newborn Observation Chart (NOC) and Newborn Early Warning Score (NEWS) as per the quality PDCA cycle is being undertaken by the Accident Compensation Corporation (ACC) as part of the Neonatal Encephalopathy (NE) Review. The completed audit report will be available by October 2018. An end user survey completed in 2018 by 107 respondents showed the following: Note that 61% of respondents were midwives. • 89% of respondents reported they find it easy/very easy to complete the NOC/NEWS • 88% understand the monitoring requirements well/very well • 96% are confident/very confident they can accurately complete the NOC/NEWS • 98% referred to for elevated scores find it easy/very easy to interpret the NEWS • 81% think it is useful/very useful in identifying deterioration • 86% agreed/strongly agreed that it assists in referral for neonatal review Enablers and barriers were explored: education requirements, understanding the reason for additional observations and equipment issues. Overall those interviewed did not want it to change too much. This piece of work fits into a larger strategy nationally to reduce NE and we are actively involved in these working groups. As the project work is ongoing it has been rolled over to the action and priorities plan for 2018/19.	
8.	Provide specialist clinics for pregnant women in locations other than Christchurch Women's Hospital	As a part of this project we have relocated some of the diabetes clinics and the antenatal breastfeeding education classes to Burwood Hospital, which is located outside of the city centre. The aim was to improve service satisfaction with easier car parking and reduced need to travel to and from the city centre. A survey of women attending the diabetes clinic demonstrated women were happy with the services being provided outside of Christchurch Women's Hospital.	

	Priority area	Progress Report	Status
		We have included this as ongoing work in our MQSP priorities and action plan for 2018/19, and will explore further using technology such as telehealth to provide specialist care closer to home.	
9.	By 2021, 90% of pregnant women are registered with a Lead Maternity Carer in the first trimester, with an interim target of 80% by 2019, with equitable rates for all population groups Better Public Services: A Good Start to Life, 2017 Maternity Clinical Indicators (2015), 2016	A review of the National Maternity Dataset (MAT), (MoH, 2018) data shows that in Canterbury 48% of women identifying as Pasifika register with an LMC after the first trimester of pregnancy. A review of the same data shows that in Canterbury the higher the deprivation, (quintile 5 being the most deprived) the less likely women are to engage in maternity care.  More women than ever are registering with a midwife, and our rates in Canterbury have always been higher than the national average, but as the data demonstrates we are aware that work in this area needs to continue and there is opportunity for improvement, particularly to address equality. A review of our CDHB internet site is underway and the Maternity website pages have been reconfigured to be more 'user friendly' and follow the woman's pre-pregnancy and pregnancy journey in weeks. This will mean that vital information such as early registration and finding a midwife will be easy to find. The internet will also be tablet and mobile phone friendly which will mean that access to health information is easier to navigate. The festive phone was set up in 2017 in response to pregnant women due in December and January being unable to secure LMC care and ensured women had an opportunity for early engagement with a midwife. We have included this as ongoing work in our MQSP priorities and action plan for 2018/19.	

	Priority area	Progress Report	Status
10.	The criteria for admission to the Acute Observation Unit on Birthing Suite are agreed and implemented Maternal Morbidity Working Group, 2016	A six month retrospective clinical record review was approved by the W&CH Audit Committee to audit all woman identified as having been admitted and discharged from the acute observation unit (AOU) in 2017. This is well underway and will enable us to: - Identify reasons for admission to AOU and develop a comprehensive and consistent criteria for the place of care for an unwell or deteriorating antenatal or postnatal woman - Ensure accurate notifications are made to the Maternity Morbidity Working Group for reporting, review and analysis	
11.	Improve the communication in the inpatient maternity areas, between women and staff and also between all staff over all shifts. Improving communication between staff and Lead Maternity Carer to reflect the woman's intended plan and any changes. Releasing Time 2 Care project	Bedside boards have been developed and implemented into all maternity areas to improve information and communication for women. FloView (an electronic whiteboard programme) has been implemented to all maternity areas to support timely referrals and care from the multidisciplinary team thereby facilitating discharge planning. An overview of these two projects has been included in more detail under quality initiatives. A review of current multidisciplinary care pathways is underway to ensure consistent and efficient handover of care between clinicians, to date the caesarean section pathway has been reviewed trialled and implemented.	
12.	90% of pregnant women who identify as smokers upon registration with a DHB employed midwife or Lead Maternity Carer are offered brief advice and support to quit smoking MoH Health Targets, 2016	Smoking cessation is a priority area for the CDHB. Smoking cessation for pregnant women continues to be a focus for the MQSP. In all previous MQSP Annual Reports we have included our ongoing work in this area and reported on our results. On May 1 2017, Te Hā – Waitaha / Stop Smoking Canterbury launched a pregnancy incentives programme. Along with the incentives / rewards, the programme provides free medications (NRT products and Quickmist) and multi-sessional evidence based behavioural support to develop and maintain strategies and coping mechanisms to support a positive outcome. Sessions are provided to inidviduals and in groups. This has been widely adopted by community providers. Te Hā – Waitaha STOP SMOKING CANTERBURY Stop Smoking Canterbury - Te Hā - Waitaha Facebook Stop Smoking Canterbury	

	Priority area	Progress Report	Status
		This smoking cessation programme is a pilot programme and has shown a good uptake. For the last 12 months, since beginning the scheme, Te Hā - Waitaha has enrolled 450 pregnant women who smoke. With the help of the support listed above, 213 of these women went onto become smoke free (Carbon Monoxide - validated at 4 weeks). This is an excellent result and reflects the success of the scheme and the hard work of our Stop Smoking Practitioners who supported these women to quit.	
13.	Promotion and coordination of safe sleep education and resources (13 of 2017/18 priorities and action plan)	There has been some significant work in this area with the development of the Canterbury SUDI prevention plan with stakeholders from across the maternity, child health, NGO, Māori and Pacific health sectors. This plan takes into consideration the work proposed within the national SUDI programme, PMMRC recommendations (PMMRC, 2015) and also work already commenced in this space as a part of MQSP. The SUDI Prevention Programme Coordinator for the South Island was also appointed and as well as developing a regional plan has been actively involved in the development of the Canterbury SUDI plan. With work ongoing in this area this project has been rolled over to the MQSP Priorities and Action plan for 2018/19.	 

CDHB Maternity co-design workshop

Our Quality Initiatives

Continued evaluation and improvement of our maternity services is vitally important to Canterbury DHB. It underpins our vision, values and goals for Women's and Children's Health and is encouraged to be a part of everyday business for the team. We are actively involved in the implementation of the wider organisations quality initiatives but also draw improvement projects from many sources, not limited to, but including:

- audit recommendations
- clinical case reviews
- incident investigation
- new evidence for clinical practice changes
- consumer feedback

Our quality activities always strive to ensure the women's experience is optimal by reducing variation and being evidence based.

During 2017/18 our team worked on many quality improvement projects, and for the purposes of our MQSP Annual Report we have chosen a handful to showcase our efforts.

Pasteurised Donor Milk for Babies in the Maternity Ward at Christchurch Women's Hospital

The CDHB Neonatal Intensive Care Unit (NICU) proudly opened New Zealand's first Human Pasteurised Donor Milk Bank in February 2014. The Neonatal Milk Bank steering group has now reached the next stage of its roll out and has been able to provide pasteurised donor milk (PDM) to a population of neonates on the Maternity Ward. A working group developed guidelines and criteria that enabled this project. As a trial during the first month PDM was offered to neonates who have received PDM in NICU and were now being cared for in the maternity ward and those neonates < 37 weeks gestation and/or below 2500gm in weight. Following a six-month initial project, the working group is now developing practices which will reduce wastage of this precious resource, by developing further process and safety checks whereby the PDM can be provided more efficiently and also tracked. At times we will be a need to restrict access to specific groups as supply dictates and we have now developed a five staged crieteria as stock allows. The lactation consultants inform the staff of any changes on a daily basis. Currently we are thrilled to offer pasturised donor milk to all mothers on the ward who are committed to breastfeeding yet require some additional supply for their baby/babies in the first few days. This is a wonderful gift from women to women facilitated by the 'human milk bank' run out of the neonatal unit.

Breastfeeding Friendly Workplace

In addition to ongoing BFHI status Christchurch Women's Hospital is officially recognised as a "Breastfeeding Friendly Workplace". Thank you, Rachel and Carol, from Te Puawaitanga ki Ōtautahi Trust for assisting us with the process. Special thanks also to Megan Penrose who was our former BFHI Coordinator who had already facilitated policies that met the criteria. Pictured left to right- Anna van Uden, Charge Midwife Manager-Maternity Ward, Marcia Annandale, Lactation Consultant and Amy McKay a second-year midwifery student.

Festive Phone

The festive phone was set up in 2017 in response to pregnant women due in December and January being unable to secure LMC care. Initially in 2017 the number of women who were involved was over 150, as it also was this year, but LMCs responded to a request for help and care was found for many within this group. Women who continued to struggle to find a midwife contacted the Midwifery Resource Centre and were provided with the details of an LMC who would provide partial antenatal care until a pre-agreed date. At this point Christchurch Women's Hospital (CWH) arranged for ongoing midwifery antenatal care sometimes from the hospital clinic if women had some level of complexity or midwives on staff agreed to provide care for women and claim the maternity notice for doing so.

All women were provided with a direct dial number to call for labour or any acute pregnancy concerns. This number connected them to a phone carried by one of the experienced midwives at CWH Birthing Suite, who could advise them what to do next.

Labouring women under the 'festive phone' scheme attended CWH or one of the primary maternity units by telling the midwife where they were planning on birthing and then a text would go out to the LMCs who had agreed to be on this text call system. If a midwife could not be found for them to go to a primary maternity unit then the women were asked to come to CWH, where they were cared for by a DHB employed midwife. Following birth a midwife was found from a list of midwifery colleagues (LMC and DHB employed) who had similarly provided their details in a separate text list for postnatal care. This midwife then provided full postnatal care to mum and baby for up to six weeks.

This scheme is a fantastic example of the relationship between CWH and the Midwifery Resource Centre bringing DHB employed and LMC midwives together to work in collaboration to meet the needs of the women of Canterbury. We were concerned about how the women would find this system, but when we reviewed the care received almost all of the women had received two modules of care from the same midwife - generally antenatal and birth or birth and postnatal. The women were overall happy as if not for this system they would not have had any continuity.

It was also well received by both DHB employed and LMC midwives and so we are running the system again this year, with responses from midwives being really positive.

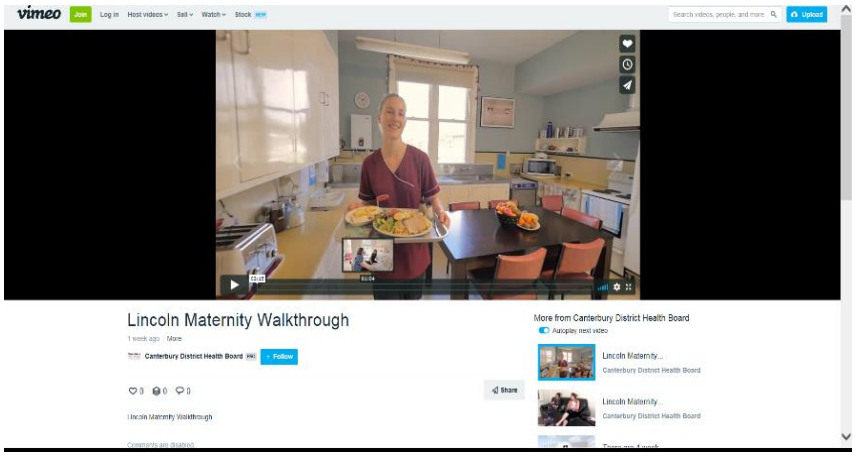
Midwifery project coordinators: Jen Cunningham, Acting Charge Midwife Manager and Helen Fraser, LMC and LMC Liaison

Improving Information for Women and Whānau

Improving health literacy has continued to be a priority for our maternity services. By engaging with our consumers we have been able to identify opportunities to improve how we share and inform women and whānau about health information.

One of our quality initiatives to improve information for our community was to produce virtual tours for women. We have to date produced one for Rangiora Health Hub and Lincoln Maternity Hospital, which have been published widely and well received. Rangiora has had over 3,800 views on the Canterbury Maternity Facebook page and Lincoln 1,000 views after one day of publishing.

Rangiora Maternity Health Hub Virtual Tour



Lincoln Maternity Hospital Virtual Tour

"Homely, welcoming environment"

Rangiora Maternity Unit

Women's Stories

Core Competency workshops are a compulsory day of education for staff which includes refresher training for emergencies, such as fire, as well as updates on areas such as breastfeeding and infection control. It also contains topics that change annually to focus on priority areas, for example, family violence screening.

We have been collecting women's stories to illustrate the realisms and first-hand experience of using our service. This has provided a unique insight for us as health professionals to better understand and ultimately improve care.

As a part of the core competency days a montage of filmed women's experiences was presented. Some of the heartfelt stories were relayed with tears in women's eyes as they remembered. But there was also fabulous feedback with parents raving about the care they received on a busy ward. Overall, the stories added depth and a reality check to the care given to women who give birth at Christchurch Women's Hospital. Women showed that if they were communicated with, experienced kindness and empathy and they were treated as adults, families felt secure and cared for despite the busy acute situations around them.

Listening to the experiences of women through the story telling process is at the heart of engaging with our families. The stories give midwives a window into the world of our birthing women, their experience of Christchurch Women's Hospital and their perceptions of the care they received.

As a part of the Core Competency workshop we also examined success of the bedside boards which have been implemented as part of the woman's inpatient journey. The mothers, and some fathers who were filmed all confirmed they like the boards. It was very helpful to know the midwife who was looking after them and what was happening with their care. Feedback also informed us that the ability for the woman to communicate via these boards could have been improved by inviting the family to also add to the board. It was clear that if midwives took the time to keep them up to date on their busy shifts it would ultimately save their time.

There is opportunity to gain some in depth stories from midwives in the future to add to the work to date, for example, good news stories of successful smoking cessation for women, which could add to the education resources around successful communication and intervention strategies to improve care.

Supporting our Community to Stay Well

"As an LMC midwife I would always make knitted items for the women in my care, I got some friends to do the same and then we distributed the items to families in need. Most LMC midwives do the same.

A year or so ago I attended the "Hear the ROAR' midwifery conference and was put in charge of the break-out session for knitting. Knitting has been proven to be relaxing and therapeutic and midwives definitely need to find ways to de-stress. So the knitting group followed on from that. I organised a group that would meet once a month and make items for our hospital. I got midwives to teach each other and left wool and knitting patterns on Birthing Suite and the Maternity Ward for people to help themselves and to give to women as inpatients on the ward, to keep them busy and knit something for their new baby.

The obstetrics and anaesthetics team also helped, it was a great morale booster at a difficult time. The staff worked closer together and collegial relationships were nourished.

When I came to work in the hospital a couple of years ago I couldn't keep up with demand, so I got a few more people involved, including the lovely ladies at Knitworld in Peterborough Street and their Tuesday afternoon knitting group.

This winter on a shift on birthing suite there were no knitted items to put on a new baby who was cold, and NICU were running low on newborn sizes too, so I had an idea.
I Put a call out to my midwifery colleagues and asked for help from friends and relatives, then to the women at Knitworld and on Facebook asking for newborn sizes knitting, and the rest is history.

We held our first evening on Tuesday 24th April at Knitworld and it was a huge success. So we continue every last Tuesday of the month from 6-8pm.

I have received a donation for buying wool from the Kenneth Weaver Trust, and donations of wool from some of the Knitworld suppliers.

I gather items and bring them to Maternity, NICU, Birthing suite, Gynaecology ward, Methadone in pregnancy clinic, Antenatal clinic, Diabetes clinic, Day Assessment unit and drop bigger items to the Children's Wards. I regularly drop off items to the primary maternity units and Pregnancy Help.

It is generally the same families who need our help. We have donations coming from around the country, people have been so generous.

Where a name and address has been attached we send a thank you letter or a certificate to say thanks for being involved. People have donated their time, effort and money by buying their own wool.

Doing my complex care post grad course helped prove that wool is so much better and safer than polar fleece or acrylic. The statistics show the reduction of Sudden Unexpected Death in Infancy is measureable".

Mary, Midwife

Young Parents Project

In 2017 CDHB held a sector wide workshop around support for young parents. The outcomes of this has been two key pieces of work.

1. Young Parents Support Service – it has identified that there were already a number of organisations working with young parents (19 years and under) but there was not clear referral pathways to these services. It was agreed that a process would be developed to ensure all young parents are offered access to a young parent service, and could be referred by their LMC or GP. The referrals will go through the CDHB LinKIDS services, and shared with the relevant service providers.

2. Young Parents Health Pathways – it was also identified that while there were a number of good maternity health pathways, none focus on the unique support needs of young parents. A health pathway has been developed and currently is waiting to be formalised.

Pregnancy Vaccinations – Influenza and Pertussis

In 2017 50% of pregnant women in Canterbury were vaccinated for Pertussis (whooping cough). This is above the estimated national level of 30%, however this still needed to be improved to ensure pregnant women and their babies were protected. In May 2018 the Maternity Outpatients vaccination programme began, with positive results. In the first month of the programme around 45 women were vaccinated. We see approximately 1100 women a month throughout the department, and the programme was offered to pregnant women attending an outpatient's clinic, relating to their pregnancy. The flu vaccine is seasonal only and is available from mid-April.

The Pertussis vaccination is offered to all women between 28 and 38 weeks gestation. Information regarding both vaccines is sent to women with their clinic appointments and they may contact their LMCs for any further advice or information. Both vaccinations can be given at the same time.

Influenza is a serious illness and around 80% of infected people show no or minimal symptoms (but may be spreading it). We know pregnant women are particularly vulnerable to serious complications from the flu and New Zealand research shows they are five times more likely to be hospitalised than women who aren't pregnant.

In preparation for the flu season and to promote the flu vaccination, the CDHB created a website – www.flufree.co.nz – packed with engaging content, useful facts and myth-busting, an interactive 'build a germ' game for kids (and big kids), information about where vaccinations were available, and a resource hub to help people and organisations easily spread the messages about getting vaccinated to their networks. These resources included downloadable posters and social media tiles specifically targeted towards pregnant women who are funded to receive free flu vaccinations. To date there have been 14,667 page views.

Releasing Time to Care Project

Releasing Time to Care (RT2C) is best described as a ward based Quality Improvement framework. It is structured around *'modules'* that are provided to women and their babies every day. The programme is underpinned by '*lean thinking'* methodology and provides an approach to problem solving and change management by working systematically through the modules. The programme empowers ward teams to make changes to improve the safety, quality and delivery of care.

Workshops are based around the major midwifery and nursing processes of care provided for women, their babies and their whānau. The method for changing practice and process is focused at ward level as changes that are staff driven, are more likely to be sustained.

As a part of the RT2C programme the following projects were implemented.

Improving Communication and Care Planning for the Woman

Bedside Boards

Maternity and the Primary Birthing Units have now all installed bedside boards. Since implementation spot audits show that they are being used. Discussion with women and their families tell us they like them and find them useful. They *really* like when they are filled in with the name of their midwife, and the date is current. Women also like bedside handover using the boards as it makes them feel included in their care. This aligns with the RT2C principles: Patient Experience (no decisions about me, without me), Patient Safety (best outcomes, no harm), Efficiency of Care (no waste, no wait) and Our Team (care starts here).

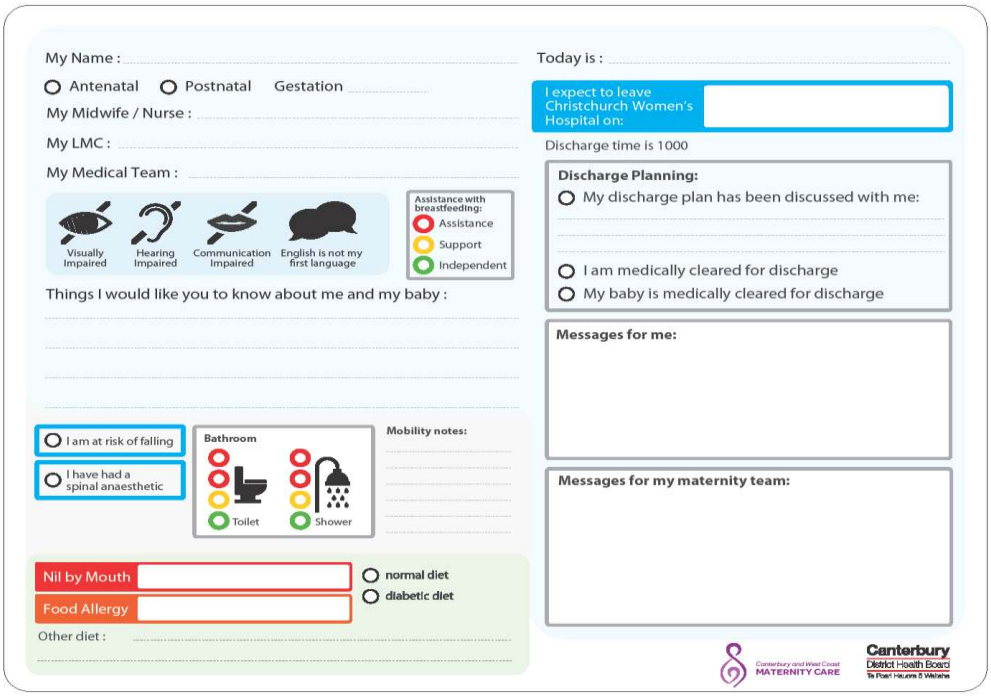


FIGURE 5. CHRISTCHURCH WOMEN'S HOSPITAL MATERNITY WARD BEDSIDE BOARD

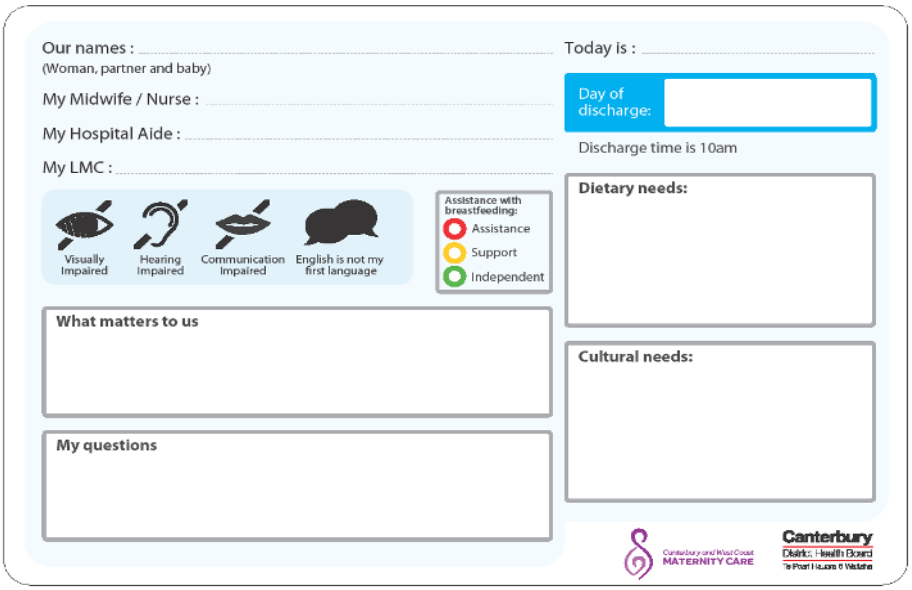


FIGURE 6. PRIMARY MATERNITY UNIT BEDSIDE BOARD

A recent survey by our Maternity Consumer representative Jen Coster elicited the following responses:

"They (the boards) are really great. Helpful to know my midwives name. Bedside handover made me feel included and part of my care", "Really helpful. English is my second language so helpful to see my midwife's name up on the board", "Bedside board fantastic. Really useful for informing people i.e. our religion Jehovah's Witness, baby, tongue tie. Except when change table is down, bedside board not visible", "Bedside boards mixed filling in. Some really did well and then some didn't". "Not all [midwives] using, about 80%. Really helpful. Really liked being included in handover"

Recent staff follows from the Releasing Time to Care programme show that in the last year since the introduction of these projects there has been an increase in staff break times, increases in time by staff giving both direct and non-direct cares, a reduction in handover times and a reduction in time taken by staff in documentation. Another finding from these follows has been a significant reduction in staff both being interrupted and interupting others during their working day.

Bedside Handovers

Bedside handovers are handovers given at the bedside of the involved woman at the conclusion of one midwife's shift and the commencement of another, enabling and encouraging the participation of the woman. Bedside handovers have been proven to increase clinical safety particularly during this vulnerable time of day when staff are changing. The women themselves can provide personal details, not always available in the notes that are pertinent to her care and bedside handover also encourages transparent information sharing, ensuring the woman feels included and at the centre of her care.

Bedside handovers are only given to the staff directly taking over responsibility of that woman, meaning the handover process is reduced overall by not receiving information about the whole ward and thus increasing direct care time. With FloView (an electronic whiteboard programme) now available in the wards other members of the team can see what the key issues are for a woman they are not providing care for and can link with their midwife as required. The bedside boards and FloView ensure that both the woman and the staff can note specific things that need to be discussed and all team members can then see it easily either when they are with the woman- the board is under her control , or in the office where FloView is visible.

Improving our Medication Safety

On Tuesday 29th May 2018, 30 representatives from Maternity and Neonatal services gathered for the Maternity and Neonatal Medication Module workshop. The aim of this RT2C module was that patient outcomes will be improved by safer and more reliable medication processes and practice. Using the RT2C framework we surveyed staff and women about their experiences with medication, followed nurses and midwives whilst they prepared and administered medication and looked at our Safety 1st incident management data about medication incidents. Participants had the opportunity to work in their specialty groups and formulate a plan to concentrate on specific opportunities for improvement: Birthing Suite is looking at their medication room to improve flow and make sure items are in the right place when they are needed. Maternity will focus on ensuring handover of patient care from Operating Theatre to the ward is uninterrupted and the Primary Birthing Units are arranging updates for staff around electronic medication prescribing and administration (EMeds). The team from Neonatal will spend time upskilling colleagues about Safety 1st incident management system to make sure we are capturing data around medication incidents.

Maternity and Neonatal Medication module workshop

Pictured left to right: Lou Rubens, Kate Nicoll, Claire Weatherford, Vanessa Buchan and Hayley Cooper at the CDHB Maternity co design workshop

Improving our Clinical Outcomes - Third and Fourth Degree Tear Project

The NZ Maternity Clinical Indicators for 2014 and 2015 showed that as a DHB we had a steady and consistent increase in third and fourth degree tears, as depicted by:

- Clinical Indicator 8. Third and fourth degree tear without episiotomy and
- Clinical Indicator 9. Episiotomy with third and fourth degree tear

Further analysis of our local data showed that these rates had been increasing since 2009 and this was discussed in our last annual report and prioritised for action in 17/18. Some of the increased rate was directly contributed to the development of the 'Third and fourth degree tears' guideline, which was completed in 2014. This was due to the improved identification and classification of perineal trauma, which has meant more third and fourth degree tears are correctly reported, consequently increasing our rates.

An extensive retrospective audit of 2016 third and fourth degree tears was completed to give an accurate baseline for our project moving forward. In particular to give context around the data in terms of mode of birth, birth position, operator, length of 2nd stage of labour and ethnicity. All of which were assumptions generated during discussion when looking at factors influencing perineal trauma.

The audit was supported by the Maternity Operations Group and the Women's and Children's audit committee.

Findings from the audit were examined by the multidisciplinary working group, which included consumer representation, and recommendations supported by best practice were formally presented at various multidisciplinary forums including the Maternity Operations Group, multidisciplinary quality sessions and the Maternity Quality and Safety Annual Report presentation.

Most recommendations from the audit were approved for implementation:

- Rollout of PEACHES approach
  P = Position
  E = Extra midwife (present at birth)
  A = Assess the perineum (throughout)
  C = Communication
  H = Hands-on technique
  E = Episiotomy if required
  S = S-L-O-W-L-Y
- Consideration of ethnicity and reduced BMI
- Documentation
- Warmers for birth rooms/warm compression for perineal care

"Sitting comfortably? Let's consider perineal trauma" Multidisciplinary workshop

In June 2018 a multidisciplinary workshop was held to focus on the review of our clinical outcomes and work we had completed to date. It was also an opportunity to look at the evidence and discuss what we as a group could do to improve outcomes through changes in practice.

This quality work has been rolled over to the 2018/19 priorities and action plan to complete the recommendations. The next part of the project to be implemented is the trial of flannel warmers for perineal care. Once the trial is completed it is anticipated that these be installed in each of the birthing rooms.

Enabling our Maternity Service to Work Smarter

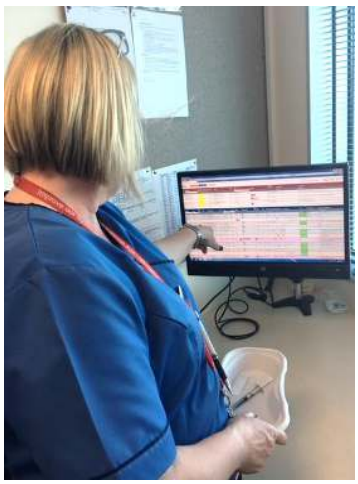
FloView is an electronic whiteboard programme that supports timely referrals and care from the multidisciplinary team, thereby facilitating discharge planning. By engaging all the services a woman and her baby may require early in her admission it ensures appropriates cares are given ensuring the woman's journey through the maternity services is as seamless as we can make it and that in conjunction with her we plan when she intends to go home.

The FloView programme is able to display both the women and babies present in all maternity areas, something we hadn't been able to capture previously. This in turn has enabled us to consider how our staffing requirements are now best met across the maternity service. In the future we know that NICU and also Ashburton will also have access to FloView which will also be visible to us.

With the support and expertise of the Information Systems Group (ISG) FloView project team, Birthing Suite and Maternity Ward were able to develop electronic white boards suitable to support the individual clinical demands of each area. FloView went live on Birthing Suite and Maternity Ward at CWH in February of this year.

FloView is available via the intranet (by those who have been given access) from any intranet linked computer. This means the multi-disciplinary team can view the board, plan their day, add and make referrals assessing the status of the wards and individuals remotely easing time and geographical constraints. This also ensures that estimated day of discharge can be discussed with the woman and her whānau and then the whole team can work towards that day including the LMC knowing that this is the date she will head home.

The 'at a glance' nature of the board utilising alert icons to represent recognised risks and alerts enables rapid assessment and assimilation of information about those present on the ward. We use icons that are available to FloView campus wide and others that have been developed to reflect the specific requirements of maternity ensuring critical information is instantly recognisable.



Visibility of our maternity services, showing our occupancy and the complexity of women and babies in our care has raised our profile within Christchurch Public Hospital and has created the opportunity for collaborative conversations regarding staffing support when required.

All staff are encouraged to update the FloView board to ensure that information is accurate. The frequent movement of women, particularly on Birthing Suite, can occur without the loss of any details at the push of a button. Contact details of staff providing care are updated each shift enabling communication between team members to occur easily and directly without the involvement of a third party. Additionally multidisciplinary meetings, handovers and assertive board rounds used to develop transfer and discharge plans utilise the FloView screen in each area reducing communication burdens and interruptions that have historically occurred enabling staff to direct their attention and care to the women in our service.

Cultural Competence

As a maternity service we have focussed on ensuring equity of access to maternity services and cultural responsiveness for our Māori and Pasifika population of women and babies.

Core Competency Education for Midwives

Hector Matthews, Executive Director of Maori & Pacific Health has become more involved in maternity in the past year due to a number of areas that we felt needed strengthening for staff, particularly midwifery staff. From April 2018 we have included a two hour session with Hector, supported by Kathy Simmons, Kaiawhina Whaea me ngā pēpi, Māori Health Worker, within our Core Competency day for all midwives employed by the DHB to explore Tangata Whenua. Hector runs these sessions so the group can explore what they need to know as individual midwives to expand their knowledge and understanding of cultural values for Māori specifically. Part of this workshop also explores the experiences women have had in our maternity service. As a result of some concerns raised by women in Christchurch Women's Hospital specifically we felt it would be useful if the staff could view the impact their actions and words can have particularly for young Māori and Pasifika women when the importance of whānau is not appreciated fully. The women who agreed to be filmed gave generously of their time and we use edited versions of their stories to help midwives and others understand the Turanga Kaupapa described for the midwifery profession by Nga Maia. Both of these aspects of the discussion have been incredibly well received and appreciated by the midwifery staff who have participated in this day so far.

The local region of the College of Midwives is also running workshops for midwives who would like to attend exploring similar themes and we encourage midwives to attend these.

We have also sent Ward Clerks onto a course in relation to reception of the various cultures we have at Christchurch Women's Hospital specifically.

We have also met with the Security team where sometimes responses have varied depending on ethnicity and we are working closely with them on de-escalation and their understanding of the sometimes stressful environment of maternity. This team has been very responsive as they also see it in other areas of health so there is a generic response but also appreciation of the different cultural responses to stress in maternity.

Visiting Hours

We have been relooking at Visiting Hours within our maternity facilities, as well as provision for partners staying overnight. This workstream within quality, communications and also the consumer forum came directly from complaints we had received from mainly Māori and Pasifika women specifically in relation to cultural insensitivity of some of our staff including Ward Clerks and Hospital Aids and the importance of whānau.

It has been an interesting journey where we moved from set times with a rest time in the middle of the day between 1-3pm, to open visiting with a plan to give each woman a sign they could hang on their door to either encourage or discourage visitors. Following surveying a wide group of women and whānau we will continue with our current visiting arrangement but the exercise has been invaluable in understanding our population better. Women really appreciated having the protected rest time to such an extent that we will be doing some public communication about this and also turning the lights off in the corridors to night time lighting during this rest time.

The feedback has also given staff insight into language they use and the various understanding and misunderstanding of being asked to wait to see their family member.

Obstetricians

Medical Staff have participated in a workshop this year run by the Medical School looking at the Meihana model. This was an opportunity for all the trainee interns SHOs, Registrars and Senior Medical Officers to combine and learn together.

Strategic Plan

On June 22 our first workshop was held to review our strategic plan for maternity. There were over 80 participants at this meeting including a wide range of women and their partners as well as Māori and Pasifika representatives to inform us of how we should be moving forward within the Canterbury maternity system. Within Canterbury we are working hard to not only ensure registered practitioners are competent in cultural responsiveness but also ensure we involve Māori as Tangata Whenua and other ethnicities in the planning of our maternity services and system. We are also working hard to engage widely to ensure that the quality of our maternity system ongoing meets the needs of our population.

Working Closely with our Community

For many years CDHB has had the input of a wonderful Kuia, Kathy Simmons. Her role as Kaiawhina Whaea me ngā pēpi, Māori Health Worker at Christchurch Women's Hospital is also utilised by our primary maternity units where specific advice is required.

Kathy also has a wider role within our organisation in relation to cultural advice and works closely with our Executive Leadership Team member Hector Mathews who holds the role of Executive Director for Māori and Pacific Health across the DHB.

"The kaupapa of the Kaiawhina Whaea me nga Pepi (support person to women and babies) is to support, facilitate and co-ordinate positive care outcomes for Māori and Pasifika mothers and babies through their journey in Maternity and Neonatal services within Christchurch Women's Hospital. I am part of the multidisciplinary team working to provide the best outcome for our wāhine and pepi. The role is to provide tautoko (support) to nga wāhine (women) and their whānau (family) and facilitate the culturally safe and appropriate care of wāhine by acting as a liaison between them and the staff. My role means making sure that information about their care and treatment is understood and any concerns are addressed. I make appropriate referrals to community organisations if required for ongoing support. In cases of loss it is about maintaining the cultural process around palliative and tangihanga support for whānau. The role also

plays a part in education of staff around Tikanga and health in the areas of birthing, breastfeeding and tangihanga to maintain their skills in a culturally safe way and improve their cultural competency".

Kathy, Kaiawhina Whaea me ngā pēpi, Māori Health Worker, Christchurch Women's Hospital

Our Outcomes

Clinical Indicator Analysis

The MoH data New Zealand Maternity Clinical Indicators 2016 (MoH, 2018) was published in February. The publication shows key maternity outcomes for each DHB for 2016 and is the most recent data available for compilation of this Annual Report.

The analysis below shows Canterbury DHB's performance and position in relation to both the indicators and national averages. Percentage figures are from either the DHB of domicile or the facility of birth, as indicated, and Clinical Indicators 2, 3, 4, 5, 6, 7, 8 and 9 are based on the standard primiparae only.

The "standard primiparae" (SP) make up approximately 15% of all births nationally. This group who are aged 20 – 34 years, with uncomplicated singleton pregnancies, birthing at full term with a cephalic presentation. This group represents the least complex situations for which intervention rates can be expected to be low and therefore enable valid comparisons between institutions.

The purpose of these indicators is to increase the visibility of quality and safety of maternity services and to highlight areas where quality improvement can potentially be made.

As a maternity service we have, and continue, to use these clinical indicators in developing our quality planning. As a DHB we have recently deliberated that the SP is not reflective of the total wider birthing population due to the narrow criteria and consequently small numbers. This has the potential to 'disguise' areas of clinical outcome or intervention that could be investigated for improvement. In order to analyse these clinical outcomes further we have also reviewed the total birthing population against these clinical indicators, and findings from this work are also reflected in our MQSP priorities and action plan for 2018/19.

Waitangi, Chatham Islands (used with permission)

TABLE 4. CANTERBURY DHB CLINICAL INDICATOR ANALYSIS 2016

Indicator	Title	2014 CDHB Rate	2015 CDHB Rate	2016 CDHB Rate	Change from 2015	Higher or lower than national average	National Average
Indicator 1 - Registration with a Lead Maternity Carer in the first trimester of pregnancy		77.0%	77.0%	78.1%	+1.1%	↑	71.9%

Comment:

This clinical indicator has shown a continual upward trend, but there is continued room for improvement.

There is opportunity to better engage early with our 'hard to reach' groups and ensure that care in the first trimester is equal across the population groups.

This continues to be a focus for our service and remains a priority for our quality improvement action plan for 2018/19.

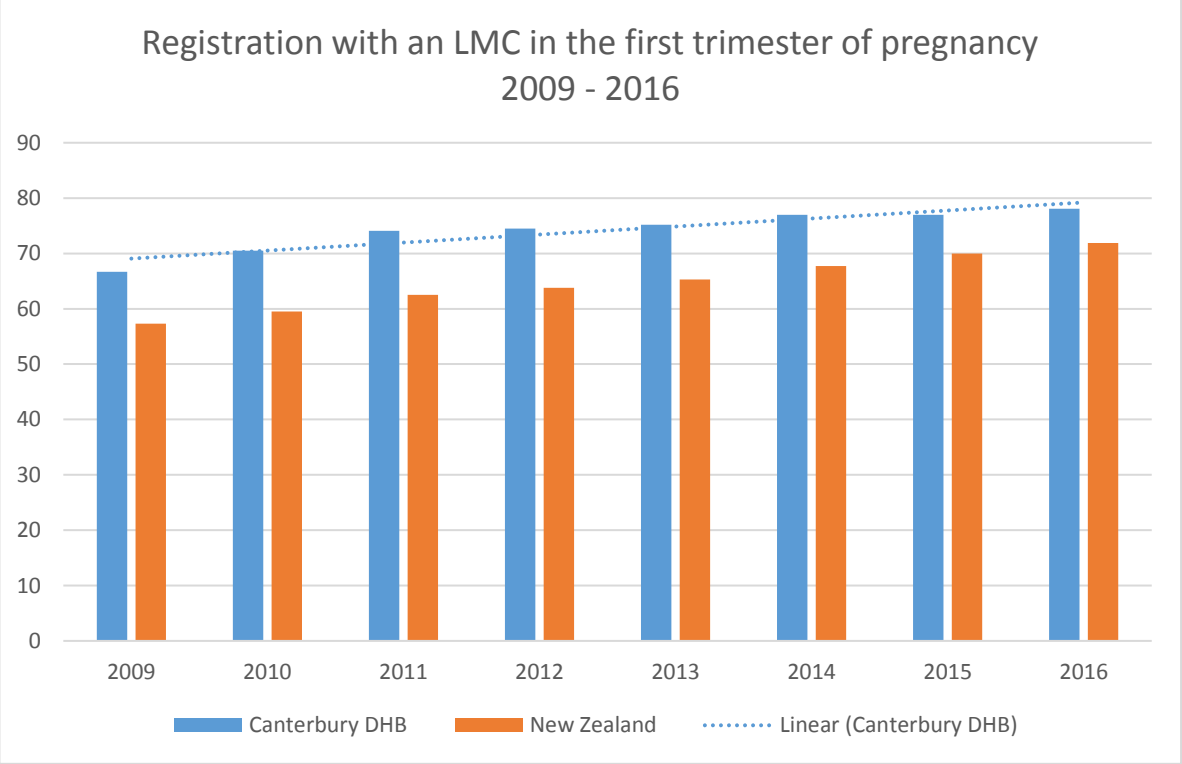


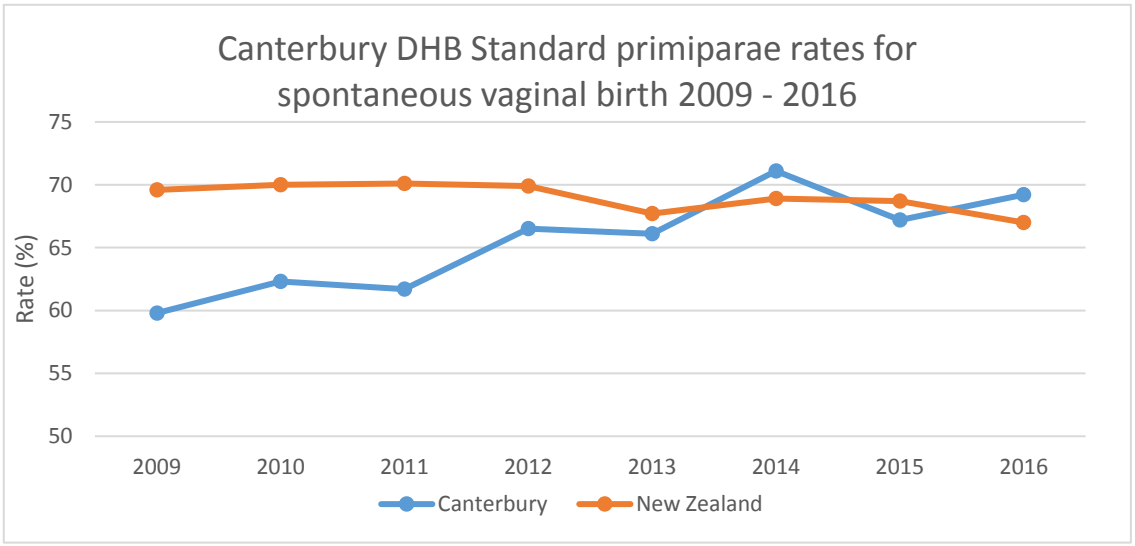
FIGURE 7. CDHB RATES FOR REGISTRATION WITH AN LMC IN THE FIRST TRIMESTER OF PREGNANCY 2009 – 2016

Indicators 2 -5

These indicators are about the type of birth amongst SP. Their stated purpose is to encourage Maternity service providers to review the appropriateness of interventions amongst low risk woman with the long term aim of supporting normal birth and reducing perinatal morbidity.

Indicator	Title	2014 CDHB Rate	2015 CDHB Rate	2016 CDHB Rate	Change from 2015	Higher or lower than national average	National Average
Indicator 2 - Spontaneous vaginal birth		71.0%	67.2%	69.2%	+2.0%	↑	67.0%

FIGURE 8. CDHB STANDARD PRIMIPARAE RATES FOR SPONTANEOUS VAGINAL BIRTH 2009 – 2016



Comment:

This indicator shows our rate of spontaneous vaginal birth among our SP group in Canterbury at 69.2%, compared to the national average of 67.0%. Since 2009 we have focused on quality initiatives to improve our normal birth rate. Analysis of our data from 2009 to 2014 showed a consistent and continued improvement, with an 11.3% increase in our spontaneous vaginal birth rate, as shown in Figure 8.

This continues to be a focus for our service and remains a priority for our quality improvement action plan for 2017/18.

Indicator	Title	2014 CDHB Rate	2015 CDHB Rate	2016 CDHB Rate	Change from 2015	Higher or lower than national average	National Average
Indicator 3 - Instrumental vaginal birth		16.0%	20.3%	16.5%	-3.8%	↑	15.9%

Comment:

2009 to 2014 showed a consistent decrease in instrumental birth rate for the SP group, 2015 was identified as an outlier by the multidisciplinary group and for further investigation with the release of the 2016 data. 2016 data shows a continued decrease. The total population rate shows a decrease but Canterbury consistently remains above the national average and these rates will continue to be monitored.

Indicator	Title	2014 CDHB Rate	2015 CDHB Rate	2016 CDHB Rate	Change from 2015	Higher or lower than national average	National Average
Indicator 4 - Caesarean Section		13.1%	12.5%	13.6%	+1.1%	↓	14.9%

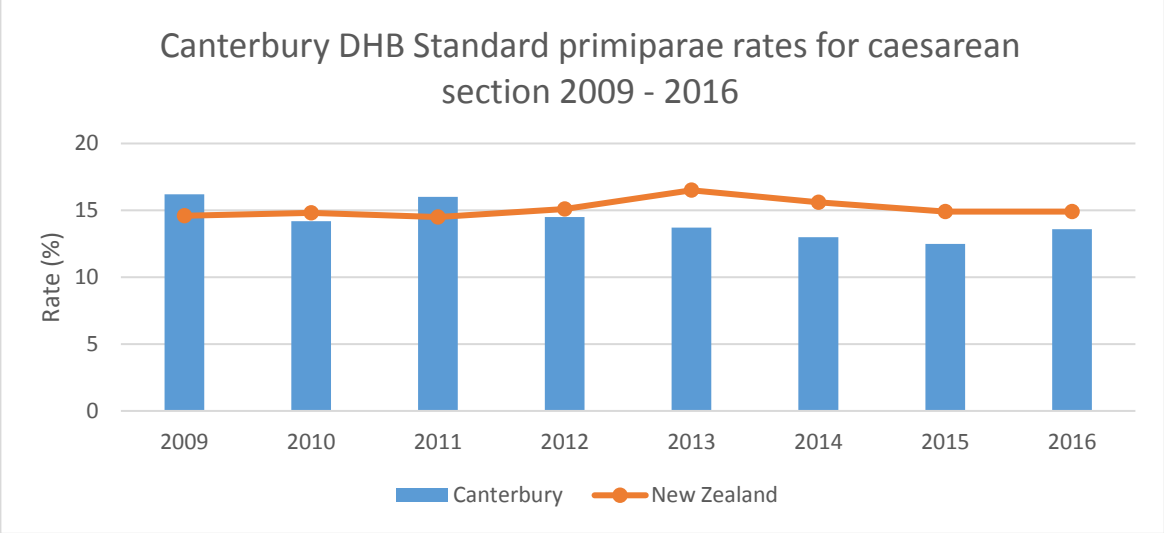


FIGURE 9. CDHB STANDARD PRIMIPARAE RATES FOR CAESAREAN SECTION 2009 – 2016

Comment:

The CDHB SP rate is consistently below the national average since 2012. On reviewing the total Canterbury population the CDHB rate is also consistent with the national average. Continuous quality improvement activities continue to increase the vaginal birth rate, and further reduce the caesarean section rate.

Indicator	Title	2014 CDHB Rate	2015 CDHB Rate	2016 CDHB Rate	Change from 2015	Higher or lower than national average	National Average
Indicator 5 - Induction of labour		4.1%	4.3%	6.4%	+2.1%	↑	6.3%

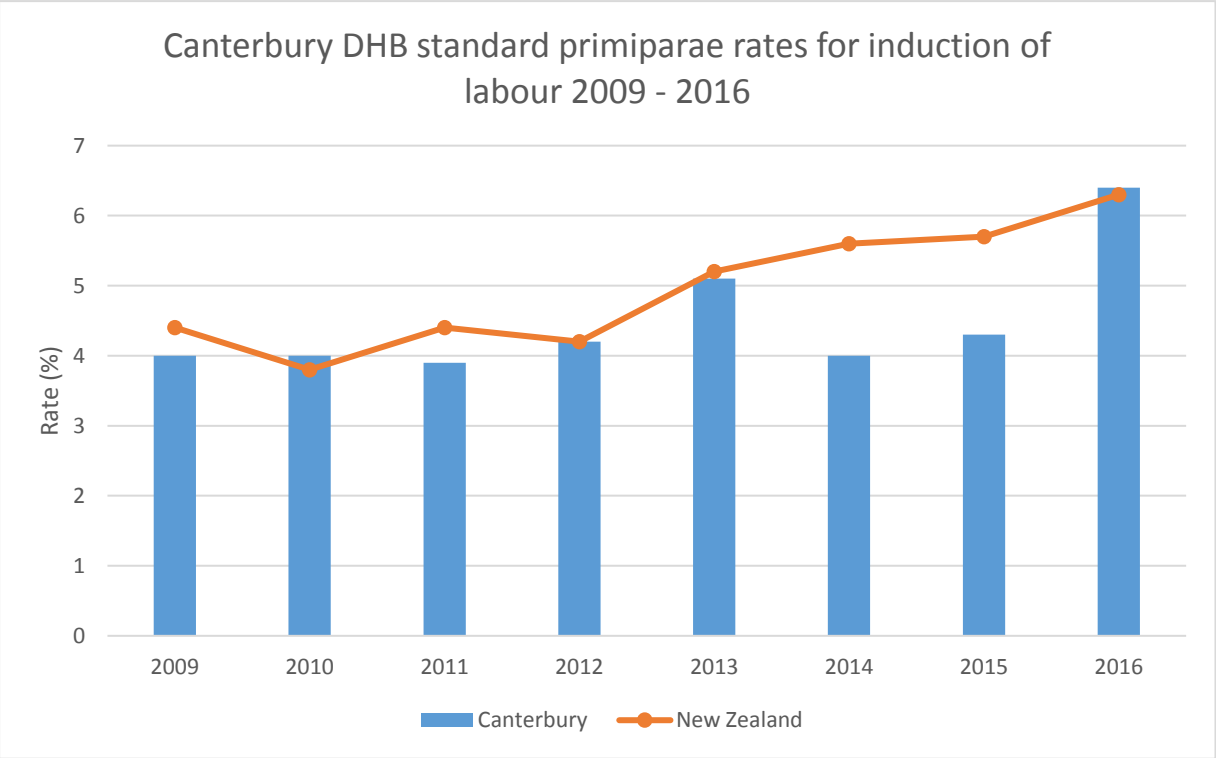


FIGURE 10. CDHB STANDARD PRIMIPARAE RATES FOR INDUCTION OF LABOUR 2009 - 2016

Comment:

Nationally there is a consistent increase in induction of labour. CDHB shows a rise in the SP group again after remaining well below the national average since a review of our induction of labour guideline in 2014. This area has been identified as requiring further investigation.

Indicators 6 - 9

Degree of damage to the lower Genital Tract

These indicators which are about the degree of damage to the lower genital tract of the mother demonstrate that this has not increased for the Canterbury population.

Indicator	Title	2014 CDHB Rate	2015 CDHB Rate	2016 CDHB Rate	Change from 2015	Higher or lower than national average	National Average
Indicator 6 - Intact Lower Genital Tract		30.8%	30.0%	34.6%	+4.6%	↑	28.6%

Comment:
The rate of intact lower genital tract for the SP group has remained static (2009 = 34.6%, 2010 = 29.7%, 2011 = 33.4%, 2012 = 30.0%, 2013 = 28.8%, 2014 = 30.8%, 2015 = 30.0%) 2016 data showed that we are 6.0% higher than the national average. A review of the total Canterbury population shows we remain static and above the national average.

Indicator	Title	2014 CDHB Rate	2015 CDHB Rate	2016 CDHB Rates	Change from 2015	Higher or lower than national average	National Average
Indicator 7 - Episiotomy without third and fourth degree tear		20.1%	22.5%	17.2%	-5.3%	↓	22.7%

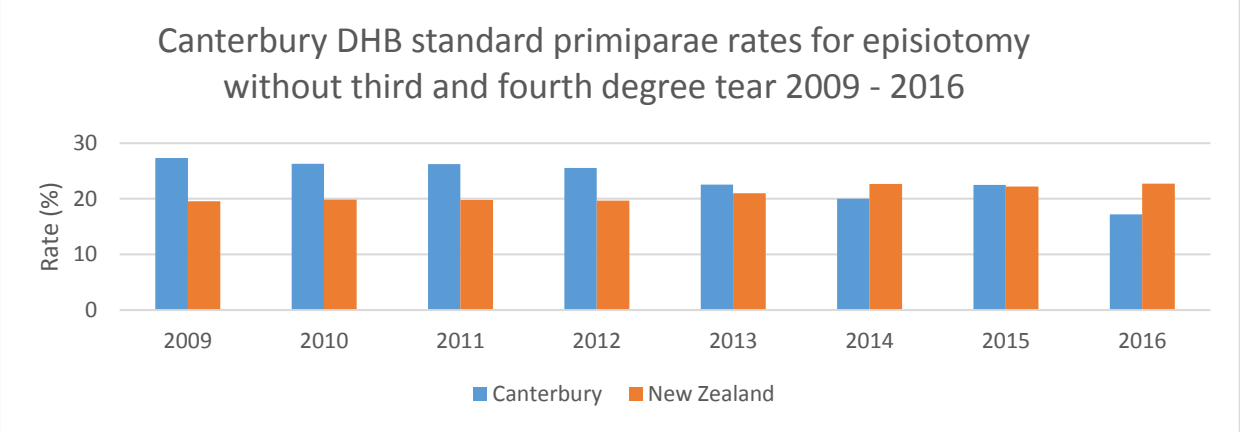


FIGURE 11. CDHB STANDARD PRIMIPARAE RATES FOR EPISIOTOMY WITHOUT THIRD AND FOURTH DEGREE TEAR 2009 - 2016

Comment:

The rate of episiotomy without 3rd and 4th degree tear for the SP group has reduced significantly for 2016. Previous rates have been consistently higher and attributed to our instrumental rates. A local audit of all 3rd and 4th degree tears for 2016 flagged a high rate of episiotomy with extension to 3rd and 4th degree tears following instrumental birth. This will be a contributory factor for the decreased rate. This is due in part to better identification and classification of perineal trauma. Quality work is underway in this area.

Indicator	Title	2014 CDHB Rate	2015 CDHB Rate	2016 CDHB Rate	Change from 2015	Higher or lower than national average	National Average
Indicator 8 - Third or Fourth Degree Tear without episiotomy		5.0%	6.1%	5.4%	-0.7%	↑	4.2%

Comment:

Our rates for the SP group show a slight decrease in third or fourth degree tears. This may be reflective of the previous clinical indicator rates. Our total Canterbury population rates mirror our local audit carried out in 2017, which show our rates have been consistently higher than the national average. We continue to be an outlier in this area and work in this area was identified in the priorities and action plan for 2017/18. This has also been rolled over to the priorities and action plan for 2018/19 to complete this project.

Indicator	Title	2014 CDHB Rate	2015 CDHB Rate	2016 CDHB Rate	Change from 2015	Higher or lower than national average	National Average
Indicator 9 - Episiotomy with third or fourth degree tear		1.3%	1.5%	0.7%	-0.8%	↓	1.5%

Comment:

This clinical indicator decreased slightly in the SP group to 0.7% in 2016. While this rate is below the national average for the SP group, an audit of our local data in 2017 shows that we have had a consistent and increasing rate of episiotomy with third and fourth degree tears. This indicator has been included under the umbrella of the third and fourth degree tear project work. This has also been rolled over to the priorities and action plan for 2018/19.

Indicator	Title	2014 CDHB Rate	2015 CDHB Rate	2016 CDHB Rate	Change from 2015	Higher or lower than national average	National Average
Indicator 10 - General Anaesthetic for Caesarean Section		4.9%	7.2%	5.2%	-2.0%	↓	8.5%

Comment:

Canterbury rates for women having a General Anaesthetic (GA) for caesarean section remains lower than the national average, (2009 = 6.1%, 2010 = 5.1%, 2011 = 5.1%, 2012 = 4.7%, 2013 = 4.8%, 2014 = 4.9%, 2015 = 7.2%).

Last year there was a slight rise in the CDHB rate; this was reviewed further by one of our senior anaesthetists to consider if there was any significance in the data. A review of the 2016 data shows no indication of trend or need for further investigation at this time.

Indicator	Title	2014 CDHB Rate	2015 CDHB Rate	2016 CDHB Rate	Change from 2015	Higher or lower than national average	National Average
Indicators 11 and 12 - Blood transfusion after Caesarean Section and Vaginal Birth		3.0% Caesarean 2.1% Vaginal	3.5% Caesarean 2.3% Vaginal	3.0% Caesarean 2.7% Vaginal	-0.5% Caesarean +0.4% Vaginal	↑ ↑	2.9% Caesarean 1.9% Vaginal

Comment:

In 2016 the rate for women requiring blood transfusion following caesarean section was slightly above the national average but not statistically significant and comparable to rates in previous years. The rate for women requiring a blood transfusion following a vaginal birth has slightly increased and is above the national average. This has been identified for further investigation.

Indicator	Title	2014 CDHB (n)	2015 CDHB (n)	2016 CDHB (n)	Change from 2015	National (n)
Indicator 13 - Diagnosis of eclampsia		(n = 3)	(n = 2)	(n = 0)	(n = -2)	(n = 29)

Comment:

This data refers to diagnosis of eclampsia during birth admission.

Eclampsia was diagnosed 29 times in 2016 nationally, none were made in Canterbury.

Indicator	Title	2014 CDHB (n)	2015 CDHB (n)	2016 CDHB (n)	Change from 2015	National (n)
Indicator 14 - Peripartum Hysterectomy		(n=0)	(n = 4)	(n = 1)	(n = -3)	(n = 25)

Comment:

In 2016 one case of peripartum hysterectomy was reported. This case has been reviewed and appropriate management of care was noted.

Indicator	Title	2014 CDHB (n)	2015 CDHB (n)	2016 CDHB (n)	Change from 2015	National (n)
Indicator 15 - Mechanical ventilation		(n=1)	(n = 3)	(n = 1)	(n = -2)	(n = 9)

Comment:

All Canterbury cases of pregnant or postnatal women requiring ICU admissions are reported to the MMWG for multidisciplinary review at a regional level.

Indicator	Title	2014 CDHB Rate	2015 CDHB Rate	2016 CDHB Rate	Change from 2015	National Average
Indicator 16 - Tobacco use during the postnatal period		11.3%	10.4%	10.0%	-0. 4%	11.7%

Comment:

This indicator monitors maternal tobacco use at two weeks postnatal. Our 2016 rate demonstrates that we are below the national average of 11.7%. The national rate has continued to decrease steadily as has Canterbury's rate.

Indicator	Title	2014 CDHB Rate	2015 CDHB Rate	2016 CDHB Rate	Change from 2015	National Average
Indicator 17 - Pre-term births (under 37 week's gestation)		7.9%	8.2%	7.5%	-0.7%	7.5%

Comment:

The rate of pre-term births for the CDHB has varied since 2009 (2009 = 7.9%, 2010 = 7.6%, 2011 = 8.0%, 2012 = 8.4%, 2013 = 8.0%, 2014 = 7.9%). 2016 data shows the rate reduced to 7.5% from 8.2% in 2015, and is consistent with the national average.

As outlined in our last report pre-term births impact on maternity resources in terms of increased care, and also on our neonatal services where additional specialist staff input or admission may be required. There is opportunity to explore this further and review the management of, for example, more complex cases that may necessitate early induction of labour, to ensure planned care is consistent despite other factors such as changes in on call obstetric teams.

Indicator	Title	2014 CDHB Rate	2015 CDHB Rate	2016 CDHB Rate	Change from 2015	National Average
Indicator 18 - Small babies at term (37 – 42 weeks gestation)		2.6%	2.6%	2.0%	-0.6%	2.9%
Comment: CDHB rates remain below the national average of 2.9%, and remains consistent with previous data.						
Indicator	**Title**	**2014 CDHB Rate**	**2015 CDHB Rate**	**2016 CDHB Rate**	**Change from 2015**	**National Average**
Indicator 19 - Small babies at term (Born at 40 – 42 weeks gestation)		40.4%	37.4%	35.7%	-1.7%	35.8%
Comment: The rate for small babies at term (40 – 42 weeks) for our DHB is consistent with the national average of 35.8%. 2016 national data also shows a decrease of 1.7% from last year's rate of 37.4%.						
Indicator	**Title**	**2014 CDHB Rate**	**2015 CDHB Rate**	**2016 CDHB Rate**	**Change from 2015**	**National Average**
Indicator 20 - Babies requiring respiratory support born at 37+ weeks gestation		1.8%	2.0%	1.1%	-0.8%	2.0%
Comment: Our 2016 rate remains consistent with previous years (2011 = 1.2%, 2012 = 1.7%, 2013 = 1.2%, 2014 = 1.8%, 2015 = 2.0%), and at or below the national average. Of note the local NICU data records that there were at least 100 babies requiring respiratory support at 37+ week's gestation in 2016. This discrepancy will require further investigation.						

Conclusion

The indicators show a high level of safety for both mothers and babies in Canterbury and that these continue to be above average for New Zealand. Data for almost all the indicators show continuing improvement compared to the previous 2015 figures.

A review of the maternity clinical indicators (both SP and total Canterbury population) and local data by the multidisciplinary team have identified areas for further review, and these are included in the 2018/19 priorities and action plan.

There is a need to carry on our work to reduce the number of instrumental births, induction of labours and to continue with planned projects aimed at increasing our spontaneous vaginal birth rate.

The clinical indicators showed a continued higher rate of third and fourth degree tears with and without episiotomy. This multidisciplinary project has already commenced and this work has also been rolled over to our 2018/19 plan.

Data Analysis

The data in this section is from local Canterbury DHB Maternity data sources and shows 2015 and 2016 in comparison, with percentage increase or decrease noted. Data here is counted either in terms of all 'deliveries' which is a count of mothers (as opposed to a count of exclusively standard primiparae) as used by the New Zealand Maternity Clinical Indicators 2016, (MoH, 2018) or in terms of 'births' which is a count of babies. The tables do not include data from homebirths or St. George's Hospital.

Key: *2015-2016 increase* *2015-2016 decrease* *No change*

TABLE 5. GESTATION AT BIRTH 2015 AND 2016 CANTERBURY DHB

Gestation at Birth	Number of Births 2015		Number of Births 2016	
Extremely preterm (<28 weeks)	33	0.6%	47	0.81%
Very preterm (28-31 weeks)	44	0.8%	66	1.13%
Moderate preterm (32-33 weeks)	30	0.5%	69	1.18%
Late preterm (34-36 weeks)	434	7.4%	339	5.82%
Term (37-41 weeks)	5222	89.1%	5211	89.4%
Prolonged (>42 weeks)	97	1.7%	97	1.66%
Total	**5860**	**100%**	**5829**	**100%**

The percentage of births in each gestational category has remained almost unchanged except for the 32– 33 weeks gestation range.

TABLE 6. TYPE OF LABOUR 2015 AND 2016 CANTERBURY DHB

Type of labour	Number of deliveries 2015		Number of deliveries 2016	
Spontaneous	3222	56.0%	3190	55.5%
Induced	1006	17.5%	1055	18.4%
Artificial rupture of membranes	290	5.0%	271	4.7%
Augmented	382	6.6%	374	6.5%
Did not labour	854	14.8%	856	14.9%
Total	**5754**	**100%**	**5746**	**100%**

Data remains static for 2016, with little change in spontaneous labour rates.

TABLE 7. INDUCTION OF LABOUR 2015 AND 2016 CANTERBURY DHB

Induction of labour	Number of deliveries 2015		Number of deliveries 2016	
No	4543	79.0%	4691	81.6%
Yes	1211	21.0%	1055	18.4%
Total	**5754**	**100%**	**5746**	**100%**

A review of our local data show the proportion of women who had their labours induced has decreased by 2.6% since 2015. This is consistent with a review of the total birthing population data received from the MOH, but our standard primiparae rates show an increase of 2.0%, having remained below the national average since 2014, when we revised the CDHB Induction of labour guideline and processes. This has been identified as requiring further investigation for 2018/19.

Table 8. Method of Birth 2015 and 2016 Canterbury DHB

Method of Birth	Number of Births 2015		Number of Births 2016	
Vaginal	3096	52.8%	3036	52.1%
Vaginal Water Birth	339	5.8%	360	6.2%
Vacuum Extraction	301	5.1%	307	5.3%
Forceps	387	6.6%	376	6.4%
Caesarean Section	1737	29.6%	1750	30.0%
Total	**5860**	**100%**	**5829**	**100%**

Data remains static for 2016.

Table 9. Breech Births 2015 and 2016 Canterbury DHB

Breech Birth	Number of Births 2015		Number of Births 2016	
No	5600	95.6%	5513	94.6%
Yes	260	4.4%	245	4.2%
Other coded presentations: cord, shoulder and traverse	-	-	31	0.5%
Not recorded	-	-	40	0.7%
Total	**5860**	**100%**	**5829**	**100%**

There was very little change in the percentage of breech births between 2015 and 2016. Of the total breech births only 33 (13.5%) were vaginal births and of these only 4 (1.6%) were term gestation (40 weeks). 212 (86.5%) of breech presentations were delivered by caesarean section.

Table 10. Anaesthetic 2015 and 2016 Canterbury DHB

Anaesthetic	Number of deliveries 2015		Number of deliveries 2016	
None	2214	38.5%	2280	39.7%
Local	774	13.5%	752	13.1%
Pudendal Block	67	1.2%	77	1.3%
Epidural	1141	19.8%	1018	17.7%
Spinal/Epidural	106	1.8%	71	1.2%
Spinal	1315	22.9%	1447	25.2%
Sublimaze IV (fentanyl)	5	0.1%	3	0.05%
Caudal	3	0.1%	0	-
General	119	2.1%	80	1.4%
Mixed general/Epidural	5	0.1%	4	0.07%
Other	5	0.1%	14	0.24%
Total	**5754**	**100%**	**5746**	**100%**

There was an increase in general anaesthesia in 2015, which was consistent with the (New Zealand Maternity Clinical Indicators 2015), this was reviewed by the senior anaesthetic team to consider any significance or clinical reason for the increase. A review of our 2016 data however shows a reduction again to well below the national average and is consistent with previous year's data, showing no indication of trend or need for further investigation.

TABLE 11. PERINEAL TEARS 2015 AND 2016 CANTERBURY DHB

Perineal Tears	Number of deliveries 2015		Number of deliveries 2016	
Intact	2952	51.3%	3012	52.0%
First Degree Tear	821	14.3%	823	14.2%
Second Degree Tear	1070	18.6%	1110	19.2%
3a Degree Tear	73	1.3%	101	1.7%
3b Degree Tear	55	1.0%	36	0.6%
3c Degree Tear	20	0.3%	25	0.4%
4th Degree Tear	9	0.2%	11	0.2%
Episiotomy	754	13.1%	710	12.3%
Total	**5754**	**100%**	**5789**	**100%**

The 2015 data shows a slight decrease in the episiotomy rate, which is consistent with the (New Zealand Maternity Clinical Indicators 2016). The CDHB rate of third and fourth degree tears has been consistently higher than the national average and a quality project is in place to improve this outcome. This work has been rolled over to complete in 2018/19. Other data sets remain static.

TABLE 12. BLOOD LOSS AT DELIVERY 2015 AND 2016 CANTERBURY DHB

Blood Loss at Delivery	Number of deliveries 2015		Number of deliveries 2016	
<1000mL	5323	92.5%	5280	91.9%
1000ml - 1500mL	319	5.5%	268	4.7%
>1500mL	112	1.9%	198	3.4%
Total	**5754**	**100%**	**5746**	**100%**

Overall there was no significant change in blood loss for estimated blood loss of <1000mls compared to 2015. There was noted a significant increase of 1.5% for blood loss >1500mls. This mirrors the increased rate of women requiring a blood transfusion following vaginal birth as noted in the (New Zealand Maternity Clinical Indicators 2016). This has been identified for further investigation in 2018/19.

TABLE 13. BLOOD TRANSFUSION REQUIRED 2015 AND 2016 CANTERBURY DHB

Blood Transfusion Required	Number of deliveries 2015		Number of deliveries 2016	
No	5612	97.5%	5589	97.3%
Yes	142	2.5%	157	2.7%
Total	**5754**	**100%**	**5746**	100%

There has been a slight increase in blood transfusions required, and this is consistent with the (New Zealand Maternity Clinical Indicators 2016) which as mentioned in the previous data set, show an increase in blood transfusions following vaginal birth. This has been identified for further review.

TABLE 14. NEONATAL DEATHS (FROM BABIES ADMITTED TO NICU) 2015 AND 2016 CANTERBURY DHB

Neonatal Outcomes	Number of Babies 2015		Number of Babies 2016	
Well Neonates	5845	99.7%	5782	99.2%
Neonatal Death	15	0.3%	6	0.8%
Total	**5860**	**100%**	**5829**	**100%**

There was a decrease in the number of neonatal deaths in 2016 compared to 2015. Comparing this to data overall there is no significant change to neonatal outcomes.

TABLE 15. SMALL FOR GESTATION AGE 2015 AND 2016 CANTERBURY DHB

Small for Gestational Age	Number of Babies 2015		Number of Babies 2016	
No	5171	88.2%	5229	89.7%
Yes	689	11.8%	600	10.3%
Total	**5860**	**100%**	**5829**	**100%**

Data for both 2015 and 2016 showed a 1.5% decrease in babies born small for gestational age.

TABLE 16. FEEDING METHOD 2015 AND 2016 CANTERBURY DHB

Feeding Method	Number of Babies 2015		Number of Babies 2016	
Artificial	144	2.5%	136	2.4%
Exclusive	4251	72.5%	4166	71.5%
Fully	31	0.5%	78	1.3%
Nil	11	0.2%	47	0.81%
Partial	904	15.4%	941	16.1%
Not documented	519	8.9%	461	7.9%
Total	**5678**	100%	**5829**	**100%**

Since 2012 there has been an increase in the number of babies partially breastfed. Both exclusive and artificial feeding rates have remained static since 2012. These rates are reflective of all of the maternity facilities, and it is expected that exclusive and fully breastfeeding rates will be higher in the primary maternity units. A review of the raw CDHB data for 2016 showed that the high number of previously thought 'not documented' were due to NICU admissions.

MQSP Priorities and Action Plan 2018/19

As a DHB we have identified MQSP priorities for 2018/2019. We have taken into consideration the National Maternity Monitoring Group (NMMG) priorities for monitoring and investigation, as per the National Maternity Monitoring Group Annual Report (NMMG, 2017). We have also reviewed and included any priorities and recommendations from the Perinatal and Maternal Mortality Review Committee (PMMRC), Maternal Morbidity Working Group (MMWG) and Ministry of Health (MoH).
As a DHB we have also committed to an updated strategy for the Canterbury Maternity Health System. In June 2018 a co-design workshop was facilitated by the Canterbury Clinical Network, bringing together key stakeholders; community, hospital and consumers of our service to look at a 'whole of system' approach to maternity care. Themes were identified to produce a renewed maternity strategy. This has been approved by the Hospital Advisory Committee (HAC) and CDHB Board. The key themes and work arising from the strategy are also incorporated into our MQSP priorities and action plan for 2018/19.

In addition we have considered and included current maternity projects, work by collegial work streams such as the Service Level Alliances and work supported by Planning and Funding.

These priorities were formed and supported by the Canterbury Maternity Operational Group and approved by the General Manager, Planning and Funding Department. Any 2017/18 priorities still underway were also carried over to the 2018/19 plan.

	Initiative/Priority	Action	Expected Outcome	Measure
1.	To ensure women have access to appropriate mental health services during pregnancy and postpartum NMMG Workplan 17/18 PMMRC (Maternal Mortality) Recommendations, 2018 CDHB Annual Plan 2018/19	• Evaluate awareness, access, use and effectiveness of the two CDHB maternal mental health pathways and services for inpatient and community maternal mental health • Evaluate demand and capacity for non-acute cases • Identify DHB funded services and initiatives currently in place in the community to support maternal mental health to inform further national work in this priority area; which includes ensuring a targeted focus on high risk groups (Māori, Pasifika, low decile areas and younger mothers)	• Maternal mental health pathways and services are evaluated and identified opportunities for improvements are made to service provision • A stocktake of current services is made to inform us and the MOH on ongoing work • Maternal mental health is incorporated into the CDHB Maternity Strategy as a priority area	• An audit of referrals to maternal mental health demonstrate awareness and correct use of pathways and ability of services to respond to these referrals • A completed report is sent to the MOH in a timely manner as requested to inform ongoing national work • Work identified in this area as part of the maternity strategy is completed and pathways developed ensure equity of access for high risk groups

	Initiative/Priority	Action	Expected Outcome	Measure
2.	To review best practice for late pregnancy ultrasound and induction of labour timing using the principles of the 'Choosing Wisely' campaign, to reduce unnecessary investigation or intervention 2 of 2017/18 priorities and action plan NMMG Work plan 17/18	• Develop a working group to create agreed clinical pathways based on evidence of best practice that can be made available to health professionals to share with women • Work with Maternity groups to develop informative resources for women to inform their health literacy about late pregnancy ultrasound and induction of labour	• Engagement with community providers to develop agreed management pathways that align with best practice • Women are provided with information on best practice as a part of their decision making with a healthcare provider	• Documents are up to date and easily accessible by consumers and health professionals
3.	To continue to increase the CDHB spontaneous vaginal birth rate 4 of 2016/17 priorities and action plan NMMG Work plan 17/18	• The CDHB 'Delay in labour' guideline is completed and implemented, to give consistent best practice points for management of delay in the second stage of labour	• The 'Delay in labour' guideline is readily accessible and adhered to by health professionals	• A review of local CDHB data demonstrates an increase in spontaneous vaginal births
4.	To continue to implement and evaluate project work to reduce the CDHB episiotomy and 3rd and 4th degree tear rate 4 of 2016/17 priorities and action plan	• Warming cabinets to provide perineal support in the second stage of labour are formally trialled and evaluated • The CDHB '3rd and 4th degree tear' guideline is reviewed and updated based on best practice	• Implementation of warming cabinets to all birthing areas to provide perineal support • The '3rd and 4th degree tear' guideline is readily accessible resource for all health professionals	• A re audit of 3rd and 4th degree tears with and without an episiotomy show a decrease
5.	To reduce CDHB postpartum haemorrhage rate and sequelae, i.e. blood transfusion rates 4 of 2016/17 priorities and action plan PMMRC (Maternal Mortality) Recommendations, 2018	• Retrospectively review the data of all postpartum haemorrhages for 2016 and 2017, to ascertain a baseline, and inform potential contributory factors for increased rates • Utilise audit results to formulate an action plan to address postpartum haemorrhage rates	• An agreed pathway is developed for the management of the third stage of labour, based on best practice evidence • Staff are aware of the content of the revised pathway and women receive treatment in line with it	• A re audit of all postpartum haemorrhages shows that; a. the agreed pathway is being followed b. there is a reduction in the rate of blood transfusion c. there is a decreased rate

	Initiative/Priority	Action	Expected Outcome	Measure
		• Develop a multidisciplinary group to implement the agreed action plan	• All clinical staff to attend regular practical multiprofessional team training on haemorrhage management	of postpartum haemorrhage
6.	To review the incidence of sepsis in pregnancy and postpartum, and implement measures to better prevent, recognise and manage clinical presentations MMWG Practice points and recommendations, 2018 PMMRC (Maternal Mortality) Recommendations, 2018	• Retrospectively audit all clinically coded cases of sepsis, to ascertain incidence and possible contributory factors and develop an action plan for quality improvement activities • Develop a multidisciplinary group to implement the agreed action plan • Implement the National Maternal Early Warning Score (MEWS) • Establish and implement septic bundle kits and a guideline or pathway for sepsis to improve recognition and response of sepsis • Incorporate education on sepsis into regular education sessions	• Resources are readily available for clinicians to access when assessing for sepsis • Women receive treatment in line with the agreed sepsis treatment pathway • All clinical staff to attend regular practical multiprofessional team training on sepsis management	• A re audit of coded sepsis case shows that sepsis management pathways are utilised
7.	To continue to increase use of primary birthing units. 5 of 2017/18 priorities and action plan NMMG Work plan 17/18 CDHB Maternity Strategy, 2018	• Promote/encourage LMC's to use primary birthing units • Survey LMC midwives and women consumers to ascertain current reasons given for not using primary birthing units and address the perception of risk and safety • Hold orientation sessions specifically aimed at welcoming and encouraging LMC midwives who are	• Increase in number of women choosing to birth or have postnatal care in DHB primary birthing facilities	• Bed occupation and birth location indicates increasing usage of primary birthing units

	Initiative/Priority	Action	Expected Outcome	Measure
		reluctant to use primary birthing units • Facilitate public forums to increase awareness and give information on primary birthing, particularly the importance of labour and reaching term • Develop virtual tours so LMC's can show woman the primary birthing units in their homes or antenatal clinics		
8.	To continue to improve the screening and referral rates of women for family violence. 6 of 2017/18 priorities and action plan	• A plan for regular, mandatory training is made annually and all CDHB employed staff working in maternity services are attending these sessions once per year • Survey staff to ascertain the barriers to staff carrying out this screening	• Health professionals working in the maternity setting have all received training and are confident to screen for family violence • The training sessions address the barriers that staff have identified • Health professionals are familiar with the screening tool and referrals process	• Evidence of regular audits shows improved family violence screening results for pregnant women accessing DHB maternity services
9.	To ensure that by 2021, 90% of pregnant women are registered with a Lead Maternity Carer in the first trimester, with an interim target of 80% by 2019, with equitable rates for all population groups. Better Public Services: A Good Start to Life, 2017 Maternity Clinical Indicators (2016), 2018 9 of 2017/18 priorities and action plan	• Engage with the Maternity Consumer Forum, have them bring ideas from the communities they represent to identify opportunities to promote early registration with 'hard to reach' groups • Develop an action plan based on the ideas from the Maternity Consumer Forum	• A new set of actions are identified and developed in preparation for implementing	• Regular reporting demonstrates that there is an increase in percentage of women registering with a Lead Maternity Carer in the first trimester

	Initiative/Priority	Action	Expected Outcome	Measure
10.	To ensure every baby has a safe sleep space and that education, resources and referral processes, (e.g., smoking cessation and breast feeding support) are readily available as a 'wrap around' service for women and their whānau. PMMRC Recommendations, 2018 13 of 2017/18 priorities and action plan CDHB SUDI Prevention Workplan 18/19 National SUDI Prevention Coordination Service Target, 2017	• Complete a 'safe sleep pathway' that extends across the health system for all health care providers • Increase the availability of equipment to facilitate safe sleep space for inpatient maternity areas • Liaise with Planning and Funding and the South Island Regional safe sleep coordinator to implement processes for easy referral and access to safe sleep space equipment for vulnerable families	• Identification of vulnerable families are followed through with education on safe sleep and a safe sleep space • Resources are up to date and readily available for health professionals to provide to women • All inpatient maternity facilities have enough equipment to be able to facilitate safe sleep spaces while a woman/baby is in hospital	• Evaluation via survey feedback demonstrates that health professionals are able to navigate the safe sleep pathway and provide health advice and referral as appropriate
11.	Embedding of the CDHB Newborn Observation Chart (NOC) and Newborn Early Warning Score (NEWS) 14 of 2016/17 priorities and action plan NE Taskforce, 2017	• Formal evaluation and validation of the CDHB Newborn Observation Chart (NOC) and Newborn Early Warning Score (NEWS) as per the quality PDCA cycle is being undertaken by ACC as part of the NE Review • Any unforeseen impacts of the Newborn Early Warning Score (NEWS) on care of babies is noted and whether this is aiding decision making	• The Newborn Observation Chart (NOC) is used for all neonates (outside NICU) and the Newborn Early Warning Score (NEWS) score becomes part of the way of communicating the health status • Recommendations from the review are discussed and implemented if appropriate • Appropriate transfer of neonates to NICU for further assessment and management	• An audit of the CDHB NEWS demonstrates accuracy of scoring in 95% of documented observations • An audit of babies who have scored 3 on assessment and completion of the CDHB NEWS demonstrates they have been appropriately referred to the Neonatal team for immediate review/transfer to the Neonatal Unit

	Initiative/Priority	Action	Expected Outcome	Measure
12.	To provide specialist obstetric and physician care closer to a woman's home. CDHB Maternity Strategy 2018	• Undertake a service review of the antenatal clinic service and assessment service at Christchurch Women's Hospital • Increase the number of regular education and specialist antenatal and postnatal clinics in locations other than Christchurch Woman's Hospital • Investigate the feasibility of telehealth to provide specialist consultation and care to rural and remote rural communities • Review the location of the Methadone in pregnancy programme appointments	• Improve attendance at appointments • Improve access to services due to reduced pressure with car parking, travel to and from the city centre • Reduce perception of Christchurch Women's Hospital as the only place to birth • Appointments are optimised to value the woman's time	• Women report satisfaction about the service • More women attend their scheduled appointment • Less women have to spend time as inpatients as their assessment is more timely
13.	To review the care provided to women with a previous preterm birth at less than 34 weeks gestation that are at increased risk of neonatal death in their next pregnancy. PMMRC Recommendations, 2018	• Review discharge planning processes for women experiencing a preterm birth at less than 34 weeks gestation • Patient information on preterm labour is reviewed and updated based on the latest evidence • Develop a working group to create agreed clinical pathways based on evidence of best practice	• Women experiencing a preterm birth at less than 34 weeks gestation are identified for postnatal follow up with a medical specialist prior to discharge • Up to date information is available for women to support counselling around the signs and symptoms of preterm birth and how to respond to these to optimise outcome • Resources are readily available for	• Evidence of audits shows postnatal follow up appointments are scheduled for all women experiencing a preterm birth before 34 weeks gestation • Documents are up to date and easily accessible by consumers and health professionals

	Initiative/Priority	Action	Expected Outcome	Measure
		that can be made available to health professional	health professionals to: a) advise women to present for antenatal care as soon as they know they are pregnant b) make a referral for specialist consultation in the first trimester to facilitate discussion of treatment options, which might include cervical cerclage or vaginal progesterone treatment and monitoring of cervical length using transvaginal ultrasound c) ensure early antenatal care includes attention to modifiable risk factors such as smoking, sexually transmitted infections, and urinary tract infections	
14.	To ensure cultural safety in our organisation. Health professionals in the maternity setting have received education on cultural safety; and understanding the cultural values of Māori	• Education on cultural safety is included as a part of the compulsory DHB Core Competency day • A survey is developed for staff to complete before and following cultural safety education to measure the	• Increased awareness of the importance of culture on birth and the influence of attitude and clinical practice for a culturally diverse population.	• Formal feedback through our 'What matters to you?' maternity services feedback form demonstrates a positive response on cultural and spiritual care

	Initiative/Priority	Action	Expected Outcome	Measure
	and the Treaty of Waitangi relationship. PMMRC Recommendations, 2018	effectiveness of education		
15.	To improve our workforce ratios to ensure ongoing recruitment and retention of midwives for a sustainable midwifery workforce. PMMRC Recommendations, 2018 CDHB Maternity Strategy, 2018 NNMG Work Plan 17/18	• Review midwifery staffing ratios and the implementation of a maternity staffing acuity tool • Continue to develop strong working relationships with ARA School of Midwifery to ensure we have a workforce pipeline into our maternity system	• An acuity tool based on the staffing Standards for Maternity is utilised in all clinical areas to identify staff ratios required based on changing acuity • Staff ratios required for direct patient care are adjusted to meet the clinical demand	• There is reduced attrition of LMCs and employed midwives throughout the DHB • All advertised new graduate midwife positions are filled

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