Maternity Quality and Safety Programme

Annual Report 2013 / 14

Canterbury District Health Board

and

West Coast District Health Board

MINISTRY OF HEALTH
MANATŪ HAUORA

No.1 The Terrace
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27 August 2014

David Meates
Canterbury DHB
PO Box 1600
Christchurch

Dear David

Acceptance of Maternity Quality and Safety Programme 2013/14 Annual Report

Thank you for submitting Canterbury DHB's final Maternity Quality and Safety Programme Annual Report for 2013/14. I am pleased to accept this report on behalf of the Ministry of Health.

The reviewers particularly noted your clearly demonstrated progress in 2013/14 and comprehensive plan for 2014/15.

I encourage you to continue to look for ways to embed your local quality and safety activity as business as usual over the coming year, the final Ministry-funded year of the Maternity Quality and Safety Programme.

I also encourage you to make this report publicly available, for example via your DHB's website, to further engage your wider maternity sector in local quality improvement activities and to share knowledge and innovation with other regions.

I thank you for the commitment your DHB has made to the Maternity Quality and Safety Programme and I look forward to seeing continued progress on your local quality and safety improvement priorities in 2014/15.

Yours sincerely

Cathy O'Malley
Deputy Director-General
Sector Capability and Implementation

CC: Lesa Freeman

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Cathy O'Malley
Deputy Director-General
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CC: Lesa Freeman

For the purpose of the CDHB and WCDHB Maternity Quality and Safety Programme Annual Report 2013/14,

CDHB comprises Women's and Children's Health, Ashburton and Rural Maternity Services and St George's Hospital.

Produced by

Women's and Children's Health, Canterbury District Health Board and

West Coast District Health Board

June 2014

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Dr Lesa Freeman, Maternity Quality and Safety Programme Co-ordinator, CDHB & WCDHB
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Bronwyn Torrance, Charge Midwife Manager, Lincoln Hospital
Ian Chen, Information Analyst, CDHB
Ma Yi, Biostatistician, CDHB
CDHB & WCDHB Maternity Clinical Governance Committee

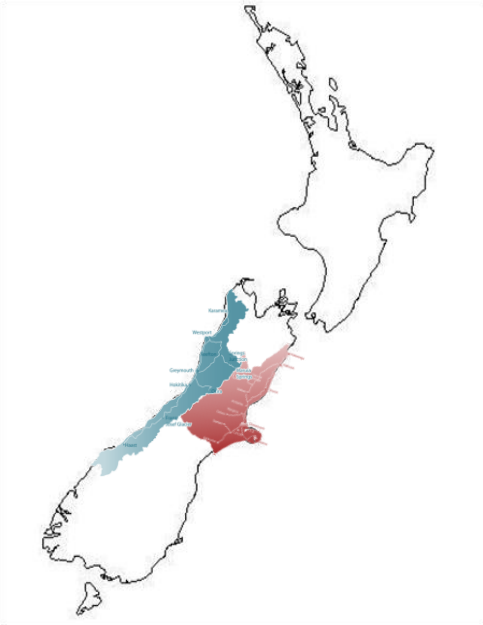
Disclaimer

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

Front cover illustration

The graphic on the cover is an abstract representation of the geographical relationship of the two District Health Boards. The triangles represent the Southern Alps (in lavender, symbolic for Maternity) and the letters M and W for **M**aternity and **M**id**w**ifery can be visualised in the layout. The oblique lines are the rivers, roads, rail and relationships that traverse the Alps. The logos are set on the page to represent their correct west / east, transalpine, geographical relationship to each other.

Artist: Colette Meehan



Canterbury
District Health Board
Te Poari Hauora ō Waitaha

To promote, enhance and facilitate the health and wellbeing of the people of the Canterbury District.

Ki te whakapakari, whakamaanawa me te whakahaera i te hauora Mo te orakapai o ka takata o te rohe o Waitaha.

West Coast
DISTRICT HEALTH BOARD
TE POARI HAUORA A ROHE O TAI POUTINI

To fund a continuum of quality health services aimed at providing improved health outcomes and maximising the independence of people with disabilities.

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1. Introduction

Maternity Quality and Safety Programme Framework

The Maternity Quality and Safety Programme (MQSP) is one component of an initiative by the Ministry of Health (MoH) to improve the quality of maternity care services nationally. The MQSP is designed to assist District Health Boards (DHBs) to build on existing frameworks and systems for reviewing the quality of maternity services.

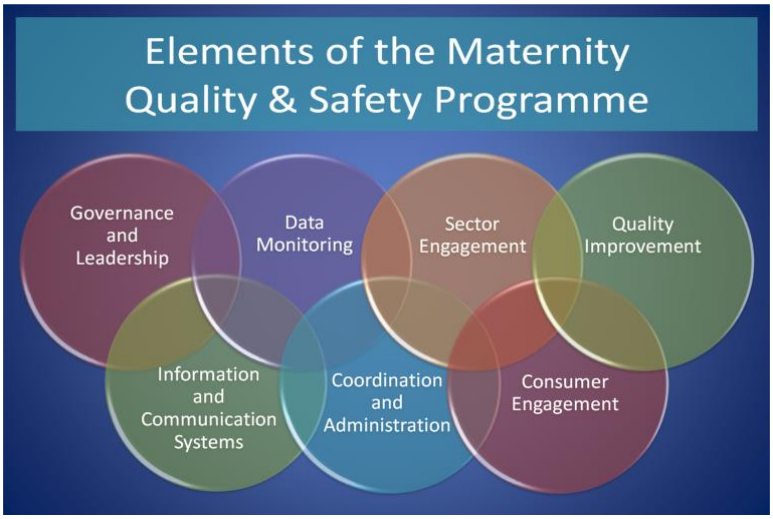
The MQSP encourages collaborative working across hospital and community services to identify and implement changes that will improve the standard of care and services, women and their babies receive.

The MQSP encompasses the following elements:

- Governance and clinical leadership
- Systems for sharing information
- Data monitoring
- Management and administration
- Clinical networking
- Consumer engagement
- Quality Improvement

As providers of the whole range of maternity services, Canterbury District Health Board (CDHB) and West Coast District Health Board (WCDHB) are committed to developing new and innovative ways to deliver healthcare across all sectors with the goal of improving outcomes and reducing harm.

This national initiative creates a platform for increasing the resources to further develop these established quality processes and formalise the additional quality work within both CDHB and in WCDHB and through the partnership between them.



Purpose

The Purpose of the CDHB and WCDHB MQSP Annual Report 2013/14 is to:

- Meet the expectations of the New Zealand Maternity Standards as defined by the Ministry of Health (MoH) (see Table 1);
- Demonstrate Canterbury District Health Board (CDHB) and West Coast District Health Board (WCDHB) delivery of the expected outputs as set out in Section 2 of the Maternity Quality and Safety Programme (MQSP);
- Incorporate the expected actions outlined in the National Maternity Monitoring Group, 2013 Annual Report;
- Outline the priorities, deliverables and planned actions for 2014/15;
- Provide a framework to demonstrate transition of MQSP to business as usual as of 1 July 2015.

Table 1 Alignment with the New Zealand Maternity Standards

Alignment with the New Zealand Maternity Standards	
Standard One: **Maternity services provide safe, high-quality services that are nationally consistent and achieve optimal health outcomes for mothers and babies.**	
8.2	Report on implementation of findings and recommendations from multidisciplinary meetings;
8.4	Produce an annual maternity report;
8.5	Demonstrate that consumer representatives are involved in the audit of maternity services at CDHB and WCDHB;
9.1	Plan, provide and report on appropriate and accessible maternity services to meet the needs of the Canterbury and West Coast regions;
9.2	Identify and report on the groups of women within their population who are accessing maternity services and whether they have additional health and social needs.
Standard Two: **Maternity services ensure a women-centred approach that acknowledges pregnancy and childbirth as a normal life stage.**	
17.2	Demonstrate in the annual maternity report how CDHB and WCDHB have responded to consumer feedback on whether services are culturally safe and appropriate;
19.2	Report on the proportion of women accessing continuity of care from a Lead Maternity Carer (LMC) for primary maternity care.
Standard Three: **All women have access to a nationally consistent, comprehensive range of maternity services that are funded and provided appropriately to ensure there are no financial barriers to access for eligible women.**	
24.1	Report on implementation of the Maternity Referral Guidelines processes for transfer of clinical responsibility.

Scope

The scope of this MQSP Annual Report is to:

- Summarise the aims/objectives of the CDHB and WCDHB maternity services and identify where these align with national priorities and recommendations;
- Summarise salient issues relating to maternity service delivery, service configuration and/or workforce in the DHBs and the steps taken or planned to address these issues within or outside of the MQSP;
- Describe links between the MQSP and any other relevant initiatives or projects within the DHBs;
- Provide data analysis on specified areas;
- Provide information on governance and operations;
- Provide information on quality improvements;
- Outline the planned actions for 2014 /15;
- Provide a framework that will ensure the MQSP is able to transition to business as usual from July 2015.

Aims and Objectives

The aims and objectives for CDHB and WCDHB's maternity services and the MQSP are to:

Provide woman-centred maternity care that meets the needs of the population

- Share resources and work cohesively across the DHBs to develop new initiatives and processes to improve the service as they are identified;
- Critically examine day-to-day business on a regular basis to ensure maternity services continue to meet the needs of women, their babies and families/whānau;
- Work in partnership with all health agencies providing women's and children's health, to continue to forecast, develop and enhance a seamless service.

Continue to implement, review and establish as required, systems and processes to support the provision of quality and safe care

- Continue to implement the National Maternity Standards;
- Align with the work of the Health Quality and Safety Commission;
- Utilise the New Zealand Maternity Clinical Indicators and other available data to inform areas for improvement;
- Reflect recommendations of the National Maternity Monitoring Group[1].

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

- Increase exclusive and fully breastfeeding rates at six weeks of age[2];
- Increase the number of registrations to the National Immunisation Register[3];
- Reduce smoking rates of pregnant women and their partners[4];
- Increase the number of women registering with a Lead Maternity Carer (LMC) by 12 weeks of pregnancy[5];
- Work with primary providers and primary health organisations (PHOs) to develop a regional programme for young vulnerable women who are pregnant[6].

Align the maternity workforce to meet the needs of the population

- Support the development of a skilled maternity workforce capable of providing safe and effective care;
- Continue to implement education, recruitment and retention strategies to meet the needs of both DHBs.

Align and strengthen regional links

- Work with the five South Island DHBs via the South Island Alliance to provide shared services and woman centred care in a collaborative manner;
- Improve communication and the sharing of resources across DHBs to improve efficiency and effectiveness and reduce variation in practice;

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[1] National Maternity Monitoring Group Annual Report 2013.

[2] Ministry of Health, 2009. National Strategic Plan of Action for Breastfeeding, 2008-2012. Ministry of Health, 2001. Breastfeeding: A Guide to Action.

[3] Ministry of Health 2012/13 Health Target. Immunisation - 85 percent of eight months olds will have their primary course of immunisation (six weeks, three months and five months immunisation events) on time by July 2013, 90 percent by July 2014 and 95 percent by December 2014

[4] Ministry of Health 2012/13 Health Target. Better help for smokers to quit - Progress towards 90 percent of pregnant women who identify as smokers at the time of confirmation of pregnancy in general practice or booking with lead maternity carer are offered advice and support to quit

[5] New Zealand Maternity Standards 19.2

[6] The Child and Youth Health Compass: Supporting Innovation, Good Practice and Equity (2013). Office of the Children's Commissioner, PSNZ and Health Quality and Safety Commission.

Strengthen the interface between primary and secondary care

- Continue to work collaboratively with the professional colleges and access agreement holders to adopt the MoH and NMMG requirements for maternity care;
- Ensure adequate representation from Lead Maternity Care (LMC) midwives and NZCOM on quality initiatives, changes in practice and service re-configuration;
- Monitor communication and implementation of the Guidelines for *Consultation with Obstetric and Related Medical Services* (Referral Guidelines) (2012).

Provide a robust Maternity Quality and Safety Programme

- Review the governance structure to ensure coherence in quality activities across both DHBs;
- Maintain consumers and primary care in the development and implementation of the programme;
- Review communication systems for sharing information with the wider community and obtain feedback on maternity services;
- Develop a system to disseminate information on the New Zealand Maternity Clinical Indicators to maternity clinicians;[7]
- Develop a process with providers to document areas of concern and collaborate to action quality improvements;
- Utilise the New Zealand Maternity Clinical Indicators and other available data to inform areas for improvement;
- Reflect recommendations of the National Maternity Monitoring Group.

[7] Ministry of Health New Zealand Maternity Clinical Indicators.

Background

Canterbury District Health Board
Te Poari Hauora ō Waitaha

Canterbury DHB is the second largest by population and geographical area of the twenty DHBs. The CDHB region extends from Kekerengu in the north, to Rangitata in the south, and Arthurs Pass in the west and comprises six Territorial Local Authorities of Kaikoura, Hurunui, Waimakariri, Christchurch City, Selwyn and Ashburton.

Canterbury's maternity services are spread between two separate divisions of the CDHB; Women's and Children's Health, and Ashburton and Rural Health Services as well as contracting postnatal care and birthing services to St George's Hospital. Overall, there are ten facilities comprising one tertiary unit with neonatal intensive care and eight primary birthing units, three of these are within Women's and Children's Health, and five within Ashburton and Rural Health Services and one private hospital. All referrals for tertiary level care, including those from WCDHB are directed to Christchurch Women's Hospital (CWH). In 2012, approximately 229 LMCs had Access Agreements with CDHB.

West Coast District Health Board
Te Poari Hauora a Rohe o Tai Poutini

West Coast DHB has the smallest population of the twenty DHBs established under the New Zealand Public Health and Disability Act (NZPHD Act). It is the most sparsely populated DHB in the country with a population density of 1.4 people per square kilometre and population less than 1% (0.7%) of New Zealand's total estimated resident population. WCDHB extends from Karamea in the north, to Jacksons Bay in the south and Otira in the east and comprises three Territorial Local Authorities, Buller, Grey and Westland districts.

The WCDHB has two facilities where maternity care is provided: one secondary unit, McBrearty Ward situated within Grey Base Hospital and one primary unit, Kawatiri, based in Westport. All referrals for tertiary level care are directed to Christchurch Women's Hospital.

In the 2012 financial year WCDHB employed one caseloading midwife in Buller and four case loading midwives in Greymouth. Four LMC midwives had Access Agreements with WCDHB and cared for women residing between Westport and Hokitika. One General Practitioner in South Westland is employed to provide maternity services in a shared care role, antenatal and postnatal care only and rural nurse specialists in South Westland provide acute maternity assessments and postnatal care.

2. Governance and Operations

Governance Committee Structure Changes

In November 2013, the maternity quality and safety committee structure was amended to establish clearer reporting lines, in particular the CDHB committees (see Figure1). The Terms of Reference for the relevant committees were consequently revised to reflect these reporting lines.

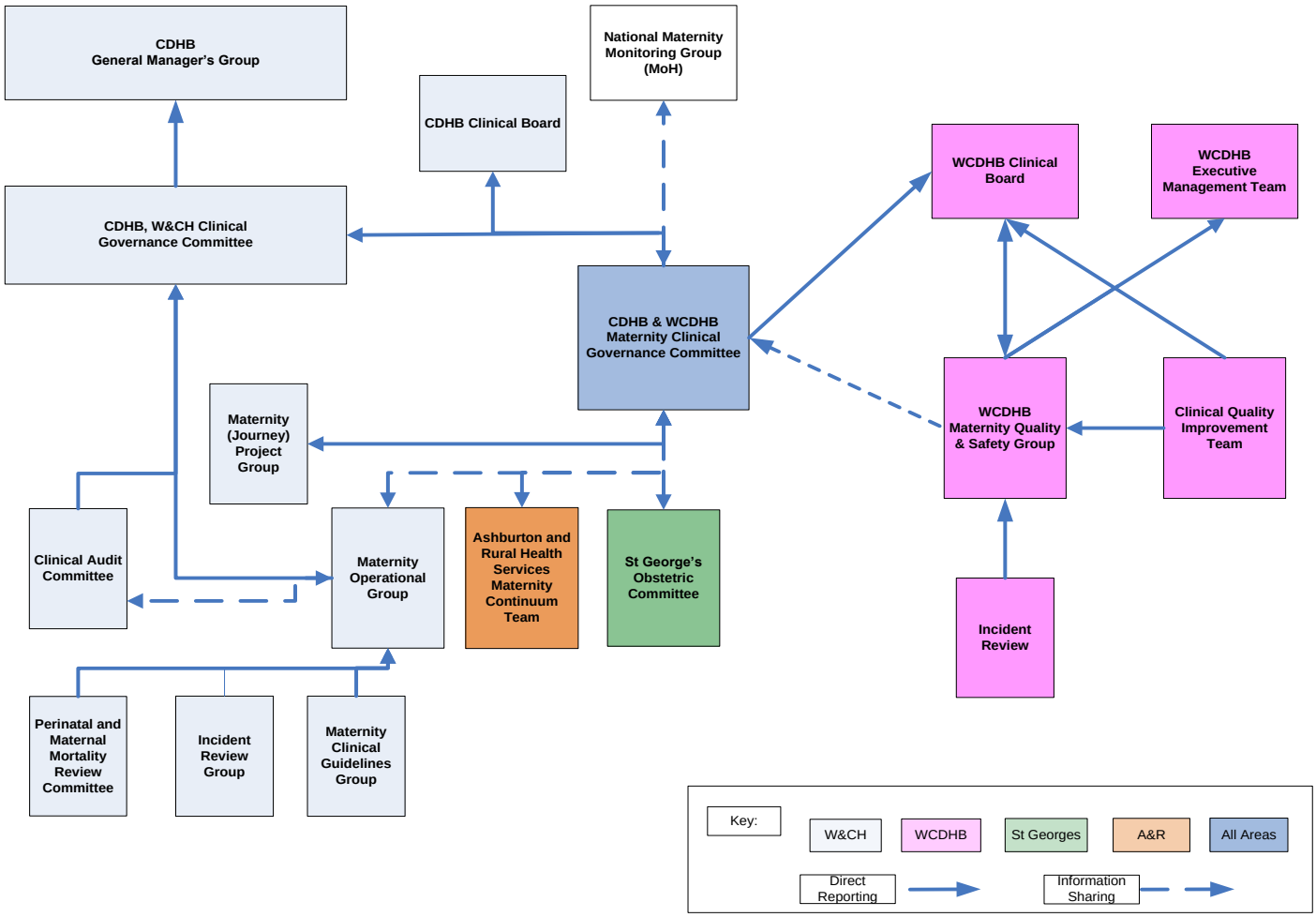


Figure 1 Governance and Committee Reporting Lines

Reporting Mechanisms

In order to facilitate good communication and provide content to populate the MQSP Annual Report, CDHB & WCDHB Maternity Clinical Governance Committee (MCGC) report directly to the CDHB Clinical Board, WCDHB Clinical Board and the Women's and Children's Clinical Governance Committee and provide six monthly reports (July and January). Whilst the Maternity Operations Group, Ashburton and Rural Health Services Maternity Continuum Team, WCDHB Maternity Quality and Safety Group and St George's Obstetric Committee share information through quarterly written reports to the CDHB & WCDHB Maternity Clinical Governance Committee (March, June, September and December), this in turn has a flow on effect to other committees within the maternity quality and safety committee structure.

Quality Planning

To ensure alignment of the quality plans across the services and to transition MQSP to 'business as usual' by 2015, the CDHB and WCDHB Maternity Clinical Governance Committee will continue with the MQSP Project Work Plan until the end of 2014 at which time outstanding items will be transferred to service quality plans. The other key committees (Maternity Operations Group, (MOG), Ashburton and Rural Health Services Maternity Continuum Team, WCDHB Maternity Quality and Safety Group and St George's Obstetric Committee) will continue to develop their quality plans (for the year April to March) and take responsibility for implementation of their content. They will submit these to the CDHB and WCDHB Maternity Clinical Governance Committee to ensure alignment of work across the services.

Maternity Quality and Safety Committee Amendments

West Coast DHB Maternity Safety and Quality Group
When the WCDHB Maternity Quality and Safety Group was set up in May 2013 it was determined that the meetings would be scheduled quarterly. Committee members subsequently identified that in order to gain further traction in implementing the MQSP planned actions the meetings needed to be held more frequently. As of February 2014 the meetings have been scheduled monthly.

Upon resignation of the Clinical Services Manager in December 2013, the Director of Nursing and Midwifery (DONM), alongside the Clinical Midwife Manager assumed responsibility for maternity services. The DONM became the interim Chair of the WCDHB Maternity Quality and Safety Group.

A Pacific Island representative was appointed to the WCDHB Maternity Quality and Safety Group in November 2013. This representative from Tonga who resides in Greymouth is actively involved with Pacific Island people living on the West Coast and is recognised as a community leader.

In February 2014 the group was expanded to include West Coast DHB Planning and Funding due to the strong links between the MQSP project work and activity that falls under the Child & Youth work stream. Furthermore, a South Westland rural nurse specialist (RNS) with a background in neonatology was appointed to represent the West Coast rural nurse specialists.

Ashburton and Rural Health Services
The Terms of Reference for the Ashburton and Rural Health Services Maternity Continuum Team was amended in June 2013 to include all four rural charge nurse managers from Kaikoura, Waikari, Darfield, and Akaroa primary units instead of one rural charge nurse representing rural services at the bi-monthly meetings.

A Māori representative was engaged onto the Ashburton and Rural Health Service Maternity Continuum Team in July 2013. They currently work as the cultural advisor for Ashburton and Rural Services.

St George's Hospital Obstetric Committee
The Terms of Reference for the St George's Obstetric Committee has been expanded to include a Māori consumer representative. The appointment of this Māori consumer representative is still in progress.

Governance Activities

CDHB and WCDHB Maternity Clinical Governance Committee Activities 2013/14
The activity of the CDHB and WCDHB Maternity Clinical Governance Committee has mainly been directed at building a membership, ratifying Terms of Reference that meet the requirements of two DHBs (four services); Canterbury, Ashburton and Rural Services, St.George's Maternity Centre, and West Coast) and engaging consumer representation.

The committee has also focussed on the review of MoH, Women's Healthcare Australasia and Health Round Table Clinical Indicator data and clinical outcomes. Further, the committee has been working through the actions that were generated when the group first formed, specifically the maternity quality and safety programme work plan.

As the maternity governance committee takes a service wide approach the committee have taken the opportunity to 'house' a maternity project that has historically sat with Planning and Funding, 'Improving the Maternity Journey for Women in Canterbury' (2012). This governance affords a valuable oversight on progress, a pathway for endorsement and sign off as the project is implemented.

The CDHB and WCDHB Maternity Clinical Governance Committee also provide a platform for the oversight on progress of regional and national projects. Currently the committee is monitoring progress of the CDHB and WCDHB maternity clinical information system.

Maternity Operational Group

During the 2013/14 year MOG has reviewed significant trends and individual adverse events, initiated further investigation of clinical safety and quality issues, developed and implemented systems to provide a safe environment for women, babies and staff. It has also identified changes to be made to clinical practice to reduce future risk and improve clinical standards, and made recommendations for ongoing development of relevant policies, guidelines and audits in accordance with the group's Terms of Reference.

The Maternity Service Quality Plan was devised and the aims and actions required for each were reviewed at each meeting. Examples of completed tasks include:

- Establishing service specific key quality improvement projects: i.e. establishment of a Birth After Caesarean Section Clinic and review of SMO staffing and rostering to ensure adequate senior Birthing Suite cover.
- Devising guidelines, standards and patient information pamphlets. For example, guidelines published for accepted criteria for women to birth at primary maternity units, criteria for location of admissions via St John Ambulance Service, triage pathway for women presenting to the Emergency Department beyond 20 weeks in pregnancy.
- Addressing MoH Certification recommendations. For example, implementation of a policy on use of donor breast milk and informed consent, and a system for initiation and documentation of family violence.

Ashburton and Rural Health Services Maternity Continuum Team Activities

- Two new LMC midwives have commenced practising in the Ashburton District;
- There has been a review of full-time equivalents (FTEs) for staffing in Ashburton and Kaikoura;
- Distribution of Pepi Pods® to enable safe sleep of vulnerable infants has taken place;
- The Ashburton facility upgrade including new baby cots is well underway;
- Liaison between the MQSP Co-ordinator and the Continuum Team has led to tighter forward planning and evaluation of objectives in Ashburton and Rural Maternity Units;
- The sharing of resources has enabled a smoother accomplishment of Baby Friendly Hospital Initiative self-evaluation/accreditation processes across all units;
- Closer collegial relationships have been established as a direct result of SMO attendance at continuum meetings.

St George's Obstetric Committee

- CDHB Anaesthetists (who do not have visiting rights at St George's) currently prescribe post operative medications following caesarean sections for women transferring from CWH to St George's Hospital. Legal advice has been sought to cover this prescribing, and a process will be developed on receipt of this information;
- Risk Management is reviewed quarterly;
- Anti-D immunoglobulin administration for antenatal women is no longer offered as this is considered the role of the LMC by the MOH. This service was of great benefit to both women and LMCs as it supported both parties with flexibility of timing of delivery, a safe environment for women to receive the immunoglobin and offered secure practices around the cold chain storage of Anti D;
- Maternity Access Agreements have been reviewed and a process is in place to review current annual practicing certificates;
- Maternity Quality Safety Programme / Priorities and Work Plan actioned;
- Maternity Consumer and Māori representation is required for the Obstetric Committee and is currently being sought;
- A marketing plan was developed and implemented to gain consumer awareness that births had recommenced from 3 February 2014.

WCDHB Maternity Quality and Safety Group

- Planning for the new facilities in both Greymouth and Buller is well underway with planned community involvement in the near future;
- Increased multi-disciplinary education sessions have been delivered with very good attendance by doctors, midwives and nurses;

- Improved recruitment processes were developed and put in place to address staff constraints;
- McBrearty Ward has employed three new graduate midwives in 2014 to "grow our own" and develop skilled clinical midwives for long term staffing;
- McBrearty Ward is supporting student midwives by providing first and third year student placements in 2014;
- Two newly self-employed LMCs midwives based in Buller are providing primary care to women;
- Improved partnership between West Coast and Christchurch Women's Hospital (CWH) has led to a number of improvements including:
  - Improved referral and transfer of women and babies;
  - Improved guideline development;
  - Increased education opportunities;
  - Improved communication.
- WCDHB is working on a new model of care for the West Coast maternity services. The model will be based on a service that is coast wide and will support all health professionals providing maternity care to women, including GPs, rural nurse specialists, LMCs and caseloading midwives.

Maternity Consumers Representatives

The five maternity consumer representatives (three for Women's and Children's Health, one for Ashburton and Rural Health Services, and one WCDHB) are remunerated with a meeting fee for a maximum of two hours to attend Maternity Quality and Safety Meeting, and MQSP project group meetings. This meeting fee is inclusive of expenses such as childcare, car parking and travel.

The Maternity Consumers Representatives are also invited to be part of other wider community projects e.g. the development of the North Canterbury hub and are consulted in the development of the guidelines and women's information pamphlets.

The MQSP Co-ordinator is the key contact person for the maternity consumers' representatives and they are further supported by the LMC Midwife Liaison and NZCOM Chair through email and face-to-face meetings.

In November 2013, the MQSP Co-ordinator requested feedback from the maternity consumers on what support and training would be beneficial to them in their roles. The following recommendations have subsequently been put in place:

- When a maternity consumer is unable to attend a meeting another consumer representative attends as a proxy;
- In addition to receiving electronic copies of the agenda and background documents, hard copies are mailed to the consumers five working days before a committee meeting;
- Quality co-ordinators on the maternity quality and safety committees meet with the consumer representatives for half an hour prior to committee meetings to provide a briefing on each of the agenda items;
- Quality Co-ordinators again meet with the consumer representatives after the committee meetings to discuss the actions arising from the items;
- The process for paying invoices has been tightened up to ensure that the consumers are paid for their attendance at quality meetings, the 20th of the following month;
- CDHB and WCDHB maternity consumer network group meetings are scheduled quarterly, with video conferencing facilities provided.
- Networking with the National Maternity Monitoring Group consumer representative and other DHB maternity consumers;
- Two consumer representatives will be sponsored to attend, in person, the consumer meeting in August in Wellington.

Collection and Response to Maternity Consumer Feedback

A consumer engagement working group was set up comprising senior midwifery representatives from Women and Children's Health (W&CH), WCDHB, Ashburton and Rural Services, a Māori representative and the five maternity consumer representatives.

Their first consumer engagement working group project was to design a specific maternity services' feedback form based on the Health Quality and Safety Commissions' (HQSC) Patient Experience Indicators for New Zealand (2013) that could be used across the ten maternity facilities.

Maternity Quality and Safety Programme Role Amendments

West Coast General Practitioner Liaison

In December 2013 a West Coast Rural General Specialist (formerly an obstetrics and gynaecology registrar at CWH) took on the position as General Practitioner Liaison (GP Liaison) to enhance the communication between the primary and secondary interface, provide a primary care perspective on issues raised and contribute to maternity clinical governance. This GP Liaison completed his Fellow of the Royal New Zealand College of General Practitioners in 2013, and is in the process of completing the Diploma in Obstetrics and Gynaecology.

Canterbury Maternity General Practitioner Liaison

The Canterbury Initiative is currently recruiting a new maternity GP Liaison. The Midwife Liaison has acted as proxy for the Canterbury Maternity GP Liaison on the CDHB & WCDHB Maternity Clinical Governance Committee since August 2013.

CDHB Biostatistician

The CDHB Biostatistician was engaged in October 2013 to undertake statistical analysis of the CDHB and WCDHB maternity data, track key clinical indicators and identify specific groups where priority setting is required.

3. Salient issues

Several themes have emerged to group the salient issues for both the CDHB and the WCDHB. These include:

Theme	Salient Issues	Actions Planned / Implemented
Workforce shortages	Ongoing workforce shortages in both Ashburton & Rural Health Services (LMC midwives) and the West Coast (obstetricians, medical officers and LMC midwives) attributed to rural and professional isolation.	• Advertise for staff until full-time equivalent and safe staffing levels are met. • Encourage local people into the midwifery profession and support local midwives into self-employed LMC positions. • Consider bonding scheme through Healthwork New Zealand (HWNZ).
Education and development	Difficulty in supporting the education of new staff and new graduates Access to education opportunities for staff in remote services such as the West Coast	• Ashburton Maternity Unit has developed Emergency Skills day workshops to assist LMC midwives maintain their competencies. Additionally, Ashburton Maternity is implementing all other recertification requirements locally. • Ashburton Maternity has provided a clinical room rent free for six months to enable a more seamless orientation for new graduates and offers hostel accommodation to make third year midwifery placement with LMC midwives easier. • Ashburton Maternity Unit offers education sessions to the Ashburton Duty Managers and Acute Admitting staff. • Make available education opportunities such as STABLE and PROMPT courses for remote rural units. • Encourage staff to attend 'train-the-trainer' courses to help disseminate skill development. • Support staff to attend education in other DHBs and on-line. • WCDHB provides regular face-to-face meetings with the clinical midwife manager and LMC midwives.
West Coast Maternity Services Review (May 2013)	Work is underway to implement the recommendations with some completed, some underway and some yet to be commenced.	• Two project facilitators were appointed in April 2014 to oversee the implementation of the recommendations. • Some of these 74 recommendations form part of the MQSP planned priorities 2013/14 and have been actioned.
West Coast MQSP Work Plan 2013-14	Current staffing levels and workload distribution have resulted in difficulty implementing all the planned quality improvement work. The number of vacancies in the maternity team and the small size mean resourcing to progress the work is inadequate.	• West Coast MQSP objectives have been prioritised and workload will be redistributed. • Improve resourcing to enable required activity.
Quality of Clinical care	The complexity of obstetric care at CWH is increasing.	• CDHB & WCDHB Maternity Clinical Guidelines Group is continuing to develop evidence based clinical guidelines to ensure standards and requirements of care are documented and communicated.

	The care requirements of babies on the CWH Maternity Ward are increasing and are thought to be impacting on service provision. The need to improve the cohesiveness of working relationships between Ashburton Hospital and the rural units. Difficulty maintaining medication standards and protocols where only one midwife is on duty at any time. No errors have occurred but as a 2012 Health Quality and Safety Indicator of the New Zealand Commission it is considered a priority.	• Conduct an audit to quantify the scale of this issue. • Ward-based midwives will rotate to the Neonatal Care Unit (NCIU) to gain further skills in caring for these transitional care babies. • Include rural charge nurse managers in two monthly Maternity Continuum meetings. • Network with other primary maternity services to determine strategies to manage when there is no LMC available to perform a second check when administering drugs.
Non DHB services	Timeliness of ambulance transfers to CWH from Ashburton & Rural Health Services.	• St John Territory manager to attend quarterly LMC meetings. • Conduct six monthly audits on timeliness of transfers. • Include St John Ambulance Services as an external stakeholder in the review of the In-Utero Transfer Between Hospitals Policy.
Promotion of facilities	Attracting women to birth at primary birthing units	• Promote primary maternity units project involving communications team, rural PHO, charge midwives, LMC Liaison, St George's Hospital, Canterbury and West Coast region NZCOM. • Redecorate to ensure the environments remain attractive to consumers. • Advertise widely to encourage the use of remote rural units in Ashburton and Rural Health Services. • Promote Burwood Primary Birthing Unit via a 'virtual tour' of, publicly accessible via the CDHB website. • All primary Birthing Units will have generic pamphlets, and community specific posters (see quality improvements). • The CDHB Maternity Guideline: 'Admission to Primary Birthing Unit', completed in November 2013 is easily accessible externally on-line for LMCs and consumers alike. It promotes offering and encouraging low-risk women to birth at a primary maternity unit. • Ensure attracting women to birth at primary maternity units addresses, on a larger scale, the planning and funding level objectives in the 2011 'Improving the Maternity Journey' project, and is linked to the Southern Alliance.
Reducing obstetric	Reducing intervention is a priority in the region, and addressing the high levels of	• Hold emergency caesarean section review meetings weekly at Christchurch Women's

intervention	intervention as identified in the 2011 New Zealand Maternity Clinical Indicators.	Hospital and collect data for auditing. • Provide mandatory cardiotocograph training. • Provide instrumental delivery training for obstetric registrars.
Buildings	WCDHB McBrearty Ward capacity has been reduced due to building earthquake risk and has resulted in constrained space for staff and women; Demolition of the maternity facility at St George's Hospital has resulted in their ability to only provide postnatal care to women.	• The first stage of the planning for the rebuild of Grey Base Hospital has been completed. • Birthing at St George's Maternity Centre recommenced in February 2014 in temporary facilities. A new purpose-built facility is planned.

4. Data analysis

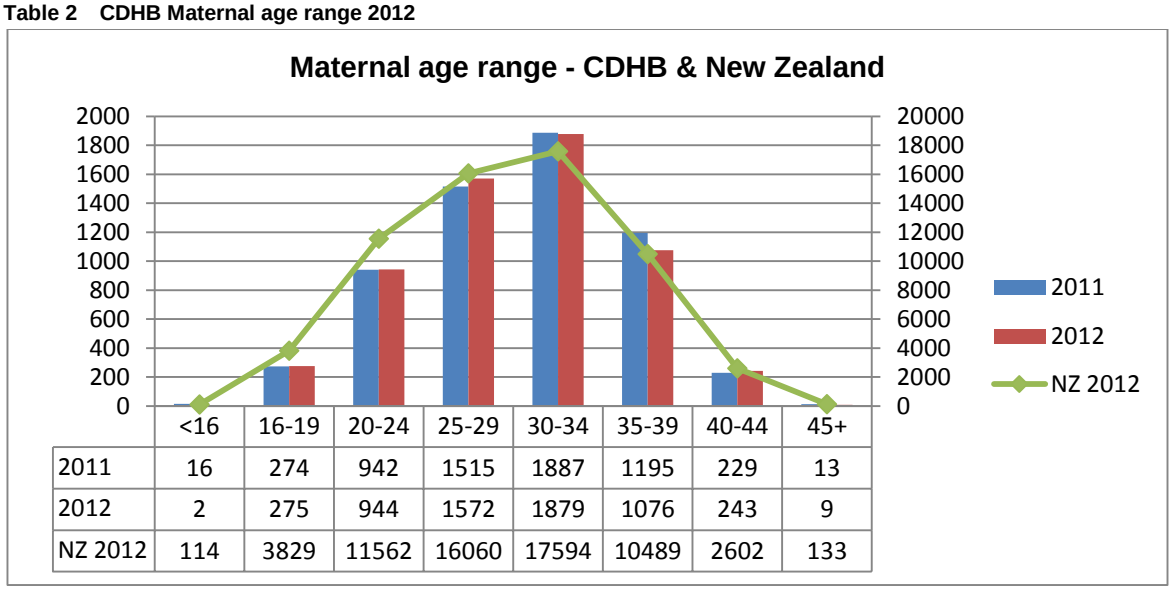
All data presented within this section is for the 2012 calendar year. The demographic data presented was sourced from the National Maternity Collection 2012, Ministry of Health.

Outcome data at DHB level

Maternal Age Range – New Zealand, CDHB and WCDHB

There were a higher proportion of women birthing at CDHB in the 30-39 year age range than the national age distribution (see Table 2).

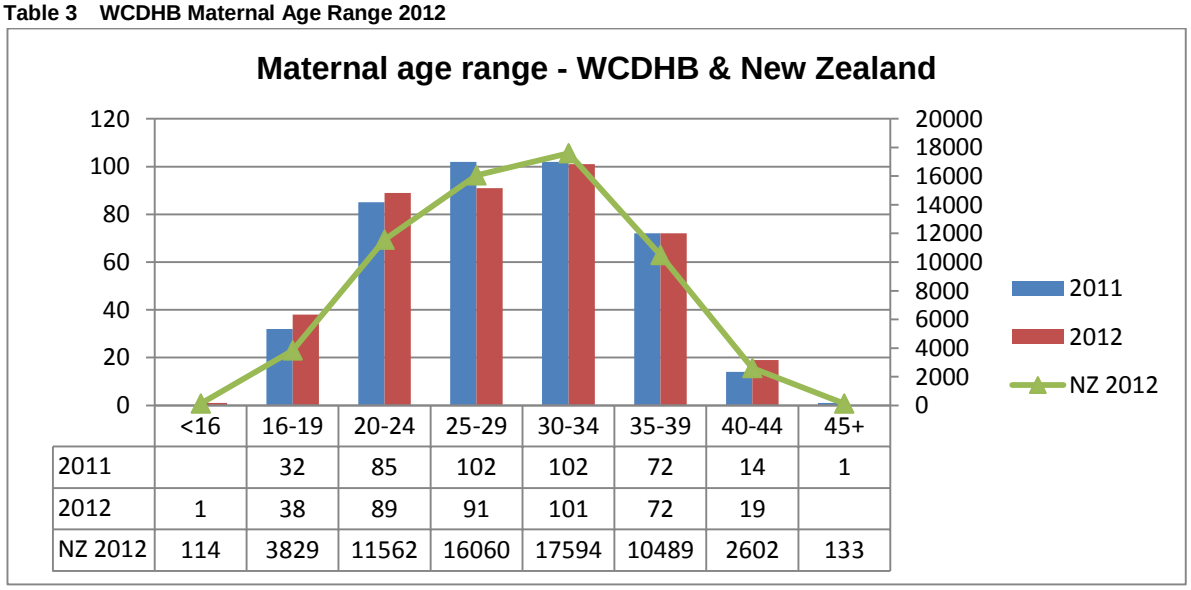
Table 2 CDHB Maternal age range 2012



	<16	16-19	20-24	25-29	30-34	35-39	40-44	45+
2011	16	274	942	1515	1887	1195	229	13
2012	2	275	944	1572	1879	1076	243	9
NZ 2012	114	3829	11562	16060	17594	10489	2602	133

The proportion of women in the 16-24 age range and the 35-39 year age range is higher in WCDHB than the national age distribution (see Table 3).

Table 3 WCDHB Maternal Age Range 2012



	<16	16-19	20-24	25-29	30-34	35-39	40-44	45+
2011		32	85	102	102	72	14	1
2012	1	38	89	91	101	72	19	
NZ 2012	114	3829	11562	16060	17594	10489	2602	133

Maternal Ethnicity – CDHB and WCDHB

The majority of women accessing CDHB and WCDHB services in 2012 were European descent (67% and 75% respectively) followed by Māori (13% and 17% respectively) (see Table 4).

Table 4 CDHB and WCDHB Maternal Ethnicity 2012

2012	CDHB	%	WCDHB	%
Asian	615	11.4	18	4.6
European	3659	67.8	295	75.6
Māori	722	13.3	67	17.1
MELAA*	115	2.1	2	0.5
Pacific Peoples	281	5.2	8	2.0
Total	5394		390	

Note * MELAA refers to Middle Eastern/Latin American/African

Maternal Parity – CDHB and WCDHB

A feature of the parity figures is the elevated figure for the 'unknown' classification in the West Coast District Health Board which appears for both years. This is because this data set is collected by MoH from LMCs claiming under Section 88 and does not represent the WCDHB employed caseloading midwives who provide primary care (see Table 5 and 6).

Table 5 CDHB Parity 2012

	2012		2011	
	N=6002	%	N=6073	%
Multiparous	3403	57	3433	58
Primiparous	2555	43	2477	42
Unknown	44		163	

Table 6 WCDHB Parity 2012

	2012		2011	
	N=390	%	N=408	%
Multiparous	95	70.4	97	62.9
Primiparous	40	29.6	43	30.7
Unknown	255		268	

Maternal Deprivation – CDHB and WCDHB

The West Coast DHB has a higher ranking of deprivation compared to CDHB (see Tables 7 and 8).

Table 7 CDHB Maternal Deprivation range 2012

	2012		2011	
	N=6002	%	N=6073	%
1	1246	20.7	1264	20.8
2	1329	22.1	1309	21.5
3	1422	23.6	1480	24.0
4	1333	22.2	1340	24.3
5	672	11.2	672	11.0

Table 8 WCDHB Maternal Deprivation Range 2012

	2012		2011	
	N=390	%	N=408	%
1	29	7.4	27	6.6
2	43	11.0	39	9.5
3	68	17.4	69	16.9
4	127	32.5	138	33.8
5	140	35.8	133	32.5

Note. New Zealand Deprivation Index (2006) provided in the Glossary of Terms

Rural spread over CDHB and WCDHB

The majority of women accessing maternity care reside in the Christchurch region (72.8%) followed by Selwyn (72.8%) and Ashburton (7.1%) (see Table 9).

Table 9 CDHB Rural Spread

	2012		2011	
	N=6002	%	N=6073	%
Ashburton	430	7.1	454	7.4
Banks Peninsula	60	1.0	84	1.3
Christchurch	4375	72.8	4387	72.2
Hurunui	143	2.3	135	2.2
Kaikoura	30	0.4	41	0.6
Selwyn	500	8.3	488	8.0
Waimakariri	464	7.7	476	7.8

Most women giving birth on the West Coast were from the Grey District, though the spread of birthing throughout the region is more even than CDHB (see Table 10).

Table 10 WCDHB Rural Spread

	2012		2011	
	N=390	%	N=408	%
Buller	134	34.3	114	27.9
Grey	194	49.7	189	46.3
Westland	83	21.8	105	25.7

Registration with Primary Maternity Services (LMC or DHB) by Trimester

In 2012 the number of women who registered with primary maternity services within the first trimester within CDHB has remained consistent with that of 2011 (73.3%) This is higher than the 2012 national average of 63% (see Table 11).

Table 11 CDHB Primary Maternity Services Registration by Trimester

	2012		2011	
	N=6002	%	N=6073	%
First	4415	74.0	4300	73.3
Second	1325	22.2	1362	23.2
Third	176	2.9	195	3.3
Postnatal	45	0.7	4	0.06
Unknown*	41		212	

***Note** ** Reporting of DHB primary maternity services data for 2012 is incomplete; this is the origin of the remaining 'unknowns'.

The reason for the 15% increase in the number of women who registered in the first trimester in 2012 (62.5%) in WCDHB, in comparison to 2011 (47.3%), is that in 2012 the Ministry of Health commenced collecting DHB-funded primary maternity services data. This has resulted in data being collected from both LMCs and DHBs providing primary maternity services (see Table 12).

Table 12 WCDHB Primary Maternity Services Registration by Trimester

	2012		2011	
	N=390	%	N=408	%
First	165	62.5	62	47.3
Second	75	28.4	48	36.6
Third	17	6.4	20	15.2
Postnatal	7	2.6	1	0.7
Unknown*	126		277	

***Note** ** Reporting of DHB primary maternity services data for 2012 is incomplete; this is the origin of the remaining 'unknowns'.

Births by Facility Type

The highest number of births was at Christchurch Women's Hospital which provides primary, secondary and tertiary facilities (see Table 13). The main West Coast facility is a primary and secondary level service and this was the location for the highest number of births for the WCDHB (see Table 14).

Table 13 CDHB Facility of Birth

	2012		2011	
	N=6002	%	N=6073	%
Tertiary	5178	86.7	5093	84.6
Secondary	10	0.1	54	0.8
Primary	575	9.6	635	10.5
Home	204	3.4	238	3.9
Unknown	35		53	

Table 14 WCDHB Facility of Birth

	2012		2011	
	N=390	%	N=408	%
Tertiary	33	8.4	35	8.5
Secondary	302	77.4	299	73.2
Primary	21	5.3	21	5.14
Home	31	8	52	12.7
Unknown	3		1	

Maternity Outcome Data at DHB Level, 2012

Data for this section is sourced from CDHB and WCDHB for the calendar year of 2012**.**

Induction of Labour

In 2012, the rate of induction of labour was 20.5%. Overall, this rate increased from 2006 to 2012 (p-value<0.0001, Cochran-Armitage Trend test). Twenty-five percent of these women went on to have a caesarean section (95% emergency / 5% elective) (see Table 15).

Table 15 CDHB Induction of Labour 2006-2012

	Number of women undergoing IOL	Total number of women giving birth	%
2006	1106	5516	20.1
2007	999	5807	17.2
2008	1037	5977	17.3
2009	1157	5976	19.4
2010	1301	6089	21.4
2011	1219	5756	21.2
2012	1192	5807	20.5

Figure 2 CDHB induction of Labour, 2006-2012

In WCDHB in 2012, 37 out of 296 (12.5%) women underwent an induction of labour (see Table 16).

Table 16 WCDHB Induction of Labour 2012

	N=296	%
Induction of labour	**37**	**12.5**

Mode of Birth

In 2012, 5807 women birthed within CDHB, including 4157 vaginal births and 1650 caesarean sections. The spontaneous vaginal birth rate showed a remarkable increase from 2011 to 2012 (54.5% vs 58.3%, p-value<0.0001, Chi-square test). On the other hand, both instrumental vaginal birth rate and caesarean section rate dropped significantly over the two years (p-value=0.0277 and 0.0063 respectively, Chi-square test).

However, when looking across all seven years, a significant downward trend was noted for spontaneous vaginal birth rate (p=0.0011, Cochran-Armitage Trend test). Instrumental vaginal birth rate increased significantly over the years (p=0034, Cochran-Armitage Trend test). The rate of caesarean section was fairly similar across time and therefore no clear trend was observed (p-value=0.1931, Cochran-Armitage Trend test (see Table 17).

Table 17 CDHB Mode of Birth

	2012		2011	
	N=5807	%	N=5756	%
Vaginal birth	**4157**	**71.6**	**3986**	**69.2**
Spontaneous	3385	58.3	3138	54.5
Instrumental	772	13.3	848	14.7
Forceps	361	6.2	356	6.2
Vacuum extraction	411	7.1	492	8.5
Caesarean section	**1650**	**28.4**	**1770**	**30.8**
Elective	811	14.0	910	15.8
Emergency	839	14.5	860	14.9

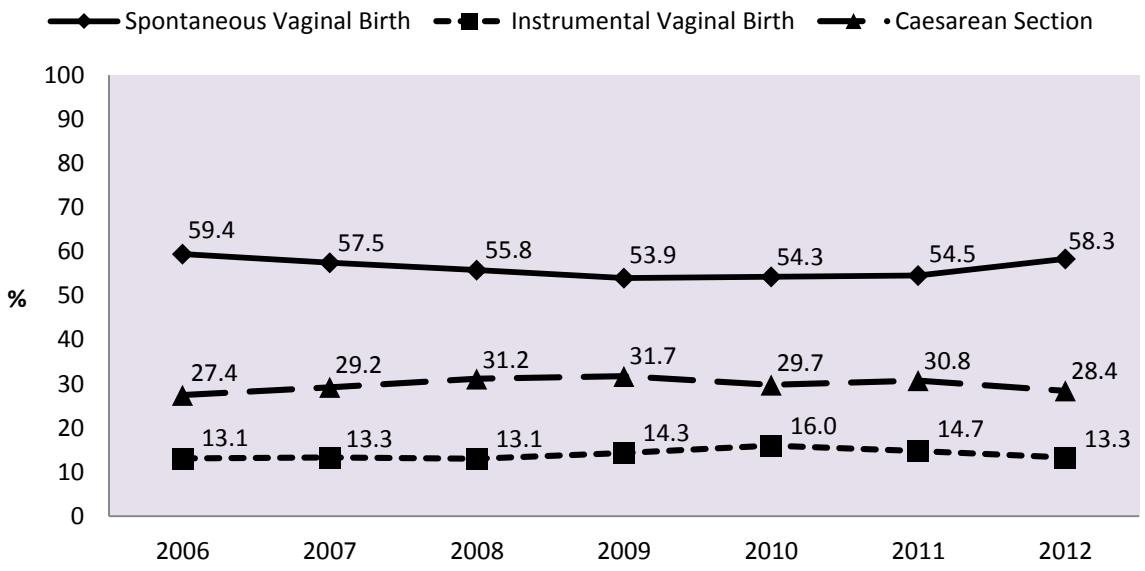


Figure 2 CDHB Mode of Birth 2006-2012

In 2012, within WCDHB, 296 women birthed, including 199 vaginal births and 97 caesarean sections. Spontaneous vaginal birth rate dropped significantly from 2011 to 2012 (66.4% vs 56.1%, p-value=0.0136, Chi-square test). The rise observed in instrumental vaginal birth rate and caesarean section rate was not statistically significant (p-value=0.1192 and 0.1190 respectively, Chi-square test) (see Table 18).

Table 18 WCDHB Mode of Birth

	2012		2011	
	N=296	%	N=283	%
Vaginal birth	**199**	**67.2**	**208**	**73.5**
Spontaneous	166	56.1	188	66.4
Instrumental	33	11.2	20	7.1
Forceps	13	4.4	5	1.8
Vacuum extraction	20	6.8	15	5.3
Caesarean section	**97**	**32.8**	**75**	**26.5**
Elective	47	15.9	30	10.6
Emergency	50	16.9	45	16.0

Birth after Caesarean Section

The rate for vaginal birth after one previous caesarean section in 2012 was 5.3%, significantly higher than that in 2011 (p-value<0.0001, Chi-square test) (see Table 19).

Table 19 CDHB Birth after Caesarean Section

	2012		2011	
	N=5807	%	N=5756	%
BAC	**309**	**5.3**	**212**	**3.7**

Breech Births

In CDHB 173 women had breech presentation at birth in 2012. Clear association was observed between breech presentation and subsequent mode of birth. Majority of women with a breech presentation underwent a Caesarean section (p-value<0.0001, Chi-square test) (see Table 20).

Table 20 CDHB Breech Births by Mode of Birth 2012

	Vaginal birth	Caesarean section	Total
Breech	23 (13.3%)	150 (86.7%)	173
Non-breech	4134 (73.4%)	1500 (26.6%)	5634
Total	4157 (71.6%)	1650 (28.4%)	5807

In WCDHB, 19 women had a breech presentation at delivery in 2012. Women with a breech presentation were more likely to undergo a subsequent caesarean section compared to those without breech presentation (84.2% vs 29.2%, p-value<0.0001, Chi-square test) (see Table 21).

Table 21 WCDHB Breech Births by Mode of Birth 2012

	Vaginal birth	Caesarean section	Total
Breech	3 (15.8%)	16 (84.2%)	19
Non-breech	196 (70.8%)	81 (29.2%)	277
Total	199 (67.2%)	97 (32.8%)	296

Post-partum Haemorrhage

The data presented includes only those women who experienced a primary post partum haemorrhage of 1000-1500ml as this measure is more indicative of potential maternal compromise.

Table 22 shows that 189 out of 4157 (4.5%) women in CDHB experienced a primary post-partum haemorrhage of 1000ml or more following vaginal birth, with 1.4% losing more than 1500ml. For women undergoing caesarean sections, 21 out of 1650 (1.3%) lost more than 1500ml. The observed discrepancy between the two modes of birth was shown to be statistically significant (p-value<0.0001, Chi-square test).

Table 22 CDHB Postpartum Blood Loss by Mode of Birth 2012

	PPH <1000ml	PPH 1000-1500ml	PPH >1500ml	Total
Vaginal birth	3968 (95.5%)	129 (3.1%)	60 (1.4%)	4157
Caesarean section	1513 (91.7%)	116 (7.0%)	21 (1.3%)	1650
Total	5481 (94.4%)	245 (4.2%)	81 (1.4%)	5807

In WCDHB eight women experienced a primary post-partum haemorrhage of 1000ml or more, with two of them undergoing caesarean section and the rest birthing vaginally. No clear association was found, possibly due to small numbers (p-value=0.2815, Fisher's exact test) (see Table 23).

Table 23 WCDHB Postpartum Blood Loss by Mode of Birth 2012

	PPH <1000ml	PPH 1000-1500ml	PPH >1500ml	Unknown	Total
Vaginal birth	185 (93.0%)	3 (1.5%)	3 (1.5%)	8 (4.0%)	199
Caesarean section	87 (89.7%)	2 (2.1%)	0 (0%)	8 (8.2%)	97
Total	272 (91.9%)	5 (1.7%)	3 (1.0%)	16 (5.4%)	296

Epidural Analgesia

Of the 4157 women who birthed vaginally, 905 received epidural analgesia in labour, demonstrating a significant rise from 2011 (21.8% vs 10.3%, p-value<0.0001, Chi-square test (see Table 24). This rate differed significantly between spontaneous and instrumental vaginal birth (13.3% vs 59.1%, p-value<0.0001, Chi-square test) (see Table 25).

Table 24 CDHB Epidural Analgesia among Women who Birthed Vaginally

	2012		2011	
	N=4157	%	N=3986	%
Epidural analgesia	**905**	**21.8**	**409**	**10.3**

Table 25 CDHB Epidural analgesia among women who Birthed Vaginally 2012

	Epidural	Non-epidural	Total
Spontaneous	449 (13.3%)	2936 (86.7%)	3385
Instrumental	456 (59.1%)	316 (40.9%)	772
Total	905 (21.8%)	3252 (78.2%)	4157

In WCDHB, of the 199 women who birthed vaginally, three received epidural analgesia in labour (see Table 26).

Table 26 WCDHB Epidural Analgesia among Women who Birthed Vaginally 2012

	N=199	%
Epidural analgesia	**3**	**1.5**

Perineal Trauma

Of the 4157 women giving birth vaginally, 19.8% underwent an episiotomy, remaining consistent with that in 2011 (p-value=0.6527, Chi-square test). Almost three-quarters of women (71.8%) who had an instrumental vaginal birth underwent an episiotomy, as compared to 8.0% of those having a spontaneous vaginal birth (p<0.0001, Chi-square test). Fewer women experienced third or fourth degree tears in 2012 than in 2011 (2.3% vs 4.7%, p-value<0.0001, Chi-square test) (see Table 27).

Table 27 CDHB Perineal Trauma among Women who Birthed Vaginally

	2012		2011	
	N=4157	%	N=3986	%
Episiotomy	**824**	**19.8**	**807**	**20.2**
Spontaneous vertex delivery	270	6.5	236	5.9
Forceps	338	8.1	308	7.7
Vacuum extraction	216	5.2	263	6.6
3rd or 4th degree tears	**97**	**2.3**	**188**	**4.7**
Spontaneous vertex delivery	70	1.7		
Forceps	18	0.4		
Vacuum extraction	9	0.2		

***Note**:* no breakdown of information is available for 3rd or 4th degree tears for 2011 for this type of birth

A higher number of women experienced episiotomy during an assisted delivery in comparison to those women who had a spontaneous birth. (see Table 28).

Table 28 CDHB Perineal Trauma among Women who Birthed Vaginally 2012

	Episiotomy	Non-episiotomy	Total
Spontaneous	270 (8.0%)	3115 (92.0%)	3385
Instrumental	554 (71.8%)	218 (28.2%)	772
Total	824 (19.8%)	3333 (80.2%)	4157

In WCDHB of the 199 women giving birth vaginally, 13.1% underwent an episiotomy. A further 2.5% experienced third or fourth degree tears (see Table 29).

Table 29 WCDHB Perineal Trauma among Women who Birthed Vaginally 2012

	N=199	%
Episiotomy	**26**	**13.1**
3rd or 4th degree tears	**5**	**2.5**

Birth and Perinatal Outcomes

In 2012, 5807 women birthed within CDHB. One hundred-and-thirty-five women had multiple births including 99 twins and one set of triplets, providing a total of 5908 babies born. Thirty-five stillbirths and nine neonatal deaths were recorded (see Table 30).

Table 30 CDHB Birth and Perinatal Outcomes

	2012		2011	
Among all women	**N=5807**	**%**	**N=5756**	**%**
Twin	99	1.7	86	1.49
Triplet	1	0.02	1	0.02
Among all babies	**N=5908**	**%**	**N=5844**	**%**
Stillbirth	35	0.59	36	0.62
Neonatal death	9	0.15	9	0.15
Among all term babies	**N=5283**	**%**		
Term babies admitted to NICU	348	6.6		

In 2012, 296 women birthed within WCDHB. Three women had twins, providing a total of 299 babies born. Two stillbirths were recorded (see Table 31).

Table 31 WCDHB Birth and Perinatal Outcomes 2012

	2012	
Among all women	**N=296**	**%**
Twin	3	1.0
Triplet	0	0
Among all babies	**N=299**	**%**
Stillbirth	2	0.67
Neonatal death	0	0
Among all term babies	**N=280**	**%**
Term babies admitted to NICU	1	0.36

Preterm Births

In general, the rate of preterm births has remained consistent in comparison to the previous year (2011). Only moderate preterm birth increased significantly from 0.6% to 1% (p-value=0.0073, Chi-square test) (see Tables 32 and 33).

Table 32 CDHB Preterm Births

	2012		2011	
	N=5908	**%**	**N=5844**	**%**
Extremely preterm (<28 weeks)	39	0.7	41	0.7
Very preterm (28-31 weeks)	61	1.0	61	1.0
Moderate preterm (32-33 weeks)	59	1.0	32	0.6
Late preterm (34-36 weeks)	387	6.6	384	6.6
Term (37-41 weeks)	5283	89.4	5265	90.1
Prolonged (>=42 weeks)	79	1.3	61	1.0

Table 33 WCDHB Preterm Births 2012

	2012	
	N=299	%
Extremely preterm (<28 weeks)	1	0.3
Very preterm (28-31 weeks)	2	0.7
Moderate preterm (32-33 weeks)	1	0.3
Late preterm (34-36 weeks)	14	4.7
Term (37-41 weeks)	280	93.6
Prolonged (>42 weeks)	1	0.3

Breastfeeding

In 2012 75.2% of babies (n=4,444) were discharged from CDHB facilities exclusively breastfeeding; 5.2% fully breastfeeding (n=309); and 8.3% (n=489). St George's Maternity Centre numbers are included in CDHB (see Table 34).

Table 34 CDHB Breastfeeding Rates

	2012		2011	
	N=5908	%	N=5844	%
Exclusively breastfeeding	4444	75.2	4393	75.2
Fully breastfeeding	309	5.2	282	4.8
Partial breastfeeding	489	8.3	467	8.0
Bottle feeding	172	2.9		
Unknown	494	8.4		

In 2012, 255 (83%) babies born in WCDHB facilities were identified as exclusively breastfeeding on discharge (see Tables 35 and 36). These statistics are in accordance with the Baby Friendly Hospital Initiative (BFHI) audit standards and the UNICEF/WHO global criteria, which state that maternity facilities are required to achieve at least 75% exclusive breastfeeding rate at discharge.

Table 35 WCDHB Breastfeeding rates 2012 McBrearty Ward

	2012	
	N=286	%
Breastfeeding (exclusive)	238	83
Bottle feeding	15	0.05
Partial	20	0.06
Artificial	13	0.50

Table 36 WCDHB Breastfeeding Rates 2012 Kawatiri Birthing Unit

	2012	
	N=20	%
Breastfeeding (exclusive)	17	85
Bottle feeding	3	15
Partial	0	0
Artificial	0	0

Maternity Clinical Indicators

The Ministry of Health has advised the District Health Boards that its New Zealand Clinical Indicators 2012 will not be published until July 2014 because the Ministry is amending the definition of standard primiparae and expanding the number of Clinical Indicators.

Therefore, as the release of the Maternity Clinical Indicators 2012 is post the submission date of this report the analysis of the Maternity Clinical Indicators 2011 is provided in Section 5 ‘Quality Improvement’ of this report.

5. Quality Improvement

Analysis of New Zealand Maternity Clinical Indicators 2011 - CDHB

The Ministry of Health published these Maternity Clinical Indicators with the purpose of increasing the visibility of the quality and safety of maternity services, to highlight areas where quality improvements could be made and CDHB is strongly in favour of this principle and approach. The first report for 2009 data was published in 2012, and the 2011 data in May 2013.

There are 12 indicators which cover a range of procedures and outcomes for mothers and their babies with frequent reference to 'standard primiparae' who make up 16% of all births in CDHB. This group (aged 20-34 years, with an uncomplicated singleton pregnancy at full term, cephalic) represent the least complex situations in which intervention rates would be expected to be low, and can be compared between institutions.

CDHB is also a member of Women's Healthcare Australasia (WHA) which provides another useful benchmarking tool as it collates the same and similar indicators from 26 member maternity care units across Australasia. CDHB has undertaken a detailed review of these results from 2011/12.

The key outcomes for maternity services remain healthy mothers and healthy babies.

The measured indicators for the health of the mothers are the degree of damage to the lower genital tract and the need for blood transfusion following birth. The latter is used as a measure of severe life threatening post partum haemorrhage and the data demonstrate that the rate for women at CDHB was lower than the National New Zealand rate in 2009 and show continued improvement, remaining below the national rate in 2011. The indicators used for the degree of damage to the lower genital tract also show a lower than average rate of third and fourth degree perineal tears.

The only measured indicators for the outcomes from the babies' perspective is that of premature birth, which the New Zealand 2011 Maternity Clinical Indicators for CDHB show as slightly higher than the national rate, as would be expected for a regional tertiary unit.

In addition the 2009/10 WHA data looked at the presence of Hypoxic Ischemic Encephalopathy in babies which for CDHB was 0.39% lower than the average at comparable units of 0.7%, but this measure was not included in the 2011 report.

Analysis of individual indicators (2011 data)

Indicators 1 – 4

These indicators are about the type of birth among standard primiparae (see Appendix A). Their stated purpose is to encourage maternity service providers to review the appropriateness of interventions, with the long term aim of reducing maternal and perinatal morbidity.

There is no national or international recommendation regarding the optimum proportion of deliveries by caesarean section or instrumental delivery, although the WHO acknowledges that a caesarean section rate of less than 15% has a negative impact on neonatal outcomes. There has been a worldwide pattern of increasing caesarean section rates in the increasingly risk averse climates of Organisation for Economic Co-operation and Development (OECD) countries.

Indicators 1 and 2 Spontaneous and Instrumental Vaginal Birth

Clinical Indicator 1 shows that the rate of spontaneous vaginal births for standard primiparae in Canterbury in 2011 overall was 61.2% *(62.8% 2010, 58% 2009),* which is lower than the national average of 70%. The bulk of the difference is due to a relatively high rate of instrumental delivery at 21.3 % *(21.9% 2010, 22.2% 2009)* versus the national average of 13.9%.

This discrepancy is recognised and is the subject of ongoing audit and review. The origin is multifactorial. However, an audit of 103 assisted deliveries carried out in the operating theatre in September 2011 demonstrated that they were indicated according to internationally recognised guidelines. A further audit of 116 cases in which assisted deliveries were carried out in the birthing rooms was completed in December 2011. This showed a large proportion occurred outside office hours, including a significant number where the specialist obstetrician had not been

involved in the decision making and there was inconsistent use of oxytocin for augmentation, but fetal outcomes overall were noted to be good.

Subsequent actions have included implementation of a detailed credentialing process for obstetric registrars regarding their need for supervision, regular teaching sessions for obstetric registrars regarding instrumental birth, and the rewriting of relevant guidelines such as the Induction of Labour Guideline. Repeat audit of assisted deliveries is planned for 2014. The multidisciplinary maternity guidelines group is also in the process of completing a guideline for management of the second stage of labour, with the aim of supporting medical and midwifery staff to have a consistent approach and ensure all interventions are truly clinically indicated.

Indicator 3 Caesarean Section

The rate of caesarean section for standard primiparae in 2011 in Canterbury was 17.5 % (*14.8% 2010, 18.6% 2009)* which is not statistically significantly above the national average of 15.5%. Of note the WHA average in 2011/12 was 23.1% with a lower than average rate at Christchurch Women's Hospital of 21.5%.

Ongoing audit of clinical practice continues in conjunction with development of a robust computerised system for accurate data collection. Improved accreditation for medical staff in training and an increase in senior staff levels now allow consultant supervision to be correctly targeted. The aim is to optimise intervention rates for the CDHB population and to continue to achieve healthy outcomes for both mothers and babies.

Indicator 4 Induction of Labour

The rates of induction of labour are expected to be low for this defined low risk group, which is confirmed to be the case in Canterbury at 4.0% *(4.3% 2010, 4.2% 2009)* vs. the national average of 4.3%.

The WHA average for this indicator is 29.8%, with the corresponding figure for CWH being significantly lower at 19.7%. The difference in definition of standard primiparae accounts for the significantly higher figures for WHA, but the inter-unit comparisons remain valid within that dataset, and the local rate is low compared to the peer group.

The CWH evidence based for Induction on Labour Guideline has recently been revised with the aim of decreasing the rate further, and improving quality of care and experience for families.

Indicators 5 - 8

These indicators, which are about the degree of damage to the lower genital tract of the woman, demonstrate that this is not increased for the Canterbury population. The rate of standard primiparae giving birth vaginally with intact lower genital tract (Indicator 5) in 2011 was 33.3% which is closely in line with the national average of 33.1%

Indicators six and eight are about episiotomy with and without third and fourth degree tear. The rate of episiotomy with no third/fourth degree tear was 25.4% in CDHB *(24.9%, 2010, 27.4% 2009)* versus the national average of 19.0% and the rate of episiotomy with such tears was only 0.6% *(2010 1.1%, 1.3% 2009)* versus a national average of 1.1%.

The relatively high rate of episiotomy overall is partially accounted for by the higher than average assisted birth rate, during which episiotomy is recommended by international standards of best practice. The rate of third or fourth degree tear without episiotomy among standard primiparae giving birth (Indicator 7) for the CDHB population is 2.7% *(2.5 % 2010, 1.8% 2009)* which is significantly below the national average value of 3.2%.

This data suggests that episiotomy is being used appropriately to avoid third and fourth degree tears.

Indicator 9: General Anaesthetic for Caesarean Section

The rate of general anaesthetic use for caesarean section in CDHB is low at 5.2% *(5.1% 2010, 6.0% 2009)* which is significantly lower than the national average of 8.4%. This corresponds favourably with best practice recommendations regarding the safety for both the woman and neonate when regional anaesthesia is used and reflects the presence of a consistent dedicated obstetric anaesthetic service at CWH.

Indicator 10 and 11: Blood transfusion after Caesarean Section and Vaginal Birth

The proportion of women undergoing blood transfusion after caesarean section was 2.6 % *(2.2% 2010, 3.3% 2009)* which is below the national rate of 3.3%, and following vaginal birth it was 1.1% *(1.7% 2010, 1.4% 2009)* which is also significantly below the national rate of 1.6%.

The rate of transfusion is used as a measure of severe life threatening haemorrhage, and the results show that in CDHB this is consistently lower than the national average rate, with continuous improvement being seen.

Indicator 12: Premature birth at 32-36 weeks gestation
The rate of premature birth in CDHB was 6.9% (6.4% 2010, 6.7% 2009) which was slightly higher than the national average of 6.7%. The variation is small and unlikely to be significant. We have a static multiple pregnancy rate which contributes to this. Reductions may be seen as the smoking in pregnancy rate reduces further.

Analysis of New Zealand Maternity Clinical Indicators 2011 - WCDHB

Clinical Indicators 1 – 3

These indicators work in conjunction to demonstrate how a unit manages labour in these low risk women. WCDHB had a high spontaneous vaginal birth rate in at 76.5% in 2011, 6.4% above the national average, although this had decreased by 5% from 2010. The rate of caesarean section, however, was only 9.8% in 2011, 5.7% below the national average and trending down by 1% from 2010. The remainder of the births were by assisted vaginal delivery and although the rate had increased by 4.1% since 2010 it is likely that this is the effect of small numbers and may also indicate assisted vaginal delivery being achieved rather than delivery by caesarean section. All assisted deliveries at WCDHB are undertaken by specialist obstetricians as WCDHB do not have any obstetric registrars. In other centres higher rates of caesarean section have been noted at times when fully trained senior staff are not present.

In general, WCDHB is managing labour and delivery effectively in the standard primiparae and further work will be carried out to investigate how WCDHB can continue to improve vaginal birth rates and maintain the lower caesarean section rates.

Indicator 4: Induction of labour among standard primiparae
WCDHB had an induction of labour rate in 2011 more than double that of the national average (9.8%) and significantly higher than 2010 (4.6%). It is unclear what the cause of this has been. However, WCHB now use a suitably adapted version of the CDHB 'Induction of Labour' guideline and have been working on ensuring that appropriate dating of gestation is used to decide when to induce labour in prolonged gestation. Further work will be carried out to audit inductions and ensure that the guidelines are met.

Indicators 5 and 6: Intact lower genital tract among standard primiparae giving birth vaginally
WCDHB shows improvement in the rate of intact lower genital tract at 37.8% with a decrease from the 2010 figures of 46.6% by 8.8%. While this is still 4.7% higher than the average it is trending in an appropriate direction. The rate of 11.1% for episiotomy without 3rd or 4th degree tear is 7.9% below the national average and improved by 2.7% from 2010 (13.8%). In general it appears that management of the perineum is improving at WCDHB and further work will be carried out to investigate how WCDHB can continue to improve this.

Indicators 7 and 8: Third- or fourth- degree tear and no episiotomy among standard primiparae giving birth
No data is available for these two indicators at WCDHB. However, the recently instituted database is recording information on all the maternity indicators and WCDHB will in future be able to review clinical practice in comparison with the national standards.

Indicator 9: General Anaesthetic for Women giving Birth by Caesarean Section
In 2011, WCDHB had a rate of 10.8%, 2.4% higher than the national average and 1.6% higher than 2010 (9.2%). During this time WCDHB was without a labour epidural service. It was possible for a spinal to be sited for women presenting acutely for caesarean section. However the decision to use general or spinal anaesthetic was made by the anaesthetist and specialist obstetrician present at the time in the best interests of the woman and the baby. With reinstitution of a labour epidural service it is anticipated that the use of general anaesthetic will reduce. This area will continue to be reviewed.

Indicator 10: Blood transfusion during Birth Admission for Caesarean Section Delivery
The blood transfusion during birth admission for caesarean section delivery rate for WCDHB in 2011 was 1.1%, half that of the previous year (2.3%). This rate was 2.2% below the national average and the lowest of all of the DHBs that provided data. This indicates that blood loss at caesarean section is well managed and WCDHB will continue to monitor this indicator to ensure that low transfusion rates are maintained.

Indicator 11: Blood Transfusion during Birth Admission for Vaginal Birth

WCDHB had a blood transfusion rate of 0.8%, half that of the national average indicating good management of third stage and post partum haemorrhage. WCDHB will continue to monitor this to ensure maintenance of these low rates. WCDHB are following the new National Guideline for Post Partum Haemorrhage and have now standardised management for postpartum haemorrhage.

Indicator 12: Premature Birth (at 32-36 weeks gestation)

WCDHB in 2011 had a premature birth rate of 7.3%, 1.2% above the national average. Although 1.4% lower than the 2010 (8.7%), this requires further investigation and may be related to WCDHB demographics with high deprivation and low incomes which are well recognised risk factors for prematurity.

Analysis of Maternity Outcome Data at DHB Level – CDHB

Induction of Labour

In May 2013, a multidisciplinary working group was formed to revise the Induction of Labour Guideline. In response to the increase in induction rate since 2006 (see Table 15 and Figure 2) the group identified that the current guideline lacked clinical guidance regarding specific circumstances where induction of labour may be undertaken and conversely situations where it was not considered an indication for induction. As a result, an updated guideline was published in April 2014 addressing these issues as well as including methods and management of induction and a section outlining the general risks associated with induction.

Previously, women who were low risk and essentially post dates only, were triaged via the Day Assessment Unit. This was reviewed and is now undertaken in Birthing Suite by a midwife Clinical Coordinator. This ensures that women must meet the criteria for post dates to be offered a space. All other induction requests remain with Maternity Outpatients Clinic where an appointment is made for women to attend to review the induction request. The Induction of Labour Guideline adds clarity to these decisions.

The updated Induction of Labour Guideline incorporated the introduction of dinoprostone to replace prostin gel. An audit is currently being planned to review the implementation of this part of the guideline to date, including outcomes.

Breech

In 2012, 173 women at CWH had a breech presentation at birth, representing 3% of CDHB's birthing population, which is in keeping with international data. Of these women, 13% birthed vaginally with the remaining 87% birthing by caesarean section (see Table 20).

In an aim to reduce the absolute number of women delivering by caesarean section for breech presentation at CDHB has:

- Implemented a new maternity guideline entitled Breech Birth, supporting women's choices for birth;
- Employed a higher number of specialist obstetricians who are experienced operators at breech vaginal birth;
- Employed a higher number of specialist obstetricians who are trained to perform external cephalic version (ECV);
- Is in the process of developing a new information leaflet and video for women about ECV;
- Continues to train and credential obstetric registrars in ECV and breech vaginal birth.

Caesarean Section, Instrumental and Vaginal Births

In 2012 there were 4,157 vaginal births (71.6%) and 1,650 caesarean sections (28.4%) in CDHB. This includes a significant increase in spontaneous vaginal birth rate at 58.3% compared to 54.5% the preceding year, despite the overall trend for spontaneous vaginal birth across the longer seven year period from 2006 being downwards (p=0.0011), with the peak value in 2006 of 59.4%. Over the same seven year period the assisted birth rate increased (p=0.0034) with a peak value of 16% in 2010, falling significantly to a 2012 rate of 13.3 % (p=0.03). Overall the assisted birth rate remains virtually unchanged from 2006 when it was 13.1%. The caesarean section rate over the seven years was statistically stable (p=0.19) with a 2012 rate of 28.4% falling from 31.7% in 2009 to 28.4% in 2012 (p=0.006) (see Table 17).

Measures put in place to continue this downward trend in assisted birth and to reduce the caesarean section rate have included the publication and implementation of guidelines for induction of labour, and for registrar supervision by specialist obstetricians for assisted births. CDHB has also introduced practical training regarding assisted births for obstetric registrars every six months, and increased the visibility of their credentialing status as an aid to appropriate supervision. A weekly education/audit meeting is held regarding emergency caesarean section births, and a dedicated Birth after Caesarean Clinic was started in 2013. Audits of the Birth after Caesarean Clinic, supervision of registrars, and adherence to the induction of labour guideline are ongoing.

The national maternity indicator reports are consistent with the above, and CDHB looks forward to observing the impact of these measures.

Birth after Caesarean Section

The CDHB rates of vaginal birth after one caesarean section as shown in Table 19 have increased from 3.7% in 2011 to 5.3 % in 2012. In November 2011, a multidisciplinary team including obstetric, core midwifery and LMC representation embarked on a project following the 2011 New Zealand National Health Round Table (HRT) meeting "To design, implement, establish and audit a midwifery-led early intervention Birth after Caesarean Section Clinic".

As a service CDHB was acutely aware of the need to actively reduce the caesarean section rate, but that it would require more than one strategy to achieve this. Increasing the rate of vaginal birth after caesarean rate was one of these strategies.

The Birth after Caesarean Working Group reviewed current international evidence and recommendations and developed a birth after caesarean section guideline for clinicians. This was endorsed by the CDHB/WCDHB Maternity Guidelines Group and published on the CDHB internet.

Complementing this Birth after Caesarean Guideline a number of workshops for staff and LMCs were scheduled, and continue to run. Included is a review of the latest evidence on birth after caesarean and trial of labour, an update on the BAC clinic and guest speakers from the obstetric, core midwifery and the LMC Liaison.

A triage system was also developed to follow on from referrals from the primary setting, i.e. GP or LMC, and a weekly outpatient BAC clinic facilitated by two senior medical officers and a midwife commenced in May 2013. Currently a midwife is unavailable for the BAC clinic, this role has been re-scoped and we are looking at securing a sustainable midwifery full-time equivalent role the clinic.

A Birth after Caesarean Section HealthPathway is available and this gives primary care providers with a consistent referral pathway for women receiving antenatal care. Information for women is available online at Canterbury HealthInfo.

Birth and Perinatal Outcomes

The CHDB stillbirth rate of 0.59% and neonatal death rate of 0.15% as shown in Table 30 are statistically unchanged. An audit is currently been undertaken to review the documentation and investigations completed at the time of perinatal loss. This audit is reviewing whether the investigations are in line with the best practice guidelines from the Perinatal Society of Australia and New Zealand. A quality improvement survey was introduced in 2013 and given to women who suffered a perinatal loss. These findings have been circulated to staff involved in their care. This has led to ongoing multi-disciplinary in-service education for staff that care for women and their families when their baby has died.

Third and Fourth Degree Tears

Perineal trauma data (Table 22) has been highlighted as an area to improve on. The recent Health Roundtable meeting in Australia in May 2014 on this issue shows it to be an area of concern throughout Australasian hospitals. Quality improvement suggestions that have come from this meeting included:

- Use of perineal massage antenatally, and intra-partum with the use of warm compresses.
- Close inspection of perineum and episiotomy when needed.
- Deliver versus 'catch' the baby.
- Inspection of perineum by two clinicians/midwives for correct identification of trauma.
- Credentialing process to ensure high standard of repair.
- Robust follow-up process involving LMC, GP, physiotherapist and Maternity Outpatients Department.

Following these Health Roundtable recommendations the CDHB is in the process of developing an educational strategy with hospital-based and community-based practitioners to appraise these practices and consider adopting them.

In January 2014, a new community-based follow-up process was implemented for women who had sustained 3rd and 4th degree tears. This process includes:

- Completion of the Perineal Injury Repair Record at birth;
- Provision of education and a supporting pamphlet for the woman on arrival in the maternity ward;
- Consultation by the physiotherapist and dietician on ward prior to discharge;
- Discharge summary sent to the GP identifying women for six month recall;
- Six week checklist pro-forma sent to LMC midwife at four weeks postpartum;
- Postnatal check conducted by LMC midwife at six weeks postpartum in accordance with the assessment tool; Women needing further treatment are referred to Physiotherapy in the first instance then to Women's Outpatients Department if required, and are triaged accordingly;

The aims of this quality initiative ensure:

- 'Right person, Right place Right time'; to only see women in Women's Outpatients Department who require medical input;
- Empowering the GP and physiotherapist role in providing treatment for women with 3rd and 4th degree tears;
- Improving the patient journey by providing holistic, women centred care;
- Reducing waste and improve service efficiency for women in the Canterbury region.

Breastfeeding

The data presented in Table 34 in this report shows there has been very little change in the percentage of women breastfeeding on discharge. Collecting data once mother and baby have been discharged has proven challenging. CDHB and WCDHB have established stronger data collection mechanisms from Well Child/Tamariki-Ora providers to ensure good quality data is captured to enable measurement of progress against these priority plans.

The Maternity Clinical Governance Committee endorsed a two year CDHB Plan for Breastfeeding at its April 2014 meeting. This covers the whole maternity journey from the antenatal period through the birth and after birth and the first year after birth. WCDHB is developing a similar plan. Both DHBs have the same medium and short term outcomes, but the activities required to meet the goals is unique to each DHB.

Many activities in the plans are related to educating and empowering health professionals in the community, primary and secondary care to promote and support women to breastfeed.

Analysis of Maternity Outcome Data at DHB Level – WCDHB

Induction of Labour

In WCDHB in 2012, 37 out of 296 (12.5%) women underwent an induction of labour (see Table 16). This is a low rate of induction and no further action is planned around this indicator unless there are increasing rates over subsequent years.

Mode of Birth

In 2012, within WCDHB, 296 women birthed, including 199 vaginal births and 97 caesarean sections. The spontaneous vaginal birth rate dropped significantly from 2011 to 2012 (66.4% vs 56.1%, p-value=0.0136, Chi-square test). The rise observed in instrumental vaginal birth rate and caesarean section rate was not statistically significant (p-value=0.1192 and 0.1190 respectively, Chi-square test) (see Table 18. During this time WCDHB was heavily reliant on overseas trained locum Obstetricians with a variance in practice from the accepted New Zealand norms.

An audit of caesarean sections is about to commence which should enable WCDHB to identify some of the factors involved in changes of these rates. When information from 2013 becomes available WCDHB will be able to determine if this year was an outlier or whether there is a trend towards increasing caesarean section and instrumental delivery rates.

Breech Births

In WCDHB, 19 women had a breech presentation at delivery in 2012 (see Table 21). Women with a breech presentation were more likely to undergo a subsequent caesarean section compared to those without breech presentation (84.2% versus 29.2%, p-value<0.0001, Chi-square test). The current guidelines for decision making regarding planning for vaginal delivery versus caesarean section for breech presentation require that facilities for emergency caesarean section are available and that an appropriately experienced clinician is available. There are also strict criteria for planning vaginal delivery including presentation, fetal size and maternal pelvic assessment. At present no action is planned regarding mode of delivery of breech presentations apart from ensuring that agreed guidelines are followed.

Post-partum Haemorrhage

In WCDHB eight women experienced a primary post-partum haemorrhage of 1000ml or more, with two of them undergoing caesarean section and the rest birthing vaginally. No clear association was found possibly due to small numbers (p-value=0.2815, Fisher's exact test) (see Table 23). Since this time WCDHB has put in place agreed guidelines following the National PPH guideline for prevention and management of Post-partum Haemorrhage.

Epidural Analgesia

In WCDHB, of the 199 women who birthed vaginally, three received epidural analgesia in labour (see Table 26). Epidural analgesia was unavailable for a period of time and has only recently been reinstituted. Rate of uptake of epidural analgesia has always been low at WCDHB. It is likely that rates will increase over the next few years with restoration of the service. Guidelines and substantial training regarding the care of women with epidural analgesia are now in place and will continue to be reviewed.

Perineal Trauma

In WCDHB of the 199 women giving birth vaginally, 13.1% underwent an episiotomy. A further 2.5% experienced third or fourth degree tears (see Table 29). WCDHB follows a restrictive episiotomy policy. While the rates of 3rd and 4th degree tears are similar to those at CDHB this is an area which will be reviewed over the next one to two years.

Birth and Perinatal Outcomes

In 2012, 296 women birthed within WCDHB. Three women had twins, providing a total of 299 babies born. Two stillbirths were recorded (see Table 31). All neonatal deaths and stillbirths are now reviewed, with significant numbers undergoing a Root Cause Analysis Review process to determine if there are factors in provision of care which may have been preventable, Substantial work has already occurred, and is ongoing, relating to this, and to improve the quality of care to women in order to reduce still birth and other adverse neonatal outcomes.

Quality Improvements Progress

In order to progress the planned deliverables and priorities for 2013/14 a MQSP Work Plan was developed utilising the elements of the MQSP of governance, information and communication systems, data monitoring, sector engagement, consumer engagement, and quality improvements.

This MQSP Work Plan 2013/14 was presented at the CDHB and WCDHB Maternity Clinical Governance Committee meetings in July and August 2013 and persons responsible and project teams were identified for each of the planned priorities. Each project team was made up of representatives from both CDHB and WCDHB to reflect the nature of the work.

Each project team included hospital and community based practitioners who worked in a variety of settings. Hospital based practitioners included for example; obstetricians, midwives, information services, Planning and Funding, Quality and allied health. Community practitioners included for example maternity consumer representatives, LMC midwives, rural nurse specialists, and the LMC Liaison and GP Liaison.

All of project teams developed a project plan and the MQSP Co-ordinator presented an update report at the monthly CDHB and WCDHB Maternity Clinical Governance Committee meetings and identified issues were addressed.

The following table (Table 37) is based on the MQSP Work Plan 2013/14 and outlines the progress towards implementing quality improvements for the current year. It shows the areas focused on, the actions undertaken and the progress achieved by June 2014.

Table 37 MQSP Quality Improvements 2013 / 14

Objectives	Actions	Progress Report 2013 / 14
	GOVERNANCE	
To appoint a governance structure	Establish the CDHB Maternity Operational Group Expand Ashburton and Rural Health Services Maternity Continuum Team Further develop clinical governance and MQSP reporting structures and embed lines of accountability within each DHB and across to the National Maternal Monitoring Group	These objectives were achieved by June 2013. **Ashburton and Rural Health Services** The Terms of Reference for the Ashburton and Rural Health Service Maternity Continuum Team were amended in June 2013 to include all four Rural Charge Nurse Managers from Kaikoura, Waikari, Darfield, and Akaroa (currently closed) primary units instead of one rural charge nurse Midwife representing rural services at the bi-monthly meetings.
To have Pacific Island Representative on the WCDHB Maternity Quality and Safety Group	Appoint Pacific Island representative	A representative was appointed in March 2014. Evaluation of impact on service and customer experience is pending.
Engage the community based maternity practitioners	Facilitate communication between the primary-secondary interface	The LMC Liaison represents the primary midwifery workforce at all CDHB and WCDHB Maternity Clinical Governance Committee meetings to improve two way communications for the primary-secondary interface. The New Zealand College of Midwives (NZCOM) is represented by one of the regional co-chairs on the CDHB & WCDHB Maternity Clinical Governance Committee and the Maternity Operations Group as well as numerous other working groups. St George's Midwife Network recommenced in September 2013 in which core midwives and LMC midwives meet four times per year. Invited speakers do formal presentations followed by discussion forums.

Objectives	Actions	Progress Report 2013 / 14
	Advocate primary care in service planning.	Primary care has been advocated through clinical collaboration in the Maternity Operational Group, the Maternity Guideline Working Groups and other working groups which may impact on LMC practice. CDHB and WCDHB have also contributed to this through having an active and on-going relationship with Planning and Funding.
	Develop closer relationships between primary and secondary/tertiary care services and between DHBs.	The LMC Liaison has been working collaboratively with key maternity stakeholders including WellChild/Tamariki Ora providers, immunisation service level alliance, community based social services and Child Youth and Family to provide advice and expert opinion. Information is communicated back to LMCs at NZCOM meetings, by regional emails and newsletters. WellChild/Tamariki Ora providers have been engaged and a collaborative working arrangement has occurred to improve the referral process for LMCs to WellChild/Tamariki Ora. Significant work with Planning and Funding has taken place with the LMC Liaison and NZCOM co-chairs representing LMCs at forums, meetings and working groups. Providing primary care representation for the implementation of the National Referral Guidelines and with improving the primary/secondary interface has occurred via meetings with midwifery managers and the Director of Midwifery as well as the midwifery clinical co-ordinators. Working collaboratively with the analysis of National Maternity Indicators which commenced with the second stage working group. Working together with the Midwife Liaison for the Canterbury Initiative to improve communication between LMCs and general practice and working to improve the maternity sector aspect of HealthPathways and HealthInfo.
	Ensure community based practitioners are kept informed of clinical governance issues and practice changes.	Information has been made available to community based maternity practitioners via the LMC Liaison and the NZCOM representatives who contribute to the clinical governance processes within Maternity Services through meetings with the Director of Midwifery, management, quality and safety team and clinicians. Information is communicated and feedback received via NZCOM regional meetings, newsletter and e-mail system to consult with LMCs on clinical governance issues, projects, initiatives, practice changes and guideline developments. Facilitating communication at the primary-secondary interface with a change from LMC

Objectives	Actions	Progress Report 2013 / 14
		forums to midwifery forums for core and LMCs together.
Produce the MQSP Annual Report 2013/14	Action the Priorities and Planned Deliverables for 2013/14.	A MQSP Work Plan 2013/14 was developed and approved by CDHB and WCDHB Maternity Clinical Governance Committee in July 2013. Working groups with representatives from CDHB and WCDHB were established to develop project plans for each of the priority areas. The Project Working Groups include hospital and community-based practitioners and maternity consumer representatives.
	Identify and communicate report requirements to key contributors.	A Quality Improvement Reporting Form was devised to provide a framework for reporting on the quality improvement initiatives. These forms were made available on CDHB and WCDHB intranet sites for all health practitioners to report on quality initiatives.
	Upload report onto both DHBs internet sites.	This will be undertaken once authority is received from Deputy Director-General, Senior Capability and Implementation, post-submission of the final Report.
INFORMATION AND COMMUNICATION SYSTEMS		
Establish a communication platform for information sharing between and within DHBs	Develop on-line document sharing, education and discussion forums for community and hospital based maternity practitioners.	The Women's and Children's Health intranet sites went 'live' in April 2014.
	Rotate venues for meetings involving community and hospital based clinicians and make video conferencing links available.	Rotation of meetings is planned for 2014/15. Video conferencing is available and is used.
Develop web-based public information about maternity activities and	Research types of information the public would like available on-line.	Two working groups were developed with the MQSP Co-ordinator working across both groups. Key activities included: • Canvassing consumers and midwives to determine the types of information required and that community providers (i.e. Parent Centre) contributed content information;

Objectives	Actions	Progress Report 2013 / 14
services		• Reviewing other DHBs' websites.
	Develop site content with consumer input and develop a system for the uploading and maintaining of contemporaneous information regarding maternity activities and services.	Liaising and co-ordinating with providers of maternity services (both primary and secondary) to produce information for the website. Ensuring links to key information sources e.g. HealthInfo, MoH, Maternity Consumer Council, NZCOM. Linking to 'findyourmidwife' site to enable pregnant women to make informed choices regarding their maternity care. The WCDHB website information was reviewed and signed off by the WCDHB Maternity Quality and Safety Croup at its April 2014 meeting. The project group comprising the MQSP Co-ordinator, Quality Co-ordinator Clinical Services WCDHB, IT Services, and the WCDHB Maternity Consumer have subsequently developed the web pages and links to other key information services. There is maternity information available on the CDHB Maternity website but a review and redesign of the content is still in a development stage. **St George's Hospital Maternity** A new St George's Hospital Maternity Website was commissioned in February 2014 to provide information for women and the community about the maternity services available. Marketing of St George's Hospital was carried out by Convergence and it included advertising in the local newspapers and on the back of buses.
Define and develop processes for Clinical Case Review	Gain multidisciplinary and multi-sector agreement on the parameters and process for clinical case review.	A project for the development of this is in progress which encompasses CDHB & WCDHB. External expert knowledge around case review processes is being sought to inform the proposed revised policy. External expert knowledge around case review processes is being sought to inform the proposed revised policy.
	Document and disseminate	Once the agreed process has been defined this will be documented and templates

Objectives	Actions	Progress Report 2013 / 14
	process and make available electronically.	created to ensure standardisation and to guide staff through the requirements. Completion is expected in October/November 2014.
Define and develop processes for formal review of serious and sentinel events	Do a multi sector review and amendment, as required, of the current formal serious and sentinel event review processes.	A process for formal review of serious and sentinel events is in place across both Canterbury and West Coast DHBs but this is not completely standardised and does not cover every aspect required. A project has been established to review the serious and sentinel event review process and this is now in progress. External expert knowledge around case review processes is being sought to inform the proposed revised policy.
	Document process, disseminate and make available electronically.	Once the agreed process has been defined this will be documented and templates created to ensure standardisation across and within DHBs and to guide staff through the requirements. Completion is expected in October/November 2014.
Perinatal and maternal mortality and morbidity review activities involve hospital and community based practitioners	Ensure monthly meetings involve cases from both DHBs and include hospital as well as community based practitioners i.e. LMCs and GPs participating via video conferencing.	Schedules of meetings are sent to and available to LMCs, Women's Health practitioners and other relevant health professionals. LMCs and GPs who provided care in the cases discussed are sent personal invitations to the Perinatal and Maternal Mortality Review Committee presentations. Video conferencing is available and used between CDHB and WCDHB.
	Develop links between Perinatal and Maternal Mortality Review Committee (PMMRC) Co-ordinators across both DHBs.	Perinatal and Maternal Mortality Review committee monthly meeting uses video conference facilities to connect with the West Coast meeting venue. 'When a Baby Dies Workshop' are held annually both in Greymouth and Canterbury. These eight hour workshops are open to health care professional caring for women who have experienced loss of their baby.
DATA MONITORING		
Improve WCDHB's IT system so that it has the capability for collecting maternity data	Perform a review of WCDHB's maternity outcome data and investigate options to improve WCDHBs IT system and capture the required maternity data.	A working group was set up to determine the best system for collecting maternity data, comprising West Coast IT services, CDHB Business Analysts, the MQSP Co-ordinator and the WCDHB and CDHB Charge Midwife Manager (Birthing Suite). An option of collecting data on the CDHB Caresys database was explored but considered not to be viable in the light of the imminent implementation of the national maternity data system. As an interim measure the McBrearty Ward staff have documented all of the required

Objectives	Actions	Progress Report 2013 / 14
		maternity data for the 2012 and 2013 calendar years onto the CDHB Delivery Summary Record, and all maternity outcome data is being entered into an Excel spreadsheet for analysis. The West Coast DHB is currently exploring the use of MMPO electronic records to capture maternity data for West Coast women receiving primary care.
	Determine capacity for entering data.	WCDHB IT Services engaged an employee to enter all of the data on to Excel spreadsheets. The WCDHB Clinical Midwife Manager reviewed and cleaned up any idiosyncrasies with the data before sending it to CDHB data analyst.
Analysis of National Maternity Clinical Indicators	Analyse the Ministry of Health Maternity National Clinical Indicators 2011.	The analysis of these indicators is in this Section 5 of this report.
	Develop Clinical Indicator dashboards, display in clinical areas and make available to all staff.	A project to erect 'Quality Boards' within Women's Health to identify aspects of care that need regular focus for improvement (for example, hand hygiene) has been commenced. Data based on audits is displayed so that staff, women and their whanau are able to view the ratings. Displaying this information will provide staff with an incentive to reach targets, not to expose shortcomings.
	Include Clinical Indicators as a standing agenda item on maternity quality committees.	Quality audit plans are presented quarterly at the Maternity Operations Group meetings.
	Formulate a plan to address those areas requiring focused improvement.	The use of Quality Boards to display progress and targets for improvement is intended to form a significant plan for improvement.
	Develop working groups to address the areas requiring improvement.	A working group is planned to focus on long term needs of antenatal care.
	Use best evidence to set target levels.	Audit information will assist with setting targets and developing a process for review.

Objectives	Actions	Progress Report 2013 / 14
	SECTOR ENGAGEMENT	
Implement a formal process for the dissemination of information to community based clinicians.	Survey stakeholders to determine communication strategies. Develop engagement mechanisms between maternity, community and hospital based practitioners. Develop a common platform which can be accessed by hospital, rural birthing units and community based practitioners across both DHBs. Provide road shows to community based clinicians to obtain feedback on maternity services and highlight quality initiatives.	The Maternity Operations Group has yet to survey stakeholders to determine communication strategies and how community and hospital-based practitioners will engage effectively. CDHB's internet site provides the opportunity for all health professionals to access resources and includes information on education opportunities, online education packages, and current clinical guidelines. Developing a common platform which can be accessed by hospital, rural birthing unit and community based practitioners across both DHBs has been suggested as has Road Shows.
	CONSUMER ENGAGEMENT	
Streamline maternity information on Canterbury Initiative's HealthInfo Site	Redesign the Health Information site to enable women to easily access print friendly maternity patient information and resources.	HealthInfo was well established prior to this reporting period but the Women's Health section was in need of updating and expanding. An LMC midwife was engaged in April 2013 to liaise with the Canterbury Initiative in April 2013 to refine the Women's Health section. HealthInfo: Women's Health has been progressively expanded and brought up to date, with new information on breech presentation and placental birth and disposal written by the LMC midwife. Relevant CDHB information leaflets were formatted for on-line viewing and included in the relevant sections.

Objectives	Actions	Progress Report 2013 / 14
	Establish a process for regular updating of maternity information on the HealthInfo site.	Each HealthInfo page has a feedback button which consumers are encouraged to use. Feedback is received by a staff member employed by the Canterbury Initiative to monitor and manage the site. This staff member refers to the clinical editor as needed. The Midwife Liaison position is currently ad hoc rather than fixed hours, and when new information emerges or there is a change in a publication or link, the Midwife Liaison submits this to the clinical editor who has the responsibility of overseeing the changes. CDHB employed practitioners who use CDHB information leaflets submit updates to HealthInfo as they occur. The HealthInfo team and W&CH Safety & Quality Unit have agreed a process for communicating when leaflets are updated.
	Establish a process for communicating the new and updated information to health practitioners.	HealthPathways was updated to link directly to HealthInfo with instructions of what search term to write on a HealthInfo 'purse pack' card to give to women. HealthInfo has been promoted to midwives and GPs by email and a presentation at a regional NZCOM meeting. The Canterbury Initiative reports increasing numbers of hits on the website and the editor reports positive feedback. Updates and new information is emailed to midwives by the Midwife Liaison for the project. Women are informed about HealthInfo by their GPs and midwives with the use of the 'purse-pack' cards to enter the relevant search term on.
Conduct research into maternity consumer experiences	Develop and conduct consumer satisfaction surveys with frequent reporting.	The Consumer Engagement Working Group developed the *'We Care About Your Care Maternity Service'* Feedback Form. This work entailed: • Consulting with consumer groups; • Reviewing other DHB maternity satisfaction questionnaires, and the MoH Patient Experience 2011/12 findings of the New Zealand Health Survey; • Utilising the Health Quality and Safety Commission's Development of Patient Experience Indicators for New Zealand (2013) as a framework to develop the maternity services feedback forms; • Developing a consumer experience feedback tool for maternity services that will be utilised across both DHBs and St George's Maternity Centre; • Distributing draft surveys to key stakeholders;

Objectives	Actions	Progress Report 2013 / 14
		• Determining method of survey distribution; • Piloting the feedback form on 13 postnatal women in tertiary, secondary and primary maternity facilities; • Consulting with two Women's and Children's Māori Healthcare Workers and the Women's and Children's Health; • Obtaining approval from the CDHB and WCDHB MCGC at its February 2014 meeting.
	Develop feedback mechanisms that extend across the childbirth journey.	*'We Care About Your Care'* Maternity Services Feedback Form has been developed to include antenatal, intrapartum and postpartum information on women's experiences. (See Appendix 3.)
	Establish a robust system to obtain feedback from consumers on maternity care provision.	This feedback form will be provided to all women in 'hard copy' format prior to discharge, and made available on the DHB's website electronically.
	Establish links or direct representation on the CDHB Consumer Council and consumer groups.	The *'We Care About Your Care Maternity Service'* Feedback Form was reviewed and signed off by both CDHB and WCDHB Consumer Councils in March 2014.
	Evaluate feedback and communicate findings with staff.	Charge midwife managers and the quality co-ordinators will follow-up with women who raise concerns; A database has been developed to enable collection of feedback information. Issues and trends will be identified and communicated to staff in quarterly reports.
	Implement agreed recommendations.	Feedback will be collated and disseminated to staff and actions implemented.
		QUALITY IMPROVEMENT
Strengthen the women and babies journey from points of entry through to discharge including	Review and update the 'In-Utero Transfer Between Hospitals Policy' to ensure clear co-ordination and communication of care between the tertiary	The CDHB 'In-Utero Transfer Between Hospitals' policy was reviewed to streamline the co-ordination process for transport, with a particular focus on the WCDHB. The working group has simplified the process steps and made a flow chart to aid Birthing Suite Clinical Co-ordinators arranging in-utero transport.

Objectives	Actions	Progress Report 2013 / 14
ready access to secondary and tertiary services	provider (CDHB) and primary/secondary maternity facilities of CDHB and WCDHB.	The updated policy specifically acknowledges WCDHB's isolation and accordingly addresses their needs. This policy has clarified communication processes including making contact with referral hospital midwife to provide update on transfer.
	Disseminate and communicate updated policy.	The final draft of the 'In-Utero Transfer Between Hospitals' policy was distributed in March 2014 to the Department of Obstetrics and Gynaecology and Neonatology Senior Medical Officers and St John Ambulance Services for further consultation. The final draft was approved by the specialist neonatologists in preparation for sign off. The policy has subsequently been sent to the General Manager (Med/Surg and Women's & Children's) for sign off.
	Conduct education sessions with relevant staff.	It is anticipated that the policy will be due for release in May 2014. An implementation plan is currently being developed which will include education of staff and communicating the policy to internal and external stakeholders.
	Develop information material for women to ensure they understand the transfer / transport processes.	National benchmarking of information was undertaken to determine what information was available for pregnant women transferring via air ambulance. This exploration revealed that no information pamphlets are available specifically for maternity. An information pamphlet has been drafted for CDHB and WCDHB women transferring to a tertiary setting utilising the flying doctors service.
	Audit women and babies transferring between maternity facilities and the tertiary provider	The policy will be audited at six monthly intervals, following implementation.
	Survey staff on communication and collaborative working when transferring women and babies.	A survey will be undertaken as part of the audit process.

Objectives	Actions	Progress Report 2013 / 14
Improve the attendance of Māori, Pacific Island and younger women at pregnancy and parenting classes	Develop a working group to explore ways to provide pregnancy and parenting information and education services to meet the needs of Māori, Pacific Island, young women and minority ethnic groups.	A hui with Māori, Pasifica and providers interested in young people was held to discuss and develop some key concepts that would encourage and support new mothers and whānau to attend Pregnancy and Parenting Education Courses. This information is being used as the basis for the development and funding of new services; Work with key stakeholders from both DHBs to better understand services has begun.
	Ensure data is collected on attendee demographics.	Once new providers have been identified, work will be done with them and the current providers to ensure everyone is collecting data correctly to enable accurate monitoring and reporting on activity throughout Canterbury and the West Coast.
	Make recommendations and implement service improvements.	Christchurch Women's Hospital will reduce their Pregnancy and Parenting Education courses to increase the numbers of classes offered in the community.
	Review content of pregnancy and parenting information and education material following the release of the MoH review on the DHB Funded Pregnancy and Parenting Information and Education Tier Level Two Service Specifications.	Data from both DHBs Pregnancy and Parenting Education courses has been audited, and found to be of insufficient quality to analyse. Christchurch Women's Hospital will investigate new ways to deliver classes that will support women in remote areas. e.g. via the internet. The stock take will indicate whether: • Additional education for presenters is required; • Improved equipment is needed to support delivery e.g. ability to show videos; • Standardised pamphlets and hand outs are needed.
Increase the proportion of women registering with LMCs in the first trimester	Identify barriers to women booking within the first trimester.	To date, past data has been reviewed to identify the small group of women unable to secure LMC care. Presently the focus is on collecting current data to identify changes in needs due to high risk, social and psychosocial needs;
	Explore social media and other communication strategies as a communication tool with pregnant women.	Discussions have been held with other DHBs regarding their safety and quality initiatives to see if similar strategies would work in CDHB and WCDHB. Information on accessing maternity care and registering with an LMC in the first trimester has been developed for the maternity section of the WCDHB internet site.

Objectives	Actions	Progress Report 2013 / 14
		Information has been included on the WCDHB HealthPathway First Antenatal Consult instructing GPs on the importance of advising women to register with an LMC within the first trimester.
	Work with the GP Liaison to develop strategies to increase the percentage of women registering in the first trimester.	Limited consultation to date with the GP group as the GP liaison role has been vacant for several months. The LMC Liaison and Maternity Planning and Funding manager are scheduled to meet with the West Coast PHOs to discuss.
	Promote LMC midwife registration on 'Find Your Midwife' website	WCDHB employed caseloading midwives providing primary care have been supplied with information to support them registering their profiles on the 'findyourmidwife' site. This allows for more visibility of the site, easier access for women to an LMC and will potentially increase the ability for women to find and register with an LMC at an earlier gestation. It is intended that this work will incorporate the West Coast and wider Canterbury region. Once the Maternity section on the WCDHB internet site 'go live' on 30 June 2014 and all West Coast midwives providing primary care are registered on the 'findyourmidwife' site, WCDHB will review the current process of women phoning McBrearty Ward to arrange a midwife.
	Promote and provide an internet link for women on DHB website to 'Find Your Midwife' web site.	Promotional material and information about the 'findyourmidwife' website, including what it offers, how to use it and how to order more promotional material for all general practices in Canterbury (n=160; and West Coast n=13) has been sent to the distribution networks of the three Primary Health Organisations. Links have been placed on the CDHB and WCDHB websites.
Develop combined educational events to improve collaboration between CDHB and	Advertise education sessions, workshops and webinars on DHB websites to hospital and community based clinicians.	Following broad consultation all education sessions, workshops and webinars were published on the new CDHB website and are now available for hospital and community based clinicians. Results are yet to be evaluated. This information was published in January 2014 Childbirth Communiqué which is distributed to all CDHB LMC Access Holders and WCDHB LMCs. In addition, an email was sent out to all CDHB, WCDHB

Objectives	Actions	Progress Report 2013 / 14
WCDHB		and St George's Hospital charge midwife managers with instructions on how their staff can access information about professional development. St George's Maternity Centre provides education for LMCs on the compulsory components of the Midwifery Council's Recertification Programme in conjunction with midwifery educators at the CDHB. WCDHB is supporting LMCs to attend education sessions by inviting LMCs to any education available on the West Coast and covering on call commitments to facilitate their LMC attendance.
	Develop an on-line registration system.	On-line registration system for all CDHB education is underway (Totara). In the interim Women's Health have improved the booking and approval process by having: • A dedicated email address for all bookings; • On-line application process; • Continuing to offer and organise education sessions and workshops in rural areas
	Rotate venues for education sessions and workshops.	Women's and Children's Health midwifery emergency skill workshops and midwifery practice days are rotated across the four sites; Christchurch Women's Hospital, Burwood, Lincoln and Rangiora Primary Birthing Units.
	Provide video-conferencing linkages.	Video conferencing links for all workshops including PMMRC meetings are available.
	Upload on-line education resources to intranet sites.	Modules are now available online.
Implement the Maternity Referral Guidelines 2012	Develop a working group to review processes around handover of care.	This has been established with staff from CDHB, WCDHB, St George's Maternity Centre, LMC Liaison and obstetricians.
	Determine strategies and tools to clearly define the transfer of clinical responsibility from primary to secondary care and the return of care.	See section Implementation of National Clinical Guidelines (p 60).

Objectives	Actions	Progress Report 2013 / 14
Decrease smoking rates and offer support to women who smoke during pregnancy	Work with the GP Liaison to ensure the MoH's requirements on education and documentation on smoking cessation are met.	A working group was set up with representatives from CDHB and WCDHB. Key activities undertaken include: • Developing a maternity smoking outcomes framework (see Appendix 2) • Disseminating 'findyourmidwife' information packs (containing posters, pamphlets, business cards, and business cards holders) to Canterbury (n=160) and West Coast (n=13) medical practices to encourage women to register in the first trimester and receive advice and support with smoking cessation. • Reviewing, amending and uploading HealthPathway - First Antenatal Visit on to the WCDHB website. Refer to Appendix 2.
	Communicate and educate community and hospital based practitioners on the MoH's requirements to provide smoking cessation information at confirmation of pregnancy and the importance of documenting this information.	The Maternity Ward has developed an education information board for women and health professionals on smoking cessation. Education sessions on prescribing Nicotine Replacement Therapy in Pregnancy *'All You Need to Know'* have been scheduled monthly from June until October 2014.
	Work collaboratively with smoking cessation agencies to identify and recruit women who smoke.	WCDHB has organised with 'Smoke Change' to provide the four hour education sessions for all West Coast DHB midwives and LMCs to attend mid 2014. The WCDHB Smoke-free manager has written to all LMC and caseloading midwives to provide information on the services provided and provide education sessions.
	Develop strategies and tools to ensure women are receiving information on smoking cessation at confirmation of pregnancy.	The Smoke-free managers from CDHB and WCDHB are reviewing the information provided to patients within their sectors to ensure consistency across both DHBs.

Objectives	Actions	Progress Report 2013 / 14
Raise awareness about newborn immunisation	Continue to work with community based practitioners and well child providers to ensure education and information is provided to all women and their families about the importance of childhood immunisation to increase the uptake of immunisation within the DHB populations.	Canterbury DHB, together with the Immunisation Service Level Alliance (ISLA) and the Immunisation Providers Group (IPG), has increased vaccination rates. The LMC Liaison to CDHB Women's Health service sits on ISLA, the governance group for immunisation in Canterbury and has worked to increase communication between community providers The eight month target set by the MoH is 90% and Canterbury has achieved 93% of all eight month olds fully immunised. They have also achieved 94% of all two year olds fully immunised, which is close to the MoH target of 95%. CDHB has also achieved 99.6% of children registered on the National Immunisation Registrar (NIR) in the last quarter. For the outcome of capturing children opting off the NIR CDHB have achieved 100%. This represents the percentage of children who complete opt off paperwork within three months of birth. In reference to the eight month target this level of performance has managed to be sustained over the past three quarters. There is some concern, however, that when the health target moves to 95% of children fully immunised by December 2014, this may not be achievable due to 87% coverage for Māori tamariki. CDHB plans to work with ISLA to identify ways to improve timeliness of immunisation for Māori tamariki. The Canterbury DHB has developed electronic systems for a seamless handover between maternity, general practice and Well Child Tamariki-Ora providers and work with primary care and LMCs continues to increase early handovers and to increase newborn enrolments. The evidence to support this is that 98% of newborns are enrolled with general practice by three months of age. ISLA, together with the DHB continue to implement the DHB immunisation promotional plan 'Immunise for Life" and support immunisation week. 'Immunise for Life' has produced promotional material, relevant for the maternity sector, for childhood immunisation, pertussis and flu vaccines in pregnancy in the form of pamphlets,

Objectives	Actions	Progress Report 2013 / 14
		billboards, magazine and newspaper advertisements, as well as, a promotional campaign in public places such as shopping malls. Immunise for Life also has a website for consumers to access evidence based information. Lead Maternity Carers have also received an immunisation information/education pack developed specifically for midwifery practice and information relevant to pertussis and flu vaccines in pregnancy to distribute to consumers. A plan to send immunisation information packs to all new practising LMCs, with information specifically relevant to LMC practice, is under way with the intention of increasing the knowledge of LMCs and increasing the availability of resources for consumers. CDHB provides free pertussis and flu vaccinations to pregnant women and LMCs will continue to be supported to provide essential information regarding pertussis and flu vaccinations for pregnant women. Work is also under way to include immunisation on HealthPathways for clinicians and on HealthInfo for consumers. Immunisation information on HealthInfo would allow for consumers to easily access evidence based information about vaccines and vaccine preventable diseases, as well as, the immunisation schedule for childhood immunisations. The number of children immunised on the West Coast is influenced by the Christian Community (Glorivale) where immunisation is not recognised as essential. The immunisation nurses from the West Coast have been engaging with Glorivale and providing education.
Develop primary maternity facilities	Upgrade and expand birthing facilities and services at primary units : **Ashburton** Extend IV fluid replacement services Replace birthing pool	A new birthing pool was installed in November 2013. Cots have been replaced to meet current health and safety need and infection prevention and control standards. Intra-venous fluid replacement continues at Ashburton Hospital. Discussions about provision in maternity continue.

Objectives	Actions	Progress Report 2013 / 14
	Provide antenatal clinics for women unable to find an LMC midwife.	The provision of an Antenatal Clinic has not been necessary due to other measures to recruit and enable access to out of town midwives.
	Lincoln Promote women birthing within their own community	A virtual tour of Lincoln Maternity Unit is under development for women to access via the CDHB website. A poster for all community agencies within Selwyn District is in progress. Planned reconfiguration for postnatal rooms is under review. Evidence based upgrade of one birthing room is underway.
	Rangiora New Build of Primary Birthing Unit within the Rangiora Hub	Building of the new primary birthing unit as part of the new Rangiora Health Hub has begun with completion of the design phase for the new primary birthing unit. This includes two birthing rooms with birthing pools, ten postnatal rooms, consultation and education rooms.
	Kaikoura Include fetal surveillance telemetry, water birth facilities and the provision of piped medical air to newborn resuscitation equipment into the rebuild.	The new facility in Kaikoura is still currently in the design and planning stage and building has not yet commenced.

Objectives	Actions	Progress Report 2013 / 14
	St George's Maternity Centre Develop birthing facilities at St George's Hospital.	During 2013, a working group was established with the objective to recommence primary birthing services at St George's Hospital. The Birthing Unit was opened on the 2nd February 2014 and consists of the following: • 10 postnatal beds • 2 birthing rooms • Birthing pool A whanau room has been set up to provide space for relatives and visitors to relax during visiting.
	West Coast	A working group is currently developing the work plan to design and remodel the primary service in Buller. This working group consists of West Coast DHB management, self-employed LMC midwives and DHB-employed caseloading midwife and the Kawatiri Action Group. The three priorities of this working group include: multidisciplinary education of health professionals, transport and transfer, and staffing.
Improve breastfeeding rates	Implement the action plan from the Breastfeeding Steering Group.	The overarching goals for Canterbury's Breastfeeding Priority Plan have been approved by CDHB and WCDHB Maternity Clinical Governance Committee. The Breastfeeding Steering group have now drafted the activities required to achieve the goals. This was presented to CDHB and WCDHB Maternity Clinical Governance Committee on the 25th of February 2014 and approved. Since this approval a timeline and leader for each activity has been developed. Breastfeeding rates over the last few years have not increased. Plunket data is the only Well Child Tamariki-Ora data that DHBs currently receive. This means that data from smaller Well Child Tamariki-Ora providers that care for Māori and Pacific mothers and babies is not included. Work with Well Child Tamariki-Ora providers to support improved data entry and reporting processes. Implementation of some actions from the Breastfeeding Priority Plan has begun. The Breastfeeding Steering Group has held a meeting with all Canterbury GPs and

Objectives	Actions	Progress Report 2013 / 14
		practice nurses on the 28th of May 2014 to provide education. Contracts for Peer Support have been renewed in CDHB. CDHB is working with WCDHB to progress their contract renewals. The Breastfeeding Steering Group has commenced working with smaller Well Child Tamariki-Ora providers to improve data management. St George's Maternity Centre was reaccredited in May 2013 in the Baby Friendly Hospital Initiative (BFHI) status. In response to New Zealand Breastfeeding Authority (NZBA) recommendation St George's has developed a breastfeeding booklet. Information contained within this booklet has been checked to ensure consistency with CDHB and WCDHB information. St Georges Maternity Centre has a peer support counsellor who works fulltime in the ward and is able to make referrals to the community providers.
	Develop a BFHI database for recording breastfeeding staff education.	There is a database for this purpose but another more sophisticated database was requested about 18 months ago. To date there has been no progress on producing this.
	Communicate to hospital and community based practitioners on-line about breastfeeding education and resources.	All midwifery staff receive BFHI education and resources and LMCs are notified of its availability. BFHI notified all GPs about antenatal classes for breastfeeding.
Utilisation of workforce	Identify recruitment and retention strategies to attract maternity community and hospital based practitioners.	A recruitment strategy has been developed with the midwifery team, recruitment team, and management. The expected impact will be successful recruitment and retention of a stable midwifery workforce. There is ongoing work with NZCOM, Midwifery and Maternity Providers Organisation and the rural maternity facilities to attract, recruit and retain staff. There will be continued focus on recruitment and retention strategies. Ashburton Maternity provides the option of 12 and 8 hour shifts to attract and maintain core staff and flexible and family friendly rostering has been implemented. WCDHB is supporting two third year West Coast midwife students with clinical placements.

Objectives	Actions	Progress Report 2013 / 14
		Both of these West Coast midwife students are intending on taking up LMC practice on the West Coast in 2015. West Coast DHB has been actively recruiting and since March 2014 has employed three new graduates.
	Develop education strategies to ensure practitioners maintain competency.	At Ashburton the majority of compulsory midwifery education is provided at Ashburton Maternity Unit. Rural Senior Medical Officers are invited to neonatal resuscitation updates. There was a review by the midwife educators and the Director of Midwifery of education to meet the Midwifery Council of New Zealand's Recertification Programme requirements and the needs of the maternity workforce. A staff survey was sent out entitled "confidence survey" for both the maternity and Birthing Suite areas to identify learning needs. Education (elective/professional and recertification requirements) has been reviewed and included in consultation with charge midwife managers from all maternity facilities, CPIT, Otago Polytechnic, neonatal, gynaecology, Midwifery Council of New Zealand, New Zealand College of Midwives and quality.
	Provide opportunities for midwives to rotate through primary and secondary services.	Rotation for all new graduates is part of the clinical programme and includes primary and secondary settings; A clinical placement is available for WCDHB staff. St George's Maternity Centre provides core midwives with eight days of training leave to spend in clinical placement at the CWH Birthing Suite. CDHB have accommodated this request by giving these midwives 'visiting health professional status' during this time. This opportunity has enabled the midwives to practise across the scope until birthing recommenced at St George's Hospital in February 2014. Ashburton Maternity Unit – all core nursing and midwifery staff are provided with the opportunity to rotate to CWH for a two week placement.

Objectives	Actions	Progress Report 2013 / 14
	Extend education workshops to primary facilities and involve community and hospital based practitioners.	A calendar of education is published and available on the internet along with an on-line application process; Education workshops continue to be provided in the primary units as required, including the emergency and practice day as required by Midwifery Council of New Zealand All Midwifery Council of New Zealand requirements (including CDHB specific competencies) regarding education are provided in Ashburton Maternity Unit for core midwives and LMCs.
	Develop on-line training packages.	All on-line education packages are now available on the internet and accessible for all health professionals, LMCs.
	Survey women to determine accessibility to care provision and evaluate alternative service delivery.	First draft of a consumer survey has been created for CDHB and WCHDB women to identify barriers to care provision.
Implement a regional Safe Sleeping policy	Adopt and implement the safe sleep policy as developed by the SUDI South Island Alliance Programme.	CDHB, WCDHB and St George's Hospital representatives joined the South Island Health Alliance working group to develop a Safe Sleep Policy for regional implementation; There was extensive consultation during development including members of the multidisciplinary team and Change for Children Ltd.
	Disseminate policy and make available electronically	The policy was approved by the South Island CEOs for rollout and adopted in February 2013 led by the Director of Midwifery and CDHB. The policy has been presented to members of the CDHB (neonatal, maternity, mental health, medical-surgical, primary, paediatrics, quality); and the CDHB/WCDHB Director of Nursing group for implementation, sponsorship, and endorsed. It has also been presented to the CDHB Clinical Board.

Objectives	Actions	Progress Report 2013 / 14
	Establish a system to ensure all hospital and community based practitioners and all women receive safe sleep education.	The current plan is to bring together a small working group to implement the Safe Sleep Policy across CDHB and WCDHB.
Implement a primary birthing unit arranged admission guideline	Establish guidelines for admission in labour to primary birthing units.	This work was prompted following a Root Cause Analysis recommendation and incident reporting investigations; All CDHB and WCDHB charge midwives, Director of Midwifery, LMC Liaison representatives and regional NZCOM membership were consulted. Admission criteria were developed integrating current service specifications, NZCOM and MoH documentation. The Admission to Primary Birthing Unit Guideline was approved by the CDHB and WCDHB Maternity Guidelines Group for publication and issued November 2013; This guideline has been implemented in all CDHB and WCDHB primary maternity units and St George's Maternity Centre and published on the intranet allowing access for all clinicians.
	Circulate guidelines to NZCOM members for review and feedback.	All clinicians informed through staff forums, Childbirth Communiqué and email; Results yet to be evaluated.
	Develop information for women and make available through the internet and HealthInfo site.	An information pamphlet for birthing in primary maternity units has been benchmarked nationally and a pamphlet specific to CDHB and WCDHB is under development.

National Maternity Monitoring Group Recommendations

Variations in Gestation at Birth

CDHB Ongoing audit of clinical practice continues in conjunction with development of a robust computerised system for accurate data collection. Data of cause and mode of birth will be used to inform improvements by focusing on factors that can be changed, such as elective caesarean section and induction of labour. In accordance with the National Maternity Monitoring Group 2013 Annual Report recommendations late pre-term births (34, 35, and 36 weeks gestation) and early term (37, 38 and 39 weeks gestation) will be examined.

WCDHB It is important to note that the statistics for the West Coast may be skewed due to small numbers. The only contributors to this National Maternity Collection database are the LMC midwives, as the WCDHB caseloading midwives who carry the majority of the workload do not provide data to this collection point. WCDHB has also observed that during the timeframe this data was captured, it had a high utilisation of locum doctors. This may have influenced caesarean section rates for the West Coast; this issue has been addressed internally.

Maternal Mental Health

CDHB Maternal mental health in the primary setting is managed by general practitioners. The Canterbury DHB specialist mental health service provides a secondary regional service for maternal mental health, which includes the Mother and Baby Unit located at The Princess Margaret Hospital. It is the only inpatient service for the South Island. Due to the large area the Mother and Baby Unit covers it is expected that referrals will follow the HealthPathway indicating that treatment has started but failed prior to referral. Women who have pre-pregnancy mental health issues and are receiving treatment from mental health services are usually referred to this service.

All referrals from the GP or from CWH Maternity Outpatients Clinic to the secondary service are triaged. Four to six weeks is an average waiting time for assessment with urgent referrals given top priority, and postnatal referrals prioritised due to the lesser time available to treat.

For acute referrals; urgent and emergency psychiatric services in Canterbury are run by the Single Point of Entry (SPOE) service. Anyone can contact SPOE, including individuals, family members, GPs and community services. The management and referral process for mental health including pregnancy and postpartum mental health is via the Canterbury HealthPathways.

The development of Canterbury wide HealthPathways means that all health professionals have the correct process for treatment and/or referral as required. LMCs do not directly refer to this service due to the 'treatment being commenced and failed' requirement. They refer and are able to attend appointments with women to either the Maternity Outpatient Clinic or GP. The opportunity to attend GP visits is a part of the LMC to GP project. This service provides a referral pathway to the GP from the LMC if the woman is described as 'high need', pregnant and:

- Having a medical condition that can be exacerbated by pregnancy but not considered an obstetric risk.
- Having a mental health condition that can be exacerbated by pregnancy but not considered an obstetric risk.
- Unhealthy lifestyle that is not related to obstetric risk per se, but can increase the risk of low birth weight and the development of some health conditions.

There is potential for improvement in the specialist service with development to include an infant mental health service, looking at attachment based work for families.

The secondary service also report improvements could be made in the following areas:

- Appropriateness of referrals from the Obstetric Outpatients Clinic.
- Better links between midwives and GP's to facilitate earlier referral for treatment, such as soon after the first trimester.
- Education for midwives in maternal mental health across the spectrum i.e. not only postnatal depression.

For LMCs, as the predominant primary healthcare provider, referral to the Mothers and Babies Service is a two stage process. This may limit access for women who do not have a GP or wish to consult with one. The establishment of a midwife liaison could potentially improve linkages between services (including social services); and increase knowledge via education and communication of maternal mental health and services within the sector.

The 'good examples' given to promote maternal mental health in the 2013 NMMG Annual Report present several benchmark possibilities for service development within our own sector. Taranaki DHB's display of a flow chart for

example, could be used to increase visibility of Canterbury Health Pathways. Auckland DHB's newborn services Consult Liaison, in supporting the emotional wellbeing of parents promotes infant mental health.

WCDHB Co-ordination of maternal mental health services across primary and secondary lies with the Mothers and Babies Resource/Liaison Nurse working with WCDHB mental health services.
The role includes the provision of:

- Support and advice to women on mental health issues and concerns;
- Assessment and screening for developing mental health issues;
- Direct care and oversight of women with existing mental illness during pregnancy, in collaboration with the midwifery team;
- Access to psychiatrist review during pregnancy (if needed);
- Access to specialist maternal mental health services;

The purpose of the role is to ensure care is co-ordinated in a manner that is both responsive and proactive. This person is a member of the Maternal Care and Unborn Wellbeing group, which has a focus on at-risk/vulnerable mothers and babies/infants. This is an interdisciplinary group with a membership that includes:

Mental Health	Child, Youth and Family ,	Work & Income
Midwifery	Plunket	Youth Services
Paediatrics	Family Start	Home Builders
Social Work	Poutini Waiora	Well Child / Tamariki-Ora providers
Primary care	Public Health	Whanau Ora providers

The Maternal Care and Unborn Wellbeing group is co-ordinated by the Violence Intervention and Child Protection team. There is a clearly defined referral pathway to access maternal mental health services; however, it is essentially not required. WCDHB Mental Health service works to the principle that 'any door is the right door'. Most referrals involve a less formal process of simple discussion between the midwife and the resource/liaison nurse. Women may also choose to self-refer. The informal referral system works well (without replacing the formal process) and has been based upon the development of a trusted relationship between primary and secondary services; (midwives, rural nurse specialists; general practitioners, practice nurses, mental health services). There is a fundamental recognition that there is always the welfare of two (the mother and the baby) to be considered.

Implementation of National Clinical Guidelines

Guidelines for Consultation with Obstetric and Related Specialist Medical Services (Referral Guidelines 2012)

Christchurch Women's Hospital Birthing Suite has designed and purchased handover of clinical responsibility stamps for each of the birthing rooms. This is for all clinicians to use to identify who has clinical responsibility for care. A Working Group is also exploring further tools for documenting the handover of clinical responsibility.

WCDHB has uploaded the Referral Guidelines (2012) on to their intranet sites and internet. Copies of the Referral Guidelines have been made available to the both birthing units for staff to consult.

Audit for epidural handover of care from LMC midwife to core midwifery

An audit was conducted from July to November 2013 at Christchurch Women's Hospital to analyse the volume of women being handed over to core midwifery care and the clinical situations that lead to this handover. Thirty-three sets of clinical records were retrospectively audited for women where a handover of clinical responsibility to core midwifery for management of epidural analgesia had occurred. Of these 33 women, 21 were admitted in labour; a further eleven required induction of labour and one woman was augmented. Eighteen of these 33 women received an Oxytocin infusion.

The average number of minutes waiting time from requesting an epidural to core staff being available and present for epidural was 89.75 minutes. In 67% (n=22/33) cases the LMC midwife left, in 21% (n=7/33) the LMC stayed in a support role and in 12% (n=4/33) of cases it was not documented as to whether or not the LMC stayed in a support role or not.

In 48% (n=16/33) of the cases there was discussion between the LMC and the Birthing Suite Clinical Co-ordinator about handover of care prior to epidural request. In 52% (n=17/33) of cases, the LMC discussed the need for epidural with the obstetric registrar first. Formal documentation of handover of clinical responsibility was recorded in 39% (n=16/33) cases. Handover of clinical responsibility to core staff was documented by the core midwife in 96% (n=32/33) sets of notes. Education has subsequently since taken place with the Birthing Suite clinical coordinators.

The results of this audit will be presented at the Clinical Audit Committee meeting in July 2014 and the audit recommendations will be reviewed and endorsed. The findings of this audit will be communicated in the July 2014 edition of the W&CH Auditorium and education sessions will be held for hospital and community-based midwives and obstetricians.

Observation of Mother and Baby Guideline

Observation of Mother and Baby Guideline was adopted by the Clinical Guidelines Group in May 2014 and can now be accessed on the CDHB and the WCDHB websites.

Postpartum Haemorrhage Guideline

The CDHB and WCDHB Maternity Guidelines Group provided extensive feedback on the Draft National Postpartum Guidelines and this contribution appears to have not been taken into consideration in the publication of the final National Guideline. CDHB's Postpartum Guideline (encompassing primary birthing units and secondary and tertiary facilities) has been extensively tested in practice and through PROMPT and has been determined to be effective and user-friendly.

Links between MQSP and Other Quality Improvement Activities at a Regional Level

South Island Safe Sleeping Policy
The South Island Alliance developed a Safe Sleep Policy for regional implementation after extensive consultation during development including members of the multi disciplinary team and Change for Children Ltd. It was approved by the South Island CEOs for rollout.

The Director of Midwifery, CDHB, is leading the rollout across CDHB and WCDHB. This has been presented to members of the CDHB and WCDHB (neonatal, maternity, mental health, medical-surgical, primary, paediatrics, quality) and to the CDHB/WCDHB Director of Nursing group and CDHB Clinical Board for implementation and sponsorship. The policy has been endorsed at this level and a small working group is being established to implement the policy.

National Maternity Information Systems Project
The National Maternity Information System project is a national project which will provide a paperless system for linking health information from mothers and babies from all health care providers for maternity services. DHBs that identified themselves as "early adopters" for the national project are currently working to develop and implement the system. The project sits under the governance of the National Information Clinical Leadership Group. CDHB are currently working through the business case for this project and identifying how best to implement the system to best fit with existing regional and local information technology projects.

South Island Sustainable Nursing Workforce Project
The South Island sustainable nursing workforce a regional project enabled by the South Island Regional Training Hub, nursing and midwifery representation on this group is from SI DHBs. The aim of the project is to develop an action plan to increase the longevity of experienced nurses/midwives who are competent to practice and ensure that their expertise is readily transferred to their younger colleagues.

South Island Regional Training Hub
The focus of the regional training hubs is to co-ordinate training and support of health professionals in their education and training journey and better use of available resources. (HWNZ 2012). There are four work streams, Allied Health, Medical, Nursing and Midwifery. Nursing and midwifery are represented by the CDHB Executive Director of Nursing, and CDHB Director of Midwifery.

'Blue Skies' Project
'Blue Skies' is a quality project that spans across the Maternity Ward, Birthing Suite and the gynaecology clinical areas. It echoes the quality work done under the "Making Time for Caring" banner that looked primarily at improving ward processes and environments to help clinicians spend more time on patient care thereby improving safety and efficiency. A staff suggestion board was launched late last year and themes were collated and a quality plan is being finalised to action these ideas. Ashburton Maternity Unit has also adopted the "Blue Skies" Project.

CDHB Maternity Cot Project
The Maternity Cot project is currently underway with the input of the CDHB Innovations Hub. The project is to work on the development of a cot that would substantially enhance the women's experience. Enabling the woman to respond to her baby despite reduced mobility and allow the mother to settle her baby while maintaining a safe sleep space.

The national safe sleep message and complimentary South Island policy on safe sleep means that the DHB needs to provide consistent education, role modelling and promote safe sleep spaces. Provision of a clip-on cot, particularly to our most high risk, unwell women would improve a clinical standard and reduce clinical risk.

Improving the Maternity Journey
The CDHB has an ongoing multidisciplinary commitment for improving maternity services across the continuum of care. The strategic project "Improving the Maternity Journey" is being undertaken by an alliance from across the health service. Action points or opportunities which have been achieved by this project include:

- Establishment of standardised Canterbury-wide information accessible from a wide variety of sources;
- Development of an electronic 'findyourmidwife' database;

- Continued funding for referrals from LMC midwives to General Practitioners;
- Providing Pregnancy and Parenting Education Courses that meet the needs of the people in the community;
- Publication of an evidence based guideline to support women and their LMC midwives in deciding whether a primary or secondary care level birthing facility is most appropriate.

Ongoing action points and opportunities currently under development include:

- Improved access to suitable contraception for women who are identified as high risk of future unplanned pregnancy;
- Further development of an integrated maternity model of care that enables additional support for women with high non-obstetric and/or psychosocial needs;
- Establishment of a dedicated primary birthing facility close to CWH;
- Increased breast feeding education and support;
- Development of standardised, streamlined processes for notification and referral from LMC to Well Child / Tamariki Ora provider and general practice, and confirmation that the referral has been accepted.

Quality Actions as a Result of Review Processes

Unpasteurised Donor Breast Milk

The Health and Disability Services Certification audit (2012) identified that CDHB did not have a policy to address the use of donor milk for premature babies. A multidisciplinary team have worked together to develop Unpasteurised Donor Breast Milk policy throughout 2013 and early 2014 and a consumer representative reviewed leaflets.

The Unpasteurised Donor Milk Policy reiterates the importance of breast milk as an alternative to the use of formula where mothers are unable to provide their own milk. The policy provides clear guidance regarding assessing the suitability of donor milk (Health Screen Record and Serology) obtaining consent and documentation. Supplementary to the policy are leaflets for both the donor and the recipients mother that outline the above and safe handling and transportation of donor milk.

For women, this Unpasteurised Donor Milk Policy will ensure that the donor milk is safe and this is crucial reassurance for staff administering it. It also has health promotion benefits in discussing with both the donor and the recipient mother why donor milk must be screened.

The policy has been discussed in various forums and is in the final stages of sign off prior to implementation. The policy and associated forms will be audited six months post introduction (or if low numbers, 12 months).

Fetal Loss Package

It was identified that women and their families returning to Maternity Outpatients Department following a fetal loss often had to return multiple times for appointments and at times post mortem results were unavailable.
Changes were made to the Fetal Loss Package to include a specialist obstetrician checklist, where a woman is able to name the obstetrician she would like to see at the postnatal follow-up. Co-ordination is arranged between the specialist neonatologist and social worker (if requested) so that the woman and her family can see these people in one visit and discuss the post mortem results at the same time.

The changes to the Fetal Loss Package have prompted a wider and ongoing review of the fetal pathway and guideline which should be completed by March/April 2014. The fetal loss package will be audited six months post amendment.

Other Quality Improvement Initiatives within CDHB

Orientation process improvement on Birthing Suite

In 2012 a problem with the orientation process on Birthing Suite was identified. Some midwives undergoing orientation were reporting that they were not gaining the experience or opportunities needed to develop the confidence and/or skills required within a four month period. The practice of rotation has resulted in a proportionally larger number of unfamiliar staff undertaking orientation in the Birthing Suite and not all midwives were 'up to speed' despite the orientation period being completed. Therefore, when acuity is high, it can be difficult to allocate midwives to match the needs of the women. Additionally, risk associated with having staff unfamiliar with practice has been an identified risk at Root Cause Analysis level.

An audit of 37 orientation packages was undertaken as a step towards establishing a more robust orientation process on Birthing Suite, and to provide measurable method (baseline), for review in the future. The graph below is an example of the low completion rates of the packages.

Corrective actions have been implemented from February 2013 and include:

- Ensuring clearly defined time frames for completion of the orientation packages;
- Providing support by 'Go To' midwives who are those who have achieved Midwifery Quality and Leadership Programme in leadership or are confident on Birthing Suite (>2yrs).
- Creating a storage place for orientation packages as 'living documents' as a resource in the existing filing cabinet;
- Displaying a poster outlining the new process on the Birthing Suite Quality Board.

A skill evaluation survey was undertaken of all midwives rotating through Maternity and Birthing Suite in 2013. The future direction is to ensure that there is a re-audit process in 2014.

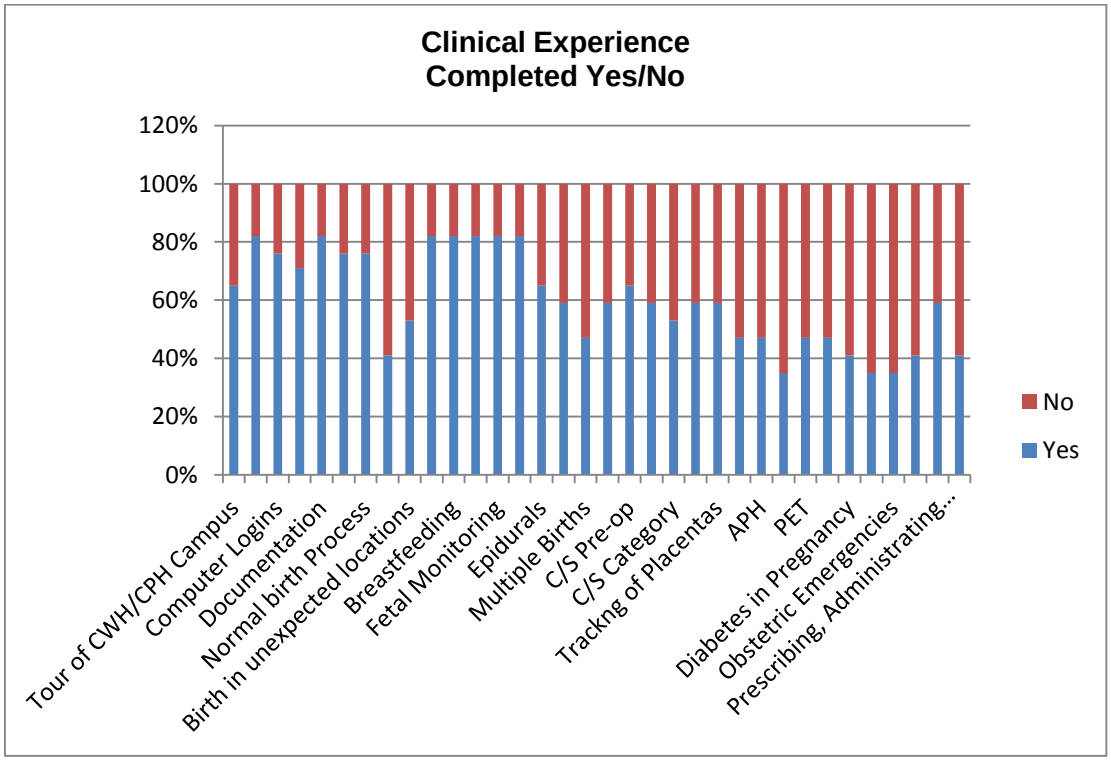


Figure 4 Low completion rates of birthing suites orientation packages

Emergency Department Transfers
A pathway for the transfer of pregnant women 20 weeks and over from Emergency Department has been developed in response to a Root Cause Analysis recommendation.

The objective was to streamline the process when a woman of 20 weeks gestation or over presents to the Emergency Department. The pathway identifies those women who are suitable to be fast tracked to Birthing Suite and the process for those women who are unstable.

The Quality Co-ordinator Maternity has worked with a specialist obstetrician to develop the pathway. The first draft has been completed and has been distributed for consultation to the Emergency Department. The Emergency Department is considering the request to use MEOWs as the early warning scoring system as they currently utilise EWS. Once confirmation is gained, the draft will be distributed to the Obstetric SMOs before being piloted.

CDHB Guidelines
The CDHB Guidelines are evidence driven and developed by senior multidisciplinary team members. The guidelines are intended to address clinical requirements and/or identified problem areas at local and national level. Locally driven guidelines include those from Root Cause Analysis review recommendations such as the Remifentanyl PCA for Labour.

An example of a nationally driven guideline is the Admission to Primary Birthing Unit guideline which came out of an analysis of the 2011 New Zealand Maternity Clinical Indicator seeking to address the promotion of normal vaginal birth. Furthermore both the Registrar Supervision, revised in August 2013; and the Second Stage Guideline currently being developed, are a direct response toward reducing the high instrumental delivery rate identified in the benchmark data. Guidelines under development include Deferred Cord Clamping, Antibiotic Prophylaxis at Caesarean Section, Methadone and the revised Venous Thromboembolism, Cholestasis, External Cephalic Version guidelines. Others revised in 2013/14 include: Birth After Caesarean, Cord Prolapse, Induction of Labour, Breech and Preterm Rupture of Membranes, Classification of Caesarean Section and Fetal Heart Monitoring.

Guidelines can be accessed via the CDHB website and are available in hard copy in the case of an emergency that resulted in loss of the computer network.

Positioning and Labelling of Medication
Birthing Suite staff recognised an issue with the positioning of medications and following a meeting with the anaesthetic consultant, the charge manager and the CWH pharmacist they reorganised the drug room in Birthing Suite at Christchurch Women's Hospital. Problems identified were that anaesthetic drugs were mixed up with general medication; generic names were being used on labelling on drugs in fridge; some section 29 drugs were not identified or correctly recorded; and also the shelves were too high and out of reach of some staff.

Actions taken to remedy the problem were that all medication that had been used in the last six months was reviewed and was labelled with the generic name. The stock was made easier to reach on the shelves, and staff were appraised of the generic names. As a result there is now better labelling of shelves, for example grouping of drugs e.g. antibiotics and less risk of incidence due to anaesthetic drugs being regrouped. Improvements now include writing notes in the communication book, verbal handover to all LMC staff. Additionally emails have been circulated and there is the visual impact of the changes.

These CDHB Guidelines are further customised where required, to meet the West Coast setting, and made available on the WCDHB intranet and internet sites.

Other Quality Improvement Initiatives within WCDHB

West Coast Newborn Services Enrolment

The Newborn Services Enrolment form has recently been developed to address timely enrolment and referrals to newborn services. The services included are; the National Immunisation Register, Well Child / Tamariki-Ora, General Practice, Breastfeeding Support Services and the Community Dental Service. This streamlined process is an important step in ensuring there is continuity of care of mothers and babies from birth by reducing information gaps, ensuring all services have information early, improving the transition from the LMC to Well Child / Tamariki-Ora and general practice, as well as minimising the risk of children and their whanau falling through the gaps. The process will be evaluated by the working group involved in its development after three months of implementation. This Newborn Services Enrolment form gives women an informed choice on Well Child / Tamariki-Ora providers.

Integration of Technology

In May 2014 McBrearty Ward purchased two laptop computers allowing computer access in the Birthing Rooms and the Antenatal Clinic Room. This allows midwives the opportunity to access the laboratory and radiology results without leaving the women.

Neonatal Clinical Records

In order to comply with the MoH's Health and Disability Services Standards, separate clinical records for the baby (from that of the mother) have been implemented. This separate set of clinical records for the baby provides continuity of documentation and better handover of information.

6. Priorities, Deliverables and Planned Actions for 2014 / 15

The following list of priorities, deliverables and planned actions determined by CDHB and West Coast DHB for 2014 / 15 are based on identified areas of concern, quality and improvement initiatives, Ministry of Health national priorities and National Maternity Monitoring Group expectations. These priorities correspond with CDHB and West Coast DHB Annual Plans (see Appendix 4).

Table 38 Priorities, Deliverables and Planned Actions for 2014 / 15

Priority Area	Actions	DHB/Unit accountable	Expected Outcome	Measured by	Planned start / finish date
GOVERNANCE					
Produce the MQSP Annual Report	Determine responsibility for the production of the MQSP Report to ensure "business as usual". Communicate requirements and identify contributors for work going forward Implement recommendations	CDHB & WCDHB	MQSP Annual report will be signed off by CDHB and WCDHB executives and submitted to the MoH by 30 June annually.	MQSP Annual Report approved by MoH	30 June 2015
INFORMATION AND COMMUNICATION SYSTEMS					
Establish a communication platform for information sharing between and within DHBs	Explore extending the use of Share Point for document sharing and providing information on education sessions/ forums and on-line learning	CDHB & WCDHB	Improved and strengthened communication linkages between and within DHBs and shared opportunities for learning.	Increased involvement of health professionals from all maternity sites in forums and meetings	June 2015
Define and develop processes for Clinical Case Review	Review additional literature/tools/systems and stakeholder opinion for consideration in developing a revised process. Develop a proposal for a revised DHB wide	CDHB & WCDHB	Multi-disciplinary participation in clinical case reviews. Clinical case review	The revised process is implemented. Clinical case review reports are	31 October 2014

Priority Area	Actions	DHB/Unit accountable	Expected Outcome	Measured by	Planned start / finish date
	standardised process. Revise the current policy, guidance documents and other associated documentation, disseminate and make available electronically.		policies processes are in line with recommended best practice.	completed to a high standard in a timely fashion.	
Define and develop processes for formal review of serious and sentinel events	Review additional literature/tools/systems and stakeholder opinion for consideration in developing a revised process. Develop a proposal for a revised DHB wide standardised process. Revise the current policy, guidance documents and other associated documentation, disseminate and make available electronically.	CDHB & WCDHB	Investigation of serious and sentinel event policies processes are in line with recommended best practice.	The revised process is implemented. Serious and sentinel event reports are completed to a high standard in a timely fashion.	31 October 2014
Perinatal and maternal mortality and morbidity review activities involve hospital and community based practitioners	DHB staff, LMCs and GPs participate in the mortality review process. Document process, disseminate learnings and make information available electronically via the internet. Review current DHB guideline for perinatal losses. Update documents relating to the fetal loss package. Audit the investigations undertaken at the time of perinatal losses to ensure they are in line with best practice guidelines established by the Perinatal Society of Australia and New Zealand. (PSANZ) Document process, disseminate learnings and	CDHB	Mortality reviews result in opportunities for multi-disciplinary education in line with recommended best practice. Improved and strengthened communication linkages between and within DHBs and shared opportunities for learning.	Mortality and morbidity review activities have representation from both hospital and community based practitioners. Reviews are completed to a high standard and in a timely fashion.	January 2015

Priority Area	Actions	DHB/Unit accountable	Expected Outcome	Measured by	Planned start / finish date
	make information available electronically via the intranet				
DATA MONITORING					
Improve WCDHB's IT system so that it has the capability of collecting maternity data	Adopt the electronic Midwifery and Maternity Providers Organisation clinical records system. Implement the National Maternity Data System when available from the MoH.	WCDHB	WCDHB maternity outcomes data will be analysed and published in MQSP Annual Report.	Maternity outcome data will be available to inform clinical practice.	June 2015
Analysis of National Maternity Clinical Indicators	Analyse 2012 Maternity Clinical Indicators provided by MoH . Formulate a plan to address the areas requiring focused improvement.	CDHB & WCDHB	Quality improvement initiatives will be developed to address Clinical Indicators outside of the national average.	Reduced service gaps.	July 2014 – December 2014
Eclampsia Review benchmark data in relation to eclampsia and identify any deficits within service provision	Compare outcomes from the Maternity Clinical Indicators. Assess clinical audit results and undertake clinical audit as required. Develop initiatives to address any deficits in care provision.	CDHB	Deficits in any are identified. Initiatives to improve care, if required, are incorporated into the MQSP 2014/15 plan. Appraise against benchmark data.	Eclampsia outcomes compare favourably to national outcomes	June 2015

Priority Area	Actions	DHB/Unit accountable	Expected Outcome	Measured by	Planned start / finish date
Variation in gestational age Focus on factors that can be changed in relations to increasing gestational age at birth from range 34-39 weeks (Late pre-term & early-term)	Extend planned audit of cases and mode of birth to 34, 35 and36 weeks gestation. Ongoing clinical audit of the reasons for caesarean section and Induction of labour.	CDHB	Trends in relation to late pre-term and early-term are evaluated and understood. Factors identified that can be changed are incorporated in the evidence-based clinical guidelines.	Outcomes compare favourably for increased gestational age against the National Data Set.	June 2015
Decrease avoidable maternal intervention leading to term babies (without congenital abnormality) transferring to NICU	Audit admissions of term babies to NICU. Communicate and educate health care professionals and develop quality improvement initiatives (e.g. guideline development).	CDHB	Decrease in number of term babies admitted to NICU.	National Maternity Clinical Indicator.	July 2015
Reduce contributory factors leading to Maternal Intensive Care Unit and High Dependency Unit Admissions	Undertake clinical reviews of women admitted to ICU utilising the NZ Perinatal and Maternal Mortality Review Committee tool. Communicate recommendations to health care professionals through quality publications and perinatal education sessions.	CDHB	Decrease in number of women admitted to ICU an HDU.	National Maternity Clinical Indicator.	July 2015

Priority Area	Actions	DHB/Unit accountable	Expected Outcome	Measured by	Planned start / finish date
SECTOR ENGAGEMENT					
Implement a formal process for the dissemination of information to community based clinicians	Develop a common platform which can be accessed by hospital, rural birthing units and community based practitioners across both DHBs. Canvas practitioners to find out what enhancements can be made. Progress a survey for access agreement holders and rural staff. Continue to proactively communicate with the community-based practitioners via email and regular face-to-face meetings.	CDHB & WCDHB	Hospital and community clinicians will be aware of local priorities and changes in practice.	Co-ordinated exchange of information between sites and the community.	June 2015
CONSUMER ENGAGEMENT					
Conduct research into maternity consumer experiences	Monitor the effectiveness of the '*We Care About Your Care'* M*aternity Services Feedback form* and system. Ensure a mechanism for receiving and acting on the information provided by the new HQSQ consumer survey once it is rolled out nationally (CDHB is currently the pilot site for this).	CDHB & WCDHB	Reliable data is returned for implementation of quality improvements.	Survey forms being received with information that can by reviewed.	June 2015
Develop web-based public information about maternity activities and services	Develop and design site content with consumer input. Create a 'virtual' tour. Market website information. Develop a system for the uploading and maintaining contemporaneous information	CDHB	Consumers will have comprehensive information on CDHB maternity services available on-line.	Consumers are provided with information on CDHB maternity services.	June 2015

Priority Area	Actions	DHB/Unit accountable	Expected Outcome	Measured by	Planned start / finish date
	regarding maternity activities and services.				
QUALITY IMPROVEMENT					
Improve the attendance of Māori, Pacific Island and younger women at pregnancy and parenting classes	Establish a new reporting template for both DHBs and NGOs to collect NHI level data. Conduct a closed Request for Proposal for Pregnancy and Parenting Education for Māori Pacific and young parents. Review PPE courses and develop a delivery plan to ensure classes are provided in the community and meet the needs of Maori, Pacifica and young women.	CDHB & WCDHB	A higher number of Māori, Pacific Island and younger women will attend pregnancy and parenting classes.	Information is gathered on pregnancy and parenting classes. Numbers of enrolments of Māori, Pacific Island and younger women at pregnancy and parenting classes.	
Increase the proportion of women registering with LMCs in the first trimester	Develop a communication strategy. Launch the WCDHB Maternity website. Revise the CDHB Maternity website Network with consumer groups to assist in educating women on the importance of early registration in pregnancy. Continue to network with GPs through HealthPathways and the Maternity General Practitioner Liaison when appointed. Develop advertising campaign for CDHB and WCDHB that will highlight the health message around the importance of registering with a midwife in the first trimester.	CDHB &WCDHB	Improved access to care.	Increase in the number of women registering with LMCs in the first trimester.	June 2015

Priority Area	Actions	DHB/Unit accountable	Expected Outcome	Measured by	Planned start / finish date
Develop combined educational events to improve collaboration between DHBs	Rotate venues for education sessions and workshops.	CDHB & WCDHB	Consistency in practice. Collaborative working between DHBs.	Attendance at education sessions includes practitioners from all sites and the community.	Completed April 2014. Needs evaluating Sept 2014
Implement the Admission to Primary Birthing Unit Guideline	Improve the interface and communications around transfer of care and consultation. Conduct an audit on primary referrals to secondary care. Develop a system to educate health professionals on the Maternity Referral Guidelines.	CDHB &WCDHB	Improved safety for women and babies.	Transfer of clinical responsibility is clearly documented within the clinical records.	June 2015
Decrease smoking rates and offer support to women who smoke during pregnancy to meet the MoH's and WCTO's targets:	Develop marketing strategies to inform women on the need to book with an LMC in the first trimester and quit smoking. Work collaboratively with smoking cessation agencies to identify and recruit women who smoke. Continue to work with GPs to provide smoking cessation advice and referral at the first antenatal consultation. Work with smoking cessation agencies to encourage mothers to be smikefree at 2 weeks postpartum.	CDHB & WCDHB	Smoking cessation targets are met. 90% of all women who smoke will be given advice/support to stop smoking at confirmation of pregnancy. 95% of mothers are smokefree at 2 weeks postnatal.	Increased numbers of women accessing quit smoking programmes. Smoking cessation targets are met.	December 2015

Priority Area	Actions	DHB/Unit accountable	Expected Outcome	Measured by	Planned start / finish date
Raise awareness about newborn immunisation	Provide education and information to women and their families about childhood immunisation. Ensure all babies are enrolled with general practice by two weeks of age. Deliver actions against the 2014/15 West Coast Immunisation Advisory Action Plan.	CDHB	Ministry of Health's immunisation targets are met.	Increase in enrolment of babies onto the National Immunisation Register.	June 2015
Develop primary maternity facilities	Upgrade and expand birthing facilities and services at primary units. Form an Ashburton & Rural Health Services Promotion of Primary Maternity Unit Group. Promote all primary units. Develop a business plan to reintroduce planned births at Kawatiri Maternity Unit. Develop a marketing campaign to alert women and midwives to the reintroduction of birthing services at St George's Maternity Centre.	CDHB & WCDHB	Increase in women accessing primary maternity facilities	Percentage of low risk women booking to birth and commencing labour at primary units.	June 2015
Improve breastfeeding rates	Develop a process for Peer Support Counsellors to visit women in the birthing facilities to introduce the service and initiate linkages that will support women to access the service if needed once they return home. Improve breastfeeding support services for West Coast mothers and babies returning from NICU. Finalise and commence implementation of the CDHB and the WCDHB Breastfeeding Priority	CDHB & WCDHB	Improved access to consistent breastfeeding information.	Increase in exclusive and fully breastfeeding rates at six weeks to maintain Ministry of Health target.	June 2015

Priority Area	Actions	DHB/Unit accountable	Expected Outcome	Measured by	Planned start / finish date
	Plans 2014/16. Explore the use of IT applications to improve access to information on breastfeeding for women who live rurally and remotely.				
Utilisation of workforce	Implement recruitment and retention strategies to attract maternity hospital and community based practitioners.	CDHB & WCDHB	Safe effective care is provided to women and babies.	Performance reviews and staff feedback.	Completed and needs to be evaluated. June 2015
	Evaluate models of maternity care. Finalise consumer survey to determine accessibility to care provision. Evaluate alternative service delivery for women who live rurally and remotely.			Consumer satisfaction feedback.	
Implement a regional safe sleeping policy	Implement the Safe Sleep Policy as part of the South Island Alliance Programme Office. Develop education requirement and resource for ward areas. Audit post-implementation.	CDHB & WCDHB	Women receive consistent safe sleeping information	Safe sleep policy is implemented across all sites Hospital and community based practitioners receive education	June 2015
Ensure consistency in the clinical decision making and	Implement the National Guideline for the Screening Diagnosis and Management of Gestational Diabetes.	WCDHB & CDHB	National Gestational Diabetes Guidelines are in place.	Improved outcomes for infants of women with gestational diabetes.	June 2015

Priority Area	Actions	DHB/Unit accountable	Expected Outcome	Measured by	Planned start / finish date
management of gestational diabetes.					
Improve timely newborn multi-enrolment with health services.	Implement new multi-enrolment form across West Coast Maternity Services. Ensure newborns are enrolled with community dental services. Review newborn enrolment process three months post implementation.	WCDHB	Improved links and enrolment with community services.	100% of newborns are enrolled with a General Practitioner by six weeks of age	June 2015
Strengthen co-ordination and increase knowledge of maternal mental health services across primary and secondary care.	Identify barriers to access / engagement with mental health service. Increase usability of referral process for mental health services. Assess feasibility of midwife liaison role. Develop initiatives to address attachment based work for families to promote infant mental health.	CDHB	Access for women to maternal mental health service is promoted. Initiatives identified are incorporated into the MQSP 2014/15 plan. Attachment-based work is planned.	Better links exist between maternal mental health services and maternity care providers. Co-ordinated care for women and babies to mental health services	June 2015

Transitioning Maternity Quality and Safety Programme

Since the commencement of the MQSP at CDHB and WCDHB the need to transition the programme into the everyday work of the maternity services from July 2015 has been expected and planned for. A smooth transition into this next phase is expected due to the relationships and structure that have been formed during the initial stages of the programme.

Prior to the commencement of the MQSP, the CDHB Women's and Children's Health Division had a Safety and Quality Unit with a Quality Coordinator dedicated to maternity. This role will continue to support quality improvement work within the service and liaise with quality staff already in post in each of the other DHB services. Whether an additional full-time equivalent will be required to enable all work priorities to be achieved is yet to be determined but will be decided prior to July 2015. WCDHB is in the process of exploring the configuration of staff dedicated to quality work and how to allocate the responsibility for quality improvement in their maternity service to someone in addition to the Charge Midwife Manager. Ashburton and Rural Health Services and St George's Maternity Centre each have charge midwife managers who are supported by general quality staff in the ongoing quality work in their areas.

The committee structures that have been put in place from the inception of the MQSP programme are designed to be sustainable and continue in their current format. Each of the operational committees will continue to develop annual quality plans and contribute to the development of the combined DHB annual report and all of this will occur under the governance of the CDHB and WCDHB Maternity Clinical Governance Committee.

With the additional 0.5 full-time equivalent Administrator position in the Safety and Quality Unit of Women's and Children's Health now permanent, the co-ordination of the information to produce the MQSP Annual Report on behalf of both DHBs will be overseen by this team and undertaken by this role.

Appendices

Appendix 1

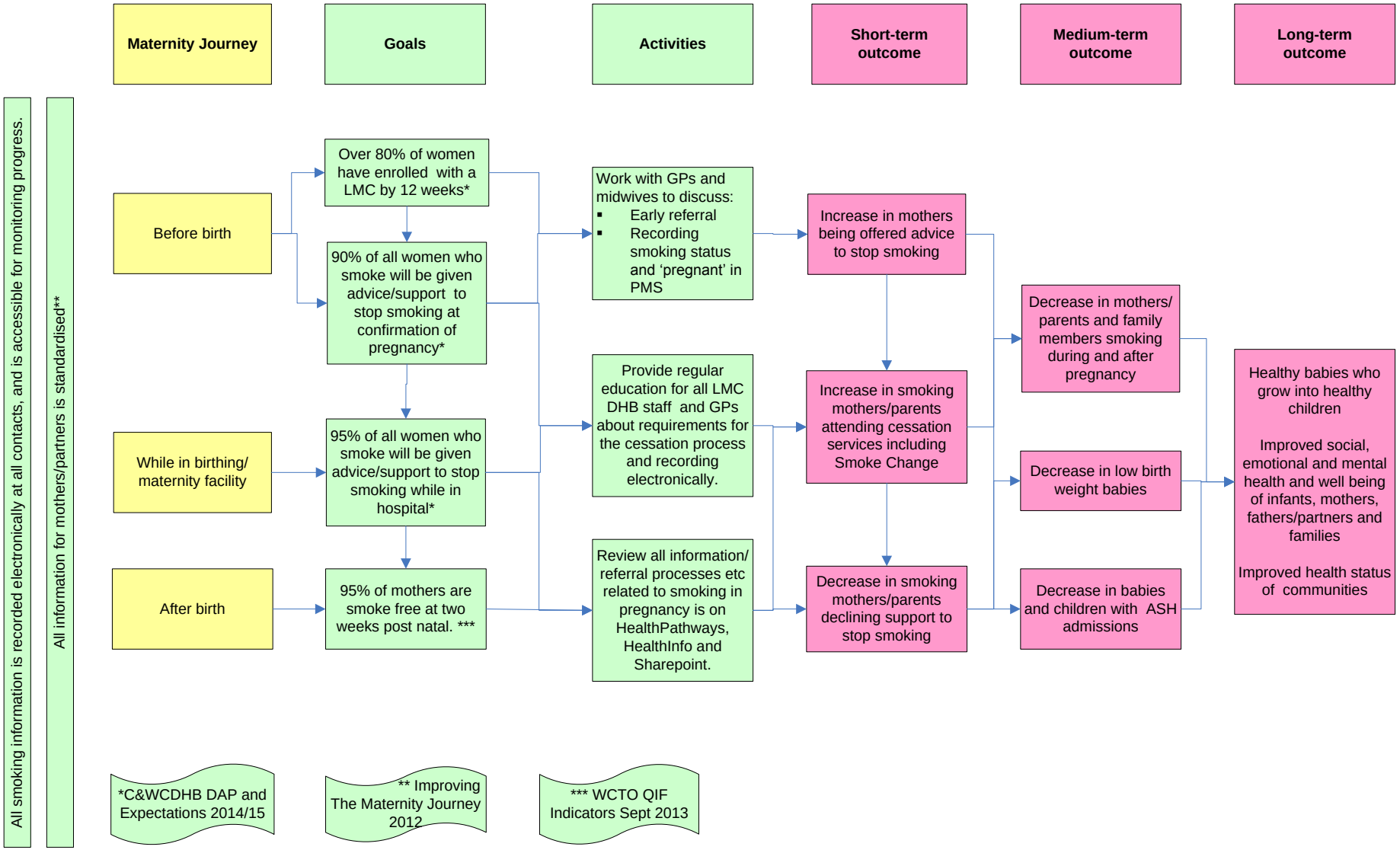
New Zealand Maternity Clinical Indicators

1	Standard primiparae who have a spontaneous vaginal birth	Total number of standard primiparae who have a spontaneous vaginal birth	Total number of standard primiparae who give birth
2	Standard primiparae who undergo an instrumental vaginal birth	Total number of standard primiparae who undergo an instrumental vaginal birth	Total number of standard primiparae who give birth
3	Standard primiparae who undergo caesarean section	Total number of standard primiparae who undergo Caesarean section	Total number of standard primiparae who give birth
4	Standard primiparae who undergo induction of labour	Total number of standard primiparae who undergo induction of labour	Total number of standard primiparae who give birth
5	Standard primiparae with an intact lower genital tract (no 1st – 4th degree tear or episiotomy)	Total number of standard primiparae with an intact lower genital tract	Total number of standard primiparae who give birth vaginally
6	Standard primiparae undergoing episiotomy and no 3rd – 4th degree perineal tear	Total number of standard primiparae undergoing episiotomy and no 3rd−4th-degree perineal tear while giving birth vaginally	Total number of standard primiparae who give birth vaginally
7	Standard primiparae sustaining a 3rd – 4th degree perineal tear and no episiotomy	Total number of standard primiparae sustaining a 3rd−4th-degree perineal tear and no episiotomy	Total number of standard primiparae who give birth vaginally
8	Standard primiparae undergoing episiotomy and sustaining a 3rd – 4th degree perineal tear	Total number of standard primiparae undergoing episiotomy and sustaining a 3rd−4th-degree perineal tear while giving birth vaginally	Total number of standard primiparae giving birth vaginally
9	General anaesthesia for caesarean section	Total number of women having a general anaesthetic for a Caesarean section	Total number of women having a Caesarean section
10	Blood transfusion after vaginal birth	Total number of women who give birth vaginally who require a blood transfusion during the same admission	Total number of women who give birth vaginally
11	Blood transfusion after caesarean section	Total number of women who undergo Caesarean section who require a blood transfusion during the same admission	Total number of women who undergo Caesarean section
12	Premature births (delivery between 32 and 36 weeks)	Total number of babies born at between 32 weeks 0 days and 36 weeks 6 days gestation	Total number of babies born in hospital

Maternity & WCTO: Reducing Smoking

Tuesday, February 11, 2014

Appendix 2



Appendix 3

Canterbury District Health Board
Te Poari Hauora o Waitaha

West Coast District Health Board
Te Poari Hauora a Rohe o Tai Poutini

St George's Hospital Maternity Centre

We Care About Your Care

Maternity Services Feedback Form

Kia Ora and congratulations on the birth of your baby/ pēpi.
We care about you and the service we provide and we value your feedback.

Women's and Children's Health

Please tick the boxes ☐ and circle the faces that best describe your experiences:

Antenatal care

How many weeks pregnant were you when you booked your midwife? _____weeks

How did you find your midwife?

☐ Word of mouth ☐ GP ☐ Other _____
☐ Hospital ☐ findyourmidwife.co.nz website

How involved were you in choosing your place of birth? *(Please comment and circle a face)*

_____

Very involved To some extent Not involved

Did you attend pregnancy/parenting education classes?

☐ Yes. If yes, where? _____
☐ No. If no:
Was a class offered? ☐ Yes ☐ No
Was it your choice not to attend? ☐ Yes ☐ No
Why did you choose not to attend? _____

Labour, birth and care

Where did you give birth to your baby/pēpi? *(please name the place)*

_____

Was this your planned place of birth? ☐ Yes ☐ No

Comments:

_____

Was your place of birth welcoming:

The building/birthing room? ☐ Yes ☐ No
The people who cared for you? ☐ Yes ☐ No

Comments:

_____

Were you given enough information to make decisions during your labour and birth?
(Please comment and circle a face)

Very informed To some extent Not informed

Postnatal care - During your postnatal stay

Where was the majority of your care provided after your baby/pēpi was born? *(Please name the place)*

Was this postnatal unit welcoming?

Your room?	☐ Yes	☐ No
The people who cared for you?	☐ Yes	☐ No
The facilities? *(e.g. bathroom/kitchen)*	☐ Yes	☐ No

Comments:

Did the choices of food meet your needs? ☐ Yes ☐ No
Comments:

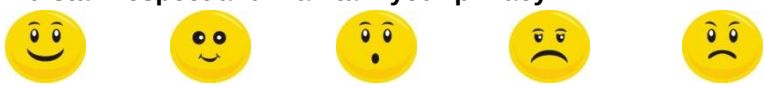
Did you feel supported with feeding your baby/pēpi? ☐ Yes ☐ No
Comments:

Were staff respectful of your cultural and spiritual needs (e.g. Tikanga Māori)? ☐ Yes ☐ No
Comments:

Did the visiting hours meet your family/whānau's needs?
(In each section please comment and circle the face that best describes your experience)

Yes, definitely To some extent No, not at all
Comments:

Did staff respect and maintain your privacy?



Yes, definitely To some extent No, not at all
Comments:

Were the staff friendly and quick to respond to you and your baby's/pēpi's needs?

Yes, definitely To some extent No, not at all

Comments:

Did all staff give you consistent information to help you learn to feed your baby/pēpi?

Yes, definitely To some extent No, not at all

Comments:

Were you given enough information about going home with your baby/pēpi?

Yes, definitely To some extent No, not at all

Comments:

What were the two best things about your care?

What two suggestions do you have that would have improved your experience?

About you

How old are you?

☐ 15-19 years ☐ 20 -29 years ☐ 30 – 39 years ☐ 40 + years

Is this your first baby/pēpi? ☐ Yes ☐ No

What is your ethnicity? (*you can tick as many boxes as you want)*

☐ NZ European ☐ Māori ☐ Asian ☐ Pacific Islander ☐

Other:_____

Contact details *(Optional)*

Home: _____ Email: _____

Phone: _____ Address: _____

Appendix 4

CDHB and WCDHB Annual Plan – Our Performance Story 2014/15

Implement a collaborative and integrated approach to the delivery of maternity services.			
OBJECTIVE		**ACTIONS TO DELIVER IMPROVED PERFORMANCE**	**EVIDENCED BY**
Implement processes and strategies to increase the number of women registered with an LMC by week 12 of their pregnancy.	**WCDHB**	Identify barriers to women booking within the first trimester and explore social media and other communication strategies as a communication tool with pregnant women. Work with consumer groups to assist in educating women on the importance of early registration in pregnancy. Feed information into the Mana Tamariki Mokopuna programme and take on board any opportunities identified through the programme.	Link on the DHB website to 'findyourmidwife' Q3. Increased number of women registered with an LMC by 12 weeks - base 62%.
	CDHB	Work with the NZ College of Midwives to identify barriers to registration within the first trimester. Work with consumer groups to increase awareness of the value of LMC registration through education and information programmes, social media campaigns and web-based info sites.	'findyourmidwife' site maintained. 80% of pregnant women register with an LMC by week 12 of their pregnancy.

Enhance pregnancy and parenting programmes to better meet the needs of Māori and younger women.	**WCDHB**	Review DHB-funded pregnancy and parenting programmes following the release of the MoH review on the service specifications.[7] Develop strategies to improve attendance of, Māori, Pacific Island and younger women and collect data to monitor attendance data by ethnicity to demonstrate increased engagement. Support the Mana Tamariki – Mana Mokopuna, Mana Whānau project to address the needs of young Māori mothers and their whānau who are about to have tamariki and mokopuna.	Pregnancy/parenting review complete Q2. >30% of all new mothers' access DHB-funded parenting and pregnancy courses – base established Q3.
	CDHB	Review DHB-funded pregnancy/ parenting courses to better meet the needs of a wider range of women – particularly Maori and Pacific women and younger mothers.[8] Promote supportive environments and expand the variety and locations of breastfeeding courses to better engage with women. Invest in supplementary services including Mum-4-Mum support and lactation services to support high-needs and at-risk women. Collaborate with Maori and Pacific health providers to identify strategies to improve breastfeeding rates for Maori and Pacific women.	30% of new mothers access DHB-funded pregnancy and parenting education courses. 75% of mothers have established breastfeeding on hospital discharge. 67% of babies fully or exclusively breastfed at 6 weeks. 28% of babies fully or exclusively breastfeed at 6 months.

[7] The Ministry of Health is currently reviewing content and service specifications for pregnancy and parenting education nationally; once national recommendation from this review have been released the DHB will review its own service delivery against these

[8] The Ministry of Health is reviewing service specifications for pregnancy and parenting education; the DHB will align service delivery with national requirements once this review is complete.

Work collaboratively to improve the consistency and quality of services mothers and their babies.	**WCDHB**	Continue to implement the Maternity Quality and Safety Programme and support the joint Canterbury/Coast maternity Governance Group to monitor performance against NZ Maternity Clinical Indicators. Complete implementation of the recommendations from the clinically led West Coast Maternity Review. Implement the national guideline for the screening, diagnosis and management of gestational diabetes.	Maternity Quality and Safety Action Plan updated Q2. Maternity Review actioned Q1-Q4. National gestational diabetes guidelines in place.[9]
	CDHB	Continue to implement the Maternity Quality & Safety Programme and support the combined (Canterbury? West Coast) Maternity Clinical Governance Group to oversee the Programme. Review performance against the NZ Maternity Clinical Indicators and identify opportunities to improve clinical care and reduce variations. Identify and implement local quality improvement priorities and those identified by the National Maternity Monitoring Group.	Third MQSP Annual Report completed and circulated Q4. Improved maternity outcomes evident as measured by national and DHB data analysis and surveys.
Improve timely newborn multi-enrolment with health services.	**WCDHB**	Support the use of the newly introduced Newborn Multiple Enrolment form across West Coast Maternity Services. Review the Newborn Enrolment process after three months of implementation to identify where further improvements can be made. Improve links with oral health services to expand enrolment and ensure newborns are enrolled with community dental services.	95% of newborns enrolled on the NIR at birth. 100% of newborns enrolled with a GP by 6 weeks of age.

[9] Timeframes for implementation of the programme are dependant on the national release of guidelines expected in early 2014.

	CDHB	Support improved communication and liaison between LMCs, Well Child Tamariki Ora (WCTO) providers and general practices. Enhance current systems and processes that support multiple enrolments across maternity, immunisation, WCTO, general practice and school and community dental services.	>95% of newborns enrolled on the NIR at birth. 98% of newborns enrolled with general practice within three months of birth.

Note: The above information is technically a *draft* but no major changes to any of these points are expected.

Glossary of Terms

Assisted vaginal birth	A vaginal birth that needs assistance (e.g. forceps, vacuum extraction).
Caesarean section	An operative birth through an abdominal incision. This includes emergency and elective, lower segment and classical and it is identified by the presence of any caesarean section clinical code.
Case loading midwife	A midwife who carries a full clinical primary workload including antenatal, intra-partum and postnatal care. Used to describe salaried position in DHB as opposed to LMC midwife who claims off the Section 88 Notice.
Cephalic	Head down presentation
Epidural	An injection of analgesic agent outside the dura mater that covers the spinal canal. It includes lumbar, spinal (inside the dura mater) and epidural anaesthetics.
Episiotomy	An incision of the perineal tissue surrounding the vagina at the time of birth to facilitate delivery, identified by the presence of an episiotomy clinical code.
Exclusive breastfeeding	The infant has never, to the mother's knowledge, had any water, formula or other liquid or solid food. Only breast milk, from the breast or expressed, and prescribed medicines (as per the Medicines Act 1981) have been given from birth.
Fully breastfeeding	The infant has taken breast milk only, no other liquids or solids except a minimal amount of water or prescribed medicined, in the past 48 hours.
Hypoxic Ischemic Encephalopathy	Brain trauma that occurs when there is an insufficient supply of blood and oxygen carried to the brain
Induction of labour	An intervention to stimulate the onset of labour by pharmacological or other means, identified by induction of labour clinical codes.
Intact lower genital tract	Identified by an absence of clinical codes indicating an episiotomy or a tear of any degree (first to fourth, and including unspecified degree).

Lead maternity carer	A person who a) is a general practitioner with a Diploma in Obstetrics (or equivalent), a midwife or an obstetrician and b) is either a maternity provider in his or her own right; or an employee or contractor of a maternity provider; and c) had been selected by the women to provide her lead maternity care.
Live birth	The complete expulsion or extraction from its mother of a product of conception, irrespective of duration of pregnancy, which, after such separation, breathes or shows any other evidence of life, such as breathing, beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached. Each product of such a birth is considered liveborn (WHO 1975).
Maternity facility	A facility that provides labour and birth services and inpatient postnatal care.
Midwife	A person who has successfully completed a midwifery education programme that is duly recognised in the country where it is located and that is based on the International Confederation of Midwives (ICM) Essential Competencies for Basic Midwifery Practice and the framework of the ICM Global Standards for Midwifery Education who has aquired the requisite qualifications to be registered and/or legally licensed to practice midwifery and use the title 'midwife'; and who demonstrates competency in the practice of midwifery.
NZDep2013	NZDep2013 is an updated version of the NZDep2006 index of socioeconomic deprivation. NZDep2013 combines census data relating to income, home ownership, employment, qualifications, family structure, housing, access to transport and communications. NZDep2013 provides a deprivation score for each meshblock in New Zealand. Meshblocks are the smallest geographical area defined by Statistics New Zealand, with a population of around 60–110 people. NZDep2013 groups deprivation scores into deciles, where 1 represents the areas with the least deprived scores and 10 the areas with the most deprived scores. A value of 10 therefore indicates that a meshblock is in the most deprived 10% of areas in New Zealand. It is important to note that NZDep2013 estimates the relative socioeconomic deprivation of an area, and does not directly relate to individuals. NZDep2013 can not be used to look at changes in absolute deprivation over time as 10% of areas will always be the most deprived, relative to other areas in New Zealand. The indicators used to generate the index may also change over time, depending on their relation to deprivation. The NZDep2013 Index of Deprivation is available on the Ministry of Health website

Dimension of Deprivation	Description of variable(in order of decreasing weight in the index)
Communication	People aged less than 65 with no access to the Internet at home
Income	People aged 18-64 receiving a means tested benefit
Income	People living in equivalised* households with income below an income threshold
Employment	People aged 18-64 unemployed
Qualifications	People aged 18-64 without any qualifications
Owned home	People not living in own home
Support	People aged less than 65 living in a single parent family
Living space	People living in equivalised* households below a bedroom occupancy threshold
Transport	People with no access to a car

Note. equivalised*: methods used to control for household composition. Source - NZDep User Manual

Partial Breastfeeding The infant has taken breast milk and bottle milk in the past 48 hours.

Parity The number of times a woman has given birth, including stillbirths.

Postnatal All pregnancy-related events following birth.

Post-term birth A birth at 42 or more completed week's gestation.

Preterm birth, preterm labour Birth or labour before 37 completed week's gestation.

Premature birth The birth of a baby born between 32 weeks 0 days and 36 weeks 6 days gestation.

Primary maternity facility	A facility that does not have inpatient secondary maternity services or 24-hour on-site availability of specialist obstetricians, paediatricians and anaesthetists. This includes birthing units.
PROMPT	A one day course managing obstetric emergencies and trauma as part of a multi-disciplinary team.
Referral Guidelines	Guidelines for Consultation with Obstetric and Related Medical Services
Secondary maternity care facility	A facility that provides additional care during the antenatal, labour and birth and postnatal periods for women and babies who experience complications and who have a clinical need for either consultation or transfer (Health Funding Authority 2000).
Spontaneous vaginal birth	The birth of a baby without obstetric intervention (i.e. without caesarean section, forceps or vacuum), identified by the presence of a spontaneous vaginal birth clinical code with no concurrent instrumental/caesarean section code. These may include births where labour has been induced or augmented.
STABLE Course	A neonatal education programme focussed on the post-resuscitation/pre-transport stabilisation care of sick infants.
Standard primiparae	A group of mothers considered to be clinically comparable and who are expected to require low levels of obstetric intervention. Standard primiparae are defined as women who meet all of the following inclusions: • Aged between 20 and 34 years (inclusive) at delivery; • Pregnant with a single baby presenting in labour in cephalic position; • Have no known prior pregnancy of 20-plus weeks' gestation; • Have no recorded obstetric complications in the present pregnancy that are indications of specific obstetric interventions; • Deliver a live or stillborn baby at term gestation: 37 to 41 weeks inclusive.
Tertiary maternity care facility	A facility that provides a multidisciplinary specialist team for women and babies with complex or rare maternity needs; for example, babies with major fetal disorders requiring prenatal diagnostic and fetal therapy services, or women with obstetric histories that significantly increase the risks during pregnancy, labour and delivery (e.g. those who have already had two placental abruptions). Includes neonatal intensive care units.
Third and fourth- degree tear	A third or fourth degree perineal laceration during birth, identified by the presence of a third or fourth degree of tear clinical code.

Abbreviations

BFHI	Baby Friendly Hospital Initiative
BAC	Birth after caesarean section
CDHB	Canterbury District Health Board
CWH	Christchurch Women's Hospital
CCO	Clinical Co-ordinator
CEO	Chief Executive Officer
DHB	District Health Board
DoNM	Director of Nursing and Midwifery
DoM	Director of Midwifery
EWS	Early Warning Score
ED	Emergency Department
GP	General Practitioner
HQSC	Health Quality and Safety Commission
LMC	Lead Maternity Carer
MEOWS	Modified Early Obstetric Warning Score
MCAUW	Maternal Care and Unborn Wellbeing
MoH	Ministry of Health
MCGC	Maternity Clinical Governance Committee
MMPO	Midwifery and Maternity Providers Organisation
MOG	Maternity Operations Group
MOPD	Maternity Outpatients Department
MQSP	Maternity Quality and Safety Programme
NICU	Neonatal Intensive Care Unit
NIR	National Immunisation Register
NMMG	National Maternity Monitoring Group
NZCOM	New Zealand College of Midwives
O&G	Obstetrics and Gynaecology
OECD	Organisation for Economic Co-operation and Development
PHO	Primary Health Organisation
PMMRC	Perinatal Maternal Mortality Review Co-ordinator
PROMPT	Practical Obstetric Multi-Professional Training
QLP	Midwifery Quality and Leadership Programme

RANZCOG	Royal Australian and New Zealand College of Obstetricians and Gynaecologists
RCA	Root cause analysis
RMO	Resident medical officer
SANDS	Stillbirths and Neonatal Death Society
SI	South Island
SIDS	Sudden Infant Death Syndrome
SMO	Senior medical officer
SP	Standard Primae
SPOE	Single Point of Entry service
STABLE	**S**ugar and safe care, **T**emperature, **A**irway, **B**lood pressure, **L**ab work and **E**motional support course
SUDI	Sudden Unexpected Death of an Infant Syndrome
TOR	Terms of Reference
W&CH	Women's and Children's Health
WCDHB	West Coast District Health Board

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