Review of the Quality, Safety and Management of Maternity Services in the Wellington Area

Commissioned by the Ministry of Health

October 2008

By Barbara Crawford
Siniua Lilo
Professor Peter Stone
Ann Yates

Crawford B, Lilo S, Stone S and Yates A. 2008. *Review of the Quality, Safety and Management of Maternity Services in the Wellington Area*. Wellington: Ministry of Health.

Published in October 2008 by the
Ministry of Health
PO Box 5013, Wellington, New Zealand

ISBN 978-0-478-31840-1 (online)
HP 4698

This document is available on the Ministry of Health's website:
http://www.moh.govt.nz

Acknowledgements

The Review Team wishes to thank all of the people who were interviewed as part of this review, or provided their written submissions or feedback. We have appreciated your time and your honesty in helping us to identify both the things that are working well in maternity services in the Wellington area, and the things that need to improve. We especially thank those who shared their personal and sometimes heartbreaking stories. All of these interviews and submissions have been invaluable to the team.

Members of the Review Team also wish to acknowledge the assistance and support of their employers in being willing to release them to conduct this review: Waikato District Health Board, ANZ Bank, University of Auckland School of Medicine and Auckland District Health Board.

Finally we wish to thank Aphra Green, Ministry of Health Policy Analyst, for her outstanding assistance to the team; and John Hobbs, Acting Manager Maternity Services, Ministry of Health; Bronwen Pelvin, Senior Advisor Maternity Services, Ministry of Health; and Dr David Galler, Chief Medical Advisor to the Minister of Health, for their valued support to the team.

Index

Appendices

Executive Summary

Purpose

This report fulfils the requirements of the Ministry of Health to conduct a review of the maternity services in the Wellington area.

The scope of the review was to report on the adequacy and appropriateness of accountability arrangements, including the systems and procedures that apply to maternity providers, and that ensure quality and safety in maternity services. The Terms of Reference also specified that the reviewers may identify issues to be looked at in the context of maternity services throughout the country.

The objectives of the review were to:

- understand, based on evidence, the quality, safety and management of maternity services in the Wellington area
- maintain public confidence in the maternity services provided to the region
- identify opportunities for improvement.

Members of the Review Team were:

- Barbara Crawford (Chairperson) – Manager Quality and Risk, Waikato District Health Board
- Siniua Lilo – National Manager Customer Relations, ANZ Bank
- Professor Peter Stone – Head of Department of Obstetrics and Gynaecology, Faculty of Medical and Health Sciences, University of Auckland
- Ann Yates – Midwifery Leader, Auckland District Health Board.

Background

Following the death of a baby during delivery at Capital & Coast District Health Board's (CCDHB) Kenepuru maternity facility in 2008, attention was drawn more generally to concerns about the relationships between maternity providers in the Wellington area. As well as asking the CCDHB to fast track its report into the sentinel event, the Minister of Health and Associate Minister of Health with responsibility for maternity policy and services asked the Director-General of Health to commission a review of maternity services in the Wellington area, to be led by clinicians.

The aim of the review was to take a general look at any systems issues across the range of maternity services in the Wellington area. It was not to duplicate the investigations being carried out by the Coroner and the CCDHB, and potentially the Health and Disability Commissioner and/or the Midwifery Council of New Zealand and/or the Accident Compensation Corporation (ACC), that occur as a result of unexpected deaths. The review was also likely to have implications for strategic work occurring at a national level in relation to maternity services.

Context

Maternity services in New Zealand are provided within the legislative environment of the Nurses Amendment Act 1990 and the Health and Disability Services Act 2000. The former changed the provision of maternity services in New Zealand from being primarily the domain of medical practitioners to being increasingly the domain of midwives. Midwives could offer women the full range of antenatal, labour, birth and postnatal services up to six weeks postpartum, on their own responsibility and without the supervision of a doctor. The Health and Disability Services Act 2000 established district health boards (DHBs) and included a section requiring DHBs to make their facilities available to lead maternity carers for the purposes of providing maternity services to women.

The National Health Committee undertook a Review of Maternity Services in New Zealand in September 1999 that resulted in a number of recommendations. Some of these recommendations have not yet been implemented and are reiterated by this current review.

There was also a Review of Maternity Facility Access Agreement in February 2007 that resulted in some changes to the Section 88 Access Agreement Notice. The amendments to the wording of the Section 88 Access Agreement Notice did not succeed in reducing all of the ambiguity that prompted the 2007 review. The current review makes further recommendations regarding clarification of wording of Section 88 clauses.

Methodology

The review methodology consisted of:

- document reviews
- interviews and meetings with a wide range of stakeholders
- observation and site visits
- review of submissions and responses to the Review Team's request for written community input.

Limitations of the review were as follows.

- The eight-week timeframe imposed limitations on how many people could be interviewed, how many documents could be reviewed, and the extent to which in-depth analysis of information could occur. Therefore this report must be read within this context.
- The 'Wellington area' was not defined in the Terms of Reference, so for the purposes of this report the 'Wellington area' means primarily the areas covered by CCDHB and Hutt Valley DHB.
- As CCDHB provides maternity services to significantly more women and babies than Hutt Valley DHB, and is also the tertiary referral centre for the region, the majority of the Review Team's work focused on services provided by CCDHB.

Conclusions

The Review Team reached the following conclusions:

With regard to maternity services in the Wellington area

- Maternity services in the Wellington area are as safe as maternity services anywhere else in New Zealand.
- This is in large part due to the commitment and generally high quality of both the midwifery and medical workforces – including lead maternity carers, hospital midwives, obstetricians, anaesthetists, paediatricians, neonatologists and GPs.
- There are not enough midwives or obstetricians to meet the needs of women requiring maternity services in the Wellington area.
- There are reported to be a considerable number of midwives residing in the Wellington area who have withdrawn from the workforce.
- Frequent media focus on the Wellington area's maternity services has had a demoralising effect on highly capable and competent health practitioners, and has contributed to high stress levels and some practitioners ceasing practice.
- There has been high customer satisfaction with the quality of care provided by individual lead maternity carers (LMCs) and DHB staff.
- There has been low customer satisfaction with the postnatal care provided in CCDHB maternity facilities.
- Information provided to pregnant women about maternity services available is currently variable and sometimes inadequate.
- Kenepuru and Paraparaumu Birthing Units' access to emergency services needs to improve.
- Relationships between health practitioners working across the spectrum of maternity care need to significantly improve in order to ensure seamless, safe and high-quality care for women.
- Both CCDHB and the New Zealand College of Midwives have made significant efforts to set and monitor standards of service provision to women receiving maternity services.
- Capital & Coast DHB has an excellent Pacific Health Unit that provides support to Pacific women using maternity services both in its hospital facilities and in the community.
- Some components of an effective quality management system are in place but the management of quality and risk needs to be significantly improved.

With regard to the national context for maternity services

- Maternity services in New Zealand have been accorded a relatively low priority and there is no national strategy for maternity services. A strategic plan is due for release shortly.
- There are ambiguities in the wording of the Section 88 Maternity Services Notice that need to be rectified.
- Negotiation of the terms and conditions of the Section 88 Maternity Services Notice does not involve the medical colleges whose members are most affected by the Notice. This needs to be addressed.
- The New Zealand College of Midwives and the Royal Australian and New Zealand College of Obstetricians and Gynaecologists have focused on the provision of excellent maternity care in isolation from each other. Greater collaboration is needed to ensure seamless provision of services for women across the continuum of maternity care.
- To ensure safety for women and their babies, and appropriate support for new graduate midwives, there needs to be mandatory supervision (physical oversight) and mentoring for midwives in their first year of practice.
- There are no common, evidence-based standards for maternity care to which all relevant health professional groups subscribe. These need to be developed jointly by the relevant colleges and the Ministry of Health, and compliance with them needs to be monitored by the Ministry of Health.
- There is currently no provision of timely accurate information about maternity outcomes in New Zealand.

Commendations

	Description
C01	There are good management and midwifery linkages between Kenepuru and CCDHB maternity services.
C02	The Royal Australian and New Zealand College of Obstetricians and Gynaecologists and the New Zealand College of Midwives have both made a major contribution to the provision of high-quality maternity care through their focus on the skills and knowledge of individual practitioners.
C03	Capital & Coast DHB is commended for the development and implementation of its New Graduate Midwifery Programme, and for the initiatives it has implemented to recruit and retain midwives.
C04	The Ministry of Health is commended for supporting the Midwifery First Year of Practice Programme that provides mentoring for new graduate midwives.
C05	The Midwifery Council of New Zealand and the New Zealand College of Midwives are commended for implementing robust competence requirements and review processes for midwives.
C06	Capital & Coast DHB obstetricians and midwives are commended for their commitment to providing additional antenatal services to the women in the Wellington area despite a shortage of LMCs and obstetricians.

	Description
C07	Capital & Coast DHB Women's Health Services is commended for its comprehensive quality plan and the Midwifery Council of New Zealand is commended for its comprehensive requirements for midwives to demonstrate competency.
C08	Wellington Hospital Delivery Suite provides Kenepuru with very good (immediate) access to specialist obstetric advice by telephone when this is required.
C09	Lead maternity carers and DHB maternity staff in the Wellington area are commended for the significant efforts they have made to create and nurture effective working relationships across facility and professional boundaries. These relationships are essential in creating an environment that supports the provision of safe and high-quality maternity care to women and their babies.
C10	Capital & Coast DHB is commended for its production of a comprehensive annual report on its maternity services. Not all DHBs produce such a report and it provides excellent information on which to base quality-improvement activities.
C11	Capital & Coast DHB is commended for its creation of a new role of Patient Safety Co-ordinator. This role will help to maintain DHB monitoring and reporting of patient safety, including maternity safety.
C12	Capital & Coast DHB maternity staff and self-employed LMCs are commended for the hugely positive feedback received by the Review Team in regard to the maternity services provided by individual health practitioners. There was overwhelming support for the quality of their work and acknowledgement of their hard work in situations in which they were very busy.
C13	Capital & Coast DHB is highly commended for the work of its proactive Pacific Health Unit in reaching out to and supporting the Pacific Peoples community.
C14	Capital & Coast DHB is commended for its internal audit programme and involvement in benchmarking maternity services.

Recommendations relating to maternity services in the Wellington area

	Description	***Risk rating[1]***	***By whom***	***By when***
R01	That the midwifery leader be present at management meetings on an equal footing with the clinical director Women's and Child Health, and contribute equally to decision-making about maternity services.	Moderate	CCDHB	October 2008
R02	That risks or issues of concern raised by any part of CCDHB's maternity services be formally risk-assessed and responded to.	Moderate	CCDHB	October 2008

[1] Risk ratings were obtained through use of the Waikato DHB Risk Assessment Tool that is based on the risk assessment tool developed by DHB Quality and Risk Managers' Group. See Appendix 9.

	Description	***Risk rating[1]***	***By whom***	***By when***
R03	That actions be identified and implemented to encourage midwives in the Wellington area who have left the midwifery workforce to return to it.	High	Ministry of Health	June 2009
R04	That CCDHB revise its process for reviewing serious and sentinel events to ensure that such reviews are led by a suitably qualified person from outside the service in which the event occurred.	High	CCDHB	Dec 2008
R05	That the efficacy of ambulance transfers of neonates from Kenepuru and Paraparaumu be affirmed and the neonatal retrieval service to these facilities be discontinued as a routine response. That CCDHB transfer and transport policies be amended accordingly.	High	CCDHB and Ambulanc e Services	From October 2008
R06	That Kenepuru and Paraparaumu birthing facilities be provided with equipment that would increase their capacity to provide immediate care for compromised babies (e.g. equipment to maintain baby body warmth, as well as phototherapy lights for treatment of jaundice in stable babies who otherwise would not need transfer to Wellington).	Moderate	CCDHB	Dec 2008
R07	That regular meetings be held between CCDHB clinical services and the ambulance services, and that the latter be involved in the development of emergency transfer policies and procedures.	Very high	CCDHB and Ambu-lance Services	From October 2008
R08	That CCDHB's Interface Group with LMCs be re-established to ensure timely provision of minutes and agendas, and to provide a formal mechanism for identifying, assessing and taking action to address risks to safe practice. That this Group include in its membership the quality leader for Women's Health Services.	High	CCDHB	October 2008
R09	That CCDHB and Hutt Valley DHB identify, implement and monitor formal mechanisms for improving relationships, communication and trust between DHB maternity services personnel and self-employed LMCs. This could involve the appointment of a midwifery liaison role within the DHBs, similar to the GP liaison roles established in many DHBs.	High	CCDHB Hutt Valley DHB	January 2009

	Description	Risk rating[1]	By whom	By when
R10	That CCDHB provide education to all maternity staff regarding the need to complete incident forms and the processes to be followed by managers and clinical leaders when following up on these forms.	Very high	CCDHB	July 2009
R11	That CCDHB implement a robust process whereby the manager, clinical director and midwifery leader regularly review incident trends and monitor completion of actions arising from serious and sentinel event reviews.	Very high	CCDHB	October 2008
R12	That the board and senior management involved in the development of the strategic direction of CCDHB – in keeping with the DHB's vision of Better Health and Independence for People, Families and Communities – make a greater effort to reach their community, seek the community's views and develop directions for maternity services that meet the community's needs.	High	CCDHB	July 2009
R13	That CCDHB conduct at least annual satisfaction surveys of women using its maternity services to assess their satisfaction – specifically, their satisfaction with the postnatal care provided. That CCDHB take actions to improve satisfaction and ensure it is a key performance indicator for maternity services.	High	CCDHB	November 2008
R14	That CCDHB review the safety, adequacy of design and accessibility to emergency equipment of the water-birth room at the Kenepuru maternity facility, and take actions to improve these.	Very high	CCDHB	October 2008
R15	That the Pacific Health Unit and the Whānau Care Services be more closely linked to CCDHB's management and governance structures, to ensure close communication regarding issues of cultural concern. The two Units need to be involved in serious event reviews relating to Pacific and Māori consumers respectively, to identify opportunities to improve the safety and quality of services to these consumer groups.	Moderate	CCDHB	From Nov 2008

	Description	***Risk rating[1]***	***By whom***	***By when***
R16	That cultural awareness education be provided to all health practitioners involved in the provision of CCDHB maternity services. This needs to focus particularly on the main ethnic groups in the area being served (i.e. in the Wellington area it would need to focus on Māori, Pacific Peoples and Asian cultures).	Moderate	CCDHB	From January 2009
R17	That CCDHB develop and implement strategies to more proactively manage its media exposure and to better mitigate the effects of adverse media attention.	Very high	CCDHB	January 2009
R18	That CCDHB Women's Health Services document its feedback mechanisms to ensure that information collected by the service is used to inform ongoing service provision and annual service planning. That recommendations arising from serious event reviews be implemented and assessed for their impact on improving quality of service.	Low	CCDHB	July 2009

National issues identified with recommended options to address these

	Description	***Risk rating***	***By whom*** ***suggested***	***By when*** ***suggested***
NI 01	**National issue:** There is currently confusion in use and understanding of the terms 'primary', 'secondary' and 'tertiary' in relation to maternity service provision. **Recommended option:** That these terms be clearly defined and used consistently in Ministry of Health documents.	Low	Ministry of Health	June 2009
NI 02	**National issue:** There is no reference in the Maternity Services Notice to requirements for LMC credentials (e.g. qualifications, registration, requirements for continuing professional education). **Recommended option:** That the Maternity Services Notice include credentialing requirements and their verification be subject to audit.	Low	Ministry of Health	June 2009
NI 03	**National issue:** Currently the negotiation of the terms and conditions of the Maternity Services Notice does not include the Royal Australian and New Zealand College of Obstetricians and Gynaecologists. As midwives, obstetricians and some GPs are key providers of maternity services it would be appropriate to involve their respective professional colleges in these negotiations. **Recommended option:** That negotiation of the terms and conditions of the Maternity Services Notice involve the colleges whose members are most affected by the Notice.	High	Ministry of Health and the relevant colleges	June 2009

	Description	***Risk rating***	***By whom*** ***suggested***	***By when*** ***suggested***
NI 04	**National issue:** Wording of some Section 88 Maternity Services Access Agreement clauses is currently unclear and is being interpreted differently by different professional groups and providers. This has resulted in unnecessary tension that has contributed to poor relationships between providers. **Recommended options:** That the wording of the Access Agreement Clauses 6(3), 7(2) and 15(1) be revised to ensure clarity regarding the following aspects: • Lead maternity carers must have input into and comply with the policies and procedures, including clinical procedures, of the facility in which they are working. • The facility has a responsibility and a right to inquire into the clinical practice of an LMC where that LMC has been involved in a serious event. • The LMC has a responsibility and a right to inquire into the clinical practice and support systems of a facility where the facility's actions of omission or commission may have contributed to a serious event. • The facility does not have the right to inquire into the business practices of an LMC.	High	Ministry of Health	June 2009
NI 05	**National issue:** The lack of national leadership and strategy for maternity services has contributed to New Zealand's maternity services not being accorded the priority they require as a fundamental component of a national health system. **Recommended option:** That the Ministry of Health's strategy for New Zealand's maternity services be completed as planned in September 2008, and its implementation monitored and reported on annually.	High	Ministry of Health	From October 2008

	Description	***Risk rating***	***By whom suggested***	***By when suggested***
NI 06	**National issue:** There is a lack of respect, collegiality and collaboration between the obstetric and midwifery colleges that is reflected in some very poor relationships between individual midwives and obstetricians. **Recommended option:** That both the Royal Australian and New Zealand College of Obstetricians and Gynaecologists and the New Zealand College of Midwives, within the framework of the national maternity system, identify as one of their key roles and functions the need to work collaboratively with each other to ensure provision of seamless care to women receiving maternity services.	Moderate	The Royal Australian and New Zealand College of Obstetricians and Gynaecolo-gists and New Zealand College of Midwives	Dec 2008
NI 07	**National issue:** Currently a new graduate midwife is authorised to assist birthing women without any oversight. While for normal births this may be safe, it may not be safe for the birthing woman, her baby or the new graduate midwife if the latter, through inexperience, does not recognise and appropriately manage or refer a complication of pregnancy or delivery. **Recommended option:** That a mandatory supervision programme be developed and incorporated into the current Ministry-funded Midwifery First Year of Practice programme to ensure that first-year midwifery graduate self-employed midwives attend births under direct supervision[2] initially. This would be for a time period or number of births agreed by the Midwifery Council of New Zealand as the regulatory body and the Ministry of Health as the funder. This requirement should apply to midwives who choose to leave employed practice to enter self-employed practice for the first time. In addition, the mentoring programme already developed needs to be made mandatory for all new graduate midwives. The supervision and mentoring programmes should be fully funded by the Ministry of Health. A midwifery supervisor or mentor should have at least three years' experience as a practising midwife.	High	Midwifery Council of New Zealand and Ministry of Health	January 2009

[2] In this report the word 'supervision' means physical oversight i.e. with an experienced midwife present and participating in the birth if necessary. In this context the word 'supervision' is not intended to have the negative connotation associated with 'supervision' that may occur as part of performance management.

	Description	***Risk rating***	***By whom suggested***	***By when suggested***
NI 08	**National issue:** The Review Team was advised in consumer forums that some women had not been informed that their LMC midwife was a new graduate, and therefore relatively inexperienced. The Code of Health and Disability Consumer Rights 1996 states that consumers have the right to the information that a reasonable consumer, in that consumer's circumstances, needs in order to make an informed choice or give informed consent. Information about the midwife's experience should form part of the process that a consumer works through when making decisions about the care that they choose. **Recommended option:** That first-year midwifery graduate LMCs must inform the women to whom they are providing maternity services that they are in their first year of practice, and explain how to contact their supervisor if the women have any queries or concerns.	High	New Zealand College of Midwives	From October 2008
NI 09	**National issue:** Fundamental differences in the approach of obstetricians and midwives to management of a normal labour have contributed to tensions between the two professional groups. Such tensions create a working environment where communication between professional groups may not occur when it is needed to ensure the safety of mother and baby. It would be a positive step to provide trainee doctors with the opportunity to observe midwifery practice and skill in a primary setting. **Recommended option:** That obstetric registrar training include attachment to the practice of a self-employed LMC midwife or community-based team midwife in a primary or community setting, and involvement in births in this setting.	Moder-ate	The Royal Australian and New Zealand College of Obstetricians and Gynaecolo-gists and the New Zealand College of Midwives	From January 2011
NI 10	**National issue:** It was stated that emergency obstetric skills had reduced in recent years due to a preference for caesarean sections rather than assisted vaginal deliveries. **Recommended option:** That ongoing obstetric education include regular updating of emergency obstetric skills and knowledge.	Very high	The Royal Australian and New Zealand College of Obstetricians and Gynaecolo-gists	From January 2009

	Description	***Risk rating***	***By whom*** ***suggested***	***By when*** ***suggested***
NI 11	**National issue:** Some key components of a robust quality system are lacking in national maternity services requirements as set out in the Maternity Services Notice, including requirements for audit, monitoring and performance indicators. **Recommended option:** That the Ministry of Health ensure that the strategic plan for maternity services includes direction for quality improvement and risk management.	Very high	Ministry of Health	October 2008
NI 12	**National issue:** Currently self-employed LMCs are not required to report a serious event in which they have been involved, either to the Ministry of Health as the funder or to any agency with oversight of patient safety. **Recommended option:** That self-employed LMCs be required to comply with the national serious event reporting requirements when they are completed. These are currently being developed by the New Zealand Quality Improvement Committee's Incident Management Project.	High	Ministry of Health	July 2009
NI 13	**National issue:** Currently there is lack of clarity about how and where to raise a concern about a self-employed LMC. While women receiving maternity services from a midwifery LMC may be advised by the LMC that they may make a complaint to the New Zealand College of Midwives, some did not receive this information. Also, DHB staff concerned about an individual self-employed midwife LMC's performance or safety did not know where to raise their concern. This issue is the same for medical LMCs about whom a woman may wish to make a complaint. **Recommended option:** That a process for raising and addressing concerns about the performance of individual self-employed LMCs be established by the funder of LMC services and be made known to all women receiving these services. That the funder take responsibility for overseeing complaints about self-employed LMCs.	Moder-ate	Ministry of Health	January 2009

	Description	***Risk rating***	***By whom*** ***suggested***	***By when*** ***suggested***
NI 14	**National issue:** There are currently no standards of maternity care agreed by all of the professional groups providing that care. This has resulted in different standards of care being provided both between and within the different professional groups. **Recommended option:** That the New Zealand College of Midwives, the Royal Australian and New Zealand College of Obstetricians and Gynaecologists, the Australian and New Zealand College of Anaesthetists, the Royal New Zealand College of General Practitioners and the Royal Australasian College of Paediatricians work together with the Ministry of Health to produce common standards for maternity care in New Zealand.	Very high	Colleges and Ministry of Health	June 2009
NI 15	**National issue:** There are several national agencies recording their own information about maternity services' outcomes, and each data set is different. Without reliable accurate information, it is impossible to know if quality is improving. **Recommended option:** That a national maternity data set be established and that consideration be given to the establishment of a government-funded national maternity statistics unit.	Very high	Ministry of Health	January 2010
NI 16	**National issue:** The most recent government report on foetal and infant deaths available to the Review Team related to deaths in 2003/04. **Recommended option:** That national annual reports of maternity services statistics, including foetal and infant deaths, be produced within six months of year end, to ensure more timely provision of information on which to base maternity services' planning and monitoring of outcomes. It will be necessary for some parts of these reports to be interim only until full information is available from coroners.	High	Ministry of Health	From January 2011

	Description	***Risk rating***	***By whom*** ***suggested***	***By when*** ***suggested***
NI 17	**National issue:** Information provided to women receiving maternity services is currently inconsistent and inadequate. **Recommended option:** That the Ministry of Health, through its funded maternity service providers (i.e. LMCs and/or DHBs), ensure provision of comprehensive information to every woman receiving maternity services. This should include information about: • the maternity services available • the choices available regarding location of birth and birthing process • how to access the service of choice • risks of childbirth and how DHBs and LMCs manage these risks • standards relating to maternity services • how to make a compliment or complaint about a service provider or health practitioner • how to obtain a second opinion.	High	Ministry of Health	January 2009
NI 18	**National issue:** Some Pacific and Māori women are not accessing the maternity services available to them for a variety of reasons. Given the significantly higher rate of Pacific women having stillborn babies in New Zealand, it is important to ensure ready access to maternity services. **Recommended options:** That the Ministry of Health and the New Zealand College of Midwives work together to develop a strategy to contact pregnant Pacific and Māori women and ensure that they: • are informed of their choices regarding labour and birthing • have a single point of contact with an appropriately qualified person of their own culture to address their concerns relating to any aspect of their maternity care.	High	Ministry of Health and New Zealand College of Midwives	June 2009

	Description	***Risk rating***	***By whom*** ***suggested***	***By when*** ***suggested***
NI 19	**National issue:** Due to the lack of agreed national standards for maternity services in New Zealand, there is no specific monitoring of the quality and safety of maternity service provision over the spectrum of care provided by both self-employed LMCs and DHBs. **Recommended option:** That, following the development of joint maternity services standards by the relevant professional colleges and the Ministry of Health, the Ministry conduct regular audits of compliance with these standards.	Very high	Ministry of Health	From 2010

Report of the Review of the Quality, Safety and Management of Maternity Services in the Wellington Area

1 Purpose

This report fulfils the requirements of the Ministry of Health to conduct a review of the maternity services of the Wellington area, following the death of a baby during delivery at Kenepuru Maternity Unit.

The Terms of Reference are attached as Appendix 1.

The scope of the review was to report on the adequacy and appropriateness of accountability arrangements that ensure quality and safety in maternity services, including the systems and procedures that apply to maternity providers. The Terms of Reference also specified that the reviewers may identify issues to be looked at in the context of maternity services throughout the country.

The objectives of the review were to:

- understand, based on evidence, the quality, safety and management of maternity services in the Wellington area
- maintain public confidence in the maternity services provided to the region
- identify opportunities for improvement.

Specifically the review was to report on:

- the current system and processes for maternity services in the Wellington area, including primary, secondary and tertiary services
- any gaps in current systems or processes
- recommendations for improvement
- the frequency of serious and sentinel events related to the provision of maternity services in the Wellington region within the New Zealand health context.

Members of the Review Team were:

- Barbara Crawford (Chairperson) – Manager Quality and Risk, Waikato District Health Board
- Siniua Lilo – Customer Services Manager, ANZ Bank
- Professor Peter Stone – Head of Department of Obstetrics and Gynaecology, Faculty of Medical and Health Sciences, University of Auckland
- Ann Yates – Midwifery Leader, Auckland District Health Board.

2 Background

A recent case at CCDHB drew attention to concerns regarding the relationships between maternity providers in the Wellington area. In particular, the case indicated a need to clarify roles and responsibilities of maternity providers, including primary and specialist services in the Wellington area. As well as asking CCDHB to fast track its report into the sentinel event, the Minister of Health and Associate Minister of Health with responsibility for maternity policy and services asked the Director-General of Health to commission a review of maternity services in the Wellington area, to be led by clinicians.

The aim of the review was to take a general look at any systems issues across the range of maternity services in the Wellington area. It was not to duplicate the investigations currently being carried out by the Coroner and the CCDHB, and potentially the Health and Disability Commissioner and/or the Midwifery Council of New Zealand and/or the ACC, that occur as a result of unexpected deaths. Although the review was primarily to relate to maternity services provided within the CCDHB catchment, it was also to include maternity service providers in the Wellington geographic area who refer women to CCDHB for secondary and tertiary maternity services. The review was also likely to have implications for strategic work occurring at a national level in relation to maternity services.

By way of background to understanding maternity services provision in New Zealand, it is helpful to summarise the legislative environment in which these services operate. In 1990, with the passage of the Nurses Amendment Act, the provision of maternity services in New Zealand changed from being primarily the domain of medical practitioners to being increasingly the domain of midwives. Midwives could offer women the full range of antenatal, labour, birth and postnatal services up to six weeks postpartum on their own responsibility and without the supervision of a doctor. Appendix 2 sets out further aspects of the history of maternity services provision in New Zealand.

Since 1990 there have been two main reviews of maternity services:

2.1 Review of Maternity Services in New Zealand September 1999

This review was conducted by the National Health Committee and made seven recommendations, including 30 sub-recommendations. It is of concern that some of these recommendations have not yet been implemented.

The current Review Team's recommendations reiterate some of these earlier recommendations.

2.2 Review of Maternity Facility Access Agreement February 2007

Some changes were made to the Section 88 Access Agreement Notice following consultation with stakeholders as part of the 2007 review. The amendments to wording did not succeed in reducing all of the ambiguity that prompted the 2007 review. The current review makes further recommendations regarding clarification of wording of Section 88 clauses (see Section 5.2 below).

3 Methodology

The methodology of the current review is set out in the Terms of Reference (Appendix 1). The Review Team:

- read relevant documents, as listed in Appendix 3
- interviewed as many stakeholders as was possible within the review timeframe. Those interviewed are listed in Appendix 4. Interviewees were selected to ensure that the Review Team heard the views of people involved in maternity services across the spectrum – including consumers, individual health practitioner providers, DHBs, professional colleges and councils, ACC, and the Ministry of Health
- sought input from the community by advertising in the local free newspaper and on the Ministry of Health website. Submissions were received from 120 individuals and groups.

Using primarily an in-depth study of document reviews, interviews and observation techniques, the Review Team explored the following:

- the system of maternity services that is currently used in Wellington, including primary, secondary and tertiary services and contractual obligations
- the protocols or conventions that are used within the maternity services system in Wellington
- the current issue and gaps in maternity services in the Wellington area.

Limitations of the review were as follows:

- The eight-week timeframe imposed limitations on how many people could be interviewed, how many documents could be reviewed, and the extent to which in-depth analysis of information could occur. Therefore this report must be read within this context.
- The 'Wellington area' was not defined in the Terms of Reference, so for the purposes of this report the 'Wellington area' means primarily the areas covered by CCDHB and Hutt Valley DHB.
- As CCDHB provides maternity services to significantly more women and babies than Hutt Valley DHB, and is also the tertiary referral centre for the region, the majority of the Review Team 's work focused on services provided by CCDHB.

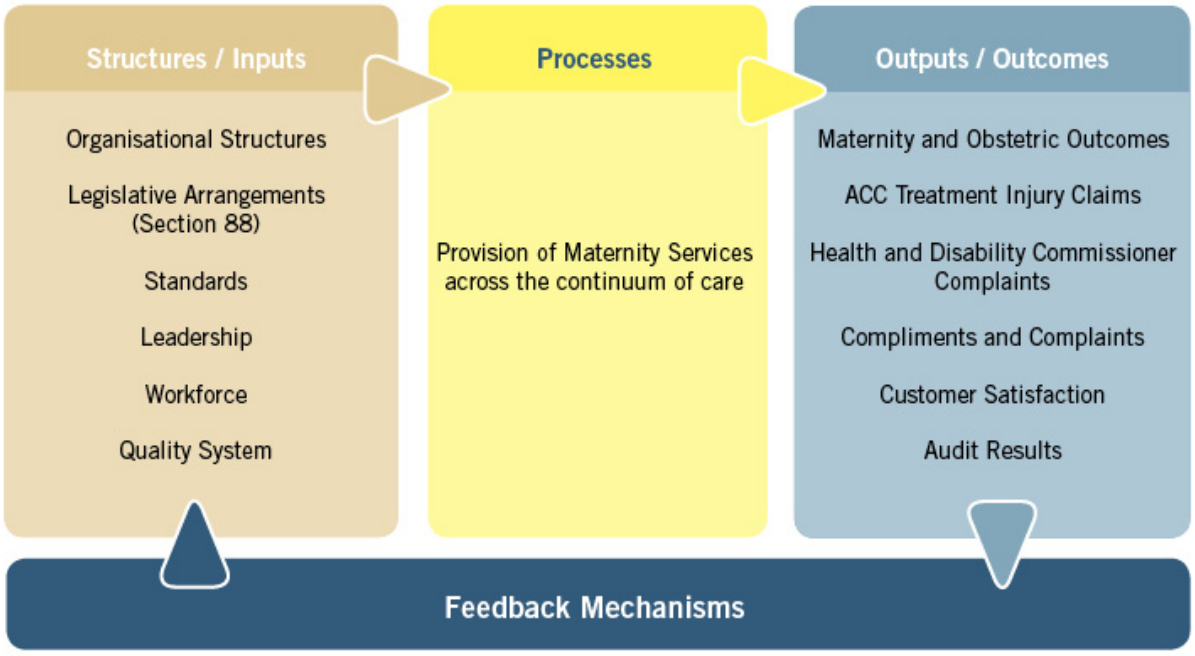
4 Structure of this report

This report has been structured in accordance with the Donabedian quality systems model (i.e. Structure, Processes, Outcomes[3]). This structure aligns closely with a systems framework (that is, inputs feed into processes, which result in outputs, which in turn feed back into the inputs to the system).

If maternity services are to be fully understood, it is important that the key service components (the structures, processes and outcomes of the maternity services 'system') are individually described and considered, in order to identify the extent to which they are effective in ensuring safe and high-quality services. Figure 1 illustrates the structure of the report and the key components of maternity services considered.

[3] *A Donabedian Evaluating the Quality of Medical Care*. 1966 Milbank Q. 2005; 83(4): 691–729.

Structure of Report of Review of Maternity Services in the Wellington Region – August 2008



5 Structure

The structure of maternity services in the Wellington area includes a number of key components as described below. Each component needs to function effectively as each contributes to the safety and quality of services.

5.1 Organisational structures and facilities for delivery of maternity services

5.1.1 Lead maternity carer structure

In New Zealand every pregnant woman has the right to access the free services of an LMC. The LMC model was implemented in the mid-1990s to offer every pregnant woman the opportunity to have continuity of care and a single point of contact for advice, monitoring and support during her pregnancy, birth and postnatal period. Lead maternity carers:

- provide antenatal consultations, education and advice during pregnancy
- attend and support the woman during her labour and the birth of her baby
- provide postnatal home visits and/or consultations for six weeks after the baby's birth.

Lead maternity carers refer pregnant women to other healthcare practitioners as required, for example GPs, obstetricians or physiotherapists. Nationally, 78% of pregnant women have a midwife LMC. The remainder choose either to have a GP or obstetrician as their LMC, to have shared care including both medical and midwifery providers, or to receive their maternity care directly through a hospital. Some women do not have any antenatal care and attend the local hospital when they are ready to give birth.

District health boards provide services under the legislative framework of the New Zealand Public Health and Disability Act 2000. This includes Section 88 which specifies the framework for funding and delivery of maternity services. District health boards are obliged to provide self-employed LMCs with access to their facilities for the purposes of providing maternity services. Self-employed LMCs are fully funded by the Ministry of Health and hold access agreements to access hospital facilities if needed.

In the Wellington area most LMCs are midwives who operate as self-employed health practitioners. Some are in sole practice and some work in groups of midwives. Some LMCs are employed by the DHBs in the area and women may access them through the DHBs' maternity hospital services.

In the Wellington area women access home-birth services through self-employed midwives.

5.1.2 District health board structure in the Wellington area

In the Wellington area, CCDHB provides:

- primary maternity facilities at Paraparaumu (two postnatal beds and approximately 100 births per year) and Kenepuru (six postnatal beds and approximately 300 births per year)
- primary maternity services, in the absence of sufficient self-employed LMC numbers to meet the population needs. There is a shortage of self-employed LMCs in the Porirua and Wellington area that – in the case of Porirua – limits women's ability to give birth in a primary maternity facility in their own community. Wellington Hospital is the default service when women are unable to access an LMC. Women who are unable to find an LMC locally are able to access midwifery care through Wellington Hospital's primary care team. These women represent a small birthing population that receives care under a 'team' concept. The team comprises midwives and obstetricians who provide antenatal and postnatal community care, with a different team providing intrapartum labour care
- secondary and tertiary maternity services through Wellington Hospital, which has 40 antenatal and postnatal beds, and approximately 3600 births per year. There is no stand-alone primary birthing facility in Central Wellington, although CCDHB plans to provide primary beds within the new buildings planned for Wellington Hospital. Some antenatal clinics also take place at Kenepuru and Paraparaumu
- tertiary services for all babies born in the lower North Island and Nelson-Marlborough at less than 27 weeks gestation.

Hutt Valley DHB provides primary and secondary maternity services through Hutt Hospital (approximately 2100 births per year).

Comment:

New Zealand is the only country in the world that has implemented the LMC model of care for pregnant women. Both Australia and the United Kingdom have a hospital-based system of maternity care, with midwives employed through the National Health System.

The Netherlands has the most similar model to New Zealand's, with a midwifery-led maternity service and a significant proportion of home births, but there are different referral systems for community and hospital-based care.

The Review Team noted that some health practitioners had a strong aversion to referring to self-employed LMCs as 'independent midwives'. It was suggested that the latter term can be interpreted to mean that LMCs may work in isolation, rather than as part of the continuum of inter-disciplinary care with the team involvement a pregnant woman must have access when to needed. Given the fundamental importance of effective teamwork in the provision of safe and quality maternity care, and the power of language to shape attitudes and behaviours, the Review Team prefers use of the term 'self-employed' to describe LMCs funded directly by the Ministry of Health.

With regard to Wellington Hospital facilities, there has been a significant shortage of both midwifery and obstetric staff over the past year, reaching its lowest point over the holiday period December 2007 to January 2008. This resulted in five to six maternity beds being closed over that period.

Wellington Hospital is in the process of building a new facility that will provide 40 antenatal and postnatal beds.

5.2 Section 88 of the New Zealand Public Health and Disability Act 2000 and contractual arrangements

Section 88 of the New Zealand Public Health and Disability Act 2000 provides the legislative basis for self-employed midwives to access public hospital facilities when their clients need or choose to give birth in a hospital.

The Maternity Services Notice Pursuant to Section 88 was gazetted by the Crown and effective from 1 July 2007. This replaced the earlier Notice of 2002. The 2007 Notice specifies:

- the general and specific requirements of primary maternity services during all stages of labour, birth and postnatal care
- the obligations of both the LMC practitioner and the facility they access
- information about specialist medical maternity services including ultrasound scans, obstetrician services and paediatrician services
- the terms and conditions of access to a maternity facility or birthing unit – also known as the 'access agreement'
- the schedule of fees for maternity services
- the process for claiming those fees.

The Notice has as its stated purpose, '... to set out the terms and conditions on which the Crown will make a payment to a maternity provider for providing primary maternity services'. As such, the Notice is primarily a funding mechanism. It is not primarily a clinical nor a quality and safety document.

Section B1 (a) (iii) of the Notice states that, '... primary maternity services [include] ... specialist medical maternity services'. This nomenclature results in lack of clarity, as specialist medical maternity services are often referred to as 'secondary' services.

The negotiation of the terms and conditions of the Notice involved three main parties – the New Zealand College of Midwives, the New Zealand Medical Association, and the Ministry of Health.

In addition to the Maternity Services Notice, there are detailed service specifications provided by the Ministry of Health and District Health Boards New Zealand. These specifications are for primary maternity services, maternity facilities, and secondary maternity services. Among other things, they specify the entry and exit criteria for accessing the relevant services, what the services will consist of, the arrangements for transfer of clinical responsibility to secondary services, emergency services, service linkages, quality requirements and reporting requirements.

The Maternity Facility Specification and the Secondary Maternity Services Specification were both due for review in 2006. Some aspects are no longer consistent with funding provisions or the Operational Policy Framework for 2008/09.

Comment:

The Primary Maternity Services Notice 2007 requires a maternity provider to, '... ensure that all statutory, regulatory, legal and professional requirements that apply to primary maternity services provided by them are complied with' (Section CB1). However, there are no requirements regarding credentialing for specific aspects of maternity care that may help reassure the public that maternity services are being provided by practitioners who have the required credentials (such as management of epidurals).

In regard to the negotiation of the terms and conditions of the Notice, the Review Team considers that it would be more appropriate to involve the Royal Australian and New Zealand College of Obstetricians and Gynaecologists and the Royal New Zealand College of General Practitioners than the New Zealand Medical Association.

National issues to be addressed

NI 01 **National issue:** There is currently confusion in use and understanding of the terms 'primary', 'secondary' and 'tertiary' in relation to maternity service provision.

Recommended option: That these terms be clearly defined and used consistently in Ministry of Health documents.

NI 02 **National issue:** There is no reference in the Maternity Services Notice to requirements for LMC credentials (e.g. qualifications, registration, requirements for continuing professional education).

Recommended option: That the Maternity Services Notice include credentialing requirements and their verification be subject to audit.

NI 03 **National issue:** Currently the negotiation of the terms and conditions of the Maternity Services Notice does not include the Royal Australian and New Zealand College of Obstetricians and Gynaecologists. As midwives, obstetricians and some GPs are key providers of maternity services it would be appropriate to involve their respective professional colleges in these negotiations.

Recommended option: That negotiation of the terms and conditions of the Maternity Services Notice involve the colleges whose members are most affected by the Notice.

The Access Agreement contains several clauses that have been problematic in that they are open to different interpretations, and these different interpretations have caused conflict between DHBs, hospital staff and LMCs. There are three clauses in particular that the Review Team identified as being problematic.

5.2.1 Schedule 3 Access Agreement Clause 6 (3) states: 'All clinical policies and procedures of the facilities will form the basis of primary maternity care provided in the facilities and must be available to the practitioner'

While this clause implies that self-employed LMCs must practise in accordance with the facility's policies and procedures, many DHB staff interviewed believed that self-employed LMCs were not required to comply with the DHB's policies and procedures.

As required by the Access Agreement, CCDHB and Hutt Valley DHB have implemented processes to ensure that LMCs have the opportunity to comment on draft policies and procedures before they are finalised. They have also ensured that LMCs have access to all such documents when finalised.

There was no evidence that LMCs' compliance with facility policies and procedures was audited by either the facilities or the LMCs.

There is therefore the potential for different standards of care to apply within the facility – depending upon whether the practitioner is self-employed or a DHB employee. If standards of care are based on evidence of best practice as they should be, it is hard to know why there should be different standards at all. This is a topic that will be referred to again later in this report.

5.2.2 Schedule 3 Access Agreement Clause 7 (2) states: '... the facilities shall not inquire into or specify matters relating to the operation or administration of the practitioner's practice'

This clause was interpreted by some CCDHB leaders to mean that the DHB was prohibited from reviewing the practice of a self-employed LMC that had resulted in a serious event for the mother or baby.

An alternative interpretation of this clause is that it relates to the facility not being allowed to inquire into the LMC's business practices, rather than clinical practices.

The self-employed LMCs interviewed by the Review Team indicated that they have participated in such reviews initiated by the DHB and would always expect to do so if a serious event had occurred. Similarly, CCDHB has historically invited LMCs to participate in reviews of serious events in which they have had some involvement, including the review following the 2008 death of a baby during birth at Kenepuru Hospital. Hutt Valley DHB has also implemented a process to involve LMCs in serious event reviews.

The review of serious events is a fundamental component of a robust quality system as it provides the opportunity to learn from things that have gone wrong. It should never be seen as a blaming exercise. There is an extensive literature on causation of error and serious events in the healthcare setting[4] [5] [6] and all healthcare practitioners and provider organisations have a responsibility to learn from and prevent recurrence of such events where this is possible.

---

[4] Institute of Medicine. 2000. *To Err is Human – Building a Safer Health System*. National Academy Press.

[5] Reason J. 1997. *Managing the Risks of Organisational Accidents.* Ashgate.

[6] Vincent C (Ed). 2001. *Clinical Risk Management- Enhancing Patient Safety.* BMJ Books.

5.2.3 Schedule 3 Access Agreement Clause 15 (1) states: 'The practitioner [self-employed LMC] will participate in quality assurance activities declared by the Ministry of Health to be protected quality assurance activities under section 54 of the Health Practitioners Competence Assurance Act 2003 that are relevant to the provision of primary maternity services in the facilities, including perinatal mortality review meetings where such meetings are protected quality assurance activities.'

It is difficult to know how this clause can be meaningfully implemented by LMCs who work at some distance from the base hospital, and whose work timeframes are strongly influenced by the needs of the pregnant women to whom they are providing services.

In practice, CCDHB has opened its perinatal mortality meetings to LMCs, but meetings are attended by few self-employed LMCs and there was no evidence that compliance with this clause is formally monitored.

It may be more effective to require LMCs to engage in a quality improvement programme as part of their own practice, rather than relying on a DHB's Protected Quality Assurance Programme.

Comment:

The Access Agreement is the document that specifies the ground rules on which the relationships between DHB maternity staff and LMCs are founded. As is discussed later in this report, these relationships have sometimes been fraught in the past, and continue to be problematic.

Safe and high-quality maternity services require excellent working relationships between all practitioners across the continuum of care, and anything that threatens those relationships needs to be addressed as a matter of urgency. The current ambiguity of the above clauses of the Access Agreement is such a threat.

National issue to be addressed:

NI 04 **National issue:** Wording of some Section 88 Maternity Services Access Agreement clauses is currently unclear and is being interpreted differently by different professional groups and providers. This has resulted in unnecessary tension that has contributed to poor relationships between providers.

Recommended options: That the wording of the Access Agreement Clauses 6 (3), 7 (2) and 15 (1) be revised to ensure clarity regarding the following aspects:

- Lead maternity carers must have input into and comply with the policies and procedures, including clinical procedures, of the facility in which they are working.
- The facility has a responsibility and a right to inquire into the clinical practice of an LMC where that LMC has been involved in a serious event.
- The LMC has a responsibility and a right to inquire into the clinical practice and support systems of a facility where the facility's actions of omission or commission may have contributed to a serious event.
- The facility does not have the right to inquire into the business practices of an LMC.

5.3 Leadership for maternity services

Leadership is another fundamental component of a well-functioning system. Leadership ensures clarity of vision, allocation of the necessary resources to achieve that vision, and ongoing support for the people involved in achieving that vision.

5.3.1 Leadership from the Ministry of Health

The Ministry of Health has led the establishment of the LMC model in New Zealand, directly funds self-employed LMCs, and reviewed the Access Agreement in 2007.

Leadership of maternity services within the Ministry of Health resides with the Child, Youth and Maternity Team, and specifically with the newly established role of Senior Advisor Maternity Services. Maternity services within the Ministry are currently spread across several Ministry of Health directorates.

There is no national strategy for maternity services. A Ministry of Health Maternity Services Strategic Advisory Group was established in 2007 and a draft strategic plan is currently being developed. The aim is to have the strategy for New Zealand's maternity services completed in September 2008.

The relative lack of resourcing of maternity services in the Ministry of Health until recently, combined with the lack of a New Zealand strategy for maternity services, indicates that maternity services have not been accorded the necessary priority within the Ministry of Health. Maternity services are a core component of any national health system and as such require a more coherent and focused approach than is currently evident.

Given the significance of a safe and effective birth process for the lifetime health status of both mother and baby, the lack of Ministry of Health leadership for maternity services is a significant gap.

National issues to be addressed:

NI 05 **National issue:** The lack of national leadership and strategy for maternity services has contributed to New Zealand's maternity services not being accorded the priority they require as a fundamental component of a national health system.

Recommended option: That the Ministry of Health's strategy for New Zealand's maternity services be completed as planned in September 2008, and its implementation monitored and reported on annually.

5.3.2 Leadership from Capital & Coast District Health Board

There is a similar lack of strategic direction for maternity services within CCDHB, as evidenced by the fact that maternity services are mentioned only twice, and in passing, in the DHB's Strategic Plan 2002–2007.

Capital & Coast DHB's maternity services are led jointly by the operations director Women's and Children's Health and the clinical director Women's Health. Both report to the chief operating officer.

The 0.5 FTE midwifery leader reports to the operations director of the Women's and Children's Health Directorate, with a professional reporting line to the director of nursing and midwifery.

There is a lack of midwifery leader input to some important aspects of the management of maternity services. For example, while the midwifery leader is a member of the Clinical Committee and the Risk Committee, she has not seen recommendations arising from serious event reviews.

Given the size of the midwifery workforce in CCDHB's maternity services, and the significant role it plays in providing safe and quality care to women and their babies, it is essential that midwifery is included in the formal management structure at a level equal to the clinical leader.

Clinical governance in maternity services requires equal partnership between medical, management and midwifery professions to ensure that both medical and clinical 'voices' are included in the formal decision-making processes.

The Kenepuru charge midwifery manager meets monthly with the CCDHB operations director Women's and Children's Health, and the CCDHB midwifery leader meets with the Kenepuru charge midwives fortnightly. The Clinical Director had not visited the Kenepuru Primary Maternity Facility in 2008. While this may be due in part to workload pressures arising from consultant vacancies, it may also indicate a lack of medical 'ownership' of and interest in the Kenepuru Primary Maternity Facility.

While there are good linkages between Kenepuru and Wellington hospitals in terms of management and midwifery, it would be good to see more medical leadership and support for the functioning of the Kenepuru birthing unit.

It is also important that the issues raised by Kenepuru or any part of CCDHB's maternity services are formally risk-assessed and responded to by CCDHB. This does not mean that every issue raised must be addressed, because the level of risk may not require this. However, it does mean that staff should be informed of the DHB's decisions on whether it will address risks raised or not, and the reasons for such decisions.

It should be noted here that from the Review Team members' experience of working in other DHBs it is unlikely that CCDHB is different from other DHBs in regard to its assessment and management of risks.

Commendation:

C01 There are good management and midwifery linkages between Kenepuru and CCDHB maternity services.

Recommendations:

R01 That the midwifery leader be present at management meetings on an equal footing with the clinical director Women's and Child Health, and contribute equally to decision-making about maternity services.

R02 That risks or issues of concern raised by any part of CCDHB's maternity services be formally risk-assessed and responded to.

5.3.3 Leadership by the professional colleges

The two professional colleges associated with the majority of the maternity services workforce in New Zealand are RANZCOG (Royal Australian and New Zealand College of Obstetricians and Gynaecologists) and NZCOM (New Zealand College of Midwifery). Membership of the colleges by obstetricians and midwives respectively is optional.

RANZCOG has a New Zealand committee that has some autonomy from RANZCOG decision-making. The RANZCOG New Zealand Committee and NZCOM meet approximately once a year.

Two of the key roles of the colleges are to:

- set standards for their members to ensure provision of high-quality healthcare for women
- provide a comprehensive continuous professional development programme to ensure members' skills and knowledge remain current.

Neither college makes reference to the need to work collaboratively with the other. NZCOM makes no reference to the need to work with obstetricians. RANZCOG states as one of its broader goals: 'Advocates for women's healthcare by forging productive relationships with individuals, the community, professional and government organisations both locally and internationally'. However, there is no specific reference to the need to work collaboratively with midwives.

Comment:

There is extensive literature around the need for effective teamwork in order to provide safe and effective healthcare. Midwives and obstetricians are frequently required to work closely together in order to deliver safe and high-quality maternity services for women. It is therefore both significant and alarming to note that neither college's website specifies as a key role the need to work in a collaborative and supportive professional relationship with the other. Both colleges identify the need to work closely with women, but not with each other.

The lack of collaboration between the colleges is reflected in some examples of very poor relationships between some obstetricians and some midwives in the workplace.

The colleges have a professional obligation to model collaborative working relationships. Each should identify, as one of their standards, the need for midwives and obstetricians to work collaboratively to achieve seamless teamwork in the provision of maternity services to women and their babies.

Commendation:

C02 The Royal Australian and New Zealand College of Obstetricians and Gynaecologists and the New Zealand College of Midwives have both made a major contribution to the provision of high-quality maternity care through their focus on the skills and knowledge of individual practitioners.

National issue to be addressed:

NI 06 **National issue:** There is a lack of respect, collegiality and collaboration between the obstetric and midwifery colleges that is reflected in some very poor relationships between individual midwives and obstetricians.

Recommended option: That both the Royal Australian and New Zealand College of Obstetricians and Gynaecologists and the New Zealand College of Midwives, within the framework of the national maternity system, identify as one of their key roles and functions the need to work collaboratively with each other to ensure provision of seamless care to women receiving maternity services.

5.4 Workforce

5.4.1 Midwifery workforce

There are approximately 2500 midwives practising in New Zealand, with approximately 300 joining the workforce per annum and another 300 leaving. Many of those coming in are from overseas and are being recruited to maintain numbers. Most overseas recruits stay only for an average of two years. The areas with the greatest shortages of midwives are Auckland, Wellington and Invercargill.

The Midwifery Council of New Zealand is aiming to double the number of midwifery graduates from 100 per annum to approximately 200 over the next few years.

There is currently a lack of ready access to midwives in the Wellington area, especially around Christmas and school holiday periods as many self-employed midwives take these times off to spend with their families. Pregnant women often need to ring a number of different midwives in order to find one who is available. Women in Porirua cannot currently access an LMC in their area. All of the LMCs there are currently fully booked.

There are 92 LMCs who hold Access Agreements with CCDHB and 60 of these are actively booking women for maternity services.

The New Zealand College of Midwives has identified that there are more midwives per birthing population in the Wellington region than anywhere else in New Zealand, but many of them are no longer in practice. It would be helpful to survey these midwives to identify what is stopping them from returning to midwifery, and to attempt to address these issues in order to encourage midwives' return to the midwifery workforce.

Some of the reasons for the shortage of midwives in the Wellington area that were suggested to the Review Team included:

- lack of respect for and trust in midwives as health professionals competent in the care of normal healthy women throughout their childbearing experience
- lack of childcare facilities at Wellington Hospital for midwives who are also mothers of young children
- lack of respect for and communication with self-employed midwifery LMCs by Wellington Hospital Women's Health Services managers and medical staff
- the negative media focus on care provided by midwives, and the risk to individual midwives of being pilloried by the press before full investigation of a serious event and knowledge of the results of that investigation
- the negative media approach to midwifery as a profession, as evidenced by midwives' statements to the Review Team that some letters to newspaper editors had not been printed and some press statements had not been published
- the requirement of the Midwifery Council of New Zealand that all midwives must demonstrate competency across the full scope of midwifery. It was suggested that midwives who had worked in one sphere (such as the neonatal ward) for most of their working lives did not want to move to another area of work (such as the Delivery Suite) in which they had not specialised in order to maintain their competency, and had instead left the profession. The Midwifery Council believed that this was not correct and that most midwives had welcomed the opportunity to maintain the full scope of practice
- long hours of work that intruded on family life.

In order to help women access a midwife, CCDHB contracts Matpro, an organisation that will provide women with a list of LMCs to contact. If women have not been able to find an LMC within 15 weeks, they are then referred to the CCDHB hospital midwives.

Capital & Coast DHB experienced a 30% shortage of midwives over the December 2007 to January 2008 period and was forced to close some postnatal beds as a result. Since then, CCDHB Women's and Child Health Services has improved its staffing levels and expects to be fully staffed with the next few months. This is due to the implementation of proactive recruitment and retention strategies including:

- the dedication of one Charge Midwife to oversee all midwifery recruitment
- the implementation of a successful Return to Practice Programme to encourage midwives to return to the labour force
- the establishment of four scholarships for third-year midwifery students to enter the New Graduate Programme
- the development of a Quality and Leadership Programme
- the introduction of a post-graduate certificate paper in Complex Care in Maternity at Victoria University
- a Hospital Scholarship Fund to help nurses and midwives undertake study or attend conferences
- the introduction of a New Midwifery Graduate Programme. This has provided strong supportive mentoring for new graduates.

The low number of midwives trained in the 1980s is now impacting on the midwifery workforce. Nationally, the median age of midwives is now between 45 and 49 and increasing. Stress levels and high working hours are the two most common reasons for midwives to cease practice.

In addition, it has been noted that adverse media attention on midwives has resulted in reduced numbers of enrolments in midwifery degrees. Some midwives have left the profession after being involved in a serious event that has resulted in high levels of negative media publicity.

The Midwifery Council of New Zealand reported a number of initiatives to improve midwives' fitness to practise and to improve public confidence in midwives. The following information relates to New Zealand as a whole:

- New standards for pre-registration were adopted in August 2007. These include expanding the three-year midwifery degree programme from a 36-week year to a 45-week year. This ensures that graduates have increased levels of midwifery experience prior to graduation.
- Every midwifery school is rewriting its degree programme. The new programmes will be in place in 2009 and 2010.

- The Midwifery First Year of Practice Programme has been trialled. This involves a trained mentor working with a midwifery graduate during their first year of practice. Feedback is sought from people the new graduate midwife is working with. While this mentoring programme is not compulsory, there has been a very high level of uptake from new graduates.
- A comprehensive re-certification programme has been implemented. This includes annual requirements for resuscitation training and regular lactation support training.
- The Midwifery Council of New Zealand contracts the New Zealand College of Midwives to conduct special reviews of the competence of individual midwifes. Since April 2004, 21 such competence reviews have been conducted. These have resulted in individuals being required to complete further education, and in six interim suspensions preventing midwives returning to practice until the required competence programme has been completed. (None have yet returned to work.) Some competence reviews required no further action.
- The Professional Conduct Committee has reviewed 13 midwives in the past four years.

Concerns were expressed by DHB medical and midwifery staff and women who had received maternity services, that first-year midwifery graduates are currently authorised to deliver babies without any formal requirement for supervision or mentoring.

It also came to the attention of the Review Team that one pregnant woman had not been informed that her LMC was a new graduate, and that if she had been aware of this she would not have had the high level of confidence in her midwife that she had. Within the current arrangements there is no requirement to provide this information, although the opinion was expressed by senior midwives that a woman should be told if her midwife is a new graduate and should be informed of the contact details of the midwife's mentor.

A number of medical staff were of the view that midwives needed to complete an intern year in a hospital setting so that they were aware of abnormal labours and births, and also aware of how the hospital system worked and how to access assistance.

When this was discussed with midwives, the following comments were made in response:

- Midwifery degree programmes include considerable experience in a hospital setting and education about abnormal labours and births. This component will be increased in 2009.
- New graduate midwives do not obtain a great deal of hands-on experience in a hospital setting where so many doctors and experienced midwives are working.
- Some hospitals prefer not to employ new graduate midwives.
- Midwives who plan to work as self-employed midwives need community-based experience in order to learn how to manage normal labours and births, to recognise abnormal labours and births and to learn when and how to refer these to the hospital setting. These are things better learned in the community setting where the midwife has the opportunity for closer involvement in the birth process than is possible in a hospital setting.

The Review Team gave considerable thought to how best to support new-graduate midwives in their first year of practice, and agreed that mandatory mentoring and supervision (physical oversight) of births should be supported. This would provide new midwives with excellent support as a matter of right, rather than their having to request such support from another midwife with an already busy schedule, as is the current arrangement. Physical oversight of births would also provide confidence to the birthing women, to other health practitioners with whom the midwife may need to work during the course of those pregnancies and births, and to the public at large.

The New Zealand College of Midwives piloted a post-graduate mentoring programme in 2007/08 that is reported to have been well supported by new graduates and DHBs, and that recently obtained Ministry of Health funding for its continuation. This is an excellent initiative.

The Review Team therefore strongly endorses the requirement for first-year midwifery practitioners to be engaged in a mandatory supervision and mentoring programme. This supervision should be in-person by an experienced midwife, not by phone or from a distance. Mentoring should continue for as long as the new midwife requires it.

Commendation:

C03 Capital & Coast DHB is commended for development and implementation of its New Graduate Midwifery Programme, and for the initiatives it has implemented to recruit and retain midwives.

C04 The Ministry of Health is commended for supporting the Midwifery First Year of Practice Programme that provides mentoring for new graduate midwives.

C05 The Midwifery Council of New Zealand and the New Zealand College of Midwives are commended for implementing robust competence requirements and review processes for midwives.

National issues to be addressed:

NI 07 **National issue:** Currently a new graduate midwife is authorised to assist birthing women without any oversight. While for normal births this may be safe, it may not be safe for the birthing woman, her baby or the new graduate midwife if the latter, through inexperience, does not recognise and appropriately manage or refer a complication of pregnancy or delivery.

Recommended option: That a mandatory supervision programme be developed and incorporated into the current Ministry-funded Midwifery First Year of Practice programme to ensure that first-year midwifery graduate self-employed midwives attend births under direct supervision[7] initially. This would be for a time period or number of births agreed by the Midwifery Council of New Zealand as the regulatory body and the Ministry of Health as the funder. This requirement should apply to midwives who choose to leave employed practice to enter self-employed practice for the first time. In addition, the mentoring programme already developed needs to be made mandatory for all new graduate midwives. The supervision and mentoring programmes should be fully funded by the Ministry of Health. A midwifery supervisor or mentor should have at least three years' experience as a practising midwife.

[7] In this report the word 'supervision' means physical oversight, i.e. with an experienced midwife present and participating in the birth if necessary. In this context the word 'supervision' is not intended to have the negative connotation associated with 'supervision' that may occur as part of performance management.

NI 08 **National issue:** The Review Team was advised in consumer forums that some women had not been informed that their LMC midwife was a new graduate, and therefore relatively inexperienced. The Code of Health and Disability Consumer Rights 1996 states that consumers have the right to the information that a reasonable consumer, in that consumer's circumstances, needs in order to make an informed choice or give informed consent. Information about the midwife's experience should form part of the process that a consumer works through when making decisions about the care that they choose.

Recommended option: That first-year midwifery graduate LMCs must inform the women to whom they are providing maternity services that they are in their first year of practice, and explain how to contact their supervisor if the women have any queries or concerns.

Recommendation:

R03 That actions be identified and implemented to encourage midwives in the Wellington area who have left the midwifery workforce to return to it.

5.4.2 Obstetric workforce

Capital & Coast DHB has six of its eight full-time-equivalent obstetrician roles filled. None of these roles are filled by full-time specialists, as all the specialists have part-time private work or have had university commitments. The two full-time-equivalent vacancies put pressure on the remaining obstetricians to cover the workload.

In addition, the number of obstetricians practising privately has decreased from six to four this year, and will further reduce to three later this year. This will result in additional pressure on the public maternity services provided by CCDHB.

Due to the shortage of midwives in the Wellington area, CCDHB now provides additional medical-led antenatal clinics. This, combined with the effects of increased obstetrician workload arising from the reduction in private obstetric capacity, has resulted in reduced consultant time being available for the supervision of obstetric registrars (doctors training to be obstetricians).

It was stated by obstetricians interviewed that obstetric skills had reduced in recent years as fewer obstetric registrars had had the experience of delivering breech births or assisted vaginal births, due to the use of caesarean sections.

Obstetric training needs to include education about midwifery training and approaches, and attendance at normal births. Obstetric registrars currently complete their training without having worked alongside community-based midwives. It would greatly assist communication and collaboration between LMC midwives and hospital-based obstetricians if the latter understood the situations that community midwives can find themselves in, and the partnership relationship that develops between LMCs and their patients. This would enable obstetricians to provide urgent advice with a full understanding of the context of the service delivery setting.

There is also a need for more emergency obstetric skills. Short-term obstetric locums recruited to rural hospitals sometimes lack emergency obstetric skills and experience in assisting abnormal births, as caesarean sections are often used rather than other interventions such as forceps.

Commendation:

C06 Capital & Coast DHB obstetricians and midwives are commended for their commitment to providing additional antenatal services to the women in the Wellington area despite a shortage of LMCs and obstetricians.

National issues to be addressed

NI 09 **National issue:** Fundamental differences in the approach of obstetricians and midwives to management of a normal labour have contributed to tensions between the two professional groups. Such tensions create a working environment where communication between professional groups may not occur when it is needed to ensure the safety of mother and baby. It would be a positive step to provide trainee doctors with the opportunity to observe midwifery practice and skill in a primary setting.

Recommended option: That obstetric registrar training include attachment to the practice of a self-employed LMC midwife or community-based team midwife in a primary or community setting, and involvement in births in this setting.

NI 10	**National issue:** It was stated that emergency obstetric skills had reduced in recent years due to a preference for caesarean sections rather than assisted vaginal deliveries. **Recommended option:** That ongoing obstetric education include regular updating of emergency obstetric skills and knowledge.

5.5 Quality system

Much work has occurred within the healthcare sector internationally over the past 10 to 20 years to improve the quality of care provided to patients.

The application of 'systems thinking' to healthcare has provided a useful model for understanding the complexities of healthcare provision. A 'system' is the integrated collection of:

- inputs (e.g. personnel, facilities, environment, equipment, organisation, human behaviours, information)
- processes (e.g. policies, protocols, guidelines, standard operating procedures, informal processes)
- outputs (e.g. safe and effective healthcare delivery, serious events, customer or patient satisfaction).

It has been recognised that healthcare delivery is provided within a highly complex adaptive system. In other words, there are many different factors working together that may vary from day to day and indeed within minutes, and that influence each other in a variable fashion, to produce healthcare outcomes that are both planned and unplanned.

A number of mechanisms have been found to maximise the effectiveness and reliability of such a highly complex system. These include:

- simplification of processes – to increase efficiency (e.g. by reducing the number of steps required)
- standardisation of processes – to ensure consistency of quality (e.g. by developing protocols to ensure that a particular procedure is always carried out the same way)
- automation (e.g. introduction of equipment that monitors the baby's heart rate)
- redundancy – to reduce the likelihood of error (e.g. double-checking of high-risk drugs prior to administration to the patient)
- recovery strategies – to reduce the consequences of error or unexpected adverse outcomes (e.g. administering an antidote to counteract the effects of administering the wrong medication, or ensuring that other health practitioners working in Delivery Suite are aware of possible risks to a birthing woman and her baby)

- visual cues – to reduce the likelihood of error (e.g. having high-risk medication in a different-coloured container to make it more obvious, or having wrist bands on patients)
- the right resources – to ensure that there are enough resources to be able to provide a quality service (e.g. the numbers and skills of staff available to provide the necessary care to patients)
- clear roles and responsibilities – to avoid confusion of responsibility and the resulting potential for patient care to 'slip between the cracks' (i.e. not occur)
- autonomy and empowerment – to ensure front-line staff have the necessary authority to take action when it is needed to ensure patient safety (e.g. to stop another staff member from making a mistake)
- supportive culture – to ensure clinical staff work in a supportive team environment where they communicate clearly and help each other provide best-practice care.

Key components of an effective quality system are illustrated in Appendix 5. The Review Team's assessment of the extent to which these have been implemented in the Wellington area is provided in the following sections.

5.5.1 Planning

The Ministry of Health developed *Improving Quality: A systems approach for the New Zealand health and disability sector* in 2003. This provides the basis for healthcare services to develop their own quality systems, processes and plans.

It has already been noted that the Ministry of Health does not yet have a strategic plan for maternity services. It is expected that the strategic plan due for completion shortly will include high-level directions for quality improvement and risk management in New Zealand maternity services.

Capital &Coast DHB Women's Health Services had a comprehensive Quality Improvement Plan for 2007/08 that specified quality objectives and a quality audit schedule. Quality objectives focused on developing and maintaining the quality of the existing service, for example maintenance of Quality Health New Zealand Accreditation, Baby Friendly Hospital Initiative Accreditation, and controlled documents. In addition, the plan specified objectives to improve reportable event management and workforce development.

The quality-audit schedule included audits of legislative compliance, infection control, restraint minimisation, medication charts, and exclusive breastfeeding rates on discharge from hospital.

Self-employed midwives develop improvement plans as part of their annual Midwifery Standards Review conducted through the College of Midwives. It was reported that the Midwifery Standards Review includes:

- consumer feedback that all midwives are required to gather for review by the New Zealand College of Midwives review panel
- peer review
- statistical information about the outcomes of a midwife's practice
- reflection on competencies and a written reflection by the midwife on how she meets the standards of her profession
- identification of education and professional development needs, including technical skills, with a focus on what is topical within midwifery. For example, communication, documentation, and emergency obstetric drills and skills (emergency breech birth, shoulder dystocia, post-partum haemorrhage)
- attendance at an annual CPR and neonatal resuscitation programme
- documentation of an individualised development plan for every midwife irrespective of workplace setting.

Commendation:

C07 Capital & Coast DHB Women's Health Services is commended for its comprehensive quality plan and the Midwifery Council of New Zealand is commended for its comprehensive requirements for midwives to demonstrate competency.

National issue to be addressed:

NI 11 **National issue:** Some key components of a robust quality system are lacking in national maternity services requirements as set out in the Maternity Services Notice, including requirements for audit, monitoring and performance indicators.

Recommended option: That the Ministry of Health ensure that the strategic plan for maternity services includes direction for quality improvement and risk management.

5.5.2 Documented standards and processes

The Ministry of Health's standards for self-employed LMCs are documented in the Access Agreement.

There are comprehensive referral guidelines for referral of care from LMCs to specialist or hospital services.

Capital & Coast DHB Women's Health Services has an appropriate range of documented policies, protocols and guidelines to guide clinical practice. A list of these is included in Appendix 6. These documents were found to be current, with scheduled review dates specified.

Capital & Coast DHB also complies with the certification standards as required by the Health and Disability Services (Safety) Act 2001. These standards are comprehensive and cover both clinical and non-clinical aspects of service delivery, for example patient assessment, care planning, discharge planning, equipment management, quality and risk management, and clinical record management. Compliance with these standards is externally audited by a Designated Auditing Agency.

All midwives are guided by the New Zealand College of Midwives' *Midwives Handbook for Practice 2008.* This handbook specifies the scope of practice of the midwife, competencies for entry to the Register of Midwives, code of ethics, standards of midwifery practice, decision points for midwifery care and guidelines for referral, and contains a flowchart of the complaints process operated by the New Zealand College of Midwives.

Obstetricians are expected to be guided by the standards set by the Royal Australian and New Zealand College of Obstetricians and Gynaecologists.

Comment:

There are no maternity standards developed jointly by both obstetricians and midwives. This has resulted in each profession working in isolation towards meeting its own standards, rather than working together in a collaborative fashion to meet common agreed standards.

Although both the New Zealand College of Midwives and the Royal Australian and New Zealand College of Obstetricians and Gynaecologists have based their standards around what they consider to be best practice for meeting the needs of the woman and her baby, these standards reflect different perspectives.

- The New Zealand College of Midwives' standards view birth as a normal process in which the woman should have as much control and as little clinical intervention as possible.

- The Royal Australian and New Zealand College of Obstetricians and Gynaecologists' approach views birth as a normal process but one that frequently needs clinical intervention in order to achieve healthy outcomes for mother and baby.

With regard to referral guidelines, it was difficult for the Review Team to assess the extent to which these were used, although it would appear that in the majority of cases mothers and babies are appropriately referred for hospital care when needed. There were some issues regarding timing of referrals for anaesthetic input during the labour of a woman under LMC care in hospital. These are discussed elsewhere in this report.

In practice it appeared to the Review Team that most obstetricians and midwives in the Wellington area work well together most of the time. However, for some midwives and some obstetricians their different approaches to birth have resulted in polarised views and barriers to communication between the professions. This has resulted in their inability to work closely and collaboratively together when required to do so to ensure the provision of safe, seamless and effective maternity services.

5.5.3 Incident management

Incident management is the name generally given to the identification, assessment, analysis and follow-up of events that have occurred but should not have occurred. Such events may include:

- patient harm, such as harm resulting from a hospital-acquired infection, a fall in hospital, medication prescribed to which the patient has a known allergy, or a breakdown in communication between health practitioners involved in the patient's care
- non-compliance with policies and procedures (e.g. inadequate or incorrect documentation in the patient's clinical record)
- supply incidents (e.g. medications not being available in the ward when needed)
- legislative breaches (e.g. breach of patient privacy).

Capital & Coast DHB has a current and comprehensive Reportable Events Policy. In March 2008 the DHB implemented a new electronic incident-reporting system. The paper-based system remains in place to provide back-up for staff not able to access the electronic system (e.g. LMCs) or for when there is a computer outage.

The primary aim of incident management should be to learn from the things that have gone wrong and to take actions to prevent their recurrence.

5.5.4 Serious and sentinal event management

Serious and sentinel events are defined in the Standards New Zealand Handbook 8152:2001 *Sentinel Events Workbook.* Serious events include such things as:

- a system failure resulting in a reduction in the quality of service
- significant deviation from the organisation's usual process
- an event that has the potential to result in significant harm
- missed diagnosis.

Sentinel events include such things as:

- major system failure
- unanticipated death or major permanent loss of function not related to the natural course of the consumer's underlying condition, pregnancy or childbirth.

Again, the primary aim of serious and sentinel event review is to learn from the event and to prevent recurrence. Active steps should be taken to avoid a 'name, blame and shame' approach to individuals involved in serious events for the following reasons:

- Such an approach has the potential to inhibit staff from reporting the errors they have made or adverse events that may have involved them. Staff usually take such events personally and extremely seriously.
- If such events are not reported, the organisation does not have a chance to identify the systems issues that have contributed to them, and to take actions to prevent recurrence.
- It is extremely rare that serious and sentinel events occur as the result of one action or inaction. Typically there is a sequence of three or four things that go wrong before a serious outcome occurs, and often multiple staff are involved in such events. Therefore to blame one person for the outcome is unfair and unproductive.

Capital & Coast DHB has a comprehensive policy for the management of serious and sentinel events. This policy requires the clinical director of the service where the event has occurred to form a review steering group, assign the review leader, confirm the review team members, and ensure communication with the patient, family and whānau to investigate the event. The service and clinical leader are responsible for ensuring the investigation is completed and a quality improvement action plan is developed.

The policy requires patients and family to be informed of the serious event review progress and outcomes, but falls short of acknowledging that the family's participation in the review process and engagement in identifying the lessons learned can reduce distress arising from serious and sentinel events. Capital & Coast DHB has also advised that it has approved a new Open Disclosure/Communication Policy and is planning to commence education for staff about open disclosure

If a self-employed LMC is involved in a serious event within a DHB facility, s/he is required to report it through the DHB's incident reporting system. For a self-employed LMC involved in a serious event outside of a DHB facility there is no formal requirement to report the event, either to the Ministry of Health as the funder or to any agency with oversight of patient safety. A patient death must be reported to the Coroner and to the Perinatal and Maternal Mortality Committee. However, there is no formal requirement for self-employed LMCs to review, learn from or take actions to prevent recurrence of a serious event that does not result in death. A self-employed midwife may request a special review to be conducted by the New Zealand College of Midwives. However, this is not a requirement.

Comment:

The responsibility of the clinical director and the service manager for reviewing serious and sentinel events within their own service is not consistent with the principles of objectivity and fairness that must apply to such a review.

It is important to involve someone with the appropriate investigation skills (such as Root Cause Analysis and serious event review) from outside the service in which the event occurred. Usually this would mean a person from a different service within the DHB, such as the Quality and Risk Service or another clinical service, conducting the investigation, writing the report, and ensuring that the review is done in consultation with all relevant people. Relevant people may include staff involved in the event, the patient or their support person, and subject-matter experts either from within or outside the DHB.

In discussion with self-employed midwives who had participated in a CCDHB Women's Health Services serious event review within the past year, it was stated that the review process was perceived as being a blaming process that included no discussion of the DHB's processes or possible contribution to the adverse outcome.

The Review Team is of the view that self-employed LMCs must be subject to the same requirements as other healthcare providers in New Zealand. That is:

- they must be required to report a serious event to an appropriate authority that has a patient safety monitoring perspective
- they must implement processes to review the event and take actions to prevent recurrence where possible.

It would be appropriate for self-employed LMCs to inform their funder, the Ministry of Health, of serious events in which they have been involved. It would also be appropriate for them to be required to seek a special review by the New Zealand College of Midwives and to provide the funder with the report of the investigation.

Work is currently occurring in the sector to establish national reporting of serious events. It would be appropriate for self-employed LMCs to meet the same requirements as other self-employed providers in this regard.

Recommendation:

R04 That CCDHB revise its process for reviewing serious and sentinel events to ensure that such reviews are led by a suitably qualified person from outside the service in which the event occurred.

National issue to be addressed

NI 12 **National issue:** Currently self-employed LMCs are not required to report a serious event in which they have been involved, either to the Ministry of Health as the funder or to any agency with oversight of patient safety.

Recommended option: That self-employed LMCs be required to comply with the national serious event reporting requirements when they are completed. These are currently being developed by the New Zealand Quality Improvement Committee's Incident Management Project.

6 Processes

This section of the report considers some of the ways in which the inputs already described work together to provide maternity services in the Wellington area.

Given the time constraints on the Review Team, it is not possible to cover all work processes in this report. However the Review Team identified some key work processes that it wishes to present here. These are described in the following sections.

6.1 Processes for continuity of maternity care between facilities and between health practitioners

Maternity services are provided to women in a variety of settings such as:

- the woman's home
- LMCs' community-based facilities
- primary birthing facilities
- hospital facilities.

Additionally, maternity services are provided to women by a variety of health practitioners including LMCs (usually midwives), GPs, obstetricians, hospital midwives, obstetric registrars and house surgeons, anaesthetists, neonatologists and paediatricians.

It is essential for the safety of both mother and baby that the care provided across these physical boundaries and between different health practitioners is 'seamless' . That is, all health practitioners involved in a woman's and baby's care work well together and communicate to each other the information they need in order to provide safe and effective care.

6.1.1 Transfer and transport between facilities

Both Kenepuru and Paraparaumu units are staffed to provide support services for LMCs and postnatal facilities for women who have given birth at the unit or transferred from Wellington postpartum.

In the event of an emergency occurring in the primary birthing units, the on-duty midwife and LMC have ready access to obstetric and paediatric specialists at Wellington Hospital by phone. Clear policies outline procedures for this occurrence.

Maternity emergencies include:

- shoulder dystocia (i.e. baby's shoulder obstructed during delivery)
- undiagnosed breech presentation of the baby (i.e. the baby presents bottom-first or feet-first instead of the normal head-first). Approximately 3 to 4% of babies have breech presentations, and 15% of these are undiagnosed prior to delivery
- cord prolapse (i.e. the cord delivers before the baby and becomes compressed, and the oxygen supply to the baby is compromised)
- foetal distress, as evidenced by heart rate and production of meconium
- uterine or other major trauma (tear) generally causing haemorrhage and requiring expert repair
- antepartum or postpartum haemorrhage.

Capital & Coast DHB's Policy for Booking Criteria for Birthing at the Kenepuru and Paraparaumu Primary Birthing Units specifies the criteria for women who can be booked to give birth in the units. The policy encourages low-risk women to book for their labour and birth at these units 'where there are no known risk factors that would preclude a spontaneous, uncomplicated vaginal birth and safe puerperium'.

The policy lists the conditions that would prevent a woman being accepted for birthing at these units. These include:

- antepartum haemorrhage
- gestational diabetes
- grand multiparity (more than five pregnancies)
- history of postpartum haemorrhage
- history of retained placenta
- malpresentation (e.g. breech)
- morbid obesity
- placenta previa
- previous caesarean section or uterine surgery
- twin pregnancy.

Capital & Coast DHB's Protocol for Urgent Maternal Inter-Hospital Transfer specifies the standards and processes for such transfer. In 2007, 14.6% of women (47) booked to give birth at Kenepuru were transferred to Wellington Hospital. For the first six months of 2008 there has been a 10.1% transfer rate of women in labour from Kenepuru to Wellington. Three of these transfers were for undiagnosed breech deliveries. All transfers have resulted in live births. There have been two stillbirths at Kenepuru in the past 10 years, and a number of successful deliveries of undiagnosed breech births in the same period.

There is no ambulance on the Kenepuru or Paraparaumu premises, and while there are sometimes long waits for the ambulance to arrive, they usually arrive at Kenepuru within five to ten minutes. The trip to Wellington Hospital takes 25 minutes outside peak traffic.

The Kenepuru call bell system identifies emergency situations and Kenepuru midwives will attend emergencies as back-up midwives if needed. Kenepuru prefers to employ midwives who have had experience in a secondary or tertiary hospital and identified that a 'loose' mentoring system is in place for new graduate self-employed LMCs at the beginning of their practice. Kenepuru staff noted that new graduate LMCs do not always bring back-up midwives with them, and that mentoring styles were ill-defined and variable. For instance, new graduates may sometimes be supported by their mentors in person and sometimes by phone. Kenepuru staff were of the view that mentoring needs to be more closely defined. This should be addressed with the proposed national implementation of the Midwifery First Year of Practice Programme.

Kenepuru's biggest concern was the delay in obtaining emergency support from Wellington Hospital and from expert paramedics. Transport to Wellington is mostly provided by Wellington Free Ambulance Service. Sometimes expert paramedics are available to attend, but this depends on whether they are already attending another call. However, neonatal retrieval is the usual option for compromised newborns. Staff at Kenepuru and the Ambulance Service expressed clinical concern at the considerable delays and inconvenience to both the unit and the Ambulance Service in waiting for a Wellington Hospital neonatal specialist retrieval team to be gathered and adequately equipped when the trip by emergency services could usually be facilitated in less than 30 minutes.

The neonatal team at Wellington Hospital believes that it is not desirable to resuscitate a neonate in a travelling vehicle. Rather, it is better to have the ambulance attend the baby at the primary birthing unit and help resuscitate and stabilise it before the neonatal retrieval team arrives to transfer the baby. However, Kenepuru and Ambulance Service staff advised that the retrieval team always takes more than an hour to arrive and on occasion there has been up to a four-hour delay in the arrival of the team.

Both Kenepuru staff and Ambulance Services staff would prefer to send the neonate by ambulance to Wellington Hospital in order to access specialist care as quickly as possible. Ambulance staff stated that their expertise lies in resuscitation in a travelling vehicle and that they are fully equipped to do this. Further, the requirement of the neonatal team for an Ambulance to spend an hour or more providing resuscitation to a neonate exerts an unnecessary drain on Ambulance resources, tying up an Ambulance and staff for a longer period than necessary when they could be available to respond to other community emergency calls.

Comment:

As part of this review, the Review Team visited Middlemore Hospital in Mangere, Auckland. Travel times from Middlemore's primary birthing facilities to the base hospital are similar to those from Kenepuru to Wellington Hospital. There is no neonatal retrieval transfer process for Middlemore's primary units. All neonates requiring specialist assistance are transferred to Middlemore Hospital via ambulance services. Auckland DHB also does not do neonatal retrievals as routine practice within the DHB's area. Rapid ambulance transfer is made to the hospitals without waiting for a neonatal team to respond.

Given the delays in neonate retrieval that have occurred for Kenepuru, the Review Team reached the view that it would be appropriate for CCDHB to reconsider its neonate retrieval policy, and that generally the most expeditious form of transfer from Kenepuru and Paraparaumu may be by ambulance to Wellington Hospital.

Commendation:

C08 Wellington Hospital Delivery Suite provides Kenepuru with very good (immediate) access to specialist obstetric advice by telephone when this is required.

Recommendation:

R05 That the efficacy of ambulance transfers of neonates from Kenepuru and Paraparaumu be affirmed and the neonatal retrieval service to these facilities be discontinued as a routine response. That CCDHB transfer and transport policies be amended accordingly.

R06 That Kenepuru and Paraparaumu birthing facilities be provided with equipment that would increase their capacity to provide immediate care for compromised babies (e.g. equipment to maintain baby body warmth, as well as phototherapy lights for treatment of jaundice in stable babies who otherwise would not need transfer to Wellington).

R07 That regular meetings be held between CCDHB clinical services and the ambulance services, and that the latter be involved in the development of emergency transfer policies and procedures.

6.1.2 Working relationships between maternity services personnel

As already stated in this report, safe and high-quality clinical care requires effective communication and collaborative working relationships between all personnel providing that care.

Since midwives were authorised to practise midwifery without the involvement of a medical practitioner, there has been a great deal of tension between midwives and doctors (obstetricians, GPs and anaesthetists) for a number of reasons including the following:

- GPs commonly lose contact with their pregnant patients for the duration of the pregnancy and for the six-week postnatal period. Frequently GPs receive no notification from the LMC that the LMC is providing midwifery care to the woman. Frequently GPs also receive no discharge letter to explain the care provided to the woman and her baby, and to advise that the LMC is handing back the care to the GP at the end of the postnatal period. (Where the pregnant woman needs non-maternity medical care during her pregnancy, she may choose to visit her GP for this care and this must be paid for in the usual way.)
- The fundamentally different philosophies between midwives and obstetricians regarding the birth process (i.e. 'normal' versus 'medicalised') result in disagreement over what constitutes the best care for a woman and her baby.

- Some midwives attending births in the hospital setting experience medical staff taking over the care of their patient and imposing what the midwives consider to be unnecessary and unsafe interventions, such as:
  - artificial rupturing of the membranes to quicken onset or progress of labour
  - caesarean sections
  - episiotomies
  - timing of the use of forceps or ventouse methods of delivery.
- Some hospital doctors perceive that self-employed midwives attend births 'behind closed doors' in the Delivery Suite, refusing to let hospital staff know anything about the woman's progress.
- Some anaesthetists experience being called to do an emergency epidural on patients who have been birthing in the Delivery Suite under self-employed LMC care, without any previous knowledge about the care of those patients.

The Review Team was informed that:

Re relationships between lead maternity carers and hospital midwives

- relationships between self-employed LMCs and midwives at both Wellington Hospital and Kenepuru birthing unit were very good. Lead maternity carers usually keep the unit informed about the progress of the woman whose baby they are delivering
- there needs to be better communication between new graduate LMCs and hospital midwives. One new graduate reported 'really good support from Wellington Hospital core midwives'. Another new graduate reported slow responses to her urgency calls
- there is no formal system in place to ensure self-employed LMCs are oriented to the facilities, policies and processes at Wellington Hospital
- Capital & Coast DHB interface meetings between self-employed LMCs and hospital personnel are no longer working effectively. The minutes of the last meeting, and the agenda for the next meeting, are not sent out until the day of the next meeting. Issues raised are not formally addressed. The recent appointment of administrative support for this meeting is intended to address this issue
- Hutt Valley DHB has a monthly meeting with LMCs.

Re relationships between lead maternity carers and hospital doctors

- Capital & Coast DHB anaesthetists identified that home-birth midwives in the Wellington area were very good at contacting anaesthetists for advice and assistance as needed. The Kapiti Coast LMCs had developed a referral form for referral of women to anaesthetists as needed
- LMC referral letters to CCDHB are quickly handled
- there can be six- to eight-week delays in receiving information from CCDHB regarding care provided to a client. For example, test results may be sent to the woman herself, and her GP, but not to the LMC. Lead maternity carers reported having to access CCDHB information and test results from their client
- Capital & Coast DHB provides good education and training opportunities for its own maternity staff that are also open to self-employed LMCs (e.g. sessions on management of epidurals).

Comment:

It was very apparent to the Review Team that all midwives and doctors spoken to are highly committed to providing the very best maternity care possible to women and their babies.

It was also apparent that there are some very good working relationships between the LMCs and the DHBs in the Wellington area. These relationships are based on trust and respect, mutual valuing of skills, open disclosure of problems and an inclusive management style.

However, there were also reports of some less-than-satisfactory behaviours that threaten clinical respect, intimidate consumers and staff alike, and are generally disruptive to the effective functioning of a unit or regional service. The Medical Council of New Zealand has a draft document on the disruptive doctor. Such a process could apply to all in the sector.

The Interface Group between LMCs and CCDHB is a good initiative, but at this point is not working well and needs to be reviewed and revised to improve its effectiveness. The appointment of a midwifery liaison role in the DHBs – along the lines of the GP liaison roles established in many DHBs – would significantly help to address boundary issues between LMCs and DHBs and facilitate the development of consistently excellent relationships and communication flows. Given the importance of these relationships, such a role would have the potential to significantly increase the safety, quality and continuity of maternity care.

Another issue raised in discussions was the need to have a formal process in place for DHBs and consumers to follow when they wish to raise a concern about a particular LMC's performance or safety. This should be a process managed by the Ministry of Health as the funder of services, and should involve the New Zealand College of Midwives and the Midwifery Council of New Zealand as needed.

Commendations:

C09 Lead maternity carers and DHB maternity staff in the Wellington area are commended for the significant efforts they have made to create and nurture effective working relationships across facility and professional boundaries. These relationships are essential in creating an environment that supports the provision of safe and high-quality maternity care to women and their babies.

Recommendations:

R08 That CCDHB's Interface Group with LMCs be re-established to ensure timely provision of minutes and agendas, and to provide a formal mechanism for identifying, assessing and taking action to address risks to safe practice. That this Group include in its membership the quality leader for Women's Health Services.

R09 That CCDHB and Hutt Valley DHB identify, implement and monitor formal mechanisms for improving relationships, communication and trust between DHB maternity services personnel and self-employed LMCs. This could involve the appointment of a midwifery liaison role within the DHBs, similar to the GP liaison roles established in many DHBs.

National issue to be addressed

NI 13 **National issue:** Currently there is lack of clarity about how and where to raise a concern about a self-employed LMC. While women receiving maternity services from a midwifery LMC may be advised by the LMC that they may make a complaint to the New Zealand College of Midwives, some did not receive this information. Also, DHB staff concerned about an individual self-employed midwife LMC's performance or safety did not know where to raise their concern. This issue is the same for medical LMCs about whom a woman may wish to make a complaint.

Recommended option: That a process for raising and addressing concerns about the performance of individual self-employed LMCs be established by the funder of LMC services and be made known to all women receiving these services. That the funder take responsibility for overseeing complaints about self-employed LMCs.

6.2 Lack of standards for maternity services delivery

Section 5.1 above identified the existence of fundamental differences between the midwifery and obstetric professions about what constitutes 'best practice' maternity care. At the same time, it is clear that both professional groups are seeking the best outcomes – as they see them – for both mother and baby.

This difference in perspective has resulted in each professional group following some different standards or approaches to care, and relying on different sources of evidence to support those standards or approaches.

It then becomes the woman's responsibility to choose which type of care she would rather receive – midwifery care or medical care or a combination of both. Alternatively the woman may not be aware that there is a choice, nor of the consequences of being on the receiving end of whatever model of service she finds herself in.

This situation poses some ethical difficulties – particularly for women who are unfamiliar with the New Zealand maternity services model or the English language. Much of the difficulty can only be overcome by providing women with full information about their maternity care options so that they can make an informed choice.

One way of reducing this problem is to eliminate as many differences between the approaches to maternity care as possible, by developing a set of common standards supported by evidence in the literature and agreed to by all maternity services health practitioner groups.

Such standards would be expected to specify, for example:

- the roles and responsibilities of LMCs, midwives, GPs, obstetricians, anaesthetists and neonatologists
- information that must be provided to the pregnant woman
- communication methods that must be used between health practitioners involved in a woman's maternity care, such as verbal handovers using the SBAR (Situation, Background, Assessment, Recommendation) Tool, referral mechanisms, and discharge letters
- managing mental health and physical health disorders during pregnancy
- standards relating to meeting the cultural needs of women
- standards relating to infant feeding.

In June 2008 the United Kingdom Colleges of Obstetricians and Gynaecologists, Midwives, Anaesthetists and Paediatrics produced *Standards for Maternity Care* which includes comprehensive standards for maternity services as well as audit indicators. These standards would provide an excellent starting point for the development of similar standards in New Zealand. They also illustrate a highly effective collaboration between the professional colleges. Such standards would have the additional benefit of providing pregnant women with a comprehensive statement of what maternity care they can expect to receive.

Comment:

While standards have been developed by each of the relevant professional colleges in New Zealand, there are no common standards that apply to all involved in the provision of maternity care. The development of common standards would greatly assist the growth of trust and respect between the professional groups, increase consumer knowledge of maternity services provision, and increase public confidence in maternity services.

National issue to be addressed:

NI 14 **National issue:** There are currently no standards of maternity care agreed by all of the professional groups providing that care. This has resulted in different standards of care being provided both between and within the different professional groups.

Recommended option: That the New Zealand College of Midwives, the Royal Australian and New Zealand College of Obstetricians and Gynaecologists, the Australian and New Zealand College of Anaesthetists, the Royal New Zealand College of General Practitioners and the Royal Australasian College of Paediatricians work together with the Ministry of Health to produce common standards for maternity care in New Zealand.

7 Outcomes

When considering the outcomes of maternity services in the Wellington area, a significant barrier faced by the Review Team was the lack of reliable, complete and up-to-date information.

The outcomes described in the following sections are based on the available data and limitations of the data are identified.

7.1 Birth statistics

There were several data sources available to the Review Team regarding birth statistics in the Wellington area, including:

- *Foetal and Infant Deaths 2003–2004*, produced by the New Zealand Health Information Service and the Ministry of Health in August 2007. This was based on data obtained from:
  - live births and foetal and infant deaths registered in New Zealand in 2003 and 2004
  - certificates of cause of death from doctors and coroners, post-mortem reports from pathologists, and death registration forms
- *The Women's Health Services Annual Clinical Report 2007*, produced by CCDHB in 2007. This was based on data obtained from:
  - the CCDHB Perinatal Information Management System, which records data collected routinely on all women and babies discharged from the maternity services of the CCDHB Women's Health Services
  - the team leader of Paraparaumu Maternity Unit, who provided information about birth numbers for 2002 to 2004 as the Unit did not collect data on the Perinatal Information Management System until early 2005
- *Report on New Zealand's MMPO-Midwives' Care Activities and Outcomes 2004*, produced by the Midwifery and Maternity Providers Organisation in May 2008. The Midwifery and Maternity Providers Organisation was established by the New Zealand College of Midwives in 1997 to provide midwife members with a supportive practice management and quality assurance infrastructure that included providing aggregated clinical information to member midwives and the New Zealand College of Midwives. This report was based on data submitted by 390 midwife members, representing 17% of New Zealand births in 2004
- the New Zealand College of Midwives website, which contains maternity data for the year 2005. However, these data relate to hospital-based births only
- registered live births, still births and total births 2000 to 2007, obtained from Statistics New Zealand
- in-hospital live births 2000 to 2007, obtained from the Ministry of Health's National Minimum Dataset.

7.1.1 Information from the New Zealand Health Information Service and the Ministry of Health

The *Foetal and Infant Deaths 2003–2004* report showed that in New Zealand in 2004 there were:

- 58,723 live births
- 505 stillbirths (8.5 per 1000 total births or 0.85%)
- 161 early neonatal deaths, i.e. deaths within seven days of birth (2.7 per 1000 live births or 0.27%)
- 666 total perinatal deaths – 505 stillbirths plus 161 early neonatal deaths (11.2 per 1000 total births or 1.12 %).

Ethnicity data in this report show that for the three ethnicity groups (Māori, Pacific Peoples and Other) stillbirth rates were:

- 8.3 per 1000 total births for Māori
- 8.3 per 1000 total births for Other Ethnicities
- 10.1 per 1000 total births for Pacific Peoples.

This report compared perinatal death rates by DHB region of the mother's usual place of residence.

- In 2004 the CCDHB region had a perinatal death rate of 11.2 per 1000 total births, equal to the New Zealand average.
- Capital & Coast DHB's perinatal death rate was similar to those of Otago, Canterbury and Waikato DHBs, and lower than those of Auckland and Counties-Manukau DHBs (the other tertiary maternity providers in New Zealand).

7.1.2 Information from Capital & Coast District Health Board's Women's Health Services Annual Report 2007

There were 4121 births in the CCDHB region. Of these:

- 86.9% (3701) were delivered at Wellington Hospital.
- 6.2% (266) were delivered at the Kenepuru maternity unit.
- 3.6% (154) were delivered at Paraparaumu maternity Unit.
- 2.9% (125) were delivered at home. (This information was obtained through a telephone survey of LMCs and includes both planned and unplanned home births.)
- 0.3% (13) were delivered in transit, i.e. in an ambulance or car before arrival at the birthing unit.
- There was a 2% increase in births compared with 2006. 10% of these births occurred at Kenepuru and Paraparaumu, these units having a 9% increase over 2006.

Of the 4121 births in the CCDHB region in 2007:

- 98.8% were liveborn.
- 4.4% (181) had breech presentation at delivery. Of these, 65 were pre-term, 75.4% were delivered by caesarean section and 24.6% were delivered vaginally. Only 13 of 116 full-term breech babies were delivered vaginally.
- 29.2% (1203) were delivered by caesarean section.
- 1.2% (51) were stillborn (compared with the 2004 national rate of 0.85%).
- There was a perinatal death rate (corrected for termination of pregnancies) of 9.2 per 1000 total births (compared with the 2004 national rate of 11.2).
- Although births in CCDHB increased by 5.8% over the 2002 to 2006 period, there was a slight decrease in both the stillbirth rate and the early neonatal death rate.

The CCDHB report also provided the following ethnicity statistics for 2007:

- Pacific women had the highest rate of spontaneous vaginal births at 76.9% (compared with 69.4% for Māori, 55.6% for European/Other, and 53.9% for Asian women).
- Māori and Pacific women had the lowest rates of caesarean section deliveries at 23.1% and 17.7% respectively (compared with 31.8% for European/Other and 31.6% for Asian women).
- Stillbirth rates for Māori and Pacific Peoples babies were similar (1.3% and 0.3% respectively) to European/Other (1.3%) and Asian (1.5%).
- The CCDHB Māori stillbirth rate of 1.3% is similar to the 2004 national statistic of 0.83% for Māori.
- The CCDHB Pacific Peoples stillbirth rate of 0.3% is noted, as are the others, to vary from year to year and is similar to the 2004 national statistic of 1.0% for Pacific Peoples. Due to the relatively low numbers of Pacific Peoples births in the CCDHB area, even one stillbirth can have a moderate impact on the stillbirth percentage.

Comment:

The difficulty in obtaining up-to-date, accurate and consistent birth outcome statistics is of major concern. Each agency is recording its own information and each data set is different.

The Review Team met with the Chairperson of the National Perinatal and Maternal Mortality Review Committee who advised that the Committee's first report is due to be printed shortly. The Review Team was advised that:

- Capital & Coast DHB's perinatal mortality in the July to December 2006 period was approximately the same as the national average
- New Zealand's perinatal mortality rate for the same period was very similar to that of the United Kingdom and Australia
- the New Zealand College of Midwives collects data on every birth attended by midwives reporting to the Midwifery and Maternity Providers Organisation, including information relating to pregnancy, payments and outcomes. This is leading the way for New Zealand.

Overall the Review Team was satisfied – within the limitations of the data available – that the perinatal mortality rate in the CCDHB region was approximately the same as the national average. The only statistic that stands out is CCDHB's caesarean section rate which, whilst similar to that of some other tertiary units in New Zealand, is at a level that all such units would suggest is higher than is considered to be clinically acceptable.

Commendation:

C10 Capital & Coast DHB is commended for its production of a comprehensive annual report on its maternity services. Not all DHBs produce such a report and it provides excellent information on which to base quality improvement activities.

National issues to be addressed:

NI 15 **National issue:** There are several national agencies recording their own information about maternity services' outcomes, and each data set is different. Without reliable accurate information, it is impossible to know if quality is improving.

Recommended option: That a national maternity data set be established and that consideration be given to the establishment of a government-funded national maternity statistics unit.

NI 16 **National issue:** The most recent government report on foetal and infant deaths available to the Review Team related to deaths in 2003/04.

Recommended option: That national annual reports of maternity services statistics, including foetal and infant deaths, be produced within six months of year end, to ensure more timely provision of information on which to base maternity services' planning and monitoring of outcomes. It will be necessary for some parts of these reports to be interim only until full information is available from coroners.

7.2 Incidents and serious events

Capital & Coast DHB Women's Health Services' incident data for the eight-month period 1 November 2007 to 30 June 2008 were reviewed.

Only 49 incidents were reported during a period that included the closure of postnatal beds in December 2007 due to staffing shortages. The numbers of incidents reported by the facilities over this eight-month period were as follows:

- 3 Kenepuru
- 1 Paraparaumu
- 24 Wellington Hospital Delivery Suite
- 18 Wellington Hospital Postnatal Ward 12
- 2 Wellington Hospital Level J
- 1 Wellington Hospital Newborn Intensive Care Unit.

The types of incidents reported were as follows:

- 15 health and safety
- 7 medication events
- 6 failure to respond to a request (e.g. orderly failure to collect specimens
- 4 inadequate LMC care or handover
- 4 patient fall
- 3 controlled drugs
- 2 communication failure
- 2 inadequate staffing levels
- 2 non-compliance with correct protocol, procedure or policy
- 1 no postnatal bed for new mother requiring it
- 1 death of newborn baby
- 1 fire alarm
- 1 theft
- 1 professional issue.

Of the 49 incidents reported, 32 related to clinical care. With approximately 2600 CCDHB births in this period (calculated on the basis of 4000 births per annum) and based on the study findings of Davis et al[8] that 6.3% of hospital admissions result in a reasonably serious adverse event, it would be expected that the number of incidents reported during this eight-month period would be considerably higher than 49.

Thus it would appear that there is a low rate of incident reporting in CCDHB's maternity services. With CCDHB's recent appointment of a patient safety co-ordinator role, and as staff become more familiar with the new electronic reporting system, it is expected that the levels of incident reporting will significantly increase. This will enable the service to learn from its adverse events and take actions to prevent recurrence.

The Review Team was informed that for every birth a 'green form' (Adverse Obstetrical Outcome Data Collection Form) is completed and reviewed by the Obstetric Clinical Leader who decides whether a full review of the birth needs to occur. The Adverse Outcomes Obstetrics and Gynaecology Committee reviews adverse event trends on a three-monthly basis. Not all actions to address adverse event recommendations are monitored for completion.

The process for including the patient and/or their family in the serious event review process is currently under review. Capital & Coast DHB acknowledged that the process of feeding information back to the family could be improved.

Women's Health Services also holds quarterly quality forums to present to staff the results of clinical quality indicators and information about adverse outcomes that may have occurred.

There is no formal process or requirement for self-employed LMCs to manage incidents or serious and sentinel events arising in relation to their practice. There is no database in which such events are recorded unless they occur within a DHB facility and are reported by the LMC using the DHB incident system. No such incident reports have been completed by self-employed LMCs since February 2007.

---

[8] Davis et al. 2001. *Adverse Events in New Zealand Public Hospitals.* Occasional Paper. Wellington: Ministry of Health.

Comment:

As already stated in this report, incident reporting and management is an essential component of a robust quality system. On the basis of the incidents reported to the Review Team it must be stated that the incident reporting culture at CCDHB is poor, and the management of issues raised through the 'green forms' is inadequate.

Commendation:

C11 Capital & Coast DHB is commended for its creation of a new role of patient safety co-ordinator. This role will help to maintain DHB monitoring and reporting of patient safety including maternity safety.

Recommendation:

R10 That CCDHB provide education to all maternity staff regarding the need to complete incident forms and the processes to be followed by managers and clinical leaders when following up on these forms.

R11 That CCDHB implement a robust process whereby the manager, clinical director and midwifery leader regularly review incident trends and monitor completion of actions arising from serious and sentinel event reviews.

7.3 Complaint management

Capital & Coast DHB has a comprehensive complaints policy that specifies the procedures for managing and responding to complaints. Wellington Hospital has a complaint form that welcomes consumer compliments, suggestions, concerns or complaints.

In the 18-month period from January 2007 to July 2008, CCDHB Women's Health Services received 63 complaints (approximately 3.5 complaints per month). Concerns raised included:

- delays in accessing services when needed, for example failure to answer the call bell, not enough staff, or not enough support for breastfeeding (24)
- care provided, such as failure to record blood pressure, lack of observations, delayed medication, inadequate pain relief, or burning from use of heatpack (7)
- lack of information or poor communication (7)
- partners not being allowed to stay overnight (6)
- facilities, for example rooms with four beds (5)
- women feeling 'forced' to breastfeed (4).

(Note that one complaint may contain more than one concern.)

One third of complaints included compliments about how wonderful the staff members were, including midwives, anaesthetists, registrars and consultants. A third of these compliments related specifically to the exceptional services provided by Delivery Suite.

The New Zealand College of Midwives' *Midwives' Handbook for Practice* states that complaints about any midwife can be made to the New Zealand College of Midwives, the Midwifery Council of New Zealand, the Privacy Commissioner, ACC or the Health and Disability Commissioner.

Comment:

Numbers of complaints about CCDHB's maternity services are not unreasonably high or low. It has been reported[9] that only 4% of people will make a written complaint about a service. In healthcare the figure is likely to be lower due to people's fear that their complaint may negatively impact on their care in future. Therefore numbers of complaints cannot be seen as a reliable indicator of the quality and safety of service delivery.

Considerable effort is put into managing complaints in a timely and responsive fashion.

[9] Denham J. 1998. *Handling Customer Complaints.* Prentice Hall.

7.4 Health and Disability Commissioner complaints

Complaints to the Health and Disability Commissioner provide another source of complaint information, although the location of these complaints is not stated in the Health and Disability Commissioner reports.

The Review Team reviewed 12 Health and Disability Commissioner reports relating to birthing events across New Zealand occurring between February 2001 and January 2007. These reports indicated:

- two stillborn babies
- four baby deaths within seven days of birth
- one baby death three months after birth, due to damage during birth
- three babies with life-long damage from the birth process (two with brain damage, one with cerebral palsy)
- one baby with short-term damage from the birth process (overwhelming septicaemia)
- one woman harmed during the birth process (inverted uterus).

With regard to breaches of the Code of Health and Disability Consumers' Rights, there were:

- nine breach findings against midwives
- four breach findings against doctors
- one breach finding against a birthing unit
- one breach finding against a DHB.

Comment:

These complaints and breach findings need to be seen in the context of total birthing numbers, which over the six years from February 2001 to January 2007 amounted to around 347,000 births with the involvement of thousands of health practitioners.

The complaints and breach findings also need to be seen in the context of the workforce involved in delivering babies. All births are attended by a midwife, but only some births are attended by a doctor. Therefore it is to be expected that there will be more breach findings against midwives than against doctors.

7.5 Accident Compensation Corporation maternity treatment injuries

Of the 50 ACC Maternity Treatment Injuries reported to the Director-General of Health from 1 July 2005 to 30 June 2008:

- 16% (8) occurred in the Wellington region
  - five of these occurred at Hutt Hospital, including:
    - one stillbirth
    - one hypoxic ischaemic encephalopathy
    - one infection resulting in hysterectomy
    - one Ventouse failure resulting in cerebral haemorrhage
    - one failure to diagnose renal failure
  - two occurred at Wellington Hospital, including:
    - one hypoxic ischaemic encephalopathy
    - one encephalopathy
  - one still birth occurred at a home birth
- 8% (4) related to home births nationwide
- 42% (21) resulted in notifications being made to the Midwifery Council of New Zealand
- 14% (7) resulted in notifications being made to the Medical Council of New Zealand.

Comment:

Accident Compensation Corporation Treatment Injuries record only those events notified to ACC. Notifications to ACC are made either by the health practitioner involved in the patient's care, or by the patient themselves. Therefore the extent to which the above statistics reflect the actual numbers of adverse outcomes in maternity services is not known.

7.6 Customer satisfaction

The Ministry of Health commissioned a national maternity services customer satisfaction survey and the results, which were published in 2008, indicated high levels of satisfaction with maternity services.

In order to obtain customer satisfaction information relating to the Wellington area, the Review Team sought and received responses from the public (see Appendix 7). The Review Team acknowledges that this method was only able to provide a snapshot of opinion, and was not ideal in seeking consumer input from Māori, Pacific Peoples and other ethnic groups. However, the responses received reflect a very real desire and willingness of consumers in Wellington to have input into maternity service provision in their region.

There were 115 responses received within a two-week period.

From these 115 responses, the numbers of positive comments made about the things that went well were as follows:

- excellent hospital care, staff, anaesthetists, obstetricians, hospital midwives or the neonatal team (97)
- excellent birth process resulting in a healthy baby (49)
- excellent care provided by an LMC midwife (39)
- good postnatal support (16)
- seamless care provided by LMCs, hospital midwives and obstetricians (10)
- good lactation support (9)
- good hospital facilities such as a single room or large birthing room (7).

From the 115 responses, the numbers of negative comments made about the things that respondents believed could be improved were as follows:

- not enough postnatal beds and not enough postnatal care in hospital, for example call bells not being answered (46)
- inadequate hospital facilities, for example rooms with four beds, noise, lack of privacy, lack of cleanliness (33)
- inadequate provision and availability of information (26)
- shortage of midwives (21)
- poor communication between LMCs, hospital midwives and/or doctors (19)
- inadequate lactation support, often because woman had to leave hospital too soon after birth (19)
- lack of agreed standards, processes and approaches, resulting in conflicting advice provided to women (18)
- partners not being allowed to stay in hospital (13)
- rude or unprofessional behaviour or rough treatment (9).

The Review Team also met with some individual consumers and consumer groups. Their input was honest and heartfelt and indicated their desire to have input into their maternity service. They wanted to share their experiences, to be heard and to contribute to the improvement of the services in the Wellington region.

One of the issues raised was the adequacy of the water-birth room at the Kenepuru maternity facility. The Review Team visited this room and confirmed feedback received: that it was small and poorly lit, and lacked resuscitation equipment. Capital & Coast DHB has advised that the room is usually used during labour for pain relief rather than during birth. Women are usually transferred to the next birthing room to deliver. However, in circumstances where delivery does occur in the pool, it would be appropriate to consider having more ready access to the standard resuscitation equipment provided in the two birthing rooms. A simple solution may be to put doors in the wall currently separating the water-birth room from one of the birthing rooms. This would provide a more spacious pool environment and ready access to both the bed and the resuscitation equipment.

Capital & Coast DHB has identified its birthing population to be predominantly European, middle-class and educated. Consumer forums could be held to reach the voices the DHB needs to hear from.

Self-employed midwives are required to obtain consumer views in their annual reviews, but this information is not made available to the public.

Commendation:

C12 Capital & Coast DHB maternity staff and self-employed LMCs are commended for the hugely positive feedback received by the Review Team in regard to the maternity services provided by individual health practitioners. There was overwhelming support for the quality of their work and acknowledgement of their hard work in situations where they were very busy.

Recommendation:

R12 That the board and senior management involved in the development of the strategic direction of CCDHB – in keeping with the DHB's vision of Better Health and Independence for People, Families and Communities – make a greater effort to reach their community, seek the community's views and develop directions for maternity services that meet the community's needs.

R13 That CCDHB conduct at least annual satisfaction surveys of women using its maternity services to assess their satisfaction – specifically, their satisfaction with the postnatal care provided. That CCDHB take actions to improve satisfaction and ensure it is a key performance indicator for maternity services.

R14 That CCDHB review the safety, adequacy of design and accessibility to emergency equipment of the water-birth room at the Kenepuru maternity facility, and take actions to improve these.

National issue to be addressed

NI 17 **National issue:** Information provided to women receiving maternity services is currently inconsistent and inadequate.

Recommended option: That the Ministry of Health, through its funded maternity service providers (i.e. LMCs and/or DHBs), ensure provision of comprehensive information to every woman receiving maternity services. This should include information about:

- the maternity services available
- the choices available regarding location of birth and birthing process
- how to access the service of choice
- risks of childbirth and how DHBs and LMCs manage these risks
- standards relating to maternity services
- how to make a compliment or complaint about a service provider or health practitioner
- how to obtain a second opinion.

7.7 Cultural support

7.7.1 Support for Pacific Peoples by Capital & Coast District Health Board

Capital & Coast DHB has a Director of Pacific Health who established and currently manages the Pacific Health Unit within the Directorate. The Pacific Health Unit has five staff members including a team leader, an administrator, a registered nurse, a community health worker and a trainee lactation consultant. A Pacific midwife is about to commence employment to work in the community. There is also a Pacific Advisory Group that reports directly to the Board.

The Pacific Health Unit has made significant efforts to reach out to the Pacific Peoples community in the CCDHB area through a variety of mechanisms including:

- broadcasting over local radio programmes
- sending messages to church members via links with the ministers of all Pacific churches
- holding regular Fonos across all of the Pacific Island communities.

Pacific Health Unit staff members visit daily every Pacific patient admitted, and hospital staff members refer Pacific patients to the Unit. Verbal complaints by Pacific Peoples, and the actions taken to address these, are recorded in a comprehensive database. Pacific Health Unit staff members also visit patients in the community and work with hospital staff from Outpatients.

Information material for patients available from the Pacific Health Unit reflects an effective connection with the community. This information is consumer focused, reflects community inclusion and generates interest.

It was stated that Pacific women could not easily find an LMC midwife, and that feedback from community meetings indicated that LMCs were tending to choose women with simpler clinical needs rather than those with complex needs (for example, women with high social needs, English as a second language, obesity or diabetes). A disproportionate number of women with complex needs – but who are still suitable for LMC care – are referred to the Wellington Hospital primary midwife team. It was beyond the scope of this review to explore this issue further, but it would be appropriate for the Ministry of Health to identify ways to ensure Pacific women are able to access the choices that are supposed to be available to them.

The Pacific Health Unit is available to Pacific Peoples at any time to answer their queries or address their concerns about a wide range of issues, such as the care they are receiving from their LMC, their rights and the services to which they are entitled. The Review Team was informed that Pacific People are reluctant to call for help or to contact their LMC with queries.

The Pacific Health Unit took a very proactive approach to support the family through the specific sentinel event that triggered this review. The Unit provided the family with face-to-face contact, attendance and support throughout the funeral, alternative LMC postnatal care arrangements, and ongoing support. The Pacific Health Unit has not been involved in the serious event review processes relating to Pacific consumers.

There are three Pacific Peoples midwives employed by CCDHB. The DHB is also funding the training of eight Pacific peer counsellors to work with breastfeeding Pacific mothers. These counsellors will eventually work within the seven Pacific communities. The Pacific Directorate has established Pacific antenatal classes in the community that are facilitated by the trainee lactation consultant and Pacific community midwife.

There was a clear message that the cultural awareness of maternity services providers needs to increase, not only in the Wellington area but nationally.

7.7.2 Support for Māori by Capital & Coast District Health Board

Capital & Coast DHB has a Director of Māori Health who leads the Māori Health Development Group. The group includes a hospital-based team – 'Whānau Care Services' – that consists of 12 people. There is also a Māori Advisory Board that reports directly to the Board.

Whānau Care Services uses a referral system that is reliant on requests for assistance from hospital staff (including midwives and nurses), patients and whānau. There is no policy directing staff to make referrals. Service-level agreements have been initiated and established with some wards, for example Termination of Pregnancy Services, and this has resulted in good communication between Whānau Care Services and these wards. Currently there is no service-level agreement with maternity services.

Complaints and sentinel events involving Māori patients and their whānau are communicated to the manager Whānau Care Services and followed up if required. Tikanga Best Practice Guidelines have been developed by CCDHB to guide the cultural awareness of staff. Cultural training is available to staff but it was not known how many staff had attended this.

The Review Team was given examples of referrals to Whānau Care Services for Māori consumers who regarded hospital-based maternity services with distrust due to their perception of hospital as a 'foreign environment'.

Whānau Care Services indicated that CCDHB services often do not contact the Whānau Care Team when they could do, and not all areas are aware of the Team's 24-hour availability. One of CCDHB's stated values is 'Living the Treaty'. There was little evidence of the practical impact of this value. Rather it would appear that there is a significant lack of connection between the CCDHB Whānau Care Services and the DHB, and the DHB and Māori consumers.

Commendation:

C13 Capital & Coast DHB is highly commended for the work of its proactive Pacific Health Unit in reaching out to and supporting the Pacific Peoples community.

Recommendation:

R15 That the Pacific Health Unit and the Whānau Care Services be more closely linked to CCDHB's management and governance structures, to ensure close communication regarding issues of cultural concern. The two Units need to be involved in serious event reviews relating to Pacific and Māori consumers respectively, to identify opportunities to improve the safety and quality of services to these consumer groups.

R16 That cultural awareness education be provided to all health practitioners involved in the provision of CCDHB maternity services. This needs to focus particularly on the main ethnic groups in the area being served (i.e. in the Wellington area it would need to focus on Māori, Pacific Peoples and Asian cultures).

National issue to be addressed:

NI 18 **National issue:** Some Pacific and Māori women are not accessing the maternity services available to them for a variety of reasons. Given the significantly higher rate of Pacific women having stillborn babies in New Zealand, it is important to ensure ready access to maternity services.

Recommended options: That the Ministry of Health and the New Zealand College of Midwives work together to develop a strategy to contact pregnant Pacific and Māori women and ensure that they:

- are informed of their choices regarding labour and birthing
- have a single point of contact with an appropriately qualified person of their own culture to address their concerns relating to any aspect of their maternity care.

7.8 Audit

Audit is a fundamental component of a high-quality system. Without a formal audit process it is not possible to know the extent to which standards and contractual requirements are being met. Nor is it possible to identify the risks associated with non-compliance or the opportunities for improvement.

There is currently minimal auditing of the quality and safety of maternity services – either within the Wellington area or nationally.

Capital & Coast DHB is audited by a designated auditing agency for hospital certification purposes on at least a three-yearly basis. The national certification standards are generic to all hospital services and certification provides assurance that these standards are met. Capital & Coast DHB is currently certificated to these standards.

Capital & Coast DHB Women's Health Services has a departmental audit programme to monitor compliance with key requirements, and benchmarking of services occurs through membership of the Australasian Health Roundtable. A clinical indicator programme is in place, and perinatal reviews are conducted.

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists conducts its own reviews of the training programmes provided by New Zealand's training hospitals. It recently completed a review of CCDHB's Integrated Training Programme for Registrars. Recommendations were made but the Review Team did not receive a copy of the report.

There is no external audit of the clinical quality of services provided by self-employed midwives. The only audit commissioned by a government agency to date was one that monitored whether claims for funding were correct.

The New Zealand College of Midwives, in its annual review of midwives' practice, reviews the performance of individual midwives against the Midwifery Council of New Zealand competencies and the Standards of Midwifery Practice. It is impressive to see this depth of review of the practice of individual midwifery practitioners. There are no public reports of these reviews.

Comment:

In general, DHBs are subject to audit by a number of different agencies and to different sets of standards. However, none of these audits specifically identifies the safety and quality of maternity service provision over the spectrum of care that is provided by both self-employed LMCs and DHB services.

It has been recommended earlier in this report that a set of joint maternity standards be developed by the relevant professional colleges and the Ministry of Health. Audit against these would provide the public with assurance that standards were being met.

Commendation:

C14 Capital & Coast DHB is commended for its internal audit programme and its involvement in benchmarking maternity services.

National issue to be addressed:

NI 19 **National issue:** Due to the lack of agreed national standards for maternity services in New Zealand, there is no specific monitoring of the quality and safety of maternity service provision over the spectrum of care provided by both self-employed LMCs and DHBs.

Recommended option: That, following the development of joint maternity services standards by the relevant professional colleges and the Ministry of Health, the Ministry conduct regular audits of compliance with these standards.

---

8 Role of the media

The media have played a significant role in shaping both public opinion of maternity services and the working environment of maternity services health practitioners in the Wellington area.

The front-page coverage given to things that have, or sometimes just appear to have, gone wrong, prior to full investigation of the event, may help to sell newspapers but is exceptionally damaging to individuals involved in such events. Trial by media can never be fair or objective, and health practitioners working to do their best deserve better than this.

An identified risk for CCDHB is the diminished consumer confidence in Wellington's maternity services, whether provided by CCDHB or by self-employed LMCs, that results from the regular adverse media focus. Possibly because of this media focus, CCDHB receives a large number of official information requests that take an inordinate amount of time to respond to. This is time that would be much better spent on maternity services planning, provision and monitoring.

Some of the high level of media focus in Wellington is presumably due to the proximity of Parliament and its attendant political processes. Other DHBs around the country appear to receive significantly less adverse media attention than Wellington DHBs.

Negative media publicity diminishes staff morale, detracts from the positive outcomes being achieved and places unnecessary about maternity services would ensure that strain on an already stretched maternity workforce. However, this publicity is a reality that those providing maternity services in the Wellington region must deal with and address.

Comment:

It is understandable that CCDHB staff members become weary and demoralised as a result of frequent media exposure. Existing DHB media, public relations and communications strategies need to be reviewed and new strategies need to be developed to mitigate the impact of media focus on public confidence in maternity services in the Wellington area. For example, proactive publication of factual information and celebration of successful outcomes would be useful.

Recommendation:

R17 That CCDHB develop and implement strategies to more proactively manage its media exposure and to better mitigate the effects of adverse media attention.

9 Feedback

Information from all of the sources described in Section 6 above needs to be regularly collated and used to inform both ongoing service delivery and annual service planning.

Quarterly quality meetings are held by CCDHB Women's Health Services. The Review Team, however, was unable to identify the extent to which information arising from incidents, complaints, patient satisfaction surveys, ACC Treatment Injury Claims, audit reports and serious event reviews is used to continuously improve the quality and safety of maternity services to women. This does not mean that this is not happening.

Similarly, the Review Team was not able to identify the extent to which annual midwifery performance reviews resulted in improvements to midwives' service provision. Again, this does not mean that this is not happening.

One of the most important activities in a robust quality system is what has become known as 'closing the loop'. That is, it is not enough just to collect information about a service, or to make recommendations based on that information. It is also necessary to ensure that those recommendations are actually implemented and that they have achieved the desired change in the quality and safety of services provided.

Comment:

The Review Team believes that CCDHB is no different from other DHBs in its approach to planning and its use of the information it collects. The robust feedback mechanisms required by an effective quality system have yet to be widely established.

Recommendation:

R18 That CCDHB Women's Health Services document its feedback mechanisms to ensure that information collected by the service is used to inform ongoing service provision and annual service planning. That recommendations arising from serious event reviews be implemented and assessed for their impact on improving quality of service.

10 Conclusions

The Review Team reached the following conclusions:

With regard to maternity services in the Wellington area

- Maternity services in the Wellington area are as safe as maternity services anywhere else in New Zealand.
- This is in large part due to the commitment and generally high quality of both the midwifery and medical workforces – including LMCs, hospital midwives, obstetricians, anaesthetists, paediatricians, neonatologists and GPs.
- There are not enough midwives or obstetricians to meet the needs of women requiring maternity services in the Wellington area.
- There are reported to be a considerable number of midwives residing in the Wellington area who have withdrawn from the workforce.
- Frequent media focus on the Wellington area's maternity services has had a demoralising effect on highly capable and competent health practitioners, and has contributed to high stress levels and some practitioners ceasing practice.
- There has been high customer satisfaction with the quality of care provided by individual LMCs and DHB staff.
- There has been low customer satisfaction with the postnatal care provided in CCDHB maternity facilities.
- Information provided to pregnant women about maternity services available is currently variable and sometimes inadequate.
- Kenepuru and Paraparaumu Birthing Units' access to emergency services needs to improve.
- Relationships between health practitioners working across the spectrum of maternity care need to significantly improve in order to ensure seamless, safe and high-quality care for women.
- Both CCDHB and the New Zealand College of Midwives have made significant efforts to set and monitor standards of service provision to women receiving maternity services.
- Capital & Coast DHB has an excellent Pacific Health Unit that provides support to Pacific women using maternity services both in its hospital facilities and in the community.
- Some components of an effective quality management system are in place but the management of quality and risk needs to be significantly improved.

With regard to the national context for maternity services

- Maternity services in New Zealand have been accorded a relatively low priority and there is no national strategy for maternity services. A strategic plan is due for release shortly.
- There are ambiguities in the wording of the Section 88 Maternity Services Notice that need to be rectified.
- Negotiation of the terms and conditions of the Maternity Services Notice does not involve the medical colleges whose members are most affected by the Notice. This needs to be addressed.
- The College of Midwives and the Royal Australasian College of Obstetricians and Gynaecologists have focused on the provision of excellent maternity care in isolation from each other. Greater collaboration is needed to ensure seamless provision of services for women across the continuum of maternity care.
- To ensure safety for women and their babies, and appropriate support for new graduate midwives, there needs to be mandatory supervision (physical oversight) and mentoring for midwives in their first year of practice.
- There are no common, evidence-based standards for maternity care to which all relevant health professional groups subscribe. These need to be developed jointly by the relevant colleges and the Ministry of Health, and compliance with them needs to be monitored by the Ministry of Health.
- There is currently no provision of timely accurate information about maternity outcomes in New Zealand.

Appendix 1: Maternity Review Terms of Reference

Ministry of Health Review of the Quality, Safety and Management of Maternity Services in the Wellington area

Purpose of this document

This document outlines the parameters, and the expectations of the Ministry of Health, of the review of the safety, quality and management of maternity services provided in the Wellington geographic area.

Background

A recent case at Capital and Coast DHB (CCDHB) has drawn attention to concerns regarding the relationships between maternity providers in the Wellington area. In particular, this indicates a need to clarify, roles and responsibilities of maternity providers, including primary and specialist services in the Wellington area. In addition to requesting that CCDHB fast track their report into the sentinel event, the Minister of Health and Associate Minister of Health with responsibility for maternity policy and services, have asked the Director-General of Health to commission a review, led by clinicians, of maternity services in the Wellington area.

The review will take a general look at any systems issues across the range of maternity services in the Wellington area. It will not duplicate the investigations currently being carried out by the Coroner and the DHB, and potentially the Health and Disability Commissioner and/or Midwifery Council of New Zealand and/or the ACC that occur as a result of unexpected deaths. Although the review will primarily relate to maternity services provided within the CCDHB catchment, the review will include maternity service providers in the Wellington geographic area who refer women to CCDHB for secondary and tertiary maternity services. The review is also likely to have implications for strategic work occurring at a national level in relation to maternity services.

Objectives

The Ministry is concerned to:

- understand, based on evidence, the quality, safety and management of maternity services in the Wellington area
- maintain public confidence in the maternity services provided to the region
- identify opportunities for quality improvement.

Scope of the review

The scope of the review is the adequacy and appropriateness of accountability arrangements, including the systems and procedures that apply to maternity providers, which ensure quality and safety in maternity services.

Approach

Using primarily an in-depth study of document reviews, interviews, and observation techniques the reviewers will explore the following:

(i) **Describe the system of maternity services that is currently used in Wellington, including primary, secondary and tertiary services.**

(ii) **Describe the protocols/conventions that are used within the maternity services system in Wellington.**
This should include but is not limited to:

- What systems and written protocols are in place for the following aspects of maternity care:
  - Threshold for referral of women from primary to specialist services
  - What is the referral process?
  - Communication processes between maternity service providers (including LMC and specialist services)
  - Transfer of women – what are the processes and procedures and who makes decisions about transfer from one maternity facility to another
- Are the protocols regularly reviewed?
- Are maternity services supported by adequate information systems e.g. do they enable patient movement through the system to be tracked?
- Is there adequate training and audit for use of the protocols?
- Is there a process for checking the credentials of all health professionals involved in the delivery of maternity services?
- Are incident/sentinel event reporting systems in place and working; what is the threshold for reporting; who is involved in the incident/sentinel event process; and how is information fed back to the family?
- How is emotional and cultural support provided for families?
- What is the clinical culture of maternity services in the Wellington area, i.e. do clinical relationships impede the delivery of safe/quality maternity services?

(iii) **Describe the current issues/gaps in maternity services in the Wellington area.**

(iv) **Contractual obligations.**

- What are the contractual obligations for each of the parties involved in delivering maternity services and are these systematically implemented:
  - What obligations are imposed on various parties (MoH, DHB, LMCs) through the Section 88 Primary Maternity Services Notice and/or access agreements and how are these implemented?
  - What obligations does the DHB have to provide maternity services to women who are referred to it?

The reviewers will request interviews or written statements from any person they may deem to have a perspective relevant to the substance of the review. This may include current, ex and contracted staff, (clinical and management), referrers, referral centres and maternity consumers.

The reviewers will also examine the findings and recommendations (and responses from the parties involved) from any internal or external inquiries/audits conducted over the past three years that is deemed necessary.

Parameters, quality, deliverables and timeliness

Quality

Assessment of service standards will be by reference to any standards and guidelines that apply to DHBs and health practitioners in New Zealand, including but not limited to guidelines or statements promulgated by the Ministry of Health, responsible authorities under the Health Practitioners Competence Assurance Act, and by relevant professional bodies.

Deliverables

In general the reviewers will identify and report on the adequacy and appropriateness of systems and processes to ensure safe and quality services in the Wellington area as per the approach outlined above.

Specifically they will report on:

- the current system and processes for maternity services in the Wellington area, including primary, secondary and tertiary services
- any gaps in current systems/processes
- recommendations for improvement
- the frequency of serious and sentinel events related to the provision of maternity services in the Wellington region within the New Zealand health context.

The reviewers may also identify issues to be looked at in the context of maternity services throughout the country.

Process and reporting

The reviewers will be accountable to the Ministry's clinical sponsors Dr David Galler, Chief Medical Advisor and Bronwen Pelvin, Senior Advisor – Maternity. The clinical sponsor will report to the Director-General of Health.

The clinical sponsors will provide oversight of the process and will receive draft reports and provide comments.

The Ministry will ensure that the Review Committee has access to legal support. Funding for legal support must be approved by the DG before the Committee seeks legal support/advice.

Except in matters of patient safety, when immediate reporting would be expected, the review team will provide a weekly verbal report on progress to the clinical sponsor.

It is expected that the review activities will be concluded within four weeks.

A draft report is expected within two weeks following the conclusion of the review activities.

The reviewers will receive comment on the final draft report from the clinical sponsors within five working days and may include this in the final report.

A comprehensive written report is to be completed and provided to the Director-General of Health within one month of the conclusion of the review activities.

Media statements or any public comment on any aspect of the review are to be made only by the Director-General of Health.

Timing

It is expected that the review will substantially be conducted within a six-week period from review commencement.

Editorial control of the report is the responsibility of the reviewers.

Membership of the Review Committee

Membership of the review committee will include:

- a senior midwife
- a senior obstetrician
- a person with expertise in systems quality
- a consumer representative.

One of these members will be appointed as chairperson.

Appendix 2: Overview of maternity services in New Zealand

By members of the Review Team, September 2008

The history of maternity services in New Zealand has been well documented. A brief summary is provided here to give some context for this review report.

In the 1800s and early 1900s there were women (or men in some iwi) who were considered midwives, although few had structured or formal education specific to midwifery. Māori had a similar history of family- or whānau-centred attendance at birth. As with pākehā, the nature and the style of Māori birth attendance differed with each hapū/iwi, depending on their experience and belief systems.

The introduction of midwifery regulation in 1904 was an attempt to provide a more formal framework for midwifery and to give better standards of midwifery care.

During the 1930s there was general concern about maternity care in New Zealand, the lack of co-ordinated training in obstetrics – particularly of medical personnel – and the lack of academic leadership with associated postgraduate teaching and research. Midwives were trained in the St Helen's hospital systems, among other places. After long campaigns, the Postgraduate School of Obstetrics and Gynaecology was opened in Auckland in 1951 in what became the National Women's Hospital. A Diploma of Obstetrics was developed that led to the training of a generation of GPs involved in maternity care.

In 1938 New Zealand introduced a state-funded social security health system that included a fully funded maternity service free to women. This funding was centralised, and initially a set of fees was established on the maternity benefits schedule for each consultation with a GP or obstetrician. Private obstetricians were the only practitioners able to charge on top of these set fees.

Autonomous practitioners in the early 1900s, midwives gradually became assistants to doctors. Instead of working in the community, midwives began working mostly in hospitals and within specific areas such as antenatal clinics, labour wards or postnatal wards. At the same time, pregnancy and childbirth services became fragmented into specialised and separate parts of the whole. Through this process many midwives lost their understanding of childbirth as a normal life event. Instead they experienced interventionist, hospital-based maternity care where the hospital determined the care and directed the process for the women. Gradually it became more and more difficult to distinguish the role of midwifery from that of nursing.

From the 1920s through to the 1980s, women in consumer advocacy organisations voiced their concerns over maternity care. They expressed concern over the services being provided and were involved in supporting the initiatives that led to the development of formalised midwifery training and the Postgraduate School of Obstetrics and Gynaecology. During the 1970s the Ministry of Health, in a pamphlet entitled 'Winds of Change in Obstetrics', signalled a growing feeling that maternity care was impersonal, fragmented and hospital controlled. Women's groups lobbied hard over many years for a more women/family-centred maternity service. As women's organisations became stronger and more universal, in the late 1980s midwifery became more organised. It eventually became part of a women-led movement.

The Nurses Amendment Act in 1990 enabled midwives to practise without the supervision of a doctor, and to provide the full range of antenatal, labour, birth and postnatal services to six weeks postpartum. The Act also enabled midwives to access hospital beds (i.e. to have admission rights for their clients, to prescribe if necessary and to claim for their services from the same government-funded Maternity Benefit Schedule that funded medical practitioners). The Act also established a pathway for an experimental education programme for preparing applicants to be midwives without requiring them to be nurses first.

Until 1990, maternity services were almost entirely hospital based. Less than 1% of women had their babies at home. In 1991 the Department of Health's vision for maternity services stated:

> Each woman (and her partner/whānau/family) has a safe and fulfilling outcome to her pregnancy and childbirth, through provision of programmes and services that are based on partnership, information and choice.
>
> Pregnancy and childbirth are a normal life stage for most women, with appropriate additional care available to those women who require it.

In 1993 the four regional health authorities initiated a joint maternity services project to improve the quality of maternity services and the management of public funds used to fund them. Coopers and Lybrand[10] were commissioned to undertake a project to identify what consumers wanted in a maternity service and minimum requirements for care in pregnancy and childbirth. Consultation with consumers and providers identified that the following were needed:

- individualised services
- continuity of care
- services to meet the needs of specific consumer groups
- consumer feedback about quality
- peer review
- use of a perinatal database.

All participants felt in general that there was a need to adhere to higher standards. Inter-professional conflicts and tensions between hospitals and independent providers led to a recommendation that regional health authorities purchase services that included protocols and guidelines covering services before, during and after childbirth. It was recommended that there be an emphasis on individualising care to meet the practical needs of women and their babies.

Lead maternity carer model

The resulting Maternity Advice Notice or 'Section 88' provides a nationally consistent set of service specifications for primary maternity care following the LMC model of women-centred continuity of care. The legislative framework outlines the LMC model of care and gives terms and conditions for the provision of maternity care. It is the framework for midwives, GPs, obstetricians, private paediatricians and radiologists.

---

[10] Coopers and Lybrand Report 1993, commissioned by Ministry of Health.

The LMC model of women-centred continuity of care requires practitioners to work in the community and hospitals as they ensure that women have access to all aspects of the primary and other maternity services they require.

Under Section 51 (now Section 88), primary maternity funding was attached to four modules of care with the expectation that all four modules would be provided by the same caregiver. Initially fee-for-service payments were for care provided in the first trimester and for consultations with obstetricians and other specialists. Modular payments were made for the second trimester, the third trimester, labour and birth, and for the postnatal period up to four to six weeks. Today's Section 88 has few fee-for-service modules other than one first-trimester payment usually claimed by the GP for confirming a pregnancy and referring a woman on to an LMC. The woman must choose an LMC, and the LMC is then responsible for providing and/or co-ordinating all necessary care through the whole experience.

The LMC is intended to be the constant in the system, as provision of continuity of care requires the LMC to 'move with the woman', facilitating her access to any additional services that may be required. Midwife LMCs work in the community, visiting women in their homes or clinics during the antenatal period. In labour and birth the LMC attends the woman in the place of her choice (made on the advice of the LMC) – at home, at a primary birthing facility or at a larger hospital. In the postnatal period the LMC midwife provides care through to four to six weeks. This may take place in the woman's home, or may entail hospital visits if the woman has chosen a hospital birth and postnatal stay in hospital.

At any stage, the LMC midwife may consult with an obstetrician if required and the obstetrician may provide intervention if necessary. Thus the woman may need to access secondary maternity services on an episodic basis. However, the LMC remains involved with the woman's care, and responsibility for the woman's care is transferred back to the LMC when the need for secondary services is over. There are also some situations in which care transfers to specialist- based services.

This integrated service has meant that midwife LMCs provide care to a whole range of women with varying risk factors. They do not only provide care to low-risk women but are available to all women, recognising that some women will require additional involvement from a specialist. This women-centred continuity of care model has required all maternity providers to re-examine their relationships and their traditional boundaries. New ways of working have had to develop. Maternity funders and facility managers have also had to work through the implications of this new model and the traditional boundaries between primary and secondary services have had to be challenged.

In the private obstetric sector, almost all specialists in New Zealand work in teams of up to six specialists and the woman will meet all members of a team prior to the birth. Similarly, in the tertiary sector (such as in maternal foetal medicine services) the woman and the family will meet the team including those who may be involved in looking after the baby. Increasingly, LMC midwives are also working in teams.

Some public hospitals have a 'domino' service: a small team of hospital-funded midwives providing almost one-on-one care. Also, public hospitals have clinic

services that are now usually organised around teams, but such teams do not staff the delivery units for the birth.

Each year in New Zealand there are currently approximately 64,000 births (>20-weeks gestation), and approximately 18,000 women – many of whom will contact a GP or midwife and have a scan – who have a termination of their pregnancy. All this is funded from the Maternity Services Notice Section 88.

Referral guidelines for specialist care

The Notice provides a set of referral guidelines that were drawn up by maternity providers and professionals in 1996. These specify the conditions or circumstances that require referral, based on a three-way conversation between the woman and her family, the LMC, and the obstetrician or specialist to whom she has been referred.

1. (Level 1) optional referral.
2. (Level 2) the LMC must recommend a referral for specialist consultation.
3. (Level 3) the LMC must recommend that care be transferred to secondary or tertiary service.

Secondary service and facility funding

Section 88 primarily funds the LMC continuity service for all women. It also funds private obstetric, radiology and paediatric consultations. There is a separate funding stream for hospital-based secondary services, including hospital specialist consultations. Lead maternity carers have open access to this consultation system. This is intended to ensure that there is no financial disincentive for LMCs to delay consultation or referral to obstetric services.

Secondary maternity services provide additional care during antenatal, labour and birth and postnatal periods for mothers and babies who experience complications and have a clinical need for referral to the secondary maternity service. Secondary maternity hospitals, also referred to as 'level 2' hospitals, provide access to employed obstetricians, anaesthetists, paediatricians, other medical specialists and a core midwifery service. The core (hospital) midwife has become an important feature of the development of the partnership model of midwifery practice, as she facilitates the interface between primary and secondary services for both the woman and the midwife LMC.

With the implementation of the LMC model, a high proportion of women who choose to birth in hospital arrive with their own midwife who provides their labour and birth care and is on call 24 hours a day for their postnatal care. This has led to a change in the way hospitals staff their maternity units, and redefinition of the role of those midwives who choose to be employed in the various areas of the maternity hospital on a rostered basis. The rostered midwife staff numbers decreased significantly, particularly in labour wards, once the costs for midwifery services were shifted onto the primary maternity budget.

One of the main roles of the hospital midwives in primary birth is to provide midwifery services for women who do not have an LMC practitioner or obstetrician LMC and, in

most hospitals, to facilitate the midwife LMC/woman relationship by supporting the midwife LMC in the hospital environment (Campbell, 2000; Pairman, 2000). In labour they may provide extra clinical support and in a long labour, relieve LMC midwives for breaks. They are also available to the LMC for discussion and midwifery peer support. All core midwives also provide a secondary midwifery service when LMC midwives have transferred care for an episode of intervention. In antenatal and postnatal areas, core midwives work with the LMC and the woman to develop the woman's care plan and decide who will provide particular aspects of the care.

When a woman requires secondary care and the services of an obstetrician or other specialist, the LMC midwife is still paid under Section 88 for the midwifery service. She is therefore often able to provide continuity of care to all her clients regardless of their risk status. However, if the midwife feels that the woman's care is outside her scope of practice she is able to transfer that woman's care to the core midwife in the hospital. She may choose to stay on as a support person and work with the core midwife. Generally the woman's care is transferred back to the LMC midwife once the need for additional services or obstetric intervention has passed.

Primary maternity funding

Section 51 of the Health and Disability Services Act (later section 88) contained the mechanisms for funding primary health services (such as the general medical services provided by GPs and the primary maternity services provided by midwives, GPs and private obstetricians). However, in 1998 provision was made in the notice for organisations or hospitals to provide lead maternity care for women, and to claim primary maternity funding with respect to that care.

A primary maternity facility is defined as one that provides: 'inpatient services during labour and birth and the immediate postpartum period until discharge home. They may also be referred to as level 0 or level 1 facilities.' The primary facilities have no access to on-site medical and obstetric specialists. Historically these facilities were known as 'general practitioner' or 'maternity' units or 'cottage hospitals'. In line with overseas trends, there has been an exodus of GPs from obstetric services and these facilities have now become midwife units. In some rural and provincial areas GPs still provide a backup service for medical emergencies, but in most rural areas midwives provide the only maternity service available to women. Only four primary facilities are termed 'birthing units' and these do not provide in-patient postnatal care, being opened up by the midwife when a woman arrives for labour and birth and closed again once the woman transfers back home.

There are 52 primary maternity facilities in New Zealand, some of which are stand-alone and some of which are attached to community hospitals. There are no birthing centres attached to secondary or tertiary hospitals in New Zealand. For the most part primary maternity facilities are in provincial and rural New Zealand, as most major centres lost their primary maternity facilities in the drive for centralisation of obstetric services to the main teaching hospitals in the 1970s and 80s (Donley, 1986). The survival of primary maternity facilities in provincial and rural New Zealand, particularly in the central North Island and the South Island, is mainly due to the geographical environment described previously and the difficulty in ensuring access to main-centre hospitals.

In the mid-1990s the competitive funding and contractual environment created an opportunity to establish new primary maternity facilities. For a short time, funding for health services became contestable and available outside the traditional hospital-controlled contracts. A few innovative midwives took up this opportunity. For example, midwife-run primary birthing units were established in Hamilton (Riveridge and Waterford birthing units) and elsewhere. These midwives were able to access maternity facility funding for their buildings based on the national primary facility contract, and their LMC midwifery services were funded through Sections 51 and 88.

Home birth

Home birth is now an option, offered and funded alongside all other birth options. Lead maternity carers are required to provide a specified maternity service but this requirement is not linked with place of birth. Therefore midwife LMCs can provide care to women in all settings and many more have begun to offer home-birth services. Since women have been able to choose this option the home-birth rate has risen to up to 5% of the annual birth rate (Ministry of Health, 1999; Ministry of Health, 2001).

For some rural midwives the choice of home birth by women may pose a dilemma as it may threaten the viability of the primary facility. These facilities are mostly funded on a per-capita basis and therefore rely on use by certain numbers of women to remain open. Paradoxically, in some areas where primary birthing facilities have closed, such as the central North Island, home-birth rates rose as high as 12% (Midland Regional Health Authority, 1998). This may reflect the high Māori population in this area, as Māori women generally are more likely to experience normal birth and tend to view birth at home more favourably than Pākehā women (Ministry of Health, 2001).

Secondary maternity services

National Secondary Service Specifications determine the nature and scope of secondary maternity care to be:

> From 20 weeks' gestation to six weeks' following birth, for women and babies who experience complications and who in reference to the referral guidelines, have a clinical need for referral to the secondary maternity service for either consultation or transfer on a planned or emergency basis.
>
> Facilities providing secondary care must be licensed as a maternity hospital under section 4 of the Health and Disability Services (Safety) Act 2001.

The specifications allow access to be free of charge for eligible women and their newborns, and stipulate that obstetric, paediatric, anaesthetic and radiological services be available. The service must accept referrals from LMCs or any authorised practitioner requiring immediate access for a mother or baby, including tertiary referrals. Women who do not have an LMC and present in labour are also entitled to have care provided by the secondary facility.

Entry to the service occurs when there is a written referral or request for consultation, a planned transfer of clinical responsibility following a three-way discussion with the woman, the LMC and the specialist, or an emergency transfer of care.

Tertiary maternity services

Tertiary maternity services are supplied on a regional basis for women with complex maternity needs who require access to a multi-disciplinary specialist team. Women accessing tertiary maternity services will continue to have access to an LMC and to the facility maternity services, in conjunction with section 88 and secondary maternity specifications.

The multi-disciplinary team will involve obstetricians, anaesthetists, medical specialists, midwives and ancillary staff. Reasons for referral would include the presence of major foetal disorders and maternal disorders requiring prenatal diagnostic and foetal therapy services, counselling, and advice, such as:

- pre-term labour at less than 32 weeks' gestation
- obstetric histories that significantly increase the risk during birth and pregnancy
- high-risk medical histories
- major obstetric complications in current pregnancies.

Midwifery education and training

Midwives' education prior to 1990 was based on a general and obstetric nursing qualification followed by the Advanced Diploma of Nursing. This was a theoretical model and midwives struggled to gain clinical experience outside the tertiary hospital system. The environment in the late 1980s was therefore one of increasingly inappropriate education of primary maternity providers (midwives and GPs), job dissatisfaction, hospitalisation of normal birth services, fragmented and impersonal care for the majority of women, and vociferous consumer dissatisfaction.

In 1989 the midwifery profession began separating from the Nurses Association by forming the New Zealand College of Midwives. The college provided a focus for both midwives and women who wanted to influence the maternity services to be more women-centred and less medicalised. The college's foundation and philosophy are about partnership between midwives and the women for whom they provide services.

In 1989 a one-year Diploma of Midwifery for registered nurses was offered at tertiary level. In 1992 this changed to a direct-entry midwifery programme introduced at Auckland University of Technology and Otago Polytechnic. This was a three-year degree programme and is now the single route of entry for midwifery. The programme serves both direct-entry students and those with other health professional qualifications such as nurses, who may be entitled to some recognition of their initial standards for the midwifery programme.

The next major change in undergraduate education came with the recent Midwifery Council of New Zealand review, conducted from 2005 to 2007, which resulted in new standards. The new standards recognised the fact that although midwifery programmes were required to provide 1500 hours of practice, the majority provided

far in excess of this. The new programme requires 2400 hours of clinical practice and a minimum of 1920 hours of theory, a total of 4800 hours. This brings New Zealand midwifery in line with the United Kingdom and European Union in terms of the number of hours required.

Midwifery First Year of Practice Programme

The Midwifery First Year of Practice programme commenced as a pilot in 2007, sponsored by the Ministry of Health. It was developed collaboratively by representatives of the midwifery profession, District Health Boards New Zealand, the Midwifery Council of New Zealand and the Ministry of Health.

The programme provides every newly registered New Zealand midwife with a named mentor who provides structured support as the graduate makes the transition to being a full-time practitioner over a 12-month period. At the end of this supported year, new graduates undertake a special review of their practice and are required to participate in a 360-degree feedback exercise that may include colleagues within DHBs or self-employed practice, and the mentor. It is anticipated that the Midwifery First Year of Practice programme will be a major retention initiative at a time of midwifery shortages.

Postgraduate midwifery education in New Zealand started in 1994. Masters degree programmes are now offered at some New Zealand universities and there is an increasing demand for opportunities to conduct research at Masters level and beyond. More recently there has been an identified need for DHBs to provide postgraduate training in the care of complex pregnancies, and for communities to have highly skilled practitioners able to work in remote rural environments. Unlike medicine and nursing, postgraduate training had not previously been government funded, with success in this area being entirely down to personal funding and limited scholarship support from within the sector.

Recertification programme

The Midwifery Council of New Zealand was established through the Health Practitioners Competency Assurance Act, which recognised nursing and midwifery as separate professions. The Midwifery Council was established as the regulatory authority for midwives who took over the regulation of midwives from the Nursing Council in 2004.

The Midwifery Council then identified the scope of practice and competencies required for entry to the register as a midwife. It also established its recertification programme to ensure that all midwives continued to be competent across the scope.

Midwifery Standards Review is probably the most important aspect of the recertification programme. This entails consumer and peer review, statistical information on outcomes of a midwife's practice, reflection on competencies, and a written reflection by the midwife on how she meets the standards of her profession. Midwives are all required to gather consumer feedback that is also reviewed by the review panel. Other annual requirements focus on education and professional

development. A key component of this is a technical skills update focusing on what is topical within midwifery, such as communication, documentation, emergency obstetric drills and skills (emergency breech birth, shoulder dystocia, or post-partum haemorrhage). In addition, all midwives are required to attend annual CPR and neonatal resuscitation programmes.

GP training – Diploma of Obstetrics and Medical Gynaecology

This diploma, since the mid-1980s, has become a requirement for GPs in order to have an access agreement with a maternity hospital. The diploma is offered by the Universities of Auckland and Otago. The diploma is one year long and comprises seven full courses which include:

- early pregnancy fertility, subfertility, pregnancy loss, antenatal screening
- pregnancy care including medical complications of pregnancy and normal and abnormal labour
- normal and abnormal postnatal care for woman and neonate
- medical gynaecology
- evidence-based medicine.

In addition there are:

- two residential courses focussing on practical skills
- a one-year clinical component. Minimum clinical requirements include 20 normal births, experience in low forceps or ventouse delivery, and the management of conditions such as postpartum haemorrhage and perineal repair. During the year there is also attendance at clinics and ward work.

The Diploma is assessed through written and oral examinations.

Specialist training in obstetrics and gynaecology

Most specialists training in New Zealand are doing so through the Royal Australian and New Zealand College of Obstetricians and Gynaecologists specialist training programme. This programme admits between 10 and 14 trainees per year by competitive entry after basic requirements and an interview process are completed.

The training programme is highly structured with a well-developed curriculum that is regularly assessed by the Australian Medical Council.

The programme is of six years' duration. Throughout the training there are regular three- and six-monthly assessments, and a number of core requirements must be met before the trainee is permitted to sit the examinations.

Core requirements include basic ultrasound and colposcopy training, surgical skills, communication skills and neonatal resuscitation. The examinations consist of written and structured oral components. An average pass rate for both components would be 70%, but this can vary from year to year. Following the examinations, generally completed after four years of training, the trainee will spend two further years in structured elective training, advancing skills or completing log-book requirements. All procedures are assessed through direct observation by supervisors and all trainees must be assessed as competent before fellowship is awarded.

The full details of the programme are available on the College website http://www.ranzcog.edu.au.

Some specialists will have trained outside of this programme and will be practising in New Zealand after having achieved registration through Medical Council of New Zealand processes.

All specialists are required either by the College or the Medical Council of New Zealand to be involved in continuing professional development. The Royal Australian and New Zealand College of Obstetricians and Gynaecologists provides a full continuing professional development programme with random independent verification checks.

Appendix 3: List of documents read or referred to during this review

ACC Adverse Event Notifications: Maternity 1 July 2005 to 31 June 2008. Wellington: Accident Compensation Corporation.

Australian College of Midwives. 2008. *Submission to the National Health and Hospitals Reform Commission: Achieving safe, satisfying and sustainable maternity services in Australia*.

Boyes S. *Contract for access to Hutt Valley District Health Board as a Lead Maternity Carer*. Standard form letter.

Campbell N, Ridley B. 2004. *Report of Review Undertaken at Hutt Valley Maternity Unit*.

CCDHB Women's & Children's Health Directorate *Terms of Reference for Quality & Patient Safety Committee: Women's health*. Capital & Coast District Health Board.

CCDHB. 2007. *Women's Health Services Quality Improvement Plan 2007/2008*. Wellington: Capital & Coast District Health Board.

CCDHB. 2007. *Women's Health Complaints 2007 Summary*. Wellington: Capital & Coast District Health Board.

CCDHB *Area/Service Orientation Framework*. Wellington: Capital & Coast District Health Board.

CCDHB. 2008. *Women's & Children's Health Structure Chart*. Wellington: Capital & Coast District Health Board.

CCDHB. 2008. *Professional Development and Educational Programmes 2008*. Wellington: Capital & Coast District Health Board.

CCDHB. 2002. *District Strategic Plan 2002/07*. Wellington: Capital & Coast District Health Board.

CCDHB. 2008. *Memorandum from John Tait and Jackie Hawley: Clarification: 1. Expectations for Obstetric Management Recommendations for Breech presentation:* Guidelines Committee Process. Wellington: Capital & Coast District Health Board.

CCDHB. 2003. *Pacific Support Service Establishment Report February – July 2003*. Wellington: Capital & Coast District Health Board.

CCDHB. 2003. *Maternity Services and Gynaecology Report 2003*. Wellington: Capital & Coast District Health Board.

CCDHB. 2004. *Maternity and Gynaecology Report 2004*. Wellington: Capital & Coast District Health Board.

CCDHB. 2005. *The Women's Health Services Annual Clinical Report 2005*. Wellington: Capital & Coast District Health Board.

CCDHB. 2006. *Women's Health Services Annual Clinical Report 2006*. Wellington: Capital & Coast District Health Board.

CCDHB. 2007. *Women's Health Services Annual Clinical Report 2007*. Wellington: Capital & Coast District Health Board.

Crown. 2007. *Notice Pursuant to Section 88 of the New Zealand Public Health and Disability Act 2000*. Wellington: New Zealand Gazette, No. 41.

Department of Human Services. 1999. *Pregnancy Outcomes in South Australia 1998* Government of South Australia.

Health Services Consumer Research. 2008. *2007 Maternity Services Consumer Satisfaction Survey Report*. Health Services Consumer Research.

Kenepuru Maternity Unit. 2008. *Birth Statistics by Month for 2008 for Kenepuru Maternity Unit to June*. Wellington: Kenepuru Maternity Unit.

Kenepuru Maternity Unit. 2007. *Birth Statistics by Month for 2007: Planned births for Kenepuru Maternity Unit*. Wellington: Kenepuru Maternity Unit.

Guilliland K. 2008. *Re: Complaint re Media Statements by Dr Ate Moala*. Christchurch: New Zealand College of Midwives.

Health Funding Authority. 2000. *Maternity Services: A reference document*. Health Funding Authority.

Hill R. 2008. Mums 'put at risk' by midwife training gap. Wellington: *Dominion Post*16 June 2008.

Kings Fund. 2008. *Safe Births: Everybody's business.* Independent inquiry into the safety of maternity services in England. London: Kings Fund.

ITP Quality 2006. *Approval and Accreditation of Courses Leading to Degrees and Related Qualifications*. ITP Quality.

Medical Council of New Zealand. 2006. *The New Zealand Medical Workforce in 2006*. Wellington: Medical Council of New Zealand.

Medical Council of New Zealand. 2005. *Statement on safe practice in an environment of resource limitation*. Wellington: Medical Council of New Zealand.

Medical Council of New Zealand. 2008. *Draft Guidelines for Managing Disruptive Behaviour.* Wellington: Medical Council of New Zealand.

Medical Council of New Zealand. 2008. *Draft: What to Do When You Have Concerns About a Colleague.* Draft paper. Wellington: Medical Council of New Zealand.

Midwifery Council of New Zealand. 2007. *Standards for Approval of Pre-registration Midwifery Education Programmes and Accreditation of Tertiary Education Organisations.* Wellington: Midwifery Council of New Zealand.

Midwifery Council of New Zealand. 2008. *Recertification Programme: Competence-based Practising Certificates for Midwives*. Wellington: Midwifery Council of New Zealand.

Midwifery Council of New Zealand. 2007. *Policy of Conduct of Competence Reviews.* Wellington: Midwifery Council of New Zealand.

Midwifery Council of New Zealand. 2007. *Professional Conduct Committee Guidelines*. Wellington: Midwifery Council of New Zealand.

Midwifery Council of New Zealand. 2006. *Competence Review Panel Guidelines.* Wellington: Midwifery Council of New Zealand.

Midwifery Council of New Zealand. 2004. *Form: Self Assessment Against Competencies for Entry to the Register*. Wellington: Midwifery Council of New Zealand.

Midwifery Council of New Zealand. 2008. *Competence, Conduct and Professional Issues: Themes and processes.* Forum Presentation 24 July. Wellington: Midwifery Council of New Zealand.

Midwifery Council of New Zealand. 2008. *Workforce Issues/Strategy*. Wellington: Midwifery Council of New Zealand.

Midwifery and Maternity Providers Association. 2008. *Report on New Zealand's MMPO-Midwives: Care Activities and Outcomes 2004*. Midwifery and Maternity Providers Association.

Ministry of Health. 2003. *Improving Quality: A systems approach for the New Zealand health and disability sector*. Wellington: Ministry of Health.

Ministry of Health. 2007. *Primary Maternity Services Notice 2007: Guide*. Wellington: Ministry of Health.

Ministry of Health and District Health Boards New Zealand. 2007. *DHB Primary Maternity Services Specification.* Draft, version 2.6. Wellington: Ministry of Health and District Health Boards New Zealand.

Ministry of Health and District Health Boards New Zealand. 2003. *Secondary Maternity Services Specification*. Wellington: Ministry of Health and District Health Boards New Zealand.

Ministry of Health and District Health Boards New Zealand. 2003. *Maternity Facility Service Specification*. Wellington: Ministry of Health and District Health Boards New Zealand.

Ministry of Health and District Health Boards New Zealand *Guidelines for Consultation with Obstetric and Related Specialist Medical Services.* Referral Guidelines. Wellington: Ministry of Health and District Health Boards New Zealand.

Ministry of Health. 2006. *Response to Questions Posed Following Receipt of the Perinatal and Maternal Mortality Review Committee's Report on the Coroner's Findings Following Two Deaths Relating to Breech Births.* Health Report January 2006. Wellington: Ministry of Health.

Moala A. 2008. *Urgent – another dead baby due to midwife incompetence.* Email to Stephen McKernan 24 June 2008.

New Zealand College of Midwives. 2008. *Midwives' Handbook for Practice*. Christchurch: New Zealand College of Midwives.

New Zealand Health Information Service. 2004. *Report on Maternity: Maternal and newborn information 2002.* Wellington: Ministry of Health.

New Zealand Health Information Service. 2007. *Report on Maternity: Maternal and newborn information 2004*. Wellington: Ministry of Health.

New Zealand Health Information Service. 2007. *Foetal and Infant Deaths 2003–2004*. Wellington: Ministry of Health.

New Zealand Health Information Service. 2008. *Statistical Information on Hospital-based Maternity Events 2005.* Wellington: Ministry of Health.

Perinatal and Maternal Mortality Review Committee. August 2007. *First Report to the Minister of Health June 2005–June 2007*. Perinatal and Maternal Mortality Review Committee.

Palmer R. 2008. 'Let the babies live', family pleads. Wellington: *Dominion Post* 3 July 2008.

Royal College of Obstetricians and Gynaecologists. 2008. *Standards for Maternity Care: Report of a working party*. London: Royal College of Obstetricians and Gynaecologists.

Women's Health Services. 2007. *Annual Clinical Report 2007.* Wellington: Capital & Coast District Health Board.

Women's Health Services. 2007. *Hospital Midwifery Service: Primary care*. Brochure. Wellington: Capital & Coast District Health Board.

Women's Health Services. 2007. *Hospital Midwifery Service: Shared Care*. Brochure. Wellington: Capital & Coast District Health Board.

Women's Health Services. 2008. *Midwifery Education Plan 2008*. Wellington: Capital & Coast District Health Board.

Women's Health Services. 2007. *Terms of Reference: WHS Senior Midwife Team 2007*. Wellington: Capital & Coast District Health Board.

Women's Health Services. 2007. *Women's Health Services Quality Improvement Plan 2007/2008*. Wellington: Capital & Coast District Health Board.

Appendix 4: List of individuals and groups interviewed by the Review Team

ACC

Rachel Taylor	Interim Team Manager, Treatment Injury Centre, Reporting Team
Lucelle Williams	Treatment Injury Centre

Capital & Coast DHB

Ken Whelan	CEO
Shaun Drummond	Chief Operating Officer
John Tait	Clinical Director, Women's Health
Delwyn Hunter	Operations Director, Women's and Children's Health
Emma Wong-Ming	Quality Leader, Women's Health
Cheyne Chalmers	Director of Nursing and Midwifery
Carolyn Coles	Quality Leader, Women's Health
Vaughn Richardson	Neonatologist
Robyn Maude	Midwifery Leader
Jenny Quinn	Charge Midwife Kenepuru
Michael Tull	Communications Manager
Joyce Tipene-Stephens	Kaitakawaenga Whānau Care Team
Lee Pearce	Pacific Team Leader
Annette Penney	Quality and Risk Manager
Kate McIntyre	Patient Safety Co-ordinator
	Anaesthetists
	Midwives Involved in Kenepuru Case
	Senior Medical Officers
	Staff at Kenepuru Midwifery Staff Meeting
	Senior Midwives at Wellington Hospital
	Wellington Hospital Obstetric Registrars

New Zealand College of Midwives

Karen Guilliland	CEO
Norma Campbell	Midwifery Advisor

Consumer Advocate

Frankie Manson	Health and Disability Commission Consumer Advocate

Counties Manukau DHB

David Ansell	Acting Clinical Director, Women's Health
Debra Fenton	Primary Care Service Manager
Thelma Thomson	Director of Midwifery
Sarah Tout	Obstetrician

Harbour City Midwives

Sue Whitley	LMC
Denise Garcier	Midwife and Childbirth Educator

Nadine Chapcott	LMC
Matpro	
Rebecca Arlo	Administrator, Matpro
Melissa Marshall	Recruitment and Retention Contracts, Matpro
Hutt Valley DHB	
Sarah Boyes	Operations Manager, Women's Health
Jo McMullen	Midwifery Manager
Mark Stegman	Clinical Director, Women's Health
LMC meeting	Approximately 40 LMCs attended a meeting with the Review Team at Kenepuru
Midwifery Council	
Susan Yorke	Registrar of Council
Sally Pairman	Chair of Council, also Head of School of Midwifery, Otago Polytechnic
Raea Dallenbach	Layperson involved with home-birth movement; Teacher at Christchurch Polytechnic
Thelma Thomson	Director Midwifery
Sue Bree	President of College; self-employed Midwife
Estelle Mulligan	Chair of Nga Maia; Core Midwife, Tairawhiti DHB
Sharron Cole	Council Member
Ministry of Health	
Pat Tuohy	Chief Advisor, Child and Youth Health
Api Talemaitoga	Chief Advisor, Pacific
Steve Creed	Team Leader, Information Directorate
Andrew Holmes	Manager, Outcomes Performance, Health & Disability Systems Strategy
Rebecca Hislop	Information Analyst
New Zealand Medical Association	
Mark Peterson	GP Council Chair
Medical Council of New Zealand	
Philip Pigou	CEO
Michael Thorn	Senior Policy Analyst
Ian St George	Elected Member of Council
Simon Robb	Registrar of Medical Council
New Zealand Society of Anaesthetists	
Phillipa Bascand	Executive Officer
Elaine Langton	Clinical Leader, Obstetric Anaesthesia, Wellington Hospital
Andrew Warmington	President, New Zealand Society of Anaesthetists; Anaesthetist, National Women's

Parents Centre
Trudi Ashcroft
Mary O'Keeffe

St John Ambulance
Rob Jenkins and Officers

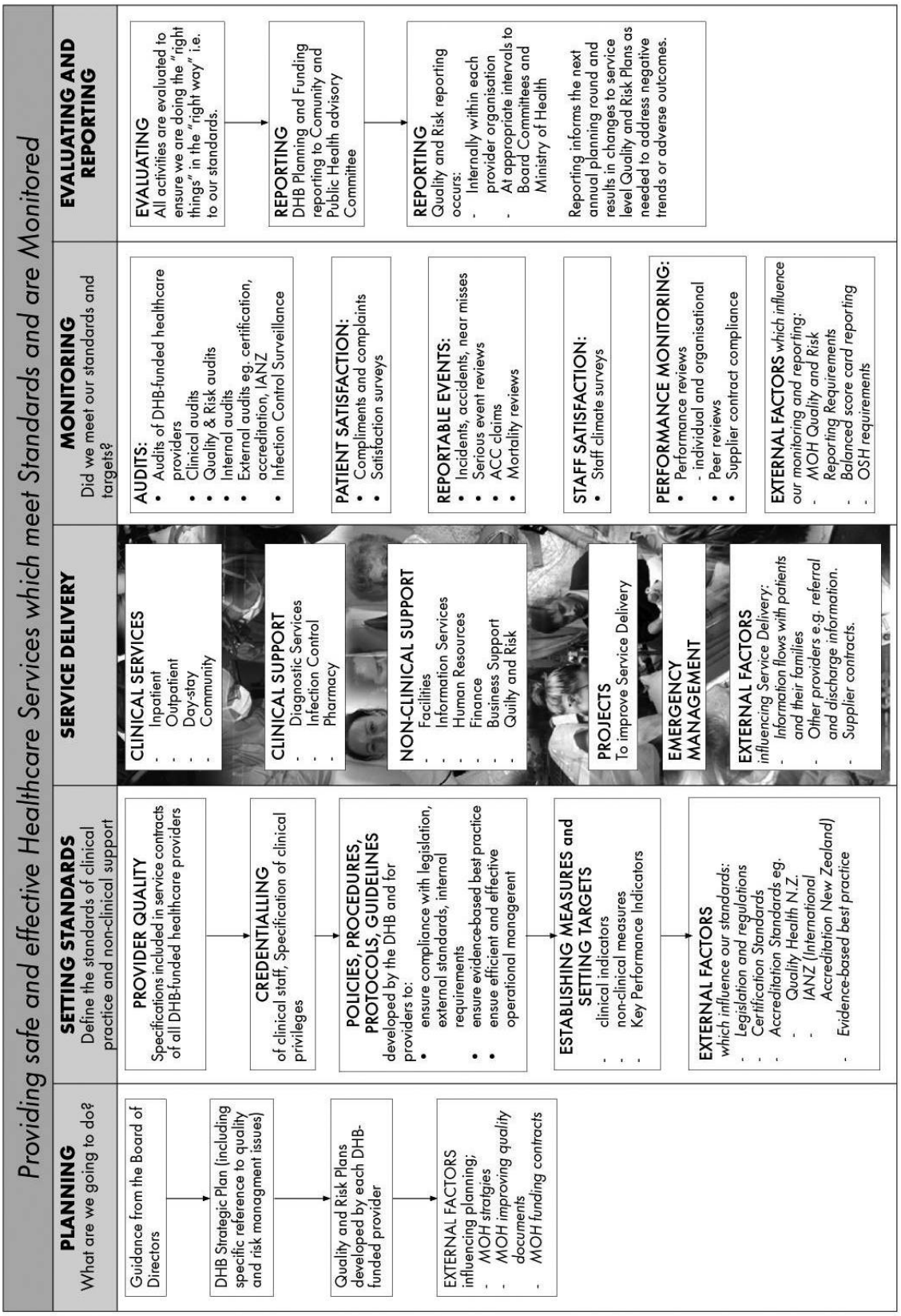
Stillbirth and Newborn Death Support (SANDS)
Vicki Culling

Dr Ate Moala	GP who initiated the complaint that triggered this review
Dr Gillian Gibson	Chair of the New Zealand Committee of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists
Ron Paterson	Health and Disability Commissioner
Judi Strid	Director of Advocacy, Office of the Health and Disability Commissioner
Cindy Farquhar	Chair, Perinatal and Maternal Mortality Review Committee

The Group also met with parents who had experienced a stillbirth, and received over 140 submissions from consumers who had experienced maternity services in the past year.

Appendix 5: DHB Quality and Risk Management Framework

Developed by District Health Board Quality and Risk Managers in 2005



Appendix 6: List of Capital & Coast District Health Board policies and procedures provided to the Review Team

Adverse Obstetric Outcomes Tracking – Wellington Delivery Suite, Kenepuru and Paraparaumu Maternity Units, issued 11 April 2006.

Adverse Obstetric Outcomes Tracking – Wellington Delivery Suite, Kenepuru and Paraparaumu Maternity Units (DRAFT), currently under review (review date 11 April 2008).

Adverse Obstetrical Outcome Data Collection Form.

Anaesthetic obstetric referral and consultation process, issued 1 August 2006.

Area/Service Orientation Framework.

Booking Criteria for Birthing at the Kenepuru / Paraparaumu Primary Maternity Units, issued 3 July 2007.

Breech presentation (singleton foetus) – management of, issued 20 February 2007.

Consumer complaints, issued 14 July 2006.

Hospital Midwifery Services – referral to secondary/tertiary care, issued 22 June 2007.

Induction of Labour Policy, issued 20 February 2007.

Management of Maternity Referrals, Consultations and Transfer to Secondary / Tertiary Care, issued 31 July 2007.

Pre-labour Spontaneous Rupture Membranes, issued 20 February 2007.

Pre-term Labour, issued 11 April 2006.

Protected Quality Assurance Activities (Health Practitioners Competence Assurance Act 2003, Part 3), issued 9 May 2007.

Quality Policy / He Korowai – Our Quality Framework, issued 28 June 2007.

Reportable Events, issued 31 January 2005.

Risk-management Guidelines, issued 19 November 2007.

Risk-management Policy, issued 5 December 2007.

Serious and Sentinel Events, issued 26 September 2006.

Urgent Maternal Inter-hospital Transfer, issued 7 November 2006.

Water Immersion for Labour and Birth, issued 12 September 2006.

Appendix 7: Survey Tool Used to Canvas Opinion of Wellington Area Maternity Services

Maternity services consumer feedback

Have you experienced maternity services in the Wellington region in the last year?

The Director-General of Health has commissioned a review of the quality, safety and management of maternity services in the Wellington region. The Review Team would like feedback from consumers of maternity services.

What three things went well for you?

-
-
-

What three things would you improve?

-
-
-

Other comments:

Please post your feedback to:

Maternity Review
c/o Ministry of Health
PO Box 5013
Wellington

Or email it to: maternityreview@moh.govt.nz

Your feedback would be appreciated by **Monday 18 August 2008**.

Appendix 8: List of groups and individuals who provided written submissions

In addition to receiving over 140 submissions from consumers of maternity services, the Review Team also received written submissions from:

- New Zealand Society of Anaesthetists
- Parents Centre
- Wellington Free Ambulance Service
- Stillborn and Newborn Death Support (SANDS)
- LMCs
- Wellington Multiple Birth Club.

Appendix 9: District Health Board Quality and Risk Managers' Risk Assessment Tool – October 2006

DHB "Consequence" Indicator Table. The indicators are to be used as a guide when assessing the impact of a Potential or Actual event.

NB: A risk does not have to be assessed against all of the columns – use only those columns relevant for the particular risk.

Rating	Patient safety	Operational	Financial	Reputation	Workplace safety
	Patient harm resulting from the process of health care, which is unrelated to the natural course of the illness and differs from the expected outcome of a patient's management.	Disruption to operational activities resulting in an inability to provide quality services.	Impact on expenditure or revenue, or capital availability, which results in an inability to operate within budget levels.	Impact on the reputation of the DHB in the public, government or regulatory environment.	Harm resulting from accidents within the workplace environment.
Extreme	Unanticipated patient death(s)	Non-delivery of a key service Loss of certification / IANZ accreditation status	Cost overrun or reduction in revenue: The lower of >$3m or >10%	Major inquiry by external agency	Death(s) of a staff member / contractor / visitor
Very high	Patient sustaining permanent disability or incapacity or requiring major additional medical or surgical intervention	Significant ongoing disruption to a key service Certification awarded for one year or less / recommendations requiring action immediately or within six weeks	Cost overrun or reduction in revenue: The lower of >$2m or 7–10%	Internal serious event review conducted using external agency / personnel to assist	Permanent disability or loss of function to a staff member / contractor / visitor Requires major additional medical or surgical intervention
High	Patient injury requiring extended treatment	Disruption to a key service Certification awarded for two years or less / recommendations requiring action within three months	Cost overrun or reduction in revenue: The lower of >$1m or 4–7%	Internal serious event review conducted	Staff member / contractor / visitor requiring extended treatment
Moderate	Patient injury requiring short-term treatment	Disruption to service Certification recommendations requiring action within six months	Cost overrun or reduction in revenue: The lower of >$0.5m or 2–4%	Internal inquiry undertaken at service level or organisation-wide level	Staff member / contractor / visitor injury requiring short-term treatment

Low	Minimal patient injury	Minimal disruption to service Low impact on certification / IANZ accreditation status	Cost overrun or reduction in revenue: The lower of >$0.1m or 0–2%	Ward / team level review	Minimal injury to staff member / contractor / visitor

DHB "loss likelihood" indicator table

Certain	Event is expected to occur at least once in the next 3 months
Almost certain	Event is expected to occur at least once in the next 4–12 months
Likely	Event is expected to occur within the next 1–2 years
Unlikely	Event may occur once in the next 2–5 years
Highly unlikely	Event may occur in exceptional circumstances (6+ years)

Level of risk described in words

Consequence	Likelihood	Level of risk
Extreme	Certain	Extreme
	Almost certain	Very high
	Likely	Very high
	Unlikely	High
	Highly unlikely	High
Very high	Certain	Very high
	Almost certain	High
	Likely	High
	Unlikely	High
	Highly unlikely	Moderate
High	Certain	High
	Almost certain	High
	Likely	Moderate
	Unlikely	Low
	Highly unlikely	Low
Moderate	Certain	High
	Almost certain	Moderate
	Likely	Low
	Unlikely	Low
	Highly unlikely	Low

Low	Certain	High
	Almost certain	Moderate
	Likely	Low
	Unlikely	Low
	Highly unlikely	Low