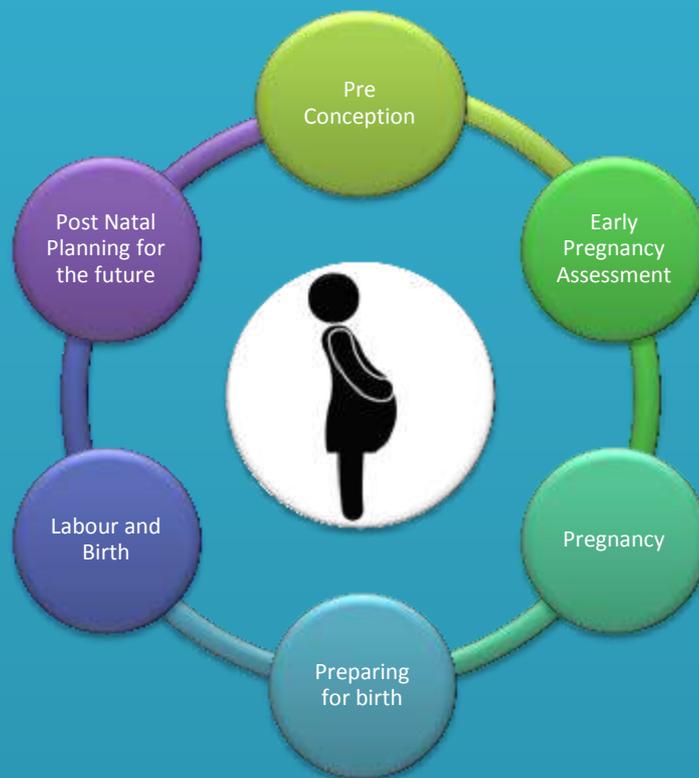


External Review of Maternity Care in the Counties Manukau District

Commissioned by
Counties Manukau District Health Board
October 2012



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- Paragraph : 29 (Page 8)
- Recommendation: 7b (Page 14)
- Paragraphs : 156-161 (Page 38)

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CHAIRMAN'S FOREWORD

The 5th Annual Report of the National Perinatal and Maternal Mortality Review Committee identified that the Counties Manukau District Health Board had higher perinatal mortality rates than the rest of New Zealand, particularly amongst Maaori and Pacific women. Following the release of the report, CMDHB initiated an independent review of maternity care in the district.

As Chair of the Maternity Care Review Panel, I am pleased to present this report which details our key findings and recommendations. I am grateful for the time and expertise of the Panel. We wish to thank all those who have participated in the review and who provided feedback and written submissions. We have appreciated your assistance in identifying what is working well and highlighting areas that need improvement. Members of the review team would also like to thank CMDHB staff and other maternity care providers within Counties Manukau for providing the Panel with timely information on request. We are especially grateful for the invaluable assistance provided by DHB staff Gina Williams (Project Manager), Anna-Maree Harris (Executive Assistant) and Janet Anderson-Bidois (Senior Legal Advisor).

The Panel was impressed by the professional dedication and the level of personal commitment demonstrated by so many maternity service providers in Counties Manukau. Panel members were also encouraged by a number of recent initiatives that have been implemented in an effort to support mothers and babies through their pregnancy, birth and postnatal care.

However, in 2012, too many pregnant women in Counties Manukau appear unable to access co-ordinated maternity care that is consistent with their needs. The demographics of the Counties Manukau District Health Board population mean that there are many expectant mothers with health and social factors that increase the risk of perinatal and infant mortality. Decisive action is needed to address the underlying population health factors that contribute to perinatal morbidity and mortality in Counties Manukau. It is also vital that women and babies receive high quality, co-ordinated maternity care throughout pregnancy, childbirth and the postnatal period. At present, many women with high needs do not have access to an adequate standard of maternity care. We must ensure that all women receive appropriate care to identify and address individual risk factors. Significantly enhanced care is required for those women who are assessed as being at higher risk. This will require prioritisation of resources to ensure that those with greatest need receive appropriate, individualised care.

Between 2007 and 2010 there were 2,804 perinatal related deaths reported in New Zealand, 469 of which occurred in Counties Manukau. Every perinatal death statistic represents a significant loss, and immense grief, for the individual parents and whaanau concerned. Each instance of perinatal death is also a tragedy for the wider community. Some of these deaths are potentially avoidable and we have a collective responsibility to take steps to try to prevent such deaths. We must also not lose sight of the fact that

perinatal death is only the “tip of the iceberg” and that high rates of perinatal morbidity are likely to accompany high perinatal mortality, resulting in significant further harm to our mothers and babies.

Strong leadership, focused, increased resources and a high level of co-operation between health care providers and the community they care for will be necessary to reduce perinatal mortality in Counties Manukau. I commend this report to the Board of Counties Manukau District Health Board and urge it to meet the challenge of improving maternity care for its people.

Naku noa, na

Professor Ron Paterson

Chair, Review Panel

EXECUTIVE SUMMARY

Purpose

- 1 In response to concerns raised in the 5th Annual Perinatal and Maternal Mortality Review Committee Report, CMDHB requested a review of maternity care delivery within the CMDHB district. The issues the Panel was asked to address included consideration of current models of antenatal care, investigation of the causes of outcome disparities,¹ review of clinical governance processes and funding models, and identification of potential changes that could improve current systems.²
- 2 An independent panel was appointed to conduct the Review. The Panel members were:
Professor Ron Paterson (Panel Chair) — Professor of Health Law & Policy, University of Auckland, former Health and Disability Commissioner
Anne Candy — Maaori Community expert advisor
Siniua Lilo — Pacific Island Community expert advisor
Professor Lesley McCowan — Obstetrician and Gynaecologist, Head of Department of Obstetrics and Gynaecology, University of Auckland and Perinatal & Maternal Mortality Review Committee member
Dr Ray Naden — Specialist Physician in Obstetric Medicine and Clinical Director of the Greater Auckland Integrated Health Network (GAIHN)
Maggie O'Brien — Director of Midwifery Auckland District Health Board, Midwifery expert advisor.

This report summarises the findings of the Review Panel.

Context

- 3 The 2011 Perinatal and Maternal Mortality Review Committee Report (“PMMRC”, 2011) published information on perinatal deaths from 2007–9, and indicated that CMDHB has higher perinatal mortality rates than anywhere else in New Zealand. It also highlighted that overall rates across this time period in New Zealand were highest in Pacific and Maaori people. As a result of the PMMRC report, the Board of CMDHB commissioned an external review of maternity care delivery within its region. The scope of the review was not confined to the delivery of clinical services by CMDHB staff or on CMDHB premises, but was expected to consider all maternity care delivered within the CMDHB geographical area.

¹ Note that the low overall number of maternal deaths made it difficult to make specific comments or recommendations about this point.

² The full terms of reference for the Review are set out in **Appendix 1**.

Methodology

4 The review process included:

- Working closely with the existing CMDHB Maternity Expert Advisory Group throughout the review process;
- Undertaking interviews, surveys and discussions with a wide range of stakeholders;
- Considering national and international perinatal morbidity and mortality data;
- Requesting additional analysis of data;
- Analysing models of providing maternity care; and
- Considering how maternity care is provided within the CMDHB region and how it might be improved.

Definitions

5 This report uses the following terms:

Fetal death: the death of a fetus at 20 weeks' gestation or beyond, or weighing at least 400g if gestation is unknown. Fetal death includes stillbirths and terminations of pregnancy.

Neonatal death: the death of any baby showing signs of life at 20 weeks' gestation or beyond, or weighing at least 400g if gestation is unknown.

Early neonatal death: a death that occurs up until midnight of the sixth day of life.

Late neonatal death: a death that occurs between the seventh day and midnight of the 27th day of life.

Perinatal mortality: fetal deaths and **early** neonatal deaths.

Perinatal related mortality: fetal deaths and early and late neonatal deaths.

Intrapartum death: a baby who dies in labour.

Fetal growth restriction: babies who are undernourished and have not reached their growth potential in utero.

Small for gestational age: babies who have a birthweight less than the 10th customised birthweight centile (adjusted for maternal weight, height, parity and ethnicity as well as infant sex and gestation at delivery).

Pre-eclampsia: a hypertensive condition that occurs after 20 weeks of gestation and is associated with perinatal and maternal morbidity and mortality.

Key Findings

- 6 The New Zealand maternity system is well regarded internationally for the quality of care it delivers and the very good outcomes that it achieves for women and babies.
- 7 There are many examples of very good care being provided to pregnant women in Counties Manukau, and of a high standard of support during labour and the postnatal period. However, the region has more women with high health needs during pregnancy than any other part of the country. Women with high health needs include obese women, smokers, teenage mothers and older mothers, especially those who have had several pregnancies — many of whom are Maaori or Pacific. Smoking and obesity in particular, as well as high parity, have been identified as significant risk factors associated with perinatal mortality and morbidity.
- 8 Additional analysis of PMMRC data undertaken by Sadler (Sadler, 2012) at the request of the Panel indicates that after adjusting for age, deprivation and ethnicity there were minimal differences between the perinatal related mortality rates for women living in the CMDHB district and those living in the rest of New Zealand. The high overall perinatal mortality rate can be largely explained by the prevalence of underlying health and social risk factors in the population. However, the data do suggest that Pacific women and those living in the highest deprivation quintile are more likely to suffer a perinatal death in CMDHB than similar women living elsewhere in New Zealand.
- 9 With the greatest number of births in New Zealand, a large population of Pacific women, and some of the highest deprivation neighbourhoods in the country, Counties Manukau carries the greatest burden of perinatal death in New Zealand. The CMDHB district also has higher rates of some potentially avoidable types of perinatal deaths (such as those due to fetal growth restriction, perinatal infection and spontaneous preterm birth, and maternal conditions such as diabetes and pre-eclampsia).
- 10 Some of these deaths can be prevented with optimal antenatal care, highlighting the need to improve how maternity care is provided to vulnerable women who live in Counties Manukau. There is an urgent need to mitigate the impact of underlying health and social risk factors and reduce the overall number of perinatal deaths in the region.
- 11 Many women in Counties Manukau are not able to access co-ordinated lead maternity care through a self-employed LMC midwife or a specific allocated DHB midwife (known as a “caseloading midwife”). Currently, gaps in maternity services and a lack of knowledge about how to access care leave some vulnerable women at risk of losing their baby or suffering avoidable harm. Late or inadequate first assessments and poorly co-ordinated care from multiple maternity practitioners are barriers to optimal maternity care which must be addressed.
- 12 It is imperative that steps be taken to address the significant population health issues that impact on the well-being of the CMDHB community. However, there are also practical steps that CMDHB can take to improve the standard of care provided to women in the district and to ensure that limited maternity resources are targeted at those

women at greatest risk of suffering perinatal death. Significantly enhanced and targeted care is required to respond to the additional requirements of these “high needs” women.

- 13 Work is already in progress, but our main recommendations highlight the need for immediate action. The key themes that the Panel has identified for improving maternity care are summarised below, followed by a more detailed table of specific recommendations.

a) Early Pregnancy Assessment and Planning / Access to Care

- 14 The importance of early access to maternity care cannot be overemphasised by the Panel. Early access enables early screening for clinical and social risk factors that may increase the likelihood of perinatal mortality or other harm. Too many Counties Manukau women do not have a comprehensive assessment early in pregnancy. Early engagement with care is essential to help prevent a range of pregnancy complications, to identify women at risk of conditions such as pre-eclampsia, fetal growth restriction and gestational diabetes, to assist women to become smoke free, to screen for infection, and to plan the care required.
- 15 Before 10 weeks of pregnancy all women should have a personalised assessment of their specific needs and a detailed and individualised care plan must be developed. These assessments should be provided in easily accessible locations and be undertaken by suitably trained GPs or midwives using a comprehensive and expanded assessment form that identifies medical and social risk factors. The process should include obtaining a mental health history, screening for family violence and ascertaining any family history of pre-eclampsia, hypertension and heart disease. All women who are under the direct care of CMDHB should then be triaged to ensure they are appropriately referred for medical care and allocated a community midwife who will assist with co-ordination and planning of care.

b) Access to Ultrasound Scanning

- 16 Access to ultrasound scanning is an essential component of appropriate maternity care. It is particularly important to assist with accurate dating early in pregnancy and identifying and monitoring fetal growth restriction in at-risk women (fetal growth restriction is an important risk factor for perinatal mortality). Scanning is currently provided in several locations within CMDHB; however, the Panel was advised that it can be difficult to organise a scan when one is needed urgently or semi-urgently owing to the pressures on both community-based and hospital services.

c) Prioritisation of Vulnerable and “High Needs” Women

- 17 CMDHB faces the dual challenge of providing care to a community with higher than average health needs and significant midwifery workforce shortages not present in other areas of the country. The Panel believes that more needs to be done to identify and prioritise those women at greatest risk of perinatal morbidity and mortality, to ensure that the care they are provided with best meets their individual needs. A “one size fits all” approach to maternity care is not appropriate when such health and social disparities

exist in the pregnant population and clear indicators can be identified as risk factors for sub-optimal outcomes. Given the resource and staffing limitations that compromise the nature and quantity of care that can be delivered, it is all the more important to target the provision of care to those with the greatest need.

- 18 Urgent action is needed to identify women who have medical and social factors that place them at greater risk of perinatal mortality. Resources and staff need to be prioritised accordingly, to ensure that these women receive the best possible care.

d) Models of Care and Workforce

- 19 Women with low medical risk should be actively encouraged to receive midwifery led care and to birth at a primary birthing unit. It is also essential that all pregnant women receive clear and culturally appropriate information about the pregnancy care options available to them, so they can make an informed choice about their maternity care provider. This needs to happen at the first point of contact with a health care provider during pregnancy.

- 20 Compared with other regions, significantly fewer pregnant women in CMDHB receive their maternity care from a specific self-employed midwife or other consistent Lead Maternity Carer (LMC). Only 51% of pregnant women in Counties Manukau have their primary maternity care provided by self-employed LMCs.³

- 21 There are insufficient numbers of midwives offering LMC services in the CMDHB district. The “section 88” funding mechanism used in New Zealand means that there are financial disincentives to providing care to women with complex health or social needs. Urgent consideration needs to be given to ways of supporting midwives to provide care to the most vulnerable and “high needs” women, including those with high medical needs.

- 22 Priority should also be given to expanding the DHB “caseloading” midwifery care model and investigating other ways to ensure that DHB “closed unit” care is provided in a manner than promotes continuity of care provider throughout the pregnancy, labour and postnatal period.

- 23 The “Shared Care” model, where maternity care is shared between a GP and the CMDHB midwifery team, has developed as a way of addressing midwifery workforce gaps in the CMDHB District. It is important that where “Shared Care” is undertaken in future, it is provided by practitioners appropriately qualified in maternity care and in close co-ordination with experienced midwives.

- 24 Concerted efforts must continue to attract more midwives to work in the Counties Manukau region, either as self-employed practitioners or DHB employed midwives. Increasing the midwifery workforce is an essential component of improving access to quality, co-ordinated maternity care.

³ Data provided by Debra Fenton, CMDHB Primary Maternity Services Manager.

25 The Panel has identified specific areas where the LMC workforce in Counties Manukau needs further development. Of critical importance is recruiting Pacific Island and Maaori people to enter the midwifery profession, and providing support for them to complete their studies and to remain in the profession. CMDHB has a Workforce Development Strategy in place that recognises the importance of ensuring that the workforce reflects the population.

e) Family Planning Services

26 More than 40% of all pregnancies (and perhaps more in the Counties Manukau area) are unplanned (Morton et al., 2010). Teen mothers and mothers with high parity (greater than or equal to 4) are at highest risk of perinatal mortality (PMMRC, 2011; Stacey et al., 2011). Almost 20% of teen parents in CMDHB are having their second or third baby (Jackson, 2011b).

27 There are widespread barriers to timely and affordable access to contraceptive services, both before and after pregnancy. Immediate consideration needs to be given to ways of making contraception much more accessible, affordable and available to women in the CMDHB region. This will enable them to make choices about when they become pregnant and how many children to have.

f) Clinical Governance and Management

28 The Panel is supportive of the benefits of a combined approach to the provision of maternity care throughout the CMDHB district and across the historic primary/secondary care/self-employed midwifery sectors. It is clear that a co-operative approach is required to address the challenges of providing maternity care in CMDHB. This will require strong leadership and team work across traditional “boundaries”. The need for co-ordination extends to the interface between the hospital provider and funding divisions of the District Health Board. The recent establishment of the Maternity Expert Advisory Group is commendable. Further work is required to ensure that there are clear clinical governance processes in place across the district and clear lines of accountability for service provision right through to Board level.

29

30 Implementing a district-wide overarching Maternity Clinical Governance Group, which includes all providers of maternity care and is led by a senior clinician, should also be considered as a way of enhancing clinical governance and helping to ensure clear accountability for maternity care provision and outcomes through to Board level.

g) Maaori and Pacific Women

- 31 More than 50% of the babies born in Counties Manukau are born to Maaori and Pacific women, and they are more likely to have a stillborn infant or to lose a baby in the neonatal period compared to European mothers (PMMRC, 2011). The Panel wishes to emphasise the critical importance of providing care in a culturally appropriate manner. This includes ensuring that educational material and information is provided in a variety of languages, taking steps to ensure that the maternity workforce better reflects the wider community, and providing maternity care in a manner that meets the needs and requirements of the different communities that make up the CMDHB population.
- 32 Smoking is an important factor associated with preterm birth, SGA (small for gestational age) and perinatal mortality. This is a particular risk factor for Maaori women, who have higher rates of smoking than the general population.
- 33 It is essential that CMDHB further develop strategies to increase the number of pregnant women who cease smoking, especially early in pregnancy. This may include the development of a KPI to measure smoking rates and smoking cessation rates amongst pregnant mothers at 15 weeks' gestation and further collection of data around outcomes in women referred to smoking cessation services during pregnancy. If women cease smoking before 15 weeks' gestation the risks of pre-term birth, SGA and stillbirth are very similar to those of non-smokers (McCowan et al., 2009; Butler, Goldstein & Ross, 1972).
- 34 Pacific women also have particularly high perinatal mortality. Jackson (2011b) has clearly identified that obesity is the major associated factor for stillbirth in the Pacific community. Adhering to optimum weight gain during pregnancy is associated with a reduced risk of major pregnancy complications, and nutritional interventions have been associated with a trend to reduction in the rate of stillbirths (Thangaratnam et al., 2012).
- 35 Urgent work needs to be undertaken to develop culturally appropriate nutritional and lifestyle interventions to optimise weight gain during pregnancy. This could include training community health workers to provide nutritional advice to "at-risk" pregnant women.
- 36 Pre-pregnancy obesity within the community also needs to be addressed. Focussed public health strategies directed at children are required to encourage healthy eating and physical activity, in order to reduce obesity in women of reproductive age.

h) Communication and Information

- 37 All health practitioners involved in the care of the mother and her baby need access to comprehensive, accurate and timely clinical information. Currently there is no communication between databases operated by self-employed midwives in the community and DHB electronic information systems. There is limited interface between DHB systems and primary care practice information systems. Consequently, women are often seen for care in DHB facilities with very little information available from the community and vice versa. This negatively impacts on continuity of care and can have implications for the safety and well-being of mother and baby.

38 The ability to analyse birth outcomes and identify areas for improvement is hindered by data gaps and the lack of a comprehensive easily accessible database that contains data from all providers. Good quality data and information on maternity services and outcomes are essential for undertaking quality improvement activities and improving outcomes.

39 The introduction of a comprehensive and integrated maternity information system, which is consistent with the national maternity information system currently being developed, should be a priority for CMDHB.

i) Summary

40 As a result of these key findings the Panel has identified a number of specific recommendations to improve the manner in which maternity care is provided within the CMDHB district. These recommendations are set out below, along with a number of commendations relating to areas where positive steps are already being taken. The Panel urges the Board to adopt these recommendations in full and to ensure that implementation is closely monitored on an ongoing basis.

j) Commendations

41

- a) The maternity workforce in the CMDHB district who, as a group, are extremely dedicated, skilful and loyal. It is a credit to them all that intrapartum mortality at CMDHB is not different to other parts of New Zealand. The workforce is enthusiastic and strongly motivated to improve the care that women receive.
- b) The CMDHB Board for initiating an investigation into the perinatal mortality rates in the district and demonstrating an intention to understand and address the reasons for these outcomes.
- c) The CMDHB Chief Executive Officer, who has agreed to fund a professor/associate professor and senior lecturer in Obstetrics and Gynaecology with a goal of conducting high quality research to improve outcomes for mothers and babies in the district.
- d) The achievement of WHO Baby Friendly Hospital accreditation in November 2011.
- e) The ongoing campaign to recruit midwives, including the establishment of the Midwifery Professional Development Group.
- f) Efforts by CMDHB to increase Maaori and Pacific participation in the health workforce.
- g) The efforts being made by CMDHB and other health agencies in the district to try to address the underlying health factors that have a significant impact on perinatal mortality rates in the community.

k) Recommendations

42

1. Implementation and Monitoring
<p>a) Appoint a dedicated Project Manager to ensure that the recommendations in this report are implemented and that progress is closely monitored at Executive Management and Board level.</p>
2. Early Pregnancy Assessment and Planning
<p>a) Develop multi-media educational material, with input from Pacific and Maaori communities, which emphasises why early access to maternity care, including pregnancy assessment and planning, is important.</p> <p>b) Consider ways to incentivise women to attend a full pregnancy assessment appointment, with a midwife or general practitioner, before 10 weeks of pregnancy.</p> <p>c) Prioritise funding to enable this early pregnancy assessment/booking visit to be accessible to all women. This may include employment of midwives who have a special interest in early pregnancy care.</p> <p>d) Urgently review the current Pregnancy Booking Form to update screening and identification of clinical and social risk factors.</p>
3. Ultrasound Scanning
<p>a) Undertake a detailed review of the provision of ultrasound scanning services across the CMDHB district and develop a plan to enable adequate access to scans for pregnant women, especially when a practitioner requests an urgent scan.</p>
4. Prioritisation of Vulnerable and “High Needs” Women
<p>a) Establish a set of criteria to define and identify the most socially and medically vulnerable pregnant women.</p> <p>b) Establish a vulnerable women’s multi-disciplinary group as soon as possible to which those women who are identified as most vulnerable can be referred.</p> <p>c) Consider ways in which those identified as most vulnerable can be provided with continuity of care — e.g., through LMC or caseloading DHB midwives and/or specialty teams with dedicated additional social work/community health worker input. Continuity of care, through an ongoing relationship with a single, consistent care provider, is particularly important for these women.</p>

- d) Urgently consider the development of comprehensive social worker and/or community health worker support services, to assist pregnant women to address the social factors that may impact on their health status and their ability to access and receive appropriate maternity care.

5. Models of Care and Workforce

- a) Actively encourage women who are healthy and have a normal pregnancy to receive midwifery led care and to birth at a primary birthing unit.
- b) Improve the availability of LMC care throughout the district by increasing self-employed midwifery numbers and expanding “caseloading midwifery” services through the DHB.
- c) Seek an urgent review by the Ministry of Health of the section 88 funding mechanism for LMCs nationally, in order to create incentives to provide care for women who have clinical or social risk factors. This may include the introduction of an additional “high needs” or “deprivation” payment to ensure that actual costs associated with providing care to women with risk factors and social constraints are adequately covered (e.g., home visits for women without transport, extra visits for those who require additional monitoring or support at various stages of pregnancy).
- d) Depending on the outcome of a review of section 88 funding by the Ministry, the DHB should consider supplementing section 88 funding to create incentives to provide care for women who have clinical or social risk factors.
- e) Encourage midwives to work as self-employed practitioners in the CMDHB region to increase the number of LMCs available to provide care to women in the district. More support could potentially be provided to LMCs through the provision of ancillary clinical and non-clinical support services by the DHB and/or other incentives to make this an attractive option.
- f) Re-establish the dedicated midwifery coaches/educators to support new graduate midwives and identify other measures that could be introduced to better support newly qualified midwives in both the community and DHB setting.
- g) Externally benchmark the current Full Time Equivalent (FTE) numbers and the composition of Counties Manukau midwifery, nursing and medical (Senior Medical Officer, Registrar and House Officer) staff in the community, Assessment Labour and Birthing Unit and Maternity ward at Middlemore Hospital and satellite CMDHB birthing units against other national and international providers. The purpose of such benchmarking is to determine the appropriate level and mix of safe staffing in such units. Notwithstanding the significant midwifery and medical workforce constraints within CMDHB, it is essential that objective safe staffing levels are identified as a matter of priority. The benchmarking should

take into account the number of self-employed LMC providers practising in the district and their caseloads.

- h) Ensure that experienced senior midwives are available 24 hours per day in both the labour and postnatal wards and that there are sufficient numbers of midwives to provide one-to-one care for women in labour.
- i) Ensure that appropriate antenatal care is provided to those women not booked with a self-employed LMC.
- j) Ensure that adequate numbers of clinics and suitably qualified multidisciplinary staff are available to provide care to women with high medical needs, e.g., those women with diabetes and underlying health problems.
- k) Ensure that when “Shared Care” arrangements are necessary these are provided:
 - by a specific nominated general practitioner who has an ongoing relationship with the individual pregnant woman; and
 - in co-operation with experienced midwives; and
 - by GPs and midwives who work closely together in a co-ordinated manner to ensure continuity of care and consistency of core contact with the pregnant woman.
- l) The long-term goal should be that all general practitioners providing Shared Care will have appropriate and up-to-date postgraduate qualifications in women’s health and/or obstetrics and gynaecology. CMDHB should explore ways to support this occurring.

6. Family Planning

- a) Review, as a matter of urgency, the current delivery and funding of family planning services in the CMDHB district. This issue needs immediate attention from both the Ministry of Health and Counties Manukau District Health Board. The Panel recommends that a full review be undertaken of the services currently offered in the region, with consideration given to the accessibility of these services, particularly for young and “at-risk” women. It is essential that all women are able to access appropriate advice and affordable contraception in a timely manner.
- b) A plan for postnatal/subsequent contraception should be documented on the maternity antenatal care plan for all women, and should be further documented prior to discharge.
- c) All women who leave CMDHB birthing facilities should ideally either be provided with contraception before discharge, or if needing to return for a long-acting reversible or permanent contraceptive method, have an appointment provided within 3–6 weeks of birth. The woman’s choice and the plan should be documented in the clinical record and communicated to her GP.

- d) Urgently consider additional ways of providing contraceptive advice and long-acting contraceptives for women in Counties Manukau. This should include the following:
- introducing expert family planning midwifery/nursing roles in CMDHB;
 - training more health professionals to provide quality contraceptive advice and contraceptive services (such as inserting IUDs and Jadelle) and prescribing contraception, so that women can leave hospital after birth with a long-acting contraceptive method if desired;
 - providing mobile contraceptive services and “after-hours” and “drop-in” contraception clinics; and
 - providing more co-ordinated and comprehensive school-based services including standing orders for emergency contraception and condoms.
- e) Provide additional funding to extend Family Planning Association services in South Auckland to enable provision of:
- a drop-in clinic so that services can be provided when they are needed;
 - extra after-hours clinics; and
 - additional resources to train nurses, midwives, etc, to administer long-acting reversible contraception.
- f) Counties Manukau women who require termination of pregnancy experience difficulties accessing this service given the need to travel to Greenlane Hospital. This issue needs further exploration by the DHB, perhaps in the first instance by considering the establishment of a local non-surgical termination service.

7. Clinical Governance and Management

- a) Review current managerial and clinical reporting lines and structure within CMDHB Women’s Health Services to allow more clinical input into decision-making and ensure there are clear lines of accountability for maternity service provision across the CMDHB district, through to Board level.
- b)
- c) With key stakeholders, agree a vision and strategy for maternity services that is articulated by all the Senior Leadership Team of Women’s Health as well as the CMDHB Planning and Funding division.
- d) Establish an overarching Maternity Clinical Governance Group, chaired by a senior clinician, that is accountable for overseeing maternity services across the

Counties Manukau population. This group should include representation from all of the providers of maternity services for the CMDHB population. It should include representation from the CMDHB Planning and Funding division but have a governance reporting line separate from the Child Youth and Maternity Strategic Forum. The purpose of the Maternity Clinical Governance Group will be to provide assurance to the Senior Leadership Team of Women's Health, the Executive Leadership Team of CMDHB, and the Board in relation to the safety of maternity services.

8. Maaori and Pacific Women

- a) Improve the access to and quality (including cultural appropriateness) of maternity services for Maaori and Pacific women who are more likely to experience perinatal death. This includes ensuring that educational material and information is provided in a variety of languages, that the maternity workforce better reflects the wider community, and that maternity care is provided in a manner that more appropriately meets the needs and requirements of different cultural groups.
- b) Reinforce strategies to reduce the number of pregnant women who smoke. This may include the development of a KPI to measure smoking rates and smoking cessation rates amongst pregnant mothers at 15 weeks' gestation. Smoking cessation should be specifically monitored by further collection of data around outcomes in women referred to smoking cessation services during pregnancy.
- c) Develop culturally appropriate nutritional interventions to reduce pre-pregnancy obesity and optimise weight gain during pregnancy, especially for Pacific women. This could include training community health workers to provide nutritional advice to at-risk pregnant women.

9. Communication and Information

- a) Implement, as a matter of urgency, a comprehensive and integrated maternity information system.
- b) Implement a means of communicating effectively with self-employed LMCs, particularly in relation to key information about care provided by CMDHB to women booked with the LMC.

INTRODUCTION

Background

- 43 The 2011 Perinatal and Maternal Mortality Review Committee Report examined perinatal deaths that occurred in 2009 and also summarised data on deaths for the three-year period from 2007–9. The report identified that CMDHB had a consistently higher rate of perinatal mortality than the rest of New Zealand. The report noted that nationally mortality is higher for Maaori and Pacific mothers as well as for Indian mothers, teenage mothers and those who are socially and economically deprived. Smoking and obesity were also identified as associated risk factors. Therefore, the Counties Manukau district has more mothers and babies at greater risk than in any other region. This is reflected in the three-year mortality rates, which are significantly higher in the CMDHB region than the rest of New Zealand.
- 44 As a result of this finding the CMDHB Board commissioned an independent panel to review the delivery of maternity care in the district and consider ways in which perinatal outcomes could be improved.
- 45 The review was conducted by a panel of clinicians and community experts, chaired by Professor Ron Paterson. The review commenced in late 2011 with the first review panel meeting taking place in mid-February 2012. The scope of the review included all maternity care providers in the district and was not limited to those maternity services provided directly by CMDHB.

Terms of Reference

- 46 The Terms of Reference are included in Appendix 1. In summary, the areas to be addressed by the Panel included:
- a) Identification of any barriers to accessing antenatal care.
 - b) Investigation of causes of outcome disparities (e.g., ethnicity, socioeconomic deprivation and cultural aspects within the CMDHB population).
 - c) Review of clinical governance processes of various providers of maternity services within the CMDHB district and their impact on outcomes.
 - d) Review of funding models for maternity services (clinical and support services) and their impact on the access to and quality of care.
 - e) Identification of potential changes to improve current systems and processes, to enable CMDHB and other organisations/agencies to better meet the needs of mothers and babies in the DHB region, and to reduce perinatal mortality rates.
- 47 In approaching its task, the Panel sought to:
- a) Understand, based on evidence, the management, quality and safety of maternity care services in the CMDHB region.
 - b) Commend systems/processes and models that are working well.
 - c) Identify opportunities for improvement.

Methodology

- 48 The review process included:
- a) Working closely with the existing CMDHB Maternity Expert Advisory Group throughout the review process.
 - b) Undertaking interviews, surveys and discussions with a wide range of stakeholders. Interviewees were selected to ensure that the review panel heard views of people involved in the provision of maternity services across the care continuum. They included DHB employed staff, individual health practitioners and providers, and consumers of health services. A list of people who provided oral or written submissions to the Panel is attached as Appendix 2.
 - c) Considering how maternity care is provided within the CMDHB region and how it might be improved.
 - d) Analysing models of providing maternity care.
- 49 The Panel also commissioned Dr Lynn Sadler, perinatal epidemiologist, to undertake some additional analysis of data to provide further information on key points.
- 50 A communications plan was developed to seek the views of the local community, with a view to:
- a) Publicising the review and gathering feedback and stories from users and providers of antenatal and postnatal care in Counties Manukau. This included distribution of a survey form so that responses could be obtained from a wide variety of sources. Advertisements were broadcast on local radio stations and placed in both local free newspapers and on the CMDHB website.
 - b) Identifying key touch points for pregnant teenagers to help access this group of expectant mothers.
 - c) Engaging and interacting with health professionals and agencies involved in the care of mothers and babies.
 - d) Engaging and consulting with relevant Maaori and Pacific healthcare providers and local community groups.
 - e) Identifying community leaders in an attempt to engage and consult with the Indian/Asian communities.
 - f) Identifying what works well and any potential changes to the way services are delivered, so as to improve outcomes for mothers and babies.
- 51 During the course of the review the Panel engaged with a number of maternity services providers and consumers. The Panel received 120 written submissions and met with approximately 130 people. Wherever possible all Panel members were present at interviews but as the process progressed, time constraints meant some interviews took place with only one or two Panel members and occasionally by telephone rather than in person.
- 52 The Panel visited the Middlemore Hospital Assessment, Labour and Birthing unit and Panel members attended the Ministry of Health road show to launch the MOH Referral

Guidelines. Panel members also undertook visits to some key marae in the CMDHB district where Whare Oranga (integrated community health centres) have been established, to ascertain how maternity care is provided to women accessing these services.

- 53 In collaboration with South Seas Health Care and Turuki Health, consumer focus group meetings were held for both Maaori and Pacific people. A combined total of 50 people attended these meetings.
- 54 The Panel also interviewed women who had been supported through their pregnancy at Taonga Education Centre, a Manurewa based service that provides ongoing school, social and health support to pregnant teens, teen mothers and their babies.
- 55 Despite several attempts, the Panel was unable to engage successfully with representatives of the Indian/Asian community.
- 56 Recent reports and reviews in relation to maternity care in the CMDHB district were considered by the Panel, in particular the comprehensive research into perinatal mortality and maternity care models undertaken by Dr Catherine Jackson. Dr Jackson's material was of great assistance to the Panel and is referred to extensively in this report.

THE PEOPLE OF COUNTIES MANUKAU

Background

- 57 Counties Manukau DHB covers an area of approximately 55,200 hectares and includes parts of the territorial authorities of the Auckland, Waikato and Hauraki local authority districts. It encompasses a sprawling geographic area, both urban and rural, and is home to a large and culturally diverse population covering a broad socioeconomic spectrum.
- 58 CMDHB has one of the fastest growing populations of any DHB, with an annual growth rate of 1.7%, and this growth is expected to continue. Current projections indicate that by 2026 CMDHB will have a population of approximately 635,000 (Wang, 2012). There are high numbers of Maaori, Pacific and Asian residents, and a large percentage of youth in the region. The population in these groups is expected to increase significantly, especially amongst Asian and Pacific people. Thirty-four percent of the Counties Manukau population live in the most socioeconomically deprived areas (NZDep quintile 5), with Maaori and Pacific people more likely to be living in these areas (57% and 73% respectively) (CMDHB, 2011).

Mothers and Babies in Counties Manukau

- 59 Fourteen per cent of all births in New Zealand are to women residing in Counties Manukau. The combined CMDHB birthing facilities form one of the largest providers of birthing services within New Zealand and Australia. Approximately 8,500 babies are born each year to women living in CMDHB, of whom more than 50% are born to Maaori or

Pacific mothers (25% and 32% respectively in 2007–9) and to mothers who predominantly live in areas of high socioeconomic deprivation (Jackson, 2011b).

60 Women of childbearing age (15–49 years) make up 30.4% of the total CMDHB population (Statistics NZ, 2006). This is significantly different from elsewhere in New Zealand, with the childbearing population being younger, more frequently Maaori (17.4% vs 15.7%), Pacific (21.6% vs 6.5%) or Asian (20.4% vs 12.3%), and more often living in the most deprived areas (47% in quintile 5, the highest deprivation quintile, vs 26% in New Zealand overall (Sadler, 2012).

61 The proportion of Maaori preterm births in CMDHB (7.6%) is consistently higher than the proportion of European preterm births (6%) in the region and also higher than the overall New Zealand rate of Maaori preterm birth (7.6% CMDHB compared to 6.7% for NZ Maaori (Jackson, 2011b).

62 Jackson notes that between 2007–9, teenage birth rates in CMDHB were higher than the New Zealand average (43.9 per 1000 compared with 32.2 nationally) and that 23% of all births during this period to mothers under 15 were to young women who lived in CMDHB. There were also noticeable differences in teenage birth rates in CMDHB by ethnicity: Maaori (72/100,000), Pacific (49/100,000), European (13/100,000), Asian (5/100,000) (Jackson, 2011b).

63 Tobacco use in CMDHB is highest for women in their teens, followed by women aged 20–24 years (Craig, MacDonald, Reddington & Wicken, 2009). Maaori women have the highest rates of tobacco use during pregnancy (40% in 2008), followed by Pacific (15%) and European women (10%).

64 Between 2007 and 2009, only 35% of CMDHB women who delivered in a CMDHB facility had a Body Mass Index (BMI) within the normal range, 27% were overweight, and 38% were obese (Jackson, 2011b). Pacific women, during pregnancy, are more likely to be overweight or obese than women of other ethnicities (86%) (Maaori women, 69%, and European/other, 50%).

Perinatal Mortality in Counties Manukau

65 There are several categories of perinatal death where rates are higher in the Counties community than in the rest of New Zealand (Sadler, 2012). These include deaths due to fetal growth restriction, preterm birth, infection and maternal conditions (largely diabetes) and hypertension in pregnancy.

Deaths due to Fetal Growth Restriction

66 These deaths usually occur in babies known to be growth restricted before birth. Although some of these deaths occur in pre-viable babies and cannot currently be prevented, others are likely to be modifiable by regular surveillance and timely delivery. Smoking in pregnancy is also an important modifiable risk factor for perinatal death associated with growth restriction.

Deaths due to “Spontaneous Preterm” Birth and Infection

67 Counties has a higher rate of deaths due to preterm birth and infection than the rest of the country. These births usually occur at pre-viable gestations (less than 24 weeks). Antecedent associated factors include cigarette smoking, marijuana use in pregnancy (Dekker et al., 2012), urinary tract infections, and sexually transmitted infections.

The Impact of Smoking during Pregnancy

68 Early smoking cessation (by 15 weeks’ gestation) may prevent preterm birth due to smoking (McCowan, 2009).

Urinary Tract Infection

69 Six to eight percent of pregnant women have asymptomatic bacteriuria in pregnancy and this rate may be higher in Maaori and Pacific women. Untreated bacteriuria can be associated with pyelonephritis and increased risk of spontaneous preterm birth, both of which are preventable. The proportion of women who have a screening MSU for this condition in CMDHB is not known.

Sexually Transmitted Infections

70 Sexually transmitted infections (STIs) during pregnancy may be associated with increased rates of preterm birth, maternal postnatal endometritis, and infection in the newborn. CMDHB guidelines currently recommend that all women under 25 should be offered STI screening when they access healthcare. In addition, the Ministry of Health recommends that Maaori and Pacific women should also be offered STI screening because of higher infection rates in these populations. A recent publication from Counties reported that 8.2% of women who were screened in 2009 were positive for chlamydia; 21.7% of under 20-year-olds had positive swabs for chlamydia, as did 12.7% of 20–24-year-olds. Approximately one quarter of women under 25 years of age were not screened at all (Ekeroma et al., 2012).

Perinatal Deaths in Mothers With Diabetes

71 Deaths in babies of mothers with diabetes in pregnancy in CMDHB are also higher than rates in the whole of New Zealand (Sadler, 2012). Unfortunately, accurate data are not available about the prevalence of diabetes in pregnancy in CMDHB. However, given the very high rates of obesity and the higher rates of gestational and type II diabetes in Pacific, Asian and Maori women compared with European, the absolute numbers are likely to be higher in CMDHB than in other New Zealand DHBs (Jackson, 2011b, p 56). The Panel noted that until very recently the diabetes in pregnancy service had been limited to a single weekly clinic in which to try to provide multidisciplinary care to a complex and increasing patient group. The Panel was pleased to learn that an additional diabetes in pregnancy clinic has now been started. Numbers of women with diabetes in pregnancy are likely to increase as the obesity epidemic continues unabated. CMDHB needs to collect accurate data about prevalence and consider optimum models for providing antenatal care to this vulnerable and increasing population of pregnant women. The Panel has not been able to review the diabetes in pregnancy service in detail but recommends that community based initiatives for screening and engagement in care are also promoted in CMDHB, as recommended in the “Let’s Beat Diabetes” report.

Deaths due to Hypertensive Disease

- 72 Deaths in babies of mothers with hypertension in pregnancy in CMDHB are also higher than rates in the whole of New Zealand. Accurate data were also unavailable for the prevalence of hypertensive diseases in pregnancy in CMDHB but given the very high rates of obesity (a risk factor for pre-eclampsia and chronic hypertension) the absolute numbers are again likely to be higher than in other New Zealand DHBs. Development of accurate data collection in CMDHB will enable rates of these serious pregnancy hypertensive conditions to be calculated, and care can then be tailored accordingly.

Perinatal Mortality Rates

- 73 If CMDHB had the same perinatal mortality rate as the rest of New Zealand there would be approximately 27 fewer stillbirths and neonatal deaths in the district per year (PMMRC, 2011).
- 74 Jackson (2011b) concluded that it is likely that most, if not all, of the variation in perinatal mortality across the DHBs in New Zealand can be accounted for by differences in population structure. The most important potentially modifiable risk factors identified during her research into CMDHB perinatal mortality rates were:
- a) overweight and obesity
 - b) advanced maternal age
 - c) smoking
 - d) pre-existing hypertension
 - e) pre-existing diabetes
 - f) placental abruption.
- 75 Other important risk factors Jackson identified were pregnancy induced hypertension, fetal growth restriction, and absence of antenatal care. With the exception of advanced maternal age, the prevalence of all other risk factors in CMDHB were similar to, or higher than, the prevalence nationally. Jackson concluded that after controlling for the effects of identified risk factors, perinatal mortality does not vary by ethnicity and socioeconomic status. However, CMDHB women, and CMDHB Maaori and Pacific women in particular, carry a higher burden of the main factors associated with perinatal mortality than other New Zealand women. Jackson continued:

“This analysis found that ethnicity was not an independent risk factor for perinatal death. i.e. it is not being Maaori or Pacific that places you at higher risk. It is increased odds of exposure to risk factors such as smoking, obesity, premature birth etc.”

- 76 These findings are important in understanding the conclusions and recommendations of the Panel. The Panel does not intend to duplicate the detailed findings presented in Jackson’s two reports, but commends the full reports to those wishing to consider these issues in more detail, and supports Jackson’s detailed recommendations. Of particular importance is the significance of the underlying health status of the population, which appears to be a major determinant of perinatal outcomes.

- 77 Recent publications from the Auckland Stillbirth Study, a large case control study of risk factors for late (greater than or equal to 28 weeks' gestation) stillbirth in the Auckland region, are also informative about risk factors relevant to the CMDHB population. Stacey et al. (2011) reported that women with high parity (four or more previous children), which is more common in Pacific women, had a four-fold increase in risk of late stillbirth. Stacey also highlighted that overweight and obesity are important independent risk factors. Infrequent attendance for antenatal care and unrecognised fetal growth restriction were other significant independent risk factors for late stillbirth (Stacey et al., 2012).
- 78 The publication from Stacey et al. (2012) further reinforces that it is imperative that CMDHB take steps to remove barriers to accessing timely and appropriate maternity care services, and that it endeavour to improve the quality and consistency of maternity care available to Counties Manukau women.
- 79 The Code of Health and Disability Services Consumers' Rights imposes obligations on health care providers to provide services in a manner that minimises potential harm to consumers, is consistent with their needs, and that promotes co-operation between health care providers. There are a number of steps that CMDHB can take to help improve compliance with these requirements.

MATERNITY CARE IN COUNTIES MANUKAU

- 80 Maternity services in New Zealand are provided within an integrated system of primary, secondary and tertiary care. All maternity care is free for women who are eligible to receive publicly funded health care services, unless a woman chooses a private obstetrician.

Lead Maternity Care Model

- 81 The Lead Maternity Carer (LMC) model of maternity care was introduced in the mid-1990s. An LMC is usually a self-employed midwife but can be a general practitioner or private obstetrician or, in some circumstances, a DHB maternity service. The LMC is responsible for providing care throughout pregnancy, labour and delivery as well as the postnatal period. This promotes continuity of care and provides women with a single point of contact for advice and support throughout the maternity journey. While a woman can opt to change her LMC, she can be registered with only one LMC at any one time, as the LMC holds the budget for her primary maternity care. In CMDHB approximately 51% of pregnant women have a self-employed LMC (CMDHB, 2012). There are 118 self-employed midwives and 7 medical practitioners who hold access agreements with CMDHB, entitling them to provide services at CMDHB facilities. Not all of these access holders carry active caseloads.

DHB Maternity Services

82 CMDHB is the direct provider of a number of primary maternity services. These services are described below.

Caseloading Model

83 “Caseloading midwives” are DHB-employed midwives who work as a team to provide a model of maternity care similar to that provided by self-employed LMCs in the community. There are 12 budgeted FTE caseloading midwives who provide care throughout pregnancy, labour and the postnatal period. Currently only four of these positions are filled and these midwives provide care to approximately 250 women per year. If all 12 caseloading positions were filled, care would be provided to approximately 600 women per year under this model.

84 For women who are assessed as having a high clinical risk, their maternity care may be provided in partnership with the CMDHB obstetric service.

Closed Unit Model

85 Under the “closed unit” model, all maternity care, antenatal, labour and postnatal care is provided by a DHB employed midwife. Clinics are held at Middlemore, Manukau or Botany Superclinic, or in the community. Women who have a high clinical risk usually receive closed unit care with decision-making led by an obstetric Senior Medical Officer. Although attempts are made to provide continuity of care where possible, this model of care often results in women receiving care from a variety of different care providers throughout different stages of their antenatal care and during labour. Approximately 3,500 women per year receive closed unit care. Some women receive closed unit care because they require obstetric Senior Medical Officer input into their care because of medical conditions; others receive closed unit primary maternity care because they are unable to access a self-employed LMC or caseloading DHB midwife.

Shared Care Model

86 In response to the high birth rate in the region and an ongoing shortage of self-employed LMCs, CMDHB developed a “Shared Care” model that is unique to the Counties region. The Shared Care model is intended to provide a type of LMC service to women, and care is delivered through the co-ordination of various practitioners who “share” care. Under the Shared Care model, antenatal care up to 31 weeks’ gestation is provided by a GP or GPs who have entered into a Shared Care arrangement with the DHB. Women are also offered up to three antenatal visits at a CMDHB facility with a community midwife employed by CMDHB. Postnatal visits are provided by CMDHB employed community midwives. The Shared Care model within CMDHB operates only with GPs, and does not extend to self-employed midwives.

Specialist Maternity Services

87 The DHB also provides the following specialist maternity services:

Teenage Pregnancy

88 Multidisciplinary clinics are provided by the DHB community midwifery service for mothers under 18 years of age. Clinics are based at Manukau Superclinic, and home visits are also available. This specialty service provides antenatal and postnatal care only. Care during labour is provided by the rostered DHB employed midwifery staff at the hospital delivery unit. There is a 0.8 FTE social worker who provides support to this team.

Diabetes in Pregnancy

89 A multidisciplinary team consisting of an obstetrician, midwife, diabetes physician and dietician provides care to women with previous or newly diagnosed type I, II or gestational diabetes. All of the woman's midwifery care is provided by a CMDHB employed midwife. An additional diabetes clinic has recently been started to accommodate increasing numbers of women.

Obstetric Medical Clinic

90 This clinic is located at Manukau Superclinic and provides maternity care for women with complex medical conditions. The midwifery care is managed by either a self-employed LMC or a DHB-employed midwife, while the woman's medical condition is managed by a specialist team.

Comment

91 There was strong feedback in support of the self-employed LMC model of care, particularly for low-risk women. It is clear that models such as this, and similar DHB "caseloading" care models, provide the best options for promoting continuity of care provider throughout pregnancy. A trusting and enduring relationship with a key maternity provider is a strong foundation for ensuring good communication and engagement during pregnancy. This relationship should extend throughout pregnancy, labour and the postnatal period. It is unfortunate that so many CMDHB women are not able to access self-employed LMC or caseloading midwifery care because of midwifery workforce shortages in the district. Although closed unit care provides the most efficient way of providing care to large numbers of women within the limitations of the current midwifery workforce, CMDHB should work towards reducing this model of care over time, particularly for low-risk women who could otherwise receive care through an LMC model. The DHB should also consider ways to provide as much continuity of antenatal and postnatal care as possible within the closed unit model, both for those women who receive closed unit care because of their high medical needs as well as those women who are receiving closed unit care because they have been unable to access a self-employed LMC or caseloading midwife.

92 There is evidence of successful self-employed LMC practices in Counties Manukau providing high quality integrated care to pregnant women and their families within a partnership model (Priday & McCara-Couper, 2011). This type of integrated LMC care model — in partnership with women, and well co-ordinated with local GP practices — should be encouraged and supported appropriately so it becomes the predominant method of primary maternity care delivery in the CMHDB region.

93 Concerns were expressed to the Panel from women and providers about the variability of care provided under the Shared Care model. Although there were examples where this model seemed to be working well, with women receiving appropriate integrated maternity care from their regular general practitioner, in other instances the care was not thorough or well co-ordinated. This included situations where care was provided by GP clinics that did not have an existing or enduring relationship with the pregnant woman, and where there was little co-ordinated midwifery input. Examples were provided to the Panel where women attended a GP service very early in pregnancy but risk assessment was not undertaken and opportunities to modify outcomes in high-risk women were not utilised. Concerns were also expressed about different practitioners providing care at each visit, and antenatal visits being conducted within standard brief appointment times, rather than during extended appointments that allowed sufficient time to address pregnancy related issues. The Panel was concerned that this type of Shared Care provision falls short of the level of maternity care provided through other models.

94 The 2011 review undertaken by the Litmus Group for the Ministry of Health included the following findings (Litmus Group, 2011):

“Shared care is entered into by default rather than choice and for practical considerations such as (no) cost and proximity, rather than true engagement with the service on offer.”

“The experience of Shared Care is rushed, with long waiting times. It is medical in focus, inflexible and serviced by different midwives. This makes it difficult to build supportive relationships based on each young mother’s individual needs.”

95 These findings mirror the general impressions the Panel formed in relation to the multiple submissions received about Shared Care services.

96 There was also concern expressed to the Panel that women may not be receiving full information about their care options during pregnancy. The Panel is of the view that more needs to be done to ensure that women are well informed about their care options as early in pregnancy as possible so that they can make an informed choice about the type of care they wish to receive.

CMDHB MATERNITY FACILITIES

97 CMDHB women’s health facilities are geographically spread across the district. Middlemore Hospital located in Otahuhu is CMDHB’s acute hospital. It includes an Assessment, Labour and Birthing Unit, a primary/secondary/tertiary birthing suite, an antenatal and postnatal inpatient maternity ward, and a level 3 Neonatal Intensive Care Unit.

98 Primary and Secondary Antenatal clinics, including high-risk clinics such as Gestational Diabetes, Obstetric Medical and Teenage Pregnancy, are situated at the Manukau Health

Park site on Browns Road. Botany Superclinic on Botany Road also provides secondary antenatal clinics.

99 CMDHB has three primary birthing units providing maternity services for low-risk pregnancy, antenatal, labour and birth as well as postnatal care. These units are located in Papakura, Pukekohe and Botany Downs. The services offered at these units are limited to primary maternity care, with care provided by midwives and CMDHB support staff. However, at the Papakura and Pukekohe units there is a secondary antenatal clinic provided by CMDHB Senior Medical Staff on a weekly basis.

100 These primary birthing units offer care to low-risk women who have been assessed as being able to safely give birth in a primary maternity facility. Middlemore Hospital obstetric staff provide support in the event of unexpected emergencies. The primary birthing units appear to be underutilised. The Panel was advised that a number of promotional activities were implemented in 2007/8 and that these had some impact on the number of women birthing in these units. However, without continued promotion of these units the number of deliveries has remained consistent over more recent years at around 1,200 per annum.

Comment

101 Feedback from both consumers and providers of maternity services has indicated that primary birthing units are an asset to Counties Manukau. Women who have birthed or who have received their postnatal care in these smaller facilities generally indicated that they felt well supported and comfortable.

102 However, there was some concern noted at the lack of a dedicated primary birthing facility in the Mangere, Manurewa and Papatoetoe area. Because of a shortage of postnatal beds at Middlemore Hospital, some women are expected to travel to either Botany, Pukekohe or Papakura for postnatal care. For women who reside in the Mangere/Otahuhu area this means travelling to a distant part of the district without easy public transport. This is not a practicable option for many women and their families and results in some high needs women electing to return home from the delivery suite rather than transfer to another maternity facility.

103 The Panel is aware that there is currently a proposal to develop a primary birthing unit at the CMDHB Manukau Health Park situated in Browns Road, Manukau City. If this proceeds it would fill a major gap in the current primary birthing facilities in the region and provide a further option for postnatal care for mothers who give birth at Middlemore Hospital. Further consideration should also be given to ways in which primary birthing could be better supported at the Middlemore site and/or in the Mangere area generally, given the number of women living in this area who give birth.

Funding of Maternity Services

104 The funding mechanisms for maternity services in New Zealand are complex. There are two main funding pathways:

- a) Self-employed LMC providers claim payment under a “section 88 notice”.
- b) DHBs receive funding for providing “last resort” primary maternity services to women in their catchment.

Funding for both types of maternity care is administered by the National Services Purchasing Team at the National Health Board.

Section 88 Funding

- 105 Self-employed LMC providers claim payment for maternity services through a mechanism known as a “section 88 notice”. Section 88 of the New Zealand Public Health and Disability Act 2000 permits the Crown to give notice by way of *Gazette* of the terms and conditions upon which the Crown or a DHB will make payment to any person in accordance with the notice. Acceptance of payment is then deemed to be the acceptance by that person of those terms and conditions.
- 106 The section 88 notice sets out the requirements for the provision of maternity services, and the fees that will be paid for each module of care. Authorised maternity providers submit claims to the Sector Services Department of the Ministry of Health confirming that certain aspects of care have been provided to the pregnant woman in accordance with the notice requirements. Payment is then made to that provider.
- 107 The section 88 payment rates were recently increased by the Ministry of Health. The fees for the first and second trimester module are \$307.50 (exclusive of GST) with a reduced rate payable if only partial services are provided. Full fees for the third trimester module are \$297. Labour and birth rates range from \$1,117 for the first birth with no hospital midwifery service input through to \$360 for a subsequent birth where hospital midwifery services have been utilised. There are further modules covering postnatal care and various specialist consults. No additional payments are made toward travel costs or other expenses.

Primary Maternity Funding to District Health Boards

- 108 District Health Boards receive population based funding to provide core healthcare services for their communities. The range of services that must be provided with these funds is set out in the Crown funding agreement with each DHB, as detailed in the standard national Operating Policy Framework and Service Coverage Schedules. A specific additional appropriation (or “topslice payment”) is provided from the nationally administered funding pool to each DHB. The payment is based on the number of women in each area who access primary care services directly from the DHB service. CMDHB is unusual in that it provides primary care services to approximately 50% of women who receive primary care within the DHB district. This compares with a range of between 5–30% of women in the rest of the country who access primary maternity care via their local DHB. CMDHB receives a “topslice” payment of approximately \$9 million per year to provide primary maternity care services. The services that should be provided with this funding are specified in the Service Coverage Schedule and the Primary Care Maternity Services National Service Specification.

- 109 The Primary Care Maternity Services Specification was introduced in July 2011 and is attached as Appendix 3. It covers LMC services provided by a DHB-employed LMC and “Co-ordinated Primary Midwifery Care” as an alternative where the DHB has used its “best endeavours” to provide an LMC funded service under the Primary Services Notice and has been unable to do so. The Service Specification covering the DHB LMC services is similar to the section 88 notice. These midwives are referred to as CMDHB “caseloading midwives” who operate in a similar way to self-employed midwives in the community.
- 110 Where CMDHB provides Co-ordinated Primary Midwifery Care rather than LMC care, the DHB is responsible for allocating to each woman a co-ordinated primary midwife and a backup. The expectation outlined in the Service Specification is that the majority of care for each woman will be provided by the named midwife or her backup. Women receiving care under this model will usually attend community based antenatal clinics and receive postnatal care at their home. Intra-partum care is provided at the hospital or primary birthing unit that the woman chooses to birth at.
- 111 Under the “Shared Care” arrangement, GPs who are approved as “Shared Care” providers invoice the DHB for aspects of maternity care they provide to pregnant women, in accordance with an agreed payment schedule. This is effectively a subcontracting arrangement whereby CMDHB subcontracts some aspects of primary antenatal care provision to an authorised GP who provides care in conjunction with a CMDHB midwife. The DHB retains accountability for the adequacy of the services provided by the “Shared Care” partners. The number of women enrolled in the Shared Care model has fallen from 21% of total births in 2009 to 14% in 2012.⁴

Comment

- 112 During the course of the review, self-employed LMCs in the CMDHB area highlighted the modest nature of the section 88 payment rates as a concern. The payment is also standardised, irrespective of time commitments or work requirements. LMCs indicated that the funding model has provided a disincentive to care for the very women who are most likely to have significant social and/or medical problems. It also does little to encourage a mobile care model, since women who are difficult to contact or are not at home when a midwife visits result in unpaid time and travel for the LMC midwife. This can result in significant financial detriment to those midwives who attempt to seek out women who miss appointments or those who travel to the home of women who cannot attend clinics because of child care, transport or financial reasons. The current funding model presents major challenges when providing care to these groups of women. It is unlikely to be coincidental that the highest proportion of women accessing CMDHB primary maternity care rather than self-employed LMC care live in the lower socioeconomic areas of Otara, Mangere and Otahuhu.⁵ The lowest percentage of DHB as opposed to LMC primary maternity care provision is found in Franklin, Papakura and Howick, which have a generally higher socioeconomic demographic. Concerns were

⁴ Data provided by Debra Fenton, CMDHB Primary Maternity Care Manager.

⁵ Note that Otahuhu is within the Auckland District Health Board geographic area but many women living in Otahuhu access CMDHB services because of geographic proximity and because women are able to choose which DHB they access maternity care services from.

expressed to the Panel that self-employed LMCs, not surprisingly, tended to “cherry pick” the easier or less complex clients, leaving DHB midwives to provide care to those who require more intensive input.

- 113 Urgent consideration needs to be given to the introduction of an additional “high needs” payment or deprivation weighting to ensure that there are incentives for providing care to women with complex medical or social needs. This issue has been previously raised by CMDHB with the Ministry of Health⁶ and covered in Priday & McCara-Couper’s 2011 report to the Ministry of Health. It is recommended that further efforts be made to obtain additional payments from the Ministry of Health for LMCs who provide care for women with complex needs.

Eligibility

- 114 Only women eligible to receive free publicly funded health care can receive maternity care free of charge in New Zealand. The Eligibility Direction issued by the Minister of Health sets out the categories of women who can access free maternity care. These women include New Zealand citizens, women who have permanent residency status, and partners and spouses of citizens and permanent residents. In some circumstances long-term work visa holders may be eligible. Student visa holders are not eligible in their own right unless their spouse or partner is an eligible person.
- 115 CMDHB generally has a high rate of ineligible people accessing healthcare services compared with other New Zealand DHBs. Approximately 200–300 ineligible women a year receive maternity services. These women are charged “package” rates for either a straightforward vaginal birth or Caesarean section. The packages include antenatal and postnatal care, labour and delivery. There are additional charges for services such as extended antenatal or postnatal ward stays, amniocentesis and neonatal care. The cost of a standard vaginal birth package is \$5,686.29 and a Caesarean delivery is \$10,182.33. CMDHB produces pamphlets in several languages providing information on eligibility and the costs of maternity care for ineligible women.
- 116 The Panel heard a number of anecdotal reports of ineligible women using, or attempting to use, the identities of eligible friends or family members in order to access free maternity care. It was also reported that some women avoid antenatal care or contact with maternity services prior to delivery in order to reduce the likelihood of their ineligibility being identified.

Comment

- 117 The fees that ineligible women are charged for maternity care may be a barrier to accessing maternity care for some women. This is likely to be a particular issue for women of limited financial means or those who are not well informed about immigration and eligibility matters. Uncertainty or confusion about eligibility or immigration status may also deter eligible women from accessing maternity care because of concerns about

⁶ Correspondence G. Coster, 15 October 2009.

potential charges, even when they may actually be entitled to receive free maternity care.

- 118 Eligibility rules are set by central government, and the District Health Board does not have discretion about who should be charged for receiving public healthcare services. Although no documented evidence was presented to the Panel that maternity care charges have resulted in adverse maternal or fetal outcomes, further consideration should be given to whether extending universal access to free maternity care would promote the well-being of pregnant women and babies in the CMDHB district. It is notable that women who receive no antenatal care have the highest crude perinatal mortality (Jackson, 2011b), so any potential barriers to care provision should be considered.

ANTENATAL CARE: EARLY PREGNANCY ASSESSMENT AND CARE PLANNING (BOOKING VISIT)

- 119 Only a small minority of CMDHB women currently engage with antenatal care before 10 weeks' gestation (as recommended by the National Institute for Health and Clinical Excellence, 2010). Early engagement with antenatal care may help prevent a range of pregnancy complications, e.g., by identifying women at high risk of pre-eclampsia, small for gestational age and gestational diabetes, assisting women to become smoke-free, screening for infection, and advising about nutrition and weight gain, etc.
- 120 Between 2007 and 2009 only 16.8% of CMDHB women accessed maternity care by 10 weeks' gestation (Jackson, 2011a). Jackson's research indicates that just over a third (36%) booked very late (after 18 weeks' gestation) and an additional 2.5% did not book at all. Those most likely to book late were Maori or Pacific, women under 25 years of age, and also those with a parity of three or more.
- 121 Corbett & Okesene-Gafa's 2012 report "Identifying Barriers to Initiation of Antenatal Care Amongst Pregnant Women at CMDHB" provided the Panel with analysis of maternity care engagement at a CMDHB facility of 826 women between 8 July 2011 and 9 September 2011. Late booking was associated with utilisation of CMDHB maternity care, rather than self-employed midwifery care.

"Model of care was a strong predictor of late booking and inadequate care, specifically a closed unit model... however it may be that the patient factors associated with late booking (demographics, higher levels of socio-economic deprivation) are different in the women who end up using a closed unit model..." (Corbett and Okesene-Gafa, 2012, p 16)

- 122 Free maternity care removes one financial barrier for women who meet eligibility criteria. However, the burden of associated transport costs getting to and from appointments, and taking time off work and childcare to enable appointment

attendance, is all too real for many Counties women. Feedback from the Pacific Focus Group attributed delays in seeking antenatal care to:

- unfamiliarity with the NZ maternity system; and
- other commitments, e.g., family/work, therefore not wanting to attend multiple appointments.

123 One Samoan mother of seven who attended the Pacific Focus Group stated:

“I wasn’t too sure as to exactly when I got pregnant, but I just knew that I was pregnant. I’m fairly fit and healthy, so when I didn’t have a period for four months I went and saw my doctor. I didn’t go sooner because I didn’t want to attend lots of appointments. I have family/work and other responsibilities and if I went to my doctor early I would have to have more appointments than I felt I needed.”

124 Cultural factors relevant to timing of first pregnancy assessment were also vividly illustrated to the Panel by the following comment from another Focus Group participant:

“It was six months before I sought care for my third child (first to be born in New Zealand) even though my family were encouraging me to go and see the doctor. I wasn’t familiar with the New Zealand maternity system and I didn’t want to sit and wait for an appointment. Back in the islands, we book appointments but when we have an appointment we have to wait for hours so I thought it would be the same here in New Zealand.”

125 A senior DHB clinician made the following comment to the Panel in relation to the importance of early and comprehensive maternity booking visits and screening:

“This [early and comprehensive assessment] is the essence of good antenatal care and sadly very lacking for many of our most at risk patients. Unfortunately the booking visits are often performed by nurses unqualified to provide obstetric care in general practice and key opportunities are missed repeatedly for prevention or amelioration of adverse outcomes. It is at these visits that measures to assess previous SGA [small for gestational age] babies, hypertension etc can be put in place. The resources are not available to do this. By the time the majority of patients have found their way into the maternity system they have missed the window of opportunity for screening and preventative strategies to be put in place.”

Comment

126 It has been suggested that increasing appropriate and early engagement in maternity care is likely to result in modest improvements in pregnancy outcomes (Jackson, 2011b). Accessing less than 50% of recommended antenatal visits was associated with a greater than two-fold increased risk of late stillbirth in the Auckland stillbirth study (Stacey et al., 2012). The Panel is of the view that urgent steps should be taken to improve community knowledge about the importance of early pregnancy booking, and consideration should also be given to incentivising early booking before 10 weeks of pregnancy. In particular, increasing the opportunity to encourage smoking cessation at an early stage of gestation and to try to prevent excess weight gain during pregnancy may have a positive impact on

outcomes for individual women and babies. Incentives that could be considered include free dental checks in pregnancy, fruit or baby products, or other pregnancy-related financial incentives.

Maternal Mental Health

- 127 Suicide is the leading cause of maternal death in New Zealand, with 13 pregnant or recently delivered women dying from suicide nationally between 2006 and 2010 (PMMRC, 2012).
- 128 In CMDHB there is one maternal mental health psychiatrist and 4.9 key workers in the maternal mental health team. Midwives are not able to refer women directly to this service and because of large numbers there is a two-month wait before most women can be assessed by a specialist maternal mental health psychiatrist. Women with existing mental health conditions under the care of community mental health teams generally continue to be cared for by those teams during pregnancy. Concerns were raised with the Panel regarding resource within the maternal mental health team and the ability of this small team to provide the necessary level of support for pregnant women throughout the district.
- 129 The maternity registration form includes a tick box for mental health but not specific conditions that should be asked about.
- 130 The “maternal mental health” section of the Shared Care plan suggests that women who can no longer be managed by the GP should be referred on to other mental health services but specific details are not provided.
- 131 The PMMRC has recommended that all pregnant women with a previous history of a severe affective disorder or other psychoses should be referred for psychiatrist assessment and management, even if well. Screening questions have been recommended by the PMMRC to identify history of previous severe mental illness and also to determine whether there is a family history of severe mental illness.

Comment

- 132 The Shared Care plan and maternity registration form should be updated to include specific history about previous severe mental illness including in immediate family members.
- 133 An in-depth review of maternal mental health services in the CMDHB region was beyond the scope of this review. However, based on the information it received, the Panel is concerned about the nature and extent of maternal mental health services in the district, particularly given that suicide is a leading cause of maternal death nationally. The unquantified avoidable harm that may arise from poorly managed mental health conditions during pregnancy is also significant. The Panel was advised that work is being undertaken regionally to look at maternal mental health provision throughout Auckland, with specific consideration also being given to the establishment of a mother and baby unit. The Panel emphasises the importance of this issue and recommends that CMDHB give close

attention to the matter and take all necessary steps to improve maternal mental health services within the district.

ULTRASOUND AVAILABILITY

134 Fetal growth restriction is common in perinatal deaths, with more than 40% of all stillborn infants in NZ having a birthweight less than the 10th customised birthweight centile (PMMRC, 2011). Ultrasound scans can assist in correctly dating gestation and are essential for accurately monitoring growth during pregnancy in women at risk of fetal growth restriction. The Panel is concerned by reports of difficulty accessing urgent or semi-urgent scans within the CMDHB district, both in public and private facilities.

Comment

135 In addition to implementing the PMMRC recommendations regarding fetal growth measurement and recording, CMDHB should urgently undertake a review of access to maternity ultrasound services within the district. It is essential that urgent and semi-urgent ultrasound scanning take place within clinically appropriate time-frames. A plan should be put in place to ensure that access to and timeliness of scanning is addressed.

VULNERABLE WOMEN AND “HIGH NEEDS” WOMEN

136 Vulnerable women include those with medical and social factors that place them at greater risk than the general pregnant population. The PMMRC 2011 report recommends the identification of vulnerable women at increased risk of perinatal related mortality, including those under 20 years of age and over 40 years of age, obese women, those with multiple pregnancies, and those living in socioeconomic deprivation or with maternal mental health or medical conditions.

137 During interviews with staff and self-employed LMC midwives the Panel asked about services provided to vulnerable women. The view was repeatedly expressed that “all women are vulnerable”. This is echoed in the Child, Youth, and Maternity Operational Plan CMDHB 2012/2013 and the CMDHB Quality and Safety Draft Report 2012. Both identify 81% of women as vulnerable and state that it is therefore “not practical to target high-risk women”. Jackson (2011b) concluded that 81% of women who delivered at CMDHB facilities during 2007–9 would be classified as high risk based on the PMMRC criteria, but indicated that the vast majority of children born to these women (98.7%) did not suffer perinatal death. She also cautioned that this analysis highlights the limitations of a high-risk approach in a population that is predominantly high risk.

138 At present there is one dedicated social worker for inpatient maternity services, and no dedicated social worker for the community midwifery team or CMDHB satellite birthing units. The teen pregnancy team does have a 0.8 FTE social worker. The current maternity inpatient social worker has a high workload and manages increasing numbers of Child Youth and Family related cases and instances where family violence has been identified,

particularly since the introduction of Family Violence Preliminary Risk Assessment screening at the DHB. It was reported that CMDHB community midwives and the community birthing units make referrals for antenatal/postnatal assault of pregnant women, neglect, drug and alcohol use, and child protection related issues. These referrals are not able to be picked up by the one maternity inpatient social worker. Self-employed midwives spoken to by the Panel also expressed concern that there was no DHB social worker whom they could contact for assistance with serious social issues facing women they were providing care for.

139 Similar concerns exist in relation to the availability of cultural support services for maternity patients. There is currently no dedicated cultural support worker available for the maternity inpatient ward or community maternity services.

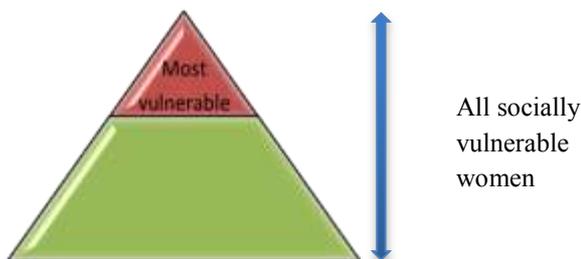
140 The day-to-day practical difficulties facing many Counties Manukau women were well illustrated by one survey respondent, who advised the Panel as follows:

“Some mothers have family commitments as well as money issues to get to and from hospital appointments on time. Don’t be quick to judge women/mothers who can’t make appointments who have money and family issues to sort out first.”

Comment

141 The Panel is concerned that the most socially vulnerable women are not being prioritised in any meaningful way. At the Panel’s meeting with community midwives, no one could identify what support is available for extremely vulnerable women. Self-employed LMC midwives were clear that they were reluctant to caseload the most vulnerable because these women were too time intensive. CMDHB needs to take urgent steps to identify vulnerable women and consider how services can be better provided to them. While accepting that the extreme numbers of potentially vulnerable women in the CMDHB district make this a particularly daunting task (far more so than for most other DHBs), this is not a reason to avoid taking these steps. Those who are at the most vulnerable end of the spectrum should be identified and provided with additional support and assistance.

Figure 1 — Vulnerable Women



142 There is an urgent need to identify relative vulnerability amongst the pregnant population and particularly to identify those women with the highest need.

143 Consideration should be given to ways in which those identified as most vulnerable can be provided with more continuity of care, for example, through priority access to self-

employed LMC or caseloading DHB midwives and/or specialty teams with dedicated additional social work/community health worker input. Co-ordination of care and an ongoing relationship with a single, consistent care provider is particularly important for these groups of women. Extra effort is required to help ensure they are able to access the care they require in a manner that meets their needs.

144 The Panel is also gravely concerned at the lack of social work support available for vulnerable women within Counties Manukau district. Given the extent of social problems faced by many in the CMDHB community, it is unacceptable that dedicated social work input is not readily available to those who most need it. Urgent consideration needs to be given to ways in which more support can be provided to women at one of the most important times of their lives. A dedicated community social worker should be established as a matter of urgency. Further consideration needs to be given to how a comprehensive social work presence can be provided across the maternity care spectrum within Counties Manukau, including to those women who receive care via a self-employed LMC. The DHB should consider funding social work support for LMC collectives operating in the district.

145 Ways to link with Whaanau Ora care providers and other integrated approaches to health and social well-being within the community also need to be explored. Opportunities for addressing complex problems facing pregnant women in a holistic manner need to be identified. It would be unrealistic to expect that expanding social work resources will immediately or significantly reduce or eliminate social and health issues facing pregnant Counties Manukau women. However, the almost complete absence of current social work input via maternity services means that potential opportunities for providing increased support and assistance to vulnerable women and high needs women are missed.

FAMILY PLANNING/CONTRACEPTION

146 More than 40% of pregnancies (and perhaps more in the Counties Manukau area) are unplanned (Morton, 2010). Teen mothers and mothers with high parity (four or more pregnancies) are at highest risk of perinatal mortality (PMMRC, 2011 and Stacey et al., 2011). Widespread problems have been identified in terms of timely access to contraceptive services, both before and after pregnancy. Jackson (2011) highlights that nearly 20% of teen parents delivering in CMDHB in 2007–9 were having their second or third child (p 30) and a consumer survey undertaken by CMDHB reported that the large majority of these teen pregnancies are unplanned (Litmus Group, 2011).

147 Planned pregnancies provide mothers with better opportunities to make lifestyle decisions that have the potential to impact positively on the health and well-being of both mother and baby. Such steps include taking folic acid prior to conception to reduce the likelihood of neural tube defects and ensuring that the mother is smoke free and a healthy weight before pregnancy commences.

148 The Panel heard reports from teen parents and others of delays of up to six weeks for appointments with a family planning doctor at the Family Planning Clinic at Manukau City, and a two-week delay to see a nurse. This results in inability of many women to access contraception or contraceptive advice when the need arises. The clinic is currently trying to initiate a drop-in clinic in November 2012. A community based nurse expressed her concerns as follows:

“I spoke to a GP practice ... re a [teenager], she has just enrolled with them 8 weeks post partum and she has to wait for the next DPB payment for funding for her to have Jadelle inserted, this is able to be done [in nearly three months’ time]. She is already having unsafe sex 4 weeks post delivery and they have not given her depo.”

After discussing further barriers to accessing suitable advice and contraception for young teen mothers, the nurse continued:

“This issue of the wait has meant we have had to get the Emergency Contraceptive Pill for them and also we have had several pregnancy scares where they have not used condoms or taken the pill as prescribed. Unfortunately one of these has resulted in a subsequent pregnancy in a 16 year old, only 8 weeks post delivery.

Very seldom do these girls get contraception from their midwives before they are discharged from their service at 4 to 6 weeks post partum and ... none of them have come with contraception after their 6 week check and babies’ immunisations from GPs.”

149 School based health services also reported variability in access to medical services and in the availability of standing orders for providing contraceptive and sexual health treatment. An inverse relationship was reported between the hours of nursing and doctor time at schools and the teen pregnancy rates.

150 There is a need to prevent unplanned teen pregnancies including subsequent or “repeat” teen pregnancies. The “morning after pill” is now available through many pharmacies. However, the cost of obtaining this (approximately \$40) is out of reach of many young South Aucklanders. Likewise, long-acting reversible contraceptives were identified as desired reliable options that were not readily available or accessible because of cost barriers.

151 Pregnancy termination services for CMDHB women are provided at Epsom Day Clinic located in central Auckland, and at least two separate visits are required. Transport and financial difficulties were identified as potential barriers to accessing this service.

152 Neither the care plan for closed unit women, nor for Shared Care women, lists contraception as a required component of antenatal care — even though antenatal discussion and planning of postnatal contraception is recommended by family planning experts (Lewis, 2010). The section 88 notice is very general in this regard and requires an LMC to provide only “advice regarding contraception” with no further requirement specified.

153 The Clinical Director of Women’s Health acknowledged that provision of postnatal contraception needs improving. It is important the DHB continue to explore ways in which contraception (particularly long-acting reversible contraceptive methods) and more permanent methods of birth control, such as tubal ligation and vasectomy, can be better provided for people in the Counties Manukau region. This may help reduce the significant clinical and social impacts that can result from unplanned pregnancies. Jackson concludes that improving access to more effective contraceptive options may help with spacing of children and reduce the number of high parity women, and the pressures on family resources, particularly for young mothers during the first few years of their infant’s life. Jackson also noted that it would be timely to review programmes within the DHB aimed at reducing unwanted pregnancy through the provision of appropriate reproductive advice and contraception.

Comment

154 The Panel strongly supports improved access to contraception for CMDHB women who wish to make informed choices regarding their fertility. Unplanned pregnancy has a disproportionate impact on women who have pre-existing social, economic or health problems. Ideally, women plan to become pregnant and are well informed beforehand. This is likely to require a significant “rethink” of the manner and nature of contraceptive service delivery within the district. Although providing cheaper (preferably free) and more accessible contraceptive services may require additional funding or resources within the Counties Manukau community, the cost of unplanned pregnancies in women who are not physically or mentally ready to bear children must also be considered, and is likely to far exceed the cost of provision of contraception.

155 The Panel recommends that an urgent and comprehensive review be undertaken in consultation with Family Planning in South Auckland, regarding availability of access to contraception in the CMDHB district. The Ministry of Health, which has responsibility for funding Family Planning Clinics throughout New Zealand, should also be involved in this review process. Consideration needs to be given to new and more accessible ways of providing contraceptive advice and long-term reversible contraception to those women who want it in the CMDHB region. This may include extended clinic hours, mobile clinics and services, and eliminating cost barriers for obtaining contraception, especially in teens and other socioeconomically deprived women. The following are also recommended for consideration:

- a) Developing expert nursing/midwifery roles specialising in contraceptive advice and administration/insertion of long-acting reversible methods of contraception. Ideally there should be one such clinician available on each shift in CMDHB so that suitable women can have long-acting contraception (such as Jadelle) provided prior to hospital discharge. Insertion before discharge reduces recurrent teen pregnancy compared with delayed insertion or use of other contraceptive methods (Tocce, 2012).
- b) Training a small group of individuals to insert intrauterine devices immediately post-partum where this is considered clinically appropriate.
- c) Establishing post-partum clinics to provide contraception 3–6 weeks after delivery.

- d) Enhancing the current midwifery undergraduate curriculum in family planning.
- e) Considering mobile clinics for providing contraceptive advice, perhaps in conjunction with a mobile antenatal clinic.
- f) Considering ways to increase access to tubal ligation and vasectomy for those who want to consider these options.
- g) Considering extending the role of breastfeeding coaches and other community health workers to provide contraceptive advice.
- h) Considering the extent of termination services currently provided at Middlemore Hospital and whether there is scope for extending these services, especially provision of a non-surgical termination service.

CLINICAL GOVERNANCE AND MANAGEMENT

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WORKFORCE AND RECRUITMENT

Midwifery

162 Based on volumes, complexity and social issues, the Counties district appears to be considerably short of midwives, both self-employed LMCs and hospital employed.

163 Some LMC midwives and DHB staff interviewed by the Panel reported that Middlemore Hospital was an extremely stressful and difficult place to work, to the extent, they believed, of being unsafe at times. This was due mainly to not having enough midwives, both within the hospital and in the community, to provide adequate antenatal and labour care. This was echoed by the Director of Nursing, who said that there had on occasion been unsafe staffing levels owing to an inability to recruit midwives. The Director of Midwifery advised that midwifery numbers had declined again since May 2012.

164 In addition to lactation consultants, a perinatal midwife specialist, the Director of Midwifery and midwifery educators, CMDHB budgeted to employ the following numbers of FTE (Full Time Equivalent) midwifery and nursing staff in the maternity service in September 2012:

Senior Nurses/Midwives	23.79 FTE
Registered Nurses	23.84 FTE
Enrolled Nurses	0.6 FTE
Registered Midwives	132.84 FTE

165 Because not all budgeted positions are able to be filled, internal and external bureau staff are engaged to meet the budgeted staffing levels. For example, in September 2012 there were only 112.15 registered midwifery FTEs employed by the DHB, so 14.30 FTEs were sourced from the internal DHB bureau and 2.85 FTEs from external agencies. Some other positions were slightly over their budgeted numbers during the same September period, for example 24.71 FTE registered nurses were employed when 23.84 were budgeted.

166 There was a strong belief by staff interviewed that midwifery should become more focused in the community in collaboration and partnership with Primary Care, as described by Adrienne Priday and Judith McCara-Couper in their 2011 report, "A Successful Lead Maternity Care Midwifery Practice in Counties Manukau". Feedback from

self-employed LMCs was critical of a CMDHB model that effectively “competes” with the self-employed LMC model for primary care births.

Medical Workforce

167 CMDHB Women’s Health Service employs the following numbers of medical staff to provide gynaecology and obstetric care:

a) Specialist Medical Officer (Consultants)	17.28 FTE
b) University Senior Lecturer (Consultant)	0.5 FTE
c) Senior Fellows (1 gynaecology and 1 obstetric)	2 FTE
d) Registrars	16 FTE
e) House Officers	7 FTE

168 On average, one temporary registrar or house officer vacancy was reported for each “run” but a full complement of staff was expected from December 2012. No significant concerns were identified regarding medical staffing levels in the maternity area, although occasional difficulty scheduling antenatal clinics was reported at times, depending on levels of staff on leave.

169 There is a highly skilled and dedicated medical workforce in CMDHB. The Panel noted the lack of strong research leadership in Obstetrics and Gynaecology in Counties Manukau. This significantly impairs the ability of the committed medical team at CMDHB to undertake high quality research to improve the outcomes of mothers and babies in the region. The Panel was very pleased to learn that CMDHB has committed to funding senior (Professor or Associate Professor) and more junior (Senior Lecturer) academic staff members.

Workforce Development

170 The CMDHB Workforce Strategy 2012–16 and Workforce Strategy Action Plan 2012–13 include a number of important goals and initiatives such as:

- a) Strengthening clinical leadership.
- b) Developing a workforce that reflects the community the DHB serves.
- c) Implementing midwifery development activities such as academic mentoring and career planning.
- d) Recruiting local high school students into health career pathways.
- e) Increasing Maaori and Pacific nursing and midwifery numbers.
- f) Strengthening Maaori and Pacific midwifery leadership.

171 Recruitment initiatives to attract Pacific Island and Maaori people to the midwifery workforce in the Counties region are commended. Increasing the levels of Maaori and Pacific participation in the maternity workforce should be a priority for CMDHB given the Counties demographic.

172 Untapped “Earn and Learn” opportunities may exist which could increase the return on recruitment investment while supporting Pacific trained midwifery staff and Maaori

nursing staff wanting to re-train as midwives. Opportunities may exist to employ these individuals in cultural support roles, as lactation or contraception advocates, or as Midwifery Care assistants.

- 173 It was encouraging to note the increasing numbers of Maaori and Pacific midwifery students — 17 Maaori and 8 Pacific students across the three-year training programme for the South Auckland satellite programme.⁷ However, the Panel noted the significantly higher course fees for midwifery studies as opposed to nursing studies. This is a possible deterrent for those interested in pursuing midwifery studies.

Comment

- 174 The current FTE numbers and composition/skill mix of midwifery and medical staff employed by CMDHB in the maternity unit at Middlemore Hospital and the satellite birthing units should be externally benchmarked against other District Health Boards to determine the appropriate level and mix of safe staffing in such units.
- 175 Although recognising the significant midwifery and medical workforce constraints within CMDHB, it is essential that objectively verified safe staffing levels are identified as a matter of priority. The concerns expressed to the Panel by various respondents indicate a need to investigate the adequacy of current staffing levels.
- 176 While there remains a shortage of LMCs, CMDHB must commit to ongoing recruitment as a long-term investment. Any increase in midwives in the CMDHB region is a desirable outcome for the DHB. Providing supervised training, support and mentoring for new graduates or less experienced midwives in a DHB setting can be expected to increase the number of experienced midwives generally available in the region in the medium and longer term. The DHB's role as a "feeder" organisation permitting midwives to move into self-employed roles is to be encouraged.
- 177 Further opportunities should be explored to develop and extend training and support initiatives to the self-employed midwifery community. This should include the provision of more practical support and additional services that may make working as an LMC in the Counties Manukau district more attractive, particularly in areas of high deprivation and health need.
- 178 More needs to be done to provide seamless integration between self-employed and DHB employed midwifery workforces and to reduce opportunities for perceived competition or a "them and us" mentality. Development of locality based service provision throughout the DHB district may well have a role to play. The locality model emphasises co-operation between health providers throughout a defined geographic locality to improve service provision to the population.
- 179 It is also essential that CMDHB continue to explore ways in which Pacific and Maaori midwifery students can be provided with support and mentorship during their midwifery education and during their transition into the workforce, in particular in their first year of

⁷ Counties Manukau District Health Board Women's Health Provider Services Presentation (March, 2012).

practice. This will require close liaison between the DHB and midwifery education providers and the Maaori and Pacific communities.

ISSUES OF SPECIAL RELEVANCE TO MAAORI WOMEN

Special Needs of Maaori Women during Pregnancy

- 180 Pregnancy raises conflicting issues for many Maaori women living in an urban situation. Being pregnant is a time of celebration and historically everyone took care of the pregnant woman — she was “tapu” as she carried new life within her “Te Whare o te Tangata”. In 2012, urban mothers can often find themselves isolated from all the help their mother, grandmother and great-grandmother had on hand. Poverty disadvantages many Maaori mothers, who cannot get to the clinic, reach the doctor, attend the classes, and meet other peers. In addition to clinics, surgeries, hospital and whare oranga, there may be a need for a mobile service to reach Maaori women marginalised through poverty, isolation and shame.
- 181 The Panel was advised that Maaori have a cultural need that only other Maaori can understand. This was demonstrated at the Turuki Focus Group when a young couple mentioned that they had four midwives before they came across one who understood the rongoa (traditional Maaori healing) they desired and who practised mirimiri (massage), to enable them to have a “cultural birth away from home” and uphold the legacies of their own births. The importance of the welcoming Karanga at the moment of the breath of life, and the rites to be performed when retaining the whenua (placenta and afterbirth) were also identified as important.
- 182 The Panel was privileged to speak to women and providers in the community who have received or are providing services that encompass Maaori models of care. Turuki Health was one provider that demonstrated how efforts could be made to obtain positive outcomes for Maaori women through incorporating Maaori values into the care model. Focus group attendees who had received care under Turuki Health felt well supported, booked and attended antenatal care prior to 10 weeks of pregnancy, and were empowered in their choices.
- 183 Panel members noted that there was no parental accommodation available in the neonatal unit and that some mothers lacked resources to travel daily to the unit, particularly if there were other children in the family requiring care.
- 184 The prevalence of teen parenthood amongst Maaori women was also noted by the Panel. It is important to identify ways of providing support to these young women to help them stay engaged with health, social and education services, along the lines of the model used by the Taonga Teen Parenting unit.
- 185 An overview of Teenage Pregnancy and Parenting undertaken by the Families Commission identifies that Maaori have a higher overall fertility rate than the total New Zealand population, and this difference is greatest in the younger age ranges. Maaori

fertility peaks between ages 20 and 24, whereas for European New Zealanders the peak is 10 years later, between 30 and 34.⁸

- 186 Jackson's research identifies that 43% of Maaori women in CMDHB smoke during pregnancy and that, unlike in European women, there are no significant reductions in smoking rates amongst older Maaori women. There are multiple sources of evidence linking smoking during pregnancy to many adverse pregnancy outcomes including miscarriage, intrauterine growth restriction, placental abruption, premature delivery, stillbirth and neonatal death. Smoking is also associated with increased risk of Sudden and Unexpected Death in Infancy (SUDI). Reducing Maaori smoking rates should be a priority for the community.

Whare Oranga Overview

- 187 There are a number of Whare Oranga, or integrated health services based on marae, in the CMDHB district. The following description of Whare Oranga services is based on the information provided during visits to each Whare Oranga by Panel representatives. During the consultation process the Panel was advised that a Whare Oranga at Whatapaka Marae, Karaka, would be beneficial and supported locally, and another one at Wharekawa Marae, Kaiaua would help ease an access problem.

Manurewa Marae, Manurewa

- 188 Te Manu Aute Whare Oranga at Manurewa Marae does not have a specific maternity service. There are no antenatal or postnatal services provided through the Whare Oranga, and there is no midwifery service on site, but pregnancy support services are available in the form of referrals to community midwives. Doctor and nurse services are available three days a week. Other well-being and healthy lifestyle services are provided, including mirimiri, rongoa, cervical smears, acupuncture and traditional healing. Some of their clients avail themselves of Haputanga classes at Papakura Marae but only if transport is available. Ideally, antenatal and postnatal services from an on-site midwife would be available, but this is not possible within current funding.

Tahuna Marae, Waiuku

- 189 Tahuna Marae has had a Whare Oranga operating for several years, with a focus on health and fitness, but no antenatal or postnatal service is provided. Maternity care is managed through the local GP services, and babies are born at Pukekohe or Papakura Maternity Units. Plunket provides postnatal visits at six weeks.

Huakina Development Trust, Pukekohe

- 190 There are three Marae Whare Oranga that come under the Huakina Development Trust's monitoring role. The Whare Oranga are managed by Procure Health. The three Whare

⁸ Families Commission Komihana a Whanau Teenage Pregnancy and Parenting — An Overview (2011), p 6.

Oranga are Mangatangi Marae at Mangatangi, Nga Hau e Wha Marae at Pukekohe, and Ooraeroa Marae at Port Waikato.

191 Each Whare Oranga provides promotional healthy lifestyle programmes organised by a Kaiwhakahaere (lifestyle co-ordinator). A suite of medical services is also provided, including general practice (generally on a one day a week cycle), nursing clinic, podiatry, psychology, self-management services and dietician services. There are no antenatal or midwifery services provided. However, Plunket does provide short-term postnatal care. Maternity services are provided through services at Tuakau, Pukekohe, Papakura and, for women in Mangatangi, at Ngatea and Thames.

Papakura Marae

192 Papakura Marae operates Whare Oranga with 2.6 FTE GPs, 3 FTE Nurses, 2 Community Health Workers, 2 Receptionists and a Practice Manager. It offers Haputanga Ora through a midwife and therefore can offer antenatal support. Papakura Marae intends to provide more maternity/contraceptive services with a new doctor coming on board who is a Family Planning Specialist.

193 The Panel was advised that historically, Papakura Marae was renowned for its “Birthing Unit” and the “Healthy Women = Healthy Babies” programme that provided full antenatal and postnatal care, and even had a baby born in the unit. Other babies were born at Papakura Maternity Unit or Middlemore because many were first-time births and the mothers did not want to “risk” birth at the Marae Unit. The healthy baby programme was a pilot and funding ceased after one year. Papakura Marae is keen to care for mothers during pregnancy, and both mother and baby more fully post birth, and to offer support services for new mothers both at their homes and at the Marae. However, this would require increased funding.

Comment

194 It is imperative that CMDHB continue to explore ways in which culturally appropriate maternity care can be provided to the Maaori community. Further work needs to be undertaken to identify better ways of engaging with expectant Maaori mothers and their whaanau. Maaori women need to be able to access good information about their pregnancy care options and the importance of early pregnancy assessment in identifying and addressing pregnancy risk factors. Although this information is important for all expectant mothers, it is particularly important for the Maaori community given the rates of perinatal death it experiences.

195 It is also essential to reduce smoking rates amongst pregnant Maaori women and young Maaori women in general. Smoking is a major contributor to perinatal death in the Maaori community. CMDHB needs to explore further ways of supporting pregnant women in general, and Maaori women in particular, to cease smoking before 15 weeks of pregnancy. This should include developing KPI targets to measure smoking and smoking cessation rates in pregnant mothers at 15 weeks’ gestation, and collecting good quality data on referral to smoking cessation services and ways of measuring the success of such services.

ISSUES OF SPECIAL RELEVANCE TO PACIFIC WOMEN

Pacific Women

- 196 Counties Manukau District Health Board services the health needs of the highest concentration of Pacific peoples in New Zealand. More Pacific babies are born in the CMDHB area than anywhere else in New Zealand. Pacific people often live in the most socially deprived areas and have high rates of health problems such as obesity, diabetes, rheumatic fever, smoking, alcohol and drug abuse compared with the European population. Obesity is a major risk for perinatal mortality in Pacific women, as are the risks associated with having four or more children.
- 197 The *Tupu Ola Moui: Pacific Health Chart Book 2012* released by the Ministry of Health is the most up-to-date information relevant to Pacific health. Pacific women are over-represented in the number of pregnancies that do not result in a live birth (including terminations and stillbirths after 20 weeks). The barriers and challenges that go hand in hand with social deprivation make planning for all aspects of life extremely difficult for the CMDHB population.
- 198 The Pacific Island demographic is one of a mixture of migrants to New Zealand, and New Zealand born Pacific Island people. There are families who are of third, fourth and fifth generation New Zealand born of Pacific Island heritage.
- 199 When addressing the health needs of Pacific women, it is important to understand the connection between the woman and her family, culture and spirituality. The importance of this is illustrated by the widely acknowledged Fonofale Model of Health, described in Appendix 4. Simply put, it means taking a holistic approach to meet the needs of Pacific women. South Seas Well Child Service Provider is an example of a Pacific service in the community that appears to work well for Pacific women in Counties. This was evidenced through feedback generally to the Panel from consumers and providers.
- 200 The need for culturally appropriate information and educational resources was raised in the Focus Group meetings held with the Panel. One Tongan participant stated:
- “It would be more ideal if they have more resources regarding pregnancy, childbirth, birthing units etc in some of the Pacific languages because there is a lot of older mums who are getting pregnant and communications are not so well so these would be ideal for them to read in their own languages.”*
- 201 In May 2010 TAHA — Well Pacific Mother and Infant Service commissioned research into Pacific Sudden and Unexpected Death in Infancy (SUDI) and Stillbirth. The key findings highlighted the need for Pacific workforce and policy development, research, addressing the holistic needs of Pacific health through integration of services and the community, and community prevention and intervention programmes.

Pacific Women's Attitudes to Contraception

- 202 Cultural beliefs and myths can be barriers to contraception and family planning and early access to care, as evidenced in the documents and research material provided to the Panel. Pacific people embrace the opportunities that education and knowledge provide. Information and educational programmes about health, nutrition, contraception, family planning, pregnancy and sexual health are enablers that empower people to make choices, even in the most socially deprived situations. During Pacific focus groups, some women openly discussed and expressed their reasons for not using contraception. Focus group participants were enthusiastic and genuinely interested in sharing their birth experiences and hearing those of other Pacific women, including views of contraception and the different types of contraception available.

Impact of Obesity and Overweight

- 203 Overweight and obesity are important risk factors during pregnancy and can increase the likelihood of many complications including urinary tract infection, pre-eclampsia, gestational diabetes, infection, thromboembolism, large birthweight babies and stillbirth. Reducing pre-pregnancy weight and ensuring weight gain during pregnancy stays within optimum limits are important goals for the Pacific community, as this is associated with improved pregnancy outcomes. Jackson concludes:

“Excluding late termination, if all CMDHB women were in the normal weight range during pregnancy the total perinatal mortality rate could be expected to decrease by 12% whilst in infants born to Pacific women a 26% decrease in total perinatal mortality could be expected.”

- 204 Jackson also states that if one considers only deaths of babies weighing more than 1500g (the Maternal Care risk period), *“the population attributable risk of a death in this risk period associated with being overweight or obese was 68% in the Pacific CMDHB population during 2007–09. That is, if all Pacific women in CMDHB were in the normal weight range, the mortality rate in the Maternal Care risk period could be expected to decrease by 68% for infants born to Pacific women.”*

- 205 This latter group may be of particular importance as babies with birthweight over 1500g would be expected to survive and be healthy if born alive.

Engagement with Pacific Island Communities

- 206 One of the key recommendations from Jackson's report on antenatal care in CMDHB was that community engagement needs to be a key component for developing approaches for reducing perinatal mortality in CMDHB. The actions required for improving perinatal mortality in CMDHB primarily involve behavioural changes — planning pregnancy, weight management, improving nutrition, smoking cessation and engagement in antenatal care. The Pacific population is entitled to receive information about the impact of these factors on perinatal mortality and other health outcomes in their community.

- 207 The Lotu Moui programme, supported by the DHB through MOH funding, has been delivering Healthy Life Style programmes through church groups to Pacific peoples in Counties since 2005. In 2006 CMDHB launched the Lotu Moui Grant for Pacific church based health projects. This aim was to assist Pacific churches to develop and implement health promotion and disease prevention programmes that would support their congregations to live healthier and more active lifestyles. Approximately 80 churches participate in these programmes, and many of them have established church health committees.
- 208 The Panel was informed that the Ministry of Health has ceased financial support for these programmes and is currently evaluating and reviewing funding of this type.
- Comment**
- 209 It is important that the specific needs of the Pacific community are addressed in the provision of health education and maternity care. The Panel encourages CMDHB to consider ways in which programmes such as church based health lifestyle programmes can be continued and expanded to assist in the delivery of health education and maternity care to the Pacific community. Increasing Pacific participation in the maternity workforce is essential, and developing ways to help improve underlying health status, such as healthy weight, are critical. The implementation of Jackson's recommendations relating to development of nutritional guidelines and increased involvement of nutrition advisers for overweight and obese pregnant mothers may have particular significance for pregnant Pacific women.
- 210 Urgent work needs to be undertaken to develop culturally appropriate nutritional and lifestyle interventions to reduce pre-pregnancy obesity as well as prevent excessive weight gain during pregnancy. This could include training community health workers using the Heart Foundation existing programs to provide nutritional advice to at-risk pregnant women.

COMMUNICATION AND INFORMATION SYSTEMS

- 211 The Panel heard repeated concerns about the limitations of the current IT systems used in the maternity area and the lack of a comprehensive maternity care information system that could be accessed by all primary and secondary maternity care providers and provide high quality and accurate data for quality improvement and research purposes.
- 212 All health practitioners involved in the care of the mother and her baby must have access to comprehensive, accurate and timely clinical information. Currently there is no communication between databases operated by self-employed midwives in the community and DHB electronic information systems. There is only limited interface between DHB systems and general practice information systems. Consequently, women are often seen for care in the DHB with very little information available from the community and vice versa. This negatively impacts on continuity of care and can have implications for the safety and well-being of mother and baby.

213 Data often has to be entered manually by administrative staff into the CMDHB Healthware system, sometimes in duplicate or triplicate. This is inefficient and time consuming. There is only limited ability to extract data for analysis and research. The ability to analyse birth outcomes and identify areas for improvement is also hindered by data gaps and the lack of a comprehensive easily accessible database. One senior clinician commented to the Panel that CMDHB was “data rich but information poor”. One of the key findings of Jackson’s research (Jackson, 2011a) was that currently available maternity data at a national and local level are inadequate and make examining antenatal care and antenatal outcomes in a robust method challenging. Jackson notes:

“As a consequence, the capacity to make evidence based recommendations and to undertake high quality evaluations of services or new initiatives is limited.”

214 The Panel has been informed that work is being undertaken at a national level to develop a comprehensive maternity data system.

Comment

215 The introduction of a comprehensive and integrated maternity information system should be a high priority for CMDHB. Although not all of the communication problems raised with the Panel can be solved by electronic and IT means, the implementation of a comprehensive integrated system would go a long way towards improving information flows and assisting continuity of care. In the absence of such a system, those caring for pregnant women need to be proactive in communicating with and engaging with other practitioners. Interim systems should be established so that LMCs receive feedback at the time of a secondary consultation. Picking up a telephone, sending a fax or making personal contact with other care providers can help ensure that important clinical information is communicated to the right person, in the right place, at the right time.

SUMMARY AND RECOMMENDATIONS

216 The CMDHB community faces many challenges in its goal to reduce perinatal mortality. Many important steps are already being taken but more can and must be done to help improve the quality and continuity of care provided to pregnant women in the district. The greatest reductions in overall perinatal mortality rates are likely to come from intensive population health initiatives aimed at improving the overall health status of pregnant women, particularly in the areas of reducing obesity and smoking. If such initiatives are successful they are also likely to improve the health of the next generation.

217 The Panel is unanimous in its view that there are significant improvements that can be made to help ensure that Counties Manukau women are provided with care that is of an appropriate standard, is consistent with their needs and minimises potential harm to them, as required under the Code of Health and Disability Services Consumers’ Rights. CMDHB has a high proportion of high needs women. Provision of standard, basic care for these women during their pregnancy will not address the increased perinatal mortality associated with their high needs status. High needs women, with significant risk factors,

require enhanced care. This will require increased and targeted involvement of maternity care providers. At present, for a variety of reasons, many high needs women do not have access to an adequate standard of maternity care.

The specific recommendations of the Panel are set out at the beginning of this report. The Panel urges CMDHB to adopt and implement these recommendations, and to appoint a dedicated project manager to ensure that the necessary changes and follow-up actions occur.

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APPENDIX 1 — TERMS OF REFERENCE

CMDHB Review of Maternity Services

Terms of Reference

Introduction and Purpose

The Chair of the Counties Manukau District Health Board has requested that a review be undertaken of maternity care provided within the Counties Manukau district. The purpose of the review is to identify potential changes that could improve maternal and perinatal outcomes within the DHB region.

The review will be undertaken by a panel of experienced professionals across a range of disciplines. The issues to be addressed by the review panel include:

- a) Consideration of current models of antenatal care for the CMDHB population, including identification of any barriers that may hinder access to such care.
- b) Investigation of causes of outcome disparities considering such things as: ethnicity, socioeconomic deprivation and cultural aspects in the CMDHB population.
- c) Review of clinical governance processes of the various providers of maternity services within the CMDHB district and how these may impact on improving outcomes.
- d) Review of funding models related to maternity services, both clinical and support services, including identification of any processes that may have an impact on the provision of quality and evidenced based care.
- e) Identification of potential changes and make recommendations in relation to:
 - Ways that current systems and processes could be improved; and
 - Ways that CMDHB and other organisations/agencies might better meet the needs of mothers and babies in our DHB region; and
 - Ways in which maternal and perinatal mortality rates might be reduced.

Background

CMDHB has an ethnically diverse, socioeconomically deprived population. Many CMDHB women have risk factors that make pregnancy and childbirth more complex than for the general population and which make delivery of services within this community more difficult.

These factors can include: young maternal age, multiple pregnancies, underlying medical conditions, language difficulties, smoking prevalence, patient transience and lack of engagement with traditional maternity service delivery models. In keeping with its statutory responsibilities under the New Zealand Public Health and Disability Act, Counties Manukau District Health Board wishes to investigate the underlying reasons for the current perinatal and maternal morbidity and mortality outcomes and formulate appropriate ways to address these. The review is not aimed at or confined to the delivery of clinical services by CMDHB staff or on CMDHB premises, it is expected to include a wide-ranging consideration of all maternity services delivered within the Counties Manukau DHB geographic region.

Panel Members

Independent Chair	Professor Ron Paterson
Midwifery	Ms Maggie O'Brien
PMMRC	Professor Lesley McCowan
Integrated Care	Dr Ray Naden
Community	Ms Anne Candy

Added with Board's approval	
Community	Ms Siniua Lilo

Project Structure

Review Sponsor:	CMDHB Chair
Review Business Owner:	CMDHB Director of Service Integration and Chief Medical Officer
Review Project Leader:	Gina Williams
Secretariat Support:	Anna-Maree Harris

Timeframe

The review is expected to take place over a period of approximately 6–9 months. A final report is to be presented to the CMDHB Board Chair no later than 30 September 2012.

Methodology

It is expected that the review panel will:

- work closely with the already existing CMDHB Maternity Expert Advisory Group throughout the review process
- undertake interviews and discussions with a wide range of stakeholders
- consider national and international perinatal and maternal morbidity and mortality data
- analyse current local, national and international models of providing maternity care
- consider ways in which maternity care within the CMDHB district can improve maternal and perinatal outcomes
- provide detailed written findings and recommendations to the DHB.

Approved by CMDHB Board October and November 2011.

APPENDIX 2 — PEOPLE/ORGANISATIONS WHO PROVIDED SUBMISSIONS TO THE PANEL

People who contributed to the review included the following:

	CMDHB Staff
15-Feb-12	Wilbur Farmilo, Deputy Chief Medical Officer and Clinical Director of Surgery
02-Mar-12	CMDHB Maternity Expert Advisory Group represented by Thelma Thompson, Judith McCara Couper, Gill Gordon, Adrienne Priday, Sarah Wadsworth, Gill Graham, , Ann Konz, Helenmary Walker
03-Apr-12	Community Midwives — Julie Tegg, Manager and 10 CMDHB attended a meeting with the Review Panel
03-Apr-12	Suzanne Takiwa, Communications Manager
18-Apr-12	18 Women’s Health staff who covered a range of professions within the WH team met with the Panel
12-Jun-12	Keith Allenby SMO O&G (Previous Clinical Director)
12-Jun-12	Catherine Jackson, Registrar/Researcher
12-Jun-12	Sarah Tout, Clinical Director Women’s Health
12-Jun-12	Thelma Thompson, Director of Midwifery
27-Jul-12	Debra Fenton, Service Manager, Primary Maternity
10-Aug-12	Nettie Knetsch, General Manager, Women's Health and Kidz First
10-Aug-12	Sarah Wadsworth, O&G Consultant
23-Aug-12	Sue Miller, Senior Portfolio Manager, Child Youth and Maternity Team
23-Aug-12	Denise Kivell, Director of Nursing
30-Aug-12	Sitela Vimahi, Pacific Health Division Senior Social Worker

29-Aug-12	Gill Graham, Manager Maternal and Infant Mental Health Services, Pip Matthews, Service Manager Whirinaki, Dr Bernadette Salmon, Clinical Head, Whirinaki
30-Aug-12	Maureenha Rita Elone, Pacific Health Division Cultural Support Worker
30-Aug-12	Josephine Samuelu, Workforce Development Consultant
30-Aug-12	David Hughes, Deputy CMO
18-Sep-12	Kerry Waalkens, Section Head Social Work Services Surgical/Women's Health/Paediatric Team
20-Sep-12	Diana Nicholson, School Health Nurse Specialist, Primary Care
20-Sep-12	Emma Collis, RN Taonga Teen Parent Unit

	Self-Employed LMCs
02-Mar-12	Adrienne Priday, The Midwifery Practice LMC Self-employed Midwife
27-Jul-12	SAMCL — Lead Maternity Carers — 14 LMCs attended a meeting with the Review Panel

	Community
02-Mar-12	Judith McCara-Couper, Senior Midwifery Lecturer, AUT and Chair of the Midwifery Council.
18-Apr-12	Richard Hulme, Clinical Director East Tamaki Healthcare
	Erin Doolan CEO and Rhonda Tautari, Integrated Case worker, Taonga Teen Parent Service
	The Panel met with approximately 55 consumers in two focus groups and individual interviews and received 120 submissions.
	Marae Visited
	<ol style="list-style-type: none"> 1. Manurewa Marae, Manurewa 2. Tahuna Marae, Waiuku 3. Papakura Marae 4. Huakina Development Trust, Pukekohe <p>There are three Marae Whare Oranga that come under the Huakina Development Trust's monitoring role — Mangatangi Marae at Mangatangi, Nga Hau e Wha Marae at Pukekohe, and Ooraeroa Marae at Port Waikato.</p>

APPENDIX 3 — NATIONAL PRIMARY MATERNITY CARE SERVICE SPECIFICATION



20 District Health Boards

**MATERNITY SERVICES —
DHB-FUNDED PRIMARY MATERNITY SERVICES
Tier LEVEL TWO
SERVICE SPECIFICATION**

STATUS:

Approved to be used for mandatory nationwide minimum description of services to be provided.

MANDATORY

Review History	Date
Published on NSFL	October 2011
New Service Specification: developed by the Ministry of Health with a working group of representatives from DHBs and professional bodies. Purpose is to reflect current requirements for provision of primary maternity services according to current operational and competency requirements. Aligned with the New Zealand Maternity Standards and provide guidance to DHBs in implementing the Maternity Quality Initiative.	July 2011
Amendments: removed W01009, W01010, W01011, W01012, W01013, W01014 from title box. Changed unit of measure for W01020 to Procedure from Relative Value Unit.	August 2012
Consideration for next Service Specification Review	Within five years

Note: Contact the Service Specification Programme Manager, National Health Board, Ministry of Health to discuss the process and guidance available in developing new or updating and revising existing service specifications.

Web site address Nationwide Service Framework Library:
<http://www.nsfl.health.govt.nz/>

This tier two service specification applies to all District Health Board (DHB)-funded Primary Maternity Services. It must be used in conjunction with:

- the tier one Maternity Services — DHB-funded Service Specification.

This service specification also links with:

- other tier two service specifications for maternity services, including: DHB-funded primary maternity facilities, DHB-funded secondary and tertiary maternity services and facilities, and pregnancy and parenting education
- the Primary Maternity Services Notice 2007, pursuant to section 88 of the New Zealand Public Health and Disability Act 2000 (the Primary Maternity Services Notice).

Refer to the tier one service specification headings for generic details on:

- Service Objectives
- Service Users
- Access
- General Service Components
- Service Linkages
- Exclusions
- Quality Requirements

The above sections are applicable to all service delivery.

1. Service Definition

- 1.1.1. The Service includes primary maternity care provided by DHBs for women who are not accessing Lead Maternity Carer (LMC) services funded under the Primary Maternity Services Notice. DHB primary maternity services will be provided when LMC services are not feasible.⁹
- 1.1.2. DHB-funded primary maternity services are provided for one of the following purposes:
 - a. LMC services from a DHB-employed LMC where the DHB is able to provide this service
 - b. Co-ordinated Primary Midwifery Care for women as the alternative where the DHB has used its best endeavours to provide an LMC service in the absence of an LMC funded under the Primary Maternity Services Notice and has been unable to do so
 - c. Midwifery services for labour and birth, and/or postnatal care for women who have a General Practitioner (GP) or Obstetrician LMC under the Primary Maternity Services Notice, and the LMC has arranged to utilise DHB-funded primary maternity services.

⁹ As required by the Operational Policy Framework, DHBs shall be deemed the provider of last resort in all circumstances, for example, when a third party contractor fails to provide or deliver care.

2. Service Objectives

The Service will ensure that women have access to primary maternity services when these are not provided under the Primary Maternity Services Notice.

For general objectives, see the tier one Maternity Services service specification.

3. Service Users

DHB-funded primary maternity services are to be provided to:

- a. eligible women and their babies who are not able to access an LMC funded under the Primary Maternity Services Notice
- b. women who require urgent antenatal, intrapartum or postnatal care, and
- c. women who have a GP or Obstetrician LMC who has arranged to utilise DHB-funded primary maternity services for labour and birth, and/or postnatal care.

4. Access

4.1. Entry Criteria

4.1.1. You will accept:

- a. self-referrals, including those women who require urgent antenatal or postnatal care, and women who are not registered with an LMC funded under the Primary Maternity Services Notice and who arrive at the Facility in labour
- b. self-referrals and referrals from registered health practitioners where the woman requires access to a primary maternity service and is not able to access an LMC funded under the Primary Maternity Services Notice
- c. referrals from health care practitioners, including from a GP or Obstetrician LMC who has arranged to utilise DHB-funded primary maternity services for labour and birth, and/or postnatal care.

4.2. Exit Criteria

4.2.1. Exit from the Service occurs:

- a. on completion of the primary maternity service, or
- b. if the woman transfers to the care of an LMC funded under the Primary Maternity Services Notice, or
- c. if the woman moves out of the DHB area, or
- d. if there is a transfer of clinical responsibility (either planned or emergency) to Secondary or Tertiary Maternity Services.

5. Service Components

5.1. Settings

5.1.1. The Service may be provided in community, outpatient and inpatient settings.

5.1.2. The community setting includes private residences, community clinics, and other community settings including marae.

5.1.3. The outpatient and inpatient settings include primary, secondary and tertiary maternity facilities.

5.2. Time

5.2.1. You will provide primary maternity services:

- a. In cases where You provide DHB-funded LMC services, the LMC or a backup LMC will be available 24 hours a day, 7 days a week to provide phone advice to the woman, as well as community or hospital-based assessment for urgent problems
- b. In cases where You provide Co-ordinated Primary Midwifery Care, advice from, and access to the woman's named midwife¹⁰ or (individual or team) back up will be between normal business hours Monday to Friday (for antenatal services and 7 days per week for postnatal care), and in the Facility, from the DHB's hospital midwifery service 24 hours per day, 7 days per week
- c. In cases where You provide Hospital Midwifery Services for labour and birth and/or post natal care for women who have care in partnership with a GP or Obstetrician LMC, the GP or Obstetrician LMC will be responsible for arranging access to advice, 24 hours per day, 7 days a week.

5.3. Information

5.3.1. You must ensure that every woman who presents for primary maternity services is given the appropriate information about the primary maternity services that they are entitled to receive (including their options to access an LMC funded under the Primary Maternity Services Notice, and access to Primary Maternity Facilities).

5.3.2. In all cases woman are entitled to an explanation of the costs of all options for maternity care.

5.4. DHB-funded Lead Maternity Carer Services

5.4.1. Requirements for the provision of DHB-funded Lead Maternity Carer (LMC) Services are consistent with the Primary Maternity Services Notice.

5.4.2. You will ensure that from the time of allocation¹¹ of a woman, a DHB-funded LMC is responsible for co-ordinating all of the woman's primary maternity care in order to achieve continuity of care.

- a. Subject to subclause 5.4.1 (d), if a DHB-funded LMC is unavailable to provide lead maternity care because of rostered days off, holiday leave, sick leave, bereavement leave, continuing professional education requirements or other exceptional circumstances, a Back-up DHB-funded LMC may provide those services.

¹⁰ The named midwife is a DHB-employed midwife who acts as the first point of contact for women receiving Co-ordinated Primary Midwifery Care and provides care when available.

¹¹ Women receiving DHB-funded LMC services will be allocated to a specific LMC with a named backup.

- b. Subject to subclause 5.4.1 (d), the DHB-funded LMC for a woman may, with the woman's consent, delegate to another DHB-funded LMC the provision of part of the primary maternity care. However, the responsibility for meeting the requirements of lead maternity care remain with the initial DHB-funded LMC.
 - c. The respective responsibilities of the DHB-funded LMC and the practitioner to whom aspects of LMC care have been delegated will be clearly documented in the care plan.
 - d. Despite subclauses (a) and (b), if, because of exceptional reasons, the DHB-funded LMC is unable to be responsible for the ongoing provision of lead maternity care to a woman, the maternity provider must ensure that the woman is allocated with another provider of primary maternity services.
- 5.4.3. The DHB-funded LMC is responsible for:
- a. assessing the woman's and baby's needs; and
 - b. planning the woman's care with her and the care of the baby; and
 - c. the care provided to the woman throughout her pregnancy and postpartum period, including:
 - i. the management of labour and birth; and
 - ii. ensuring that all antenatal, labour and birth, and postnatal care services are provided; and
 - iii. ensuring the woman is in receipt of all Ministry of Health information about immunisation and is able to make an informed decision on immunisation and all the applicable Well Child / Tamariki Ora Schedule Services are provided by the DHB-funded LMC to the baby within the first six weeks after birth.
- 5.4.4. For a woman in the first trimester of pregnancy, the DHB-funded LMC or Back-up LMC must provide the following services as required:
- a. inform the woman regarding:
 - i. the roles of the LMC and the services the woman will receive, and
 - ii. the contact details of the LMC and back-up, and
 - iii. the standards of care to be expected, and
 - iv. the provision of appropriate information and education about screening, and offer referral for the appropriate screening tests that the Ministry of Health may, from time to time, notify maternity providers about
 - v. complaints procedures and process for providing feedback about the services provided.
 - b. pregnancy care and advice, including:
 - vi. confirmation of pregnancy, and
 - vii. ensuring that the woman has the Ministry of Health's information for consumers about primary maternity services, and
 - viii. all appropriate assessment and care of the woman
 - ix. advice and support to quit to those women who identify as smokers.

- c. advice if there is a threatened miscarriage, the woman is experiencing a miscarriage or a miscarriage has occurred, including:
 - i. all appropriate assessment and care of the woman, and
 - ii. referral for diagnostic tests and treatment, if necessary
 - iii. ensuring that the woman is fully informed about how to access hospital midwifery services outside of normal business hours
 - d. assessment, care, and advice provided in relation to a termination of pregnancy, including:
 - i. referral for diagnostic tests, if necessary, and
 - ii. referral for a termination of pregnancy
 - iii. referral for pre and post termination counselling.
- 5.4.5. For a woman in the second trimester of pregnancy, the DHB-funded LMC or Back-up LMC must provide all of the following services:
- a. inform the woman regarding:
 - i. the availability of pregnancy and parenting education, and
 - ii. the availability of paid parental leave, if applicable, and
 - iii. if necessary, any of the items of information listed in clause 5.4.3 (a) above
 - b. at the start of the second trimester:
 - i. conduct a comprehensive pregnancy assessment of the woman including, an assessment of her general health, family and obstetric history; a physical examination, and
 - ii. commence and document a care plan to be used and updated throughout the pregnancy, including post natal, that meets the guidelines agreed with the relevant professional bodies, and
 - iii. arrange for the woman to hold a copy of her care plan and her clinical notes (or, if the woman prefers, to be given a copy of her clinical notes following the completion of each trimester)
 - iv. inform the woman of her options for place of birth and place of postnatal stay after the birth
 - c. throughout the second trimester:
 - i. monitor progress of pregnancy for the woman and baby, including early detection and management of any problems, and
 - ii. update the care plan, and
 - iii. provide appropriate information and education, and
 - iv. offer referral for the appropriate screening tests that the Ministry of Health may, from time to time, notify maternity providers about, and
 - d. book in to an appropriate maternity facility or birthing unit (unless a homebirth is planned)
 - e. assessment, care, and advice provided in relation to a termination of pregnancy, including:
 - i. referral for diagnostic tests, if necessary, and
 - ii. referral for a termination of pregnancy
 - iii. referral for pre and post termination counselling

- 5.4.6. For the woman in the third trimester, in addition to the requirements set out in clauses 5.4.3 and 5.4.4, the DHB-funded LMC or Back-up LMC must:
- a. organise appropriate arrangements for care during labour and birth and following birth, including transfer to another facility postnatally and, if possible, organising for the woman to meet any other practitioners who are likely to be involved in her care, and
 - b. discuss and confirm a plan of care for the baby
 - c. provide the Ministry of Health information on immunisation and the National Immunisation Register (NIR) as well as information on Well Child / Tamariki Ora services and providers
 - d. arrange transfer to the primary maternity facility if this is the woman's choice for postnatal stay and is clinically appropriate.
- 5.4.7. For labour and birth services:
- a. the DHB-funded LMC or Back-up LMC is responsible for ensuring that all of the following services are provided:
 - i. all primary maternity care from the time of established labour, from initial assessment of the woman at her home or at a maternity facility and regular monitoring of the progress of the woman and baby, and
 - ii. management of the birth, and
 - iii. all primary maternity care until 2 hours after delivery of the placenta, including updating the care plan, attending the birth and delivery of the placenta, suturing of the perineum (if required), initial examination and identification of the baby at birth, initiation of breast feeding (or feeding), care of the placenta, and attending to any legislative requirements regarding birth notification by health professionals
 - b. the DHB-funded LMC or Back-up LMC must make every effort to attend, as necessary, during labour and to attend the birth, including making every effort to attend a woman as soon as practicable:
 - i. when the woman gives birth at home; or
 - ii. after the woman's arrival at the Facility where she will give birth; or
- 5.4.8. For a homebirth, in addition to clause 5.4.6, the DHB-funded LMC or Back-up LMC must:
- a. arrange for another midwife, general practitioner, or obstetrician to also attend the birth; and
 - b. maintain equipment (including neonatal resuscitation equipment) and provide the delivery pack and consumable supplies; and
 - c. ensure that the DHB-funded LMC or another midwife, general practitioner, or obstetrician remains with the woman for at least 2 hours following the birth of the placenta.
- 5.4.9. For services following birth, the DHB-funded LMC is responsible for ensuring that all of the following services are provided for both the mother and baby:

- a. reviewing and updating the care plan and documenting progress, care given and outcomes, and ensuring that the maternity facility has a copy of the care plan if the woman is receiving inpatient postnatal care, and
- b. postnatal visits to assess and care for the mother and baby in a maternity facility and at home up to 6 weeks after the birth, including:
 - i. a daily visit while the woman is receiving inpatient postnatal care, unless otherwise agreed by the woman and the maternity facility, and
 - ii. between 5-10 home visits, with a minimum of 7 total visits (and more if clinically needed) including 1 home visit within 24 hours of discharge from a maternity facility, and
- c. as a part of the visits in clause 5.4.8(b), examinations of the woman and baby including:
 - i. a detailed clinical examination of the baby within the first 24 hours of birth, and
 - ii. a detailed clinical examination of the baby within 7 days of birth, and
 - iii. a detailed clinical examination of the baby before transfer to a Well Child / Tamariki Ora provider, and
 - iv. a postnatal assessment of the woman at a clinically appropriate time and before transfer to the woman's primary care provider, and
- d. as a part of the visits in clause 5.4.8(b), the provision of care and advice to the woman, including:
 - i. assistance with and advice about breastfeeding and the nutritional needs of the woman and baby, and
 - ii. assessment for risk of postnatal depression and/or family violence, with appropriate advice and referral, and
 - iii. provide appropriate information and education about screening, and
 - iv. offer to provide or refer the baby for the appropriate screening tests specified by the Ministry of Health and receive and follow up the results of these tests as necessary, and
 - v. the provision of Ministry of Health information on immunisation and the National Immunisation Register (NIR) and provision of any appropriate or scheduled immunisations consented to, and
 - vi. the provision of or access to services, as outlined in the Well Child Tamariki Ora National Schedule, and
 - vii. advice regarding contraception, and
 - viii. parenting advice and education, and
 - ix. advice regarding protecting the baby from second-hand smoke.
- e. provide services that meet the requirements of the Baby Friendly Hospital Initiative (BFHI).

5.5. DHB Co-ordinated Primary Midwifery Care

- 5.5.1. Where You provide Co-ordinated Primary Midwifery Care, You are responsible for allocating each woman requiring DHB-funded primary maternity services a named midwife and back up. The named midwife or the Back up is expected to provide the majority of care to that woman.

- 5.5.2. The named midwife or the Back up is responsible for coordinating the primary maternity care for the woman and ensuring continuity of antenatal and postnatal care.
- 5.5.3. With regards to continuity of care:
- a. from the time of allocation of a woman, the named midwife is responsible for co-ordinating care for the woman in order to achieve continuity of care, and
 - b. the named midwife and the Back up is expected to provide the majority of antenatal and postnatal care, and
 - c. there is appropriate documentation for access and updating by providers, other than the named midwife or Back up, when they provide the care, and
 - d. where intrapartum care is not provided by the named midwife or the Back up:
 - i. the named midwife or the back up will ensure the woman is familiar with the birthing facility and fully informed about the process for contacting the facility when in labour, and
 - ii. the care plan will be up to date at the time labour commences and the woman's plan for her care and for her baby's care will be clearly documented in the care plan, and
 - e. the named midwife or Back up is responsible for ensuring that handover to primary care and Well Child / Tamariki Ora services takes place between 4 and 6 weeks postpartum.
 - f. the named midwife or Back up is responsible for informing the woman of her options for place of birth and place of postnatal stay after the birth.
- 5.5.4. The named midwife or the back up will ensure the provision of care as described in clauses 5.4.2 to clause 5.4.5
- 5.5.5. For labour and birth services:
- a. the named midwife or the back up is responsible for ensuring that the care plan for labour and birth is completed and the woman is fully informed about how to access DHB-coordinated primary midwifery services when required, and
 - b. the named midwife or the Back up are responsible for ensuring that all of the following services are provided:
 - i. all primary maternity care from the time of admission to the maternity facility
 - ii. management of the birth, and
 - iii. all primary maternity care until 2 hours after delivery of the placenta, including updating the care plan, attending the birth and delivery of the placenta, suturing of the perineum (if required), initial examination and identification of the baby at birth, initiation of breast feeding (or feeding), care of the placenta, and attending to any legislative requirements regarding birth notification by health professionals, and
 - iv. transfer to a primary maternity facility if this is the woman's choice for postnatal stay and is clinically appropriate.

5.5.6. For services following birth, the named midwife or back up is responsible for ensuring the provision of postnatal care as described in clause 5.4.8.

5.6. DHB-funded Primary Midwifery Services for Women who have a General Practitioner or Obstetrician LMC under the Primary Maternity Services Notice

5.6.1. For labour and birth, You will provide the following midwifery care in conjunction with the woman's GP LMC or Obstetrician LMC, where there is a prior arrangement between You and a GP or obstetrician LMC:¹²

- a. all Hospital Midwifery Services from the time of presentation to the facility until 2 hours after delivery of the placenta

5.6.2. For inpatient services following Birth, the GP or Obstetrician LMC will provide services, in accordance with the Primary Maternity Services Notice, and in conjunction with the DHB-coordinated primary midwifery services until transfer to a primary maternity facility or discharge

5.6.3. For services following Birth, You will assist the GP or Obstetrician LMC to provide the following services to both the mother and baby, where there is a prior arrangement between You and the GP or Obstetrician LMC:

- a. reviewing and updating the care plan and documenting progress, care given and outcomes, and
- b. visits to assess and care for the mother and baby at home until six weeks after the birth, including between five and ten home visits by a midwife or the GP (and more if clinically needed), including one home visit within twenty-four hours of discharge from a maternity facility, and
- c. as part of the visits in clause 5.6.1(b), the provision of care and advice to the woman, including:
 - i. assistance with and advice about breastfeeding and the nutritional needs of the woman and baby, and
 - ii. assessment for risk of postnatal depression and/or family violence, with appropriate advice and referral, and
 - iii. provide appropriate information and education about screening, and
 - iv. offer to provide or refer the baby for the appropriate screening tests specified by the Ministry of Health and receive and follow up the results of these tests as necessary, and
 - v. the provision of Ministry of Health information on immunisation and the National Immunisation Register (NIR) and provision of any appropriate or scheduled immunisations consented to, and
 - vi. the provision of or access to services, as outlined in the Well Child Tamariki Ora National Schedule, and
 - vii. advice regarding contraception, and
 - viii. parenting advice and education.

¹² Note that the obligations of an LMC using facility midwifery services during labour and birth are contained in clause DA23 (4) (a-d) of the Primary Maternity Services Notice.

5.7. Emergency transfer from community settings and primary maternity facilities to secondary and/or tertiary maternity services

- 5.7.1. Where the DHB has clinical responsibility for the woman and/or her baby, and the woman and/or her baby is being transferred from a community setting or Primary Maternity Facility to a Secondary or Tertiary Maternity Facility, the DHB-funded Primary Maternity Services Provider is responsible for providing an appropriately qualified escort during the transfer.
- 5.7.2. Where an LMC funded under the Primary Maternity Services Notice has clinical responsibility for the woman and/or her baby and the woman and/or her baby is being transferred from a community setting or Primary Maternity Facility to a Secondary or Tertiary Maternity facility, the LMC is responsible for providing the escort during the transfer.

5.8. Discharge from DHB-funded Primary Maternity Services

- 5.8.1. Where You have been responsible for providing DHB-funded primary midwifery care during the postnatal care period, You will ensure a referral of the baby to a local Well Child / Tamariki Ora provider takes place by end of the fourth week following birth.
- a. The referral to a Well Child / Tamariki Ora provider must be written and must meet the guidelines agreed between the New Zealand College of Midwives and Well Child / Tamariki Ora providers.
 - b. You will ensure that a transfer of the care of the baby to a Well Child / Tamariki Ora provider takes place before 6 weeks from birth.
 - c. If the baby has unusually high needs, You may request that a Well Child / Tamariki Ora provider becomes involved as early as 2 weeks from birth to provide concurrent and co-ordinated care with You.
- 5.8.2. A transfer of the care of the woman and the baby from You to the woman's primary health services provider must be completed by 6 weeks from birth.
- a. You must give a written or electronic referral to the woman's general practitioner that meets the guidelines agreed by the New Zealand College of Midwives and the Royal New Zealand College of General Practitioners, before discharge from Your primary maternity services.
 - b. If a woman does not have a regular general practitioner, You will inform the woman about primary care providers in the local area.

5.9. Referrals for ultrasound

- 5.9.1. Referrals for ultrasound scans must be only for an approved clinical indication for ultrasound in pregnancy, in accordance with clause DC11 of the Primary Maternity Services Notice.
- 5.9.2. Referrals for ultrasound scans must also include the date of referral and the appropriate clinical indication for ultrasound in pregnancy code.

6. Key Inputs

- 6.1. Where You provide Lead Maternity Carer and DHB Co-ordinated Primary Midwifery Care, it must be provided by a registered health practitioner who is
- a. a general practitioner with a Diploma in Obstetrics (or equivalent, as determined by the New Zealand College of General Practitioners); or
 - b. a midwife; or
 - c. an obstetrician.

7. Service Linkages

For the purpose of clarifying service boundaries, the Service is linked to but does not include the following:

Service Provider	Nature of Linkage	Accountabilities
Primary maternity care services, funded under the Primary Maternity Services Notice	<p>Liaison and consultation processes</p> <p>Maintain linkages with local General Practitioner and Obstetric LMCs who arrange to use hospital midwifery services.</p>	<p>The DHB-funded primary maternity service is interdependent with LMC services funded under the Primary Maternity Services Notice.</p> <p>Establish relationships between DHB-funded primary maternity service and LMC services funded under the Primary Maternity Services Notice.</p> <p>Where a medical LMC requires access to hospital midwifery services, a prior arrangement with a maternity facility on the use of its hospital midwifery services must be made. This arrangement is in addition to the Access Agreement between the LMC and the Facility.</p>
Secondary Maternity or Tertiary Maternity Services and Maternity Facility Services and any other related	Liaison and consultation processes.	Clinical consultation and referral services that support continuity of care.

Service Provider	Nature of Linkage	Accountabilities
services within the DHB's provider arm		
Well Child / Tamariki Ora Services	Liaison and consultation processes.	DHB-funded primary maternity services will maintain linkages and have clear pathways for referrals with local providers of Well Child / Tamariki Ora services.
Primary Care/General Practice	Liaison and consultation processes.	DHB-funded primary maternity services will maintain linkages and have clear pathways for referrals with local providers of primary health services, including PHOs and General Practice.
Emergency department Services	Liaison and consultation processes.	Clinical consultation and referral services for anyone with illness, injury or obstetric complications that require or is perceived to require immediate assessment and/or treatment that could not appropriately be provided in a basic primary care setting (including a General Practice surgery, or an Accident and Medical Clinic).
Neonatal Services	Liaison and consultation processes.	The secondary maternity services provides Paediatrician services for babies who, in reference to the Maternity Referral Guidelines, require a Specialist consultation but who do not come within the definition of Neonatal Services.
Gynaecology Services	Liaison and consultation processes.	Specialist consultations and Inpatient services that relate to pregnancy may be provided as part of gynaecology

Service Provider	Nature of Linkage	Accountabilities
		services until the pregnancy is of 20 weeks 0 days gestation. This may include services for termination of pregnancy and miscarriage.
Public Health Services	Liaison and consultation processes.	Support health promotion and education strategies for women and babies.
Counselling services, drug and alcohol services and maternal mental health services	Liaison and consultation processes.	Clinical consultation and referral services that support continuity of care, and meet each woman's clinical need.
Support with grief and loss for families that experience bereavement or adverse outcomes.	Liaison and consultation processes.	Clinical consultation and referral services that support continuity of care, and meet each woman's clinical need.
Other Government and NGO health and social services	Referral and liaison.	Ensure there is a seamless service that supports continuity of care.
Māori Provider Services	Liaison and consultation processes	Clinical consultation and referral services that support continuity of care, and meet each woman's clinical need.

8. Quality Requirements

The Service must comply with the Provider Quality Standards described in the Operational Policy Framework or, as applicable, Crown Funding Agreement Variations, contracts or service level agreements.

Refer to the Maternity Services tier one service specification.

8.1 Ultrasound Scans

A maternity provider who provides an ultrasound scan as part of this Service must provide the following service:

- a. conduct an ultrasound scan according to the quality standards recognised by the Royal Australian and New Zealand College of Obstetricians and Gynaecologists

(RANZCOG) and the Royal Australian and New Zealand College of Radiologists (RANZCR)

- b. ensure that a qualified Sonographer, qualified Radiologist (or registrar under their supervision) or an obstetrician with a Diploma of Diagnostic Ultrasound (Dip DU) or equivalent as determined by the RANZCOG is available to tailor the examination to the clinical situation by:
 - being physically present at the place where the examination is being preformed, or
 - when using teleradiology, being available to review the transmitted diagnostic images before the woman’s departure from the place where the scan is conducted
- c. obtain a permanent visual record of the scan
- d. provide the referring practitioner, midwife, obstetrician or family planning practitioner with a written interpretation of the scan by a radiologist with a Dip DU or equivalent as determined by the RANZCOG in a timely manner.

9. Purchase Units and Reporting Requirements

Purchase Units are defined in the joint DHB and Ministry of Health’s Nationwide Service Framework Data Dictionary. The following Purchase Units apply to this Service.

PU Code	PU Description	PU Definition	PU Measure	PU Measure Definition	National Collections and Payment Systems
W01007	DHB non-specialist antenatal consults	Antenatal consults by a DHB non-specialist practitioner providing maternity care to a woman.	W01007	Contact	Non Admitted Patient Collection (NNPAC)
W01008	DHB non-specialist postnatal consults	Postnatal consults by a DHB non-specialist practitioner providing maternity care to a woman and her baby(s). May also include visits to the woman's home. Also includes consults where DHB midwives are supporting an obstetrician or GP LMC funded under the section 88 Notice.	W01008	Contact	NNPAC
W01020	DHB Primary Maternity	DHB-funded maternity ultrasounds referred	Procedure	The number of individual operative/diagnostic/	NNPAC

	Ultrasound	by a community LMC or DHB non-specialist practitioner. Excludes ultrasounds referred by a DHB specialist as part of a specialist assessment.		assessment procedures in the period.	
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The Service must comply with the reporting requirements of national data collections where available.

9.1 Additional reporting requirements

Specific reporting requirements to the National Maternity Collections are detailed in Appendix 1.

Appendix 1

Reporting to National Maternity Collections

You will collect and retain the following information on all mothers and babies utilising DHB-funded primary maternity services:

- a. Mother NHI
- b. Mother Date of Birth
- c. Mother Ethnicity at allocation
- d. Mother Height at allocation
- e. Mother Weight at allocation
- f. Smoking status at allocation, specified as:
 - i) Non smoker
 - ii) Less than 10 cigarettes per day
 - iii) Between 10 and 20 cigarettes per day
 - iv) More than 20 cigarettes per day
- g. Estimated Date of Delivery
- h. Gravida
- i. Parity
- j. Last Menstrual Period
- k. Antenatal Midwife Registration Number
- l. First Antenatal Date of Service
- Number of Antenatal Visits — First Trimester
- m. Number of Antenatal Visits — Second Trimester
- n. Number of Antenatal Visits — Third Trimester
- o. Delivery Date
- p. Birth at Home Indicator (Y or N)
- q. Vaginal Birth After Caesarean Indicator (Y or N)
- r. Number of Visits Inpatient Postnatal Stay
- s. Number of Postnatal Home Visits
- t. Postnatal Midwife Registration Number
- u. Baby NHI
- v. Baby Date of Birth

- w. Baby Sex
- y. Baby Ethnicity
- z. Baby Birth Weight
- aa. Apgar score at 5 minutes
- ab. Gestational Age at Birth
- ac. Baby Birth Condition (Live Born or Still Born)
- ad. Breast-feeding status at 2 weeks, specified as:
 - i) Exclusive
 - ii) Fully
 - iii) Partial
 - iv) Artificial
- ae. Breast Feeding status at discharge from midwifery care (4–6 weeks post birth), specified as:
 - i) Exclusive
 - ii) Fully
 - iii) Partial
 - iv) Artificial
- af. Mother’s smoking status at 2 weeks after birth, specified as:
 - i) Not smoking
 - ii) Less than 10 cigarettes per day
 - iii) Between 10 and 20 cigarettes per day
 - iv) More than 20 cigarettes per day
- ag. Neonatal Death Indicator (Y or N)
- ah. Maternal Death Indicator (Y or N)
- ai. Last Postnatal Visit Date of Service
- aj. Referral to Well Child / Tamariki Ora Provider, specified as:
 - i) Plunket
 - ii) Other
 - iii) Woman declined referral to Well Child / Tamariki Ora Provider
- ah. Referral to GP, specified as:
 - i) Yes
 - ii) Woman declined Referral to GP
- ai. Type of service the woman received, specified as:
 - i) DHB LMC Services
 - ii) DHB coordinated primary midwifery care
 - iii) Hospital midwifery services
- ak. DHB of Service

This information will be made available to the Ministry of Health on request. The Ministry of Health will work with DHBs on a means of submitting this information to national collections on a regular basis.

APPENDIX 4 — THE FONOFALE MODEL OF HEALTH

The Fonofale model was created by Fuimaono Karl Pulotu-Endemann as a Pacific Island model of health for use in the New Zealand context. The Fonofale model is named after Fuimaono Karl's maternal grandmother, Fonofale Talauega Pulotu Onofia Tivoli.

A description of the Fonofale model first appeared in 1995 in the Ministry of Health report Strategic Directions for Mental Health Services for Pacific Island People. However, the model's development dated back to 1984, when Fuimaono Karl was teaching nursing and health studies at Manawatu Polytechnic. The model underwent many changes prior to 1995.

The Fonofale model incorporates the values and beliefs that many Samoans, Cook Islanders, Tongans, Niueans, Tokelauans and Fijians had told Fuimaono Karl during workshops relating to HIV/AIDS, sexuality and mental health from the early 1970s to 1995. In particular, these groups all stated that the most important things for them included family, culture and spirituality. The concept of the Samoan fale, or house, was used as a way to incorporate and depict a Pacific way of what was important to the cultural groups as well as what the author considered to be important components of Pacific peoples' health. The Fonofale model incorporates the metaphor of a house, with a roof and foundation.

The roof

The roof represents cultural values and beliefs that is the shelter for life. These can include beliefs in traditional methods of healing as well as western methods. Culture is dynamic and therefore constantly evolving and adapting. In New Zealand, culture includes the culture of New Zealand-reared Pacific peoples as well as those Pacific peoples born and reared in their Island homes. In some Pacific families, the culture of that particular family comprises a traditional Pacific Island cultural orientation where its members live and practise the particular Pacific Island cultural identity of that group. Some families may lean towards a Palagi orientation where those particular family members practise the Palagi values and beliefs. Other families may live their lives in a continuum that stretches from a traditional orientation to an adapted Palagi cultural orientation.

The foundation

The foundation of the Fonofale represents the family, which is the foundation for all Pacific Island cultures. The family can be a nuclear family as well as an extended family and forms the fundamental basis of Pacific Island social organisation.

The pou

Between the roof and the foundation are the four pou, or posts. These pou not only connect the culture and the family but are also continuous and interactive with each other. The pou are:

Spiritual — this dimension relates to the sense of wellbeing which stems from a belief system that includes either Christianity or traditional spirituality relating to nature, language, beliefs and history, or a combination of both.

Physical — this dimension relates to biological or physical wellbeing. It is the relationship of the body — which comprises anatomy and physiology — to physical or organic substances such as food, water, air, and medications that can have either positive or negative impacts on the physical wellbeing.

Mental — this dimension relates to the health of the mind, which involves thinking and emotion as well as behaviours expressed.

Other — this dimension relates to variables that can directly or indirectly affect health such as, but not limited to, gender, sexual orientation, age, social class, employment and educational status.

The fable is encapsulated in a cocoon whose dimensions have direct or indirect influence on one another. These dimensions are:

Environment — this dimension addresses the relationships and uniqueness of Pacific people to their physical environment. The environment may be a rural or an urban setting.

Time — this dimension relates to the actual or specific time in history that impacts on Pacific people.

Context — this dimension relates to the where/how/what and the meaning it has for that particular person or people. The context can be in relation to Pacific Island-reared people or New Zealand-reared people. Other contexts include politics and socio-economics.