The 5th Annual Report for the NMMG

2017

Annual Report

National Maternity Monitoring Group

DISCLAIMER

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Abbreviations used in this report

AFE	Amniotic fluid embolism
BPS	Better Public Services
DHB	District Health Board
HQSC	Health Quality & Safety Commission
LARC	Long-acting Reversible Contraceptives
LMC	Lead Maternity Carer
MMWG	Maternal Morbidity Working Group
MQI	Maternity Quality Initiative
MQSP	Maternity Quality and Safety Programme
MUAG	Maternity Ultrasound Advisory Group
NMMG	National Maternity Monitoring Group
PHO	Primary Health Organisation
PMMRC	Perinatal and Maternal Mortality Review Committee
PPH	Post-partum haemorrhage
RANZCOG	Royal Australian and New Zealand College of Obstetricians and Gynaecologists

Message from the Chair

JOHN TAIT

It is a pleasure to be serving as Chair of the National Maternity Monitoring Group. I have been working alongside my colleagues on the Group since 2012. I appreciate the efforts made by the NMMG and the whole maternity services sector over the last twelve months.

Consistent and collaborative leadership is key to delivering better maternity outcomes. This year, the NMMG has had opportunities to think about how we work together with other groups and the maternity sector to strengthen leadership and better understand the dynamics affecting maternity service providers and their quality improvement programmes. Our focus on working well together includes understanding the role of each maternity sector group to support a strategic approach in how we lift the quality of maternity services in New Zealand. We want to avoid duplication and leverage each other's strengths to advance our shared objectives as effectively as possible. We are looking forward to developing deeper and more collaborative relationships with other maternity advisory groups to continue providing a coordinated, multidisciplinary voice for the sector.

I appreciate the efforts made by the NMMG and the whole maternity services sector in delivering and supporting our 2016/17 work programme. In particular I would like to acknowledge the previous NMMG Chair, Norma Campbell, and outgoing NMMG members Beverley Lawton, Elaine Langton, and Margaret Norris. On behalf of the NMMG, thank you for your commitment to improving maternity in New Zealand and the valuable contributions you have each made during your time on the NMMG. I would also like to thank the remaining sitting members of the NMMG and welcome our four new members: Deb Pittam, Jeanine Tamati-Elliffe, Mary Matagi, and Sue Tutty, who joined the NMMG in July 2016. This important work would not be possible without you and I look forward to our future and developing work together.

Messages from the NMMG Consumer Representatives

ROSE SWINDELLS

It has been a fascinating role to be a consumer representative on the NMMG for almost four years. Across New Zealand, there is now an amazing network of consumers who serve on their DHB's Maternity Quality and Safety Programmes (MQSP). We are women from all over the country with a diversity of experiences, backgrounds, and priorities. We have networks into our communities and bring the experiences and stories we hear with us in our work.

Being a consumer representative can be both unsatisfying and awkward. It is our job to be outside the culture of the maternity professions. As a consumer, I am there to ask for clarification, to ask the dumb questions. Our questions can open things up, meaning clinicians need to explain the principles underpinning their knowledge. The most important question we ask in every meeting is "How does that affect the mother and baby?"

It is very tempting as a consumer to be part of one camp. We are lucky to have a maternity system that is woman-centred in New Zealand, but there are still different philosophies and politics in the sector. I think it is important that we stay out of them to stand up for the women in New Zealand who have diverse needs and desires for their births and their babies.

Another awkward part of the role in our current system is the way our consumer representatives are appointed. We have not been appointed by the women of New Zealand to represent them – in fact we have been appointed by the Ministry of Health and DHBs – the very organisations that we need to question and critique in our roles. As women with strong ethics, we feel accountable but as we are not elected there is no mechanism to hold us to account.

Despite these awkward parts of the role, consumer representatives are an essential component to guaranteeing that the NMMG and MQSPs are meaningful. For me this means holding onto three things in every meeting I attend.

I always hold onto the experience. Often clinicians can seem flippant – I get that: it's part of coping with a stressful job. But for me, the consumer, the experience is everything. I have to try to live that – understand what it would have felt like.

I always hold onto the long term. We are not just maternity consumers – we are people whose pregnancies, births, and babies are part of our whole lives. How does this experience affect me, my baby, my family in the long run; and what story do I tell my children about their births in 10 years when they ask me?

I always hold onto the quality. Women and babies need to be treated with respect, care, and empathy in all their experiences in the maternity system. When women feel empowered and safe we are enabling them to be the best mothers they can be – and these are the mothers of our future Prime Ministers, All Blacks, teachers, and midwives! Quality is about staff taking time to understand, listen, and navigate the system alongside women and valuing the time, care, and kindness taken as much as the clinical details.

When the NMMG and MQSP has consumers at the fore, it means that the lived experience is never far away. Our role as consumer representatives is to ask those awkward questions over and over; and when we do, we make a real difference.

> "How does that affect the mother and baby?"

JEANINE TAMATI-ELLIFFE (KĀI TAHU, TE ATIAWA)

For me, this whakataukī epitomises the role I am fortunate to have as a consumer representative on the NMMG. In the context of our maternity system here in Aotearoa, this epithet speaks of the importance of ensuring quality in what and how we do things, to always strive for the best outcomes for all wāhine, their pēpi and their whānau - so that our whānau will thrive.

As a consumer representative I am constantly considering and drawing upon my own experiences of hapūtaka and whānautaka as well as that of my own hākui and my many tāua, aunties, cousins, sisters, nieces and friends. As one of two consumer representatives on the NMMG, I do my best to provide insight, considerations and at times clarity from my own perspective as a wahine Kāi Tahu, and a māmā who has birthed and is raising five tamariki. I am a passionate advocate committed to playing my part to improve our current and future maternity system so that our wāhine feel empowered to engage in and utilise maternity services that are reflective of their needs.

Unlike many wāhine Māori that I know, I have had the privilege of birthing or receiving care that has reflected and embraced my own cultural needs and aspirations. Consequently, I feel a sense of obligation as well as excitement at working alongside the valued members of the NMMG, the majority of whom are experts and fierce exponents in their profession, positively influencing and improving the quality and safety of maternity programmes throughout the country.

For me this lies in our willingness to embrace whakaaro Māori into the discussion so that uara Māori are considered and at best, adopted in order to improve the engagement and experience of our whānau in our maternity system. An important part of increasing engagement is ensuring that the values, needs and aspirations of our whānau are embraced and ultimately reflected in the maternity system. Implementing universal values such as manaakitaka and aroha into the practice of maternity care, education, and support will not only ensure our pēpi have the opportunity to have the best possible start in life, but it also supports our wāhine and their whānau to be the best kaitiaki that they can be.

Throughout my journey as a consumer member on the NMMG over the past 12 months, I certainly feel that these values are genuinely being considered and adopted into our discussions, and I feel very honoured to be a contributor to this group which is dedicated to improving health outcomes for us, as māmā and for our children and future mokopuna.

Mō tātou, ā, mō kā uri ā muri ake nei.

Ka whakarērea te puha,
Ka whai ki te matariki

About the NMMG

The NMMG was established in 2012 by the Ministry of Health as part of the Maternity Quality Initiative (MQI). This report is for the 18 months from July 2016 to December 2017.

The *New Zealand Maternity Standards* (2011) consist of three high-level strategic statements, illustrated below in Figure 1, to guide the planning, funding, provision, and monitoring of maternity services in New Zealand.

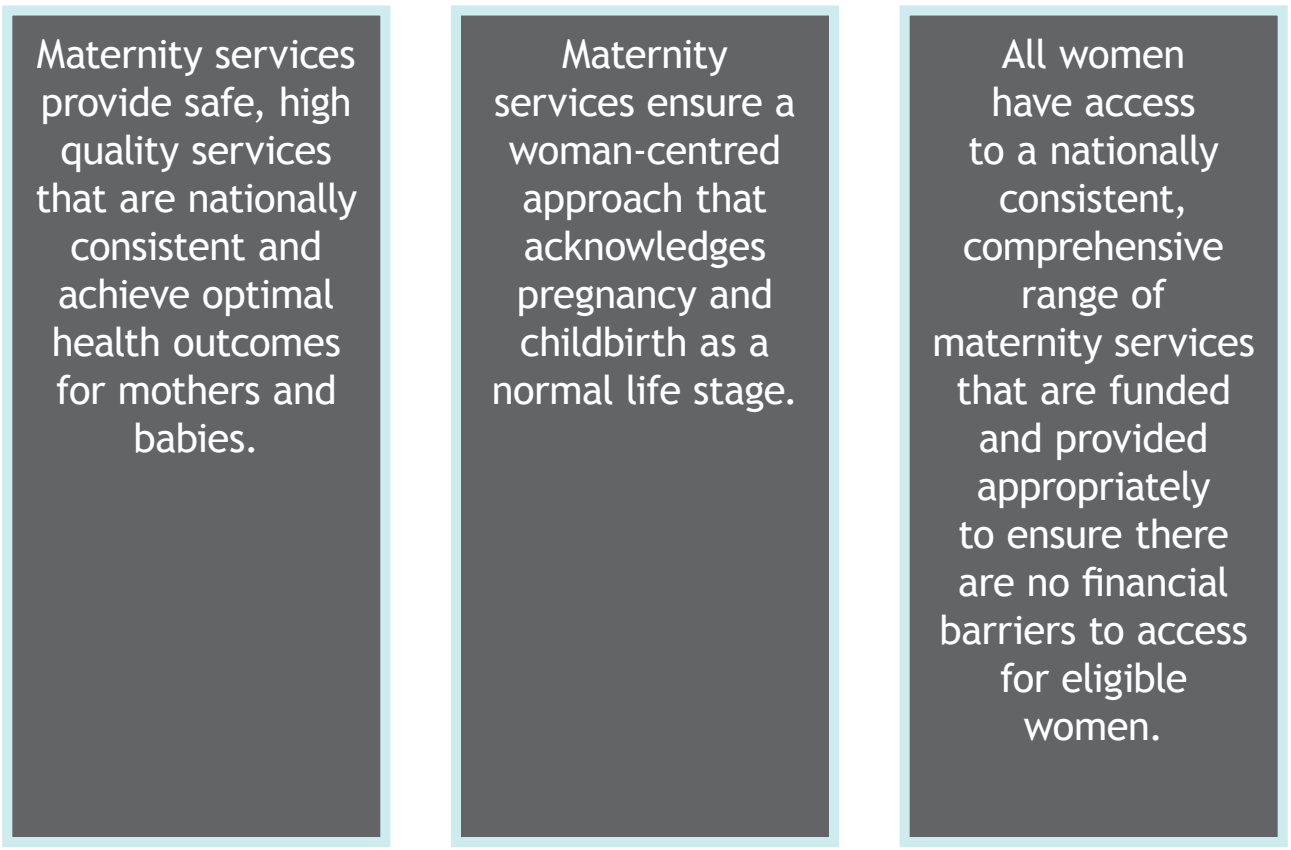


Figure 1: New Zealand Maternity Standards strategic statements

These high-level statements are accompanied by specific audit criteria and measurements. One of the criteria is that a national monitoring group be established to oversee the maternity system and the implementation of the *New Zealand Maternity Standards*.[1] Ultimately, the NMMG acts as a strategic advisor to the Ministry of Health on areas for improvement in the maternity sector, provides advice to DHBs on priorities for local improvement and provides a national overview of the quality and safety of New Zealand's maternity services.

1 Ministry of Health. 2011. *New Zealand Maternity Standards*. Wellington: Ministry of Health.

The MQI (which included the establishment of the NMMG) is underpinned by four key priorities, illustrated in Figure 2.

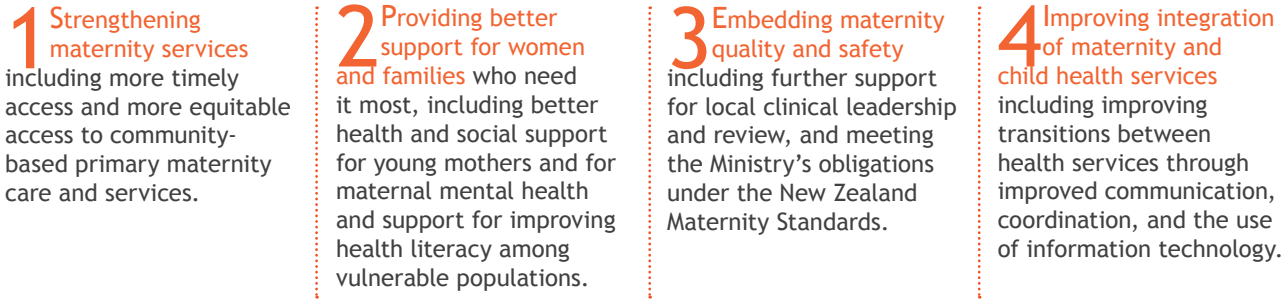


Figure 2: Key priorities of the Maternity Quality Initiative

As well as reflecting the *New Zealand Maternity Standards* and the MQI, the NMMG's 2016/17 work programme aligned to the priorities set out in the refreshed *New Zealand Health Strategy*[2] and Roadmap of Actions. Together, the MQI, the Maternity Standards, and the *New Zealand Health Strategy* provide guidance on how the NMMG and maternity stakeholders can work together in the future to ensure that women and babies live well, stay well, and get well if they are sick. For the second year, the NMMG work programme was aligned with the overarching objectives of the *New Zealand Health Strategy*.

In line with our brief to oversee the *New Zealand Maternity Standards*, the NMMG met six times in 2016 and 2017. We discussed the implementation of our work programme and our priorities to improve the quality, safety, and experience of maternity care in New Zealand, improve health and equity for women and babies, and support best value for public health system resources.

2 Minister of Health. 2016. *New Zealand Health Strategy: Roadmap of Actions 2016*. Wellington: Ministry of Health.

NMMG Members

John Tait (Chair)

John is a consultant obstetrician and gynaecologist and New Zealand Vice President of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG). He is the Chief Medical Officer at Capital & Coast DHB and continues to practise in the public sector in gynaecology. John has been involved in several expert advisory groups including developing and supporting the Maternity Quality and Safety Programme (MQSP).

Judith McAra-Couper (Vice-Chair)

Judith is Chair of the Midwifery Council and the Head of Midwifery at Auckland University of Technology. Judith is an Associate Professor and Director of the Centre for Midwifery and Women's Health Research. She is involved in several research projects including maternal mental health, sustainability of midwifery practice, and place of birth. Judith regularly works in Bangladesh in midwifery education with organisations such as the United Nations Population Fund (UNFPA). She has worked in Counties Manukau Health for many years and continues to be involved in this community.

Deb Pittam

Deb is a registered midwife with a Masters in Midwifery. She has worked in both employed and self-employed midwifery settings and in both rural and urban practice. Deb is President of the New Zealand College of Midwives and Midwifery Director and Service Manager (Maternity Services) at Northland District Health Board. She is a member of the Neonatal Encephalopathy Taskforce and the Midwifery Advisor for the Waikato DHB women's health Transformation Taskforce. She is committed to the midwifery profession and the provision of high quality midwifery and maternity care for all New Zealand women, their babies, and whānau.

Frank Bloomfield

Frank is a neonatal paediatrician at National Women's Health, Auckland City Hospital, Director of The Liggins Institute, and Professor of Neonatology at the University of Auckland. He has held leadership positions with the Perinatal Society of Australia and New Zealand, and the Perinatal Society of New Zealand. Frank is currently a council member of the Perinatal Research Society (USA). He also leads a large research group investigating perinatal care at The Liggins Institute, University of Auckland. He contributed to the Working Group on Maternity Standards.

Jeanine Tamati-Elliffe

Jeanine is a mother of five tamariki and is currently working as a Kaiārahi Māori for the University of Canterbury's Office of the Assistant Vice-Chancellor (Māori). In addition, Jeanine runs her own consultancy business, Manawa Tītī Ltd providing services in the areas of health (tobacco control, child and maternal health), te reo Māori (language planning and revitalisation), advocacy and strategy development. Jeanine is a founding and current board member for a charity organisation focused on te reo revitalisation called Māori 4 Kids Inc and is also a trustee for the Brainwave Trust Aotearoa, and Arts on Tours Trust.

Mary Matagi

Mary is a Pacific midwife consultant and childbirth educator. Mary has held various roles within the midwifery profession, including being a DHB community midwife, a clinical midwife specialist, a Pasifika midwifery advisor, and a midwifery lead/educator for a multi-centre clinical trial through The Liggins Institute.

A strong advocate for Pasifika peoples, Mary is a founding member and pioneer of the Pasifika Midwives Aotearoa group which resulted in the establishment of the Pasifika arm of the New Zealand College of Midwives.

Rachael McEwing

Rachael works at Christchurch Women's Hospital and in a private practice for Christchurch Radiology Group, almost exclusively in Obstetric and Gynaecology imaging. She is a Fellow of the Royal Australian and New Zealand College of Radiologists, and an advisor to the National Screening Unit on first trimester screening. Rachael is a member of the Maternity Ultrasound Advisory Group (MAUG) and the New Zealand Fetal Maternal Medicine Governance Board.

Rose Swindells

Rose is a mother with a passion for community development. She is an adult literacy tutor, antenatal facilitator, and is involved with Playcentre. Rose served as a consumer member on the Capital & Coast DHB Maternity Quality panel before joining the NMMG and sees her work in this area as part of the wider system which aims for women to feel empowered, knowledgeable, calm, and confident in their birth experience.

Sue Tutty

Sue is a Fellow of the Royal New Zealand College of General Practitioners and on the Auckland faculty board of the College. She has worked as a GP in South Auckland for over 20 years and currently practices at East Tāmaki Healthcare, East Tāmaki branch. Since 2015, Sue has also been working part-time as a GP Liaison at Counties Manukau Health, primarily in Women's Health. Sue is a member of the Maternal Mortality Review Working Group of the Perinatal and Maternal Mortality Review Committee (PMMRC).

Bronwen Pelvin (ex officio)

Bronwen is the Ministry of Health's Principal Advisor (Maternity). A midwife with more than 40 years of experience, Bronwen has worked as a domiciliary midwife, a community-based Lead Maternity Carer (LMC), a core midwife, and a maternity manager. She worked as the national midwifery advisor for the New Zealand College of Midwives; and was also the Professional Midwifery Advisor for Nelson Marlborough DHB before joining the Ministry in 2008. She has been involved in the MQI and implementing the MQSP in DHBs. She has been involved in the co-design process for a new funding and contracting model for community based LMC midwives.

Sue Belgrave (ex officio)

Sue is the current Chair of the PMMRC. She is a consultant obstetrician and gynaecologist at North Shore and National Women's Hospitals. She is a local coordinator at Waitematā DHB for the PMMRC and an advisor on ultrasound in Obstetrics and Gynaecology. Sue is also a training supervisor for RANZCOG.

An overview of the NMMG's recommendations for 2017

Several things need to happen to ensure the continued improvement of maternity services in New Zealand. Many of these items reflect and will support the achievement of specific actions within the New Zealand Health Strategy. Below, we outline those areas in which we expect to see action from key maternity stakeholders.

Workforce

Staffing is an important issue that significantly impacts quality and safety. DHBs need to review basic staffing for midwifery and medical workforces, ensuring that a safe and high-quality service is supported. The workplace culture must enable staff to work collaboratively, feel safe and supported, and maternity services must be women-centred.

MQSP Annual Reports

DHBs' MQSP Annual Reports need to be presented to a high standard, include appropriate and effective representation of data; be user-friendly/consumer focused; be publicly available; and ensure that the loops are closed between identifying an issue, responding to it and then reviewing and discussing outcomes. The reports need to include a clear response to NMMG priorities, developing quality improvement projects.

Place of birth

DHBs should support low-risk women to birth at primary facilities, and support women who choose to birth at home: the Ministry should convene a national meeting with representatives from across the sector to discuss what can be done to support low-risk women to give birth at primary facilities or at home.

Maternity clinical indicators

DHBs that have high rates of induction of labour and caesarean sections for standard primiparae should investigate why the rates of intervention for this group of women are above average.

Connecting sector leadership

All DHBs should be working towards implementing recommendations made by the PMMRC and its sub-committees (Maternal Mortality Working Group, Maternal Morbidity Working Group, Neonatal Encephalopathy Working Group), and the Neonatal Encephalopathy Taskforce.

Equity

Postpartum contraception options (including long-acting reversible contraceptives (LARC)) should be discussed with all postpartum women. Women should be given a range of options; comprehensive information about risks and benefits; and they should have equitable access to the contraception of their choice.

Maternal mental health

DHBs should evaluate the use and effectiveness of maternal mental health pathways. Maternal mental health outcomes need to be reported, and the impact of the maternal mental health pathways need to be evaluated. Access to primary maternal mental health (including drug and alcohol addiction services) for pregnant and postpartum women should be improved to avoid unnecessary escalation to acute services.

The Ministry should convene a national meeting with representatives from across the sector to discuss what can be done to support maternal mental health.

Ultrasounds

The Ministry of Health should act upon the recommendations of the MUAG as soon as possible. The NMMG considers that there is value in establishing a multidisciplinary committee to support the timely and effective implementation of the MUAG's recommendations.

On the following pages, we describe our work for 2016 and 2017 (our workplan is illustrated in Figure 5). We explain why we chose to focus on specific topics, our findings, and areas for further improvement. We also share examples of good practice and useful statistics, beginning with a summary graphic produced by the New Zealand College of Midwives (NZCOM).

MIDWIFERY CARE MATTERS

The various reports providing up to date and robust data on the New Zealand maternity system state:

- more women registering early with a midwife than ever[1]
- fewer women smoking during pregnancy and after birth[1]
- less teenage births
- a small but important increase in the proportion of women having a normal (no intervention) birth and spontaneous vaginal birth[1]
- the overall caesarean section rate is trending down since 2013[1]
- a slight increase in breastfeeding rates at 2 weeks[1]
- a reduction in SUDI (cot death)[4]
- 98% of babies are referred onto the next public health service provided by Plunket or Well Child Services[1]
- Immunisation rates are improving[3]

To continue to improve outcomes for mothers and babies, midwives need more support and sustainable funding from government and DHBs.

The Health and Disability Commissioner recently publically stated:

> "New Zealand has been improving significantly over time... we compare well with international comparators... the midwifery model in New Zealand is a safe and sound model and is working well and the stats very much support that."
>
> http://www.radionz.co.nz/news/national/336824/midwifery-investigation-numbers-no-surprise

Significant reductions in perinatal birth related mortality:

- a statistically significant reduction in the stillbirth rate[2]
- a significant reduction in fetal deaths (stillbirths and late terminations of pregnancy combined)[2]
- a significant reduction in late terminations[2]
- a significant reduction in baby deaths from hypoxia (lack of oxygen), baby death from antepartum haemorrhage and fetal growth restriction[2]
- the number of babies experiencing oxygen deprivation at birth is trending down[2]

The social context.

- the main cause of death for babies is prematurity[2]
- the main cause of death for mothers is suicide[2]
- mothers and babies who live in poverty and have drug, alcohol and mental health issues are the most at risk of dying[2].

1. Report on Maternity 2015. Wellington. Ministry of Health. 2017.
2. 11th Annual Report of the PMMRC. Reporting mortality & morbidity 2015. Wellington: Health Quality & Safety Commission, 2017.
3. https://www.health.govt.nz/our-work/preventative-health-wellness/immuunisation/immunisation-coverage/national-and-dhb-immunisation-data
4. Child and Youth Mortality Review Committee 12th data report 2011–15. New Zealand Mortality Review Data Group, University of Otago 2016.

NEW ZEALAND COLLEGE OF MIDWIVES (INC)

Figure 3: The New Zealand College of Midwives 'snapshot' of maternity care

The NZCOM website Find Your Midwife continues to attract an increasing number of website visitors, as illustrated in Figure 4.

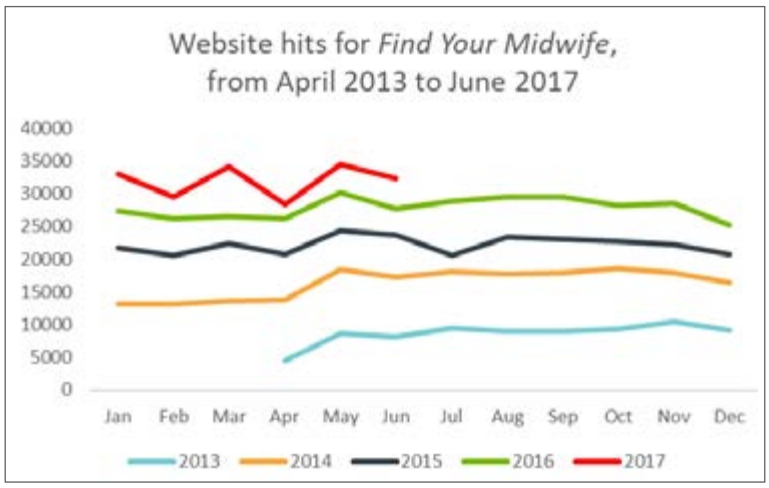


Figure 4: Website hits for *Find Your Midwife*

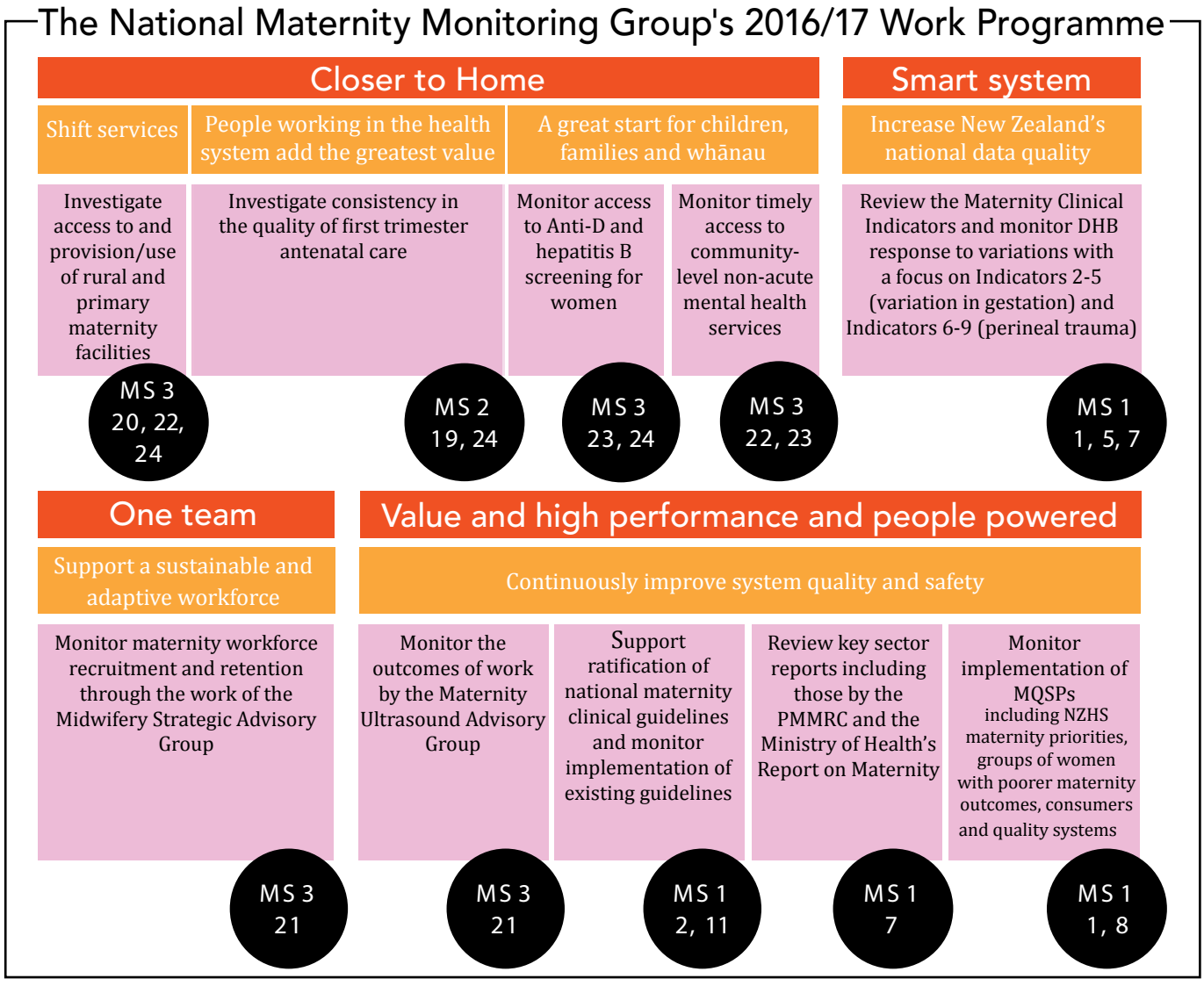


Figure 5: The NMMG's 2016/17 Work Programme

Value and high performance and people powered

Continuously improve system quality and safety

Monitor implementation of DHB MQSPs, including New Zealand Health Strategy maternity priorities, groups of women with poorer maternity outcomes, consumers, and quality systems

Our focus for 2016/2017 was to concentrate our monitoring efforts on DHBs in the 'establishing' tier.

The NMMG is responsible for overseeing the New Zealand maternity system and for providing strategic advice to the Ministry of Health on priorities for improvement. Monitoring the implementation of quality systems is important to ensure that the MQSP contributes to safer outcomes for mothers and babies.

What we did and our key findings

We reviewed each DHB's 2016 MQSP Annual Report to determine how they align work to improve the quality of maternity services within broader quality initiatives, and to determine the extent to which DHBs have progressed toward achieving identified strategic objectives.

We found that:

- DHBs had consistently responded to previous NMMG recommendations, and that the priorities for DHB MQSPs are generally well identified and are well aligned with the priorities identified by the NMMG. For example, most DHBs were responsive to maternal mental health as a priority.
- In most of the reports, DHBs discuss their Clinical Indicators data, generally providing reasons for any variability. Most DHBs collect outcomes data and have processes in place to monitor the quality of local data collection in support of their Clinical Indicators reporting.
- Evaluation of DHB MQSP programmes and initiatives remains an area for improvement across DHBs. In particular, better evaluation and monitoring within excelling DHBs is an opportunity for best practise to be identified and implemented more widely.

We reviewed five DHB external reviews and identified key themes about the ways in which maternity services need to improve.

Since 2012, the following DHBs have undergone external reviews of their maternity services:

- Counties-Manukau Health;
- Mid Central and Whanganui DHBs (Regional Women's Health Service Maternity Services);
- Waikato DHB; and
- South Canterbury.

We found a strong degree of consistency in the range of service improvement recommendations made across each of the DHB external reviews. Recommendations include that DHBs need to ensure that maternity and women's health services are governed by clear, visible, informed, and committed leadership, that roles and responsibilities for clinical and management staff are well-articulated and understood, that adequate and appropriate staffing is available at all times, and that staff have access to appropriate professional development opportunities.

The analysis of these reviews has furthered our understanding of the challenges and opportunities across DHBs. Six key themes were identified (see Figure 6):

- Staffing e.g. sufficient staffing to support professional development and busy periods;
- Professional development e.g. LMC capacity and capability;
- Roles, responsibilities, relationships e.g. interdisciplinary collaboration;
- Leadership e.g. strong leadership; clear lines of accountability; clinical governance
- Quality improvements e.g. communications with LMC; pathways for raising quality issues; work environment; and
- Information management e.g. robust data collection and data management.

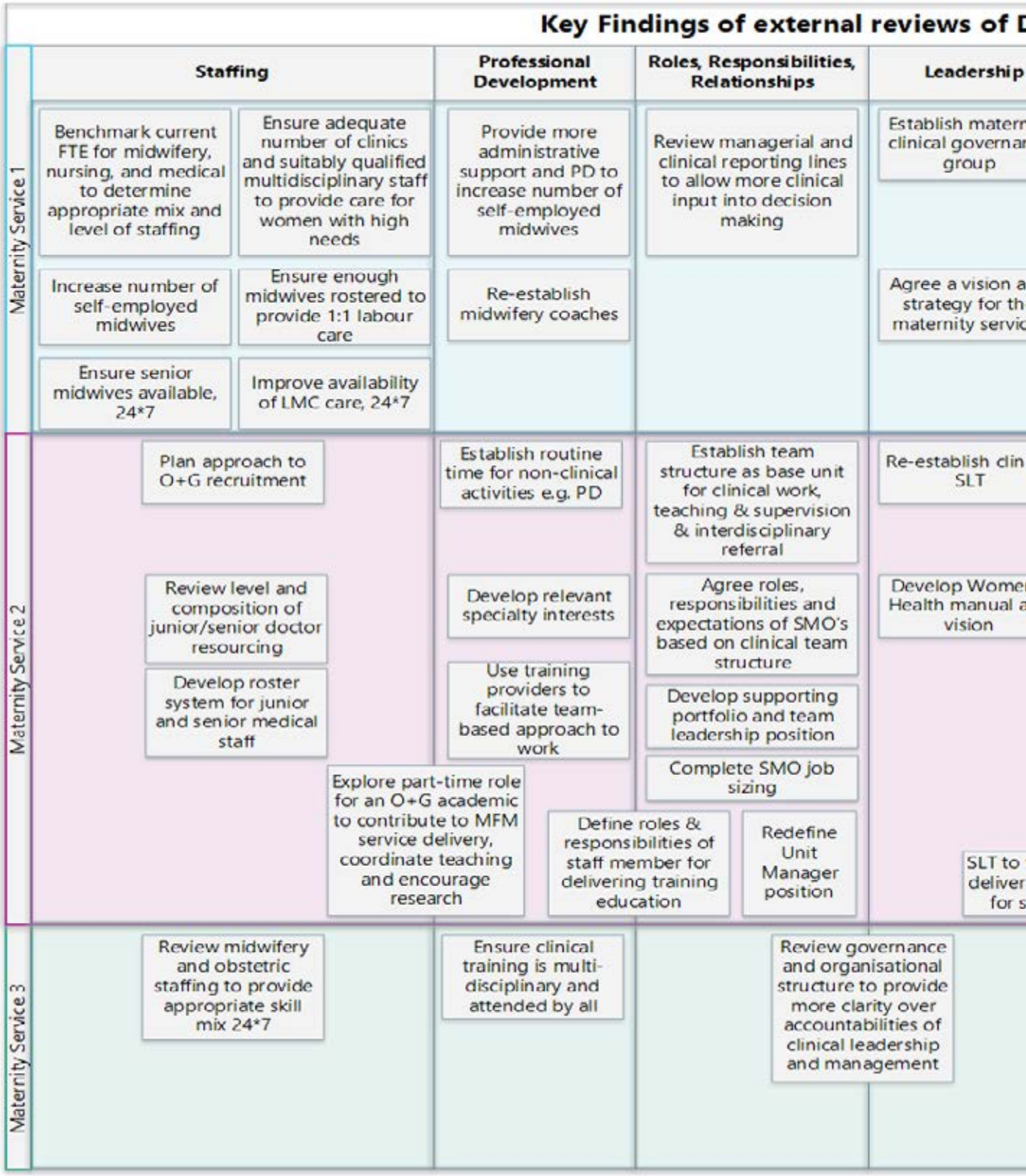
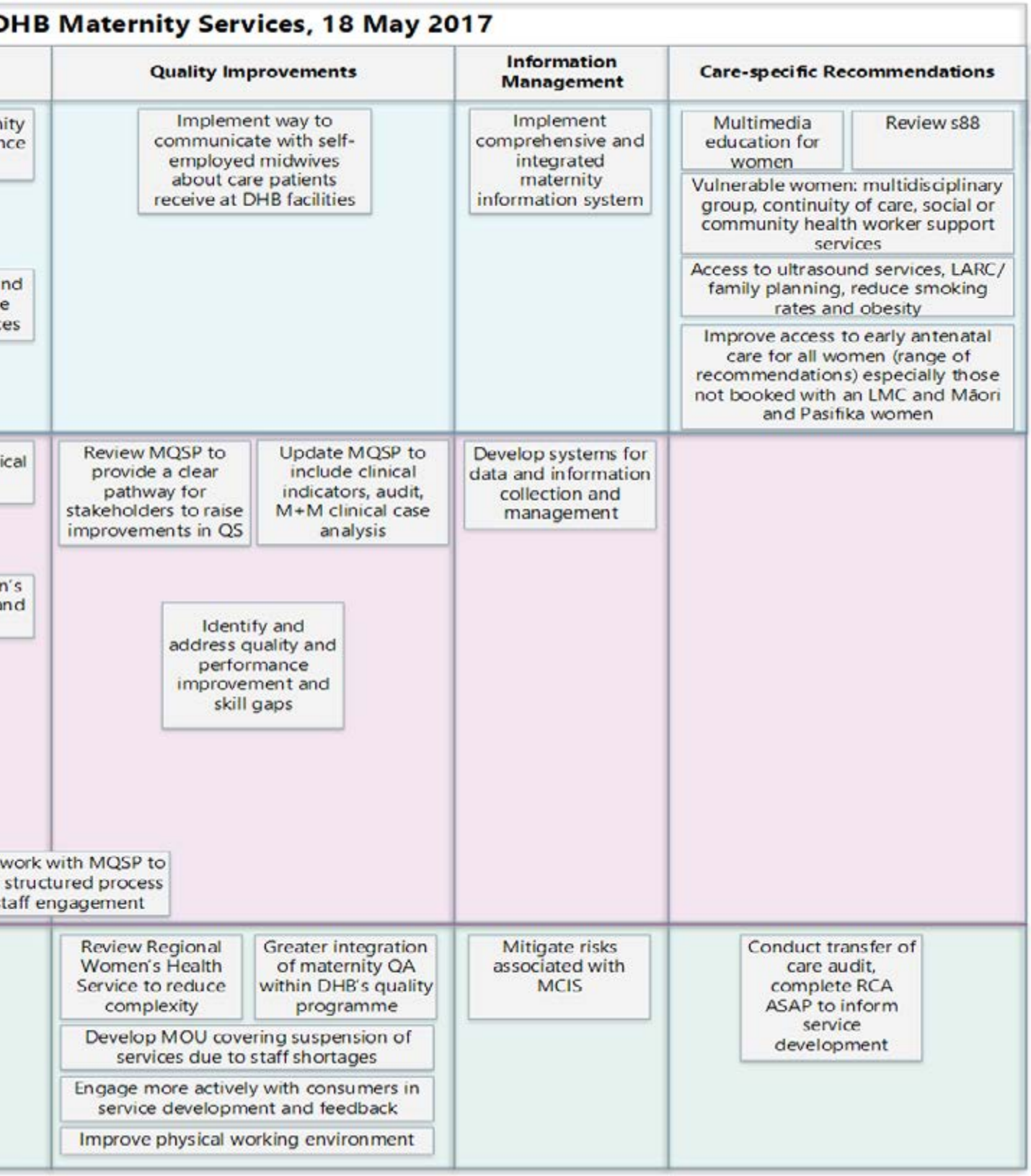


Figure 6: Key Findings of external review of DHB maternity services, 18 May 2017


DHB Maternity Services, 18 May 2017
Quality Improvements
Information Management
Care-specific Recommendations
Implement way to communicate with self-employed midwives about care patients receive at DHB facilities
Implement comprehensive and integrated maternity information system
Multimedia education for women
Review s88
Vulnerable women: multidisciplinary group, continuity of care, social or community health worker support services
Access to ultrasound services, LARC/ family planning, reduce smoking rates and obesity
Improve access to early antenatal care for all women (range of recommendations) especially those not booked with an LMC and Māori and Pasifika women
Review MQSP to provide a clear pathway for stakeholders to raise improvements in QS
Update MQSP to include clinical indicators, audit, M+M clinical case analysis
Develop systems for data and information collection and management
Identify and address quality and performance improvement and skill gaps
work with MQSP to
structured process
staff engagement
Review Regional Women's Health Service to reduce complexity
Greater integration of maternity QA within DHB's quality programme
Develop MOU covering suspension of services due to staff shortages
Engage more actively with consumers in service development and feedback
Improve physical working environment
Mitigate risks associated with MCIS
Conduct transfer of care audit, complete RCA ASAP to inform service development

We reviewed each DHB's 2017 MQSP Annual Report.

Highlights from a small sample of Reports include:

- NORTHLAND DHB has established Te Whare Ora Tangata – a maternal and infant health case management forum. The forum was established in response to feedback from wāhine Māori who were hapū that indicated there was a need for better communication between service providers, to overcome the problem of women receiving conflicting information, and developing care plans without the benefit of the expertise of all concerned. The forum meets fortnightly, and planning is underway to introduce the model to service providers in Kaitaia.
- WAITEMATĀ DHB included a comprehensive Maternal Mental Health Referral Pathway in their MQSP Annual Report.
- WAIRARAPA DHB included a hyperlink to their innovative, informative, and friendly on-line virtual tour of their maternity unit, produced in consultation with the Māori Health Directorate. It is well-worth a look: https://youtu.be/4sg6EjDan6M
- WEST COAST DHB produced their first MQSP Annual Report, having previously reported in collaboration with Canterbury DHB. WEST COAST is to be congratulated on the attention given to presenting their statistical data in a highly intuitive manner, making the report very user friendly.
- NORTHLAND and COUNTIES MANUKAU DHBs stand out amongst DHBs that reported their work to support the use of LARCs.

We discussed the need to monitor consumer equity issues when reviewing DHB MQSP reports.

The changes we expect to see next

We would like to see further consideration of ways to reduce consumer equity issues when reviewing DHB MQSP reports, and further evaluation and monitoring, particularly within excelling DHBs.

We would like to have further discussions with the Ministry of Health on ways that the Ministry can monitor the DHBs' implementation plan after the external review.

Features of a good MQSP Report

Following their review of the 2017 MQSP Reports, NMMG members noted the following attributes of effective MQSP Reports:

- Content focuses on maternity (rather than including women's health and neonatal care);
- Statistical data are presented in graphs appropriate to the information being presented;
- Graphics are clear and appropriate;
- Language is comprehensible for its intended audience;
- As well as describing interventions and innovations introduced in the reporting period, MQSP Reports should report the evaluation and/or outcome findings arising from interventions/innovations/practice changes from the previous period;
- Describe how the DHB has responded to any recommendations made in (or in respect to):
  - the annual New Zealand Maternity Clinical Indicators report,
  - the annual Report on Maternity, and
  - the PMMRC's Annual Report;
- Describe how the DHB has responded to maternity-related guidelines released by the Ministry of Health;
- Te reo Māori content has been reviewed and edited by someone who is competent to do so – preferably someone from mana whenua and/or with local iwi or regional dialect preferences so that this knowledge and expertise is appropriately incorporated;
- Layout is professional and suited to on-line access;
- The document has been thoroughly proof-read;
- The document has been carefully edited; and
- The report is publicly available and easy to find.

Monitor the outcomes of the work by the Maternity Ultrasound Advisory Group

Our focus for 2016/2017 was to monitor the outcomes of the Maternity Ultrasound Advisory Group's (MUAG) work to advise the Ministry on key issues in supply, use, and quality of publicly-funded primary maternity ultrasound services.

Best practice antenatal care for a woman who has no complications during pregnancy, is low-risk, engages with health services in the first trimester of pregnancy, and carries her baby to term involves referral for two screening-based ultrasounds:

1. A first trimester ultrasound optimally performed at around 12 weeks for dating, identification of twin pregnancy, early anatomy assessment, and screening for chromosomal anomaly (if consented to by the woman); and
2. An anatomy ultrasound optimally performed at 19+ weeks for detailed assessment of fetal anatomy.

We were concerned to hear that women are receiving additional ultrasounds in some DHBs due to the allocation of appointment times that are too short to achieve the expected output. For example, a 30-minute appointment is considered too short for an anatomy ultrasound (19+ weeks): 45 minutes is more realistic. We have become aware that some women are called back for a second ultrasound solely because completing the procedure in one visit would require the appointment to exceed its allocated time.

We supported the MUAG in its work by facilitating the NMMG's radiology expert, Rachael McEwing, to participate on the Group.

What we did and our key findings

We wrote to the Ministry expressing our support for the MUAG's recommendations.

The MUAG submitted its final recommendations to the Ministry in February 2017.

The delivery of high quality primary maternity ultrasounds is an important component of our maternity system. We recognise that there are inconsistencies in the way that women access primary maternity ultrasounds. We support the development and implementation of national quality standards for primary maternity ultrasounds (including standards relating to referral pathways and quality processes). We also support work to reduce barriers to access for all women, and work that seeks to fully understand the way that women access primary maternity ultrasounds.

The changes we expect to see next

We would like to see the MUAG's recommendations taken forward by the Ministry of Health as soon as possible. In addition, we consider that there is value in establishing a multidisciplinary committee to support the timely and effective implementation of MUAG's recommendations, should the Ministry agree with them.

Support ratification of national maternity clinical guidelines and monitor implementation of existing guidelines

Our focus for 2016/2017 was to ensure that national, evidence-informed, clinical guidance on maternity care is appraised and ratified.

National maternity clinical guidelines are a key component of the maternity sector, setting standards based on the latest clinical evidence or best practice, and enabling consistency in clinical maternity practice across New Zealand. Effective guidelines support improved performance and health outcomes. The NMMG is responsible for overseeing the ratification of national maternity guidelines. This work aligns to Action 14 of the Health Strategy Roadmap.

What we did and our key findings

We monitored the impact of the *Screening, Diagnosis and Management of Gestational Diabetes in New Zealand* guidelines on the number of early inductions.

The timing of planned early birth has been a workstream of the NMMG's since we were established in 2012. The gestational diabetes guideline, *Screening, Diagnosis and Management of Gestational Diabetes in New Zealand: A Clinical Practice Guideline*, was developed by an expert working group following an extensive literature review, as part of the MQI. The NMMG supports the guideline, which focuses on the prevention and early diagnosis of gestational diabetes to support its better management and aims to reduce the rates of early induction.

Following the release of the guideline, DHBs asked how they have progressed with its implementation into clinical practice. We asked if DHBs had amended local gestational diabetes guidelines to align to the new national guideline, and if practice changes had impacted on the number of early inductions performed, or if it has resulted in a rise in gestational age at birth. Below we note some of what we learned in these regards from the MQSP Reports.

During pregnancy

Five DHBs noted changes to the care they are providing to women with gestational diabetes, from ensuring the HbA1c is administered during the first trimester, to establishing multi-disciplinary clinics specifically for women with gestational diabetes.

Later inductions of labour

Two DHBs noted an observed change in timing of induction, from the 38th to the 39th week of gestation.

Workforce implications

Several DHBs recorded their concern about the increased workload for their staff due to the increased care being provided for women with gestational diabetes:

> *The increase in volumes for gestational diabetes in the past three years challenges our capacity to continue to deliver services that are equitable and effective, particularly to those with higher risk. – Hawke's Bay MQSP Report*

We reviewed a draft of the Ministry of Health's *Diagnosis and treatment of hypertension and pre-eclampsia in pregnancy in New Zealand: A clinical guideline.*

We reviewed the draft clinical guideline *Diagnosis and treatment of hypertension and pre-eclampsia in pregnancy in New Zealand*. The executive summary to the guideline included priorities for implementation:

1. Major risk factors for developing pre-eclampsia include history of pre-eclampsia or HELLP (**H**aemolysis, **E**levated **L**iver enzymes, **L**ow **P**latelet count), chronic hypertension, pre-existing diabetes, renal disease, autoimmune diseases, family history and oocyte donation. Risk factors should be identified at booking, referral made, and preventative therapies commenced.
2. Women at high risk of developing pre-eclampsia are recommended to commence taking low dose aspirin and calcium before 16 weeks' gestation to reduce their risk of developing pre-eclampsia and adverse events such as pre-term birth.
3. Women who develop severe hypertension in pregnancy (dBP ≥110 mmHg or sBP ≥160 mmHg) should be treated with an antihypertensive.
4. Women with pre-eclampsia should be treated as inpatients.
5. Administration of magnesium sulphate is clinically indicated in women with eclampsia. Magnesium sulphate should also be considered in women with severe pre-eclampsia; however primary importance is blood pressure control.
6. When considering timing of birth, severity of the hypertensive disease, gestation and maternal and fetal wellbeing need to be taken into account.
7. The preferred mode of birth is vaginal, unless contraindicated by other maternal or fetal factors.
8. Spinal anaesthesia or combined spinal and epidural anaesthesia (CSE) are the preferred techniques for caesarean section, if this is required.
9. Women with hypertension in pregnancy should be monitored for postpartum onset or exacerbation of pre-eclampsia as there is frequently a rise in blood pressure around day 3–5.
10. Women who have developed gestational hypertension or pre-eclampsia should have regular cardiovascular/renal risk assessment in the long term. A comprehensive discharge letter to the GP should include long term monitoring recommendations.

The NMMG was satisfied with the draft guideline and recommended the Ministry of Health publish and implement the guideline throughout the maternity sector.

The NMMG supported the update of guidelines around the treatment of post-partum haemorrhage (PPH) in New Zealand.

The Ministry of Health is refreshing the *National Consensus Guideline for Treatment of Postpartum, Haemorrhage* which is due for review in 2018. The NMMG discussed new evidence that supports the use of tranexamic acid in hospital treatment for PPH, and the process for amending a clinical guideline to reflect this.

We wrote to DHB Clinical Directors, Midwifery Clinical Leaders, and professional Colleges to bring the recent tranexamic acid treatment for PPH to their attention. We recommended the administration of tranexamic acid immediately following the onset of bleeding to treat PPH following vaginal or caesarean birth. This is important to reduce death due to bleeding in women with PPH.

The changes we expect to see next

We would like to see the ratification of the *Diagnosis and treatment of hypertension and pre-eclampsia in pregnancy in New Zealand: A clinical guideline*, and the further development of guidelines around the treatment of PPH in New Zealand, including further discussion on the use of tranexamic acid in hospitals.

Review key sector reports including those by the PMMRC and the Ministry of Health's Report on Maternity

Our focus for 2016/2017 was to review key publications to support the Health Strategy goal to improve performance and outcomes, by utilising data.

Reviewing key sector publications and providing advice on the findings of these reports is one of the key functions of the NMMG and one of the ways in which we contribute to continuous systems improvement. We have previously reviewed each *Report on Maternity* and provided advice on possible improvements: we expect to keep doing this.

What we have done this year and our findings

We reviewed the PMMRC's report on cases of amniotic fluid embolism (AFE) and investigated the level of emergency obstetric skills training in DHBs.

The PMMRC has reviewed cases of AFE in New Zealand, raising concerns about New Zealand health professionals' recognition and management of AFE. The NMMG wrote to DHBs asking what percentage of staff working in delivery suites (including LMCs) have undertaken a Practical Obstetric Multi-Professional Training (PROMPT) course, or PROMPT-like course. These courses provide emergency obstetric skills training and respond to the sector's call for better training around emergency obstetric skills. The NMMG supports the PROMPT training, and this work is intended to support all local providers including midwives, nurses, GPs and paramedics, in their emergency response and fetal monitoring capabilities.

We learnt that PROMPT is already popular among DHBs with all apart from two DHBs offering it to in-house staff. The respondents noted that the PROMPT courses include neonatal resuscitation but not fetal surveillance. Most DHBs indicated in their responses that they require their staff to undertake fetal surveillance training on an annual basis. The most common frequency for staff to repeat PROMPT was every three years.

We reviewed the Ministry of Health's Report on Maternity 2015.

The *2015 Report on Maternity* and the accompanying data tables continue to provide a wide range of useful clinical, statistical and demographic information about maternity care in New Zealand.

The changes we expect to see next

To ensure that key sector reports add the most value to the system, we expect DHBs will continue to review these reports themselves and consider what the recommendations mean to their own particular service area.

Following the review of DHB's levels of emergency obstetric training, we are pleased to note that the development of appropriate skills in this area is a priority for DHBs. However, we would like to see more consistency between DHBs in the expected level of emergency obstetric training for delivery staff, and a continued focus on staff's management of AFE.

Shift services

Investigate access to and provision/ use of rural and primary maternity facilities

Our focus for 2016/2017 was to better understand the data on the number of women who plan to birth at a primary facility compared to where they actually birth (including changes to bookings during the antenatal period and transfers during labour).

Birthing at primary maternity facilities enables women to have babies where they can receive appropriate maternity care as close to home as possible. Access to, and use of, primary maternity facilities is an important issue for the NMMG, particularly considering the New Zealand Health Strategy's theme, Closer to Home (which includes the action to ensure the right services are delivered at the right location). Almost all births at primary maternity units are spontaneous vaginal births, and almost all DHBs provide primary maternity facilities. However, the proportion of babies born in primary maternity facilities has been trending downwards since 2007 (15.6% in 2007; 9.9% in 2015).

What we have done this year and our findings

We reviewed data on transfer rates between primary, secondary, and tertiary maternity facilities.

To better understand the decline in the rate of births taking place at primary maternity facilities we requested data from the Ministry of Health on transfer rates between primary, secondary, and tertiary maternity facilities. We were reassured by the low number of transfers in labour shown. No data is collected on reasons for transfers, and the data that is available only shows place of birth, not planned place of birth.

Figure 7 illustrates the eventual delivery setting of women who were transferred from a primary delivery facility. Annual transfers from primary delivery (shown as a line) fluctuates yearly, with the data indicating no clear trend.

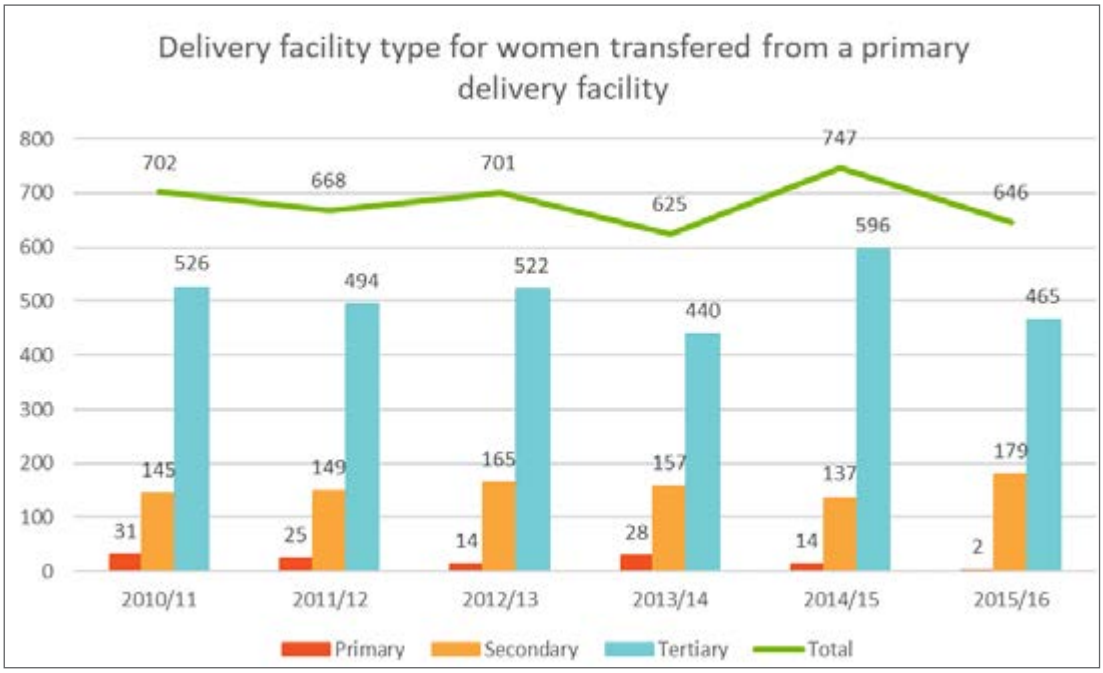


Figure 7: Where women give birth, following transfer from a primary delivery facility

The changes we expect to see next

We do not currently have data which enables us to fully understand the reasons for transfers on a national basis. This makes it difficult to interpret the data we do have. For example, the data include women who plan to birth in a secondary or tertiary unit and are assessed in a primary unit in a rural area prior to going to the secondary unit. This is a function of our end-to-end maternity care system, but it means local review of the data is critical to accurate interpretation. We would like DHBs to collect information on reasons for transfers between birthing facilities during labour, and to report these data accompanied by local contexts that enable meaningful interpretation.

Aligned with our 2018 Work Programme[3], Investigative Priorities 2 and 4, the NMMG supports strengthening primary maternity services including timely, equitable, access to community-based primary maternity care, particularly for women living in rural New Zealand. We encourage the Ministry and DHBs to promote physiological birth and to better understand women's preferences about place of birth. To support this work, the NMMG has recommended that a national meeting be held, including a wide array of health practitioners and associated services, to identify barriers to low-risk women birthing in primary facilities, and ways in which these can be ameliorated.

3 See Appendix 1.

People working in the health system add the greatest value

Investigate consistency in the quality of first trimester antenatal care

Our focus for 2016/2017 was to better understand the consistency of the care by non-LMC health practitioners in the first trimester of pregnancy.

Ensuring that health practitioners provide high quality, consistent maternity care is important. Approximately 60 percent of women who give birth see a non-LMC practitioner in their first trimester of pregnancy before registering with an LMC. The importance of general practice in maternity care is reflected in the appointment of a practising GP to the NMMG for 2016-19.

Investigation of this workstream aligns with Action 7 of the New Zealand Health Strategy theme, Closer to Home, which is to ensure that health professionals are providing the right care at the earliest time.

What we have done this year and our findings

We received updates from the Ministry of Health on its fetal alcohol spectrum disorder work programme.

The development of *Taking Action on Fetal Alcohol Spectrum Disorder: 2016 – 2019: An action plan* is an important public health step in addressing this issue: women need to receive pre-conception advice about the damage that alcohol can cause to developing babies. Women also need to be able to access addiction support services.

We reviewed the Women's Health curriculum from the RNZCGP.

The RNZCGP shared its *Women's Health* curriculum with the NMMG as part of the NMMG's investigation into the quality of first trimester visits. The NMMG was pleased with the content, and supports the plan and its implementation. Feedback was provided informally to the RNZCGP recommending an increase in the information on vulnerable women, suicide, and depression.

We monitored DHB efforts to engage women in timely first trimester care.

The aim of Better Public Services (BPS) Result 2: *Healthy mums and babies* is that by 2021, 90 percent of women register with an LMC during the first trimester of their pregnancy. There is an interim target of 80 percent by 2019. The 2015 data show that progress has been made toward these targets: since 2011, first trimester registrations have increased at all DHBs, but some have done better than others. Figure 8[4] shows the increase in first trimester registrations by DHB[5].

Since 2011, West Coast, South Canterbury, Whanganui, Tairāwhiti, and Northland DHBs have all experienced considerable increases in the proportion of women registering with an LMC in their first trimester. These increases are especially notable, because these DHBs had a low start-point in 2011.

Most women register with an LMC at some time during their pregnancy, and a small proportion register after they have given birth, but a

4 These data are extracted from the Report on Maternity 2015 Additional Tables, available from the Ministry of Health website.

5 The lower section of each column represents the proportion of first trimester registrations reported in 2011, and the upper section shows the increase over time through to the 2015 report: the percentage point increase (PPT).

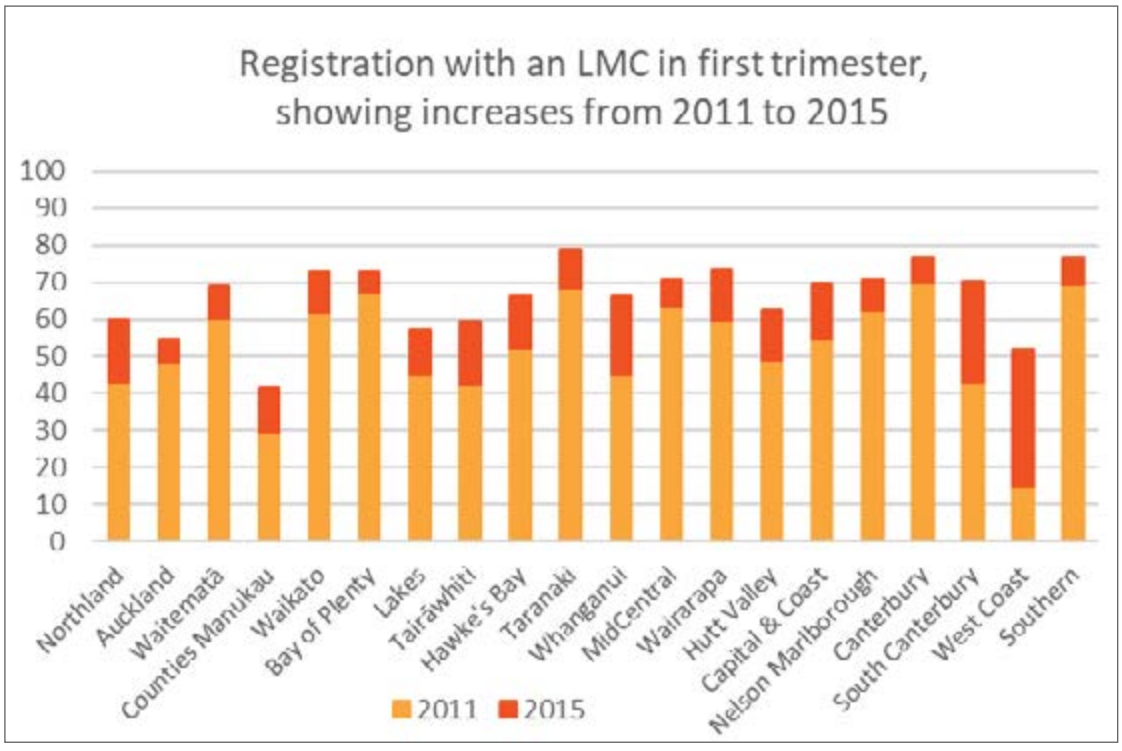


Figure 8: Increases in registration with an LMC in the first trimester, showing increases from 2011 to 2015

substantial number of women (7.8 percent) do not register with an LMC at all. Data about this group is not provided on the Ministry website and may be incomplete and/or unavailable. Of women who ever register with an LMC, women aged 40+ years are least likely to register with an LMC (89.3 percent; and women aged less than 20 years are second-least likely to register (90.4 percent).

The data tells us the following things about women who register with an LMC after the first trimester:

- Young women (under 25 years of age) are slightly more likely to register after the first trimester compared to women over 25 years;
- More than half of the registrations with an LMC by Pasifika women occur after the first trimester;
- There is a correlation between deprivation quintile and stage of registration with an LMC (as illustrated in Figure 9[6]): women residing in the most deprived neighbourhoods (quintile 5) register with an LMC later than women living in any other neighbourhood; and
- Women living in quintile 5 neighbourhoods are less likely to ever register with an LMC (Q5 = 86.1 percent, compared to 94.2 – 96.4 percent for Q1 – Q4).

The changes we expect to see next

As the Ministry of Health's approach to social investment continues to develop, we expect antenatal care to be included as a priority in investment at the start of life. Investment at the start of life (including women's health and antenatal care) will assist with achievement of the health goals of the Ministry of Health.

6 These data are an extract from Table 28 of the Report on Maternity 2015 Additional Data tables available on the Ministry of Health website.

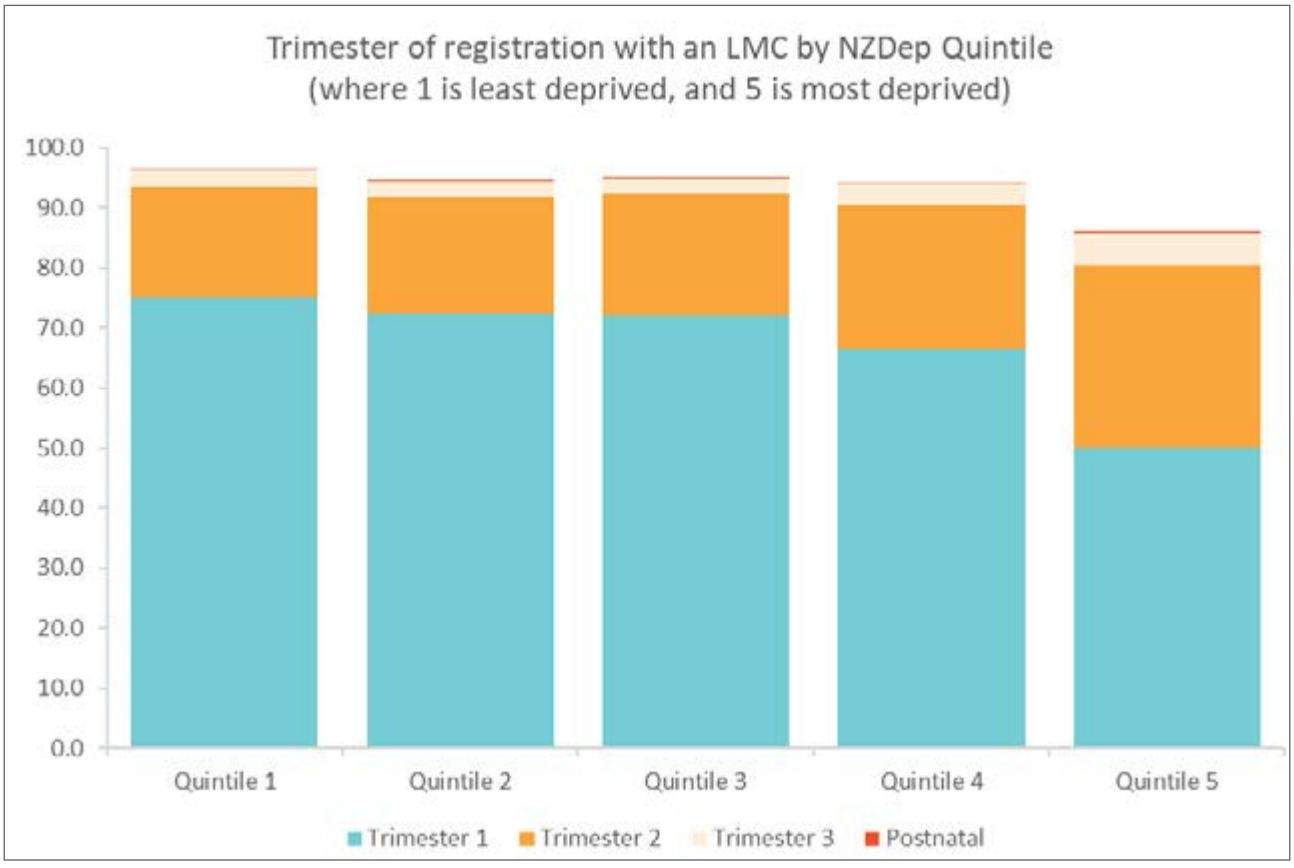


Figure 9: Registering with an LMC, by NZDep and trimester

Examples of good practice: encouraging early registration

Through their *Top 5 for my Baby to Thrive* programme, Hawke's Bay Midwifery Director and Smokefree liaison midwife visited 75 percent of general practices in the region by the end of 2016, promoting the notion that all pregnant women attending the practice should leave with an appointment with a midwife, and a smoking cessation referral. As a result, the MQSP report notes a 10 percent increase in the number of Māori women registering with an LMC in their first trimester; and there are stronger relationships and improved communication between GPs and LMCs.

Taranaki DHB hosted a highly successful 'Pregnancy and Parenting' tent at WOMAD in 2016. They also ran a maternity services roadshow in the Waitara District, bringing together service providers and consumers (existing and potential) to raise awareness and build relationships.

Tairāwhiti DHB developed a wider distribution network for their pamphlet *Book with a Midwife Before you are 10 Weeks Pregnant*. The pamphlet is now available at sonographers' premises, and the DHB is also attempting to have a supply available through laboratories where women attend for antenatal blood tests.

Capital & Coast, Hutt, and Wairarapa DHBs worked together to develop *Your Pregnancy Checklist*, which has nine steps for women to check off as they progress through their pregnancy. The checklist is being provided to pregnant women by GPs and practice nurses. Capital & Coast report "noticeable gains" including earlier registration, reduced smoking, and earlier referral to other support services.

Examples of good practice: encouraging early registration among priority populations

Counties-Manukau DHB acknowledges that women tend to register with an LMC later than the recommended timeframe – a point they attribute to a complex array of circumstances. To address this, they have developed culturally appropriate community LMC services that are more visible in the communities frequented by priority populations, with two houses converted to LMC midwifery clinics.

Nelson-Marlborough DHB is launching a two-day kaupapa Māori pregnancy and parenting programme during 2017/18. The intention is to engage with wāhine hapū and their whānau, covering maternal health, safe sleep, smoking cessation, etc. The programme is based on a Finnish model, and includes provision of an Aroha Pack with items for the expectant māmā and her pēpi.

Bay of Plenty DHB has translated resources into other languages; and have focused on ensuring their resources are readily available in rural and remote areas.

The Teen Parenting Unit at Wairarapa DHB holds weekly classes for young women and their partners. With many of the attendees being Māori, the classes give special attention to tikanga:

> *Incorporating the creation myth, importance of history, traditional birthing practices, wahakura, oriori, respect for the whenua - participants decorate an ipu whenua in class. The educator is currently trying to source women to talk about rongoā and mirimiri. – Wairarapa MSQSP Report*

A great start for children, families and whānau

Monitor access to Anti-D

Our focus for 2016/17 was to monitor the use of Anti-D in DHBs.

Anti-D immunoglobulin is given to pregnant Rh D negative women to prevent immunisation to Anti-D and the development of rhesus disease in babies. Timely access to Anti-D immunoglobulin is critical for preventing rhesus disease and ensuring babies' health should a sensitising event occur.

In 2015/16, at the Ministry's request, the NMMG investigated the administration of Anti-D immunoglobulin for Rh D negative women prophylactically after they have experienced a sensitising event and/or if required after they have given birth. We reviewed DHBs' guidelines for Anti-D immunoglobulin use against the New Zealand Blood Service's guideline and investigated the number of women requiring intrauterine transfusions for Anti-D antibody mediated anaemia, and the number of babies needing postnatal transfusion.

What we have done this year and our findings

We encouraged DHBs to ensure that they have comprehensive guidelines around the administration of Anti-D immunoglobulin in place and being implemented, including processes to ensure all Rh D negative women who require prophylactic Anti-D after a sensitising event receive the appropriate dose.

The NMMG is satisfied that DHBs are providing appropriate pathways of access to Anti-D for women and babies. Most DHBs' pathways comply with the New Zealand Blood Service's guidance on the use of Anti-D immunoglobulin during pregnancy and the post-partum period. Some DHBs may have considered their practices business as usual but have articulated a separate process.

The New Zealand Blood Service's guidance on the use of Anti-D immunoglobulin can be found online at: https://www.nzblood.co.nz/assets/Transfusion-Medicine/PDFs/111I004.pdf

The changes we expect to see next

We expect DHBs to continue to provide appropriate and timely access to Anti-D immunoglobulin for RhD negative women, and to ensure that any future amendments to the New Zealand Blood Service's guidance on the use of Anti-D immunoglobulin are reflected in local guidelines. DHBs should consider how guidelines for the use of Anti-D are articulated to ensure that all health practitioners are aware of the pathways to be followed so that all women who should receive Anti-D immunoglobulin do so.

We expect the Ministry to discuss with the New Zealand Blood Service how information regarding Anti-D can be distributed more effectively to the women who need it. We also recommend that a population-based comparison on the number of intra-uterine transfusions in Australia (where Anti-D is administered prophylactically to all Rh D negative women at 28 and 32 weeks' gestation) and New Zealand be completed.

Monitor timely access to community non-acute mental health services

Our focus for 2016/17 was to support better knowledge in the maternity sector of available mental health services, timeliness of access to mental health services for women, and better integration between maternity and mental health services through the provision of transparent pathways of access in DHBs.

Women need access to appropriate mental health services during pregnancy and post-partum especially in primary care. Women with existing mental health issues are at risk of escalation during pregnancy and post-natal period. For some women, access to and provision of mental health services during and after pregnancy is essential to their safety and the wellbeing of themselves and their babies.

The eleventh PMMRC report[7] noted that suicide "*continues to be the leading single cause of maternal death in New Zealand*." Despite the overall improvement in the mortality rate since the inception of the PMMRC in 2006, there has been no significant change in the rate of maternal death. Suicide presents a major challenge,

7 PMMRC. 2017. *Eleventh Annual Report of the Perinatal and Maternity Mortality Review Committee: Reporting mortality 2015.* Wellington: Health Quality & Safety Commission.

especially amongst young Māori women, who are over-represented in the number of maternity suicides (accounting for 56 percent of maternal suicides between 2006 and 2015). New Zealand's rate of maternal suicide is seven times higher than that of the United Kingdom.

Women remain vulnerable to poorer mental health outcomes (including postnatal depression and suicide) for up to one year postpartum. The current working definition for 'maternal death'[8] reduces the visibility of the problem in New Zealand: the 42-day post-partum limit for inclusion in the maternal death data differs substantially to the time period for which women remain vulnerable to poorer mental health (one year). Improving access to primary mental health services, and ensuring that services are available for acute episodic mental illness, are important ways to support new mothers to build wellbeing and live healthy lives for themselves, their babies, and their whānau.

What we have done this year and our findings

The NMMG supported the PMMRC's recommendation that a Perinatal and Infant Mental Health Network be established.

In its tenth annual report[9], the PMMRC recommended that "*a Perinatal and Infant Mental Health Network be established to provide an interdisciplinary and national forum to discuss perinatal mental health issues*." This governance network would provide multi-disciplinary advice to the sector (including to the NMMG and PMMRC) on both medical and community based perinatal and infant mental health issues. We wrote to the Ministry to formally express our support of the PMMRC's recommendation, and recommended that the Ministry host a national meeting (including GPs, psychiatrists, social workers, LMCs) to inform the group's development at the outset of the initiative.

We considered barriers to maternal mental health service accessibility.

The NMMG continues to affirm the high priority of maternal mental health to DHBs. We are concerned that although pathways and good services are in place for acute cases, there is not always adequate capacity at the service end for non-acute cases. Some women may not be following through with mental health referrals to general practice due to cost barriers. The NMMG has learnt that women are referred to their LMC, or left unsupported if the mental health services they have been referred to are at capacity or only accept acute cases. Additional pathways and services that focus on supporting pregnant and postpartum women with non-acute mental health issues may be needed.

The NMMG supported the PMMRC's recommendation that a permanent Suicide Mortality Review Committee be established.

In its eleventh annual report, the PMMRC[10] recommended that "t*he HQSC establish a permanent Suicide Mortality Review Committee*". The NMMG has written to the Ministry and HQSC to formally express support of the PMMRC's recommendation.

What we expect to see next

The NMMG Work Programme for 2018 lists maternal mental health as its top investigative priority. We recognise the importance of taking a cross-sector approach to providing effective mental health services for women. Although some progress has been made, DHBs must continue to take a proactive approach in ensuring that maternal mental health pathways are supported across the sector, and that any barriers to access are identified and addressed. The NMMG will continue to monitor this workstream in 2018 to determine the timeliness of access to non-acute mental health services.

We encourage the Ministry of Health to convene a national meeting with representatives from across the sector to discuss what can be done to support maternal mental health.

We would also like to see the Ministry of Health progress the development of the Perinatal and Infant Mental Health Network, including supporting the NMMG's involvement if needed.

8 The PMMRC defines 'Maternal dealth' as the death of a woman while pregnant or within 42 days of termination of pregnancy (miscarriage, termination or birth) irrespective of the duration, and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management.

9 PMMRC. 2016. *Tenth Annual Report of the Perinatal and Maternity Mortality Review Committee: Reporting mortality 2014.* Wellington: Health Quality & Safety Commission.

10 PMMRC (2017)

Increase New Zealand's national data quality

Review the Maternity Clinical Indicators and monitor DHBs' responses to variations with a focus on Indicators 6-9 (perineal trauma)

Our focus for 2016/2017 was to review the New Zealand Maternity Clinical Indicators report, and provide advice to DHBs and the Ministry of Health on trends and variances.

The New Zealand Maternity Clinical Indicators are nationally standardised benchmarked maternity data. Maternity sector stakeholders rely on this data to determine whether the New Zealand Maternity Standards are being met. In 2017, the Ministry released data for 2015, making data available for both the period prior to the implementation of the MQI and immediately after implementation.

What we have done this year and our findings

We reviewed the Maternity Clinical Indicator data set to determine national trends, identifying instances where DHBs continue to record significant and consistent variation from the national average, and we shared our findings with each DHB.

Eight years of data from the New Zealand Maternity Clinical Indicators shows positive and negative trends, as illustrated in Figure 10, where positive trends are indicated by a green arrow, and negative trends are indicated by a red arrow.

↑	More women are registering with an LMC in the first trimester of pregnancy.
↑	A higher proportion of standard primiparae are having an instrumental vaginal birth.
↓	Fewer standard primiparae are birthing by caesarean section compared to 2012-2014.
↑	More standard primiparae are undergoing induction of labour.
↓	Standard primiparae are less likely to have an intact genital tract following birth compared to women birthing in 2009.
↓	Slightly fewer episiotomies are being performed on standard primiparae who have no third or fourth degree perineal tear.
–	Standard primiparae sustaining a third or fourth degree perineal tear and not having an episiotomy has remained stable since 2013 (approximately 4.4 percent).
–	Standard primiparae sustaining a third or fourth degree perineal tear and undergoing an episiotomy has remained stable since 2013 (approximately 1.5 percent).
↓	The number of women requiring a blood transfusion following a caesarean section has declined significantly since 2009.
↑	Women's BMI is increasing: 9.3 percent of mothers had a BMI over 35 in 2015.
↑	The number of women diagnosed with eclampsia during birth admission has increased over time.

Figure 10: Trends over time, from the NZ Maternity Clinical Indicators 2015

Since the implementation of DHB MQSPs, DHBs have implemented a significant range of quality improvement initiatives. We expected to see a lag between the implementation of initiatives and improvements in maternity outcomes, and some positive trends in outcomes for mothers and babies are now emerging. The NMMG remains concerned about both the overall pace of significant improvement and the level of variation between DHB performance. We accept that there may be valid clinical reasons that could contribute to the trends seen; however, we encourage all DHBs to continue to closely monitor their data and respond swiftly to any significant negative trends or variances with a coordinated programme of work; and then report the outcomes achieved through specific initiatives.

Lower intact genital tract (Indicators 6 to 9)

In 2009, we recommended that DHBs closely monitor and observe third and fourth-degree tearing with a focus on improving clinical practice. We are pleased to see that, in the 2015 data, there has been some initial improvements in the rates of intact lower genital tract and severe tearing. We note from Table 38 of the Report on Maternity Additional Data Tables that there is a considerable variation in episiotomy rates across the DHBs. Episiotomy rate variations are not wholly supported by the presence or absence of a tertiary maternity facility, which range between 9 percent (Southland) and 23.1 percent (Auckland).

Good practice

MQSP Reports from Waitematā and Capital & Coast Health DHBs describe the introduction of applying warm compresses to the perineum during the second stage of labour – a practice associated with lower incidence of perineal trauma. After an initial trial, flannel-warming cabinets have been installed in every birthing room across both sites in Waitematā DHB. Hutt DHB also advises that they plan to introduce two warmers to their delivery suite.

Further, Capital & Coast report that some reduction in third- and fourth-degree tearing has resulted from the use of antenatal perineal massage. They also note that the causes of perineal trauma are to be studied in 2017/18, noting that there are multiple determinants including birthing position, speed of birth, and the skin tissue of the woman. We look forward to reading the findings from this study in the next MQSP Report.

MidCentral advised of a planned workshop focusing on care of the bladder, pelvic floor and perineum during pregnancy, birth, and the postnatal period. This is to be a collaborative venture, led by the MQSP Coordinator, a Gynaecology/Urology Clinical Nurse Specialist, and an Obstetric Specialist.

South Canterbury note a four-fold increase in severe tearing in 2016, prompting an audit and the development of improvement actions for 2017/18.

We wrote to DHBs seeking further information to understand the increase in rates of eclampsia.

Specifically, we asked DHBs if they had noted an increase in the number of women diagnosed with eclampsia during birth admission in local data, and if they had investigated possible reasons for this rise. The MQSP Reports show that there were very few eclampsia events in the reporting period, with the following exceptions:

- Counties-Manukau recorded four events, also noting an observed increase in pre-eclampsia and hypertensive disorders. Obesity and diabetes in pregnancy were noted as recognised risk factors for eclampsia, and the report confirmed that these conditions are common in pregnant women in the region. The presence or absence of these conditions as comorbidities in the four cases of eclampsia is not recorded in the MQSP Report;
- Mid Central DHB also noted four cases in that region;
- Nelson Marlborough reported three cases, commenting also that they would like to audit the incidence of eclampsia in 2018, "to measure outcome and to identify any changes to the ways in which pre-eclampsia/eclampsia is managed." – Nelson Marlborough MQSP Report; and
- Two cases were reported in each of Capital & Coast, Canterbury, and South Canterbury DHBs.

This will continue to be an area of investigation as the NMMG's work programme moves forward.

The changes we would like to see next

To address any significant variances to the national averages across each Indicator, we expect DHBs to:

- Review the data;
- Investigate variances;
- Implement initiatives; and
- Report on outcomes.

We would like to meet with individual DHBs where there are concerns about the level of significant improvement and overall trends suggested by the Maternity Clinical Indicator data.

The PMMRC notes significant changes in variation at gestation at birth: births at 40 and 41 weeks have decreased; births at 36, 37 and 39 weeks have increased. We support DHBs to monitor changes in variation of gestation at birth so that the PMMRC can undertake investigation into this area.

Support a sustainable and adaptive workforce

Monitor maternity workforce recruitment and retention through the work of the Midwifery Strategic Advisory Group

Our focus for 2016/2017 was to monitor workforce recruitment and retention through our support for the Midwifery Strategic Advisory Group.

The Midwifery Strategic Advisory Group was established by Health Workforce New Zealand to ensure that New Zealand has a sustainable and supported midwifery workforce.

This work is important to develop a sustainable and adaptive maternity workforce, and it is supportive of Action 24 of the Health Strategy Roadmap of Actions: "*establishing workforce development initiatives to enhance capacity, capability, diversity, succession planning, and workforce flexibility*."

What we have done this year and our findings

We discussed the need to learn more about the initiatives currently in place in DHBs to create positive working environments.

We discussed complaints and response processes to address bullying issues. A common theme in maternity service sectors is workplace bullying and harassment. It is important that we gain an understanding of the positive steps that DHBs are taking to create better working environments and to address bullying issues. We want to know how many complaints have been made in the last year and whether a DHB regular surveys its staff and/or conducts exit surveys. We are currently finalising key themes from the external reviews of maternity services, and we will write to DHBs reporting on these findings and requesting information on their processes to respond to bullying issues.

Our review of the MQSP Reports found no commentary on workplace bullying or harassment.

On the other hand, four DHBs mentioned that staff had been surveyed (Auckland, Mid Central, Nelson-Marlborough, and Canterbury), however there is nothing in any of these reports to suggest that work-place bullying was explored through the survey.

We attended the Midwifery Strategic Advisory Group meeting and DHB Chief Executives meeting to highlight the need to address midwifery workforce issues.

We are aware that there are maternity workforce issues in numerous DHBs, and we want to work together with DHBs to resolve these issues so that maternity care is not compromised. We encourage all DHBs to ensure that there is adequate and appropriately qualified staffing on all shifts.
We encourage all DHBs to consider how their processes and policies impact staff recruitment and retention across the maternity workforce.
Key findings from three external reviews of DHB maternity services are included in this Report (see pages 16 and 17), and should be considered by all DHBs, with particular focus on the staffing and leadership themes.

Concern has been expressed in MQSP Reports about the reducing number of practicing LMCs: a problem that, in some regions, is soon expected to result in a decline in early registrations. The concerted efforts that have gone into encouraging early registration, for the benefit of mother and baby, could be undone if women are unable to find a midwife. One MQSP Report notes that an action plan has been developed, for 2017/18: "to enable women who are struggling to register with an LMC to access antenatal, birth and postnatal care."
We encourage DHBs to be proactive: take steps to retain, support and develop the workforce, so that plans such as one described above are unnecessary.

Changes we would like to see next

We would like to see DHBs implement our recommendations drawing on the external reviews of maternity services around improving workplace environments.

Connecting sector leadership

Connect with government maternity sector advisory groups to support cohesive quality improvement advice to the maternity sector

On 23 February 2017 the NMMG hosted a meeting with 20 maternity sector stakeholders to discuss approaches for ensuring that government-supported groups and committees making recommendations on maternity care work collaboratively and effectively; and that they support the implementation of recommendations made on maternity sector improvements. Representatives from the following groups and organisations attended:

- NMMG (host);
- ACC's Neonatal Encephalopathy Taskforce;
- PMMRC and its subcommittees (Maternal Morbidity Working Group, Maternal Mortality Review Working Group and Neonatal Encephalopathy Working Group);
- HQSC;
- New Zealand College of Midwives;
- RANZCOG;
- Consumer representatives from NMMG, PMMRC and Maternal Morbidity Working Group (MMWG);
- Ministry of Health;
- RNZCGPs; and
- Paediatric Society of New Zealand.

Maternity sector meeting attendees discussed the current issues impacting on groups/committees' ability to deliver coordinated and informed advice to the sector, and what needs to happen to ensure that work programmes align.

The sector was concerned that currently there are several organisations and groups making recommendations about maternity quality and safety improvements but there is not an end to the 'loop' or levers in place to push the sector to follow through with implementing the recommendations. It was agreed that the NMMG be the monitoring body responsible for the collation and oversight of recommendations made by all Ministry of Health-funded maternity groups and work in partnership with ACC, HQSC and the Colleges. NMMG is responsible for monitoring DHBs to ensure that they implement all recommendations made.

As a step towards ensuring government maternity sector groups work collaboratively, several new processes have been implemented:

- There is a memorandum of understanding between the NMMG and PMMRC;
- The MMWG provides quarterly written updates to the NMMG;
- The secretariats of the NMMG, MMWG, and PMMRC meet quarterly with the Ministry of Health, and
- NMMG meets with DHB MQSP coordinators on a monthly basis.

To conclude the maternity sector meeting, the group formed the following vision: "*Maternity services in New Zealand provide safe, high-quality services that are nationally consistent and achieve optimal health outcomes for mothers and babies*", which is, effectively, Standard 1 of The New Zealand Maternity Standards.

What are the issues?

What would we like to see happen?

Wahine and pepi/woman and baby-focused maternity services that are safe, equitable, accessible, high quality and trusted by New Zealanders

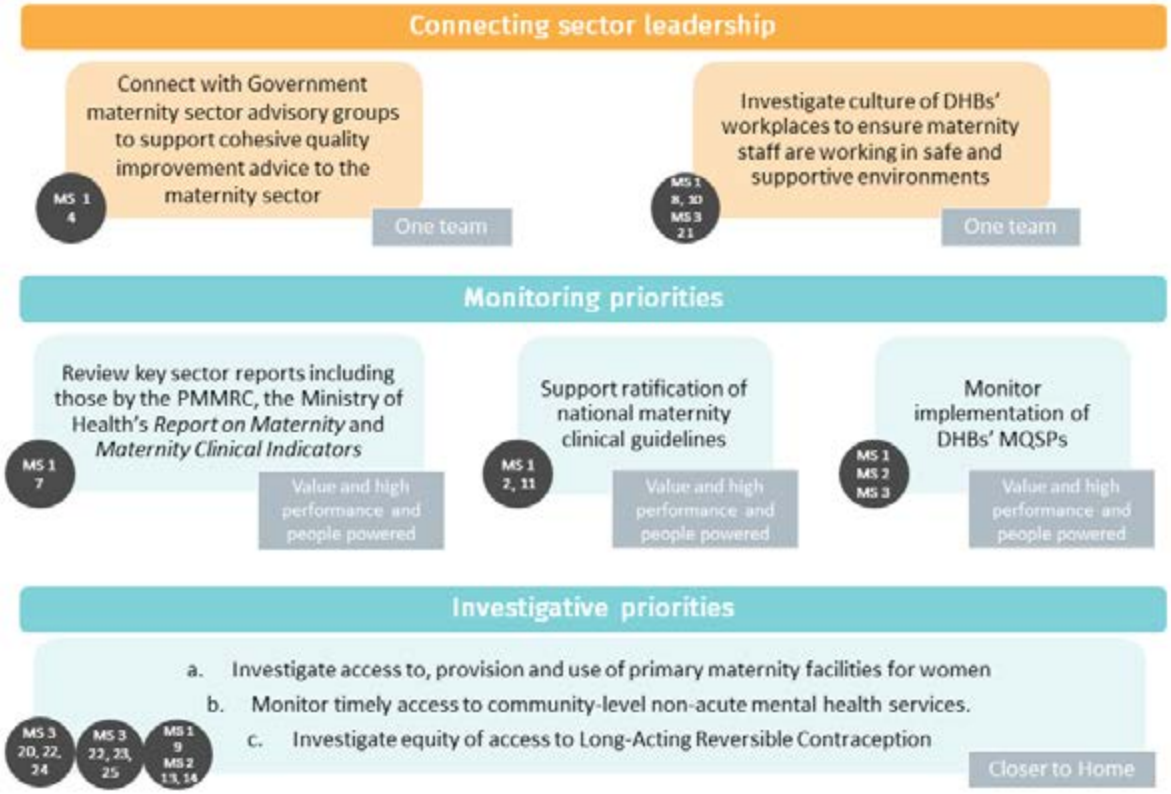
- NMMG – Implement, monitor, collate and oversee recommendations made by all MoH-funded maternity groups and work in partnership with HQSC and ACC maternity groups and colleges
- PMMRC and its sub-groups – data collection, analysis and recommendations to the maternity sector which are implemented by NMMG
- MoH – provide certainty of ongoing support, resources and funding for NMMG and PMMRC (and MoH Maternity groups)
- Colleges – provide standards, teaching, and guidance to professions and government
- MoH, HQSC, ACC – work together in partnership to achieve safe, equitable and high quality maternity services

Getting there

- Good workforce and outcomes data collection to understand the link between staffing and mother/baby outcomes.
- Maintenance of national maternity clinical data.
- Develop a business case providing recommendations on resourcing LMC workforce and clinical staff at maternity facilities
  - Determine best mechanisms for stocktake/gap analysis on maternity resourcing – key research questions and identification of data gaps
- PMMRC, ACC, Colleges, etc. to write to the Ministry of Health indicating support for the NMMG to act as the implementing body (see previous slide).
- Coordinate the development of key messages about maternity improvements that all can use (NMMG lead).
- Develop overview of key maternity groups identifying areas of strength.
- If/when potentially negative maternity stories are in the media, develop coordinated, timely responses that demonstrate the integrated nature of New Zealand's maternity sector (MOH lead in close liaison with NMMG and sector as needed).
- Proactive campaign regarding NZ's integrated maternity services available to women (MOH to lead).
- Consumers: make sure women are involved, informed, and approached for support.
- Maintain an overview of DHB reviews for themes (NMMG).
- Organisational structures enables midwifery leadership in partnership with clinical directors/leaders of O&G to lead clinical changes.

Appendix 1: NMMG work programme for 2017/2018

The National Maternity Monitoring Group's 2017/2018 Work Programme



Appendix 2: Terms of Reference for the NMMG

Terms of Reference for the National Maternity Monitoring Group

Introduction

1. This document sets out the:
   a. roles and responsibilities of the National Maternity Monitoring Group;
   b. work programme and reporting requirements;
   c. composition of the National Maternity Monitoring Group, and
   d. terms and conditions of appointment.

Background

2. The New Zealand Maternity Standards (Ministry of Health 2011) consist of three high-level strategic statements to guide the planning, funding, provision and monitoring of maternity services:

Standard 1:	Maternity services provide safe, high quality services that are nationally consistent and achieve optimal health outcomes for mothers and babies;
Standard 2:	Maternity services ensure a woman-centred approach that acknowledges pregnancy and childbirth as a normal life stage, and
Standard 3:	All women have access to a nationally consistent, comprehensive range of maternity services that are funded and provided appropriately to ensure there are no financial barriers to access for eligible women.

3. These high-level statements are accompanied by specific audit criteria and measurements of these criteria. One of the criteria is that a National Monitoring Group be established to oversee the maternity system and the implementation of the Standards.

Role of the National Maternity Monitoring Group

4. The role of the National Maternity Monitoring Group is to oversee the New Zealand maternity system and to provide strategic advice to the Ministry of Health on priorities for improvement.

5. Standard 1 of the New Zealand Maternity Standards states "a National Monitoring Group, consisting of a small number of clinical sector experts and consumer representatives … provides oversight and review of national maternity standards, analysis and reporting. The National Monitoring Group provides advice to the Ministry on priorities for national improvement based on the national maternity report, nationally standardised benchmarked data, the audited reports from DHB service specifications, Maternity Referral Guidelines, and the Primary Maternity Services Notice 2007".

6. Standard 1 sets out audit criteria, applicable at the national level, to which the Ministry of Health and the professional colleges are accountable to. These additionally inform the role of the National Maternity Monitoring Group.

7. The National Maternity Monitoring Group is not a decision-making body. While it may provide recommendations to the Ministry of Health, responsibility for decision-making and implementation rests with the Ministry of Health and/or other relevant participants in the maternity system.

Responsibilities and reporting requirements of the National Maternity Monitoring Group

8. The National Maternity Monitoring Group will meet at least four times per annum, and will undertake other communication as necessary to deliver the agreed work programme.

9. The National Maternity Monitoring Group is responsible for identifying priorities for action or investigation, and agreeing a 12-month work programme with the Ministry of Health at the beginning of each year of operation.

10. The work programme may include but is not limited to:
    a. Providing expert advice on data released through the New Zealand Maternity Clinical Indicators, national maternity consumer surveys and the New Zealand Maternity Report, which are published from time to time by the Ministry of Health.
    b. Identifying relevant priorities within the New Zealand Health Strategy 2016 and Roadmap of Actions and considering their impact within the sector.
    c. Contributing to the review of the New Zealand Maternity Clinical Indicators at a minimum of three-year intervals and providing advice on the modification, addition or withdrawal of any indicators.
    d. Identifying priorities for national clinical guidelines / guidance for maternity including recommendations on best clinical practice, and providing advice on how these should be developed and implemented.
    e. Reviewing reports of the Perinatal and Maternal Mortality Review Committee (PMMRC), identifying the implications for the maternity system of the findings of the PMMRC and providing advice on system response to these findings.
    f. Reviewing and assessing the annual reports produced by each DHB as part of its Maternity Quality and Safety Programme.
    g. Reviewing and assessing other maternity reports produced or commissioned by the Ministry of Health, DHBs, professional colleges, consumer groups or other stakeholders as requested from time to time.

11. The National Maternity Monitoring Group may be asked to provide advice on any other matters related to the quality and safety of maternity care and services by the Ministry of Health from time to time.

12. The National Maternity Monitoring Group will produce an Annual Report by a date negotiated with the Ministry of Health detailing:
    a. Work carried out, conclusions reached and recommendations made during the previous year.
    b. Its priorities and work programme for the following year
    c. How relevant actions from the New Zealand Health Strategy 2016 have been incorporated into the NMMG work programme.

Relationship of the National Maternity Monitoring Group to the Perinatal and Maternal Mortality Review Commission

13. The Perinatal and Maternal Mortality Review Committee (PMMRC) is a Mortality Review Committee, appointed under section 59E of the New Zealand Public Health and Disability Act 2000 by the Health Quality and Safety Commission.

14. The PMMRC considers maternal and perinatal mortality, and other morbidity as directed by the Minister in writing. It prepares an Annual Report, which includes its advice and recommendations.

15. In providing its advice, the National Maternity Monitoring Group will take account of the findings on maternal and perinatal mortality and morbidity by the PMMRC set out in its Annual Report.

16. Where the PMMRC recommends specific action by maternity system stakeholders, the National Maternity Monitoring Group will advise the Ministry on an appropriate response to these recommendations.

17. The National Maternity Monitoring Group will meet at least once annually with the PMMRC.

Composition of the National Maternity Monitoring Group

18. The National Maternity Monitoring Group will have a maximum of nine members, not including ex-officio members from the Health Quality and Safety Commission and Ministry of Health.

19. Composition of the National Maternity Monitoring Group will balance requirements for:
    a. Expertise necessary to analyse different sources of information on the maternity system and make recommendations based on this analysis.
    b. Perspectives of key stakeholders in the maternity system.

20. The National Maternity Monitoring Group will include the following experience as, and/or expertise in:
    a. epidemiological research and analysis of health data/statistics
    b. community-based LMC midwifery practitioner
    c. hospital-based core midwifery practitioner
    d. specialist obstetric maternity care practitioner
    e. specialist neonatal care practitioner
    f. primary care practitioner
    g. primary maternity radiology practitioner
    h. Māori health
    i. Pacific health
    j. consumer(s) with a focus on maternity issues.

21. All members of the National Maternity Monitoring Group will have basic skills and confidence in working with and interpreting health data.

22. The Ministry will seek nominations from relevant organisations and professional colleges, including the Health Quality and Safety Commission. The Ministry reserves the right to appoint more than one member from an organisation or college or to appoint members not officially nominated by an organisation or college, in order to ensure the balance of skills and expertise outlined in 20 a) to g).

23. Members of the National Maternity Monitoring Group will share a commitment to working collaboratively and constructively to oversee the national maternity system.

24. The National Maternity Monitoring Group may identify that additional skills or expertise in a particular field or specialty is required to deliver aspects of the agreed work programme. The National Maternity Monitoring Group may seek additional (co-opted) members to fill skill gaps. This will be done in agreement with the Ministry of Health.

25. At least one representative of the Ministry of Health will attend meetings in an ex-officio capacity.

Term of the National Maternity Monitoring Group

26. The National Maternity Monitoring Group will operate until the end of June 2019 unless otherwise notified by the Director General of Health.

Decision-making

27. Decisions within the National Maternity Monitoring Group are to be made by consensus. Members are expected to work as far as is possible to achieve consensus. Dissenting views of members can be noted for the record.

Appointment process

28. The Director General of Health will appoint members to the National Maternity Monitoring Group.

29. The terms of office will be for two or three years and will be staggered to ensure continuity of membership. No member may hold office for more than six consecutive years, unless there are exceptional circumstances. Members will be eligible for reappointment if applicable.

30. A Chair and Vice Chair will be elected by the members of the National Maternity Monitoring Group for a term of one or two years and may be re-elected.

31. Co-opted appointments may be proposed by the National Maternity Monitoring Group and will be made by the Director General of Health.

32. Any member of the National Maternity Monitoring Group may at any time resign as a member by advising the Ministry of Health in writing.

33. The Director General of Health may choose to fill vacancies should resignations occur.

34. A supplementary document 'Appointment Process for the National Maternity Monitoring Group' provides further detail for members and potential candidates and can be referred to in conjunction with these Terms of Reference.

Support for the National Maternity Monitoring Group

35. The Ministry of Health will arrange provision of the secretariat function for the National Maternity Monitoring Group. This may be externally procured. This includes distribution of agendas and recording of the minutes. Agendas and any associated papers will be circulated at least five days prior to meetings. Minutes will be circulated no later than a fortnight following the meeting date.

Meeting arrangements

36. Meetings will normally be held in Wellington. Rooms and refreshments will be provided for the meetings.

Payment of meeting fees and travel costs

37. A fee of $325.00 (exclusive of GST) will be paid for attendance at face-to-face meetings and is based upon a full day meeting including travel time. Other work carried out as part of the National Maternity Monitoring Group will be reimbursed on a pro rata basis at the rate of $325.00 per day (exclusive of GST).

38. Public servant/state servants/employees of Crown bodies are not paid for meetings of the National Maternity Monitoring Group. A public servant/state servant/employee of a Crown body should not retain both the fee and their ordinary pay where the duties of the outside organisation are undertaken during ordinary department or Crown body hours.

39. Payment of meeting and other fees will be in accordance with the latest Cabinet circular on fees and guidelines for appointments for statutory bodies, which can be found at: http://www.dpmc.govt.nz/sites/ all/files/circulars/coc-12-06.pdf

40. Travel to meetings and, if necessary, flights and accommodation will be arranged. Meal expenses (without alcohol) will also be paid, but other hotel charges including phone calls and items from the 'mini bar' will not be paid. Any additional travel expenses incurred will be reimbursed, including taxis, mileage (at the rate of 0.62c per km, GST not applicable) and parking. A valid receipt must accompany claims for expenses.

Conflicts of interest

41. Members of the National Maternity Monitoring Group should document their conflicts of interests and identify any conflict of interest prior to a discussion of a particular issue. The National Maternity Monitoring Group will then decide what part the member may take in any relevant discussion, and will identify whether the conflict needs to be escalated to the Ministry of Health for consideration. Guidance can be found in the document 'Conflict of Interest Protocol for Ministry of Health Advisory Committees'.

Confidentiality

42. The National Maternity Monitoring Group will maintain confidentiality of agenda material, documents and other matters forwarded to them unless otherwise specified.

43. Members of the National Maternity Monitoring Group are not to represent themselves as agents of the Ministry of Health, and by reason of their membership of the National Maternity Monitoring Group, are not permitted to speak on behalf of the National Maternity Monitoring Group or the Ministry of Health.

44. If a member receives a media request or enquiry relating to the work of the National Maternity Monitoring Group, they must inform the Ministry of Health including the Ministry's Health Communications Manager. Any media communication will be via the Ministry of Health.

Glossary of te reo Māori used in this report

Māori	English explanation
Aroha	Love, empathy, compassion - to love, feel concern for
Hapūtaka	Pregnancy (Kāi Tahu dialect)
Hākui	Mother
Ipu whenua	Vessel for placing the afterbirth once a baby is born before the afterbirth is placed in the ground. Often made of clay, harakeke or other materials.
Iwi	Tribe
Kāi Tahu	Also known as Ngāi Tahu – the southernmost iwi of Te Waipounamu (South Island).
Kaitiaki	Caretaker, guardian, steward
Kaupapa Māori	Māori approach and ideaology; a philosophical doctrine incorporating the knowledge, skills, rationales and values of Māori society.
Māmā	Mother
Manaakitaka	Hospitality, kindness, generosity, support – the process of showing respect, generosity and care for others (Kāi Tahu dialect)
Mana whenua	The people of the land whom have authority or jurisdiction over the land or territory. Power associated with possession and occupation of tribal land. The iwi history and stories are based in the lands they have occupied over generations and the land provides the sustenance for the people and to provide hospitality for guests.
Mirimiri	To rub, soothe, massage
Mokopuna	Grandchild/ grandchildren
Mō tātou, ā, mō kā uri ā muri ake nei.	A Kāi Tahu whakataukī or proverb meaning 'for us and our children after us'.
Oriori	A traditional type of lullaby or song composed on the birth of a chiefly child about his or her ancestry and tribal history to honour their connections, significance and importance.
Pēpi	Baby, infant
Rongoā	Traditional Māori medicine and practice to support health, wellness and wellbeing.
Taua	Grandmother, elderly woman (Kāi Tahu dialect)
Tamariki	Children
Te reo Māori	The Māori language
Tikanga/tikanga Māori	The customary system of values and practices that have developed over time and are deeply embedded and used to guide behaviours and protocols of Māori society. Tikanga can be likened to a set of guiding procedures/protocols/customs/rules/habits/way to do things correctly/methods/manner/plan/practices/meaning or techniques that support the social context of Māori.
Uara Māori	Māori values (Kāi Tahu dialect)
Wahakura	A woven bassinet for infants made of harakeke (traditional native flax)
Wāhine	Women (plural)
Wahine	Woman (singular)
Wāhine hapū	Pregnant women (plural)
Whānau	Family, extended family
Whānautaka	Birth/labour (Kāi Tahu dialect)
Whakaaro Māori	A Māori viewpoint/perspective/consideration/way of thinking that incorporates a Māori worldview and context.
Whenua	Land/afterbirth