Te Kotuku

2017 Maternity Quality and Safety Annual Report

Acknowledgements

Jeanette Wedding - *General Manager Child Youth Maternal Oral & Public Health Services*

Deb Pittam –*Midwifery Director and Service Manager – Maternity Services*

Ian Page - *Obstetrician (HOD)*

Jacqui Westren – *Manager - Service Improvement & Development Office*

Yvonne Morgan - *Clinical Midwife Manager*

Sue Bree – *Maternity Quality and Safety Programme (MQSP) Leader*

Michelle Bailey – *former MQSP facilitator and currently Associate Clinical Midwife Manager*

Justine de la Cour- *Associate Clinical Midwife Manager – Bay of Islands Hospital*

Stephanie Wilkinson – *Acting Associate Clinical Midwife Manager – Kaitaia Hospital*

Wendy Taylor - *Midwife Educator*

Maraea Mentor - *Tobacco Control Advisor – Pregnancy*

Tracey Redfern - *Antenatal Clinic Lead Midwife*

Sam Harris -*Team Leader Community Maternity Services*

Colleen Tamati – *CNM, Vision and Hearing Services*

Raewyn Smith – *Clinical Team Leader, Manaaki Kakano – He Tupua Wai-Ora, Maternal and Infant Addiction mental Health Service*

Virjean Primeau – *Northland DHB Diabetes Dietician*

Contents

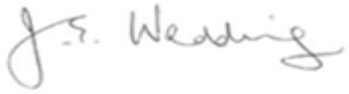
General Manager, Child Youth Maternal Oral & Public Health Services

Another year has passed and I am extremely pleased to be able to share the successes that Northland DHB has achieved. From the outset however I do need to record my thanks to a great team of Deb Pittam, Service Manager for Maternity, Michelle Bailey, previous Maternity Quality Safety Programme leader , and Sue Bree who took up the quality role earlier this year. Their passion and commitment to this work in our maternal services is second to none.

A few key achievements this year include:

- An enhanced midwifery clinical leadership staffing model introduced into our maternity services (Te Kotuku) earlier this year;
- The formation of a forum called Te Whare Ora Tangata enabling co-ordinated support for women with complex issues;
- Introduction of improved Maternal Mental Health and Drug and Alcohol pregnancy and parenting clinical pathways;
- An off campus community facility called Te Pua Waiora for community midwifery services in Whangarei. This has enabled mothers groups, increased lactation consultation clinics, larger antenatal classes with successful teen mum classes. The facility has been expanded in August and it is envisaged more services will be able to be provided for our families;
- Continuation as BAU of a robust multidisciplinary, region - wide Maternity Quality & Safety programme which involves employed and self-employed clinicians with a commitment to improving and promoting services throughout the region;
- An opportunity to modify the way in which our maternity services operate at Kaitaia with a leadership model to be introduced and an anticipated midwifery workforce going forward in the future;
- Northland DHB is committed to providing culturally appropriate antenatal education for Māori and has recently launched its Hapu Wananga programme providing antenatal education within a kaupapa Māori model. This is a collaborative venture between Maternity and Māori health services and we look forward to its success.

We continue to strive for consistent high quality maternity services in Northland and are proud of the progress made to date.



Jeanette Wedding

General Manager - Child, Youth, Maternal, Oral, Public Health Services and District Hospitals (Lead GM)

Director of Midwifery and Service Manager – Maternity Services

This has been a year of change once again in Northland. We have completed a full year now in the new unit in Whangarei, Te Kotuku. As is can probably be expected, many of the decisions made as to where things should be stored and how much and what we might need have changed over the year as we have tried a few options and made changes as they were needed. Some of this is still happening as we further define the workspaces to ensure the best and most efficient workflow possible in the new environment.

Changes in leadership and management have either been consolidated or implemented. My role is now permanent and combines the midwifery director role with the service management role; consideration for this role made possible when the previous service manager left us and headed south to be near family. We have been able to implement the new clinical leadership model in Te Kotuku. We now have an Associate Clinical Midwife Manager on every day of the week for 12 hours each day and a Clinical Midwife Coordinator position on Nights for the remaining 12 hours during weekdays. We have filled all but one of these positions with one of the Coordinator positions remaining unfilled at present. These positions are new but feedback from both midwifery and medical staff, and community LMC midwives has been very positive thus far and the midwives in these positions are already starting to come up with some fantastic ideas for quality improvement in the unit.

Our DHB-wide partners-in-care policy is well integrated now into our usual practice and most women choose to have a support person stay with them when possible in our postnatal unit. This gives us a fantastic opportunity to support new mums and partners to go home with consistent messages and education they can put into practice together. Feedback has been very positive from women and we are looking forward to carrying out a formal consumer feedback survey and some consumer forums during the next year so as to clearly gauge consumer satisfaction with our service and hopefully get more ideas for growth from our community.

During the process of staff changes this year we had one of our quality facilitators off on parental leave and the other covering clinical leadership role for some time then unfortunately off injured for a while. It was a dual edged sword really having our Maternity Quality and Safety Facilitator doing some clinical leadership on the unit. While it did mean that some of our projects had to go on hold, it enabled a very experienced eye to be placed on the quality functioning of the unit on a day to day basis which has enabled some positive change and has been incredibly positive for staff morale. Michelle Bailey has been our MQSP Facilitator from the beginning of the national MQSP roll-out and has done a fantastic job and is now one of our new Associate Clinical Charge Midwives at Te Kotuku. This has delayed completion of some of our quality projects; however we are now very privileged to have the services of a new Maternity Quality and Safety Leader who has been able to pick up the work and really start to roll it forward and we welcome Sue Bree to the team.

Kaitaia Maternity Unit has undergone a review of the staffing model as well in the last year and is in the final stages of planning for changes. The new model and plan will be described in full in the next years report. Interim changes have also been put in place to ensure Northland DHB now meets all of the components of the National Maternity Standards and the Primary Maternity Facility Service Specifications.

Changes are also underway in the Dargaville Maternity Unit. The changes to the district hospital models are enhancing regional leadership enabling improved communication and promoting more regionally collaborative service development.

This year we have completed the implementation of the GDM national guidelines and implemented all associated practice guidelines; completed the perinatal death review and developed recommendations; started projects looking at the reason for the high number of babies admitted to SCBU requiring respiratory support and looking at processes around caesarean sections. We

continue to have great buy-in from practitioners both employed and self-employed for trigger tool and other case-review processes. We also have some great projects either started or planned in the next year.

Northland DHB is blessed with a very collaborative workforce of midwives both employed and self-employed and of doctors all with a very strong commitment to quality service provision and we look forward to progressing this work in the next year.

Deb Pittam

Midwifery Director and Service Manager – Maternity Services

Northland DHB Clinical Midwife Manager

The maternity service moved into Te Kotuku in March 2016 after a beautiful welcoming ceremony with the official opening by Minister of Health, J Coleman.

The Te Kotuku space incorporates all the maternity services for the Whangarei hospital site, including the primary birthing service for Whangarei women and all the secondary maternity services for women throughout the region. The secondary antenatal service for Whangarei, including an ultrasound clinic, is co-located.

The facility provides a more welcoming and 'built for purpose' environment compared with the old wards. All five birth rooms have ensuite bathrooms and there is a combination of one and two bedded rooms consisting of 18 beds for ante and postnatal care in the rest of the unit.

From the outset, staff have embraced the 'partners in care' guideline the DHB has developed. All women are offered the option of having one support person of their choice stay with them during their postnatal stay. Generally the feedback has been very positive. Education previously provided to mothers only can now also be provided to support people.

The dedicated 'butterfly room' for whānau experiencing a bereavement has been a greatly beneficial addition to the unit. In partnership with the local SANDS group the room has been supplied with extra linen and crockery for use in this area. A 'cooling-cot' was also gifted to the unit by a generous benefactor and has been in regular use in order to keep the baby close to the whānau during the hospital stay.

We are, in common with most maternity services in NZ, facing staffing shortages. This is due, in part, to the ageing/retiring midwifery workforce and new graduates generally choosing to work as Lead Maternity Carers. We have therefore continued to accept applications from overseas qualified midwives as a means of maintaining our workforce. The service is also developing a contract to enable LMC midwives to be called to assist in the unit when high acuity is recognised. The local Auckland University of Technology midwifery satellite programme is very successful but is not graduating enough local midwives to meet all of Northland's needs for both LMC and core midwifery. At some stage, it is hoped that AUT will consider an extension of the programme with corresponding extra teaching resources and support. The addition of a clinical tutor to work with students in the birth suite has been approved and this position should be filled shortly.

The appointment of Associate Clinical Midwife Managers to work 12hr morning/afternoon shifts Monday-Sunday has been very positive. This enables a smoother running of the service, addresses

staffing shortages in a timely manner and means a senior midwife is available to provide leadership and clinical expertise as needed. An after-hours Midwifery Co-ordinator position has also been approved aiming to ensure midwifery leadership and clinical advice and expertise over five nights Monday-Friday. These positions are proving difficult to recruit into however, with 0.6 of the 1.5 FTE allocation filled to date. With this new staffing structure, along with the quality leadership role for the service now filled and on-going stability in the senior leadership group and medical team, we are in a strong position to embed previous successes and grow the service to meet the challenging needs of the Northland birthing population.

Yvonne Morgan
September 2017

Education Report

The final year of the 2014-2017 compulsory education for midwives saw the majority of midwives completing their Midwifery Practice study day (required once during the recertification period) and their annual Midwifery Emergency Skills Refresher (MESR) study day. For the 2017-2020 recertification period, (effective from 01 April 2017) there is no longer a Midwifery Practice study day but MESR remains.

This year, from 01 July 2016 to 31 March 2017 we held eight MESR eight-hour study days at Whangarei and four MESR eight-hour study days in the Regional Units, with between two and seven midwives attending. This corresponds to the number of staff that would attend an emergency in each setting. As with previous years these study days were held in the birthing rooms using mannequins and equipment that is utilised during each emergency. The study day is scenario-based and run in real time with midwives feeding back at the end of each scenario as to what went well and what could be improved upon. The topics were set by the Midwifery Council – maternal and neonatal resuscitation, postpartum haemorrhage (PPH), breech birth and shoulder dystocia.

From 01 April 2017 to 30 June 2017 the combined MESR day was run as two separate four-hour sessions comprising maternal and neonatal resuscitation for one session and, on a different day, the emergency skills component (MESR). The Midwifery Council of New Zealand advised this should cover PPH, with the remaining content to be decided by each DHB. After discussion with midwives across the region and the senior management team, we opted to continue with shoulder dystocia to include a neonatal resuscitation, PPH to include a maternal resuscitation and management of the deteriorating patient – with emphasis on amniotic fluid embolism. So far there have been three resuscitation sessions at Whangarei and two in regional units, with between three and nine attending.

There has only been one MESR study day held in Whangarei but many more are scheduled for the latter part of the year. This session had ten participants who were divided into two groups – one half participating in the scenario and the second group observing to provide feedback on communication skills and actions taken. This worked very well, generating some very positive discussion. The session on amniotic fluid embolism was accompanied by a handout on the topic which participants found helpful as this is such an uncommon occurrence. It has been helpful having the midwife from the Antenatal Clinic helping with the sessions at Whangarei as these involve larger numbers than the regional units.

This year we have held a variety of study days that were attended by core midwives, community midwives, and, for some of the days, nurses who work in maternity. Twenty one midwives (core and community midwives) and two nurses attended the eight-hour Neonatal Life Support study day this year. For core staff, attendance at least every three years is required. All of the attendees passed the written and practical assessment. Maternity now has three midwives who are instructors for this education day.

The Royal Australia New Zealand College of Obstetricians & Gynaecologists (RANZCOG) fetal surveillance study day was held again this year, 31 midwives and two doctors attended. Core midwives were required to attend every one-three years depending on their test result. Whilst the midwives enjoyed the day some found it very stressful and felt there was not enough time to discuss CTGs. It was therefore decided to run small four-hour workshops which core midwives at Whangarei are rostered to attend. The aim is to improve their knowledge of underlying fetal physiology, to increase recognition of normal and abnormal CTGs and the subsequent management of each. Community midwives are able to attend these sessions if they choose. The CTGs are from real-life situations and a summary of the anonymised case notes is used. This workshop will also be taken to the regional units.

Ten midwives attended an immunisation study day held in Northland. There have been a number of four and eight-hour breast feeding education sessions with 46 midwives and nurses attending. All staff members have attended a study day or an update on the Violence Intervention programme during the last three years.

There has been a large number of short 15-30 minute in-service education sessions held during the past year including sessions from the infection control team and the care and management of the small baby. As more new equipment arrives all staff are educated in its use – this has included the cold cot – used for babies who have been still born, the bilisoft – for treating jaundiced babies on the ward and the panda resuscitaire. Twenty seven midwives and the childbirth educator attended the four-hour Early Pregnancy Workshop held at Whangarei with midwives from the regional units accessing the workshop through video conferencing. This was a topic requested by midwives and was facilitated by Dr Ian Page.

There were two excellent study days in June. The first was a physiotherapy workshop for midwives conducted by a physiotherapist from Hamilton who specialises in women's health. Sixteen midwives attended from across Northland and were updated on the anatomy and physiology of the pelvic floor muscles; how to assess bladder and bowel function, advice and gadgets to assist with improving both of these, when referrals should occur and to whom. This day also covered acute postnatal and longer term pelvic organ prolapse, abdominal muscle diastasis, the role of exercise and assessment techniques, pelvic girdle pain/low back pain focusing on what the midwife should look/listen for, what can be offered e.g. support belts and referral. Other musculoskeletal problems (e.g. carpal tunnel syndrome) were also discussed. This was an exciting, interactive day with a lot of discussion and will hopefully be repeated next year.

The second was the STABLE study day organised through Child Health with both nurses and midwives attending. The focus was on the stabilisation of the baby post resuscitation and/or prior to transfer. Twelve midwives from across Northland attended which provided an update on the theory behind practice and discussion around the management of these babies as they are transferred to SCBU or NICU. Midwives from the primary units, who may be caring for these babies for a couple of hours before paediatric help arrives, found the day extremely helpful. It is anticipated that it will take place again next year and be organised through maternity.

Seven nurses from one of the regional units attended a study day for nurses working in the maternity unit. The topics covered included what happens during a birth and the nurses' role when the midwife is or is not present, adaptations for maternal resuscitation, neonatal resuscitation, shoulder dystocia, postpartum haemorrhage and providing care for the small baby. The rationale for this day was for the nurses to gain an understanding of what is happening and what they can do to assist the woman/baby and midwife. These study days for nurses have been well received with the nurses feeling they will be able to participate with greater effectiveness.

Wendy Taylor, Midwifery Educator

Northland DHB Vision and Mission

Northland DHB's vision is 'A Healthier Northland'. The mission is to work in partnership under the Treaty of Waitangi with the Northland population to improve population health, reduce inequity and improve the experience of all patients.

Mahi tahi te kaupapa o Te Tiriti o Waitangi he whakarapopoto nga whakaaro o te Whare Tapa Wha me te whakatuturutahi i te tino rangatiratanga te iwi whanui o Te Tai Tokerau.

In undertaking its mission Northland DHB is guided by the following values:

Northland DHB Values

People First - **Taangata i te tuatahi** - People are central to all that we do.

Respect - **Whakaute (tuku mana)** - We treat others as we would like to be treated.

Caring - **Manaaki** - We nurture those around us, and treat all with dignity and compassion.

Communication - **Whakawhitiwhiti korero** - We communicate openly, safely and with respect to promote clear understanding.

Excellence - **Taumata teitei (hiranga)** - Our attitude of excellence inspires confidence and innovation

Northland DHB's vision, mission and values are consistent with the Government's national priorities, and are consistent with the high-level direction of the Northern Region Health Plan. Northland DHB prioritised the following health needs in the 2012-2017 Northern Health Services Plan - long-term conditions, older people, Māori, child & youth, oral health, mental health, lifestyle behaviour, social influences.

Maternity Quality and Safety Programme Purpose

The purpose of the Maternity Quality and Safety Programme (MQSP) in Northland is to review and improve the quality and safety of maternity services as experienced by women, babies and their whānau in Northland. To be successful, leadership supports and enables a collaborative multidisciplinary team approach to service provision including the voice of consumers at all levels of service planning and review. The New Zealand Maternity Standards, the New Zealand Maternity Clinical Indicators and the Guidelines for Consultation with Obstetric and Related Medical Services (Referral Guidelines) and the Suite of DHB Maternity Services – Service Specifications are key national documents guiding practice and service provision.

Maternity Annual Report

This Annual Report covers the implementation and outcomes of Northland DHB's Maternity Quality & Safety Programme in 2016/2017 and:

- Describes the context of service delivery in Northland;
- Analyses Northland's clinical outcomes and critically reviews these in comparison with national comparators;
- Outlines progress towards Northland DHB's MQSP strategic plan objectives in 2016/17;
- Outlines planning and progress on identified objectives for the 2017/18 year;
- Demonstrates Northland DHB's alignment with the recommendations of the National Maternity Monitoring Group and the Perinatal and Maternal Mortality Review Committee (PMMRC).

Alignment with the Northland Health Services Plan

The vision and mission statements of the Northland DHB align with the purpose and establishment of the Maternity Quality and Safety Programme. The Northland Health Services Plan 2012-17 (NHSP) uses Triple Aim methodology to provide a strategic framework for achieving improvements in population health, patient experience and cost and productivity.

Alignment with Northland DHB Annual Plan

The first two goals of the first 2000 days work stream at Northland DHB are supported by a strong focus on quality maternity care. Goals, priorities and actions below are directly copied from the Northland DHB annual plan.

Goal One: Children in Northland have the best start in life, beginning in pregnancy.	**Goal Two:** Children in Northland live in an environment that promotes health and development so they can reach their full potential	**Goal Three:** Children in Northland are protected from preventable and avoidable illness and injury	**Goal Four:** Children with complex health needs and disability have their support needs met	**Goal Five:** Children have access to appropriate mental health care
Pregnancies are healthy and parents are prepared.	Healthy housing, warm, dry and smokefree Homes are safe from violence, abuse and neglect Children are caries free Children are well nourished and physically active Children are protected from infectious diseases	Children are safe from injury and avoidable death, and are protected from infectious diseases, through timely completion of the well-child immunisation schedule	Coordinated care within the multidisciplinary team and across the sector Family health literacy	Whanau/ families are empowered to better manage the impacts and effects of mental health issues

Priority areas for 2016/17 are:

Improved pregnancy care. This includes timeliness of LMC engagement, early identification of issues and intervention through effective coordination that enables and encourages whanau participation through partnership with service providers.

Improved access to *antenatal education/parenting preparation*

Increasing health literacy of whanau about the *free universal health checks* and services that support healthy childhood.

Increasing health literacy of Maori whanau about importance of *nutrition and physical activity* during pregnancy and childhood.

Removing barriers to timely enrolment, engagement of whanau with child health services and completion of checks (including immunisation) for infants through systems improvement.

Improving *oral health outcomes* at age five for tamariki Maori and children living in quintile 4-5 communities

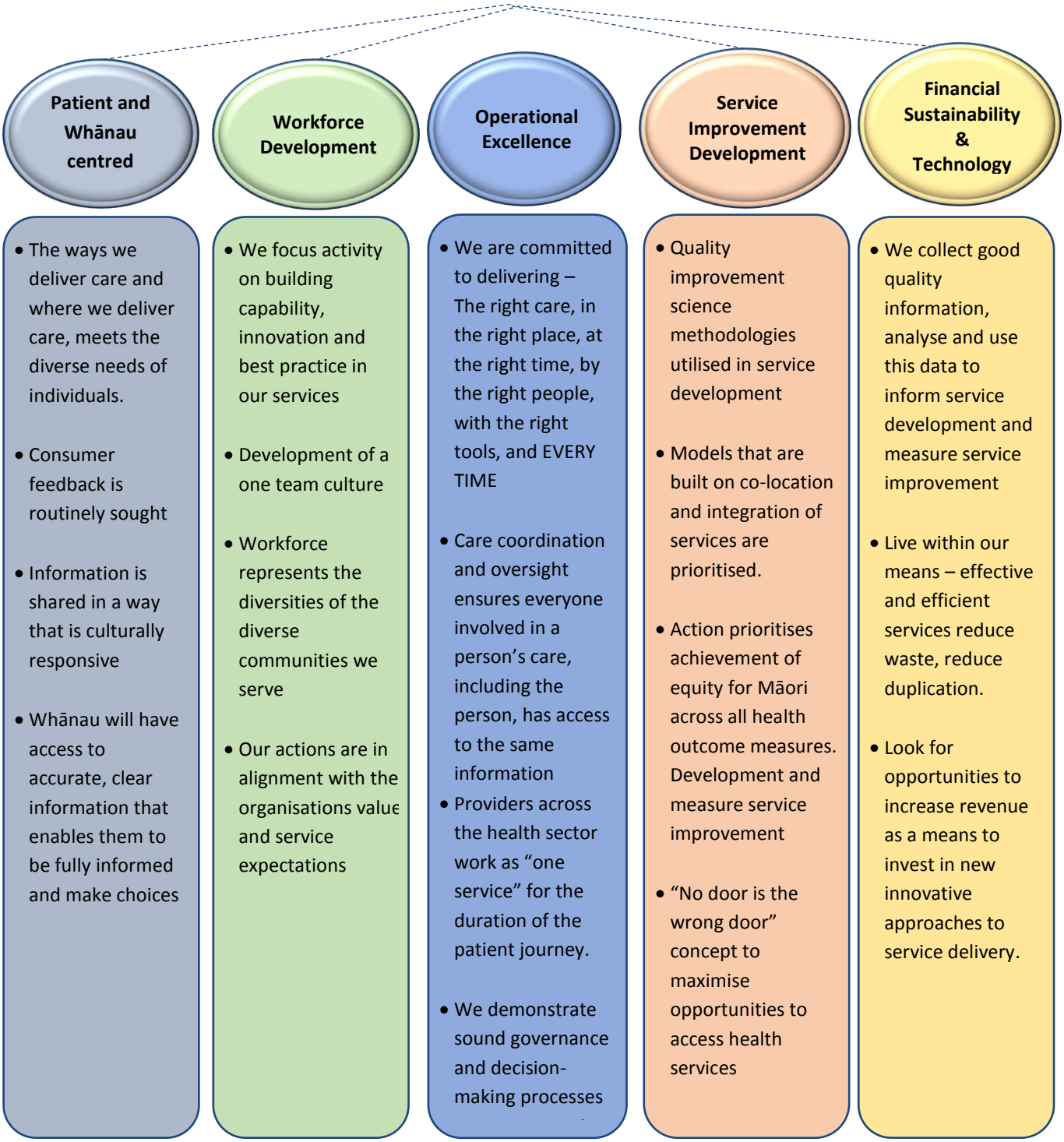
Improving completion rates for tamariki Maori and quintile 4-5 children for *B4SC*, ensuring effective care coordination where issues are identified and information sharing as appropriate during transition to school.

Improving access to *culturally competent health* care is critical to addressing health inequity for Maori whanau.

The DHB annual plan highlights the following Actions for maternity services in 2016/17. The Child, Youth, Maternal, Public and Oral Health Services (CYMPOHS) Strategic Plan sits under and supports this work so that there are clear links between our midwifery strategic and maternity quality and safety programme work plans and the DHB and MOH strategic plans, goals and directions.

Below is a copy of the plan showing links between the DHB overall plan and maternity priorities. Clearly, smoking cessation is a whole of service and DHB goal and our other MQSP projects fit under each of the CYMPOHS intentions which are the principals that guide the development of our work plan and goals each year.

Below are two pages from the CYMPOHS summary plan showing the links between the overall strategies and maternity plan:

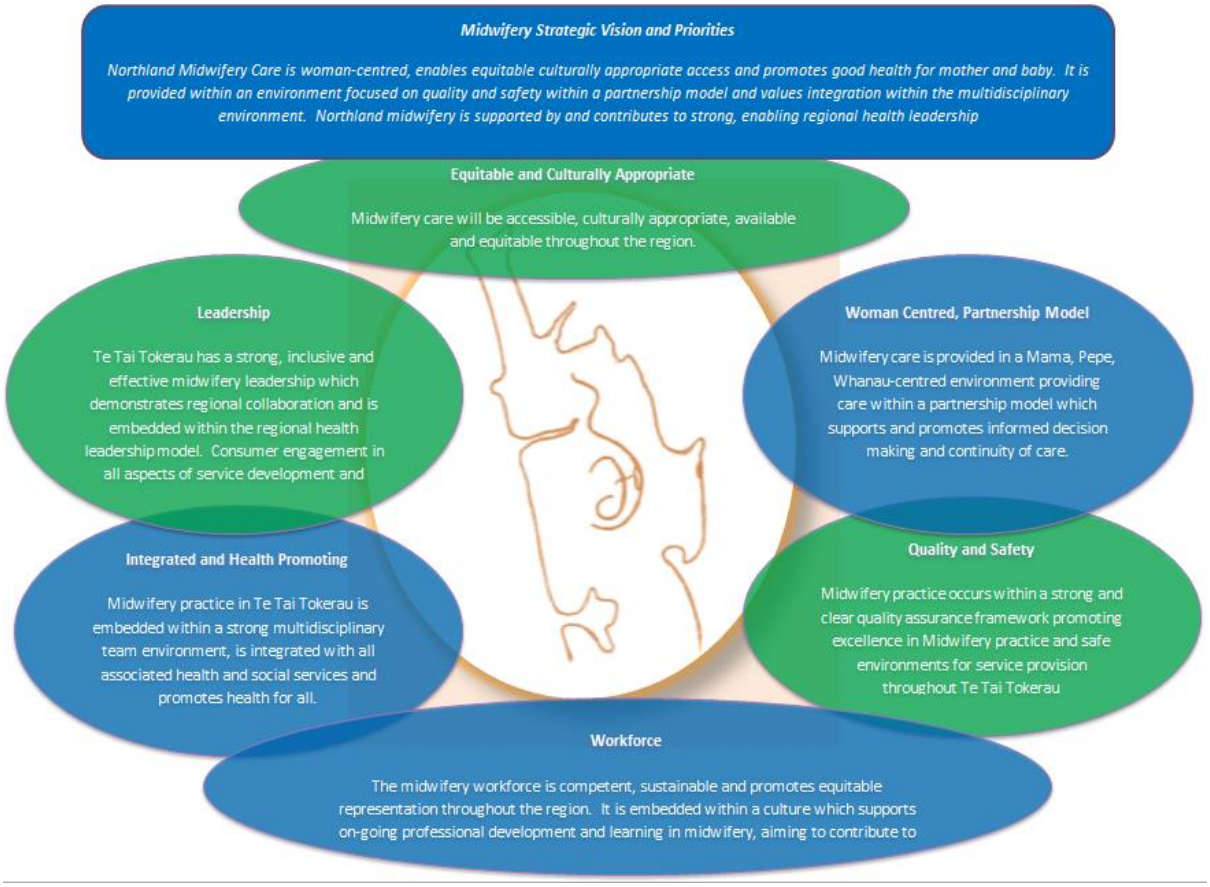


MATERNITY SERVICES	ACTION
Patient & Whānau centred care	❖ Increase utilisation of primary birthing units for women domiciled in Kaipara and the Mid & Far North ❖ Improve the continuity of care for birthing woman in Te Tai Tokerau ❖ Partners in Care policy becomes business as usual in all NDHB facilities ❖ Consumer engagement and participation informs all aspects of
Workforce Development	❖ Create a leadership and staffing model that ensures adequate facilities coordination for 24/7 midwifery care ❖ NDHB maternity education program supports midwives to achieve advanced practice skills. The program meets Midwifery Council of NZ requirements and is aimed to promote an NDHB values centred workforce
Operational Excellence	❖ Establish a programme of kaupapa Māori antenatal education across Te Tai Tokerau ❖ The Maternity Quality and Safety Programme (MQSP) drives all quality initiatives across all NDHB facilities
Service Improvement & Development	❖ Expand the use of technologies in engaging effectively with pregnant woman and their family/whānau ❖ Review the current Maternity Clinical Governance Forums membership and scope and implement any recommendations ❖ Improve the use of Telehealth and other technologies to increase pregnant woman's access to specialist clinical services across Te Tai Tokerau
Financial Sustainability & Technology	❖ Improving communication between GPs and LMCs for management of women with long term conditions in pregnancy through use of tools such as Whānau Tahi and the implementation of the new maternity PMS. ❖ Implement the Releasing Time to Care Programme. ❖ Participate in successful implementation of NCHIP project

Alignment with the Northland's Midwifery Strategic Plan

The 2015–17 Midwifery Strategic Plan is a midwifery workforce plan and is due for review this year. It was developed in collaboration with community and employed midwifery workforces. While midwifery is only one component of the overall picture of the maternity workforce, midwives are the primary providers of maternity care in Northland providing midwifery care for all women accessing maternity services. Obstetrics, medical, social workers and other social and cultural service providers are involved with many women at times throughout their pregnancy, birthing and postnatal journey, but the primary care relationship is the midwife - woman partnership. We felt it was important to ensure that all midwifery services were appropriately joined up and heading in an agreed direction so that integration with the remainder of the maternity services workforce was enabled and consistent throughout the region. We would then be able to follow a shared vision for future services working together to aim for equitable services, including access to services, for women throughout the region.

The Midwifery Strategic Plan incorporates an agreed vision and priorities. The Maternity Quality and Safety Programme objectives fit within the identified strategic priorities. They incorporate midwifery workforce expectations alongside maternity service development. This is to be expected if full integration of midwifery services with all components of the maternity service is to be achieved. In the process of developing the strategic plan the following vision and strategic priorities were developed:



Northland DHB's Alignment with the New Zealand Maternity Standards

The DHB funded Tier one service specifications require all DHBs to comply with the New Zealand Maternity Standards. Below is an outline of the standards we are meeting as a DHB as well as associated work streams which are further discussed later in the document.

Standard One: ***Maternity services provide safe, high-quality services that are nationally consistent and achieve optimal health outcomes for mothers and babies***		***Current Work streams or BAU processes***
8.1	Multidisciplinary meetings convene at least every three months	**Three times per week:** Trigger Tools **Fortnightly:** Te Whare Ora Tangata **Monthly:** Morbidity and Mortality meetings SCBU/Maternity Trigger Tools & interface meeting Maternity Clinical Governance Forum **Twice monthly:** Maternity Guidelines Committee meetings
8.2	Report on implementation of findings and recommendations from multidisciplinary meetings	At M & M meetings Reportable Events Committee for higher level reviews Reports to Maternity Clinical Governance Further elevated to Board Clinical Governance if required
8.3	Invite all practitioners linked to maternity care, including holders of Access Agreements, to participate in the multidisciplinary meetings, and report on proportion of practitioners who attend.	All practitioners are invited and annual reports identify attendance
8.4	Produce an annual maternity report	MQSP report includes new projects and Business As Usual (BAU) processes
8.5	Demonstrate that consumer representatives are involved in the audit of maternity services in Northland DHB	Consumer membership in Clinical Governance Consumer inclusion in case-review process Annual consumer feedback forum to be instigated this coming year
9.1	Plan, provide and report on appropriate and accessible maternity services to meet the needs of the Northland region	Documents include: Midwifery Strategic Plan - CYMPOHS annual plan which is linked to the Northland DHB annual plan MQSP Annual Report

9.2	Identify and report on the groups of women within their population who are accessing maternity services, and whether they have additional health and social needs	Included throughout the report
9.3	Plan and provide appropriate services for the groups of women within the Northland population who are accessing maternity services and who have identified additional health and social needs.	Te Whare Ora Tangata Note MQSP Annual Plan
9.4	The proportion of women with additional health and social needs who receive continuity of midwifery care is measured and increases over time	Work to improve services in Kaipara is underway this year 97 percent of women in Northland have continuity of care from an LMC and we aim for all women. We provide continuity of antenatal and postnatal care for women who are either too complex for LMC care or as a service as last resort
10.1	Local multidisciplinary clinical audit demonstrates effective communication among maternity providers.	Strong clinical audit processes exist with Trigger Tools, Case Review, Serious Event Analysis and M&M in place
10.2	The number of sentinel and serious events in which poor communication is identified as a risk decreases over time.	We have not had any SEAs identifying poor communication in this last year. See additional project to enable community feedback in the annual plan this year.
11.1	The number of national evidence-informed guidelines implemented in Northland increases over time.	All our internal guidelines are developed using national guidelines where available Completed implementation of the GDM guidelines this year.
12	National maternity service specifications are implemented within each DHB-funded maternity service.	100 percent of the DHB maternity services; service specifications are implemented in each DHB-funded maternity service. Work is being finalised to ensure this in our district hospitals
Standard Two: Maternity services ensure a women-centred approach that acknowledges pregnancy and childbirth as a normal life stage.		***Current Work Streams or BAU processes***
16	All DHBs provide access to pregnancy, childbirth and parenting information and education services	Antenatal education is provided in Whangarei as well as at the primary units in Kawakawa, Kaitaia and Dargaville
17.1	The national tool for feedback on maternity services is applied at least once every five years.	This year we will be surveying women for feedback as a project and are using a combination of local and national questions in the survey
17.2	Demonstrate in the annual maternity report how Northland DHB have responded to consumer feedback on maternity services	Northland DHB Feedback forms are available in all clinical settings. All completed forms are placed into a locked box and sent directly to the

		Quality Improvement Directorate from the unit. There they are entered into the DHB Datix system to be followed up by designated staff within the relevant service. Outcomes are reported monthly. All complaints are managed also through the Quality Improvement Directorate and are responded to within one month. All complainants are offered the opportunity for a face to face meeting. Note consumer survey planned for this year.
18.1	Consumer feedback demonstrates that consumers consider the services to be culturally safe and appropriate	The vast majority of feedback received is extremely positive. Complaints are managed in a timely manner and with respect. We have had only one complaint regarding cultural practice which pertained to our butterfly room. This was very quickly managed and processes changed to ensure no future problems. All staff are currently undertaking Northland DHB-wide cultural training, attending an additional half day course, "Engaging with Māori". This has been very well received.
18.2	Demonstrate in the annual maternity report how Northland DHB has responded to consumer feedback on whether services are culturally safe and appropriate	See above.
19.1	All DHBs have a mechanism to provide information about local maternity facilities and services and facilitate women's contact with Lead Maternity Carers and primary care.	Women are directed to the Find Your Midwife website. Local pamphlets listing the midwives working in each area are provided to GP clinics and also to women on request Further work planned with the Northland PHOs to improve access to LMCs from GPs
19.2	Report on the proportion of women accessing continuity of care from a Lead Maternity Carer for primary maternity care	97 percent

Standard Three: All women have access to a nationally consistent, comprehensive range of maternity services that are funded and provided appropriately to ensure there are no financial barriers to access for eligible women.		***Current Work Streams or BAU processes***
22.1	Demonstrate local services are consistent with national and regional plans and appropriate for the local birthing population	See page 11 and 12 above
23.1	Local multidisciplinary clinical audit demonstrates women and babies have access to levels of care that are clinically indicated.	Audit on the transfer of women from primary units to the secondary unit in Whangarei has been completed and documentation is currently being finalised for presentation at an M&M meeting. This will be reported in full in the next report.
24.1	Report on implementation of the Maternity Referral Guidelines processes for transfer of clinical responsibility	Guideline developed and auditing commenced. Use of handover sticker improving
24.2	Local multidisciplinary audit demonstrates effective linkages between services.	SCBU/Maternity multidisciplinary and multiservice trigger tool process and shared M&M reviews when appropriate are evidence of this
25.1	All DHBs have local and regional maternity and neonatal emergency response plans agreed by key stakeholders including emergency response services.	In process of finalising new updated transfer guideline including clear check list.
25.2	All maternity providers can demonstrate knowledge of local and regional maternity and neonatal emergency response plans	Education for midwives on emergency situations takes place in all DHB practice settings. This year there will be additional multi-disciplinary sessions at primary units
25.3	Local multidisciplinary clinical audit demonstrates effective communication among maternity providers in cases of clinical emergency	This is reviewed with all trigger tools when transfer has occurred
26.1	All DHBs provide, or accommodate, a model of continuity of midwifery and obstetric care when secondary or tertiary services are responsible for the woman's care.	97 percent of women have an LMC and in most cases LMCs continue to provide all or part of the woman's care when there are complexities. They work in partnership with consultant team and antenatal midwife specialist or core midwife as required. When, in rare cases this does not occur, coordinated care is offered via the employed community midwife.
26.2	Consumer feedback demonstrates that an increasing proportion of women requiring secondary or tertiary level care are satisfied with the continuity of midwifery and obstetric care they received	This is an area to be included in the consumer survey to be undertaken before the end of the 2017 calendar year

MQSP Objectives for the 2016/2017 and on-going plan

	Goal	Measure	Outcome
1.	To increase the number of women who register with an LMC by week 12 of their pregnancy. *NMMG priority area* *On-going*	The number of women registered for maternity care will increase. This will be recorded at local level on the Maternity Dashboard and will be reported on.	The number of women registering with an LMC in the first trimester has shown a small increase in 2015. The business case developed last year as part of the F2000 day's project will be resubmitted to the DHB strategic investment fund in July.
2.	To improve access to Maternal Mental Health Services for all women in Te Tai Tokerau. *NMMG priority area* *PMMRC recommendation*	Improved access to Maternal and Infant Mental Health Services for women and their infants will be evident by increased referral numbers 2017/18 Feedback will be sought from consumer survey and forum and from Community LMCs	Mental health referrals have increased according to mental health services in the last year. Access for lower level need is still causing some concern from LMCs and further work looking at options for Primary health referrals for these women will be undertaken this year Implementation of the He Tupua Waiora service has begun and a combined referral form and process implemented to simplify referral processes for all primary maternity and health workers. Referrals can be directed to a service or by paper or e-referral through the Te Whare Ora Tangata group for those women for whom this is beneficial.
3.	To implement the national guideline for gestational diabetes. *NMMG priority area*	Women will be screened and referred appropriately for services as indicated. Follow up audit is planned for February next year to review compliance against the guidelines and identify any issues	This has been completed. All guidelines have been updated and processes implemented. Last audit showed increasing referral for the HbA1c in early pregnancy and these are now being routinely carried out by all laboratories in Northland as part of the existing suite of first antenatal bloods.
4.	To improve our understanding of the health needs of Māori. *NMMG priority area* *Local priority area*	Continue with auditing to identify equity gaps and plan processes to improve same	Improved levels of cultural competency in practice for all DHB employees by attendance at Engaging with Māori education Work in partnership with Te Kaahu Wahine, primary health services and Māori Health directorate in the DHB to identify needs for Māori women and whānau
5.	To increase access to information about services, guidelines and best practice. *Local Priority Area*	Audits of guidelines after implementation are carried out as a part of the regular audit process and at 6 or 12 monthly intervals depending on outcomes. 2017/18 Survey of staff and LMCs planned for early next year which will include questions to check we are reaching everyone	Well researched evidence-based guidelines are produced and easily available on the Clinical Knowledge Centre page on the Northland DHB website. Northland DHB Policies and Guidelines are available to view in electronic format from outside the DHB. Implementation processes for introduction of new resources and practice guidance have been strengthened, in particular in the primary units with staff restructuring, increasing the presence of quality & safety activities and providing enhanced midwifery clinical and quality leadership. 2017/18 Annual Plan outlines an intention to recommence monthly maternity newsletters which will include general service information as well as quality updates. This will commence in November.
6.	To improve the validity and reliability of maternity health data.	Coding information is accurate. Solutions (maternity information system) information is accurate. Same	Increased communication and education of staff on correct documentation of information is on-going and although most data is

	NMMG priority area	shown by audit processes. Regular systems audits undertaken and issues identified for correction Review of data input in regards to coding in relation to numbers of babies needing 4 hours respiratory support in SCBU undertaken in 2016/17 in view of very high rates.	considered to be reliable there are continuing issues with quality of information available for input. A recent Solutions audit has identified some issues with data integrity. It is a recommendation for 2017/18 to introduce point of care input of data for labour and birth, baby summaries and discharge notes to ensure better integrity of data input. Coding audit has identified no coding issues
7.	To decrease the number of women who smoke in pregnancy. *NMMG priority area*	Rates of smoking in pregnancy reduce, especially in Māori.	Smokalyser programme implemented and provided to LMCs throughout Northland with good effect and uptake. Referral and provision of NRT has continued when appropriate. Support and development of a local core midwife champion Encourage attendance at smoke-free hubs. 2017/18- see new programme information in report re implementation of the new Toki Rau stop smoking services in Northland
8.	To continue to monitor variation in birth gestations. *NMMG priority area*	On-going review of national data continues	17/18 Gestational Diabetes Mellitus (GDM) guideline audit in Feb will include timing of planned birth Induction of labour and elective caesarean section rates are reported on the Maternity Dashboard and are also reported monthly at the M&M meetings
9.	Review of the services offered to women who experience a mid-trimester pregnancy loss. *Local priority*	Women who experience mid-trimester pregnancy loss will be supported to birth in an appropriate environment.	This was highlighted in the 2 year MQSP work plan as one of the projects for the 2016/17 year but unfortunately has not been commenced due to staff changes this year. Review of the processes and guidelines for management of still birth/neonatal death has been commenced as a part of the planning process for this work and the full project will be undertaken in the 2017/18 year.
10.	Review the MOH Maternity Clinical Indicators and investigate any indicators which are outside the averages of the benchmarked data.	Ongoing review of indicator data continues and is fully discussed in this document.	Two projects were commenced in 2016/17. They are reviewing Northlands high rate of term babies requiring 4 hours or more of respiratory support in SCBU and women experiencing a general anaesthetic or a PPH after LSCS. These are reported in the body of this document. Some of this work is ongoing and will be for the 2017/18 year.

Projects Update June 2016

Projects aligned with the Northland DHB First 2000 days programme

F2000Days - Summary of Programme and Progress to 1 September 2017

1. SUDI Prevention

Project Status: National SUDI Prevention programme with regional and DHB specific Ministry specifications for programme delivery being progressed.

- **Pilot**

In Northland a pilot project was completed during April and September of 2013 in both Whangarei and Kaitaia. Key components of the pilot included; implementation of a SUDI risk factor assessment tool, targeted additional safe sleep discussion, (particularly the increase risk associated with smoking and bed sharing) and the offer of a Wahakura waikawa or PepiPod to support a safer sleep option in bed sharing. Marae based wananga across Northland were held to facilitate community discussion about SUDI and the protective actions and promote the weaving of Wahakura waikawa.

The pilot was externally evaluated by Kiwikiwi Research and Evaluation Services Ltd. Recommendations to continue the provision of risk factor identification, consistent and culturally relevant safe sleep messaging and provision of a safe sleep space where needed, was established into a business as usual model with a modest and dedicated annual budget for the purchase of safe sleep spaces.

- **Safe Sleep Spaces**

Since 2013 Northland DHB has purchased 400 Wahakura waikawa and 750 PepiPods for distribution to whānau with babies with identified SUDI risk factors. In 2014 Maternal and Child Health Services allocated an annual baseline budget to purchase 100 PepiPods, 60 Wahakura per annum and 12 half day weaving sessions. These volumes and the purchase of additional teaching sessions have been increased when discretionary funds have become available.

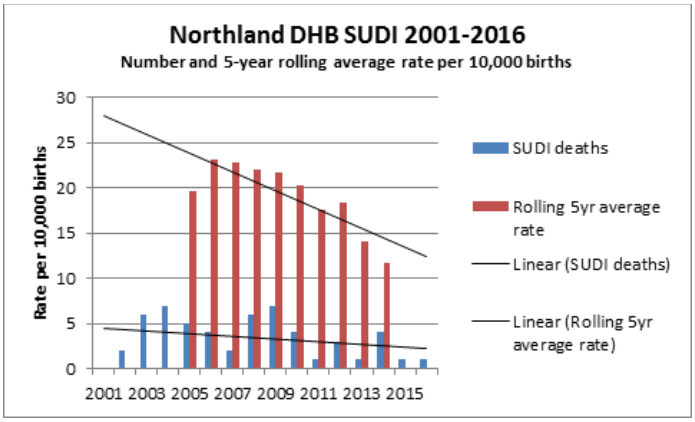
- **Marae based hapu wananga**

Since the pilot programme commenced, the marae-based one day wananga focussing on SUDI prevention actions have continued across Northland and have focussed on reaching pregnant women and whānau with infants and young children. Over 45 marae have participated in this programme since commencement in 2013.

The wananga have been facilitated by Māori midwives working in partnership with a health promoter from Whakawhetu, local community providers of maternity, well child services and health promotion services. Key messages include; smoke and substance free pregnancy and childhood, safe sleep for every sleep, breastfeeding and immunisation.
Feedback from participants reiterates the importance of kaupapa Māori to those whānau who attend. Participants have consistently expressed their comfort in attending in their own environment on the marae for interactive learning. Whānau who have been attending wananga have been identified by service providers as whānau less likely to seek out health care and the wananga have provided an opportunity for service providers to make direct contact with whānau across a range of health and welfare topics.

The weaving of wahakura continues to be an important component of these hui.

This programme has strong alignment with smoking cessation initiatives that work specifically with hapu mama and whānau.



Although SUDI rates appear to be reducing for Māori infants, maternal smoking rates for Māori women during pregnancy continue to be significantly higher when compared with non-Māori women. Maternal smoking is a key risk factor in SUDI and in the inequity experienced for Māori in many other infant/child health outcomes. More resource needs to be invested in this area if we are to achieve a sustained and continual decline in rates of SUDI.

2. **Enhancement and Expansion of kaupapa Māori antenatal education - Hapu Wananga**

Project Status: Successful business case and submission for two-year fixed term Hapu Wananga Programme delivery across the region, commencing September 2017.

Context

In 2015/16 one off funding through the Māori Health Plan for SUDI Prevention enabled a continuation of this work with our partners at Whakawhetu and an opportunity to expand the hapu wananga, Te Mata O Mua into Whangarei in partnership with Hauora Whanui.

Commencing in February 2016, Te Mata o Mua has been facilitated regularly in Whangarei in a variety of venues.

Format of the Programme

The programme is held over two consecutive days. Day one of the programme focuses on the delivery of key messages such as auahi kore, safe sleeping, car seat safety, and drug and alcohol education. Local providers of health promotion and whānau support attend this day and co-facilitate the content.

Day two is a kaupapa Māori based wananga on birthing and afterbirth, the role of Tane (the facilitator's brother participates in a session with males attending), Atua Māori and includes a practical session making ipu.

Evaluation of Hapu Wananga

An evaluation of both models of hapu wananga has been undertaken by FEM Ltd and has formed the basis for development of a business case application for sustainable funding to expand delivery of hapu wananga across the region.

Recommendations of the evaluation identify the need for -

- Leadership;
- Building capacity of the workforce to deliver hapu wananga;

- Resource development;
- Opportunities for shared learning;
- Establishment of robust and culturally appropriate process and outcome measurement.

Business Case Development and Submission

A business case for funding of region-wide delivery of Hapu Wananga has been successful. A programme coordinator has been appointed to lead the development and delivery model across Tai Tokerau. The partnership model includes key stakeholders from iwi/hapu, midwifery, tamariki ora and health promotion services. This service has commenced planning and will be reported on in the 2017/18 annual report.

The Issue

Attendance at NDHB Antenatal Education Programmes

2014				2015			
Ethnicity	% Attending	Age Bracket	Number Attending	Ethnicity	% Attending	Age Bracket	Number Attending
Maori	27.43	< 21	96	Maori	28.02	< 21	155
NZ European	57.18	21-25yrs	211	NZ European	56.73	21-25yrs	174
Pacific Islander	1.31	26-30yrs	182	Pacific Islander	3.05	26-30yrs	212
Other	14.08	31-35yrs	135	Other	12.21	31-35yrs	116
		36-40yrs	46			36-40yrs	50
		41-45yrs	19			41-45yrs	12
		45+	0			45+	2
		TOTAL	689			TOTAL	721

Attendance at NDHB Antenatal Education Programm

Whangarei (Te Puawai Ora & Te Ora Hau) and

Bay of Islands Hospital

In 2014 there were 903 births identified as Māori.

Of the 689 women who attended DHB facilitated sessions 27.4 percent identified as being Māori.

Assuming the cohort of both women birthing and infants being born are Māori, we can assume that 188 of the total 903 attended. This equates to 21 percent of pregnant Māori women attending the Northland DHB antenatal education programmes.

In 2015 there were 936 births identified as Māori.

Of the 721 women who attended DHB facilitated sessions 28 percent identified as being Māori.

Assuming the cohort of both women birthing and infants being born are Māori, we can assume that 202 of the total 936 attended. This equates to 22 percent of pregnant Māori women attended the Northland DHB antenatal education programmes.

The Ministry of Health has an expectation *that at least 30 percent of Māori and teenage pregnant women* will attend antenatal education classes.

3. Te Whare Ora Tangata

Project Status: In Progress: The Whangarei based forum is fully functional and covers all women throughout the region. The next phase is to expand the model to the Far North and consider further funding options.

Te Whare Ora Tangata is a maternal and infant health case management forum. The purpose of the forum is to provide a place for multidisciplinary information sharing. The forum uses a collaborative approach to support and provide advice to clinicians providing care for vulnerable pregnant or

postpartum women up to three months after birth or once the relationship is established with the Well Child/Tamariki Ora Provider.

Background to Development

In 2014 a second Northland-wide process of consultation with service consumers and providers of services was undertaken. The aim was to clarify understandings from the first consultation round and to identify additional service delivery issues that could be impacting on the health outcomes of pregnant women and their infants. Consistently highlighted was the need for better coordination of care for women – especially for women who are Māori and hapu and where access to a range of services is needed. From the women's perspectives, many of the issues identified resulted from poor communication between providers of services. Providers were reported as sometimes giving information that was contradictory or developing plans of care that were not cognisant of each other's contribution. This resulted in feelings of frustration and confusion for women who subsequently pulled away from working with service providers.

Te Whare Ora Tangata is now operational. The forum currently meets fortnightly, based in Whangarei but providing regional consultation. Video/telephone conferencing connect LMCs, hospital midwives and social workers to the forum. The forum has reached capacity, with enough cases on waiting lists to now require additional meetings. Work is in progress to expand the model to Kaitaia.

4. New-born Integrated Enrolment and the High Five

Project Status: High Five form process established in Northland DHB birthing facilities. Northern region NCHIP implementation planned 2018/19.

To improve new-born notification, enrolment and access to universal child health services requires a multi-prong approach.

In Northland gains have been in General Practice newborn enrolment and timely completed well-child immunisations, through co-location of immunisation, outreach and B4SC coordination services and an intentional and targeted approach that includes:

- Improving both enrolment of and the accuracy of information of the pregnant woman at time of antenatal booking with birthing facility;
- Completion of the High Five (new-born notification form) with consent and prior to discharge from the birthing facility – General Practice and intended Well-child provider (if known);
- A process of early identification, utilising both birth data and the NIR (National Immunisation Register) of infants who are not enrolled with a GP;
- A system of tracking and tracing infants who are overdue, or have a history of late immunisations, by active collaboration with General Practice teams and Well Child Providers;
- Provision of outreach services when needed (improving health literacy, provision of transport to General Practice and/or home based vaccination).

We have established a reconciliation process of Northland births with Well Child Tamariki Ora infant enrolment at six weeks to improve enrolment rates, timeliness of enrolment with providers and identification of infants who have no identified provider. Our experience to date suggests that approximately five to seven percent of whānau with newborn babies either do not have a WCTO provider allocated at 10 weeks, or the nominated provider is experiencing difficulty engaging with the family to facilitate enrolment and timely completion of core visits one to three.

National Child Health Information Platform (NCHIP)

Northland DHB is a member of a regional group that submitted a successful business case for the implementation of NCHIP.

The NCHIP project aims to provide each DHB with a single, centralised system that identifies all the children living in the region and reports on enrolment and milestone data from service providers delivering the range of core universal child health services.

The NCHIP solution takes data from the source systems of various child health services and collates this into a single integrated dataset. This integrated view is made available to providers and clinicians via an online portal. In some cases this is accessible via a 'single click' directly within the provider's management system.

Implementing NCHIP also requires the establishment of a monitoring and coordination service which follows up with families, providers, services and other agencies when children are late or missing enrolment or missing their health milestones. The service generates reports on the integrated dataset for tracking overall performance, supporting services, and finding 'missing' children.

Smoke Free Activities

	Quarter 1 2015 - 16	Quarter 1 2016 - 17	Quarter 2 2016 - 17	Quarter 3 2016 - 17	Quarter 4 2016 - 17
Smoking Prevalence at booking with LMC	48%	46.6%	46.7%	44.9%	44.0%
Gestation at Registration With LMC (weeks)	16.6	15.8	15.3	data error	18.6
% offered brief Advice by LMC	94.7%	88.3%	97.1%	92.0%	100%
% offered cessation support by LMC	87.2%	81.8%	89.7%	92.0%	83.8%
% accepted cessation support or referral	36.2%	18.18%	23.5%	16.0%	16.2%

The above data for Māori women is sourced from Midwifery Maternity Provider Organisation (MMPO) and Northland DHB maternity services and represents approximately 80 percent of maternity booking data.

The highlighted column represents data from quarter one in the year prior to the year being reported on.

It is noted there was a significant drop in rates of women who accepted cessation support or referral from the previous year. During that previous year there were incentives projects in Kaitaia, Kaikohe and briefly in Whangarei. There were also three dedicated pregnancy stop smoking practitioners who were delivering the incentives projects and established relationships between LMC and quit workers.

During this last year the Ministry has realigned quit services across New Zealand. During this time all three pregnancy quit practitioners left their roles. Contracts ended and quit staff found other work. Quit services were unable to replace workers when continuation of contracts was uncertain. Midwives found their referrals were not being followed up as robustly as before and confidence in quit services subsequently dropped.

Quitline, the national phone and online quit service, also underwent structural changes.

The National Midwifery Smokefree Education contract also finished and this meant that in this year midwifery smokefree training was dependent on local (Northland DHB) initiatives. Five training sessions and updates have been delivered by Hospital and Pregnancy Smokefree Tobacco Control advisors in the Maternity Services in Whangarei.

ABC Smoking Cessation on Admission to Maternity Services Northland DHB

Total admissions	2879	Total smokers	605	21.0%
Māori Admissions	1393	Māori Smokers	461	33.0%
Non-Māori admissions	1486	Non-Māori Smokers	144	9.7%
Maternity admissions who smoke offered brief advice/support				95%
Māori maternity admissions who smoke offered brief advice/support				94%

Establishment of New Stop Smoking Service (SSS) in Northland

During the course of this year Northland DHB and seven provider organisations have established a partnership to provide consistent stop smoking support across all of Northland. This service is called Toki Rau and consists of eight SSS sites throughout Northland. With a particular focus on Māori, Toki Rau prioritises pregnant women who smoke. Many of the practitioners are new to quit work and are in training with the national stop smoking provider, Inspiring. Northland DHB has provided local training in smoking cessation in pregnancy to support these new practitioners.

Hapunga Auahi Kore Alliance (Smokefree Pregnancy Alliance)

Due to the changes in SSS structure, smoking cessation in pregnancy has now been allotted time at the Northland Tobacco Control and Stop Smoking Services group Quarterly meetings (Patu Puauhi) and replaces the quarterly Hapunga Alliance Meetings.

Tobacco Control attendance at midwifery meetings and newsletters to midwives and alliance membership ensures continued information sharing.

Initiatives to support pregnant women to quit smoking

PiCOBaby Smokerlyzers - Northland DHB continues to support midwives with the use of smokerlyzers. Fifteen smokerlyzers are in use among LMCs and maternity units across Northland. Women who smoke are encouraged to use the smokerlyzer to help with the discussion about smoking harm to baby and to encourage a quit attempt and referral.

Bulk NRT to Midwifery Practices - Midwifery practices who are supporting women to quit can access bulk NRT orders free of charge via the Northland DHB Public Health Unit arrangement with Pharmac. One midwifery practice regularly uses this option.

Free Inhalators for pregnant women who smoke – Northland DHB Public Health Unit funds free Inhalators for pregnant women to make a quit attempt. Inhalators are an oral NRT product that is not otherwise subsidised. The bulk of the free Inhalators sit with the Stop Smoking Services and pregnant women can have a whole quit attempt supported by free Inhalators and other subsidised NRT. Midwifery practices can also have sample packs of Inhalators to show women what is available for them at the SSS. Some midwives have also elected to have starter packs for those women who don't want a referral or who would like to try out the Inhalator and also be referred.

Incentives for pregnant women who make a quit attempt with Toki Rau (SSS)

Incentives have been shown to be the most effective at increasing the numbers of pregnant women who make quit attempts and who successfully quit. This is demonstrated in NZ and international data.

A collaborative incentives project was launched in Kaitaia and Hokianga in February, and the other SSS sites began in April with the last site commencing at end of May.

Northland DHB, Manaia PHO, LMC Midwives, and Toki Rau SSS worked together to offer pregnant women -

- A small personal gift for keeping their first appointment with Toki Rau SSS whether they sign up or not;
- If they sign up and set a quit date and are validated smokefree at four weeks post quit date they receive $100 of Warehouse vouchers;
- If they are still smokefree at the final appointment (between 8 & 12 weeks post quit date) they receive another Warehouse Voucher worth $50;
- During their quit attempt women will receive weekly behavioural support and the usual other free NRT products including free Inhalators as well.

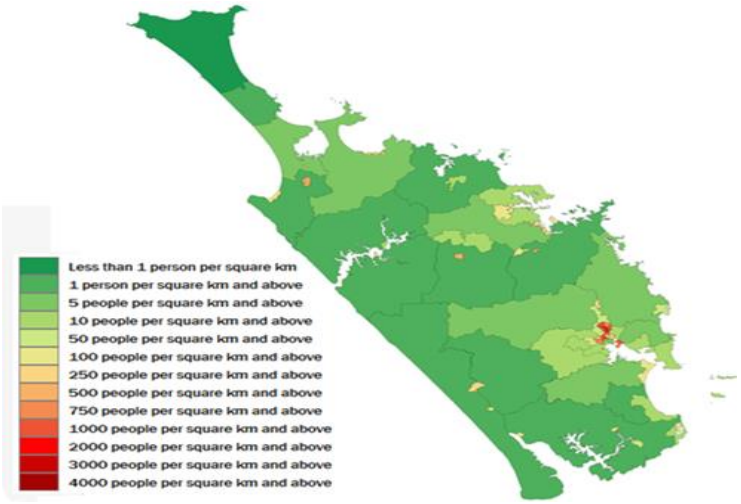
Alignment of Antenatal Wananga for Māori.

Northland DHB and Ngāti Hine Health Trust have continued to support antenatal wananga (learning forums) for Māori pregnant women and whānau. The wananga are interactive and include health messages, including quitting smoking, and are delivered from a Māori world view. Based on the evaluation of these wananga the DHB will roll out a two year project to establish Northland-wide antenatal wananga opportunities.

Northland Context

It is recognised that the health status in Northland is poor in comparison to other regions of New Zealand. This is closely linked with deprivation, with the Northland region showing a greater disadvantage for all measures of comparison including income, housing, employment social and occupational class and educational achievement.

Northland Population Distribution



Northland's largest urban area is Whangarei, which contains around one third of the Northland population. The remainder live in small towns, the largest of which are Kaitaia, Kerikeri, Kaikohe and Dargaville and other rural areas across the district.

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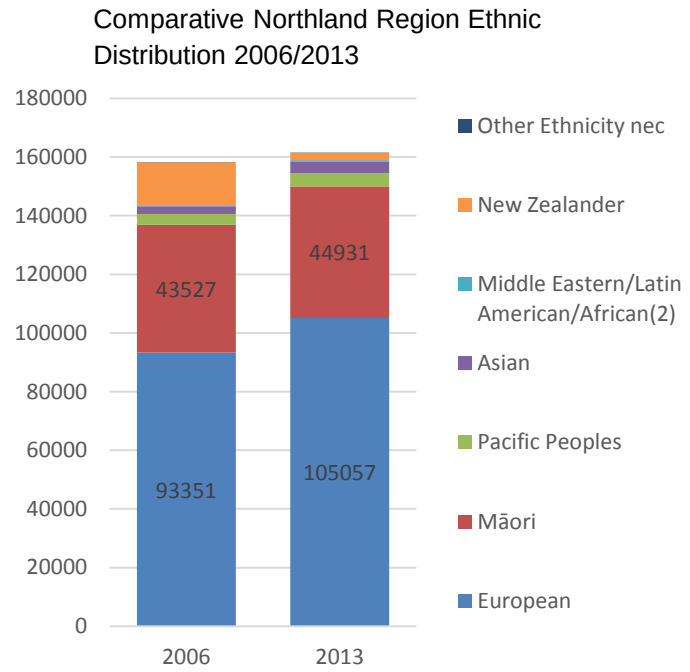
Travel times across Northland and to Auckland

Northland is a long narrow peninsula and is about 343km long (by road) and only 80km across at its widest point. Northland has many isolated communities; it takes over five hours to travel from Northland's northern to southern extremities and up to two hours east to west.

Although population numbers are small in many of the more remote parts of Northland, travel times are often long for women in these areas. They may have to travel up to 90 minutes to access services. Many of the women and families in these areas experience significant barriers to accessing services as roads are in poor condition, they have limited access to safe cars and petrol and no public transport is available. Providing services in each of the primary units reduces, however does not fully ameliorate, the risk for these women. In most areas our community LMC midwifery service provides home based services as much as possible in these hard to reach areas. The difficulties midwives are facing with funding is however making this more and more difficult.

2013 census data estimates Northland's population at 151,692 which is four percent of the total New Zealand population. Māori comprise around 30 percent of Northland's population. This represents 44,928 people and includes those who stated Māori as being either their only ethnic group or one of several ethnic groups.

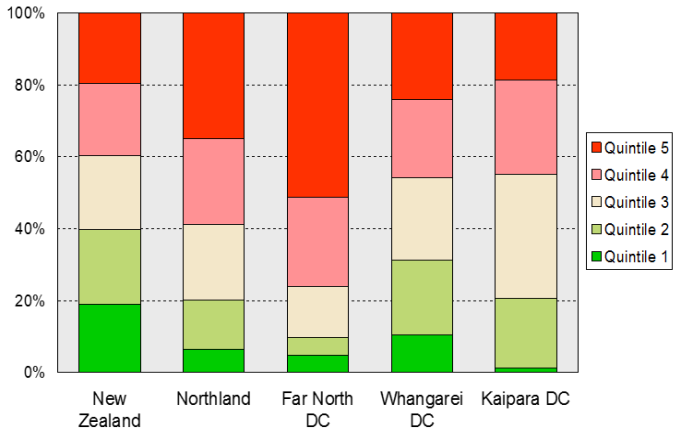


This graph shows a direct comparison of Northland ethnicities in the 2006 and 2013 censuses. The benefit of this comparison is potentially limited as the data includes all people who stated each ethnic group, whether as their only ethnic group or as one of several. Where a person reported more than one ethnic group, they were counted in each applicable group.

The data indicates that there may be an increase in the number of people who identify themselves as European and a small increase in those who identify as Māori. In the 2013 census there were less people identifying themselves as New Zealanders

Northland deprivation by area and compared to New Zealand profile (Quintile 5 most deprived, Quintile 1 least deprived)

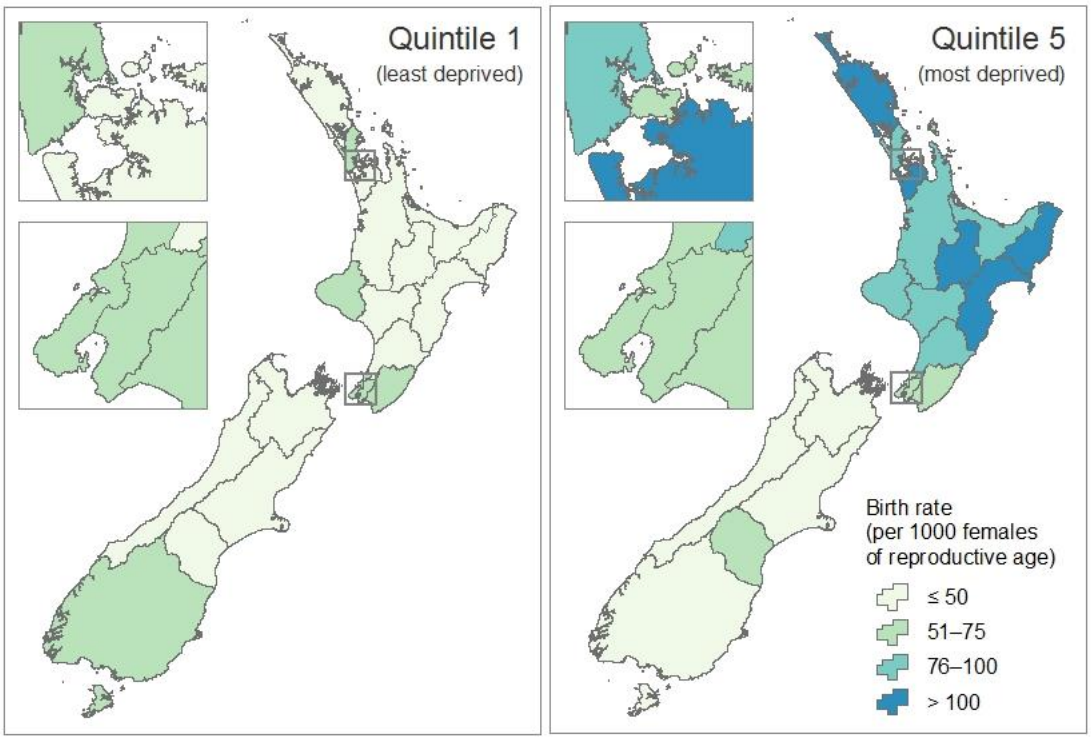
Northland has one of the most deprived populations in the country. Deprivation levels vary across Northland but all areas have at a minimum, close to 20 percent of the population represented in the quintile 5 category with the whole of Northland showing almost 60 percent of the population living in quintiles 4 and 5.



The data of the 2016 and 2017 years show that Northland's birthing population included 47 percent and 48 percent Māori women compared to 45 percent and 44 percent European/Pakeha. The remainder were made up of Asian 4.5 percent and 5.3 percent and Pacific and others, 0 – 2 percent each year.

Birth rates of women in the least deprived neighbourhoods (quintile 1) and in the most deprived neighbourhoods (quintile 5), by DHB of residence, 2015 (Report on Maternity 2015, Fig. 13, NZMOH, Published 2017)

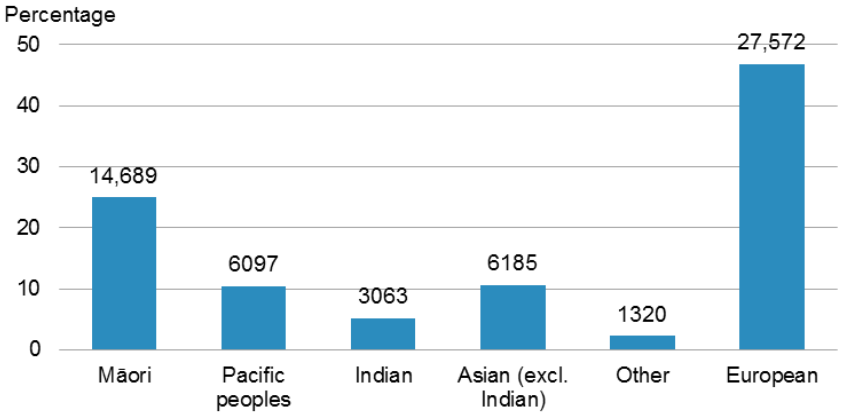
These maps show a much higher birth rate in the most deprived populations in Northland.



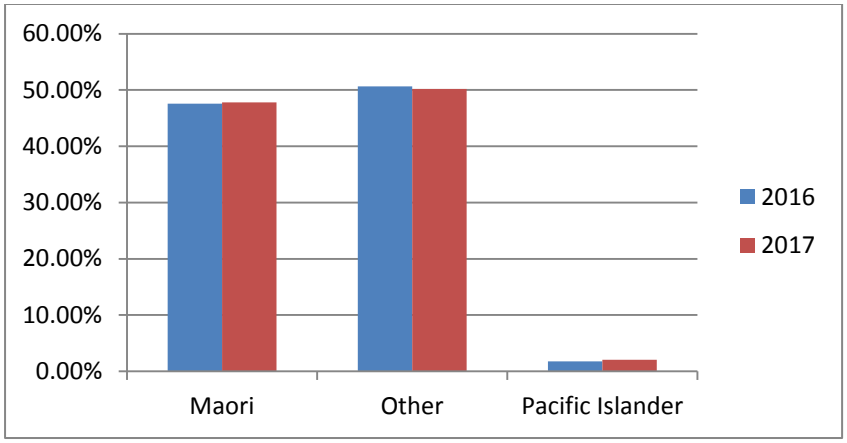
Northland Birthing Population - Summary

Ethnicity of Women Giving Birth in New Zealand

New Zealand data showing the overall percentage of women giving birth, by ethnic group, 2015 (Report on Maternity 2015, NZMOH, published 2017)

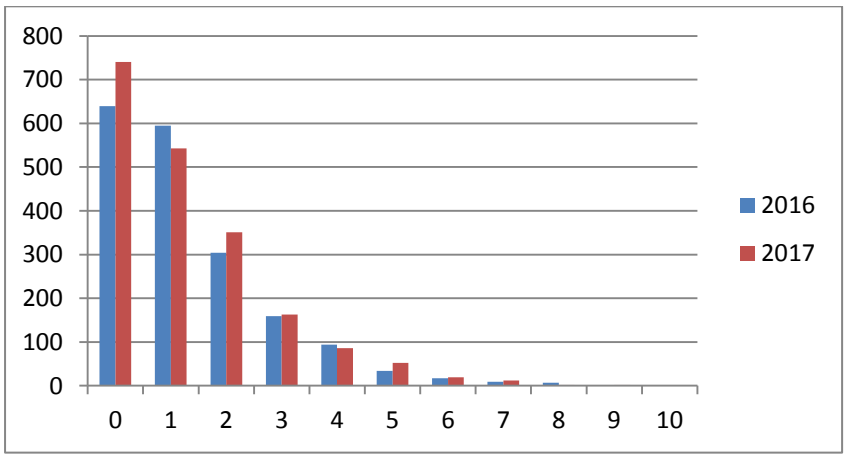


Ethnicity of birthing women living in Northland 2016/17



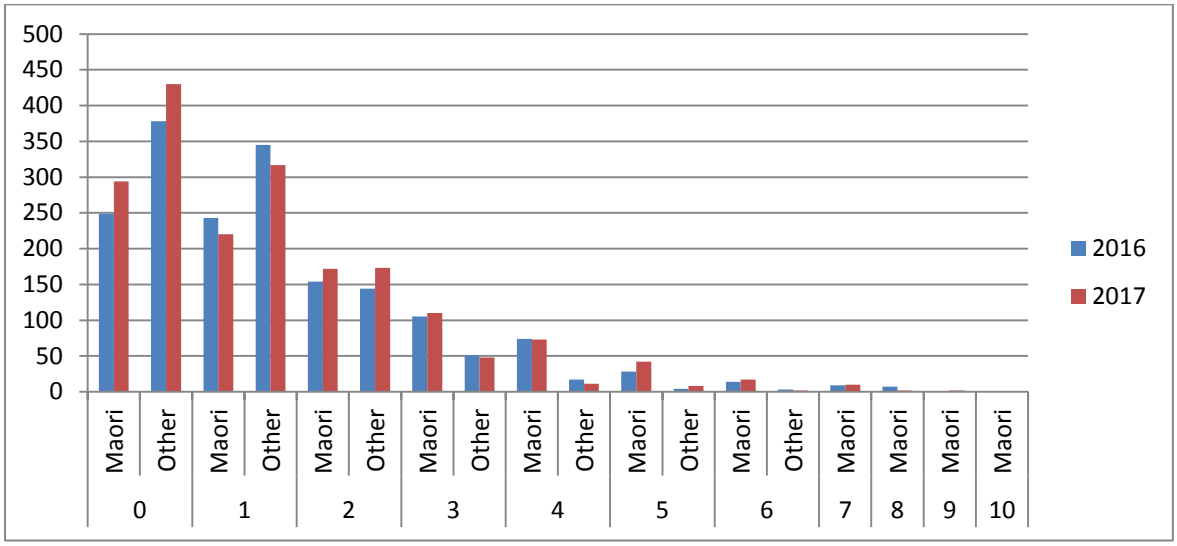
In Northland the number of women birthing who are Māori is much higher than the rest of the country. In fact when looking at percentages for the 2016/17 year there were more Māori women birthing than any other ethnic group in Northland. Māori women made up almost 48 percent of the population of birthing women, European/Pakeha made up 45 percent, Asian, 5.3 percent and Pacific 2 percent.

Parity of women giving birth in Northland 2016 and 2017



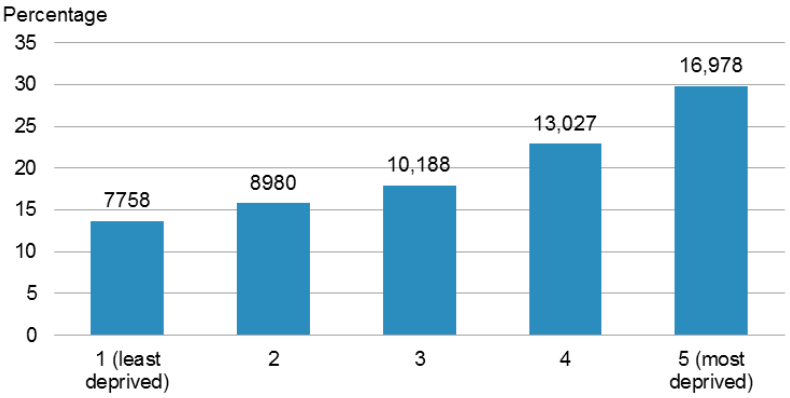
This graph shows the parity of women birthing in the 2016 and 2017 years showing the majority of births in Northland are first births and around 66 percent of all births are first or second births.

The following chart separates the above picture by ethnicity and shows a larger spread of parity amongst Māori women than we see in other ethnicities.

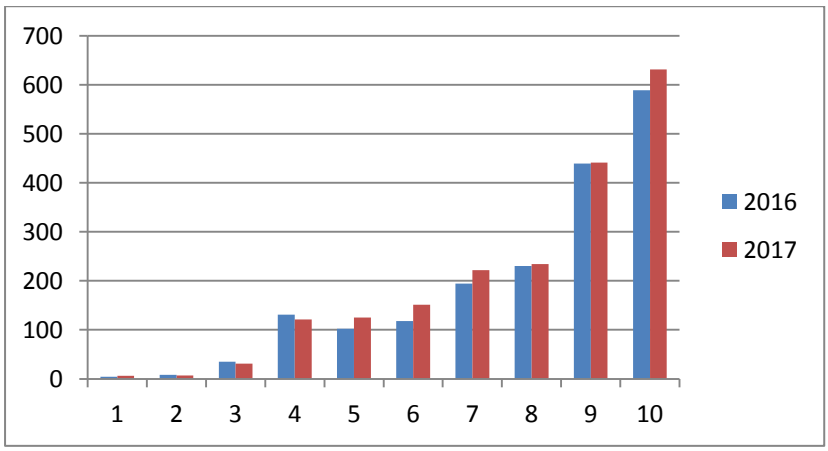


Birthing Women Living with Deprivation in Northland

The below graph was obtained from the Report on Maternity 2015 (published 2017) and shows the percentage of women giving birth, by neighbourhood deprivation quintile for all NZ women



Graph showing the number of women giving birth by neighbourhood deprivation quintile in Northland



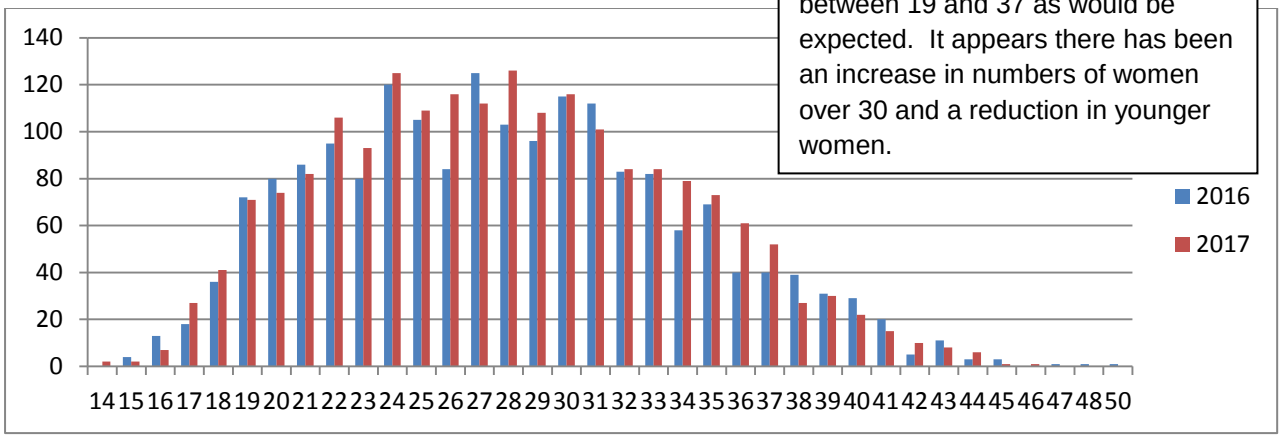
Like the rest of NZ, in Northland birthing women are overrepresented at the higher end of the deprivation index areas. In the Northland birthing population however more than half of the population live in areas of levels 9 and 10 deprivation and only 6 percent of the population come from level 1 and 2 deprivation neighbourhoods.

Northland is one of the most deprived populations in the country and that, coupled with a very geographically spread population with significant rurality, leads to some significant issues associated with access for some women and whānau.

Age Distribution of Women Giving Birth in Northland

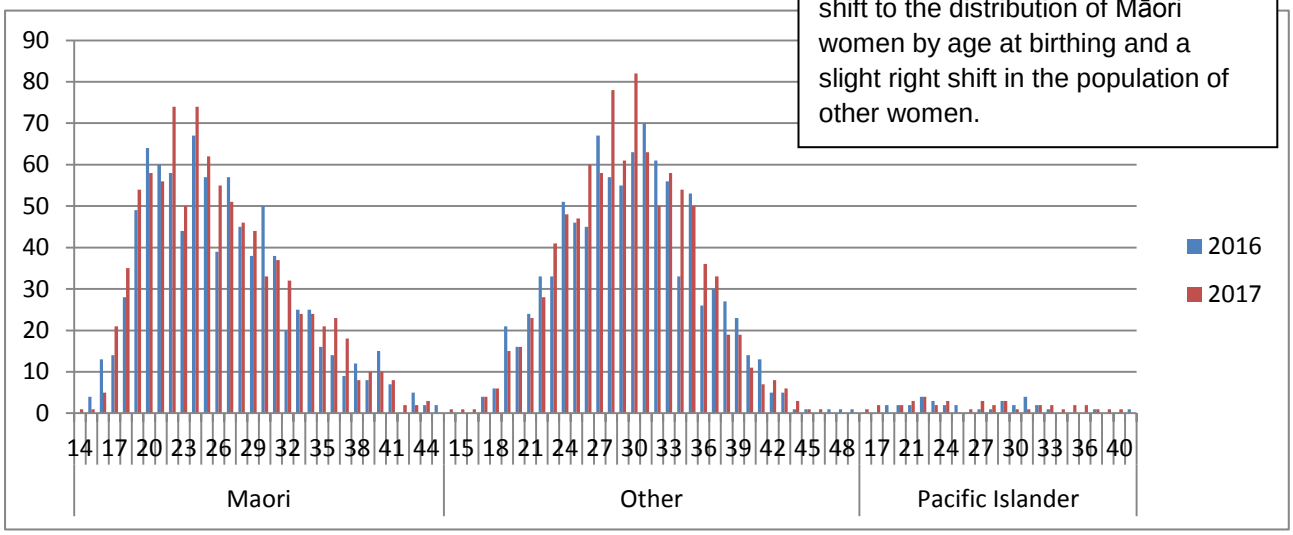
Age of Northland Birthing women in 2016 and 2017

The age distribution of women who give birth in Northland ranges from 14 to 50 with most women aged between 19 and 37 as would be expected. It appears there has been an increase in numbers of women over 30 and a reduction in younger women.



Age of Northland Birthing Women by Ethnicity, 2016 and 2017

As can be seen here there is a left shift to the distribution of Māori women by age at birthing and a slight right shift in the population of other women.



Maternity Services in Northland

Northland maternity services are provided throughout the region both in the community and in hospitals. Many general practitioners offer first trimester care and some on-going care for women with pre-existing health concerns but the majority of antenatal care in Northland is provided by a dedicated community LMC Midwifery workforce and a small number of employed community midwives.

Almost all the community LMC midwives in Northland offer homebirth as an option for healthy well women without obstetric risk or complications. We also have four district hospitals with maternity units, three of which have birthing services available for their communities. These are situated in Kaitaia in the Far North; Kawakawa in the Mid North and Rawene in the Hokianga. The Kaipara area is serviced by a maternity unit in Dargaville which provides antenatal and postnatal care for women in the district however they currently birth at the secondary unit, Te Kotuku in Whangarei, or at home.

Northland is very proud of its collaborative maternity service promoting physiological birth without intervention wherever possible however we also have a fantastic secondary service available comprising midwives experienced in the provision of secondary care and a specialist obstetric team for those women who need additional care. These women can see an obstetrician for antenatal consultations in each of the district maternity units or at Te Kotuku. If indicated a plan will be made for them to give birth in Te Kotuku our secondary level maternity unit in Whangarei.

Many of the midwives in our community LMC midwifery community provide on-going care to women with complexities working with the obstetric team and alongside our employed midwives.

In the 2015/16 year there were 2096 births in Northland, 26 percent of these occurred in district maternity units or at home and in the 2016/17 year there were 2154 births or which 25 percent occurred in the district maternity units or at home.

Below is an outline of services in each of the Northland DHB maternity units in Northland.

Kaitaia Maternity Unit

Kaitaia Hospital Maternity Unit is situated in the heart of Kaitaia, approximately two hours' drive north of Whangarei. It has two birthing rooms and three postnatal beds. Currently the unit is staffed by registered nurses with midwives on call. A project is underway to review the service delivery model in Kaitaia which will be completed by 1 October 2017. In the interim there is a midwife acting as Associate Clinical Midwife Manager who is present on the unit between the hours of 8am-4.30pm Monday to Friday. A second employed midwife, who is also a lactation consultant, provides community care as well as antenatal education for local women and whānau.

The new model will be implemented as it was identified that the service was not fully meeting service specifications of providing midwifery back up in the unit for births. LMCs were using their practice colleagues to meet this requirement. The current model had been developed in the environment where there were insufficient midwives to provide a back-up service within the DHB but that situation has now changed.

There is a plan to move to a midwifery led and staffed unit over the next two years. This needs to be done carefully both in respect of the current workforce and to ensure whatever model is implemented is sustainable, so that women in the region are provided with an on-going service consistent with that provided throughout the rest of Northland, supporting best practice and processes.

In the first instance the current plan is to implement a service with midwives working Monday to Sunday 12 hours during the day and being on call for the 12 hour nights in order to provide back up at births or deal with emergency calls for the inpatient unit. Experienced registered nurses will be

present in the unit providing hands on support overnight. Midwives employed on the unit will be able to provide a mop-up coordinated care service for any women who present unbooked or who are not able to access a community LMC midwife for their care. This will add sustainability to the model in case of a future reduction in available community LMC midwives.

At the moment most of the community LMC midwives participate in an on-call roster to cover the unit when only an nurse is present and to some extent this may continue with the new model ensuring on call services are maintained and sustainable without placing undue pressure on the workforce.

The new midwifery leadership model will support Northland DHB's plan to encourage and enable better collaboration and communication between all maternity and related services throughout the region.

Currently there are seven community LMC midwives working out of three midwifery practices in Kaitaia. Women have a choice of home birth, birthing at Kaitaia Maternity Unit or travelling to Whangarei, Te Kotuku maternity unit to birth. In the most part women do not birth in Whangarei by choice, we encourage all well women without complications to plan their birth in Kaitaia and most are very keen to birth there. Women who have risk factors which require them to birth in the secondary unit go to Whangarei to birth but generally transfer back to Kaitaia Hospital as soon as possible and stay in the maternity unit there for postnatal care.

Northland obstetricians attend weekly clinics in Kaitaia to provide specialist obstetric clinics for those women who require this level of consultation. This ensures Kaitaia women have reasonable access to specialist care in the antenatal period if they need it. Scanning services are also available at Kaitaia Hospital both for primary and secondary level antenatal scanning.

Data

There were a total of 153 births at Kaitaia hospital in 2017.



Bay of Island Maternity Unit

Bay of Islands (BOI) Hospital Maternity Unit provides 24 hour a day, midwife-staffed and led primary maternity service. The unit consists of two birthing rooms, an antenatal clinic room/office and five postnatal beds with shared shower/toilet facilities.

The service provides a primary birthing option for women in the Mid North which extends from Kaeo in the Far North, Horeke to the west, Russell/Rawhiti to the east and as far south as Motatou/Matawaia and Pokapu. Sometimes women living beyond these boundaries will choose to travel to BOI to give birth.

Currently there are fifteen community LMC midwives practising in the Mid North area. Some of these midwives provide labour and birth care for women who are required to birth in Whangarei to ensure rural women receive continuity of care. The travel time is about ¾ hour between the two hospitals.

There are ten core midwives working in the unit including an Associate Clinical Midwife Manager who oversees the unit and the employed midwife team. Core midwives work shifts and provide back-up for births managed by LMCs as well as providing all inpatient postnatal care. They also provide a service of last resort for the occasional woman who presents unbooked for care however every effort is made to connect the woman with a LMC midwife on these occasions. There is always a midwife on call for the unit for transfers out or when unexpected need arises.

Core and self-employed LMC midwives in the Bay of Islands area work very collaboratively. Core midwives will often assess women cared for by LMCs in order to support their colleagues in this very rural and demographically diverse region and LMC midwives will work shifts in the unit when staffing levels are short. The unit also provides space for LMC midwives to hold antenatal clinics. These clinics are well-utilised and enable women a choice of places to access antenatal care.

Northland obstetricians offer a specialist obstetric clinic service on a weekly basis at BOI Hospital This service is available for women in both the Hokianga and BOI catchment areas.

Antenatal Classes are currently running 4-6 weekly and these are well attended. The rest of the BOI Hospital is currently undergoing a rebuild process and because of this, classes are currently held at the St John's Ambulance rooms' in Kawakawa. Once the rebuild is complete, the maternity unit will undergo a refurbishment.

Currently there is a 30 percent transfer rate for women booked to birth at BOI Hospital and an audit of transfers is planned for this year.

Quality processes are managed region wide and midwives in BOI are able to access M&M, Guidelines committee and professional meetings via videoconference. There are also fortnightly trigger tool meetings held at BOI. The local La Leche League breastfeeding support group holds monthly meetings in the unit and there are drop-in clinics for maternal immunisation and insertion of Long Acting Reversible Contraceptive also available at the unit.

The Northland DHB policy of enabling 'Partners in Care' is implemented at BOI and most postnatal women have a support person stay with them while they are in the unit. The average postnatal stay is between 1.5 and two days.

There are a number of projects planned to improve the environment and processes over the next year. These include:

- Re-surfacing of the birth pool and upgrading the lounge furniture;
- improving processes around handover of care for women transferring back from Whangarei Hospital;
- Additional allocation of hours to the ACMM to enable a focus on managerial duties;
- Implementation of multidisciplinary emergency skills education sessions in the unit involving all hospital staff who may be called upon to attend in an emergency.

Data

There were a total of 197 births at BOI hospital in 2017.

Dargaville Maternity Unit

Dargaville maternity unit is also undergoing change. It is included in the work to increase utilisation of primary maternity units and the aim for consistent service provision throughout the region. Dargaville is losing the midwife who has been there for many years providing antenatal and postnatal care to women from the Kaipara district. Women have been able to access care in the coordinated care model with their antenatal and postnatal care provided in Dargaville and their labour and birth care provided at Whangarei Hospital. Their birthing care has been managed by the core midwifery staff or in some instances by their own arrangement with a Whangarei based community LMC midwife.

Fortunately we have been able to arrange midwifery cover for the women in the Kaipara district when the current midwife leaves the area at the end of September, whilst finalising future plans for service provision in this area of Northland. There is also likely to be a change of environment in the unit at Dargaville Hospital when the addiction and detox service extends into the previous maternity space and a new space is allocated for maternity purposes. This is also is in planning stages. We look forward to reporting on the new-look service and unit in the 2017/18 annual report.

Data

In the 2016/17 year the DHB maternity service provided care for 80 women from the Kaipara region through Dargaville Maternity Unit. There were two unplanned births at Dargaville Maternity Unit and all other women from the Kaipara area birthed either at home or in Whangarei Hospital.

Te Kotuku - Whangarei

Te Kotuku unit in Whangarei has been open now for more than a year and is functioning exceptionally well. The occupancy has been around 80 percent in the postnatal area on average however, as with all units, varies dramatically at times. There have been some teething problems with placement of equipment and ease of functioning and some of these things are still being sorted as we try a few options but generally the feedback from staff has been positive and the feedback from women and whānau is very positive. The unit enables 'Partners in Care' and most women have a support person stay with them while they are in the unit, at least for some of their stay. This provides a fantastic opportunity to offer education regarding such things as baby care, safe-sleep practices, breastfeeding and Power to Protect as well as infant resuscitation, bathing etc. to both women and the people who will support them once they go home. While some of the staff were concerned about such things as security and disruptive behaviour from support people, we have not found this to be a problem. In the vast majority of cases people behave extremely well, understand why they are there and are keen both to learn and to support and assist where they can. Feedback has been very positive in this regard.

The Releasing Time to Care project will be discussed in more detail later but it has been a useful structure to support some of the work to ensure a better workflow with appropriate placement of equipment etc. within the unit. Of course it takes a little time working in a space before it becomes clear where things should be to minimise the amount of time required to find what is needed. This is a project currently being undertaken.

Data

Total number of births at Whangarei Hospital this year is 1619 births. This is an increase from the previous year of five percent.

Antenatal Clinics and Medicine in Pregnancy Clinic Update

Antenatal clinics at Te Kotuku are generally busy and well attended. The busiest clinic is on a Wednesday when the Medicine in Pregnancy clinic is held. This clinic is mostly for women with diabetes in pregnancy and offers obstetric, physician, diabetic nurse specialist, midwifery, dietician and anaesthetic input.

This year we have introduced a new scan clinic to Te kotuku. This is a welcome addition to our service enabling women to have their scan alongside their specialist appointment without going to another part of the hospital. We endeavour to offer all secondary scans be done in this clinic rather than having scans organised by the secondary team being done in community clinics. This enables better consistency and access for women and results are more readily available for clinicians.

Northland New Born hearing Screening

New Born Hearing Screening Services are available throughout Northland in Te Kotuku unit in Whangarei, Kaitaia, Bay of Islands, Dargaville and Hokianga Hospitals and in Te Puawai Ora (TPO) community clinic in Whangarei.

Te Kotuku has a purpose built soundproofed room for inpatient screening and TPO has recently been extended and now has an additional dedicated space for community NBHS clinics. Below is a summary of screening in the 2016/17 year for Northland.

Births

There were 2,244 documented births for women domiciled in Northland.
50 of these babies were transferred to other DHB's before screening leaving a total of 2,194 babies available to screen

Of these

- 52 babies had their offer of screening declined;
- 19 babies were unable to be found;
- 77 babies did not attend for any planned screening appointments.

Screening Outcomes

A total of 91 percent or 1090 Northland babies received screening (note this does not include the small number of babies who, at time of writing, had not yet had screening completed but were still eligible)

Audiology Referrals

Of those screened there were 22 babies who passed screening testing but were referred to Audiology due to having risk factors which required hearing surveillance. This surveillance usually occurs at around 18 months of age. There were 65 babies who did not receive a clear response from screening testing so were referred to Audiology.

Diagnosis

Three babies were diagnosed with permanent hearing loss in the year.

- 1 baby with unilateral sensorineural loss;
- 1 baby with unilateral sensorineural and unilateral mixed hearing loss;
- 1 baby with bilateral mixed hearing loss.

In addition there have also been a number of babies found to have temporary conductive hearing loss.

Service update

The service has managed well this year despite some staffing losses over the time putting significant pressure on remaining newborn hearing screeners. There were three screener resignations during the year and with a small team of 5 screeners (3 FTE) this created significant issues. We were able to fill two positions earlier this year and both of these screeners have now completed training and can carry out screening independently. The final position in the Far North was more recently filled and this new screener will have completed her training, and be able to screen independently in October. We have also increased our screener resource by 0.4FTE and are part way through the recruitment process for this new position. The additional resource will be based in Whangarei

Community Maternity Services in Whangarei

Te Puawai Ora

Te Puawai Ora (TPO) is the hub of the DHB maternity community services in Whangarei.

It provides a range of services that are free and open to the public from Monday to Friday, 0830 - 1630. There are 16 off street car parks attached to Te Puawai Ora and majority of them are utilised on a daily basis.

There is a large secure child-safe gated entrance in front of Te Puawai Ora to provide safe access to and from the building for families with small children. When families enter Te Puawai Ora they are greeted by the friendly staff who can direct them where they need to go depending on what service they are requiring.

Some of the services offered at TPO include:

Lactation Services

Te Puawai Ora currently offers a free drop in clinic open to anyone who requires assistance with breastfeeding issues. These are run on Mondays, Tuesdays and Thursdays from 10-2pm and are hugely popular and very often oversubscribed. This year we added an additional drop in clinic and it was busy from the first day. The average attendance at the lactation clinics varies between six to ten women each day.

The lactation team is made up of four Lactation Consultants (LCs). Three of these completed their qualification this year which was a fantastic achievement. The LCs aim to visit every woman who births in Whangarei Hospital while they are in the unit, just so they are aware of the availability of the service and to ensure they feel safe and confident about seeking specialist advice from the LC service if they need it after discharge.

The LC's also see women on the postnatal ward who are experiencing breastfeeding issues and who require specialist advice. This service is initiated by referral from the core midwives or community LMC midwives. The LC's also provide breastfeeding advice to women with babies in the Special Care Baby Unit and women who are admitted in other parts of the hospital. LC's are frequently used as a resource regarding medication safety in relation to breastfeeding.

Northland DHB is BFHI accredited thanks to its highly dedicated maternity care team. To achieve great breastfeeding outcomes consistency in messages is essential and it can't be successful without collaboration between a committed LC, core midwifery and community LMC midwifery team promoting and supporting breastfeeding.

The DHB currently has an exclusive breastfeeding discharge rate from hospital of 96.4 percent and continues to have one of the highest rates of exclusive breastfeeding on discharge in New Zealand. This naturally provides a fantastic basis for the on-going health of children in Northland. The biggest concern at present is the persistent drop in breastfeeding rates after six weeks when the exclusive rate drops to 66.4 percent. Although this drop is less than it is in other regions it is significant. This

has been identified as an area that needs to be improved and discussion is currently underway to look at ways of achieving an improvement for the six weeks figure.

This year, The Big Latch was held at Toll Stadium. 97 mums and babies, some with twins were a part of this event. All in all, 102 babies latched on! A great turn out and show of support for World Breastfeeding Week.

The Lactation consultant team

The big latch 2017

Childbirth Education

Antenatal Classes - general

Recently, Te Puawai Ora has been extended into the adjacent space next door. This was required to meet the needs of the growing number of women and partners who were on waiting lists waiting for spaces in childbirth education classes. The previous space could not accommodate the required volumes so this has been a worthwhile addition to our service.

Since the extension we have been able to increase the class size from 20 people (10 couples) to 26 (13 couples) quite comfortably and provide extra room for attendees to move around for refreshments and toilet breaks.

The childbirth educators currently hold evening sessions which run for two hours each class over a six week period. The families can either choose to complete a Tuesday or a Wednesday set. Weekend sessions are also offered. These are held once a month for six hours on both Saturday and Sunday.

The classes remain hugely popular with lots of positive feedback. Each set is booked out at least two to four weeks prior to the classes commencing.

Drop in and planned additional parenting education

Each Monday during the school terms an open coffee group is facilitated by the childbirth education team. Any pregnant woman or women in the early postnatal period may attend. A range of topics is arranged and then advertised on our popular childbirth education Facebook page.

Some of the topics we have covered include: sleeping and settling, safe sleeping, learning to weave your own Wahakura and Baby Massage.

We have had other guest speakers come along and discuss topics such as Green Prescriptions, Infant first aid, introducing solids, immunisations and much more.

The 'Early Year's Brain Wave Trust' will also be coming on board to provide free seminars to whānau about "growing great brains" in the next few months.

Photos below are examples of some of these Wananga:

Targeted Antenatal Classes

The Harmony childbirth classes for teenagers are also facilitated by our team of childbirth educators. These classes are held each school semester at The Pulse which is a hub for community services provided for young families in Whangarei. The classes are run in conjunction with Te Ora Hou and transport and food are provided. The classes are a great opportunity for pregnant teenage mums to network and to learn what is available to them in the community and to meet other mums in the same situation, all whilst learning and preparing for the many changes ahead.

Last year, there had been issues with getting enough young people to subscribe to the classes. A range of strategies were explored as to how we could re-engage with this group and achieve a higher attendance at the classes. We are delighted that the strategies introduced have been hugely successful and the attendance rate is now, on average, 8-12 teens as opposed to the 2-4 in the previous year. This is a pleasing result as this is an identified group with high needs and therefore potential for poorer outcomes. We offer education specifically designed for these young women which is extremely well received.

Once again this year, the childbirth education team facilitated the running of a large stall at the Northland Baby Expo. This is the third year this has occurred. The day was a huge success with over 250 Northland families visiting the stall. These families all took home key messages around the importance of finding a community midwife LMC early in their pregnancy, antenatal education (many booked in on the spot), safe sleep, lactation services, and immunisation in pregnancy and for babies. Women were able to sit down with our experienced weaver and practise the art of weaving. 12 Women also chose to take advantage of the on the spot immunisation service provided for pregnant mums.

Community Maternity Social Worker

Te Puawai Ora has a community based social worker from Monday – Wednesday. The social worker receives referrals from community midwife LMC's, the hospital emergency department, the TPO community midwife, the family violence (VIP) service, Otangarei Maternity Clinic, Te Whare Ora Tangata and the inpatient maternity social worker.

Women are able to drop in to Te Puawai Ora to see the community social worker or be seen by appointment. The social worker can also provide home visits for those who lack transport or prefer this method of consultation.

Further development

Te Puawai Ora has been exploring ways to engage whānau who live in Otangarei as it is identified as an area in which many families experience social complexities and find engagement with services difficult. The community midwife has a clinic there however it was in recent years not well utilised.

A sign has been developed to put out on the roadside outside the drop in clinic at Te Puawaitanga O Otangarei Health Care Centre. The brightly coloured sign informs people that the community midwife is available, no appointment necessary and there is a social worker available should they need one. This clinic is conveniently based at the centre of this suburb and is in walking distance for the current population of 1,758 people. A pamphlet is also currently being developed that will have a photo of the community social worker and a list of free services that are available.

We have seen a slow but significant increase in women using this service and therefore gaining access to midwifery and social work services earlier in their pregnancy.

Community Midwife

The community midwife engages with those families who have been unable to find a midwife due to late booking, women who have recently moved to the area from out of town or women with particularly complex social or medical needs.

The case load varies from month to month as efforts are made to arrange a community midwife LMC for any women for whom this is possible. Many of the women in the care of the community midwife have very significant and complex needs and benefit from the home-based service she offers.

Women are given the choice to be seen either at Te Puawai Ora (in central Whangarei), at their home or the drop in clinic in Otangarei. For many women, their home is the preferred option.

A comprehensive service is completed throughout the antenatal period and through to the discharge visit. Women consistently provide positive feedback about the service they received.

This year the community midwife has started to attend elective caesarean sections for her clients to maintain continuity for these women. Other women are cared for by core midwives during labour and, if needed, the obstetric team at Te Kotuku.

Long Acting Reversible Contraceptives (LARC)

This year, two staff from Te Puawai Ora have been trained to insert the Long Acting Reversible Contraceptive (LARC) – Jadelle as a part of a training programme set up by the Primary Health Organisation Maternal and Child Health Director in conjunction with the Northland DHB Midwifery Director. There was a concern that many women in Northland were not getting easy access to LARCs. Training of both employed and community LMC midwives from all over Northland was provided by the Maternal and Child Health Director for the Northland PHOs in November 2016 and further training is planned. There are now many community LMCs, two midwives at TPO, employed

midwives in Te Kotuku and all primary units throughout Northland offering post-partum insertion of LARCs for women.

Those community midwife LMCs who do not currently insert LARCs refer women to the TPO community midwifery service or to local primary units to ensure women are able to gain easy access to this form of contraception. Communication to the women's GP follows each LARC insertion.

New Born Hearing Screening

A room is always available at Te Puawai Ora for the New Born Hearing screeners who run catch-up clinics for those babies unable to be screened on the maternity unit. As many women leave the unit soon after birth this is a well utilised service and critical to ensuring all babies have access to screening services. Mothers quite often choose to attend for their babies hearing screening appointment at the same time as lactation consultant clinics are taking place.

SUDI Services

Currently, all safe sleeps spaces that are required in the Northland DHB region, are distributed out of Te Puawai Ora. Referrals are received from many sources and services such as community midwife LMC's, Manawa Ora, social workers, Family Start.

A choice of either a Pepi Pod or Wahakura is then gifted to the whānau along with education incorporating the safe sleep messages and bedding demonstration. Safe sleep distribution training for providers is carried out throughout Northland to ensure that all families are offered consistent messages regarding safe sleep practices.

Wahakura weaving workshop

Te Whare Ora Tangata

Te Whare Ora Tangata is a maternal and infant health case management forum.

The purpose of the forum is to provide a place for multidisciplinary information sharing with an aim of ensuring women receive the care they require and her LMC can receive information so that the most appropriate plan of care can be instituted for each individual woman.

The forum uses a collaborative approach to support and provide advice to clinicians providing care for vulnerable pregnant or postpartum women up to three months after birth, or until the relationship is established with the Well Child/Tamariki Ora or other provider. The forum is intended to ensure a woman/baby and whānau-centered, wrap around service is provided. It enables access to individually appropriate services and referrals as agreed by the group and keeps the community midwife LMC at the center of the woman's maternity care also supported by the multidisciplinary team.

The forum membership comprises senior clinicians from specialist mental health and addiction services, primary health services, social workers and Oranga Tamariki liaison, along with maternity services. LMCs, well child providers and sometimes, Oranga Tamariki social workers, are invited to contribute to discussions about their clients at each meeting.

Access to Te Whare Ora Tangata is by referral and most of the referrals to Te Whare Ora Tangata come directly from community midwife LMCs who, in partnership with the woman in their care, have identified the need for input from additional services. Other referrals come from social services or specialist treatment services that have identified a pregnant woman who has a number of issues that may impact on the health and wellbeing of her and her baby.

Demand for this service has increased month on month since its inception. Meetings have been lengthened to try to manage all referrals but it is quickly becoming clear more resource is required for this work in Northland. It is our intention to develop a local process supported by the region-wide service in the Far North in the next year. This will occur as a part of the process of embedding the new staffing and leadership model in Kaitaia.

In the first year of operation, Te Whare Ora Tangata has completed 42 case reviews. 79 percent of these women identified as Māori and the majority were aged between 20-30 years. It is estimated that Oranga Tamariki have been involved in 75 percent of the cases.

Te Whare Ora Tangata members meet fortnightly formerly at Manaia PHO rooms and now at Te Puawai Ora to discuss and follow up the management plans made within the forum.

The photo below shows some of the attendees at a planning and naming workshop held in 2016. At the end of this workshop the forum was gifted its name.

Maternal Mental Health and Addiction Services – Maternal and Child health

Manaaki Kakano - Maternal and Infant Mental Health (MIMH) - Providing interventions that have been shown to enhance the relationship between mother and baby.

Services offered include; assessment of mental wellbeing/AOD and treatment planning which may include:

- Attachment and bonding assessments;
- Counselling and therapy to enhance the parent and baby relationship;
- Circle of Security group.

MIMH Team covers the whole of the North and includes the following expertise:

Airini Mataara – Counsellor (Whangarei–Whangarei south), Sharon Blake – Registered Nurse (Whangarei – Dargaville), Heather Pearson – Registered Nurse (Far north), Kirsty James – Social Worker (Whangarei – Mid north) and Diante Fuchs - Clinical Psychologist

He Tupua Waiora - Pregnancy and Parental Service

This is a new service launched in 2017 with funding from the Ministry of Health with the aim of improving the life outcomes for women and their unborn babies and children under the age of three by working with pregnant women and parents living with the effects of substance and alcohol addiction/abuse.

The service is designed as a hub and spoke model with the hub (base services) in Whangarei and a well-supported spoke in Kaitaia. Services are provided in an outreach model from each of these areas to cover women residing in the Mid North and the Kaipara areas.

This is designed as an assertive, outreach, family-focused service (using the principles of Whānau Ora), offering assessment for Alcohol and Other Drugs (AOD) and mental health concerns. Clinicians work with women and their families affected by alcohol and substances, supporting them to become or remain drug and alcohol free and to develop or maintain healthy environments within which to parent. The He Tupua Waiora team has a strong role in assisting women and families to navigate services; remove barriers to care and improve access to health, education and community agencies.

The Team includes the following:

Based in Whangarei: Carolyn Broughton – Registered Social Worker; Andrea Whiu (Andy) – Registered Social worker; Annie Joass – Registered Social worker and Christine Paladeau - in process of registration as a Social Worker.

Based in Kaitaia: Jackie Parker Harrison – Registered Nurse and Maureen Maheno – Registered Social Worker.

The following referral document was developed this year for both maternal mental health and He Tupua Waiora referrals. We were advised that community midwife LMCs were becoming confused about the many options for referrals so have recently offered them the option of either referring directly to whichever service they feel is most appropriate, or sending a referral to Te Whare Ora Tangata and leaving the decision to the multidisciplinary group at that forum.

Te Whare Ora Tangata referrals can be made by e-referrals or directly to Te Puawai Ora (community maternity service) for action. The latter option seems to be most often used and is has been positively received by community midwife LMCs. This simplifies the referral processes for LMCs and

ensures good communication so they also remain involved in decision making and are aware of processes undertaken with their client. Referral to Te Whare Ora Tangata also enables a multidisciplinary response to the request, referral to the most appropriate one or two services and oversight of on-going needs for the woman and her baby throughout her pregnancy and post-partum period. The Clinical Team Leader for Manaaki Kakano – He Tupua Wairoa (Maternal and Infant Addiction and Mental health services) is a regular member of Te Whare Ora Tangata forum.

Below is the referral form and acute referral process. See Appendix 1 for a more complete outline of He Tupua Waiora – Pregnancy and Parenting programme.

Referral form for Maternal and Infant Mental Health and He Tupua Waiora services

This referral form can be used by Allied health workers, LMCs or Core Midwives, Well Child providers or GPs when they have concerns regarding the mental wellbeing of pregnant women or post-natal mother(s)/caregivers in their care or infants up to one year of age. Call Te Roopu Kimiora on 8320 and speak to the Maternal Infant Duty Clinician for advice if need be. **Please have the women complete the Edinburgh Post Natal Depression Scale at the back as the score will be considered at triage.**

Name of woman/caregiver _____ DOB: _____ NHI: _____

Address: _____

_____

Contact Number: Home: _____ Mobile: _____

GP: _____ LMC/Midwife _____

Well Child / Tamariki Ora Provider:

Referrer Details: (please use CAPITALS)

Name:

Designation: _____

Best Contact Number: _____

Email:

Maternal Infant Mental Health Referral

Reason for Referral:

Please check appropriate box/es: (Please note that at least one box needs to be checked in order for referral to be considered)

❒ Client currently struggling with moderate to severe mental health concerns

❒ Client currently struggling with substance abuse concerns

❒ Client's current perception of unborn infant is distorted and /or is experiencing strong birth anxiety

Please provide more details below, (attach page if more space required):

EDD: OR Age of Infant:

Consent to refer obtained? Yes ❒ No ❒

2017CFQ-003-v2

Please fax the completed form to: (09) 470 0083

We will acknowledge receipt of your referral to your nominated email address

Edinburgh Post Natal Depression Scale

As you are pregnant or have recently had a baby we would like to know how you are feeling.

Please tick the answer that comes closest to how you have felt **IN THE PAST 7 DAYS**, not just how you feel today. The self-report scale is a screening tool and not diagnostic of depression.

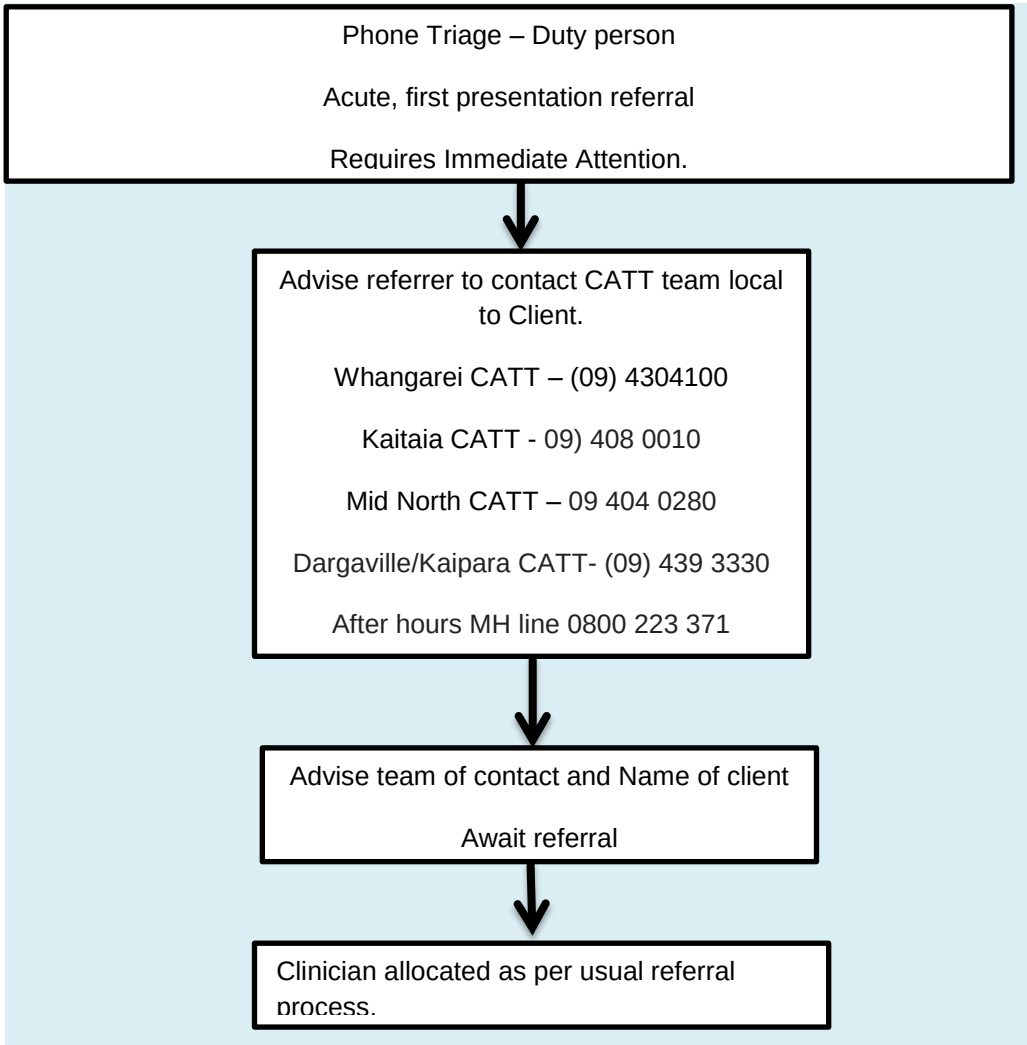
In the past 7 days:

1. I have been able to laugh and see the funny side of things **0** As much as I always could **1** Not quite so much now **2** Definitely not so much now **3** Not at all	**6. Things have been getting on top of me** **3** Yes, most of the time I haven't been able to cope **2** Yes, sometimes I haven't been coping as well as usual **1** No, most of the time I have coped quite well **0** No, I have been coping as well as ever
2. I have looked forward with enjoyment to things **0** As much as I ever did **1** Rather less than I used to **2** Definitely less than I used to **3** Hardly at all	**7. I have been so unhappy that I have had difficulty sleeping** **3** Yes, most of the time **2** Yes, sometimes **1** Not very often **0** No, not at all
3. I have blamed myself unnecessarily when things went wrong **3** Yes, most of the time **2** Yes, some of the time	**8. I have felt sad or miserable** **3** Yes, most of the time **2** Yes, quite often **1** Not very often

1 Not very often **0** No, never	**0** No, not at all
4. I have been anxious or worried for no good reason **0** No, not at all **1** Hardly ever **2** Yes, sometimes **3** Yes, very often	**9. I have been so unhappy that I have been crying** **3** Yes, most of the time **2** Yes, quite often **1** Only occasionally **0** No, never
5. I have felt scared or panicky for no very good reason **3** Yes, quite a lot **2** Yes, sometimes **1** No, not much **0** No, not at all	**10. The thought of harming myself has occurred to me** **3** Yes, quite often **2** Sometimes **1** Hardly ever **0** Never

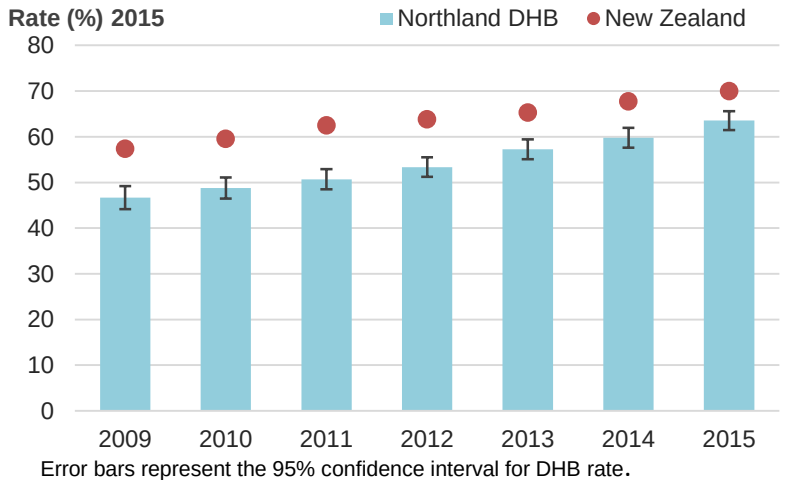
EPDS Score	Interpretation	Action
Less than 8	Depression not likely	Continue support
9-11	Depression possible	Support: re-screen in 2-4 weeks. Consider referral to GP
12-13	Fairly high possibility of depression	Monitor, support and offer education. Refer to GP for primary mental health packages of care.
14+	Probable depression	Diagnostic assessment and treatment by primary care and/or specialist
Positive score on Q 10 (1,2,3)	Immediate discussion required. Refer to mental health specialist or Crisis Team for further assessment and intervention if required. Urgency of referral will depend on several factors including: • Does client have a plan? • Is there a history of suicidality? • Are symptoms of psychosis present? • Is there possible harm to others especially baby?	

Referral Process

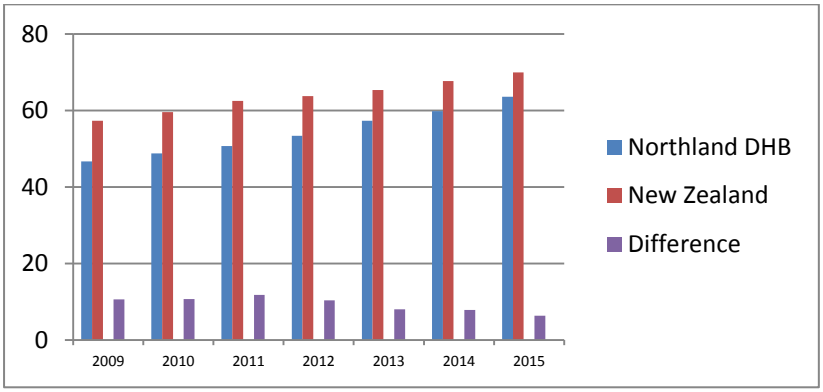


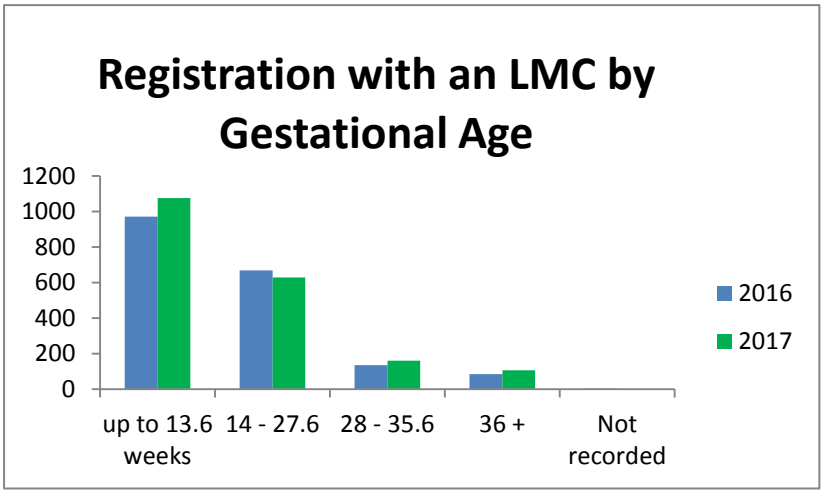
Northland self-review against the National Maternity Clinical Indicators

Indicator 1: Registration with a Lead Maternity Carer



We have seen a steady but slow increase in the number of women registering with a lead maternity carer in the first trimester. We find on looking at local data that many women register soon after the end of the first trimester and we are looking into reasons which may account for this.





These graphs depict our continued and steady increase in first trimester registrations with an LMC however we remain behind the rest of NZ in this indicator. The gap between Northland and the remainder of the country is decreasing and there is a project underway aimed to significantly increase the pace of this in the next two years when the aim is to meet the national target and ensure as many women as possible have early access to midwifery care. Early access to midwifery care ensures women have timely access to high quality maternity care including any additional care that may be required.

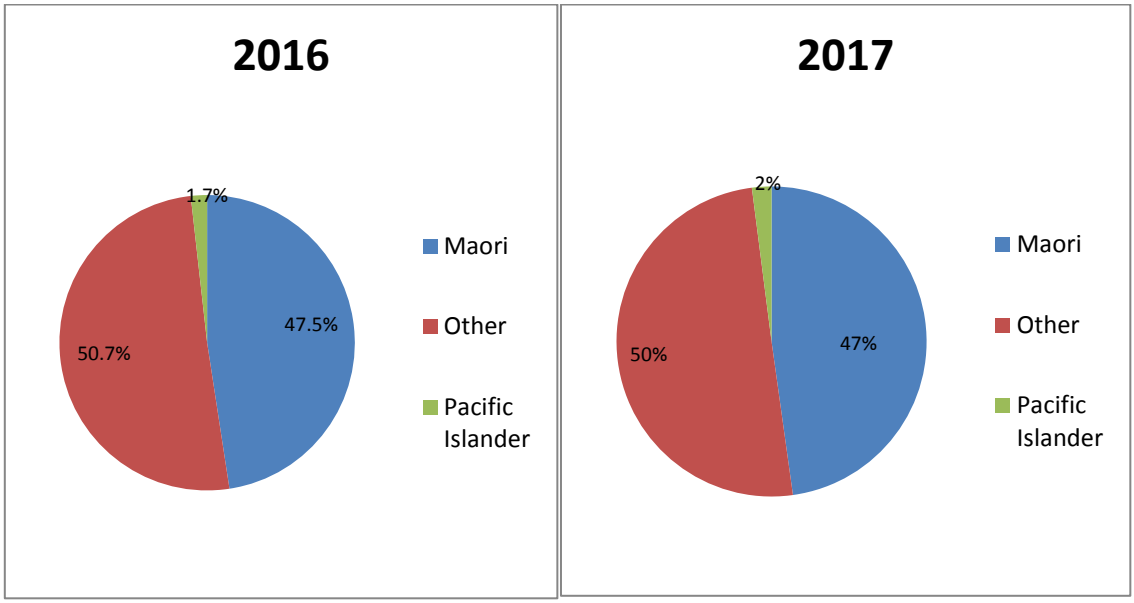
In addition to this work, we are in the planning phase for a new project for the 2017/18 year to increase early registrations by working with community midwife LMCs, PHOs/GPs and other community providers to improve communication between providers and support further collaboration.

Note that this local data identifies registration with an LMC in Northland and is therefore not directly comparable with the national indicator data above. This is because the national data includes the date at first registration regardless of where that registration occurs. It is however useful for us to keep an up to date view of progress in this space. We also have registration with an LMC as a running graph updated monthly on our maternity dashboard.

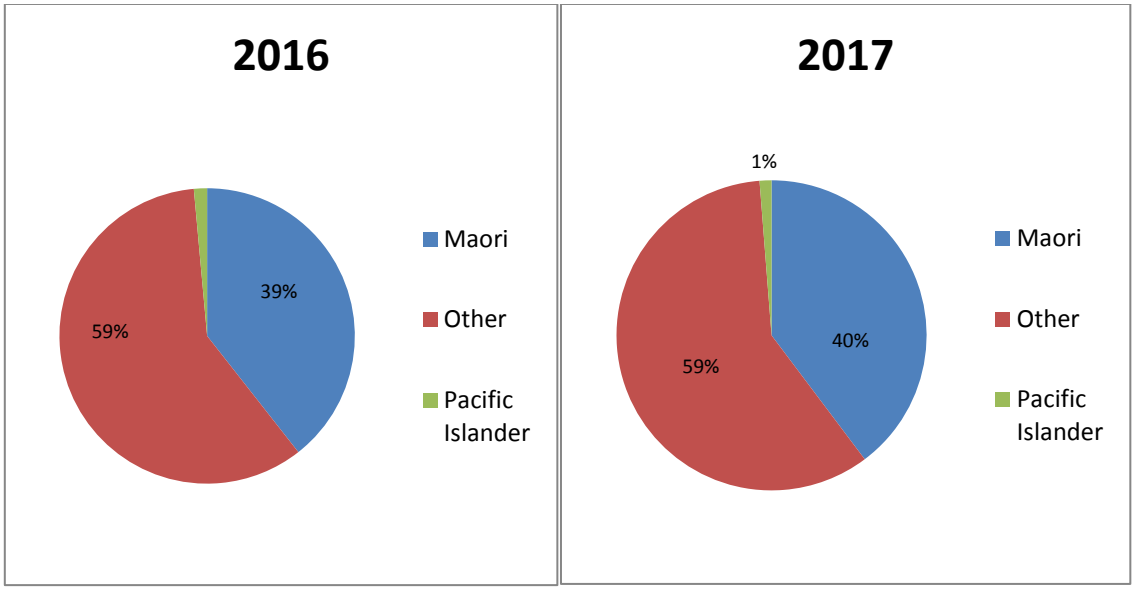
Registrations with an LMC by ethnicity compared to the general ethnic mix of the birthing population

Below are the same graphs in pie graph form showing a very similar ethnicity mix in the Northland environment with a small increase in both the Māori and Pacific Island population.

Birthing population by ethnicity 2016 and 2017

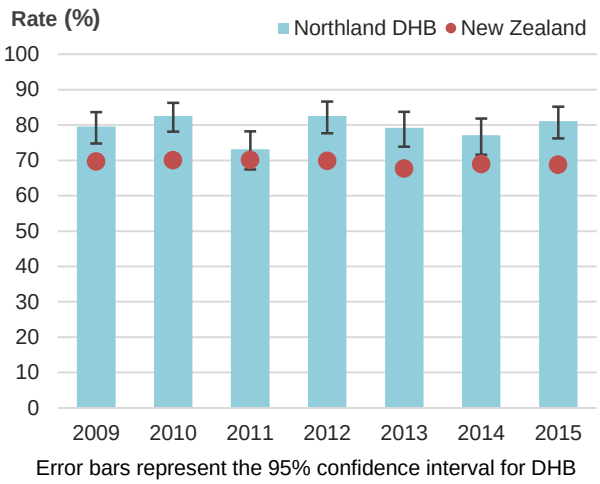


Birthing population by ethnicity and registration in the first trimester 2016 and 2017



It is clear that Māori are overrepresented in the group of women who do not register in the first trimester. This is a significant finding when we know also that Māori women are overrepresented in data such as perinatal death and small for gestational age babies and supports the on-going work being undertaken in Northland to ensure early engagement with an LMC and therefore early access to services for all women and in particular Māori women.

Indicator 2: Standard Primiparous women who have a spontaneous vaginal birth

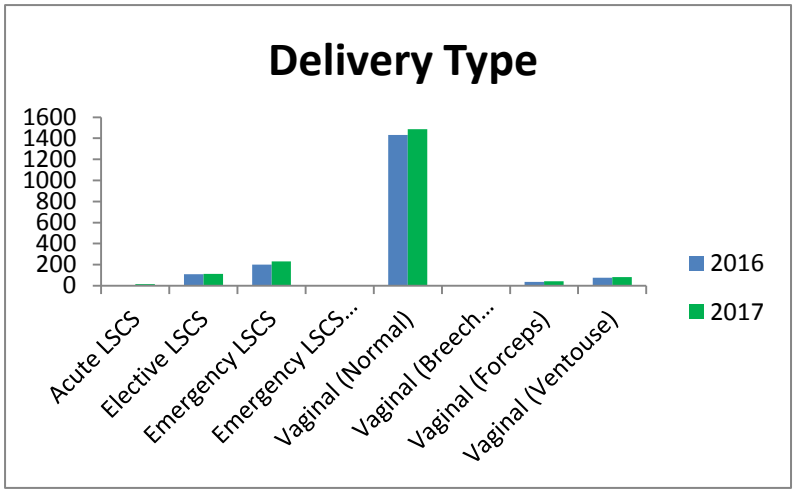


Northland DHB achieves consistently high rates of vaginal birth compared to the NZ average. The overall rate of 81percent is an increase this year and the highest in the country. This has remained very consistent over a number of years. Around 25 percent of the Northland population births either at home or in primary units which we believe contributes to increased vaginal birth rates. However Northland also has a comparatively high rate of vaginal births in the secondary unit at 74.5 percent compared to the national average of 62.7 percent.

We believe this is due to a combination of factors but not the least that we have real commitment to keeping birth normal as much as is possible and a highly functioning interdisciplinary team of midwives and obstetricians who work together to support women to be confident in their ability to birth.

We also continue to see a strong commitment from women and their whānau to work towards keeping birth normal as much as is possible.

Local data showing delivery by type for 2016 and 2017 years - all births in Northland DHB

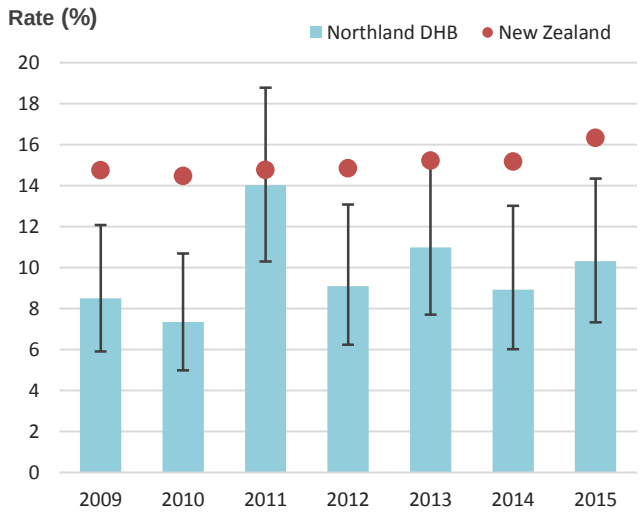


Note: Vaginal birth rates over 80 percent for all births in the 2016 and 2017 years

Note: Total number of births included: 1860 in 2016, and 1971 in 2017

The above graph shows number of births by type in the last two years for all births and shows a continuing high number of vaginal births in Northland. The number of elective caesarean sections is reasonably low and we believe this, along with relatively low numbers of inductions of labour compared to national numbers, contributes to our high vaginal birth rate. Almost all women who have experienced one previous caesarean section are offered an opportunity to labour in their next pregnancy and many are able to have a vaginal birth. This year we have redeveloped our pamphlet for women providing information about vaginal birth after caesarean section, to support conversations practitioners have with women in this regard.

Indicator 3: Standard Primiparous women who undergo an instrumental vaginal birth

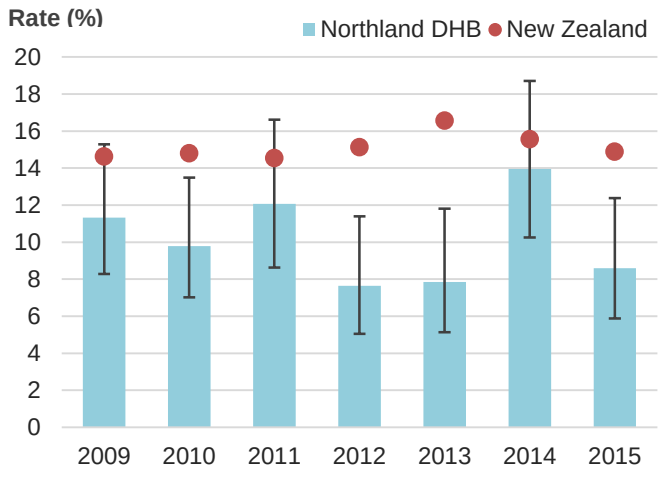


Error bars represent the 95% confidence interval for DHB rate.

Northland data indicates a comparatively low rate of instrumental births in our population although a little higher than last year.

Apart from an increase in 2011 the rates in Northland have remained fairly stable.

Indicator 4: Standard primiparous women who undergo a caesarean section



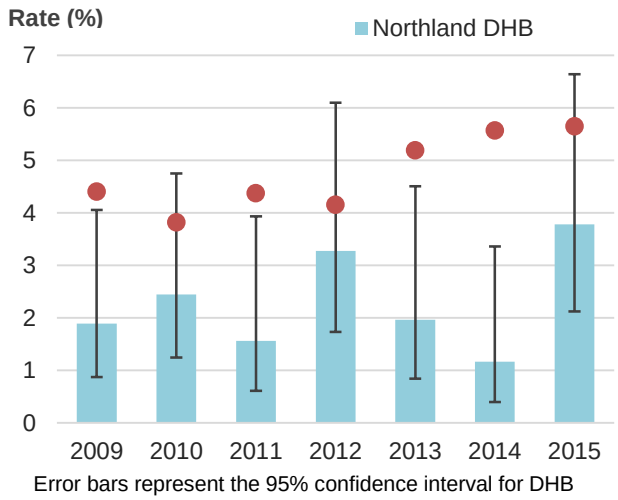
Error bars represent the 95% confidence interval for DHB rate.

As can be seen here the numbers of standard primiparous women who have a caesarean section in Northland is low compared to national figures.

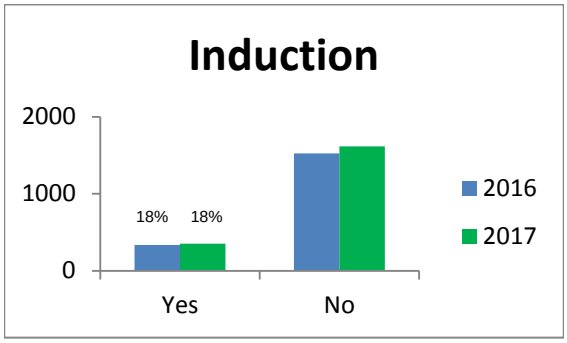
When we look at more recent local data for all births our 2017 data shows an overall LSCS rate of approximately 18 percent for all births compared to 25 percent for NZ in the Report on Maternity 2015 (2017). A lower elective LSCS rate of only 5.6 percent compared to 12 percent in the national 2015 dataset contributes to this. The emergency LSCS rate is 11.8 percent compared to 13.7 percent in 2015 national data.

NDHB midwives and doctors and Northlands' community LMC midwives, remain committed to keeping birth normal and safe as much as is possible and work collaboratively and with commitment to achieve this.

Indicator 5: Standard primiparous women who undergo and induction of labour

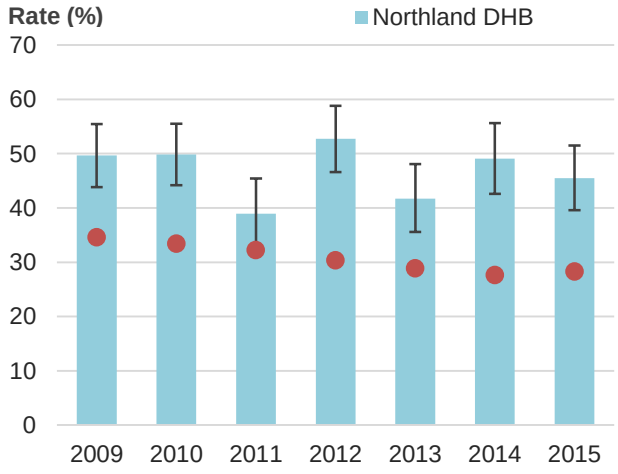


Error bars represent the 95% confidence interval for DHB



Total inductions for all Northland births in 2016 and 2017 show an overall rate of 18 percent for each year. 2015 data shows a rate of 23.8 percent as a NZ average.

Indicator 6: Standard primiparae with an intact lower genital tract (no 1st – 4th degree tear or episiotomy)

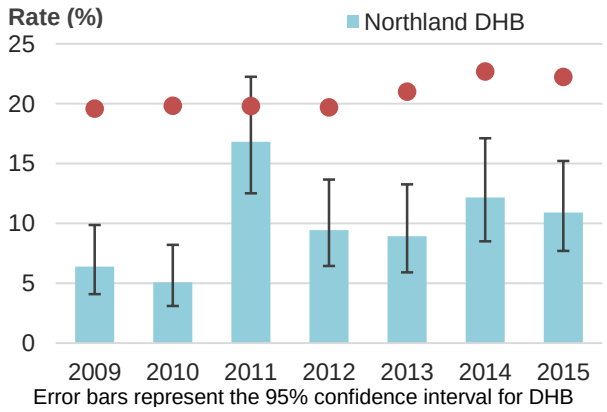


Error bars represent the 95% confidence interval for DHB

Northland continues to see a comparatively high rate of intact lower genital tract.

Contributing to this is Northlands' comparatively low rate of episiotomy see below.

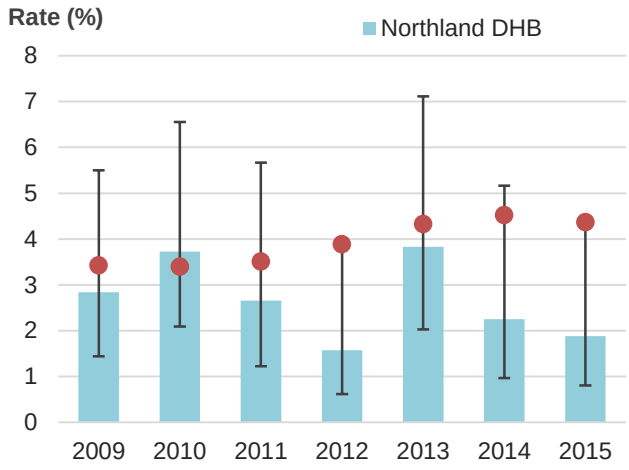
Indicator 7: Standard primiparous women undergoing episiotomy and no 3rd or 4th degree perineal tear



Error bars represent the 95% confidence interval for DHB

In 2017 for all women in Northland the episiotomy rate was 5.3 percent compared to the 2015 data nationally of 14.2 percent.

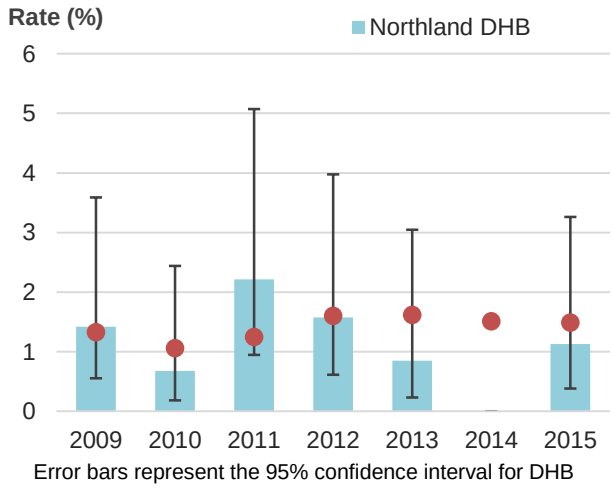
Indicator 8: Standard primiparous women sustaining a 3rd or 4th degree perineal tear and no episiotomy with vaginal birth



Error bars represent the 95% confidence interval for DHB rate.

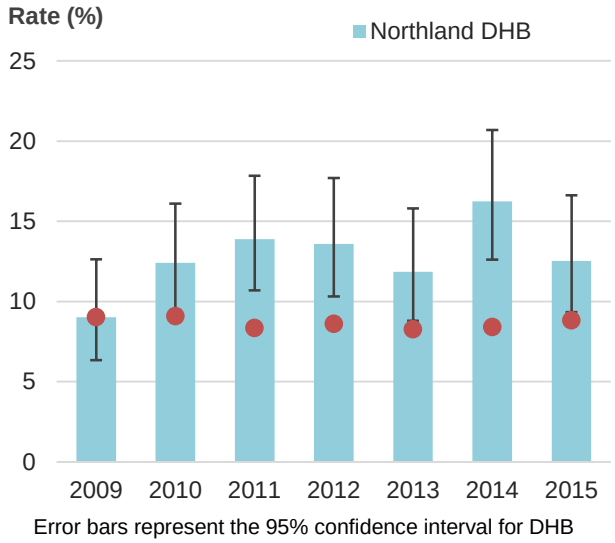
Third and fourth degree tear rates remain below the national average as depicted in this and the below graphs

Indicator 9: Standard primiparous women sustaining a 3rd or 4th degree perineal tear



Error bars represent the 95% confidence interval for DHB

Indicator 10: Women having a general anaesthetic for caesarean section



Error bars represent the 95% confidence interval for DHB

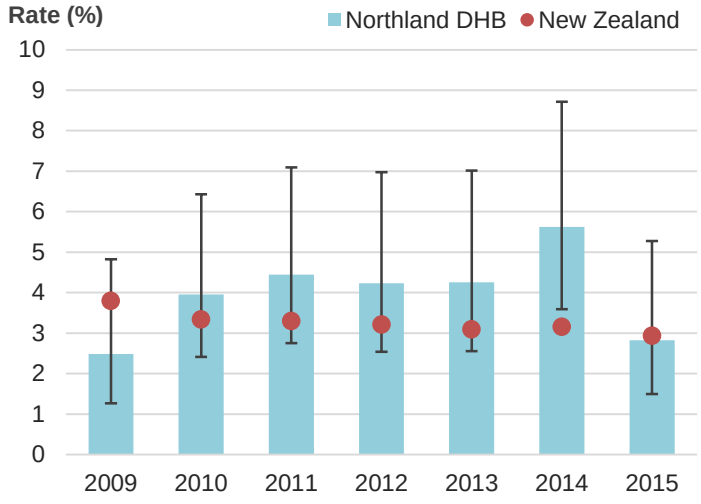
Compared to the national data we appear to have the highest percentage of women having a general anaesthetic for their caesarean section.

In order to address this, we held a multidisciplinary workshop involving anaesthetists, obstetricians and midwives to look at this issue as well as our previously high number of women who had a blood transfusion following caesarean section.

We found that we had a very low percentage of elective caesarean sections compared to the national percentage as well as having a low number of caesareans overall. Of the caesarean sections we do, there are therefore more emergency caesareans and more likelihood of a general anaesthetic.

When we looked at the number of GA caesareans as a percentage of total births in Northland the percentage was reasonably low.

Indicator 11: Women requiring a blood transfusion with caesarean section

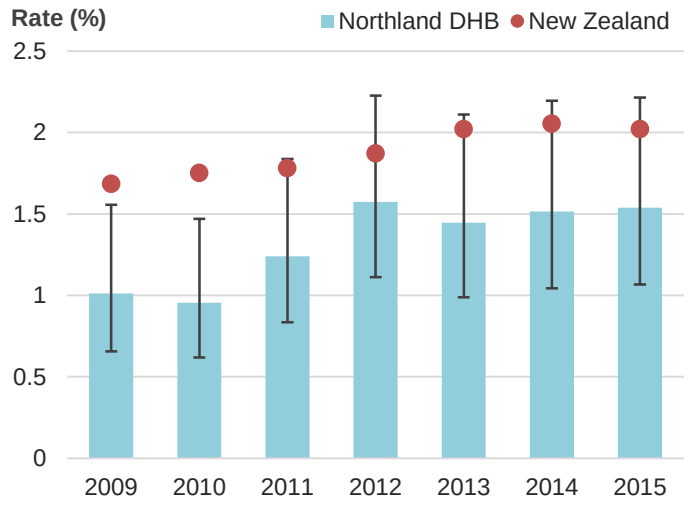


Error bars represent the 95% confidence interval for DHB rate.

As noted above this indicator was included in our multidisciplinary review meeting as in 2013 and 2014 we had a comparatively high rate of blood transfusion after caesarean section. Our anaesthetic department have since then been running an on-going audit which includes this and we have noted a reduction over the last two years.

The 2015 rate of 2.8 percent is half the previous years' rate and we are now aligned with the median for NZ.

Indicator 12: Women requiring a blood transfusion with vaginal birth

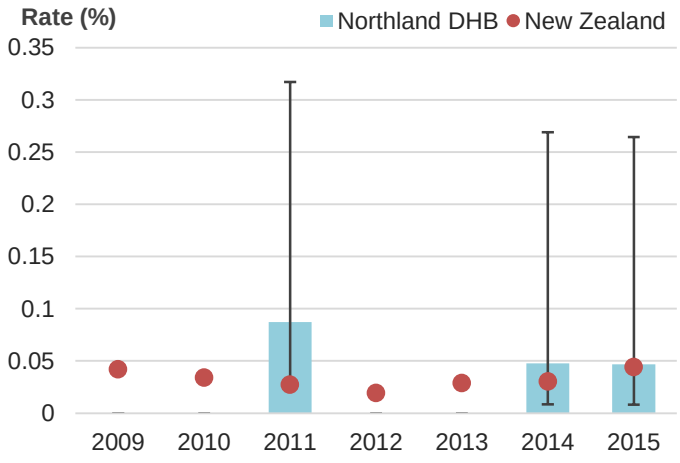


Error bars represent the 95% confidence interval for DHB rate.

The rate of blood transfusion after vaginal birth in Northland has not changed over the last 5 years and remains well below the national median.

This year we have started to offer iron infusion therapy to women with anaemia in pregnancy and post-partum in order to avoid the need for blood transfusions. It will be interesting to see if this practice further reduces transfusion rates.

Indicator 13: Diagnosis of eclampsia at birth admission



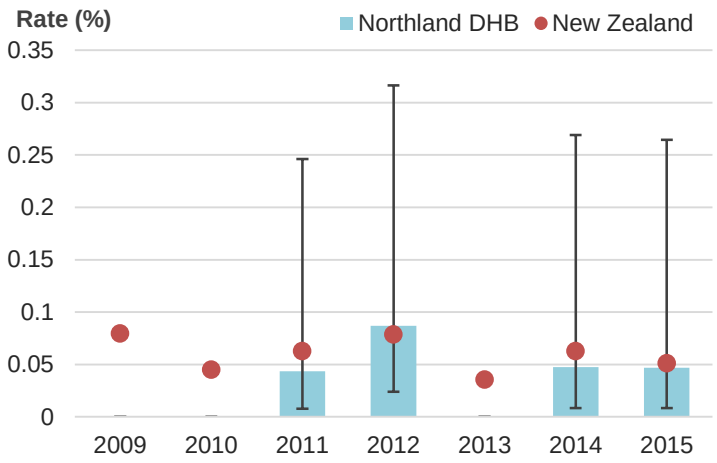
Error bars represent the 95% confidence interval for DHB rate.

Northland obstetricians have not seen an increase in the incidence of diagnosed eclampsia.

We routinely review any cases of eclampsia which occur as we consider this a never-event and have a comprehensive, evidence-based practice guideline for the management of pre-eclampsia available for all our local practitioners.

We will be reviewing this guideline in relation to the new national hypertension management guideline once it is published.

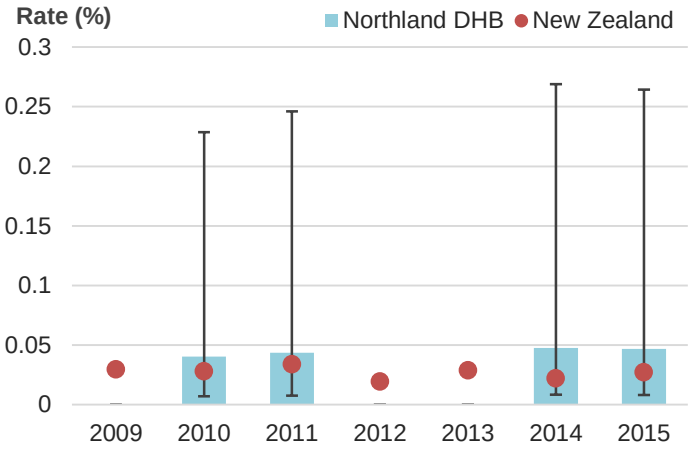
Indicator 14: Women having a peripartum hysterectomy



Error bars represent the 95% confidence interval for DHB rate.

This is a very rare event in Northland as it is throughout the country however there are times when it is unavoidable. In every case where a peripartum hysterectomy occurs there is a full case-review undertaken.

Indicator 15: Women admitted to ICU and requiring ventilation during the pregnancy or postnatal period

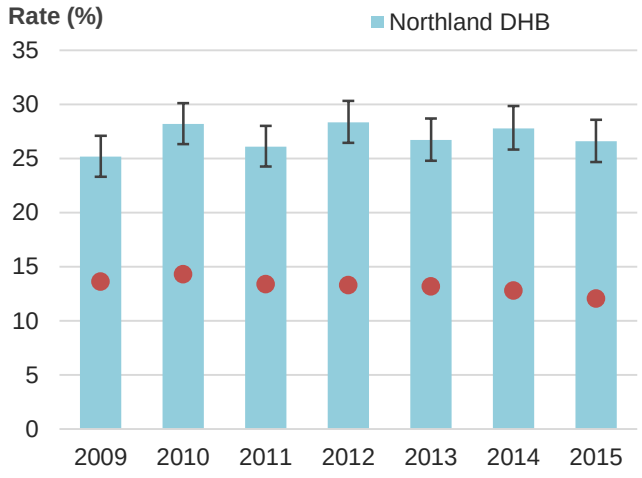


Error bars represent the 95% confidence interval for DHB rate.

A recent perinatal review was undertaken in Northland. The cases in 2014 and 2015 identified in this indicator were both included in the review as the outcome for the babies was either still birth or neonatal death.

In both of these cases the extreme maternal morbidity was not related to an obstetric cause.

Indicator 16: Maternal tobacco use during pregnancy



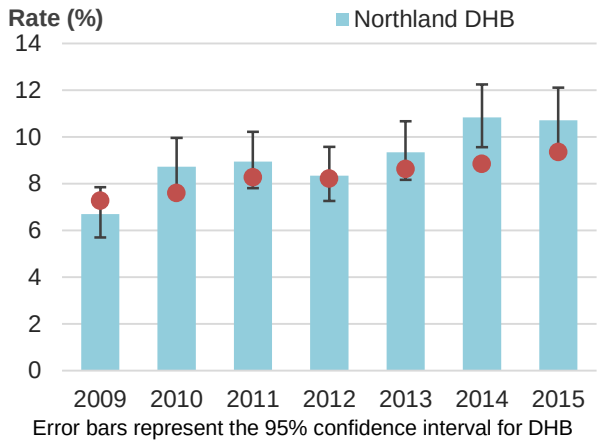
Error bars represent the 95% confidence interval for DHB rate.

Northland has a particularly high rate of smoking amongst pregnant and postpartum women and indeed all women. There is a strong commitment from Northland DHB, primary health and all maternity service providers to reduce these rates. Northland DHB's monthly target is to ensure that > 90 percent of women who smoke are being screened and offered advice and support to quit. In the 2017 year, NDHB facilities achieved >95 percent. New initiatives to help women to stop smoking have been introduced this year to further attempt to reduce smoking in pregnancy.

There was a period of time in the last year where smoking cessation services were being reviewed and support services were at times less reliable than they had previously been. The Realignment of Stop Smoking Services is now complete and the Toki Rau Stop Smoking Services (SSS) are now in place. There is now a far more certain service available ensuring that the referrals made by community midwife LMCs will be followed up in a timely and appropriate manner.

The Northland Tobacco Advisor – Pregnancy, held six meetings with community midwife LMC groups and the Northern region of the College of Midwives. These meetings were to provide midwives with additional and new information and tools to assist them to support smoking cessation. There has been a roll out of free Inhalators and incentives projects for women who attend and sign up to SSS to make a quit attempt. Seven SSS sites across Northland started these projects and a number of midwives have opted to have Inhalator starter packs for women who decline referral to SSS and will offer their support for women to quit if they do not wish to access the other service.

Indicator 17: Women with a BMI over 35



Northland like the remainder of the country has seen a consistent rise in obesity rates. In 2015 the rate of Northland women with a BMI over 35 is at the 75th centile compared to the national median rate. The 95 percent confidence interval puts it just within the median range however the continued rise is of concern across the country.

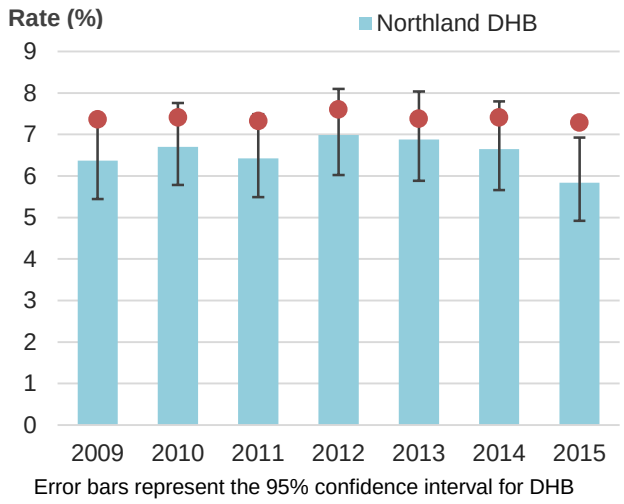
Northland DHB has a guideline for management of women with a BMI over 35 and an audit of practice against the guideline took place this year. While managing women with a high BMI according to the latest recommendations should reduce the potential risks to women and babies associated with increased BMI; it does not address the bigger concern that we are seeing a year on year increase in the numbers of women with a BMI over 35 in our birthing population.

The audit showed that 84 percent of women were appropriately referred for consultation in pregnancy according to the recommendations in the Referral Guidelines which was an increase from 63 percent in the 2015 audit; however some women did not gain access to all services recommended. This will be followed up in a repeat audit in 2018. The addition of a free scanning and dietician service within Te Kotuku this year and the planned addition of a free scanning facility in Bay of Islands Hospital later this year, may improve access for Māori and Pacific women.

The dietician services were originally only available to women with gestational diabetes but have now been extended to accept referrals for women with high BMI or with excessive weight gain in pregnancy. These clinics are well attended and dietician services have recently been extended to the Mid North. We do not have sufficient dietician services in the Far North so dietary advice for women who are not able to travel only occurs with the LMCs and with the consultant at clinic.

Te Puawai Ora staff is considering offering healthy cooking and eating drop in coffee mornings and it would be great to see this extended to the district hospitals. Healthy weight gain and eating advice is offered in all antenatal classes including hapu wananga and adolescent classes and community LMC midwives are offering all women the Ministry of Health guidelines on healthy weight gain in pregnancy.

Indicator 18: Preterm birth (<37 weeks)



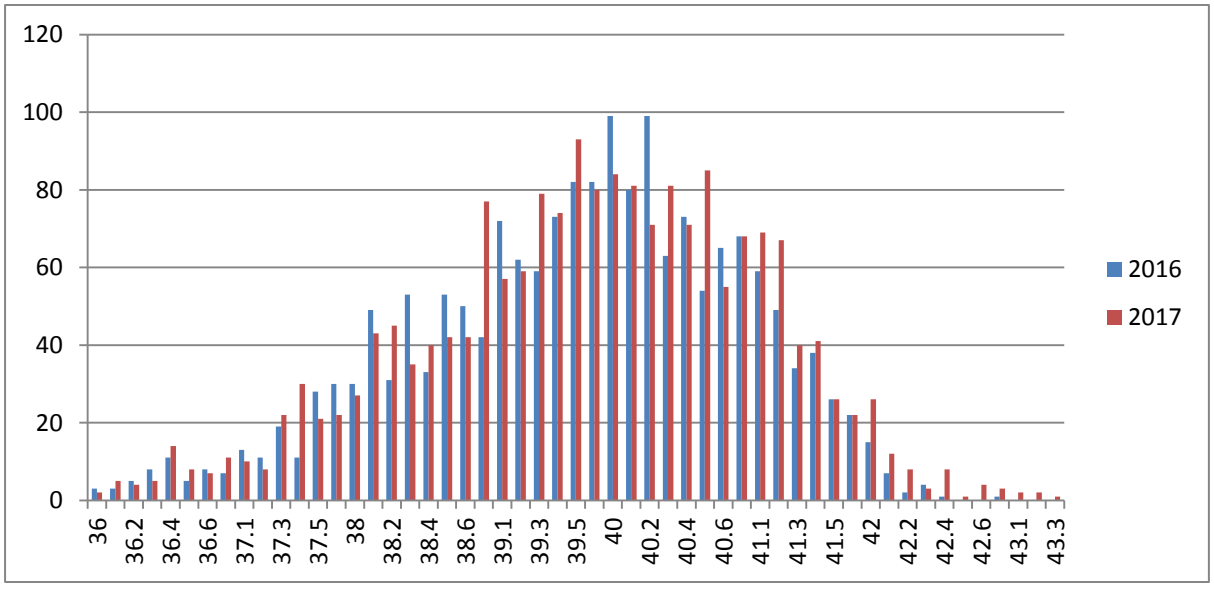
Northland tends to have a low rate of preterm births compared to the national median.

Recent evidence from the Place of Birth study in the UK suggests that continuity of midwifery care reduces the incidence of preterm birth.

97 percent of women in Northland have continuity of care by a midwife so it is possible this influences the low rate however the real reason for this is unknown.

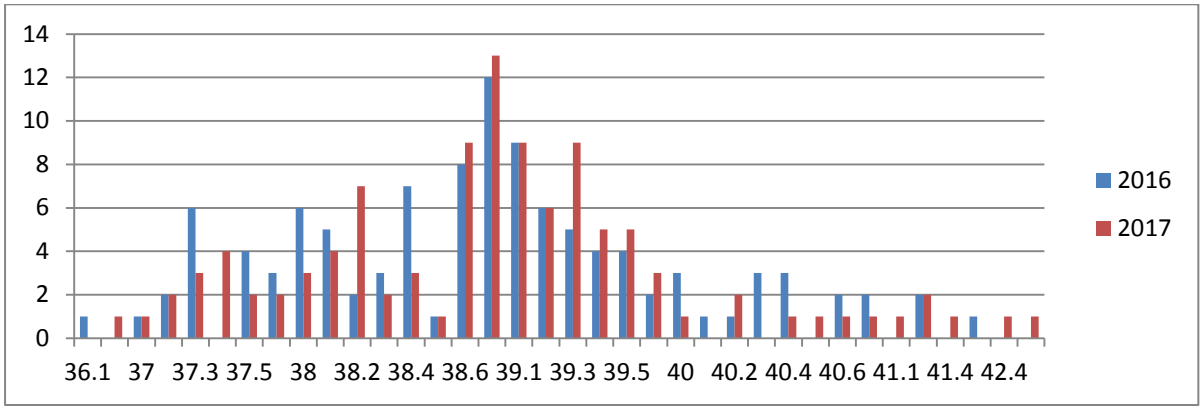
Also significant are the numbers of women induced or delivered by elective LSCS prior to term. Below are graphs showing the overall distribution of births by gestation and those births which were associated with induction of labour and elective LSCS in 2016 and 2017

Graph showing the overall distribution of births in Northland by gestation at birth in 2016 and 2017.



The above graph shows the distribution of births by gestation in Northland for babies born after 36 weeks to use as a comparison with the induction and elective LSCS graphs discussed below.

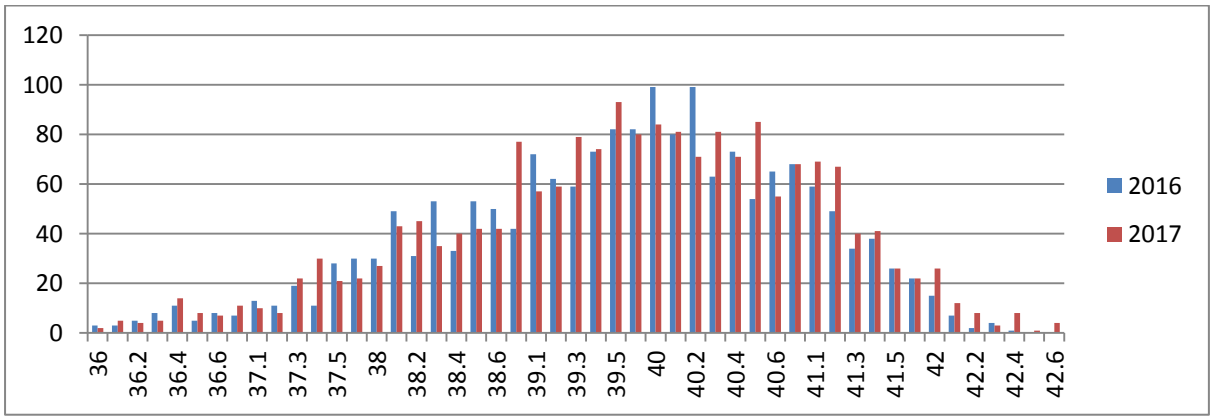
Graph showing the distribution by gestation of babies born by elective LSCS in Northland in 2016 and 2017



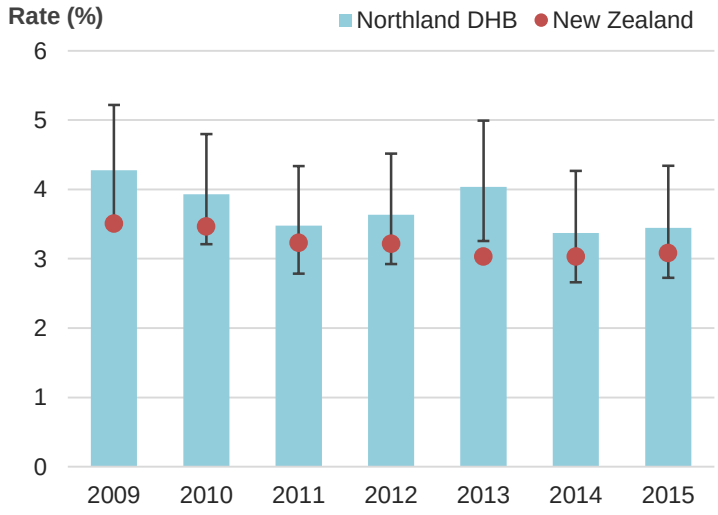
The majority of elective LSCS occur between 39 and 40 weeks which is the goal at Northland DHB. We still see a significant number of elective LSCS prior to that but these should be the exception and should only occur when there are significant risks associated with continuation of the pregnancy. In 2016, 40 percent of all elective LSCS occurred between 39 and 39w 6d and in 2017 it was 45 percent. In Whangarei there is only one elective LSCS theatre list each week. Because of this it is expected we will see a distribution of LSCS between 38 and 40 weeks to achieve as close as possible to 39 weeks. It is pleasing, despite this, to see most occurring in the 40th week.

The graph below looks at those women who had their labour induced. Northland DHB still has a number of women induced at 38 – 38.6 weeks. Many of these are women with gestational diabetes who have generally not had good control of their diabetes despite insulin. A slight shift in the timing of induction of labour towards term is evident in this graph which shows that there were fewer women being induced in 2017 compared to 2016 between 38 and 38 weeks 6 days and more women being induced in 2017 compared to 2016 in the 39 to 39 weeks 6 days group. This may be a response to the changed recommendations in the new gestational diabetes guideline implemented in the 2017 year.

Graph showing the distribution by gestation of births where the woman underwent Induction of labour in 2016 and 2017



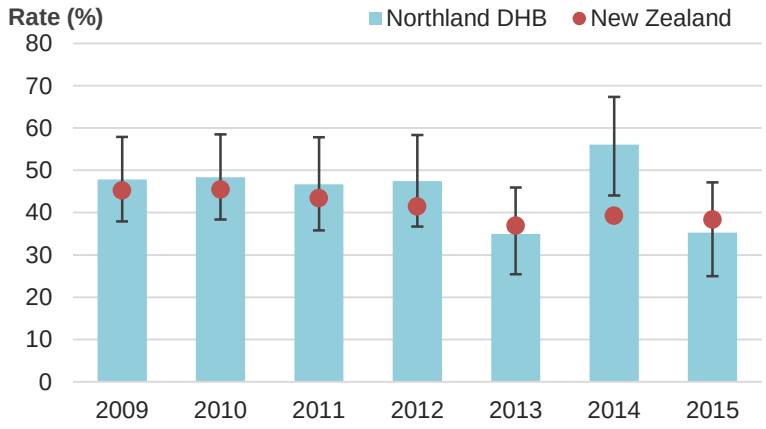
Indicator 19: Babies small for gestational age at term (37- 42w)



Error bars represent the 95% confidence interval for DHB rate.

We believe this is consistent with the high percentage of smokers in our population however remain reasonably pleased with the number of babies identified early and monitored carefully.

Indicator 20: Small babies at term born at 40 – 42 weeks

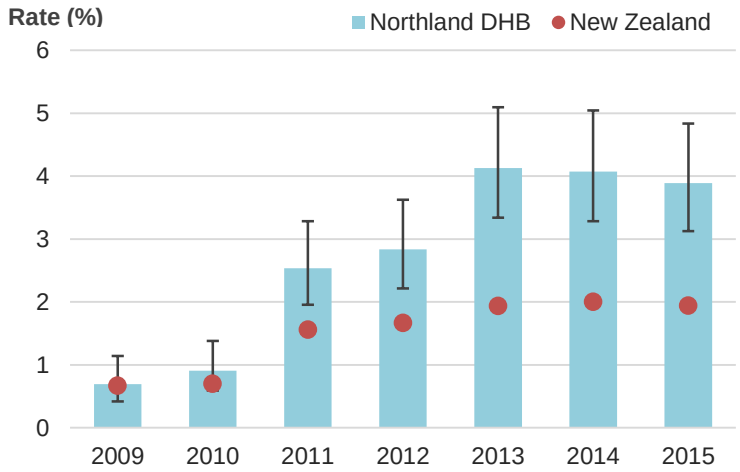


Error bars represent the 95% confidence interval for DHB rate.

Northland DHB has a comparable rate of SGA babies being born between 40 and 42 weeks to the rest of the country, this year sitting around the 25th centile for this measure.

We did experience an unusually high rate in 2014 but there is a reversal of this in the 2015 year. There is continued effort to improve services and enable access to services to ensure as many small babies as possible are identified early.

Indicator 21: Babies born at 37+ weeks gestation and requiring respiratory support



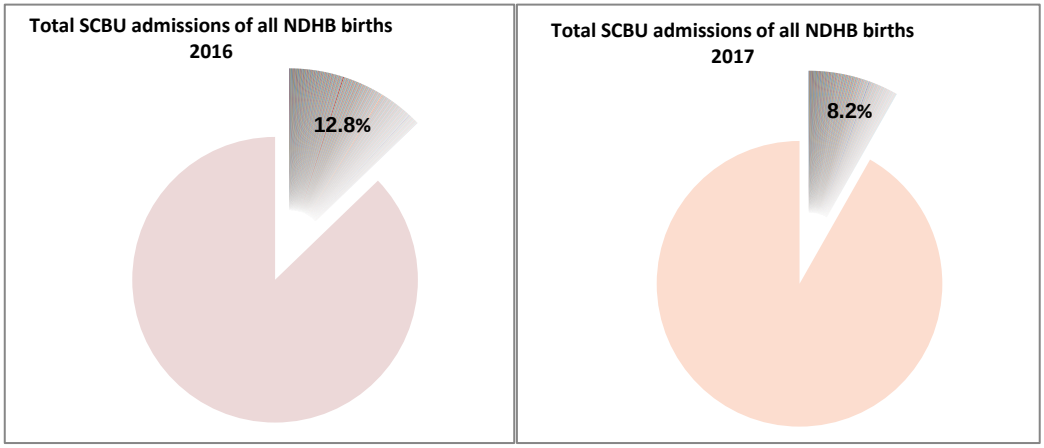
Error bars represent the 95% confidence interval for DHB rate.

Northland DHB is a significant outlier in regards to this final indicator and has been for a number of years. Although the last three years have seen a very small, although not statistically significant reduction in rates each year, in the 2015 year Northland still had the highest rate in the country (3.9 percent) which is more than twice the national rate (1.9 percent).

In the 2015/16 year we started a project to review these rates. The project is on-going and continues to be a priority in this years' annual plan. Same is outlined in the projects section below.

While these graphs are not directly comparable with the above dataset; they are the indicator we are using locally to review our admissions to SCBU overall. We are making an assumption that if the percentage of babies going to SCBU reduces we should subsequently see fewer babies receiving more than four hours of respiratory support over time.

Below are two pie graphs showing the percentage of babies admitted to SCBU of all births in NDHB and clearly show a significant reduction between 2016 and 2017 from 12.8 percent to 8.2 percent of births.



Other MQSP Projects and audits completed and progress update for on-going projects

1. Implementation of Gestational Diabetes Guidelines

Northland DHB has fully implemented the national gestational diabetes guideline. The current DHB guideline Diabetes; Screening, Diagnosis and Management of Gestational Diabetes Mellitus (GDM) is accessible to all staff on the DHB intranet and sits alongside guidelines specific to type 1 and type 2 diabetes. Educational opportunities have been available to inform staff of the changes in screening and management of diabetes and the diabetes study day has become incorporated in the annual DHB education plan for maternity staff.

Hba1C tests now form part of the first antenatal blood screen and are being performed by all Northland laboratories.

The Northland dietician who works in the diabetes service reports an increase in GDM referrals from 10 percent of total patients seen to 17 percent in 2015; and from 17 percent to 21 percent in 2016. She reports that there are more referrals for high BMI and elevated Hba1c at booking, prior to polycose or OGTT results. It is recognised that an increase in dietician services, including those culturally responsive to the needs of Māori, is required.

2. Review of Term babies to SCBU and number requiring respiratory support for more than four hours.

Background:

Over the past few years Northland DHB has consistently shown a comparatively high percentage of term babies being admitted to SCBU and receiving more than four hours respiratory support. In the 2014 and 2015 years the rate was twice the national median. The national median for those years was 2 percent and 1.9 percent respectively and in Northland the rate was 4 percent and 3.9 percent which were by far the highest rate in the country.

In response to this finding, a project was undertaken to try to explain what was driving this disparity and whether there was anything could be done to identify possible changes in practice or service which could lead to a reduction in the rate.

The first audit undertaken related to coding to identify whether or not coding differences were contributing to the numbers. A meeting was held with the coding team who then audited their processes and codes to ensure correctness. They were not able to identify any issues with coding suggesting that they were appropriately counting babies based on the information they were given.

It was then decided to hold a facilitated meeting of paediatric and maternity clinicians to further examine the issues. This was a particularly useful meeting both in terms of identifying possible issues and developing multidisciplinary relationships and communication.

A number of issues were identified for immediate further review or action at that meeting. Some of these issues and associated actions included:

- That we undertake an audit of neonatal resuscitation against the guidelines to ensure best practice with management of babies needing early resuscitation intervention;
- That SCBU review their documentation for babies being given CPAP to ensure the information going to the coders is correct. SCBU do use an audit tool to notify the time CPAP was commenced and discontinued however documentation in the clinical record sometimes records discontinuation some hours after it occurs;

- Clinical audit be undertaken to look at management of pre-labour rupture of membranes against the recommended guidelines;
- Adjustment is made to trigger tool processes so as to include paediatric clinicians in the discussions when the trigger is a term baby to SCBU. These topic-specific meetings are occurring every month currently and are attended by core and community LMC midwives, obstetricians, nurses who work in SCBU, and paediatricians;
- That identified possible issues identified at the facilitated multidisciplinary meeting be sent to clinicians for feedback to contribute to prioritisation for the on-going work-plan;
- Region-wide implementation of the resuscitation document, (designed for documentation of resuscitation and also to support appropriate process during resuscitation) and audit of same;
- Progress the teaching of early use of PEEP for babies with increased work of breathing in birthing suite as well as maintenance of temperature and glucose levels to try to avoid admission to SCBU;
- Encouragement of midwives to attend STABLE training to improve confidence in maintaining the wellbeing of babies who need support in the early hours after birth, particularly for stabilisation of babies born in primary units while awaiting transfer;
- Implementation of additional multidisciplinary emergency management education in primary units and in the secondary unit.

After completion of the above; feedback was sought from all clinicians to identify the main priorities and subsequent work streams on which to focus for the next year. The on-going project plan is expected to be confirmed in October this year.

Conclusion:
While this project is currently in progress, it is quite complex and involves many practitioners and different work streams. Some of the progress on this has been delayed by a change in quality staff leaving a position vacant for much of the last year but it is now once again being progressed.

As noted in our review of the indicator data we have reported a significant reduction in babies being transferred to SCBU in the last year from 12.8 percent of all babies in the 2016 year to 8.2 percent in 2017 and are hoping this will translate into a reduction in babies needing more than four hours of respiratory support after birth. We will be looking in more detail at local data in the next few months as this project progresses.

3. Perinatal Mortality Review 2012 – 2015 (perinatal deaths after 28 weeks gestation)

Introduction:

In response to a higher than usual perinatal mortality rate in Northland, which had been identified in recent Perinatal and Mortality Review Committee Reports, a formal review of all Northland cases from January 2012 to August 2015 was undertaken. A draft audit tool (template) was obtained from the PMMRC, revised by a local multidisciplinary team and used to support this work. Cases of known fetal abnormality, where that abnormality was known to have directly contributed to the death, were excluded.

The purpose of the review was to identify and highlight any systems and processes which may have possibly contributed to the perinatal deaths in Northland over this period of time and to then provide a report to Maternity Clinical Governance Group to include key recommendations arising from the review.

Method:

A multidisciplinary group was formed to undertake the review and membership included the following:

- Director of Midwifery and Service Manager-Maternity;
- MQSP Facilitator;
- Clinical Midwife Manager;
- Two self-employed midwives (1 from Whangarei and 1 rural);
- One midwife representative from Te Kaahu Wahine (Māori midwives group);
- One obstetric consultant.

Clinical records were anonymised and distributed amongst the group for initial review and preparation. During this process a timeline was created and relevant information identified. Each case was then presented to the wider group.

The LMC responsible for the care of women at the time of the perinatal death was invited to provide antenatal notes and to attend the meeting when the case that they were involved in was being discussed.

Following each case discussion, the template was completed, contributory factors identified and a decision made as to whether the death was potentially avoidable.

31 cases were reviewed and of these, two women endured tragic events, unrelated to the pregnancy, which subsequently lead to their deaths and that of their babies. The other cases were reviewed in detail.

Results:

- The age range of mothers was from 17 to 41 years. 26.7 percent were 20 years and under, 6.7 percent were aged 35-39 and 3.3 percent were over 40 years old;
- Notably; 39 percent of women who experienced a perinatal loss pregnant had just given birth to their first baby which is comparable to the percentage of women having their first baby in 2016 (34 percent) and 2017 (37 percent);
- Women of Māori ethnicity were over represented with 64 percent of women identified as Māori in this review group while Māori comprise 47.8 percent of the Northland population overall. 29 percent of women were NZ Pakeha;
- 53 percent of women had booked in their first trimester while 25 percent booked in the second and third trimester. Unbooked women included those who booked after 36 weeks in addition to two women who had not engaged a LMC at any stage of the pregnancy - this combined group comprised nine percent of women;

- 58.6 percent of women smoked. 53 percent of smokers declined any cessation assistance. Smoking rates in the birthing population were 26.6 percent in 2015;
- 61 percent of women were considered to be obese with a BMI of greater than 30 which is much higher than the birthing population. The incidence of BMI > 35 in our population is seven percent;
- 26 percent of women had experienced mental health and/or drug & alcohol issues;
- 44.8 percent of babies in this cohort were at or below the 10th centile. (Northland has a rate of 3.4 percent of babies who are small for gestational age at term);
- Post-mortem examination was conducted in only seven of the 31 cases;
- 56 percent of the perinatal deaths were considered to be potentially avoidable by the review team, however potential avoidability, included both patient/whānau and professional issues and does not identify cause and effect simply a possible relationship, giving us some potential areas to work on to try to reduce incidence in future.

Discussion:

The process of undertaking this review has been challenging for all concerned. It took some time to reach agreement with all practitioners as to terms of reference although there was no resistance to carrying out the review per se. Difficulties were that practitioners, in many cases, had already undergone significant reflection about these cases both personally and in other formal professional reviews. For them it was difficult to revisit those very stressful experiences.

Once the reviews began the practitioners involved were extremely supportive and contributed significantly to the case reviews. Much of the information gained from the reviews however was not unexpected. For example, despite concerted efforts, smoking rates within Northland remain high and many of the babies involved were small for gestational age. Of course there were also some practice points identified and these are included in the recommendations below.

Also notable were the small number of post mortems performed on babies. This is often seen in Northland as many Māori whānau in particular choose not to have post mortems performed.

Themes and Recommendations:

Recommendations arising from the review include the importance of

- Early engagement with an LMC, regular antenatal care and continuity of care for secondary care women;
- Education to women about the relevance of being aware of normal baby movements as a guide to fetal wellbeing;
- Communication between all services including GP's & LMC's, hospital services, in particular between emergency services and maternity departments;
- Awareness that handover of care from primary/secondary/tertiary care requires adequate verbal and written communication and notation in clinical records;
- Complete assessment of unwell pregnant women, regardless of where they present or are admitted to in the hospital; should include a full midwifery assessment including a cardiotocograph (CTG);
- Region-wide availability of services. This needs review to ensure consistency and ease of access. e.g. scans, dietician, drug and alcohol services;
- Development and regular review of multidisciplinary care plans for high risk women – ensure one point of responsibility and good communication;
- Identification of SGA babies;
- Reliable transport options to be considered to overcome the barriers to accessing service for some women who live in remote rural locations.

What we have already undertaken or in process:

- Shared risk list for high risk women has been created and forms part of clinical records;
- Consideration is being given to the reintroduction of the Grow (now known as the GAP) tool for all Northland practitioners;
- A guideline has been developed for the management of Type 1 diabetes in pregnancy. This document is for the care of any pregnant woman with Type 1 diabetes, who is admitted for anything throughout the hospital;
- Documentation made during provision of medical services e.g. diabetes outside of pregnancy or mental health care; is now readily available to the high risk obstetric team. (AN clinic midwife and obstetricians);
- The newly developed 'handover of care sticker' is being used for all clinical records when transfer of clinical care takes place. This has been the subject of audits to monitor compliance and usage is increasing;
- Ultrasound services in the Mid-North will be enhanced with the proposed commencement of scan clinics at Bay of Islands Hospital when the current re-build project allows;
- Dietician clinics now take place in the Mid North and women with obesity can now be referred to the dietician in Whangarei as well;
- Pregnancy and early parenting, drug and alcohol services are now available throughout Northland, in a hub and spoke model. See information regarding He Tupua Waiora – pregnancy and parental service.

What more do we have planned?

- Meeting with emergency department staff to clarify clinical pathways for the assessment of pregnant women who present in the emergency department, including a process for notifying their LMC;
- A project to improve early engagement is scheduled to commence in October. This will also include an audit of those women who have had a scan or blood tests in early pregnancy but do not then go on and register with a LMC;
- The creation of a context-specific pamphlet about the importance of baby movements to be given to all pregnant women is expected to be completed by the end of the year;
- The introduction of electronic discharge letters for LMCs to be considered later this year;
- The development of a process to improve communication between providers when women have complex needs to be developed further;
- Re-application for funding to support processes to increase access for women who experience significant access barriers.

We will report on updates to these interventions in the 2017/18 report.

4. Other audits completed:

I. Management of third degree perineal tears including postnatal follow-up

II. Identification of handover of clinical responsibility

III. The standard of antenatal care for women who have a BMI greater than 40

IV. Assessment of quality of care in pre-labour rupture of membranes at term

V. Blood sugar monitoring in large birth weight babies

VI. Screening for gestational diabetes in Northland DHB

VII. Category 1 Lower Segment Caesarean Section (LSCS)

Northland DHB 2 year MQSP Programme Plan 2018-2019

MQSP Contract Requirements	Plan/ Timeframes	Method
Local review and investigation of data (including the data presented in the *New Zealand Maternity Clinical Indicators* report)/Collection of consistent and comprehensive primary maternity data, regardless of the provider of primary maternity care/use of national and local data to prioritise quality improvement activities	Northland maternity data is collected and uploaded to the Maternity dashboard monthly. The findings from the Clinical Indicators report will be formally discussed by the maternity leadership team	The MQSP Facilitator will meet monthly with the Maternity Service Manager to discuss Northland outcome data which will also continue to be examined and presented to the multidisciplinary Maternal & Mortality meeting which is held on a monthly basis. Findings from the Clinical Indicators report will be shared at a M&M meeting
An overview of local maternity demographics and outcomes	Month-by-month maternity demographic and outcome data from all providers will be accessible to anyone authorised to access the Northland DHB intranet	The Northland DHB intranet hosts the maternity dashboard which is updated monthly using Maternity Information Systems. This information is presented to attendees of Mortality & Morbidity (M&M) meetings and is distributed to all practitioners in the minutes following the meeting. The information is also presented to the Clinical Governance meeting and any trends contributing to negative outcomes are highlighted. An agreed approach to address these trends will be reached in these multidisciplinary meetings
Review of findings from formal review processes for serious and sentinel events	Serious events will be categorised and examined through established Northland DHB processes and the outcomes disseminated monthly as required. The Midwifery Director and Service Manager-Maternity Services will remain a member of the Reportable Events Committee (REC)	M&M meetings will provide the opportunity to review the findings of serious/sentinel events. These will also be reported to the Clinical Governance Committee and the Maternal and Child Health Quality meeting

Evidence based clinical review	Updating of clinical guidelines will be addressed on a rotating basis twice-monthly	Evidenced based guidelines will continue to be written and reviewed by the multi-disciplinary Guidelines Committee which comprises of both employed and self-employed midwives, obstetricians, Midwife Educator, Quality Facilitator and Midwifery Director/Service Manager - Maternity. Multidisciplinary M&M meetings are held monthly and are well attended, provide regular opportunities to review clinical issues and share learning outcomes which have come from Trigger Tool meetings or case reviews. Trigger Tool meetings will continue to be held twice weekly in Whangarei and every second week in Kaitaia and kawakawa. Outcomes from these meetings are presented at the monthly M&M meeting and reported to the Clinical Governance meeting.
Representation of community-based clinicians and consumers in formal and informal review processes, to ensure that their perspective is considered.	On-going representation on the Northland DHB Clinical Governance Committee by consumers and community based clinicians will continue	Consumer representation will be maintained by continuing engagement with the Northland DHB Consumer Council. Community midwifery representation is sought via the Northland region of NZCOM and GP's are represented by a designated Primary Health Organisation GP who fulfils a liaison role with the DHB
Implement change in clinical practices	The need for any changes in clinical practice will be identified through a variety of sources including national and regional outcome data as well as new evidence as it becomes available. The Guidelines Committee will take responsibility for leading the process to implement such changes	The Guidelines Committee will gather the available evidence and produce a guideline which will require approval at obstetric consultant, Midwifery Director and Service Manager- Maternity Services and Clinical Governance levels before being disseminated to all clinicians region-wide. The guideline will also be placed on the Clinical Knowledge Centre on the Northland DHB intranet and will therefore be readily available. All access holders and employed staff will be notified by email to advise of recommended changes. If necessary, specific study days will be held if the recommended change to current practice is significant. National Guidelines are adopted
Reduce unnecessary variation in clinical practice	Consistency of high quality clinical practice will be maintained by utilising opportunities to share evidence in multidisciplinary settings and maintaining professional relationships within the maternity service	Respectful peer review processes such as regular Trigger Tool and M&M meetings will be supported. Continuous access to obstetric advice by midwives will be maintained by telephone or face-to-face at antenatal clinics. The opportunity for LMCs to discuss management of antenatal cases with peers at Trigger Tool meetings will be explored
Define and strengthen clinical pathways	Northland DHB has recently adopted the Canterbury Health Pathways project and is in the process of Northlandising all relevent	It is intended to next address the Thyroid Function Abnormalities in Pregnancy pathway and further pregnancy pathways will be considered as the year progresses.

	pathways. To date, the Early Pregnancy Care and the Diabetes in Pregnancy pathways have been completed	
Influence local services delivery planning and policy	Maternity services will remain well integrated into the overall Northland DHB organisational frameworks	Maternity services work alongside Child, Youth, Oral and Public Health Services to develop strategic and service plans which contribute to the Northland DHB overall service plan. There is midwifery representation on the Alliance (PHO/DHB) and Board Clinical Governance Groups
Dissemination of information in the *New Zealand Maternity Clinical Indicators* report to maternity clinicians and other relevant stakeholders	Stakeholders collective ownership of Northland maternity outcomes will result from dissemination of and work streams which fall out of the NZ Maternity Quality Indicators report	All staff will be informed of the release of the NZ Maternity Clinical Indicators report and key features will be presented at a M&M meeting & the presentation distributed by email to all maternity stakeholders. Specific projects for Northland will be identified where indicated by information contained in the report
Creation and implementation of processes to audit and improve the quality of local maternity data collection, storage and reporting ways to enhance the use of local data for local clinicians.	Data validation processes will be further developed	A plan is in place to re-run some data validation audits over the next few months then to instigate a regular auditing programme. There is an intention to a change in approach to data entry whereby clinicians will enter data at point of service. Currently data entry clerks enter information.
Oversee and ensure coherence of all maternity quality and safety activities	Oversight of the MQSP is the responsibility of the Midwifery Director and Service Manager- Maternity Services who the Quality facilitator reports to	The Midwifery Director and Service Manager- Maternity Services is a member of all committees under the jurisdiction of the MQSP. Outcome data and the Trigger case review process is formally discussed with her on a monthly basis. Quality & safety links are also maintained with the Northland DHB Quality Improvement Directorate and the Child Health service
Support implementation of recommendations from national bodies such as the *Perinatal and Maternal Mortality Review Committee* ('PMMRC') and the National Maternity Monitoring Group	All clinicians will be informed of the recommendations of the PMMRC and NMMG.	DHB employed clinicians will be supported to attend the annual PMMRC forum. Feedback will be provided at a M&M meeting by those who have attended the forum. There will be timely responses to requests and recommendations from the NMMG
Make decisions about quality improvement activities	Quality improvement activities will continue to be be responsive to national and local outcomes	In addition to meeting specific national requests, sources of quality improvement activities will result from themes apparent in the Northland DHB complaint process, trigger tools, analysis of monthly outcome data. The projects will be approved by the Clinical Governance committee

Contribute to discussions and decisions about maternity care at DHB level, including through recommendations to other decision makers	There will be active participation by maternity leaders on relevant Northland DHB committees	The Midwifery Director and Service Manager- Maternity Services will attend monthly Child, Youth, Maternal, Oral, Population Health Services (CYMOPHS) meetings, is a member of the REC committee, the Clinical Governance Board and the Operational Management Group The CMM and Midwifery Director/Service Manager - Maternity attend Nursing & Midwifery Leadership meetings; the CMM is a member of the laboratory & transfusion Committee
Oversee production of the *Annual Maternity Report* referred to in clause 3.1		Preparation of the Annual Report will be coordinated by the MQSP Facilitator in conjunction with the Midwifery Director and Service Manager- Maternity Services
Representation and involvement of LMCs and other community-based maternity practitioners in the quality improvement activities	All clinicians involved in the delivery of maternity services have easy access to a peer review process via the continuation of the Trigger Tools process and M&M meetings	An open invitation will continue to be extended to all LMC's in Northland to participate in Trigger Tool meetings which are held twice weekly in Whangarei and weekly in either Kaitaia or Bay of Islands Hospitals. Trigger Tool meetings will also be offered to GPs and midwives working out of Hokianga Health
Mechanisms for discussion and dissemination of data, guidance or guidelines, innovative practice, new research, and local initiatives to LMCs and other community-based maternity practitioners	Reliable communication processes will be in place to discuss and disseminate best practice guidance to all practitioners proving maternity care in Northland	Videoconferencing facilities are available in the primary units in order for rural practitioners to access M&M meetings. Trigger Tool meetings take place in primary units and the Quality Facilitator uses these opportunities to connect with staff and be available to provide any additional information. The Midwifery Director and Service Manager-Maternity Services also visits the primary units on a monthly basis. Email will remain the main form of communication for information requiring immediate dissemination. A monthly maternity newsletter is to commence. The Clinical Midwifery Educator provides education in all Northland DHB facilities.
Shared or interdisciplinary training and education opportunities, including in the management of obstetric emergencies	All maternity clinicians will be supported to maintain competence in their respective profession. Additionally, there will be an emphasis on the management of obstetric & paediatric emergencies and these multidisciplinary update sessions will be provided throughout the region.	The Northland DHB maternity service educator will develop & deliver multi-disciplinary educational sessions in the management of obstetric emergencies in primary units. These will be delivered on site involving all local staff likely to be involved in such an emergency. The SCBU educator will provide education to midwives working in primary units on the care of a neonate prior to retrieval by the paediatric team. A repeat STABLE study day will be scheduled.
Consumer representation and involvement in quality improvement activities	Consumers form an integral role in influencing the maternity service	Consumer nominations are sought from the Northland DHB Consumer Council for the Clinical Governance Committee and consumers are financially supported to attend meetings

	in Northland	
Obtaining feedback on local consumer experiences of maternity services (e.g. through specific local maternity consumer satisfaction surveys	Feedback from will be consumers is actively encouraged	Feedback Forms are available in all clinical settings in all hospitals. Completed forms are sent monthly to the Northland DHB Quality & Improvement Directorate and outcomes appropriately actioned. The Northland DHB complaint process encourages feedback in any form and complaints are actioned via a defined system using Datix. Customer satisfaction surveys are coordinated out by the Q&I Directorate annually.
Regular communication and exchange of information with maternity consumer and community groups	Opportunities for an increased level of communication between consumers and the Northland DHB maternity service will be established	It is anticipated that Consumer Fora will commence with the intention of offering them annually in Whangarei, Kawakawa, Kaitaia and Dargaville as a means of receiving feedback on the local maternity service, providing information to the community about the regional and local maternity service and affirming the place of primary units as part of the region-wide service
Ways to ensure engagement of Māori consumers and community groups (and, where appropriate, Pacific, Asian and other ethnicities)	Methods of increasing engagement with Māori women and whānau will be explored and developed	Northland DHB maternity service will work with Te Kaahu Wahine and the Māori Health directorate to support appropriate methods of enabling Māori to input into the delivery of a maternity service which meets the need of Ngapuhi women & whānau.
		Hapu wananga focussing on SUDI prevention actions will continue. These will incorporate education on smoke and substance free pregnancy and childhood, safe sleep for every sleep, breastfeeding and immunisation. Wahakura weaving will form part of some of these one day sessions
		Region-wide expansion of kaupapa Māori antenatal education will take place
Dedicated full-time equivalent ('FTE') positions allocated to clinical leadership roles, covering both community and hospital-based practitioners, and including both the medical and midwifery professions	A Leadership team is in place covering clinical, management and quality aspects of the Northland DHB maternity service	Midwifery Director and Service Manager- Maternity Services - 1.0 FTE. Clinical Midwife manager - 1.0 FTE Associate Clinical Midwife Manager/Midwife Co-ordinator positions collectively cover 3.6 FTE. The Quality Facilitator 1.0 FTE and Midwifery Educator 0.8 FTE. The Personal Assistant to the Midwifery Director and Service Manager-Maternity Services provides leadership to the administrative staff as well as clerical support to the Clinical Governance Committee and M&M meetings. Obstetricians are allocated specific committees to be members of
Dedicated FTE to set up, administer and manage the operation of the MQSP and the production of the *Annual Maternity Report* referred to in clause 3.1	MQSP is an established position within the Northland DHB maternity service	As a part of our move to having the MQSP programme embedded as business as usual we have recently changed the role of the Coordinator to a MQSP leader. Her responsibilities are for maternity quality and safety leadership region-wide, maintenance and on-going development of the programme and she will be responsible for leadership of other quality work as we progress.
Where appropriate, a midwifery liaison role to act as a point of contact for community LMCs	The Midwifery Director and Service Manager-Maternity Services has this role which is sometimes delegated to the Quality Facilitator	LMC midwives play an active part in the planning, governance and peer review processes of Northland DHB. Representation of self-employed practitioners from rural and urban communities is imbedded in the Terms of Reference for all maternity committees
		The Director of Midwifery/Service Manager - Maternity Service has initiated a schedule for regular LMC fora

Mechanisms to communicate effectively with all community and hospital-based practitioners (these could include, for example, web-sites and forums, event calendars, newsletters, videoconferencing equipment and facilities);	Communication links are maintained between community LMCs and the Northland DHB service	Formal communication with LMC's is currently via direct email contact or M&M meetings which are accessible region-wide with videoconferencing facilities. Reports and policies are available of the DHB intranet. The education calendar is distributed at the beginning of each year. These mechanisms will be further enhanced by the distribution of bi-monthly newsletters.
As appropriate, logistical support and/or financial compensation for LMCs to participate in quality improvement activities	LMC's time will continue to be compensated for involvement in Northland DHB committees contributing to maternity quality improvement	Payment is available on invoice to any self-employed practitioner who is a member of a Northland DHB maternity committee
Regular review of, and progress towards achieving, all *New Zealand Maternity Standards* and DHB audit criteria/measures	Clinical indicators from the 2015 report specific for Northland requiring further investigation	Detailed analysis of the relationship between rates of intact perineum, episiotomies and third & fourth degree tears; maternal tobacco use during the postnatal period; women giving birth with a BMI of over 35; small for gestational babies at term will be addressed
Projects for Completion		
Review of perinatal loss in Northland	To identify and highlight systems and processes which contribute to perinatal death in Northland and provide a report to Maternity Clinical Governance with key recommendations from the review	Analysis of completed case reviews and subsequent development of strategies to address perinatal mortality rates in Northland will be completed and reported in the 2017 Annual Report and to the Clinical Governance Committee
Increase engagement by women with LMC midwives in the first trimester of pregnancy	First trimester registrations will continue to increase through the next year	Although the need for this to occur has been discussed with providers and there has been an increase in first trimester registrations in Northland, a project to further improve on this is in progress
Review of the service offered to women who experience a mid-trimester pregnancy loss	Women who experience a mid-trimester pregnancy loss will be supported to birth in an appropriate environment	Due to staffing challenges this work is yet to commence but will do so in October 2017
Review of term babies requiring more than 4 hours of respiratory support	To identify the causes and preventative factors in reducing the number of term babies requiring this level of respiratory support	Following a facilitated combined SCBU/maternity meeting examine this issue, feedback is currently being received prioritising issues that require addressing

Review of the incidence of women receiving a general anaesthetic for a caesarean section	To identify reasons for the number of women not receiving regional anaesthetic for LUSCS. This project is reaching conclusion	As this was an identified concern resulting from the National Maternity Clinical Indicators Report, further analysis has been undertaken which will be reported in the Annual Report
New projects		
Improve referral pathways and processes for women with mental health and addiction conditions	He Tupua Waiora/Pregnancy and Parenting and mental health referral processes have been aligned	On-going development of this will take place as issues are identified during the programme rollout
Increase the capacity and utilisation of primary units	Staff employed in and LMC's accessing primary units, including Hokianga Hospital, will increase their confidence in management of emergency situations over the year	Audit of reasons for women from out of Whangarei who have their babies in Whangarei has already been completed to initiate this project
		SCBU staff will provide teaching sessions on the stabilisation and management of an unwell baby prior to retrieval by paediatric staff
		Increase in provision of services in rural areas
	An improved service for the women of the Kaipara district will be implemented	Review the number of low risk women from Dargaville who are required to give birth in Whangarei Hospital
		Northland DHB will work in partnership with LMC midwives to ensure a robust service is available
	A modified staffing model will be Introduced in Kaitaia Hospital	There will be an increase the level of midwife-led care in the uni
	Initiatives to enhance the inclusiveness of primary units into the region's maternity service will commence in 2017 in September	Monthly meetings will take place of all midwife leaders throughout the region with the Director of Midwifery
Improve the quality of maternity care available to Māori women and whānau	Measures to enhance access to high quality culturally appropriate maternity care will be implemented as a MQSP priority during the 2018 year	Culturally acceptable antenatal education will be available and accessible to all pregnant women in Northland

		A multidisciplinary working group comprising representatives from Northland DHB maternity leadership, LMC & core midwives including representative from Te Kaahu Wahine, obstetricians, GPs, PHO and Māori consumers will be established to identify joint projects
		All staff employed in N Northland DHB will attend an Engaging with Māori course
Enhance opportunities for consumer participation in maternity services	Establishment of mechanisms to share information and receive feedback	Consumer fora will be held in Whangarei and in Dargaville, Kawakawa and Kaitaia
To streamline the process for category 1 LUSCS's	All Cat 1 LUSCS's will be completed within the N Northland DHB guidelines and this will be audited in April 2018	Each category 1 LUSCS is currently discussed in a Trigger Tool meeting but an on-going audit process will be developed.
Improve access to postnatal contraception throughout the region including improved accessibility of long acting reversible contraception for postnatal women	Processes will be established for LARC insertion to take place in all N Northland DHB facilities	Training courses will be provided for both employed and self-employed midwives and LARC supplies will be available in all units for postpartum insertion. Consideration of accessibility of other forms of contraception to be developed as a part of the DHB/PHO project plans

Appendix 1 - He Tupua Waiora Pregnancy & Parental Service (PPS) – client pathway

Model of Care – Northland DHB He Tipua Wai-Ora (PPS)

Contents

Overview

Overview

Purpose

The service delivery model of He Tupua Waiora – Pregnancy and Parental Service (PPS) is based on the recognition that the health of parents and their children is linked to the conditions of their lives and their ability to influence these conditions. The client's progress needs to be understood in terms of reduction of harm and improved quality of life. Change can be incremental, slow and is often unpredictable.

PPS provides an intensive assertive outreach case coordination service for pregnant women and parents of children aged three years and under; who are experiencing problems with alcohol and or other drugs and who are poorly connected to health and social services.

Scope

PPS aims to reduce harm and improve the wellbeing of children by addressing the needs of parents and working to strengthen the family/whānau environment. The service is targeted at families/whānau experiencing multiple and complex issues related to (although not exclusive to); alcohol and other drugs, stigma, mental and physical health, pregnancy, poverty, parenting, family/whānau violence and abuse including child neglect and abuse, custody issues, criminal involvement and fear of involvement with child welfare agencies.

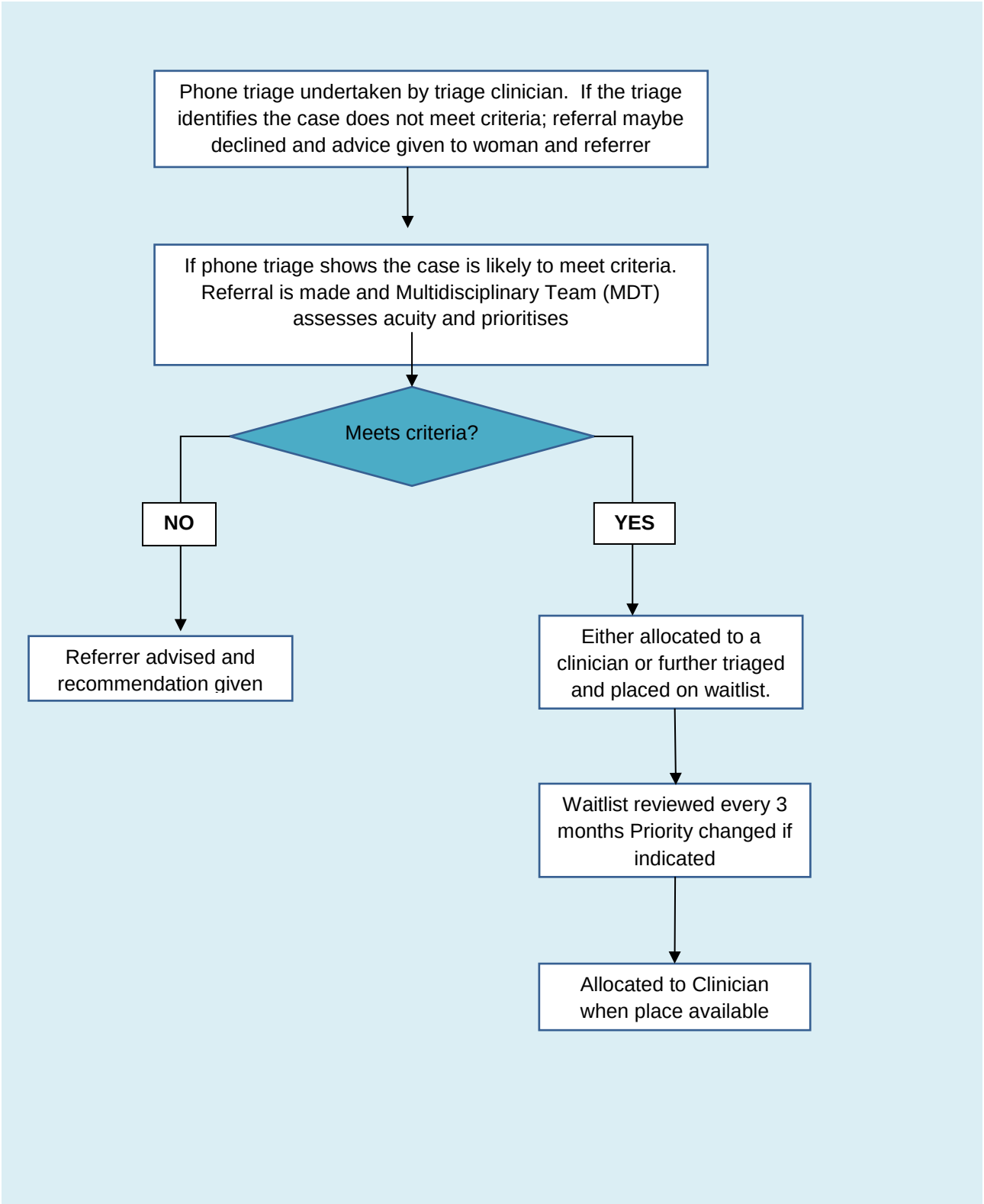
1. Current Services

1.1 Clinical referral pathways

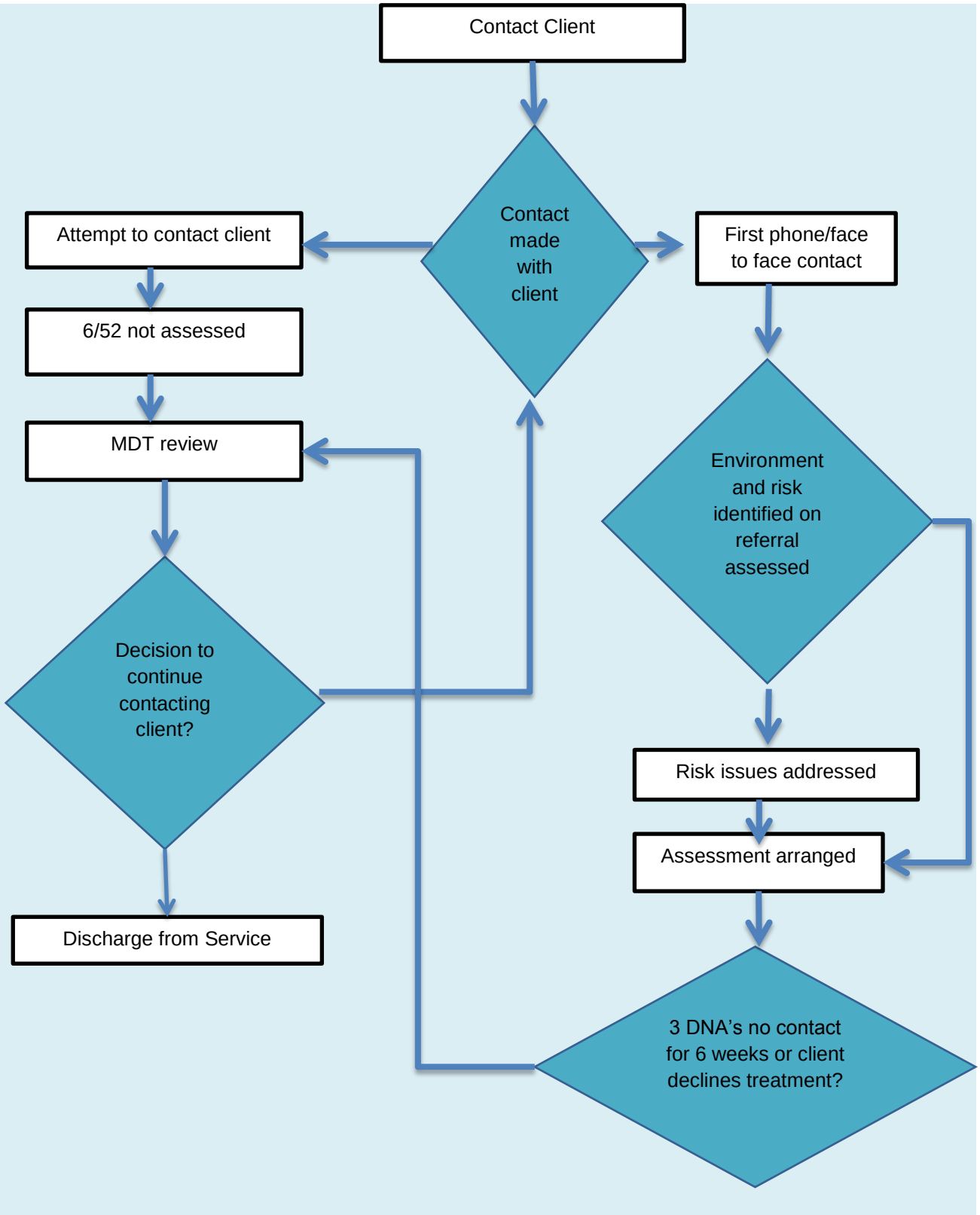
Provided the client has given consent referrals are considered from any source (e.g. self-referral, family/whānau and services).

1.2 Client pathway

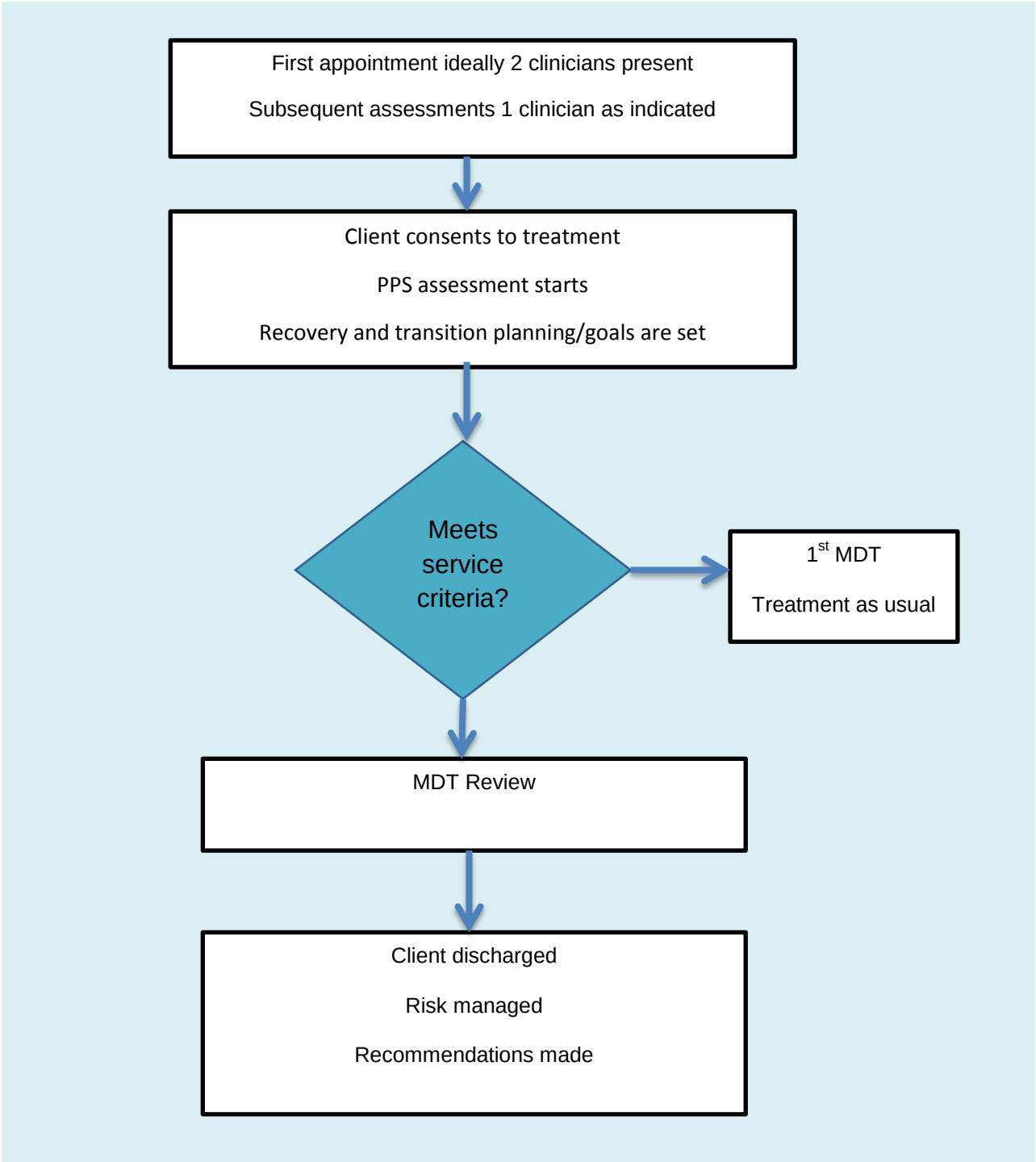
Model of Care - Northland DHB He Tupua Waiora (PPS) – 1.2 Client Pathway



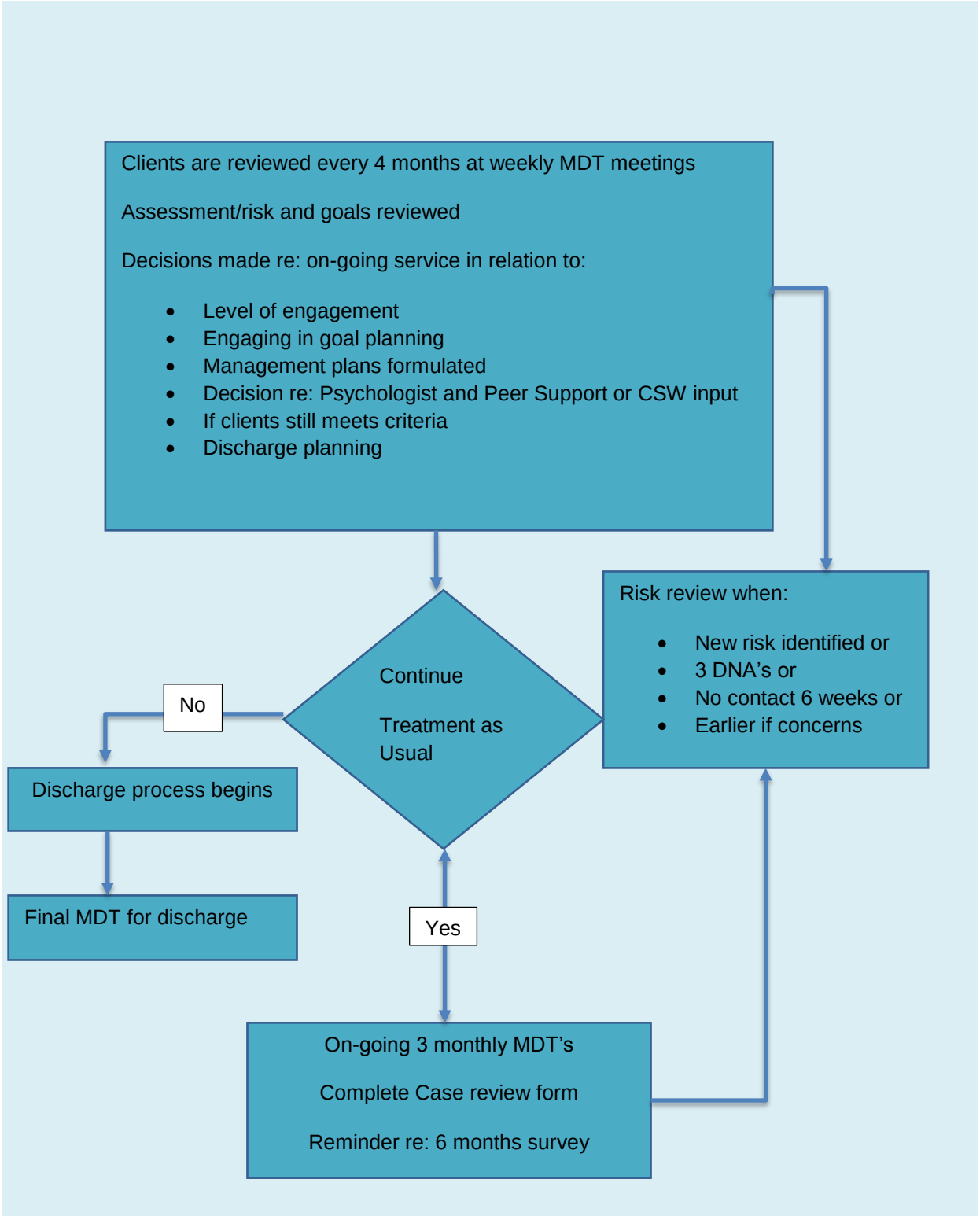
1.4 Assertive Outreach



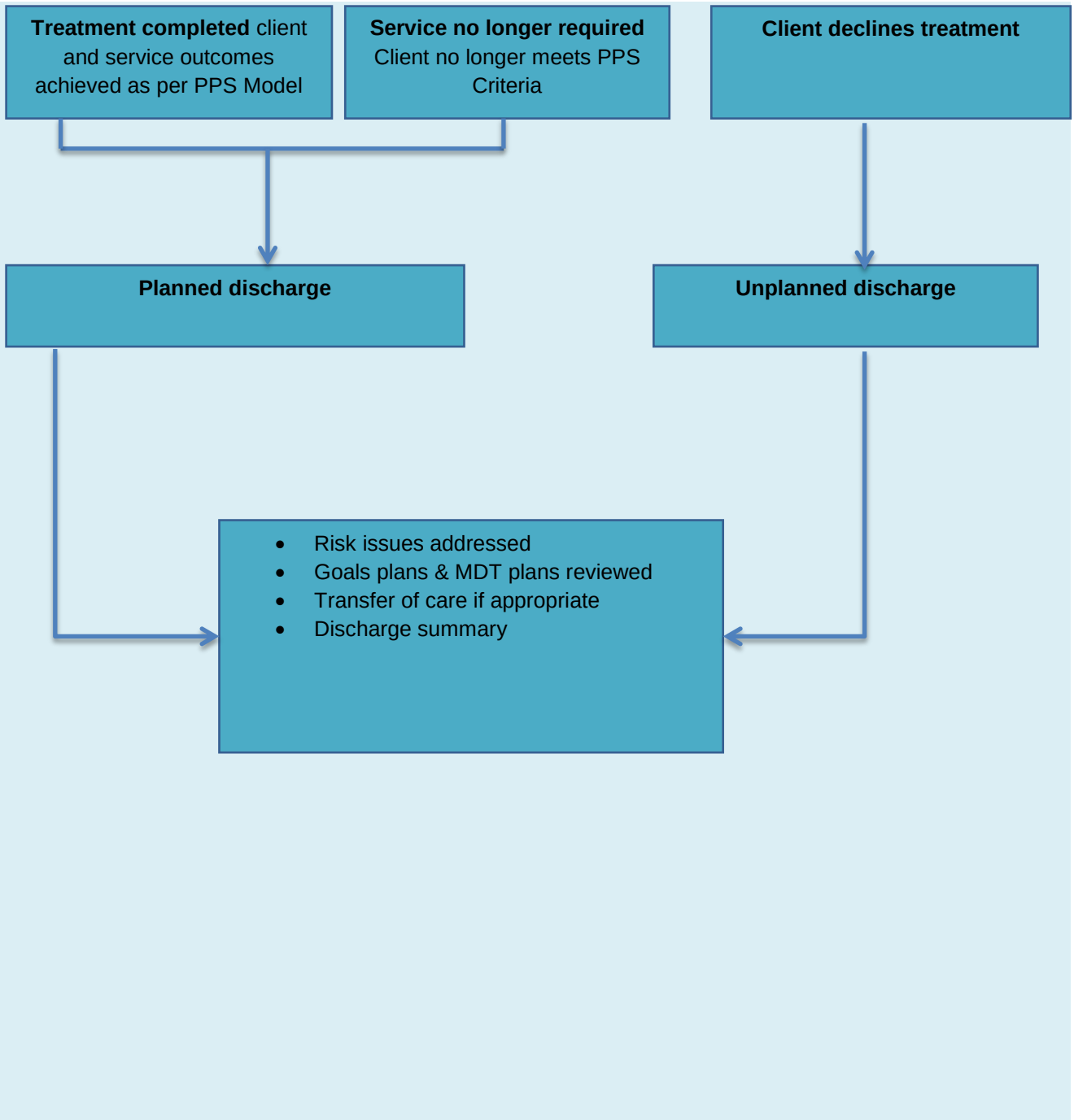
1.5 Assessment Process



1.6 Treatment as Usual



1.7 Discharges



Model of Care – Northland DHB: He Tupua Waiora

2.1 Waitlist Management

All referrals are reviewed at the PPS weekly MDT review meeting.

They are discussed by the team and their acuity rated from 1 to 5 is given with 1 being the lowest rating. This rating is based on assessment of the clients:
• Current substance use
• Current mental health issues
• Housing situation
• Presence or level of current family/whānau violence
• Pregnancy
• Children in their care
• Presence of other services and level
• Presence of other supports and level
• Children in care or previously removed
• Under 20 years of age

Each of the above is given a 0.5 rating and the final acuity is rounded up or down depending on clinical judgement.

Other factors considered at referral and when the waitlist is reviewed include (though are not limited to):
• Antenatal care
• Intravenous use
• Number of children
• Inconsistent information
• If unborn is to be taken into care at birth
• Window of opportunity
• More than 3 months on the waitlist
• Whether clients partner is referred to the service

Sometimes a high level of acuity can be mitigated by a single protective factor. Decisions are based on clinical judgement informed by the above factors and team agreement.

Referrers are contacted, informed that their client is on the waitlist and of recommendations generated at the MDT. Referrers are asked to inform PPS if the client's situation changes as this may increase or decrease the level of acuity.

Clients are allocated as soon as a place becomes available. New staff building caseloads will have a range of acuity levels allocated.

The waitlist is reviewed by the Clinical Team Leader and the Clinical Nurse Specialist. The acuity is either increased, reduced or remains the same. The process is as follows:
• Acuity 4 and 5 reviewed monthly
• Acuity 3 and 2 reviewed bi -monthly
• Acuity 0 and 1 reviewed quarterly

Follow up occurs if indicated.

3. Staffing model

The service is delivered through a multi-disciplinary team which consists of:

• Clinical Team Leader

• Registered Nurse

• Social Workers

• Psychologist

• Psychiatrist

4. References

Associated documents

Type	Title Description
Government Legislation	Health and Disability Standards (2008) Vulnerable Children's Act (2014)
Northland DHB	Child Protection Northland DHB Clients Rights Clinical Documentation Clinical Governance Framework Code of Conduct PPS Staff Job Descriptions
References	Northland DHB Pregnancy and Parenting Service (PPS): Process Evaluation Report (May 2015)

Addendum:

Type	Title/Description
PPS (HCC)	PPS Assessment and treatment plan PPS Recovery and Transition plan PPS Risk management assessment PPS MDT Review: Case Review PPS MDT Follow up
PPS (non HCC)	ADOM Family Violence Assessment Form