Maternity Services in the Barkly, Northern Territory

Integrated Maternity Services
Department of Health
Northern Territory Government

May 2011
Maternity Services in the Barkly, Northern Territory:

Background to the project

This project maps current provision of maternity services in the Barkly and in consultation with stakeholders including community members, clinicians and managers, provides some recommendations as to how services could be developed to improve quality and safety for mothers, babies and families. The project was undertaken in response to a recommendation by a review conducted in 2007 of the Northern Territory’s maternity service (Banscott Health Consulting 2007). To inform this study a steering group was established consisting of NT Department of Health senior clinicians, service managers and a reference group whose membership included stakeholders in the Barkly region (See Appendix 1 for membership of both steering and reference group). The 2007 review and a number of previous reviews expressed concern about the increasing lack of choice women in relation to place of birth and continuity models of care (Banscott Health Consulting 2007). The Northern Territory Government responded with a document entitled Developing an Integrated Maternity Services Model, from which the following principles have been taken (Department of Health and Community Services 2008):

1. The safety of the mother and fetus/newborn is paramount
2. A single maternity service spanning antenatal, birthing services and postnatal care
3. Women should have access to information about pregnancy and its more common complications
4. Women should have access to information about options for care to enable them to make informed choices about the provider and the location of care
5. Along the continuum of low to high risk the appropriate professional skills should be available to provide the care required
6. There should be continuity of care and carer where possible
7. Aboriginal women are entitled to consider the retention of traditional practices, where feasible, combined with the best evidence-based care.

A Clinical Reference Group (CRG) for Integrated Maternity Services was established in February 2009 by the Northern Territory government in response to Priority Recommendation A1 of the 2007 Banscott Review. The CRG in turn sponsored this
project in response to Recommendation B4E (outlined below). The Northern Territory Government's response to Recommendation B4E is included.

**Recommendation B4E**

*A pilot study of birthing at Tennant Creek Hospital to be conducted to provide for women of the Barkly region. The pilot to have stipulated outcome measures particularly with reference to the safety for mother and baby and be reviewed at six, 12 and 18 months.*

**NT Government response:**

Patient health and safety concerns are paramount. Before a pilot study of birthing can be undertaken a number of prerequisites need to be met, such as on-site access to a stable workforce of experienced obstetric, midwifery, surgical, anesthetic and paediatric staff, access to a fully equipped operating theatre and access to timely medical retrieval services. Nonetheless, this is an important matter to be reviewed by the Clinical Reference Group, as the above issues are resolved with time.

Numerous reviews of maternity services in the Northern Territory have taken place in the past ten years. The various reports all agree on the need for a more integrated approach to maternity care; including continuity models of care for all women, irrespective of background; improved recording and reporting of maternal and perinatal outcomes; and measurement of maternal satisfaction with care (Banscott Health Consulting 2007).

Reform of maternity services has occurred in many parts of the world, including the development of new or revised models of care in many countries. Midwives routinely provide maternity care in Scandinavia and The Netherlands, and increasingly there is a move towards providing more individualised midwifery-led care in Ireland (Devane, Murphy-Lawless and Begley 2007), the United Kingdom (Benjamin, Walsh and Taub 2001) and throughout Australia (Scherman, Smith et al. 2008; Collins, Fereday, Pincomb, Oster and Turnbull 2009; Fenwick, Butt, Dhaliwal, Hauck and Schmied 2009; Williams, Lago, Lainchbury and Eagar 2009). Midwifery-led models of care are not associated with increased rates of perinatal mortality and are associated with
greater maternal satisfaction and lower intervention rates (Hatem, Sandall et al. 2008).

In considering reform of rural maternity services, safety, cost-effectiveness and quality of services is assessed against the limited access and availability of health care options isolated communities experience, and the benefits to the whole community, including being able to attract and retain clinical staff (Department of Human Services 2004).

**Background: Birthing Services at Tennant Creek Hospital**

The provision of planned birthing services for women with low risk pregnancies formally ceased at Tennant Creek Hospital (TCH) in February 2006 with the resignation of the then Medical Director. However, the number of births at TCH had already begun to decrease over the preceding years. Rosaline Beadle, a youth worker in Tennant Creek at the time, reported that birthing services ceased in December 2005 (Beadle 2007).

Prior to the cessation of the service for planned births at TCH women identified as being at low risk of pregnancy and birth complications gave birth at TCH if they chose to do so. All other women identified with medical or pregnancy complications were transferred to Alice Springs Hospital (ASH) for specialist obstetric input during the latter aspects of their pregnancy and for intrapartum care. At this time Primiparous women were defined as high risk, which is not always the adopted convention.

Up until 1999, women in labour at TCH who required a caesarean section were transferred using the hospital plane and a midwife escort. Use of the hospital plane was contingent on the availability of additional midwifery staff to cover the retrieval escort. If the TCH plane was not available, or if maternal or fetal condition warranted emergency medical assistance, the Royal Flying Doctor Service (RFDS) retrieval service was called to manage the transfer. The RFDS provides neonatal resuscitation equipment and specialist staff as required.

Since birthing service ceased at TCH, ASH has been the main provider for intrapartum care. Care at ASH maternity unit is provided by midwives with medical input as required. Continuity of care from booking to the postpartum period is currently not an option for women of the Barkly. However, the newly formed Midwifery Group Practice at Alice Springs Hospital is able to offer continuity to some Barkly women from the time of their arrival in late pregnancy in Alice Springs up to
the time of birth and for the duration of the postnatal period while in Alice Springs. Not all women are able to access this option due to the limited capacity of the Midwifery Group Practice in Alice Springs.

Women living in remote communities in the Barkly, other than Tennant Creek, are also transferred late in pregnancy to Alice Springs for the completion of their antenatal and then their intrapartum care. If a woman presents in labour to a primary health care facility in the Barkly she will be assessed and retrieval services notified. Depending on the response time of retrieval services, women are evacuated in labour, or if birth is believed to be imminent, the attending health professionals provide emergency delivery care. Mother and baby are then transferred to Alice Springs Hospital for postnatal care.

A small number of unplanned births have taken place at TCH since 2006. Usually the woman has arrived in established labour and staff provided emergency delivery care. As in other parts of the region, transfer to Alice Springs Hospital was arranged for routine postnatal care as above.

Little if any formal evaluation of maternal and perinatal outcomes after transfer to tertiary centres has been undertaken in the Northern Territory. In contrast, there is a growing body of evidence within the Northern Territory, Australian states, and internationally which highlights maternal dissatisfaction, domestic and social disruption, psychosocial distress, issues of cultural, physical and child safety, bonding and sibling rivalry, cultural, religious and language barriers and additional financial burden associated with receiving maternity care giving birth dislocated from one’s own home and community (Kildea 1999; Chamberlain and Barclay 2000; Kildea 2006; Roach and Downes 2007; Scherman, Smith and Davidson 2008; Arnold, de Costa and Howat 2009; Ou, Chen and Hillman 2010; Dietsch, Shackleton, Davies, McLeod and Alston in press)

**Background: The Barkly Region and Maternity Services**

The Barkly region of the Northern Territory services a population of approximately 7,500 people, of whom approximately 4,000 are Indigenous Australians, in an area 42 percent larger than Victoria. The Warumungu are the traditional owners of the land around Tennant Creek, the region’s main service centre, which has a population of 3,500 people. Tennant Creek Hospital is the Barkly’s regional hospital. Mining and
cattle are the main industries in the region. The health and wellbeing of Indigenous Australians is reported to be consistently poorer with greater social disadvantage than non-Indigenous Australians (Zhao, Guthridge, Magnus and Vos 2004; Zhao and Dempsey 2006).

In the Barkly, maternity care (excluding planned intrapartum care) is provided by remote area midwives, medical officers, Aboriginal Health Workers, remote area nurses and remote outreach midwives. At the time of writing, none of the Barkly health clinics were staffed with remote area nurses who had additional midwifery qualifications, this does however fluctuate. A recent review by Barkly Remote Health staff identified a number of workforce shortfalls in the region, particularly relating to maternity care provision (Austin 2009).

Over the previous six years specialist obstetricians from Alice Springs have undertaken outreach visits to a number of remote communities in the Barkly and Tennant Creek. Frequent interruptions to the schedule have occurred and in March 2010 this service was decreased due to departure of one of three obstetricians at ASH. Locum cover has now been provided as an interim measure whilst this position remains vacant. If a woman arrives at any Barkly health facility in established labour, emergency birthing and immediate postnatal care is provided until the mother and infant are transferred to ASH for postnatal care. Attending staff may not have midwifery or obstetric training, due to poor coverage of maternity care providers in the region. However many staff will have undertaken an maternity emergency care course for remote health workers that is offered in the Northern Territory on a regular basis to ensure all front line staff without maternity care qualifications have basic skills in obstetric emergencies (Belton, Campbell, Foxley, Hamerton, Gladman, McGrath, Piller, Saunders and Vaughan (in press).

At the time of writing management at TCH have ensured the provision of both a Maternity Emergency Course for non-midwives as well as an upskilling for midwives in emergency skills both being delivered in Tennant Creek in 2011.

Clinical governance for TCH has recently been provided by ASH due to the long term absence of a Director of Medical Services, and until 2010 an acting Director of Nursing. A Director of Nursing / General Manager was appointed at TCH in early 2010 and a Director Medical Superintendent was appointed in late 2010 substantially strengthening leadership in the hospital. For the last five years locum medical officers on short term contracts, sometimes as short as one or two weeks, have maintained
the medical workforce at the hospital. The hospital has a small emergency
department, 20 inpatient beds and an eight chair renal dialysis unit.

Currently there are three midwives employed within the hospital, one who is full-time
in maternity and the other two work as nurses in the hospital as well as supporting
maternity care. There has been a general trend towards employing staff on
temporary contracts. There is also one senior Aboriginal Health Worker (AHW) on a
permanent full-time basis. She is an experienced and respected care provider who is
currently undertaking her Bachelor of Midwifery and due to qualify as a Midwife late
2012. Routine antenatal care and a six week postnatal check is provided by
midwifery staff and the AHW with additional medical officer input on an as needs
basis.

In Tennant Creek primary health care services are provided by Anyinginyi Health
Aboriginal Corporation, Department of Health and Families' community health staff,
and the Royal Flying Doctor Service (RFDS) sole General Practitioner. Challenges
with staffing recruitment and retention issues are common across all health care
organisations and professions in the Barkly.

The Barkly region is serviced by DoH Remote Health staff, Anyinginyi Regional
Remote Health and visiting DoH staff and the Barkly Mobile team. One midwife,
based in Alice Springs, from the Medical Specialist Outreach Assistance Program (a
Commonwealth funded position) provides support and advice to health care
providers and conducts well women’s clinics in Central Australia, including the Barkly
region working in partnership with the outreach obstetrician service described above.

There are primary health care centres in the following communities:

- **Ali Curung**, identified as a Northern Territory Growth Town, (population
  approx. 1,000; over 200 are under 5 year olds); 20 km east of the Stuart
  Highway, 151 km south of Tennant Creek. The health centre is staffed by two
  remote area nurses (RANs), one AHW (two vacancies). A rural medical
  practitioner (RMP) visits one week in three (full time RMP required but
  accommodation shortage). A new remote area midwife position has been
  recruited to for Ali Curung and the midwife begun in March 2011

- **Murray Downs** community (population approx 170), located near Ali Curung
  with visiting primary health care providers. A RMP visits 8 days/month

- **Elliot** (population approx. 650 people) 243km north of Tennant Creek on the
  Stuart Highway. The health centre is staffed with three RANs and 5 AHWs.
There is no midwife on the team at time of writing. A RMP visits 7-8
days/month.

- Alpurrurulam (Lake Nash) population approximately 600; 628 km to the east
  of Tennant Creek, 17 kilometres from the Queensland border. Staffed by
  three RANs, and one AHW. A RMP visits one week in three.

- Canteen Creek (population 260-300), 265 km south east of Tennant Creek, is
  staffed with one RAN and two AHWs. A RMP visits for 2 days/month.

- Epenarra (population approx. 200) 207 km south east of Tennant Creek, is
  staffed with one RAN and one AHW. A RMP visits for 2 days/month.

- Barkly Tablelands (population approx. 200) is scattered and consists
  predominantly of station people.

A review of workload and staffing levels in Barkly Health Centres was conducted by
Barkly Remote Health (Austin, 2009). A wide range of gaps were identified across all
health services, including urgent need for additional:

- AHWs and RMPs;
- RANs, midwives, women's health specialists, specialist chronic disease
  nurses for all health centres, diabetes educator for whole of Barkly;
- Nutritionists, sexual health workers, alcohol and other drugs professionals,
  mental health professionals, physiotherapy, podiatry and speech therapy
  services across the Barkly;
- Dental services and oral health education;
- Community based education programs, e.g. youth, lifestyle, such as quit
  smoking, healthy eating and physical activity; antenatal and postnatal;
- Well men's and well women's health programs;
- Safe house at Epenarra

Emergency retrieval services for the Barkly region are provided by the Royal Flying
Doctor Service from Alice Springs. Delay in the transfer of women is reported to
occur due to the vast distances involved, frequent inter hospital transfers interstate
and a priority system where the most seriously ill patients are attended first.
Formal Consultation

A Steering Committee and Reference Group were established to provide expert advice and guide the process. Formal and informal consultation with stakeholders continued for the duration of the study. Relevant literature was reviewed and analysis of the Barkly perinatal data for the years 2000-2009 was undertaken. A detailed cost analysis was beyond the scope of this project.

Two meetings of the Steering Group were held during 2009. Concerns regarding the absence of clinical governance at Tennant Creek Hospital, challenges of recruiting appropriately qualified medical practitioners, the high rate of co-morbidity among pregnant women in the Northern Territory and the inappropriate use of the specialist obstetrician to assess well women were raised. Issues with transport to Alice Springs, lack of appropriate accommodation in Alice Springs and reports of women asking for non-clinically indicated interventions to commence labour or requests for Caesarean Section prior to the onset of labour as a direct consequence of the 'sit down' time in Alice Springs were highlighted.

Medical recruitment has largely been confined to using General Practice Network Northern Territory and Rural Workforce Recruiting Agencies. No national or international advertising campaign has been conducted.

Round table discussion with Barkly stakeholders at the Reference Group Meeting in early 2010 put forward the following key areas for consideration/action to improve maternity care:

1. Continuity of maternity care model
   - Midwifery-led care – one possible option could be to build on the successful model of the Alice Springs Midwifery Group Practice, so that all women in the Barkly could receive continuity of care, whilst at home and in Alice Springs. Such a model could offer potential for skill rotation, peer support and successful recruitment
   - Increase the Indigenous maternity workforce
   - Funding/recruitment could be shared between remote, community and acute health sectors
   - Risk assessment
   - Shared terminology/language

2. Education and parenting skills development for young mothers 14-20 years
   - Involvement of Council of Elders to better understand what consumers want; expectations for maternity care
3. Transport (e.g. only one taxi and not available after midnight in Tennant Creek); lack of public transport in town
4. Constructive engagement with Indigenous communities to build trusting relationships
5. Cultural awareness and education – as it was felt there has been a loss of respect for traditional ways/beliefs
6. Anyinginyi Health Aboriginal Corporation key link for health planning
7. Improve Barkly and remote communities’ linkages – Barkly Regionalisation Unit undertaking this role

**Snapshot of maternal and perinatal outcomes 2000-2009 from the Barkly**

Using the NT Midwives’ routinely collected perinatal data for the period 2000-2009, women resident in the Barkly region had:

- 1,144 births in the Northern Territory and a further 60 births in Queensland.
- There were 119 births in 2000; 127 births in 2007 and 99 births in 2009 in the Barkly; an average of 114 per year over the decade.
- In the years 2000-2004 at Tennant Creek Hospital there were 177 births; in 2005-2009 there were 40 births.
- Births to Barkly women increased from 64 in 2000 to 88 in 2009 at Alice Springs Hospital as a result of the closure of intrapartum care in the Barkly.
- During 2006-2009, there were 27 emergency births at Tennant Creek Hospital.
- During 2000-2009, 39 births were either in transit, at a community health centre (otherwise undefined) or elsewhere.

- The number of antenatal appointments provided was reported to range from none to 38, with the majority of women receiving between six and ten episodes of care. The World Health Organisation recommends a minimum of four visits, with the first appointment ideally during the first 12 weeks of pregnancy (WHO 2008).
- Maternal smoking for all Barkly women at both first and 36 week antenatal visits was reportedly 26 percent in 2000 and 31 percent in 2009.
• 41.5% of all Barkly women were reported to have no medical complication, 41.3% no pregnancy complication and 39.3% no labour or birth complication. There was 'unknown' data on maternal medical conditions (13.4%); present pregnancy complication (4.8%) and labour/birth complication (0.3%).

• The combined spontaneous and instrumental vaginal birth rate decreased from 79% to 77% in the decade, with a two percent increase in all caesarean sections from 21% to 23%.

• There was an increase in the notification of sexually transmitted infections chlamydia; gonorrhoea and trichomoniasis, but not syphilis, in the decade of data reviewed.

Rural and Remote maternity services in Australia

As many as 130 rural maternity services have closed around Australia in the past decade. Changes in birth rates and workforce shortages are only part of the reason for rural closures. Cost factors are also believed to be major contributor to the loss of rural maternity services. However, more than 150 small hospitals still provide intrapartum maternity services for less than 100 births per year in Australia (Laws and Sullivan 2009), and there is good, contemporary, Australian evidence supporting the safety of small maternity units for low risk women (Scherman, Smith et al. 2008; Laws, Tracey and Sullivan 2010). A Maternity and Newborn Services capability based planning framework was developed in Victoria (Department of Human Services 2010). This framework consists of six levels of service delivery, ranging from Level 1 being pregnancy and postnatal care only to Level 6 Specialising in High risk Pregnancy care.

This planning framework is useful in the context of planning maternity services in the Barkly region and is referred to in the following recommendations.

Recommendations

In making recommendations to improve maternity service in the Barkly, consideration has been given to the remote location of the Barkly region in the Northern Territory, the sparse, mobile and predominantly youthful population, the existing infrastructure (health facilities, roads, transport etc.) and mindful of the historical and contemporary workforce issues (which are not specific to the Barkly, or indeed the Northern Territory). What has been largely missing is evidence of safety of the existing model.
of maternity service delivery, and a lack of debate or consensus on what current and future child bearing women and families believe is appropriate care.

A comprehensive, integrated public health approach needs to underpin the delivery of all maternity services, with a focus on continuity of care, ensuring that maternity care is culturally and linguistically appropriate, tailored to meet women’s individual needs and equitable, irrespective of place of care or caregiver. The following three principles if implemented will in turn each enable the provision of this.

**Principle 1: Improving maternity services delivery**

Maternity care, using current clinical guidelines based on best available evidence, will be provided by trained health care providers (midwives, AHWs and medical officers), offering Indigenous and non-Indigenous women and their families, including fathers/partners, culturally appropriate and individually tailored care, based on models of continuity, from preconception to the postnatal period.

The proposed model of care is a Midwifery Group Practice providing continuity for women of the Barkly, based in Tennant Creek, Barkly communities and Alice Springs. This will greatly improve the current service provision in the region and will largely address Principle 2 as well as be a necessary basis for any birthing development at Tennant Creek Hospital in the future. Midwives being employed in such a model could be employed through Tennant Creek Hospital or Anyinginyi, Remote Health (DoH) or a combination of these. With the recent implementation that enables eligible midwives to claim MBS payments, there is the capacity to grow this model with a proportion of the costs being able to be offset against Medicare rebates.

With regards to workforce the recent establishment of continuity models of maternity care and the associated remote area midwife positions across the NT have consistently demonstrated that such roles for midwives are proving extremely popular with high levels of recruitment and retention. In the four midwifery group practices across the NT, consisting of 22 midwife positions, and the 5 remote area midwife positions, there are no vacancies and midwives are waiting to gain a position.

Integral to any such developments needs to be support for the development of an Indigenous maternity care workforce; midwives, Aboriginal Health Workers, Strong
Women workers and community based workers specialising in Maternity and Maternal Child Health Care.

**Statement:**
All women in the Barky are able to access continuity of care through a midwife. Experienced midwives are the lead professionals in an integrated, collaborative delivery of maternity care, which values multidisciplinary team work and refers women identified with risk factors to medical or allied health care providers as the need arises without delay.

**Measurable outcomes**

- Appropriate antenatal coverage of all pregnant women, tailored to meet their individual medical, cultural, educational and social needs.

- Women’s risk status assessed in the first 12 weeks of pregnancy with timely referral to specialist services for all women identified with risk factors.

- The establishment of Midwifery Group Practice in Tennant Creek and the Barkly, working in close collaboration the Alice Springs Hospital Midwifery Group Practice. This will:
  1. Provide continuity of care for women of the Barkly across the spectrum of pregnancy, birth and the postnatal period, with antenatal and postnatal care being provided close to home and birthing care being provided in Alice Springs
  2. Enhance communication and formalise networks between Tennant Creek, Barkly and Alice Springs based maternity service providers including improved admission and discharge planning
  3. Enhance women’s experiences of maternity care by offering a continuity model of care during the antenatal, intrapartum and postnatal period by ensuring women receive continuity of care, carers and information
  4. Provide enhanced linkages with Alice Springs specialists, allied health and welfare staff
  5. Enable selected women requiring antenatal admission to be managed in Tennant Creek Hospital by agreement with senior medical officer in Tennant Creek Hospital in consultation with Obstetric Specialist in Alice Springs Hospital
6. Enable women and babies following birthing at Alice Springs Hospital, who meet agreed clinical guidelines and protocols, to return to Tennant Creek Hospital or community setting, for postnatal care

7. Midwifery Group Practice to provide domiciliary postnatal care for all families including hard to reach and at risk clients

**Principle 2: Meeting the pregnancy, childbirth and early parenting educational needs of women and families**

Education and preparation for pregnancy, childbirth and early parenting for all women and their families, undertaken using best practice clinical guidelines and in a culturally appropriate context can lead to improved outcomes for mothers, babies and families, and as such is identified as a priority in the Corporate Plan 2009-2012: Healthy Territorians Living in Healthy Communities (Northern Territory Government 2009).

**Statement:**

All staff to ensure that the pregnancy, childbirth and parenting education, information and advice that women and their families receive is current, consistent, culturally appropriate and based on the best available evidence is made available to all families

**Measurable outcomes:**

- Barkly women have improved access and availability of culturally appropriate health education in relation to pregnancy, childbirth and parenting
- Maternity Care professionals; midwives, Aboriginal Health Workers and Medical staff, develop collaborative working relationships with Indigenous colleagues and community members in order provide culturally appropriate care and education
- All maternity care providers have access to appropriate professional development
- All maternity care providers are able to apply the principles of health promotion in their daily work, undertake brief interventions, motivational interviewing and other aspects of the public health role of the midwife/maternity care provider

- Information, support and advice for all users of maternity services in relation to breastfeeding, alcohol use, tobacco use, Sudden Infant Death Syndrome and Domestic Violence to commence as early as possible, ideally in the pre-conceptual period, and continue throughout antenatal, intrapartum and postnatal care

- Identified pathways for the active engagement of fathers, and other significant family members, in maternity care and education

- 100% coverage of maternal and whole of family education on the importance of good infant hygiene and safe sleeping practices (e.g. smoke free environment, prevention of eye, ear and skin infections, cot safety) for all households with infants present

**Principle 3: Increasing service capability at Tennant Creek Hospital**

Using the Capability Framework (Department of Health 2010), it is feasible that a level 2 maternity service could be reintroduced at Tennant Creek Hospital. This is contingent on there being adequate emergency facilities, staff, equipment, and appropriate retrieval and transfer services that meet the Level 2 service framework requirements with the adjustments necessary to address the remote setting of Tennant Creek Hospital.

In order to develop a birthing service for low risk women with on site Caesarean Section capacity such a model would include GP obstetricians and GP anaesthetists working in close partnership with the midwifery group practice with 24 hour telephone support from the Obstetric Specialist service at Alice Springs Hospital.

**Statement:**

The provision of safe intrapartum care in Tennant Creek for low risk women who choose to give birth closer to home and family, thus increasing choice and
reducing risks associated with long distance travel and dislocation from family and community.

In order to move towards a level 2 service the following preparation would need to take place:

- Community engagement regarding the relative risks of birthing in Alice Springs and the risks of birthing in Tennant Creek for women identified as low risk
- Agreement between service providers in Tennant Creek as to staffing requirements and where staff will be employed, building on existing staff skills and capacity. Draw on existing models such as Congress Alukura in Alice Springs where midwives employed by Central Australian Aboriginal Congress follow women through the system including providing care at Alice Springs Hospital and in the home.
- Recruitment of necessary staff
- Development of clinical practice guidelines based on the best available evidence to support decision-making for clinicians and consumers

**Measurable outcomes**

- Tennant Creek Hospital provides a level 2 maternity service based on the Capability Framework (DoH 2010)
- Development of clinical practice guidelines based on the best available evidence to support decision-making are available for all maternity service providers and consumers to inform and assist in planning the place of birth
- Tennant Creek Hospital equipped to provide emergency medical back-up and intervention as necessary, including instrumental vaginal birth, caesarean section and neonatal resuscitation and neonatal support
- Establishment of 24 hour midwifery availability
- Establishment of 24 hour GP Proceduralists (obstetric and anaesthetic cover)
- Continued 24 hour access to specialist Obstetrician and Paediatricians for remote consultation and sessional consulting at Alice Springs Hospital
- Support for the development of an Indigenous maternity care workforce; midwives, medical practitioners, Aboriginal Health Workers, Strong Women
workers and community based workers specialising in Maternity and Maternal Child Health Care

- The Northern Territory Government continues to support and fund retrieval services operating in Central Australia which provide a timely robust and responsive service to Tennant Creek Hospital and the Barkly.

**Principle 4: Evaluation of the need for low-risk pregnant women to await childbirth in Alice Springs**

The policy of ‘sit down’ and the use of maternity waiting facilities in Alice Springs for well women without identified risk factors in pregnancy has not been evaluated for effectiveness in improving maternal and perinatal outcomes for Barkly residents. A Cochrane systematic review found no evidence to determine the effectiveness of maternity waiting facilities for improving maternal and perinatal outcomes (in low resource countries) (van Lonkhuijzen, Stekelenburg and van Roosmalen 2009).

**Statement:**

The policy of ‘sit down’ to be evaluated and reviewed in the context of the Northern Territory’s particular needs for quality, safe and satisfactory maternity care

**Measurable outcomes:**

- Develop, monitor and review key maternity service performance indicators aligned with those of other Australian jurisdictions (e.g. antenatal attendance, number of antenatal admissions, intervention rates, maternal and perinatal morbidity and mortality, breastfeeding (initiation, exclusive, introduction of solids), length of stay, neonatal admission to nursery, hospital acquired infection rates, postnatal readmission)

- Continuous monitoring of maternal and perinatal outcomes associated with the transfer of Barkly women away from their place of residence to give birth in a culturally and linguistically foreign environment.

- Measure maternal satisfaction of ‘sit down’ policy and waiting facilities

- Enhance identification of women at risk of medical and obstetric complications and ensure timely and appropriate access to specialist care
References


Austin, S (2009). Barkly Health Centres: Workload and staff levels; Requirements to meet demand; Gaps in services. powerpoint presentation, Barkly Remote Health: 2.


Department of Human Services (2004) Rural birthing services: a capability based planning framework. Melbourne, Rural and Regional Health Services Branch, Rural and Regional Health and Aged Care Services, Victorian Government: 40


Appendix 1 Steering Group and Reference Group members

Invited and/or participatory Steering Group Members
Dr Peter Lynch Medical Director, Alice Springs Hospital
Dr Simon Kane Director, Obstetrics and Gynaecology, Alice Springs Hospital
Dr Ameeta Patel Women’s Health GP, RFDS, Tennant Creek & GPNNT (Alice Springs)
Angela Brannelly General Manager, Director of Nursing, Tennant Creek Hospital
Rachael Lockey Midwifery Co-Director, Integrated Maternity Services
Michelle Kealy Project Officer, Integrated Maternity Services

Invited and or participating Reference Group Members
Angela Brannelly GM/DON TCH
Sam Bowden Practice Nurse, RFDS
Kelly Brahim Community liaison, TCH
Clarissa Burgen Clinic coordinator, Anyinginyi
Pat Cosgrove Remote Health, DHF
Barbara Shaw Barkly Regionalisation Unit
Jenni Kennedy CFH Nurse, Community Health
Michele Meldrum MW, TCH
Linda Gabriel AHW, TCH
Eric Turner Manager, Remote Health, Anyinginyi
Rebecca Ashby ROM
Simmone Lewer Nutritionist, Remote health, DHF
Sarah Austin Public Health coordinator, Remote Health
Gineesh Panickarodam Social worker, TCH
Libby Lewis GP, Remote Health, Anyinginyi
Sylvia Palmer CFH Nurse, Remote Health, Barkly
Charmaine Taylor CDC, Barkly Health
Liz Wickham       MW, MGP, Alice Springs
Rachael Lockey  Midwifery Co-Director, Integrated Maternity Services
Michelle Kealy  Project Officer, Integrated Maternity Services
Appendix 2

Methodology

Consultation and data collection

During the nine month time-frame of this project data collection, consultation was undertaken with health and other staff working in the Barkly, Alice Springs, Gove and Darwin. Every effort was made to determine the diverse viewpoints of stakeholders and to gain historical and contemporary perspectives on maternity services provision in the Barkly.

Perinatal data was sought from Queensland Health and NT Department of Health and Families to ascertain birth trends over time; limited by the data available (2000-2009, unvalidated 2008-2009) (see Appendix 6). Confinements that took place in Queensland (2000 to Sept 2009) are pooled data to protect confidentiality and reported separately.