

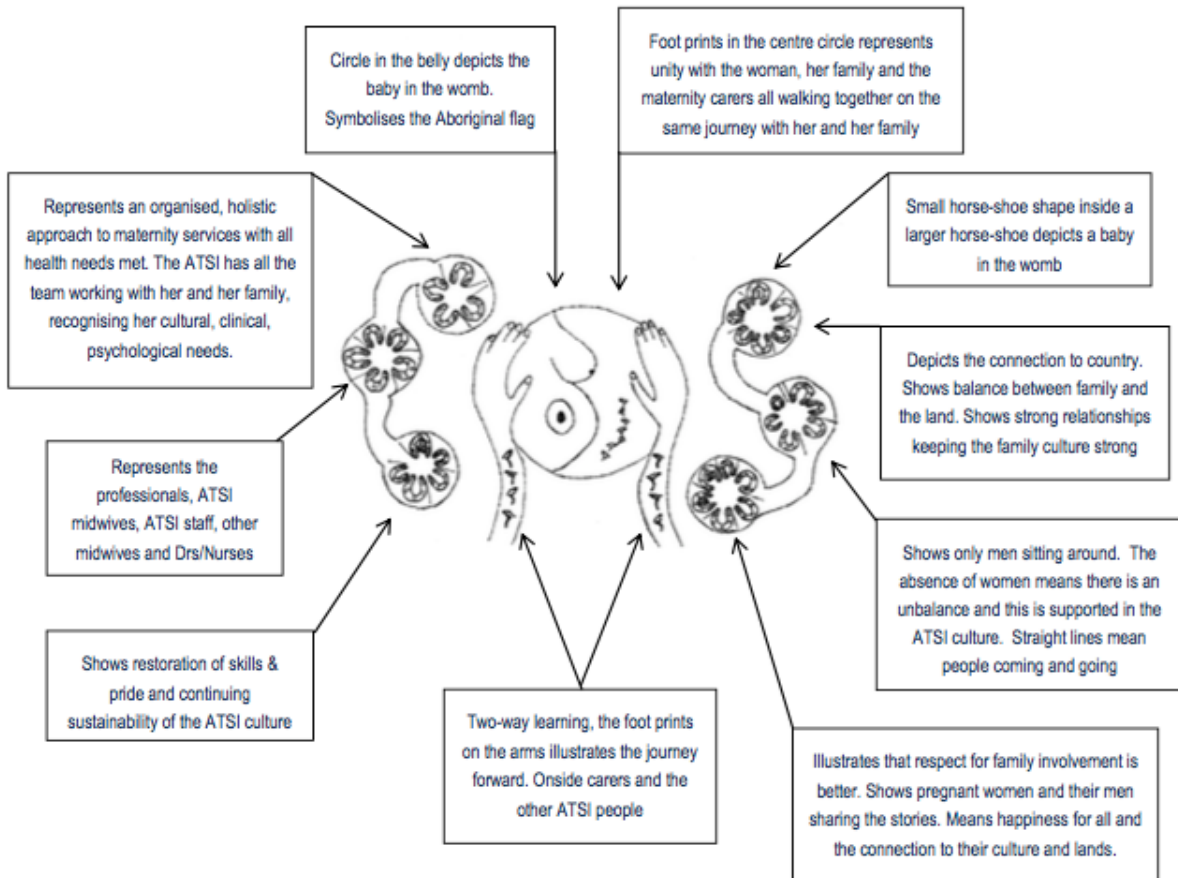


**Guiding Principles for Developing a
Birthing on Country Service Model
and
Evaluation Framework
Phase 1**



Artist Margaret Larkin: 2012

Meaning of front cover illustration



Birthing on Country Model and Evaluation Framework 2016

Internet sites

© Commonwealth of Australia 2016

This work is copyright. You may download, display, print and reproduce the whole or part of this work in unaltered form for your own personal use or, if you are part of an organisation, for internal use within your organisation, but only if you or your organisation do not use the reproduction for any commercial purpose and retain this copyright notice and all disclaimer notices as part of that reproduction. Apart from rights to use as permitted by the *Copyright Act 1968* or allowed by this copyright notice, all other rights are reserved and you are not allowed to reproduce the whole or any part of this work in any way (electronic or otherwise) without first being given the specific written permission from the Commonwealth to do so. Requests and inquiries concerning reproduction and rights are to be sent to the Online, Services and External Relations Branch, Department of Health, GPO Box 9848, Canberra ACT 2601, or via e-mail to copyright@health.gov.au.

© Commonwealth of Australia

Australian Health Ministers' Advisory Council

This document was prepared under the auspices of the Australian Health Ministers' Advisory Council.

Suggested Citation:

Kildea, S., Lockey, R; Roberts, J; Magick Dennis, F; 2016, Guiding Principles for Developing a Birthing on Country Service Model and Evaluation Framework, Phase 1, Mater Medical Research Unit and the University of Queensland on behalf of the Maternity Services Inter-Jurisdictional Committee for the Australian Health Ministers' Advisory Council.

Acknowledgements

The authors would firstly like to thank everyone who participated in the workshop and contributed their thoughts, knowledge and expertise to this Report. In particular we would like to thank those who commented on the draft Report.

The Report was commissioned by the Maternity Services Inter-Jurisdictional Committee and funded by the Australian Health Ministers' Advisory Council

Contents

Background	1
Aim	3
Objectives	3
Why Birthing on Country?.....	4
Purpose of this Document	5
Governance.....	7
Individual Birthing on Country Service Governance	7
Philosophy and Overarching Principles of a Birthing on Country Service	8
Service Characteristics	9
Characteristics of Cultural Competence	10
Skill Acquisition, Training and Education	11
General Education Characteristics.....	11
Maternal Infant Health and Midwifery: Workforce and Education.....	11
Standards for Establishing Level 2 Services (Primary Maternity Units)	12
Australian Rural Birthing Index	14
Risk Management	14
Risk Assessment Process: Individual Sites	15
Risk Assessment Process: Individual Women	15
Monitoring and Evaluation Framework	16
Implementation Guidance	18
Methods.....	19
Approach.....	20
Example Evaluation Questions.....	20
Example MIH outcome measures	21
Funding	22
Conclusion.....	23
References	25
Appendix 1. Birthing on Country progress to date: Achieving the Actions of the National Maternity Services Plan	28

Background

The National Maternity Services Plan (2011)¹ endorsed by the Australian Health Ministers, highlights the challenges faced by Aboriginal and Torres Strait Islander women and families with regards to both access to, and acceptability of, maternity services. The Plan also acknowledges the challenges faced by women and families living in rural and remote Australia, many of whom are also Aboriginal and Torres Strait Islander. Because of this, the Plan places a high priority on bringing about improvements in maternity services for both Aboriginal and Torres Strait Islander families and services in rural and remote areas.

Furthermore the Plan, under the priority area workforce, recognises the low numbers of Aboriginal and Torres Strait Islander people working in the maternity health care professions. As a result a number of Actions relate directly to developing and supporting an Aboriginal and Torres Strait Islander maternity care workforce. Action 2.2 of the Plan aims to: Develop and expand culturally competent maternity care for Aboriginal and Torres Strait Islander people. A key deliverable is to establish Birthing on country programs (Action 2.2.3) and is outlined in Table 1 below.

Table 1. Action 2.2.3. National Maternity Services Plan (2011)

The initial year	The middle years	The later years	Signs of success
AHMAC undertakes research on international evidence-based examples of birthing on country programs	Australian governments develop a framework, including an evaluation framework, for birthing on country programs. Australian governments develop a pilot for a birthing on country program which includes a consultative selection process with Aboriginal and Torres Strait Islander communities and local maternity care professionals to identify initial birthing on country sites	Australian Governments establish birthing on country programs	Birthing on country programs for Aboriginal and Torres Strait Islander mothers are established.

In order to achieve this reform in maternity services a number of steps have been carried out under the oversight of the Maternity Services Inter-Jurisdictional Committee (MSIJC) and these are outlined in Appendix 1. The National Maternity Services Plan: First Year Implementation Plan 2010-2011, Annual Report was endorsed by the Standing Council on Health on 11 November 2011.² Development of the Implementation Plan for the Middle Years 2012-2013³ was led by the Maternity Services Inter Jurisdictional Committee in consultation with government and non-government stakeholders who share responsibility for implementing components of the Plan. The specific middle year actions in relation to Action 2.2.3 are detailed in the Table 2 below.

Table 2. Action 2.2.3. National Maternity Services Plan – Middle Years Implementation Plan 2012-2013

Initial year action	The middle year action	Responsibility and funding	Signs of success end of year 3
AHMAC undertakes research on international evidence-based examples of birthing on country programs	Based on the outcome of investigations, jurisdictions consider the development of a birthing on country pilot program that includes consultation with Aboriginal and Torres Strait Islander people	Jurisdictions AHMAC cost - shared budget 2012-13	A birthing on country framework is developed

To undertake a literature review on 'Birthing on Country' the term was defined as:

Maternity services designed and delivered for Indigenous women that encompass some or all of the following elements: are community based and governed; allow for incorporation of traditional practice; involve a connection with land and country; incorporate a holistic definition of health; value Indigenous and non-Indigenous ways of knowing and learning; risk assessment and service delivery; are culturally competent; and developed by, or with, Indigenous people⁴

The term was further clarified at the Birthing on Country workshop (July 2012, Alice Springs) by an Aboriginal elder, Djapirri Mununggirritj, a Yolngu woman from north-eastern Arnhem Land in the Northern Territory, articulated it as follows:

'Birthing on Country should be understood as a metaphor for the best start in life for Aboriginal and Torres Strait Islander babies and their families because it provides an integrated, holistic and culturally appropriate model of care; not only bio-physical outcomes ... it's much, much broader than just the labour and delivery ... (it) deals with socio-cultural and spiritual risk that is not dealt with in the current systems. It is important that the Birthing on Country project move from being aspirational to actual. The Birthing on Country agenda relates to system-wide reform and is perceived as an important opportunity in 'closing the gap' between Indigenous and non-Indigenous health and quality of life outcomes.⁵

This report builds on the previous work undertaken in the initial year on behalf of the MSIJC to research international evidence-based examples of Birthing on Country programs.⁴ This document provides guidance on issues and considerations for the development of a Birthing on Country Service that should, if implemented in line with recommendations, be culturally competent and make a significant improvement to health outcomes for Aboriginal and Torres Strait Islander mothers and babies. This reflects the outcomes from the Birthing on Country Workshop, which was conducted in Alice Springs on 4 July 2012.⁵

Additionally, this report provides an Evaluation Framework to measure progress and success. The Birthing on Country literature review concluded that, based on available evidence, a Birthing on Country model is likely to produce significantly improved Maternal Infant Health (MIH) outcomes for Aboriginal and Torres Strait Islander women and babies. The available evidence, along with the consensus reached at the national Birthing on Country workshop; support such models being established in a variety of settings; very remote, remote, rural, regional or urban. It is clear that a strong research and evaluation framework should be used to be able to report on the process, impact and outcomes of any such developments. Ideally, this would involve a longitudinal design that provides robust evidence and enables identification of the key factors for success, local adaptation and clearly outlines how barriers and challenges are overcome. This document focuses on the development of culturally competent birthing services in line with the definition from the Alice Springs workshop as included above. The proposed approach can be seen as an initial phase and

does not address at this stage service provision areas such as in remote settings with small populations.

Aim

To develop a Birthing on Country Model of Care and Evaluation Framework, for implementation in Australia, that has been developed in consideration of the Birthing on Country literature review⁴ (undertaken In 2011/12 for MSIJC) and the outcomes from the Birthing on Country Workshop⁵ (conducted on 4 July 2012) in Alice Springs. As per the Terms of Reference this document includes the following elements:

- A draft Birthing on Country Model and Evaluation Framework prepared for consultation and local adoption once sites are determined
- Draft minimum standards document that outlines the optimal governance structure and key components for the Birthing on Country model.

The model of care presented in this document along with the accompanying monitoring and evaluation framework build further on previous work and constitutes the next step in achieving Action 2.2.3 of The Plan and other related Actions within the Plan. The following documents should all be used to inform future work as the evidence base and rationale underpinning the model is more detailed in those reports and not repeated here:

- 'Birthing on Country,' Maternity Service Delivery Models: A review of the literature⁴
- Birthing on Country Workshop Report⁵
- The National Aboriginal Health Plan (2013-2023)⁶
- Primary Maternity Services in Australia Framework for Implementation⁷
- National Consensus Framework for Rural Maternity Services⁸
- Core Competency Model and Educational Framework for Primary Maternity Services⁹
- National Midwifery Consultation and Referral Guidelines, 3rd Edition¹⁰
- Characteristics of culturally competent maternity care for Aboriginal and Torres Strait Islander women¹¹
- National Maternity Services Capability Framework¹²
- Nomenclature for models of maternity care: literature review¹³
- National Guidance on Collaborative Maternity Care¹⁴
- The Australian Rural Birthing Index Toolkit: A resource for planning maternity services in rural and remote Australia.¹⁵

This is a working document, to be used in the establishment of the initial exemplar sites after which time it is anticipated there will be a roadmap for establishment of sites in any geographical setting.

Objectives

The objectives of the Birthing on Country Model are to:

1. Improve Aboriginal and Torres Strait Islander maternal and infant health outcomes
2. Establish an effective governance structure that facilitates a partnership between Aboriginal and Torres Strait Islander communities and the Birthing on Country service

3. Contribute to community healing as evidenced by Aboriginal and Torres Strait Islander community control and engagement, cultural rejuvenation, knowledge exchange and workforce development
4. Promote knowledge exchange and strengthen community and health service capacity to provide the best start to life for Aboriginal and Torres Strait mothers and babies
5. Reduce clinical and cultural risks through the provision of high quality, culturally competent care from pregnancy to the year after birth.

Why Birthing on Country?

In Australia, there are wide disparities in MIH outcomes between Indigenous and non-Indigenous families.¹⁶⁻¹⁹ Over the last 30 years, repeated consultations with Indigenous women across Australia have highlighted 'Birthing on Country' (Birthing on Country) as something women believe will improve MIH outcomes.²⁰⁻²³ The health of Indigenous Australians is integrally linked to cultural beliefs and practices including connection to land and place of belonging,²⁴ a link that is believed to be strengthened by birthing on the land. Enforced evacuation to distant hospital facilities can break this connection to land and at present precludes the involvement of family and integration of traditional attendants and practices in the birthing process. The risk of such practices is the cultural disconnection experienced by Aboriginal and Torres Strait Islander people in both the current and future generation. Because of this, Aboriginal and Torres Strait Islander leaders feel strongly that the cultural risk of not birthing on their land must be acknowledged and included in the risk assessment process.²⁵

When applied to the remote setting, birthing some distance from Caesarean section facilities challenges the understandings of many western trained health providers. These concerns are held also with regard to absence of onsite access to medical technologies and issues relating to medico-legal liabilities.²⁶ However, some of these steadfast beliefs and practices of requiring clients to travel to higher-level centres for a number of specialist services are currently being challenged in Australia through innovative approaches to healthcare such as telehealth, camera technology, virtual consultation and task shifting approaches. We have seen the application of such innovations enable the undertaking of complex medical procedures, such as dialysis, in remote settings. Likewise the quality, safety and accessibility of maternity care can also be greatly improved from utilising these approaches.

The most effective Birthing on Country model reported in the literature was the Inuulitsivik Midwifery Service, which is a community based and Inuit-led initiative on the Hudson coast of the Nunavik region of northern Quebec.^{27,28} The service covers several discrete communities across a large geographical area with on-site birthing centres and competency based midwifery training. Strong referral links remain with higher-level services and when identified as necessary, women, with both their understanding and consent, can be referred to these higher-level services. The Nunavik birth centres (n=3) are models for low volume maternity care in three remote primary health care settings in different geographic locations accessed by plane. Two of the centres provide care for between 30-50 births and 40-80 pregnant women and babies each per year. The larger centre in Puvirnituk has about 120 births per year; it is the first level of referral for all surrounding communities and the planned place of birth for four smaller communities that do not have birth centres. This service began in 1986 following an escalation in suicides and recognition by the leaders that the community was in crisis.²⁹ It has proven to be a sustainable model, with excellent MIH outcomes,²⁸ despite being many hours from the nearest surgical services. Based on 3,000 births

since opening, the perinatal mortality rate has fallen and is better (9/1,000) than other comparable Indigenous populations, Northwest Territories (19/1000) and Nunavut Territory (11/1000).³⁰ A further seven years of data (another 1,388 births) has since been reported and shown a continuation of excellent MIH outcomes and a sustainable service.²⁸

A total of 84.0% of the births reported in these studies were attended by midwives; 72.8% of these were Inuit midwives and 12.0% non-Inuit midwives; 14.6% were attended by physicians, 0.4% nurses and a small number were unreported. Reports from these communities described a community development program that links the establishment of a local Birthing Centre to improved health care and outcomes as well as the greater social functioning of the community. Outcomes reported include a decrease in domestic violence and sexual assault and increasing numbers of men being involved in the care of their partners and newborns.²⁹⁻³¹ The establishment of the Birthing Centres is thought to have contributed to community healing and marked a turning point for many families who suffered from family violence.²⁸ Male elders told the men that if they witnessed their partner giving birth, they would see that she has been through enough and respect and care for her.²⁸ Community members reported: the regaining of dignity and self-esteem; the building of community relationships and intergenerational support whilst promoting respect for traditional knowledge; restoring skills and pride; and capacity building in the community and the of teaching of transcultural skills, both within the local community and with non-local health care providers. The Inuit midwives themselves are vital in promoting healthy behaviour and can be effective in this role in ways that non-Inuit health care workers are not so easily able to be.²⁸ A key factor supporting the change process appears to have been the open dialogue and debate around risk in childbirth.³² Birth in the communities was also seen to contribute towards community healing from the effects of colonisation and rapid social change.²⁷

What does this mean for the Australian context and can we translate the successes from the Inuit experience? The similarities between the Indigenous populations of Canada and Australia are striking. Both have significant challenges from the enduring effects of colonisation and these are reflected in a higher burden of disease, poverty, poor housing, lack of employment opportunities, reduced access to services and in some cases a lack of social cohesion. The geographical similarities include isolation and extremes in weather, which make 24/7 access unreliable. The research from Northern Canada has shown that childbirth in very remote areas can offer a safe, culturally competent and sustainable alternative to routine transfer of women to regional centres; in spite of initial fears about safety and opposition to these services.^{28,30,31,33} With such evidence it is now incumbent upon others where similar Indigenous disadvantage exists to bring about such service reform through the planned introduction of similar models. A consensus was reached among the wide range of stakeholder participants at the Birthing on Country workshop (July 2012, Alice Springs) that the establishment of such sites should be undertaken in Australia and funded for long-term success.⁵ Similar to the Inuit model, the workshop participants recognised the much wider social implications of Birthing on Country for community healing.

Purpose of this Document

The purpose of this document is to provide a high level framework for developing, implementing and evaluating a Birthing on Country model that could be adapted for any area in Australia (very remote to urban). Specific sites would need to be identified before clear pathways can be outlined, as requirements may vary between different jurisdictions and settings. The model utilises the National Maternity Service Capability Framework¹² whilst further addressing other essential aspects of a Birthing on Country service identified in the Birthing on Country literature review,⁴ the Birthing on

Country Workshop⁵ and the report on the Characteristics of Culturally Competent Maternity Services.¹¹ It provides a tool for planning and development whilst allowing for individual service adaption that is community led and driven. In line with the broader definition of Birthing on Country that was endorsed at the National Workshop, this document provides guidance for any level of service. However, additional information for establishing a primary maternity unit (Level 2 Service) is included.

In order to ensure the success and acceptance of such services, it is clear from the literature review,⁴ the Birthing on Country Workshop,⁵ and other work in the field of Aboriginal and Torres Strait Islander health, that the development of services needs to be underpinned by community development approaches, with the engagement of the community in every step of the process. Engagement ranges from initial consultation to active participation in all stages of the development and establishment of a service. Because of this the model proposed in this document must necessarily avoid being overly prescriptive, allowing for this level of engagement and community control to take place.

The following diagram identifies the important aspects of successful, culturally competent Birthing on Country models as evidenced by the literature.⁴ The model description further expands each essential area in order to describe key components of a national Birthing on Country model.

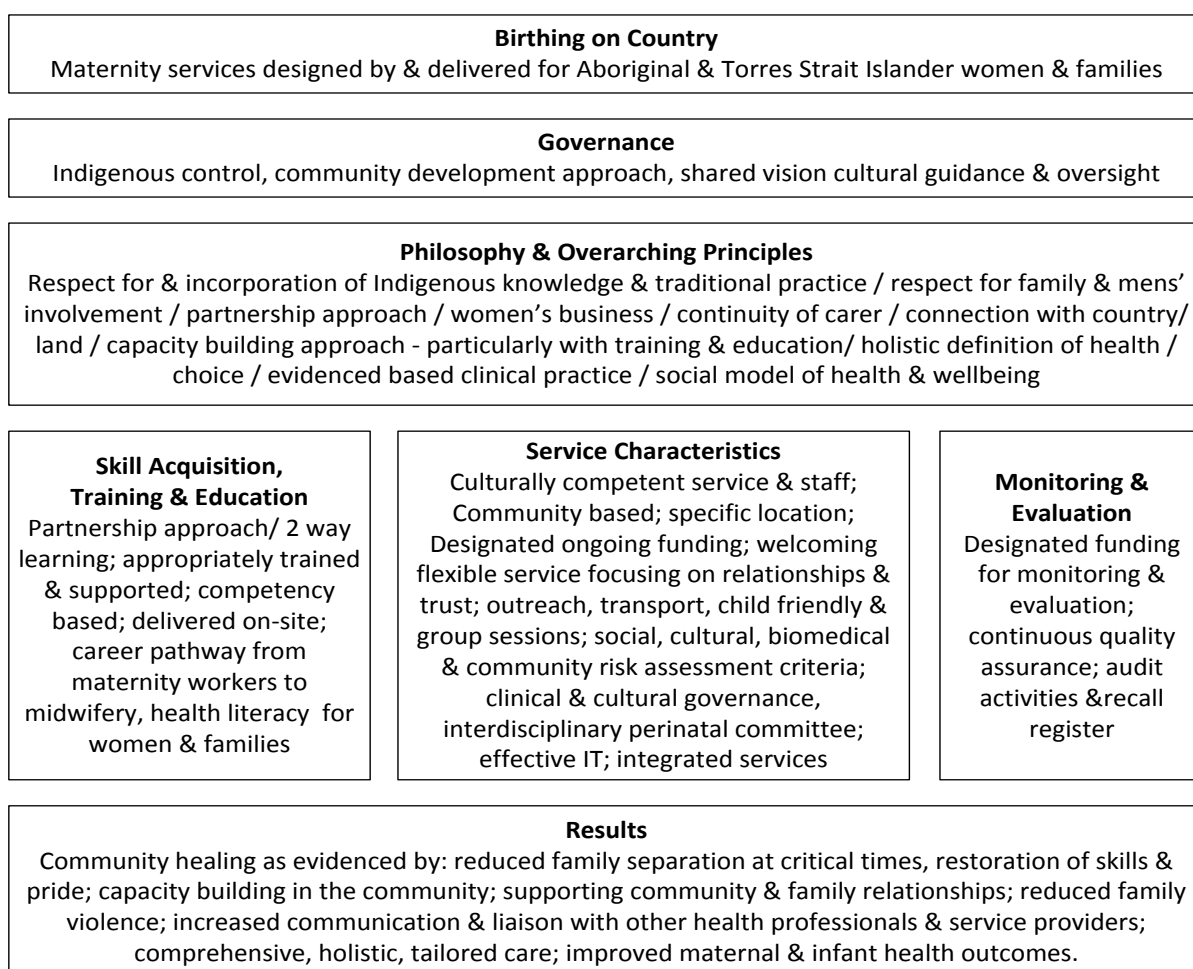


Figure 1. Components of maternity service delivery models for Indigenous mothers and babies

Governance

The governance of any service is a critical element in ensuring the service runs smoothly, can address problems and barriers as they arise, is in keeping with its intended goals as well as re-direct services if required. In the case of Birthing on Country, community control and the leadership and engagement of the Aboriginal and Torres Strait islander people for whom the service is intended is essential, and requires an overall governance system that facilitates this. In health services clinical governance is a key aspect of quality and safety and this also needs to be addressed. In the case of Birthing on Country whilst clinical governance needs specific attention it must also be well integrated with a wider overall governance system in place.

Individual Birthing on Country Service Governance

Drawing on successful models internationally, it is critical that the governance is clearly articulated and understood by all parties. This will need to be decided locally as it will depend on where the funding is sourced from, who administers it and how local parties agree to the operation of clinical and other services. Indigenous control is an important factor. In order to achieve this it may be necessary to establish a local Steering Committee that takes responsibility for the governance of each individual service. Initial steps in establishing a Birthing on Country program must begin with the establishment of such a Committee within a location that has been self-selected for a Birthing on Country service. Training in governance and the role of the Steering Committee may be necessary and needs to be provided in the initial stages of establishment as well as at various intervals during the life of the committee.

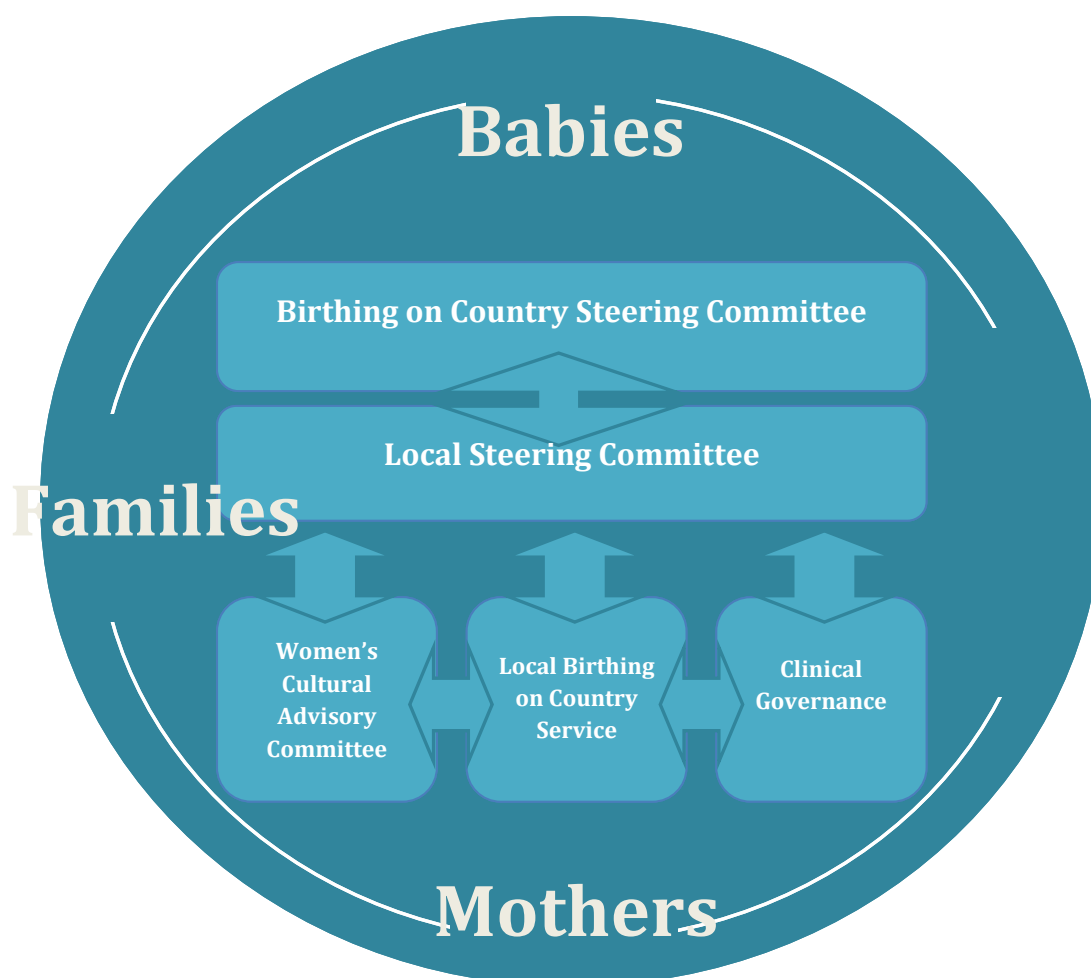


Figure 2. Proposed Governance Structure for Birthing on Country Model

The following are some key points to be addressed in order to bring about community controlled governance:

- Aboriginal and Torres Strait Islander leadership/control through a Aboriginal community appointed local Steering Committee
- Governance is embedded in a community development framework, adopting appropriate techniques and approaches that ensure inclusivity and access for community members
- Aboriginal and Torres Strait Islander women's cultural advisory group for cultural guidance and oversight if this is not an integral role of the Steering Committee.

Local governance will also be influenced by the individual sites that are chosen and the jurisdictions they are in. It is possible that sites will be established in areas where either Government and/or Community Controlled Aboriginal Health Organisations are the key provider of services. Either way a partnership arrangement, for example through a non-incorporated joint venture, would allow the organisations to regulate their relationship and the requirements of the service (Primary Maternity Unit within an integrated network) by way of agreement (for example Memorandum of Understanding [MOU]). The agreement would outline the clinical governance structure, insurance and financial services support for the clinical services. Insurance is a key factor that needs to be addressed with all health professionals responsible for ensuring they have the appropriate insurance to conduct the work that they do. The midwives working in the service must have insurance to cover intrapartum care either via their employer or as private practicing midwives. Further information on clinical governance can be found under Risk Management below).

Philosophy and Overarching Principles of a Birthing on Country Service

To ensure the success and integrity of any Birthing on Country model the philosophy and overarching principles of Birthing on Country must be embedded within the development and daily operation of the service. The following outlines the philosophy and overarching principles of Birthing on Country, informed by the literature review⁴, the national workshop⁵ and the philosophy and model of midwifery care³⁴ and maternity care models more generally.³⁵

This model incorporates Indigenous knowledge, including practices that consolidate and reinforce connection with culture, land and country. In doing so the model remains mindful of the need for consistency, high quality of care, management of clinical and cultural risk and the need to improve maternal and infant health outcomes for Aboriginal and Torres Strait Islander people. An underlying principle is the commitment to balance an evidence-based approach with a community development approach that recognises a multiplicity of evidence.

Community participation is a fundamental platform of the underlying philosophy. In this context community participation refers to the level of engagement each community implementing Birthing on Country seeks to exert over the planning, development and management of birthing services to influence:

- How problems, issues and challenges are identified and defined
- The solutions that are identified, agreed and implemented
- The management and/or delivery of culturally appropriate and acceptable solutions, and

- Monitoring and evaluating, including agreed indicators, data collection processes and reporting.

The level of participation will be context specific and determined in partnership. The Birthing on Country Model reflects the following principles:

- Privileging Indigenous knowledge and releasing and strengthening local capacity
- Aboriginal and Torres Strait Islander cultural guidance and oversight
- Woman/family centered holistic care (maximising social, emotional, spiritual and cultural wellbeing and informed choice) whilst centering on the mother's choice/mother's birth plan and with support and involvement from the whole family as per the mother's directives
- Partnership approach
- Birth is a significant life event and a normal physiological process
- Continuity of carer by a culturally competent workforce integrated into a maternity services network
- Community development approach
- Evidence based approach
- Right care by the right person at the right time in the right place
- Care is safe and feels safe.

Service Characteristics

The key elements of successful programs that have been developed for Aboriginal and Torres Strait Islander families in Australia and have been shown to make a difference to MIH outcomes have been identified in two reviews of the literature.^{4,36}

The following should be considered to be essential characteristics of each service, regardless of location, and can be used as a starting point in the development of any individual Birthing on Country service:

- Culturally competent service and staff¹¹
- Community based services integrated with other health services within the community for example the Obstetric Outreach Service, Aboriginal Community Controlled Health Service and the higher-level referral service
- A service location intended specifically for women and children, with engagement of fathers, men and wider family groups as deemed appropriate by mothers and the governing body
- Designated ongoing funding for the service to ensure sustainability
- A welcoming and safe service environment with flexibility in service delivery and appointment times; a focus on communication, cultural competence, relationship building and development of trust
- Respect for Aboriginal and Torres Strait Islander people and their culture; and integration of local Indigenous knowledge with western knowledge within an effective partnership approach
- A service that provides evidence based high quality care integrated with other services including a 24 hour service for birthing, outreach activities, home visiting, provision of

transport, child friendly, parents/peer support groups, parenting education, services targeting young women, postnatal support group, support for perinatal mental health issues, early childhood services all of which include local cultural knowledge as the foundation of such services, for example a parenting program will be written from a cultural parenting perspective by local Aboriginal people

- Routine orientation to services for all service users
- Appropriately trained workforce with support from an interdisciplinary team, quality assurance framework for continuous evaluation and audit activities that include a recall register
- A risk screening process with risk assessment criteria that includes social, cultural and psychological factors as well as biomedical ones; risk to be assessed by interdisciplinary review involving the woman and her nominated companions if she requests
- Supportive programs that take a strength based approach to addressing common risk factors in pregnancy and the postnatal period e.g. anaemia, infections, smoking, drugs and alcohol
- Effective information technology services both internally and between services, including identified referral services
- Service to be integrated with higher-level services with clear referral pathways and formalised networks
- Education and employment of local Aboriginal and Torres Strait Islander community members, across the necessary staff and profession
- Effective systems and guidelines for consultation, referral, transfer, risk assessment, screening and emergency evacuation.

Characteristics of Cultural Competence

The cultural competence of any Birthing on Country service is critical, without this in place then the service is unlikely to achieve its goals. The characteristics of culturally competent maternity care for Aboriginal and Torres Strait Islander women, have been outlined in a recent MSIJC document¹¹ and are addressed in the following areas:

- Physical environment and infrastructure
- Specific Aboriginal and/or Torres Strait Islander program
- Aboriginal and Torres Strait Islander workforce
- Continuity of care and carer
- Collaborating with Aboriginal Community Controlled Health Organisations and other agencies
- Communication, information sharing and transfer of care
- Staff attitudes and respect
- Cultural education programs
- Relationships
- Informed choice and right of refusal
- Tools to measure cultural competence
- Culture specific guidelines

- Culturally appropriate and effective health promotion and behavior change activities
- Engaging consumers and clinical governance.¹¹

Each of these characteristics is accompanied by suggested indicators in order to determine the cultural competence of an overall service. Whilst these characteristics and accompanying indicators need further testing, they provide the most suitable framework to date for assuring cultural competence in maternity care settings and need to be fully incorporated into the development of Birthing on Country services.

Skill Acquisition, Training and Education

Sustainability is a key concern in establishing any service, particularly so in rural and remote settings where the workforce is often transient with a high turnover. This, along with the need to develop education and employment opportunities for Aboriginal and Torres Strait Islander people makes this an essential aspect of the Birthing on Country model. There are a range of employment opportunities in such a service including the health professions, management and administrative roles. Access to quality locally based education, along with ongoing support and mentorship, is essential to the success, goals and sustainability of a Birthing on Country service.

General Education Characteristics

- All staff have clearly articulated and documented roles
- Professional staff have protected time to undertake their roles as educators and mentors which is articulated within their job descriptions
- A career pathway is articulated and operationalised from maternity care support worker to midwife through access to competency based midwifery and maternal infant health education, Certificate level through to Bachelor degree.
- Strong partnerships with both a vocational education and training provider and university education provider are identified and developed
- Away from Base models of education are accessed enabling students to stay largely in their home location, where the Birthing on Country service is based
- Students are employed through the service whilst undertaking identified education.

Maternal Infant Health and Midwifery: Workforce and Education

The MIH and midwifery workforce and educational pathways are an essential component of the Birthing on Country service across all settings. Building the Indigenous workforce and ensuring the non-Indigenous workforce is culturally competent is critical to increasing culturally competent care.

We understand the midwifery positions in other primary units in Australia are attractive positions for midwives and we think it is possible these would be even more attractive. This is evidenced in the Northern Territory where they have found that the Remote Area Midwife positions and the caseload positions offering midwifery group practice care to Aboriginal women are showing better retention rates than other nursing and midwifery retention rates.^{5,37} In fact we believe these models will prove to be a good workforce solution approach. The possibility of supplying part of the workforce through the Eligible midwife model is clear following the rapid expansion of these models in Queensland.

The educational pathway must meet the Australian Nursing and Midwifery Board Standards for Midwifery Education³⁸ and starts by making Certificate Courses (I-IV) available in maternal infant

health that articulate through to Bachelor programs. The South Australian Aboriginal Maternal Infant Care (AMIC) Course provides an example. The AMIC role includes clinical, cultural and social care from pregnancy through to 6-8 weeks after the birth. These workers work side by side with midwives to provide culturally competent care. Mentorship and on-site education are critical and as described above must be reflected in the role descriptions and time allocation of clinical staff to fully enable them to do this. A step wise competency based approach, as delivered in the Inuit model, should be considered.

Standards for Establishing Level 2 Services (Primary Maternity Units)

The National Maternity Service Capability framework (NMSCF)¹² provides the framework for planning and establishment of maternity services across a range of levels of service from 1-6, with level one being primary community based service with no birthing service and level six being the highest level service with of the full range of specialist services available on site.

The NMSCF is a high level document that describes the minimum service capability requirements for services in rural, regional and metropolitan settings, whilst also acknowledging the need for local adaptation and flexibility. The document outlines the minimum requirements for each level of services including staffing. For the Birthing on Country model we are particularly concerned with Level 2, where the: *The mother and baby have **normal** care needs for birthing and post partum care*¹²

The level of risk is determined by *'the presence of certain conditions or circumstances or planned interventions which influence the probability of an adverse event or undesirable outcome before, during or after birth. These influences in turn determine the complexity of care and of clinical support services required by the woman'*¹² Levels of risk are defined within the document as: *Normal Care Needs; Moderate Complexity; High Complexity* and these are fully described on page eight of the document. For planned birthing within a modified level two Birthing on Country service, regardless of location, we are focussing on those women with 'normal care needs', due to the necessary attributes for Birthing on Country to be placed within a community setting. The model however will care for all women, including those with both moderate complexity and high complexity care needs, during the antenatal and postnatal period. Importantly staff working in the model (the primary midwife for each woman) will liaise and organise referral and back-transfer in a seamless fashion for specialist or allied health care for birthing, or at other times as required, with a focus on continuity and integrated care. Every woman from the community will be a part of the Birthing on Country service model whether or not she needs to attend higher level services outside of the community. The women that attend hospital will have an completed Social, Emotional, Cultural and Spiritual Well-Being (SESCWB) plan that incorporates their express wishes including who they will have accompany them when they are transferring, what wishes need to be adhered to in the hospital, (e.g. bring their placenta home) etc.

The NMSCF identifies four components as key elements to best describe the criteria required to meet the stated objectives and support the minimum standards for the provision of safe maternity services:

1. Complexity of care
2. Workforce
3. Clinical support services
4. Service networks and integration.

A level two service is described on page 17 of the document and these can be usefully applied to Birthing on Country services in rural, regional and metropolitan settings for which the document is intended (p.5). It does not however address any of the requirements for culturally competent care and the other essential components of Birthing on Country as outlined in this document so far. Additionally, the level two within the NMSCF described does not account for services in remote settings and a different set of standards is required. The following table (Table 3) provides a framework for a level two service in a remote or very remote setting, and may also be more applicable to some rural settings than the level two outlined in the NMSCF, again local nuances will be necessary. This standard builds on level one of NMSCF and needs to be viewed accordingly.

Table 3. Maternity Service Capability framework for a level two service in a remote or very remote setting

Complexity of care needs	The mother and baby have normal birthing and postpartum care needs
Antenatal care	Antenatal outpatient and ambulatory postnatal care available Antenatal home visiting available
Birthing care community based	Planned homebirth (if service is offered) with established consultation, referral and transfer pathways to higher level services if required
Birthing care facility based	Birthing care is provided in dedicated birthing rooms in a community based facility or recognised birthing centre The equivalent on site neonatal service capability can support planned birth for women with pregnancy ≥ 37 weeks gestation Service capability supports referral for emergency or unplanned caesarean section
Postnatal care	Postnatal outpatient and ambulatory postnatal care available Postnatal home visiting available
Workforce	
Registered midwives and or Eligible midwives	Qualifications as per Nursing and Midwifery Board of Australia Registered midwife with necessary competence and post graduate experience to meet the requirements of the Registration Standard for Eligible Midwives of the Nursing and Midwifery Board of Australia
Aboriginal and Torres Strait Islander Health Practitioners	Registered with the Aboriginal and Torres Strait Islander Health Practitioners Board of Australia
Aboriginal and Torres Strait Islander Health workers	Such as Maternal Infant Health workers, Aboriginal Maternal Infant Care workers, Aboriginal education officers, Aboriginal mental health workers/Aboriginal counselors
Aboriginal Cultural Community workers	Such as Strong Women Workers, Local Aboriginal cultural knowledge holders
General Practitioner Obstetricians (optional)	For services that are established where General Practitioner Proceduralists/Obstetricians work as part of the core service they should be considered as part of the team
Maternal and child health services	Service which administers support for mothers and infants in parenting, child health and development in the perinatal period.
Clinical support services	
Pathology	Access to designated pathology services off-site to perform routine pathology services as part of regular care
Pharmacy	On-site pharmacy for approved standing order essential pharmacy list for midwives

	Access to off-site pharmacist
Theatre	Access to an appropriately equipped operating theatre with requisite staff and capability for emergency caesarean section 24/7 (off-site) Transfer time to be defined and understood in the local context
Perinatal autopsy support service	Access to a perinatal autopsy service
Service networks and integration	
Documented and formalised alignment within a maternity services network	Documented and agreed process for consultation, referral and acceptance of women with more complex care needs within the maternity services network Documented and agreed process for transfer of care, in both routine and emergency situations, that ensure minimal time for transfer to be completed Formal agreement for access to operating theatre with equipment and staff capable of emergency caesarean section 24 hours with a level 3 service within the maternity services network Documented and agreed process for acceptance of back transfer of physiologically stable women and neonates from higher level of service.

Australian Rural Birthing Index

The Australian Rural Birthing Index (ARBI) is an index that can be used to contribute to planning the level of maternity service for a particular facility. It has been developed from a similar Canadian index, which was grounded in extensive fieldwork in British Columbia.³⁹ The Australian index¹⁵ has been based on Australian data for all maternity services in all states and territories, and on fieldwork in a smaller number of selected locations.^{40,41} The ARBI applies to rural maternity services in facilities with catchment populations of 1,000 to 25,000. The term 'rural' is used inclusively here to denote locations with Australian Bureau of Statistics (ABS) remoteness area (RA) categories of Inner Regional, Outer Regional, Remote and Very Remote (RA categories 2 to 5).

Calculation of the index is based on:

- The catchment area of the maternity service, which is used to calculate the population birth score, which is calculated by the number of births in the catchment population
- The social vulnerability score, which is a calculation based on the relative socio- economic disadvantage of the catchment population compared to the rest of the country
- The isolation factor, which is derived from the geographic proximity of the facility, to the nearest alternative surgical facility that can perform emergency caesarean section.

A weighting is applied to each of the above factors to produce a score that estimates the appropriate level of maternity service for its particular location based on population need. The ARBI is a guide only. It is to be used with all other factors that would normally be taken into account when planning a health service.

Risk Management

The establishment of any new Birthing on Country Model of Care requires an agreed risk management framework closely aligned to the clinical governance framework. This is to include

policies, processes and accountabilities that are directed at ensuring and improving consumer quality and safety as well as effectiveness and dependability of the service. Such a framework must also identify relationships to other services, including referral services, that form the Integrated Maternity Service Networks,¹² known as a collaborative services framework also noted in the *Primary maternity services in Australia framework: "The safety and effectiveness of primary maternity services is underpinned by a collaborative services framework amongst care providers that ensures appropriate assessment, timely referral and access to secondary services".*⁷

The Risk Management Framework should include the following:⁴²

- Clinical Practice Guidelines
- Evidence based practice
- Clear role delineation
- Continuous professional development and regular annual and mandatory education
- Regular processes for consumer participation in health service planning
- Documented communication pathway and networking arrangements
- Regular risk assessment
- Consultation and referral guidelines¹⁰
- Documented pathway and training for escalating maternity events
- Regular data collection and clinical audit processes
- Complaints management processes
- Process for non-standard maternity care - consultation, informed choice and documentation¹⁰
- Evaluation Framework
- Research and Development.

Risk Assessment Process: Individual Sites

A risk assessment process should be undertaken with stakeholders at each site prior to implementation of the model. The methodology of the Australian/New Zealand Standard ISO 31000, Risk Management - Principles and Guidelines⁴³ (similar to that utilised prior to the introduction of the redesign of the Ryde Hospital Maternity Services⁴⁴) provides one example of a suggested process. The risk assessment should aim to: outline changes to current service arrangements; assess any threats or risks associated with the changes to service arrangements; analyse threats to the organisational environment, clinical safety, staff safety and the viability of the service; and identify controls to manage and monitor the threats and risks. The effective management of risk will enable maximise opportunities to achieve the aims and objectives.

Risk Assessment Process: Individual Women

Risk assessment in maternity care is complex as what is assessed as low risk at one point in time is not necessarily predictive of the level of risk encountered over the duration of the pregnancy, birth and post natal period.¹² Additionally, what is considered to be a significant risk factor to one person may be a totally acceptable risk to another, depending on individual circumstances. The risk assessment process is discussed in more detail in the workshop report⁵ which emphasised that the risk assessment criteria must enable women to identify their own risks within an Aboriginal and/or Torres Strait Islander cultural framework and ensures equal weight is given to risks associated with

spiritual, emotional, and cultural disenfranchisement as is given to clinical, biomedical risks. A risk assessment process for each woman should be conducted by an interdisciplinary review involving the woman and her desired support person/people (eg. her choice of family member(s)). This should occur between 30-34 weeks gestation and include discussions regarding the place of birth. Decisions may need to be revisited if the situation changes.

The Australian College of Midwives National Midwifery Guidelines for Consultation and Referral¹⁰ are an evidence based tool that has been tested within a randomised controlled trial of midwifery group practice for women of all risk status in an urban setting.⁴⁵ These should be utilised by midwives within a Birthing on Country service to inform decision making during the antenatal, intrapartum and postnatal period. They need to be accompanied by a context specific regard for transfer times to higher-level facilities, as defined at a local service level, and should be evaluated for the remote setting and adapted as required.

Monitoring and Evaluation Framework

The introduction of a Birthing on Country model of care must be considered a complex intervention^{46,47} and have an appropriate monitoring and evaluation framework that will enable all stakeholders to understand not only what components were integral to success or failure but why these components were so important and influential. To inform the monitoring and evaluation framework, a Program Logic Model that includes high level outcome indicators, has been developed (Table 4) and has embedded within it the theoretical understandings of how the intervention (the Birthing on Country model of care) is expected to cause change. Monitoring and process evaluation are essential to ensure the model is being implemented according to plan, whilst impact and outcome evaluation is essential for determining the success of the model in contributing to achievement of the aim and objectives.

Table 4. Program Logic Model for Birthing on Country

INPUTS What is invested	ACTIVITIES What is done	OUTPUTS What is delivered	OUTCOMES Short – medium results	INDICATORS Measurement	IMPACT Longer term results
<p>Cert III or IV MIH workers Strong Women Workers Aboriginal Health Practitioners Student Midwives Midwives Child Health Nurse Administration staff Manager Transport Governing Body and Advisory Committees Infrastructure Funding Partnership Investment</p>	<p>Antenatal (A/N) Care including Alcohol and other drugs (AOD) and support for smoking cessation Risk assessment Birthing Postnatal (P/N) Care (reproductive health, lactation support etc) Perinatal Mental Health Infant Health Care (nutrition, growth monitoring and developmental assessment, increasing parental responsiveness) Health Promotion (individual or small groups) Community Development (CD) Health Literacy (HL) Cultural Care Social Emotional Cultural and Spiritual Well-Being (SESCWB) Case review /consultation Referrals and transfer to specialist and higher-level care Measure individual and institutional cultural competence Governance Continuous Quality Improvement (CQI) System and Planning Assistance for women to develop a birth plan</p>	<p>A/N Care scheduled 12 visits Smoking cessation, alcohol and other drugs support program Cultural/Clinical Risk Assessment and management system Birthing on country Continuity of Care for hospital births Woman centered care as per MGP schedule P/N Care to 6 weeks and women's health checks Screening and Assessment follow up referral &/or support Healthy Under 5, child health check Immunisation service AOD, nutrition, pregnancy care, sexual and reproductive health (SRH), Timely identification, management and early intervention of developmental problems CD Framework & Action Plan HL Sessions SESCWB plan for mum and family including birth plan Cultural ceremonies/Strong women strong babies strong culture (SWSBSC) program or equivalent Full team case review at 34 weeks for all women/shared records Tracked referral System Networking/Integrated Care Strategy Transport Cultural competence score Clinical governance framework Cultural Knowledge Holders Oversight Monitoring and evaluation plan, reporting against indicators CQI Plan implemented CQI System, plan, implementation</p>	<p>Early presentation Woman Centred Care A/N screening completed Normal Births Continuity of Care Reduced Smoking in pregnancy and Fetal Alcohol Spectrum Disorder Increased birth spacing Breast fed @ 6 months Fully immunised @ 12 months Reduced Failure to Thrive Functional effective early intervention Community engagement in health literacy, cultural care planning, community healing Culturally competent care by a skilled workforce Complications and risks managed and mitigated Exemplar sites established</p>	<p>% preterm births ↑ % normal birth (37-41 weeks, vaginal birth, vertex presentation, spontaneous onset of labour) ↑% healthy baby (liveborn, singleton 37-41 completed weeks gestation, 2,500-4,499g birthweight, Apgar score at five minutes ≥7) % women with documented case review at 34 weeks % women health literacy certificate % Infant hospitalisations <12 months % Breast fed @ 6 months Immunisation coverage rates @ 12 months No. of Indigenous MIH staff* MIH staff turnover CD framework & action items Self esteem measurement Functioning governance Board Completed plans for cultural safety, risk management % having SESCWB plan % having birth plan % culturally competent staff Facility cultural competence score</p>	<p>↑% normal birth ↑% healthy baby Reduced preterm births and neonatal nursery admissions Reduced Infant morbidity and mortality Lower rates of developmental delay Increased retention of skilled staff BoC model for scaling up Partnerships and Knowledge Exchange Mechanism Culturally safe and responsive services Community Healing Sustainable Funding Model and cost containment Increased empowerment for individual women and communities as a whole through owning life decisions</p>
<p>Underlying Principles</p>					
<p>1. Privileging Indigenous knowledge and releasing and strengthening local capacity 2. Aboriginal and Torres Strait Islander cultural guidance and oversight 3. Woman/family centered holistic care (informed choice) engages men and fathers within culturally appropriate framework 4. Partnership approach 5. Birth is a significant life event and a normal physiological process 6. Continuity of carer by a culturally competent workforce integrated into a maternity services network 7. Community development approach 8. Evidence based approach 9. Right care by the right person at the right time in the right place 10. Care is safe and feels safe.</p>					

The process evaluation will enable any lack of impact to determine either implementation failure or genuine ineffectiveness. Identification of which aspects are integral to the model and which can be adapted locally is essential. Once the model has been agreed and sites have been selected, a detailed monitoring plan will be developed that reflects the process indicators, data collection, storage and analysis methods. Evaluation questions will be developed in collaboration with the local Steering Committee and other key stakeholders (Draft below). The evaluation will determine the extent to which the outcomes are achieved and benefits realised for key groups of stakeholders in the community and the health system. Designated resources for monitoring and evaluation will be essential to ensure both the process and impact are documented and well understood. The monitoring will incorporate aspects of a continuous quality assurance framework, including audit activities.

Implementation Guidance

The following are a suggested guide for the implementation of the model and evaluation framework.

1. Call for Expressions of Interest from communities to be developed as 'pilot sites' and expressions of interest for a Steering Committee at the same time.
 - a. Establish Steering Committee
 - b. Steering Committee to assess and choose exemplar sites based on selection criteria which may include an assessment using the Australian Rural Birthing Index¹⁵
2. At each site
 - a. Appoint a project officer
 - b. Identify key stakeholders (may need to undertake stakeholder mapping analysis)
 - c. Request community involvement in planning the service
3. First community meeting regarding creation of Birthing on Country health service
 - a. All members of the community are automatically members of the Birthing on Country health service (but have the choice whether to be active or inactive members) i.e. they do not have to apply to be part of the organisation but just are, and as such every community member is invited to the Annual General Meeting
4. Establish Local Governance / Steering Committee at each site to provide Indigenous governance and cultural oversight
5. Undertake risk assessment with key stakeholders
 - a. Identify service, staff, funding and resource gap
 - b. Develop plan to address identified gaps
 - c. Establish systems for consultation, referral and transfer (including emergency retrieval)
 - d. Identify insurance cover for lead carers providing intrapartum care
6. Commence baseline data collection at all sites whilst establishing other important components (which may be already available) for example:
 - a. Continuity of midwifery carer: within a midwifery group practice model networked to a regional or higher level service (that may offer outreach or telehealth for obstetric and other specialised services) offering 24/7 care from a named midwife from first presentation in pregnancy until handover to child health services at 6

weeks postnatal. Care will be provided for all women, and those with no identified risk factors offered local birth in Level 2 service if established. Women with risk factors will be carefully monitored and offered support when they travel to higher-level services.

- b. A Birth Unit which incorporates:
 - i. The Indigenous specific service characteristics for culturally competent care (described under Service Characteristics above and in more detail other documents^{4,5,11}) and,
 - ii. The maternity clinical service capability of a Level 2 unit as per of the National Capability Framework¹²
- c. Indigenous Health Workers and Strong Women Workers
- d. Student midwives who access much of their training (though not all) on site with onsite tutorial support
- e. Cultural and clinical supervision program
- f. Monitoring and Evaluation.

Methods

The literature review identified a dearth of high quality evidence from research that has examined maternity services designed by and delivered for Aboriginal and Torres Strait Islander mothers and babies. Thus it will be important to have a strong research and evaluation framework to test the introduction of Birthing on Country Models. A Randomised Controlled Trial (RCT) implementing a clustered step wedge design comparing standard care to a Birthing on Country model of care could be considered. This RCT design would provide robust evidence and enable identification of the key factors for success and local adaption. It would require a phased implementation to allow detection of underlying trends and to clearly outline how barriers and challenges are overcome. There is already at least one step wedge RCT being undertaken in the remote Aboriginal and Torres Strait Islander context and funded by NHMRC: Strive – Sexually Transmitted infections in Remote communities: ImproVed and Enhanced primary health care services is a new trial which aims to reduce levels of STIs in 21 or more participating ‘trial clusters’ over a five year period.

Proposed ‘clusters’ (communities) could be located in any area across Australia. The unit of randomisation would be by geographic cluster; 12-20 sites/communities would each be randomised to a Birthing on Country model of care to commence implementation at distinct time points. Prior to commencement (first time point), baseline data would be recorded at all sites. At the second time point randomisation and development of the Birthing on Country Model would begin in several sites (eg. three sites, across several states). By the third time point several more sites will commence (eg. a second site across several states). At the fourth time point the remaining sites commence with ongoing data collection at all sites until the evaluation ends. The model would be consistently evaluated, fine-tuned and re-evaluated. Regular monitoring and evaluation occurs.

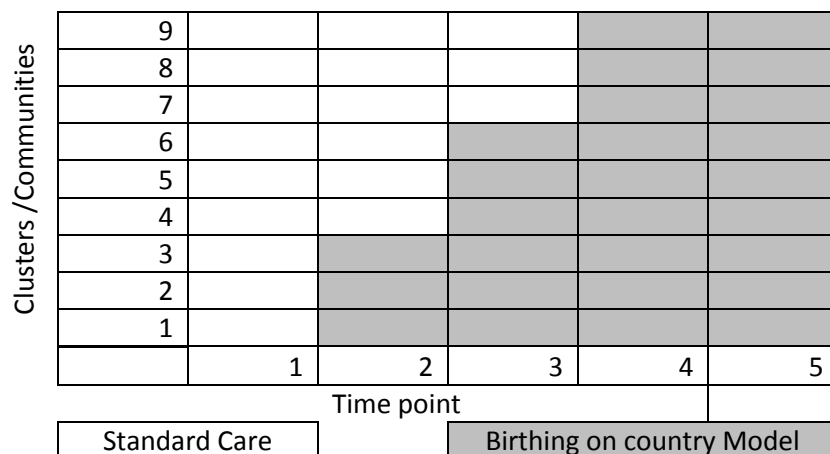


Figure 3. Step Wedge RCT example

Approach

A participatory action research (PAR)⁴⁸ and triangulated mixed methods⁴⁹ approach will be required. The PAR approach is recommended for research and evaluation in the Australian Aboriginal context⁵⁰ and if done correctly it ensures the process will be responsive to Indigenous cultural values and principles including emancipation, empowerment, community development and collaboration in research processes. *Aboriginal communities themselves stand a better chance of long-term success in addressing health and social disadvantage. If this is the case, governments must build capacity in Aboriginal communities to assess need and deliver culturally-appropriate services*⁵¹ The Birthing on Country program will enable this by ensuring Indigenous people themselves have the opportunity to develop culturally-relevant solutions using the skill and cooperation of both Indigenous and non-Indigenous people. Since the workers in the programs will be community members themselves, and the management of the program will be via a community based Board, the most appropriate evaluation approach is the PAR cycle.

A bicultural approach, with reciprocal partnerships between all stakeholders, particularly community representatives and service users will ensure Aboriginal and Torres Strait Islander ways of being, doing and knowing are incorporated and followed.⁵² The way ‘capacity building’ is constructed often reflects a belief that Indigenous communities and members are somehow deficient and must rely on others to support their development. Indigenous ways of knowing must be recognised as valuable and community-based analyses of problems, respect for individuals, commitment to social change, and an equal partnership between service users, stakeholders and the evaluation team will all be required. Whole of community meetings (where everyone is invited and those who wish to attend do so) will be important throughout this process ensuring communities are able to self-evaluate their service, including from a cultural perspective, to increase ownership and enable reflection and further planning and action following each cycle of evaluation. Human research ethics committee approval will be required prior to the research being undertaken.

Example Evaluation Questions

Questions will be developed to provide data on the processes, impact and outcomes related to this new model of care. The model will be described to report on how outcomes are achieved by exploring:

- Is the model functioning the way it was intended?

- What makes this model unique when compared to other models of care?
- How is the model achieving its objectives?
- How do women and their families describe their experiences?
- What are the strengths and weaknesses of the model?
- Are there any barriers to sustained delivery of this model of care from the perspectives of all stakeholders?

The impact of this new model of care will be measured by exploring the short-term effects including any benefits of the program by focusing on areas such as:

- What effects does the new model have?
- Can the effects be attributed to the new model?
- Does the new model achieve its objectives?

The importance of evaluating people's mental health as associated with cultural revival and connection to country, increased employment and education opportunities, increased hope for cultural survival and increased spiritual nourishment needs to be explored for example: how are communities able to express these changes, how do such changes come about?

Some examples of the types of questions that could be regularly asked during the PAR process include:

- Have we created an environment of cultural safety for everyone here?
- Have we increased our wellbeing?
- Have we reduced the amount of Family Violence in our lives?
- Have we improved our relationships with our family members and each other?
- Have we improved our relationship with country?
- Have we increased the wellbeing of our country?
- Have we found ways to ensure the economic sustainability of families and our community?
- Have we been practicing our culture, law/lore and spirituality?

The questions above will firstly form the basis for an observations evaluation and then re-posing the questions by looking at how community could improve the service with respect to each question will then form the basis for a reflection evaluation which will lead to plans for further action to improve our community Birthing on Country service.

Example MIH outcome measures

The MIH outcome measures could include:

- Mean gestation 1st A/N visit
- Mean number of visits
- % women < 20 years
- % A/N screening tests
- % received full treatment: anaemia, STI, UTI
- % smoking, drinking alcohol and other drugs: booking, birth, 6 weeks P/N

- % births < 32 weeks at least 1 A/N visit first trimester (<13 weeks)
- % births < 32 weeks =>5 A/N visits
- % interventions in birth
- % A/N, Birth, P/N complications
- Mean length of stay in hospital & nursery - mothers & infants
- % infants admitted to nursery >4 hours
- % positive screening EPDS, emotional distress
- % intrapartum care from known M/W
- % highly satisfied with care
- % baby born planned place of birth
- Mean birthweight
- Mean gestation at birth
- % preterm births (< 37 weeks)
- % low birth weight (LBW) babies (<2500)
- % infants breastfeeding (none, exclusive, predominant, any) discharge, 6 wks, 6 & 12 months
- % infants anaemic 6, 12 months.
- % who choose to develop a birth plan.

Funding

The cost of implementing the model will be dependent on location and existing resources within each site. Depending on the anticipated cost additional funding sources may be required. The infrastructure for the primary birthing rooms may already be in place and require a low technology approach with family friendly rooms that include easy access to a bath and shower facilities. It is likely that there may be rooms within the current health facility that could be purposefully fitted out but these costs would not be large (Approximate costs can be seen in Table 5 below). To provide an example costings have been sourced from urban birthing centres that have been recently established however it must be acknowledged that these costs would be increased if construction was necessary in the remote setting. Telehealth facilities would be strongly recommended. Costs do not include capital building costs, medical cover, accommodation costs, and consultation, referral and transfer costs. They only provide baseline examples. A complete budget would need to be built up once sites were identified.

Table 5. Estimated Establishment Costs

Estimated Establishment Costs	
Clinical Equipment	\$150,000
Project officer (12 months inc. oncosts)	\$140,000
Bed linen and artwork	\$10,000
Telehealth set up (based on 2012 rebate figures)	\$6,000
Computers, printer & phones	\$20,000
Communications (phone & internet charges)	\$1000
Office-Stationery Supplies	\$500
Travel expenses (other site visits)	\$5,000
TOTAL	\$331,500

Operational costs would also depend on the size of the community, the number of birthing women and the existing staffing arrangements (it is likely that at least some of the current staff would work in this program e.g. midwife/s, strong women workers, community based workers and Aboriginal health workers). Midwives could commence operating in a caseload model with approximately 30 women a year (reduced from the usual caseload of 40 due to remote location, distances for home visiting, Indigenous context and likelihood that role would include some women’s and child health). Additionally, the capacity building aspect of this program would require onsite local student midwives as education would be a large part of this role. A minimum of three midwives would be required, though four would be better as one would often be away from the community on holidays or staff training. estimated Costs have been estimated based on four midwives working with two student midwives, one Aboriginal health worker or maternal infant health worker (Cert IV) and two part time community based workers (e.g. strong women workers). Costs have also been included to reimburse Steering Committee attendance and lease 2 cars per annum. Costs that are associated with transfer and retrieval to higher level services or the medical workforce (and their associated insurance costs) have not been included as this differs widely depending on context and is better worked out locally. Where possible it is assumed that the model is integrated with local services whereby these costs are potentially already being covered.

Table 6. Ongoing operational costs

Estimated Full Year Operational Budget	
Manager inc. oncosts	\$150,000.00
Caseload Midwives in MGP @ \$136,651 p.a. per midwife inc. oncosts	\$546,604.00
Aboriginal Health Worker x2 (Cert IV) inc. oncosts (identified position)	\$140,000.00
Aboriginal Student x 4 @ \$40,000 pa inc. oncosts (identified positions)	\$160,000.00
Aboriginal Community based workers/ Strong women 0.5 FTE x 4 (identified positions)	\$160,000.00
Aboriginal mental health worker or Aboriginal counsellor (SEWB worker) and trainee	\$90,000.00
Local Governance Committee and Cultural Advisory Committee meeting attendance	\$10,000.00
Car lease 4WD x2 including fuel and running costs p.a.	\$24,000.00
Communications (phones & internet charges)	\$5,000.00
Computer Expenses (software licences, email, intranet charges, printer)	\$5,000.00
Office-Stationery Supplies	\$2,500.00
Drugs-Variou	\$1,000.00
Pathology Charges	\$5,000.00
Repairs And Maintenance	\$5,000.00
Catering and Domestic Expenses	\$5,000.00
Clinical Supplies	\$10,000.00
TOTAL	\$1,319,104.00

Conclusion

The National Maternity Services Plan was endorsed by the Australian Health Ministers and released in 2011. Three priority areas for improving services for Indigenous women include: developing and expanding culturally competent maternity care; developing and supporting an Indigenous workforce; and the development of dedicated government programs for ‘Birthing on Country’: described as a metaphor for the best start in life for Aboriginal and Torres Strait Islander

babies and their families through the provision of an integrated, holistic and culturally appropriate model of care. The national workshop, hosted by the Maternity Services Inter-jurisdictional Committee and Central Australian Aboriginal Congress (Alice Springs, 2012) recommended the development of Birthing on Country sites in urban, rural, remote and very remote areas. This document provides a draft model and evaluation framework to move forward.

References

1. AHMAC, *National Maternity Services Plan, 2011*. 2011, Australian Health Ministers Advisory Council, Commonwealth of Australia: Canberra.
2. Department of Health and Aging. *The National Maternity Services Plan: First Year Implementation Plan 2010-2011* 2012 18 June, 2012 [cited 2013 080713]; Available from: [http://www.health.gov.au/internet/main/publishing.nsf/Content/7B8BE9D94791315CCA257A2100025DCA/\\$File/NMSP%202011%20Annual%20Report.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/7B8BE9D94791315CCA257A2100025DCA/$File/NMSP%202011%20Annual%20Report.pdf).
3. Standing Council on Health, *National Maternity Services Plan – Middle Years Implementation Plan 2012-2013*. 2012, Standing Council on Health.
4. Kildea, S. and V. Van Wagner, 'Birthing on Country,' *Maternity Service Delivery Models: A review of the literature*. 2012, Maternity Services Inter-Jurisdictional Committee for the Australian Health Minister's Advisory Council: Canberra, An Evidence Check rapid review brokered by the Sax Institute (<http://www.saxinstitute.org.au>).
5. Kildea, S., F. Magick Dennis, and H. Stapleton, *Birthing on Country Workshop Report, Alice Springs, 4th July*. 2013, Australian Catholic University and Mater Medical Research Institute on behalf of the Maternity Services Inter-Jurisdictional Committee for the Australian Health Minister's Advisory Council: Brisbane.
6. Australian Government, *National Aboriginal and Torres Strait Islander Health Plan 2013-2023*. 2013, Commonwealth of Australia: Canberra.
7. AHMAC, *Primary maternity services in Australia: A framework for implementation*. 2008, Australian Health Ministers Advisory Council.
8. Rural Doctors Association of Australia, et al., *National Consensus Framework for Rural Maternity Services*. 2008.
9. Homer, C., et al., *Core Competencies and Educational Framework for Primary Maternity Services in Australia: Final Report*. 2010, Centre for Midwifery Child and Family Health, University of Technology Sydney: Sydney.
10. ACM, *National Midwifery Guidelines for Consultation and Referral, 3rd Edition*. 2013, Australian College of Midwives Canberra.
11. Kruske, S., *Characteristics of culturally competent maternity care for Aboriginal and Torres Strait Islander women*. 2011 Maternity Services Inter-jurisdictional Committee for the Australian Health Ministers Advisory Council, .
12. AHMAC. *National Maternity Services Capability Framework*. 2012; Available from: <http://www.qcmb.org.au/media/pdf/The%20National%20Maternity%20Services%20Capability%20Framework.pdf>.
13. Australian Institute of Health and Welfare, *Nomenclature for models of maternity care: literature review, July 2012—Foundations for enhanced maternity data collection and reporting in Australia: National Maternity Data Development Project Stage 1*. 2014, AIHW: Canberra.
14. NHMRC, *National Guidance on Collaborative Maternity Care*. 2010, National Health and Medical Research Council: Canberra.
15. Longman, J., et al., *ARBI Toolkit: A resource for planning maternity services in rural and remote Australia*. 2015, University Centre for Rural Health North Coast: Lismore.
16. WHO, *The World Health Report 2006: Working together for health*. 2006, World Health Organisation: Geneva.
17. Paradies, Y. and J. Cunningham, *Placing Aboriginal and Torres Strait Islander mortality in an international context*. Australian and New Zealand Journal of Public Health, 2002. **26**(1): p. 11-16.
18. Laws, P., Z. Li, and E. Sullivan, *Australia's mothers and babies 2008*. 2010, AIHW National Perinatal Statistics Unit: Sydney.
19. Bramley D, et al., *Indigenous disparities in disease-specific mortality, a crosscountry comparison: New Zealand, Australia, Canada, and the United States*. The New Zealand Medical Journal, 2004. **117**(1207): p. U1215.

20. Biluru Butji Binnilutlum Medical Service, *Women's Business Meeting, Darwin, Nov 2-3, Report and Recommendations*. 1998, Danila Dilba: Darwin.
21. Carter, B., et al., *Borning: Pmere Laltyeke Anwerne Ampe Mpwaretyeke, Congress Alukura by the Grandmothers Law*. Australian Aboriginal Studies, 1987. **1**: p. 2-33.
22. Hirst, C., *Re-Birthing, Report of the Review of Maternity Services in Queensland*. 2005, Queensland Health Brisbane.
23. Kildea, S., *And the women said... Report on birthing services for Aboriginal women from remote Top End communities*. 1999, Territory Health Service: Darwin.
24. National Aboriginal and Torres Strait Islander Health Council, *National Aboriginal and Torres Strait Islander Health Strategy, Consultation Draft*. 2000, NATSIHC: Canberra.
25. Wardaguga, M. and S. Kildea, *Bring Birthing Back to the Bush*. Aboriginal Health Worker Journal, 2005.
26. Smylie, J., *A guide for health care professionals working with Aboriginal peoples - Policy statement of the Society of Obstetricians and Gynaecologists of Canada*. Journal of the Society of Obstetricians and Gynaecologists of Canada, 2000. **22**(12): p. 1056-61.
27. Van Wagner, V., et al., *Remote Midwifery in Nunavik: Outcomes of Perinatal Care 2000-2007 for the Inuulitsivik Health Centre*. 2008, First Nations and Inuit Health Branch: Vancouver.
28. Van Wagner, V., et al., *Remote Midwifery in Nunavik, Quebec, Canada: Outcomes of Perinatal Care for the Inuulitsivik Health Centre, 2000-2007*. Birth, 2012. **39**(3).
29. Rawlings, L., *Birth Rites*, J. Gheradi, Editor. 2002, Jag Films: Perth.
30. Van Wagner, V., et al., *Reclaiming Birth, Health, and Community: Midwifery in the Inuit Villages of Nunavik, Canada*. Journal of Midwifery & Women's Health, 2007. **52**(4): p. 384-391.
31. Houd, S., J. Qinuajuak, and B. Epoo. *The outcome of perinatal care in Inukjuak, Nunavik, Canada 1998-2002*. in *12th International Congress on Circumpolar Health*. 2003. Nuuk, Greenland: Int J Circumpolar Health.
32. Kaufert, P. and J. O'Neil, *Analysis of a dialogue on risks in childbirth: clinicians, epidemiologists, and Inuit women*, in *Knowledge, Power and Practice, The Anthropology of Medicine and Everyday Life*, S. Lindenbaum and M. Lock, Editors. 1993, Berkeley: California. p. 32-54.
33. Chamberlain, M. and K. Barclay, *Psychosocial costs of transferring women from their community for birth*. Midwifery, 2000. **16**(2): p. 116-22.
34. ICM, *The Philosophy and Model of Midwifery Care*. International Confederation of Midwives (ICM): The Hague.
35. Hatem, M., et al., *Midwifery-led versus other models of care delivery for childbearing women*, in *Issue 4*. 2008, The Cochrane Database of Systematic Reviews.
36. Herceg, A., *Improving health in Aboriginal and Torres Strait Islander mothers, babies and young children: a literature review*. 2005, Australian Government Department of Health and Ageing: Canberra.
37. Josif, C., et al., *Evaluation of the Midwifery Group Practice Darwin*. 2012, Midwifery Research Unit, Mater Medical Research Institute and Australian Catholic University: Brisbane.
38. ANMC, *National Competency Standards for the Midwife*. 2006, Australian Nursing and Midwifery Council: Canberra.
39. Grzybowski, S., J. Kornelsen, and N. Schuurman, *Planning the optimal level of local maternity service for small rural communities: A systems study in British Columbia*. Health Policy, 2009 **92**(2): p. 149-157.
40. Longman, J., et al., *Identifying maternity services in public hospitals in rural and remote Australia*. Australian Health Review. 38, 2014. **3**: p. 337-344.
41. Barclay, L., et al., *Reconceptualising risk: Perceptions of risk in rural and remote maternity service planning*. Midwifery, 2016. **38**: p. 63-70.
42. Queensland Government, *Midwifery models of care: implementation guide*. 2008, Queensland Government: Brisbane.

43. Joint Standards Australia / Standards New Zealand Committee, *Standard AS/NZS ISO 31000, Risk Management - Principles and Guidelines*. 2009, Standards Australia / Standards New Zealand: Wellington.
44. Dobbie, L. and Treasury Managed Funds, *Risk Assessment, Full Report*, L.D.S.R.M.C.V.I. Scheme, Editor. 2004, Ryde Hospital Maternity Services, Northern Sydney Health: Sydney.
45. Tracy, S.K., et al., *Caseload midwifery care versus standard maternity care for women of any risk: M@NGO, a randomised controlled trial*. The Lancet, 2013.
46. Craig, P., et al., *Developing and evaluating complex interventions: new guidance*. 2008, Medical Research Council.
47. Craig, P., et al., *Developing and evaluating complex interventions: The new Medical Research Council guidance*. International Journal of Nursing Studies, 2013. **50**: p. 585-592.
48. Stringer, E., *Action Research 3rd Edition*. 2007, London: Sage.
49. Creswell, J., W., and V. Plano Clark, L., *Designing and conducting mixed methods research*. 2007, London: Sage.
50. NHMRC, *Values and Ethics: Guidelines for Ethical Conduct in Aboriginal and Torres Strait Islander Health Research*. 2003, National Health and Medical Research Council: Canberra.
51. Sorensen, R., et al., *Addressing the gap in Indigenous health: Government intervention or community governance? A qualitative review*. Health Sociology Review, 2010. **19**(1): p. 20-33.
52. Martin, K., *The intersection of Aboriginal knowledges, Aboriginal literacies, and new learning pedagogy for Aboriginal students*, in *Multiliteracies and Diversity in Education New pedagogies for Expanding Landscapes*, A. Healy, Editor. 2008, Oxford University Press: South Melbourne. p. 58-81.

Appendix 1. Birthing on Country progress to date: Achieving the Actions of the National Maternity Services Plan

In 2010 AHMAC provided funding to MSIJC to commission a Literature Review of Birthing on Country⁴ drawing on international evidence. In 2011 further funding was provided to MSIJC to host a national workshop on Birthing on Country inviting key stakeholders, this took place on 4th July 2012 in Alice Springs.

Professor Sue Kildea undertook the literature review after being successful in winning the tender from the Sax Institute. A small advisory group was established in order to guide the work, the membership of which is outlined in the document.⁴ This group developed a definition of Birthing on Country that was adopted and guided both the scope of the literature review and the national workshop.

Birthing on Country was defined as: maternity services designed and delivered for Indigenous women that encompass some or all of the following elements:

- *are community based and governed*
- *allow for incorporation of traditional practice*
- *involve a connection with land and country*
- *incorporate a holistic definition of health*
- *value Indigenous and non-Indigenous ways of knowing and learning; risk assessment and service delivery*
- *are culturally competent and*
- *are developed by, or with, Indigenous people.*⁴

National Birthing on Country Workshop, 4th July 2012

The National Birthing on Country workshop was organised and hosted by MSIJC in collaboration with the Central Australian Aboriginal Congress (CAAC), a large and Aboriginal Community Controlled Health Organisation (ACCHO) in Alice Springs, Northern Territory. Key stakeholders participated from all states and territories' as well as Commonwealth representatives. Key Aboriginal and Torres Strait Islander people and organisation were present or represented, see the workshop report for a full list of participants', full report on proceedings and agreed actions of the day.⁵