Risk and childbirth in rural and remote Australia

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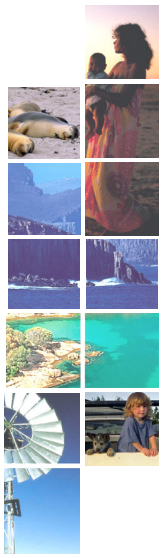
INTRODUCTION



Across Australia, comprehensive maternity services in rural and remote areas are becoming a scarcity and yet it is in these areas that the fertility rate is the highest[1]. Consultations suggest that many women, particularly Indigenous women, would prefer to give birth closer to home and many government sponsored documents recommend changing current models of care[2,3,4,5,6,7]. Nationally, maternity services are becoming centralised and yet internationally, studies have shown it is possible to improve birthing outcomes and consumer satisfaction when birthing services are provided in very remote areas.[8,9,10,11,12,13,14] Maintaining birth as a social event, is a central principle of these overseas models. The social risks for the women and their families who have to endure relocation for birth are often not considered in the risk equation performed by the policy makers and key professions. Women in Australia are demanding a different approach. They are uniting under the banner of the Maternity Coalition and in September 2002 released the National Maternity Action Plan (NMAP).[15] This document is calling for significant change in the delivery of maternity services across Australia.

At present in Australia the maternity workforce is in crisis. Midwives are choosing not to work in the current system, independent midwifery practitioners have lost their insurance cover, obstetricians are turning to gynaecology and reproductive medicine, and general practitioners are also choosing not to practice obstetrics. Providing the service women are demanding will involve strong leadership and the restructuring of current services. Paradoxically these changes could prove to be cost effective; improve maternity outcomes and satisfaction; require less skilled staff working in a flexible model of care; and, attract practitioners to work in the rural and remote setting. These models are working in other countries but the question remains as to whether the Australian service providers will be willing to rise to the challenge. These issues will be explored in this paper.

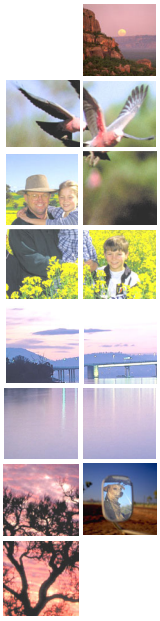
MATERNITY SERVICES IN RURAL AND REMOTE AREAS

Evidence suggests that the model of care available in rural and remote areas of Australia is not socially or culturally acceptable to women and their families, nor is it satisfying for the health care providers.[4,5,7,16,17] There is evidence to suggest some women are not accessing antenatal or intrapartum services in an attempt to avoid or limit their stay in a regional centre that is distant from their community.[5,7,18] Both Indigenous and non-Indigenous women often relocate many miles from home, sometimes staying with family in another state, this can cause financial hardship and social disruption.[4,5,7,16,18,19] Their partners and other children may be unable to join them for this important time in a family's life. This is of particular concern in those

areas where transport and accommodation, for both the woman and any support people she plans to have with her, have to be paid for by the individual.[5,7,18]

Despite a higher fertility rate, women in rural and remote areas have significantly less access to maternity services. Women in rural zones have fertility rates 12–20% higher than the women in capital cities. In remote zones, where there is a higher proportion of Indigenous women, the fertility rate is up to 40% higher than the capital cities.[1] The current policy determining service provision across Australia is that women should relocate to regional centres for the birth of their babies. Most remote areas do not have the infrastructure or the workforce to support on-site birthing and rural areas are loosing these services at a rapid rate. These policies have been a conscious decision of progressive governments across all states and territories despite many government sponsored consultations making recommendations to the contrary.[2,3,6,7,17,19,20,21]

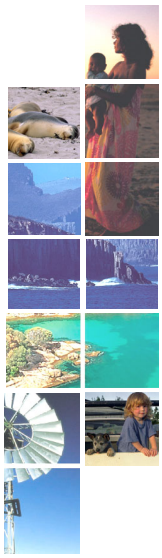
Consultations with Indigenous women from rural and remote areas have occurred in several states and territories and the recommendations are very similar. Women highlight the importance of personal safety, both in birth and when awaiting birth in the regional setting.[4,7,19,20,22] Many Indigenous women would prefer to birth "on their own country".[4,5,7,16,19,22] Some women feel that their relationship to the land, established through the birthing experience, is vitally important to their culture and may be compromised by birthing in hospitals where many do not feel "culturally safe" when experiencing a "western medical model" of childbirth.[4,5,7,16,20,22] Women state they do not like to be away from their children for weeks at a time and this is a cause of great stress and worry.[4,7,22,23] Women also state that the relationship of the new baby with its siblings and father would be better if they were nearby for the birth. Apart from the trauma of separation from their mothers, evidence suggests siblings can get jealous when their mother has been away from home, sometimes for many weeks, and returns with a new baby. Most women do not have the capacity to arrange support in labour from someone they know as both the costs and logistics involved make it prohibitive.



The above mentioned points are not often included in the "risk equation" that decides where a woman should give birth. Key decision makers and health bureaucrats believe it is "safer" for women to birth in regional settings, though even some of these are starting to downgrade leaving the urban centres as the only choice. When discussing risk it is also necessary to look at what "safety" means in the context of birth in Australian hospitals in general. Australia has one of the highest caesarean section rates in the developed world and intervention in labour is high by international standards.[3] The World Health Organization (WHO) recommends a caesarean section rate of 5–15% in the developed world.[24] Although this may be considered broad the latest Australian figures available show the rate was 21% in 1999, which is significantly higher than the upper level of 15% recommended by WHO.[25] Caesarean births are not without risks, two studies have shown the death rate for women having an elective caesarean birth to be approximately three to four times higher than that for vaginal births (RR 3.8[26], and RR 3.5[27]). Further estimations from the United Kingdom show that maternal mortality is six times greater for women having a caesarean birth when compared to a vaginal birth (8.8 times higher for emergency caesareans and 2.8 times for elective caesarean) using 1994–96 data.[28] Additionally there are increasing reports of higher levels of maternal morbidity, decreased maternal satisfaction and postnatal depression associated with operative births, and subsequent births show increased rates of ectopic pregnancy, haemorrhage

and hysterectomy, to name a few.[29,30] Perhaps the most significant risks come with subsequent caesarean births where placenta accreta, previa, ruptured uterus, hysterectomy and maternal death are all more likely to occur.[31] It is possible that the lack of: culturally safe models of care; absence of interpreter services, particularly for many Indigenous languages; no social support in labour; and lack of one to one care in labour, continuity of care and midwifery models of care all lead to hospitals being "risky" places for some women to give birth. Furthermore, questions are beginning to be asked about the increase in maternal mortality in the last Australian triennial report.[32] We are all eagerly awaiting the 1997–99 Maternal Mortality Report to see if the latest rise in direct maternal deaths was simply an aberration, or worst-case scenario, the beginning of a trend.

INTERNATIONAL COMPARISONS



National and international research demonstrates how community based birthing facilities, some in very remote areas, can offer a safe and viable alternative to the routine transfer of women to hospitals. In North America, services have been provided in rural and remote regions for the Navaho Indians for many years (cited in[22]). A recent historical cohort study performed over a five-year period in America produced a most convincing argument for birthing in rural areas that do not have on site theatre facilities.[8] All births of greater than 20 weeks gestation from the Zuni-Pueblo and Ramah Navaho communities in New Mexico were included in the study population.[8] There were a total of 1,137 births from 1992 to 1996 and the health outcomes for this group of women were equivalent to or better than the national health outcomes despite a higher risk population. Antepartum screening resulted in 26% (n=290) of women being transferred to other hospitals reasons included: complications requiring induction, preeclampsia, diabetes, postdates, malpresentation, multiple gestation and other complications. Intrapartum screening criteria resulted in a further 9.5% (n=107) of transfers during labour mostly for induction, augmentation, non-reassuring fetal heart rate or malpresentation. The results for all women, including those who were transferred, show significantly better rates when compared to the national rates in 1996: caesarean section rate (7.3% vs. 20.7%), operative vaginal birth rate (5.4% vs. 9.4%), induction rate (13.8% vs. 16.9%) and augmentation rate (7.7% vs. 16.9%) perinatal mortality rate (11.4 vs 12.8/1000 in 1991).[8] This study examined the outcomes of each of the emergencies that had occurred to see if caesarean facilities onsite may have improved outcomes. They concluded that no women had adverse outcomes as a result of not having on-site caesarean facilities; and, guidelines to allow women the option of birthing in rural units should be developed.[8] Although the nearest caesarean facilities are only 40 minutes away all urgent transfers had their caesarean births many hours after arriving at the centre with no poor outcomes noted.[8]

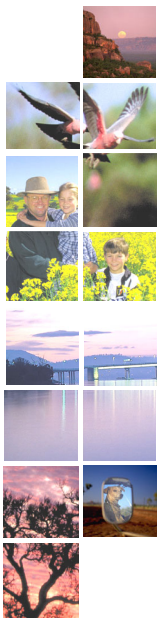
In British Columbia the peak organisations involved in maternity services recommend:

> Rural hospitals should, within a regionalised, integrated risk management system, offer maternity care to a low-risk population. The evidence suggests that a local, rural maternity service, even if limited in scope, offers better outcomes than no maternity service. While anaesthetic and surgical services are desirable, the available evidence suggests that good outcomes can be sustained without local access to operative delivery.[33]

A Canadian panel estimated that in Canada, over 125 hospitals do not have operative birth facilities, and yet still offer obstetric care.[8] It seems that these are the facilities that are most at risk of closing in Australia today.

In the North West Territories of the Canadian Artic dissatisfaction with the policy to fly out all pregnant women, concerns about land rights and both community and political pressure led to a pilot birthing project for low risk women.[9,12] The study compared Rankin Inlet, which established a birthing centre for Inuit women, with another community, which followed the current policy of flying women to regional centres for birth.[12] The study examined the safety of births, the costs and the psychological needs of the families of 100 women over a 12-month period (1995–96). The overall conclusions suggested that birthing in isolated areas, managed by experienced midwives, could be a safe, culturally sensitive, satisfactory event for the midwives, the women and their families.[12] This service is still available today.

Another example comes from the remote town of Puvirnituq, also in the Northwest Territories, where, in 1986, the community members reclaimed birthing.[14] This centre services seven remote villages and on-site training for Inuit midwives, who have been chosen by their communities, is provided.[11] Nellie Tookalak has been a community midwife since commencing her training in 1991. When talking about the return of birthing to their community she particularly mentions the regaining of dignity and self-esteem, and the fact that once again, the community trust their own people.[10] Nellie lives four hours by plane to the nearest obstetric services, and states that the perinatal mortality rate has fallen (8.6% to 3.6%) based on the almost 1,500 births (total births for the community) that have occurred since it opened.[10] The inductions have halved; episiotomies have decreased from 49% to 3.5%; transfer rate for births has decreased from 91% to 9.4% (most of these are transferred following risk assessment during pregnancy); and they have a 2.4% caesarean section rate (including the women who have been transferred which compares to the Quebec rate of 26.8%).[11] The Puvirnituq midwives have managed antepartum haemorrhages, cord prolapse, twins and breech all with good outcomes, stating these are all the things they told us we would die from when we set up this program.[10,34] Furthermore, they have found women having their first babies do not appear to have any greater risks than women having subsequent births. Another remote community, Inukjuak, which is smaller than Puvirnituq, also commenced both on-site birthing and training of midwives in 1990.[10]

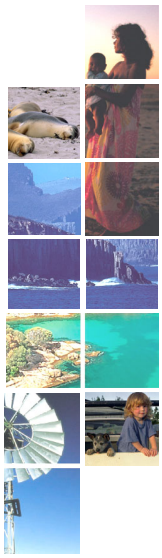


In New Zealand, rural and remote maternity guidelines emphasise a model of "lead maternity carer" (continuity of care), guidelines for referral, and additional skills for managing unpredictable emergencies in the remote areas.[35] They recommend careful risk factor analysis and suggest that the average time from onset of an obstetric complication to death is 12 hours, thus enabling birth in the remote setting with time for referral and transportation to a tertiary setting if needed. The New Zealand Guidelines highlight post partum haemorrhage as an exception to this stating it can cause death within two hours, though they note it is one emergency that responds to first aid in the primary setting.[35] Experienced rural and remote maternity service providers will be able to think of rare emergencies that may have had a better outcome in a larger centre, but the benefits of providing care in these areas could outweigh these rare occurrences. Importantly, many women have stated as much.[4,5,7,16] Discussing the risks and benefits of birthing in centres that do not have onsite

caesarean facilities, with the individual women and their families to ensure they understand the situation, must be a priority in these models of care.

BARRIERS TO SERVICE PROVISION IN RURAL AND REMOTE AREAS

Although it may be preferable, there are many barriers to providing safe and comprehensive maternity services in the rural and remote areas of Australia. There is currently both a national and international shortage of midwives in the workforce although the national data on midwives who are actually practicing in the field is notoriously difficult to find.[36,37,38,39,40,41] What can be interpreted from the data is that many registered midwives in Australia are choosing not to work in midwifery and as many as 30% of new graduates in one NSW study chose not to enter the profession following completion of their training.[40,42] Like nursing, the midwifery workforce is ageing and Australia is not currently educating the appropriate numbers to fill the gaps.[40] Evidence suggests that shortages in the urban areas are exacerbated in the rural and remote areas where managers are finding it more difficult to recruit staff than ever before.[37,38] The situation in many of the remote Health Centres is reaching a critical level. Some communities do not have trained resident providers of maternity care but rely on fly in and fly out service provision every week or fortnight.[7, 43] Women are receiving antenatal care from professionals who have not had specific training in midwifery or obstetrics, or have attended very short courses on these subjects. This type of care should not be acceptable in a first world country.



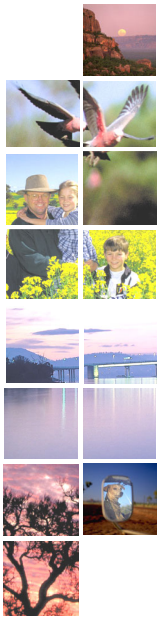
Other barriers affecting service delivery include the current medical indemnity crisis; the withdrawal of indemnity insurance for midwives; models of care that do not suit the workforce and are not following international trends and evidence; and the isolated nature of providing clinical services in remote areas, with reduced access to additional expertise, education and resources.[1,2,21,40,44,45] Recent Australian research has identified: the medical model of childbirth services; midwives needing to work as nurses; under utilisation of the midwifery role; the invisibility of midwifery; and a lack of autonomy; all contribute to: an inability to practice within the full scope of the midwives role; loss of skills; decreased job satisfaction; and, high attrition levels within the profession.[46]

Midwifery is not the only profession in this situation. There is a declining number of General Practitioners who are willing to practise obstetrics.[6] A questionnaire answered by 220 GPs in Victoria showed 78 had ceased or were planning to cease practicing obstetrics.[47] Reasons cited for this were personal/family reasons (36%), rising insurance premiums (16%), unexpected emergencies (10%) and lack of remuneration (8%) along with the closure of the local hospital, difficulty in maintaining skills and the stress of always being on call.[47] Additionally the majority of specialist obstetrical services are located in urban areas of Australia. Sixty one percent of Divisions of General Practice in rural areas identified a shortage of Obstetricians and Gynaecologists in their area.[48]

CONTINUITY OF MIDWIFERY CARE IN THE RURAL AND REMOTE SETTING

Based on the above information the provision of comprehensive community based maternity care in the rural and remote setting at times seems unattainable. This is not necessarily the case. Changes in the organisation of services will need strong leadership, collaboration between practitioners, consumer involvement and ongoing management commitment. Australian studies have shown that reorganising services to provide continuity of care can been successfully achieved and produce cost savings.[49,50,51] Homer et al (2001) undertook a comparison of hospital based standard care with community-based continuity of care provided collaboratively by midwives and obstetricians. In this study women receiving community based continuity of care had: significantly reduced caesarean section rates; lower numbers of admissions to the neonatal nursery; a higher perceived "quality" of antenatal care with less waiting time; and, the mean cost of providing care was significantly lower: $2,579 verses $3,483 per woman.[49,52,53] Provision of continuity of care and birthing services in the rural and remote setting could see many of the advantages that have been found in international studies.[8,10,11,12,13,14] Financial savings, psychosocial benefits and improved clinical outcomes with lower intervention and transfer rates have all been demonstrated.[8,10,11,12,13,14]

The concept of a social model of childbirth is not new, and in many countries it still exists.[54] Under a social "women focused" model women are cared for holistically and social support throughout the pregnancy, birth and post natal period is seen as more important than the short, clinical checks that seem to typify antenatal care in Australia. Women would be cared for locally if at all possible and continuity of midwifery care, community based care, one to one care in labour, social networks and family would all be the focus rather than the screening, risk assessment, technology and clinical focus that is ever present today.[54] Modern trends in childbirth are seeing rising levels of intervention, specialisation, operations and complications but as Johanson et al[55] ask: has it gone too far? Providing maternity services using a social model of care is possible for both low and high risk women, in fact evidence suggests outcomes for high risk women, and their level of worry, both improve when they receive continuity of care.[50,56,57] In the rural and remote setting these models may have far reaching effects for the community and it can be done. There are already some areas, in both rural and remote Australia, that are providing, or planning to provide, innovative models of care.[58]



CONCLUSION

As midwifery and maternity services progress through such dynamic times it will be interesting to see how rural and remote areas are affected and respond. If they follow current trends, and services continue to scale down, then women will need to travel greater distances to access care during pregnancy and childbirth, a normal life event by anyone's estimation. However, as often is the case in times of change, there are great opportunities for innovative leadership to develop models of care that are recommended in many government documents and are showing great success internationally and in some settings nationally. It is time to listen to women and respect their ability to juggle a variety of risks and make decisions based on their own

specific needs, rather then imposing ideas and services that suit both the professions and the system.

It is suggested that offering comprehensive continuity of maternity care in selected rural and remote settings could: drive changes in the organisation of care; attract midwives back to the workforce; be cost effective; improve maternity outcomes and satisfaction; require less skilled staff working in a flexible model of care; and, attract innovative practitioners and students to work in the rural and remote setting. Such initiatives need to be driven by consumers and can only be achieved with appropriate support, resources and ongoing education for the service providers. I urge rural and remote Australians to act without delay or hesitation, as the Inuit in the remote Canadian Artic did, to regain their birthing services before it is too late.

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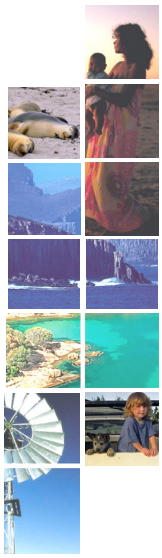

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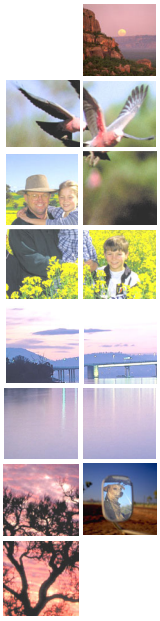
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