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The closure of rural and remote maternity services: Where are the midwives?

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ABSTRACT

Decisions to close small maternity units in rural and remote communities have often precipitated a community response as women and families rally to save local services. But where are the midwives? We argue here that professional bodies such as colleges of midwives have a responsibility to advocate more strongly at a political level for evidence-based decisionmaking regarding the allocation of rural services.

We suggest that adopting a comprehensive definition of maternity services risk that considers both social and health services risks and their impact on clinical risk, could provide a solid basis for effective advocacy by professional bodies.

Introduction

Decisions to close small maternity units in rural and remote communities have often precipitated a community response as women and families rally to save local services. But where are the midwives? We argue here that professional bodies such as colleges of midwives have a responsibility to advocate more strongly at a political level for evidence-based decision-making regarding the allocation of rural services. We suggest that adopting a comprehensive definition of maternity services risk that considers both social and health services risks and their impact on clinical risk, could provide a solid basis for effective advocacy by professional bodies.

Our recent research on rural and remote maternity services in Australia (Longman et al., 2014, Barclay et al., 2014) and British Columbia (Grzybowski et al., 2011) has made us rethink'risk'. In the course of research in both jurisdictions, we have observed the closure of small rural birthing services, ostensibly as a way to address the perceived clinical risks of birthing in the absence of immediate access to caesarean section. It appears that health service managers and policy makers have privileged a narrow definition of individual clinical risk, arguably non-evidence or probability based, when making service planning decisions. Our data demonstrates that the closure of services is also associated with significant social and health service risks that in turn exacerbate avoidable clinical risk. We therefore propose a comprehensive maternity service risk analysis that examines social risk and health service risk resulting from the closure of services as well as evidence-based interpretation of clinical risk for planning services in rural and remote communities.

Our proposition

A comprehensive maternity service risk analysis includes the cultural, emotional and financial risks to rural families and communities associated with travelling to receive maternity care. These risks are well-documented (Chamberlain and Barclay, 2000; Kornelsen and Grzybowski, 2005; Deitsch et al., 2008), but currently unrecognised at a health system level. It also considers the legal, ethical and financial risks to the health system of closing services (Chamberlain and Barclay, 2000, Klein et al., 2002) and applies a realistic assessment of the probability of clinical risk caused by biophysical problems in mother, fetus or infant (Justus Hofmeyr et al., 2005, Phelan and Holbrook, 2013, Bateman et al., 2010).

A comprehensive analysis of maternity service risk must also consider the *avoidable* clinical risks that arise from the closure of services. Our data suggests that to avoid the family distress and costs of 'forced' transport to a regional centre, many women do not

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report pregnancy (Ireland, 2009). They avoid antenatal care so they will not be recognised by the system and, consequently, appear very late in labour to give birth in a setting neither prepared nor staffed for a birthing service (Ireland, 2009, Kruske et al., 2008, Steenkamp et al., 2010). The non-identification of biophysical complications in mother or fetus because of the absence of antenatal care means the risks attached to the pregnancy and sometimes the birth itself are higher than they would be otherwise (Ireland, 2009). Even women who do not take this course of action become disadvantaged and suffer risk of distress due to family separation (Kornelsen and Grzybowski, 2005). The rate of unplanned out of hospital births has also increased in parallel with the closure of services in Australia (Kildea et al., 2015) and British Columbia (Grzybowski et al., 2011).

While many rural communities have been vocal in their opposition to rural maternity service closures, the voices of midwives and their professional organisations have been too often silent. Midwives are arguably the best-suited clinicians to work in low-resource settings with their preparation for home birth deliveries and experience in detecting risk factors that would require transfer to a higher level of care (Monk et al., 2014, Dixon et al., 2012). Understandably, an individual midwife or a small town service has difficulty standing up to or resisting pressures from regional bureaucracies and managers. However, professional bodies representing midwives have a responsibility to advocate more strongly at a political level for better evidence-based decision-making regarding the allocation of rural services. We have had a strong history as midwives of advocacy for choice in birth in urban settings where many options, often midwife led, are available. We can be guided by innovative thinking such as the framework suggested in the Irish Maternity Care strategy, clearly focused as it is on the needs of childbearing women and within a service delivery model that prioritises choice and interdisciplinary care (An Roinn Slainte Department of Health. Creating a Better Future Together: National Maternity Strategy 2016–2026).

Advocacy through midwifery organisations can demonstrate, using rigorous evidence that is peer-reviewed and in the public literature, that *no birthing services* is the least safe option for rural and remote communities (Grzybowski et al., 2011, Kornelsen and Grzybowski, 2005). This is where those midwives who have worked to establish and sustain practices in low-resource rural settings can be a valuable asset in the movement to retain local services. However, politically and strategically, midwives need to speak out and use their advocacy as a tool to effect system change. This involves close integration with the community of birthing women to ensure their preferences are being represented and the support of rigorous evidence on safety and costs.

We do have examples of midwife led primary units surviving in rural Canada, Australia and New Zealand with excellent outcomes (Van Wagner et al., 2012; Kruske et al., 2015; Kornelsen and Ramsey, 2015; Dixon et al., 2012). The data is sparse, however, compared with the excellent work that has been done on evaluating primary maternity units led by midwives in more urban populations (Monk et al., 2014; Rogers et al., 2010; Birthplace in England Collaborative Group, 2011). Researchers can help here, with studies that assist to generate this evidence as we have done in relation to home birth and primary units in cities. Although rural units are still not the norm and many have closed in the past two decades, evaluation research shows us that they do demonstrate excellent outcomes, in some cases better than urban outcomes for the same population (Kruske et al., 2015; Kornelsen and Ramsey, 2015). Midwife researchers can help investigate and evaluate new models alongside policy makers and senior clinicians to develop services that are efficient and manage remote living women's needs better than currently (Bar-Zeev et al., 2012; Barclay et al., 2014). This may include cohort studies examining the outcomes of rural midwifery-led services alongside rural physician-led services in enough detail to capture service quality indicators such as transfer times and rates, qualitative data on consultations with higher levels of services. Data should also capture the proportion of the population who remain in the care of the local service as a key outcome. Further studies within a comprehensive programme of research may include those evaluating the efficacy of risk screening to identify the appropriate population likely to succeed in a local service and on-going community-based research regarding the success of the service in meeting local needs. Alongside primary research, however, we must also prioritise the systematic collection, review and uptake of evidence that has been generated in jurisdictions with comparable geography, population demographics and health service delivery context.

In the UK and Australia excellent outcomes from urban based primary units together (Rogers et al., 2010; Birthplace in England Collaborative Group, 2011) with midwife advocacy have been influential in increasing options for choice in cities, for example, publicly funded home birth, midwife run primary units and birth centres. Likewise, comprehensive evaluations of home birth outcomes in British Columbia have demonstrated safe care (Janssen et al., 2009). Midwives have been effective in getting improvements for women based on this excellent research.

It's time that midwives provided the same level of advocacy for rural services. This kind of political advocacy is best done at a professional organisation level, and it will not be easy. Theoretical explanations of risk are very helpful (MacKenzie Bryers and Van Teijlingen, 2010; Cheyne et al., 2012) and provide a view of what is happening, but they are insufficient to change systems – we need action. Further, it is the role of the research community to continue to develop evidence that Colleges and others can use for their advocacy on behalf of rural or remote living women.

The systems for designing rural and remote services in Australia are out-dated. In Australia, we have seen too little midwifery clinical governance and too many combined models of care where a midwife works as a nurse, under nursing leadership only available to do midwifery occasionally. This is because we are not using a caseload model sensibly to manage the lower numbers that exist in dispersed populations. Similarly, the clinical governance that midwives receive working in rural and remote Australia is poor or frequently absent altogether. Often midwives' managers are nurses with little or no midwifery experience. Networking through larger centres where a midwife consultant might provide leadership for small centres is uncommon but should be routine. A similar system should operate for general practitioners running primary maternity units. Most often in our data they, again, are isolated and lack clinical governance from obstetric colleagues.

In British Columbia, under an autonomous model of care that supports choice in place of birth as a fundamental right of women, challenges are not as much around governance but rest in the difficulty with a course-of-care billing model that requires adequate volume to be financially viable. Often in rural BC the population is widely dispersed, requiring significant travel by the care provider for a low volume of births. Like models supporting rural physicians in low-volume settings, we need to move to an Alternative Payment model for midwives that acknowledges the volume of work involved in caring for potentially disadvantaged populations in low resource settings.

Reconceptualising risk within the political context noted can help us as a midwifery profession put pressure on a system that seriously disadvantages rural and remote childbearing women and families. As a profession we need to advocate and support the rights and needs of rural women and assist and enable our professional bodies to do this.

The publications are just beginning to come out of the study in

Australia, conducted jointly with Canadian colleagues, which confronted us with this need to reconceptualise risk. However, we cannot be silent or wait longer to act on a comprehensively defined maternity services risk for rural and remote women; we have been silent too long.

Conflict of Interest

This is our original work and owned by the Authors.

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References

Barclay, L., Kruske, S., Bar-Zeev, S., Steenkamp, M., Josif, C., Narjic, C.W, et al., 2014. Improving Aboriginal maternal and infant health services in the'Top End'of Australia;synthesis of the findings of a health services research program aimed at engaging stakeholders, developing research capacity and embedding change. BMC Health Services Research 14, 241. http://dx.doi.org/10.1186/1472-6963-14-241.

Bateman, B.T., Berman, M.F., Riley, L.E., Leffert, L.R., 2010. The epidemiology of postpartum hemorrhage in a large, nationwide sample of deliveries. Anesthesia & Analgesia 110, 1368–1373.

Birthplace in England Collaborative Group, 2011. Perinatal and maternal outcomes by planned place of birth for healthy women with low risk pregnancies: the Birthplace in England national prospective cohort study. British Medical Journal 343, d7400.

Bar-Zeev, S., Kruske, S., Barclay, L., Bar-Zeev, N., Carapetis, J., Kildea, S., 2012. Use of health services by remote dwelling Aboriginal infants in tropical northern Australia: a retrospective cohort study. BMC Pediatrics 28, 12–19.

Chamberlain, M., Barclay, K., 2000. Psychosocial costs of transferring indigenous women from their community for birth. Midwifery 16, 116–122.

Cheyne, H., Dalgleish, L., Tucker, J., Kane, F., Shetty, A., McLeod, S., et al., 2012. Risk assessment and decision making about in-labour transfer from rural maternity care: a social judgment and signal detection analysis. BMC Medical Informatics and Decision Making 12, 122.

Deitsch, E., Davies, C., Shackleton, P., Alston, M., McLeod, M., 2008. 'Luckily we had a torch': Contemporary Birthing Experiences of Women Living in Rural and Remote NSW. Charles Sturt University, Bathurst, NSW.

Dixon, L., Prileszky, G., Guililand, K., Hendry, C., Miller, S., Anderson, J., 2012. What evidence supports the use of free-standing midwifery led units (primary units) in New Zealand. New Zealand College of Midwives Journal (46), 13–20.

Grzybowski, S., Stoll, K., Kornelsen, J., 2011. Distance matters: a population based study examining access to maternity services for rural women. BMC Health Service Research, 11–147.

Ireland, S., 2009. *Niyith Niyith Watmam* the Quiet Story: Exploring the Experience of Aboriginal Women who Give Birth in a Remote Community in the Northern Territory. Charles Darwin University, Darwin, NT.

Janssen, P.A., Saxell, L., Page, L.A., Klein, M.C., Liston, R.M., Lee, S.K., 2009. Outcomes of planned home birth with registered midwife versus planned hospital birth with midwife or physician. Canadian Medical Association Journal 181, 377–383.

Justus Hofmeyr, G., Lale Say, Metin Gülmezoglu, A., 2005. Systematic review: WHO systematic review of maternal mortality and morbidity: the prevalence of uterine rupture. BJOG: An International Journal of Obstetrics & Gynaecology 112, 1221–1228.

Kildea, S., McGhie, A., Gao, Y., Rumbold, A., Rolfe, M., 2015. Babies born before arrival to hospital and maternity unit closures in Queensland and Australia. Women and Birth 28 (3), 236–245.

Klein, M., Johnston, S., Christilaw, J., Carty, E., 2002. Mothers, babies, and communities. centralizing maternity care exposes mothers and babies to complications and endangers community sustainability. Canadian Family Physician 48, 1177.

Kornelsen, J., Grzybowski, S., 2005. The Costs of separation: the birth experiences of women in isolated and remote communities in British Columbia. Canadian Women Studies Journal 24, 75–80.

Kornelsen, J., Ramsey, M., 2015. Maternal and newborn outcomes in a rural midwifery-led maternity service in British Columbia: a retrospective chart review. Canadian Journal of Midwifery Research and Practice 13, 8–17.

Kruske, S., Kildea, S., Barclay, L., 2008. Cultural safety and maternity care for Aboriginal and Torres Strait Islander Australians. Women and Birth 19, 73–77.

Kruske, S., Schultz, T., Eales, S., Kildea, S., 2015. retrospective, descriptive study of maternal and neonatal transfers, and clinical outcomes of a Primary Maternity Unit in rural Queensland, 2009–2011. Women and Birth 28, 30–39.

Longman, J., Pilcher, J., Donoghue, D., Rolfe, M., Kildea, S., Kruske, S., et al., 2014. Identifying maternity services in public hospitals in rural and remote Australia. Australian Health Review 38, 337–344.

MacKenzie Bryers, H., Van Teijlingen, E., 2010. Risk, theory, social and medical models: a critical analysis of the concept of risk in maternity care. Midwifery 5, 488–496.

Monk, A., Tracy, M., Foureur, M., Grigg, C., Tracy, S., 2014. Evaluating Midwifery Units (EMU): a prospective cohort study of freestanding midwifery units in New South Wales, Australia. BMJ Open 4, e006252.

Phelan S., Holbrook D., 2013. Umbilical cord prolapse: a plan for an obstetric emergency. In James M., Alexander, (Eds.) Obstetric Emergencies, An Issue of Obstetrics and Gynecology Clinics, vol. 40.

Rogers, C., Pickersgill, J., Palmer, J., Broadbent, M., 2010. Informing choices: outcomes for women at a stand-alone birth centre. British Journal of Midwifery 18, 8–15.

Steenkamp, M., Bar-Zeev, S., Rumbold, A., Barclay, L., Kildea, S., et al., 2010. Pragmatic indicators for remote Aboriginal maternal and infant health care: why it matters and where to start. Australian and New Zealand Journal of Public Health 34, S5–S8.

Van Wagner, V., Osepchook, C., Harney, E., Crosbie, C., Tulugak, M., 2012. Remote midwifery in Nunavik, Quebec, Canada: outcomes of perinatal care for the Inuulitsivik health centre, 2000–2007. Birth 39; , pp. 230–237.