

## **Rural and Remote Maternity Care**

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## Background

Rural and remote maternity care in Canada is currently provided through several different models (1,2). Intrapartum services are often delivered by care teams that are led by family physicians, nurses, and midwives. While some care teams function without operative backup, other communities have local backup provided by obstetrician-gynecologists, general surgeons, family physician-anesthetists, and/or family physicians with surgical training. In more remote locations, care may be provided solely by nurses and/or midwives. Many rural and remote communities do not have access to intrapartum services at all.

Access to intrapartum care in rural Canada has been declining steeply over the last 30 years. In 2013, the Canadian Institute for Health Information reported that 17% of rural Canadian women had to travel more than 2 hours to access intrapartum care (3). The decline in rural maternity services is multifactorial with communities citing challenges such as: recruitment and retention of physicians and staff, loss of physicians able to perform Caesarean sections, and reluctance to provide services without available C-section backup (4–6). Physician attrition has been attributed to heavy call schedules, interruption of office schedules, lack of skills training, lack of anesthesia and nursing support, rising malpractice insurance fees, and poor financial compensation (7–9). Moreover, a decline in birth rates over the last few decades has led to physicians withdrawing from intrapartum care provision due to concerns around maintenance of competence (10). Furthermore, increased medicalization of childbirth has caused a shift in the role of low-risk maternity care towards specialists (11). Underscoring all of these factors are cuts to financial resources driving a centralization of medical services (10,12).

Although substantial variability exists between rural health regions, rural residence is associated with reduced socioeconomic status: parturients are more likely to reside in deprived neighbourhoods, to have increased parity, and to deliver as teenagers—factors associated with poorer obstetrical outcomes (3). From a geographical perspective, increased distance to intrapartum care is also associated with adverse maternal and neonatal outcomes, including: significantly increased rates of perinatal mortality, NICU admission, preterm delivery, large for gestational age infants, severe maternal morbidity and mortality, and unplanned out-of-hospital delivery (3,13).

In addition to objective measures of adverse outcomes, qualitative research has highlighted psychosocial detriments of limited access to prenatal and intrapartum care in rural settings (14). Rural poverty is an oft-underappreciated determinant in rural women's health. Expenses associated with travel to distant services can lead to a lack of prenatal appointment attendance, cutting short hospital stays, or inability to access other services, such as prenatal classes or lactation consultants. Many women experience feelings of loss of control and uncertainty around their delivery due to forced travel or sporadic availability of local services (6,14). Furthermore, changes in service provision may not be adequately communicated to the community, resulting in poor uptake of available services, and feelings of mistrust around the loss of previously-available services (4,5,14). Challenges related to confidentiality in small communities raise an additional barrier to rural obstetrical care, emphasizing the need for open and sensitive conversation between providers and patients (14). Overall, this increased psychosocial stress in pregnancy has been linked to adverse outcomes, including preterm delivery (6,15,16).

In remote communities without maternity services, women are often advised to leave the community as early as 36 weeks gestation, to account for unpredictability of transportation and potential for emergency situations (5,6). Indigenous women are disproportionately impacted by the need to travel to referral centres for intrapartum care. Although Indigenous women have access to travel subsidies for necessary medical services through First Nations and Inuit Health's non-insured health benefits program, this funding is often inadequate. Women frequently experience feelings of isolation as they are forced to leave their supportive community, family, children, and friends for long periods of time. In one community, only 50% of women could afford to bring a support person (5,6). Indigenous communities and families in turn experience a reciprocal loss by being deprived of the traditional celebration and understanding of childbirth, and immediate bonding with a new member. Long-term consequences of this specific loss have yet to be elucidated, but it is important that it be considered in the context of colonization of Canada's Indigenous peoples (17).

### **Potential solutions**

Although evidence regarding the safety of rural birth is limited, Canadian data suggest that rural intrapartum care for low-risk deliveries is acceptably safe (18–20). Moreover, concerns regarding the requirement of a specific volume of deliveries in order to maintain competence may be unfounded, as data demonstrate that family physicians with low-volume obstetrical practices in a large urban teaching centre have no increased risk of adverse maternal and neonatal outcomes, provided they can consult with specialists (21). The Society of Obstetricians and Gynaecologists of Canada, in partnership with the College of Family Physicians of Canada and the Society of Rural Physicians of Canada, have endorsed this finding (22). These data, when combined with the detriments of a loss of obstetrical services, strongly support the provision of rural and remote intrapartum care.

A number of models have been proposed to optimize obstetrical service provision in rural and remote communities. Addressing a major reason for physician attrition from providing obstetrical services, several rural communities have successfully adopted a rotating shared call schedule between physicians to improve lifestyle, while maintaining patient satisfaction (7,23). Interprofessional team-based care models have also been proposed, comprising physicians, nurses, and midwives (1). These models are a current focus of the Society of Obstetricians and Gynaecologists of Canada, and are considered critical for the sustainability of rural obstetrical care (2,24). Finally, in the most remote regions, low-risk obstetrics has been safely and successfully delivered by midwives and nurses (25–27). Midwifery, in particular, plays a critical role in returning community-based, traditional, sustainable, low-risk birthing services to Indigenous communities (2,28).

Local births will not be feasible for all communities or for all women. However, adequate funding for travel and living expenses, and institution of appropriate resources in referral communities can minimize psychosocial stress and make the birth experience away from home as comfortable as possible. For remote Indigenous women, proactive ways to improve the referral experience include assembling supports in the referral community, bringing family members when possible, and returning home as soon as possible (5). Referral communities should aim to provide holistic care beyond the “medical event” of childbirth: ensuring affordable access to nutritious food, welcoming family support through

adequate accommodations, providing funding for doulas, identifying cultural liaison support, and creating space for celebration of the spiritual and emotional aspects of childbirth (4,5). Finally, care providers in referral centres should be contextually and culturally sensitive to the psychosocial stress imparted by travel from the home community for childbirth.

## Principles

1. Healthcare is a basic human right.
2. Accessibility and universality are core features of the Canadian healthcare system.
  - Significant inequalities exist in access to healthcare for rural and remote residents of Canada, leading to poorer health outcomes overall. All women residing in Canada (including Canadian citizens, First Nations, Inuit and Metis peoples) deserve access to quality maternity care irrespective of their geographic location within the nation.
3. Maternal healthcare is of key importance in sustaining the health of a population.
  - Maternal health has been a global priority for the World Health Organization since 2005, as women are critical to the health and economic stability of societies. Investing in maternal health has been demonstrated as a cost-effective means to improve a community overall (29).

## Recommendations

1. **Prioritize awareness of and support for rural practice.**
  - Engage the CFMS Vice-President of Global Health, National Officer of Global Health Education, National Officer of Indigenous Health, and National Officer of Reproductive and Sexual Health to promote training and awareness of rural obstetrical practice at all medical schools. For instance, Global Health Committees, Rural Medicine Interest Groups, and Women and Children's Health Interest Groups can be encouraged and aided in organizing speaker events, information sessions, and mentorship opportunities to support medical student engagement and increase awareness of rural health inequalities.
    - Interest in practicing rural medicine is associated with higher interest in providing obstetrical care among family medicine residents (30). Interest in rural medicine among medical students should therefore be fostered.
    - Given the multidisciplinary makeup of many maternity care teams, it is important that medical students interested in rural medicine be aware of advanced training opportunities relevant to intrapartum care. These include programs in family medicine-obstetrics, family medicine-anesthesia, and advanced surgical skills, and courses in Advances in Labour and Risk Management (ALARM) and Neonatal Resuscitation Program (NRP).

- Successful rural maternity services must be supported by specialist care at a referral (often urban) centre that is respectful, responsive, knowledgeable, and understanding of rural circumstances (1). Therefore, an understanding and appreciation of rural practice and Indigenous cultures is warranted even for students who intend to practice in large urban centres.

## **2. Organize mentorship of medical students interested in obstetrical and/or rural practice.**

- Utilize the National Officer of Reproductive and Sexual Health (NORSH) and the Local Officers of Reproductive and Sexual Health (LORSH) at each medical school to organize mentorship of medical students by physicians practicing rural obstetrical care.
  - A study of family medicine residents at the University of Toronto showed that interest in providing obstetrical care most commonly develops during clerkship. Although resident interest in providing obstetrical care declined over the course of residency, 33% of residents intended to provide care at the time of graduation. The most commonly cited reasons to avoid practicing obstetrics were lifestyle and compensation concerns. Residents with an initial interest in obstetrics or practice in a rural area participated in more deliveries during residency, and were most likely to maintain their intention to provide obstetrical care by graduation (30).
  - A discrepancy exists between family medicine residents' intentions to provide intrapartum care, and practicing physicians who provide. In 2012, 27.3% of residents intended to provide intrapartum care (31); however, 2010 data indicate that only 10.5% of family physicians provided care, with 2.2% of those intending to stop within two years (32).
  - These data and others (7) suggest a role for strong mentorship during medical school and residency in encouraging the provision of intrapartum services after graduation. This mentorship may be most effective for trainees already interested in rural practice and/or obstetrical care.

## **3. Encourage interprofessional collaboration between medical students and other healthcare professions as well as communities.**

- The sustainability of future rural maternity services will rely on an interprofessional, team-based approach to culturally sensitive care (2). Students should engage with other healthcare professions in the workplace to gain a better understanding of patient care roles and areas of expertise in order to promote a collegial atmosphere for future collaboration. Students should also be encouraged to engage with rural communities and Indigenous peoples in order to gain an appreciation of the individual and cultural needs of diverse rural and remote communities.

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