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# Rural maternity care services under stress: the experiences of providers

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**Introduction:** Between 2000 and 2004, 17 small rural maternity care services in British Columbia (BC) closed or were placed under moratoria. This paper explores the experiences of care providers in 4 rural BC communities that have lost or are at risk of losing their local maternity services.

**Methods:** We conducted qualitative, semistructured interviews and focus groups with 27 health care providers (doctors and nurses) and 3 administrators. The analysis used modified grounded theory. We chose 4 rural communities to include a diversity of characteristics, including community size, geography, distance to the nearest hospital capable of performing cesarean section, and cultural and ethnic subpopulations.

**Results:** Care providers identified significant stressors related to the provision of maternity care services, including the development and maintenance of competency in the context of decreasing birth volume, the safety of local maternity care without cesarean section and the desire to balance women's needs with the realities of rural practice.

**Conclusions:** Maternity care providers in small rural communities are experiencing stress due in part to the absence of evidence-based policy and planning for rural maternity care services. This stress may contribute to challenges in the retention of rural maternity care providers, thus risking the future of small rural maternity services.

**Introduction :** Entre 2000 et 2004, 17 petits services ruraux de soins en maternité de la Colombie-Britannique ont fermé leurs portes ou subi un moratoire. Cet article étudie les expériences des prestataires de soins dans quatre communautés rurales de la C.-B. qui ont perdu leurs services locaux de soins en maternité, ou qui risquent de les perdre.

**Méthodes :** Nous avons procédé à des entrevues semi-structurées qualitatives auprès de 27 prestataires de soins de santé (médecins et infirmières) et de trois administrateurs, et organisé des groupes de discussion avec eux. Pour l'analyse, nous avons utilisé la théorie à base empirique modifiée. Nous avons choisi quatre communautés rurales pour inclure des caractéristiques diverses, y compris la taille de la communauté, la géographie, l'éloignement de l'hôpital le plus proche capable de pratiquer une césarienne, et les sous-populations culturelles et ethniques.

**Résultats :** Les prestataires de soins ont signalé d'importants facteurs de stress liés à la prestation de services de soins en maternité, y compris l'acquisition et le maintien de la compétence dans le contexte d'une réduction du volume des naissances, la sécurité des services locaux de soins en maternité sans césarienne et la recherche d'un équilibre entre les besoins des femmes et les réalités de la pratique en milieu rural.

**Conclusions :** Les prestataires de soins en maternité dans les petites communautés rurales vivent un stress attribuable en partie à l'absence de politiques factuelles et de planification des services ruraux de soins en maternité. Ce stress peut contribuer aux défis posés par le maintien en poste des fournisseurs de soins en maternité en milieu rural, ce qui menace l'avenir des petits services ruraux de maternité.

## INTRODUCTION

Rural maternity care services are under stress in British Columbia (BC) and across Canada. Between 2000 and

2004, 14 small rural maternity care services in BC closed and 3 were placed under moratoria.<sup>1</sup> Similar closures occurred in Nova Scotia between 1970 and 2002, where 31 of 42 hospitals

ceased to provide maternity services.<sup>2,3</sup> In Ontario, 11 small hospitals that provided obstetric care in 1988 closed their services by 1995.<sup>4</sup> Some of these closures are the result of health care restructuring and the associated centralization of services.<sup>5</sup>

### *Health policy literature*

A comprehensive review of the health policy literature for BC from 1990 through 2003 provides little evidence of specific planning for maternity care services in general, and for rural maternity care services in particular.<sup>6</sup> This lack of direct policy attention to rural maternity care means that much of the decision making has occurred in an ad hoc manner in response to a local or regional sense of crisis. While there has not necessarily been an active dismantling of rural maternity services, there has nevertheless been a de facto policy direction toward decreased local access to services in cases of normal, low-risk birth.<sup>6,7</sup> This lack of policy direction for rural maternity care services has been further exacerbated by difficulty in the recruitment and retention of physicians, nurses and midwives to provide rural maternity services.<sup>8-11</sup>

### *Safety issues*

The safety of small rural maternity services has been a long-standing question, examined in a number of population-based studies using perinatal mortality rates as the key outcome measures.<sup>12-15</sup> Despite a number of large studies, there is no evidence-based consensus on safety. Large-scale studies in New Zealand<sup>16</sup> and Finland<sup>17,18</sup> that compare birth outcomes across regional catchment areas with different levels of local services indicate that within a regionalized system of care, perinatal mortality rates are similar across all service levels. However, a large study of neonatal mortality conducted in Norway between 1967 and 1996 by geographic hospital catchment area using the national birth registry for 1.7 million births, showed that population catchments surrounding hospitals with less than 100 births annually had a 1.4-fold (95% confidence interval [CI] 1.1-1.7) increased risk of term neonatal deaths, compared with population catchments surrounding hospitals with more than 3000 annual deliveries.<sup>19</sup>

Applying these results to a Canadian context is challenging owing to differences in geography, demographics and models of health services delivery. A study comparing population-based rural maternity care outcomes by local service catch-

ments in BC for 1994-1999 shows no differences in perinatal mortality rates across service levels, ranging from small obstetric units with no cesarean section capabilities through to large obstetric units with 24-hour cesarean section capabilities that are serviced by specialist obstetricians (Grzybowski S, Klein M, Liston R, et al, unpublished data 2004).

Within the context of service reorganization and emerging and inconclusive evidence regarding safety, rural care providers and local health planners are challenged with deciding whether or not to offer local maternity care services to their communities. Their decision-making processes and experiences of providing rural maternity care are not well understood. This study explored the experiences of care providers in 4 BC rural communities that have lost or are at risk of losing their local maternity services.

## **METHODS**

### *Participants*

This exploratory, qualitative study used semi-structured interviews and 5 focus groups to ask 27 health care providers (including physicians and nurses) and 3 administrators in 4 rural BC communities about their experiences providing rural maternity care. The group interviews lasted approximately 2 hours and ranged in size from 3 to 6 participants. The one-on-one interviews ranged in duration from 20 to 90 minutes depending on the level of detail participants offered in telling their stories. Interviews with providers were guided by a semistructured template that addressed 7 themes, including provider role and background (education and training), provider experience, changes to local provision of care, resources and support available for maternity care, safety and risks, perceived implications for women and their families accessing maternity care services far from their homes, and the ideal model of birthing in rural and remote BC. The local leader interview guide was organized into 3 main theoretical categories: changes in the local provision of maternity care, perceptions of implications of these changes for birthing women and their families, and an ideal model of how local maternity services should be provided (Kornelsen J, Grzybowski S, unpublished data 2004). No registered midwives were practising in any of the study communities.

### *Communities*

The communities were chosen to include a diversity

of characteristics including geography, size of service catchment population, distance to nearest hospital with cesarean section capability, and cultural and ethnic subpopulations within the communities. Three of the communities were coastal and one was in the interior of BC. Communities ranged in size from 1200 to 6600 people and were from 30 minutes to more than 4 hours away from the nearest site with cesarean section capability. Of the 4 communities, 3 had greater than 30% First Nations population. All communities were designated “high outflow” (i.e., more than two-thirds of low-risk births occurred outside the community). In the months between the development of the research plan and the onset of data collection, one of the research communities closed its local maternity care services and another had its local maternity care services placed under an indefinite moratorium.

We used a qualitative data analysis software program, QSR Nudist (QSR International, Victoria, AU, 2004), to aid in the analysis of data, specifically with regard to coding (attaching key words or tags to segments of text to permit retrieval, storing the data, linking the data and sending memos). We exercised caution when using QSR Nudist to ensure that the easy access to word and phrase codes did not overwhelm our in-depth and clear understanding of the transcripts in their entirety. This guarded against the tendency to decontextualize the material owing to a focus on the smallest units of analysis.

Following analysis of the collected data, the research team returned to each of the study communities to report back the findings and ask for further comments or clarifications. Thirty-seven health care providers and 4 administrators in the 4 study communities participated in this verification process. This process provided community representatives with an opportunity for discussion of, disagreement with, and (or) clarification of our findings. Most importantly, the verification process was a means to return the research to the participating communities.

We sought and received ethical approval for the study from the appropriate behavioural research ethics board.

## RESULTS

Health care provider participants in this study presented a comprehensive picture of the realities they faced in rural communities, whether or not they offered maternity care services. These included the reality of low birth volume and the attendant chal-

lenges of maintaining obstetrical skills, the assessment of the safety of maternity care in the absence of local access to cesarean section and the recognition that birth “would always happen” as long as there were women becoming pregnant in rural communities. These considerations all took place within recognition of a changing health care delivery context. Each of these themes will be discussed below.

### *Maintaining and developing competency in the context of decreasing volume*

Low volume of care has significant implications for care providers who must remain current in their skills, abilities and level of confidence to practise in a safe and effective manner. It also has an impact on training new professionals—medical, nursing, midwifery and allied—in rural obstetrics. The challenge of maintaining competency in the context of low volume was an underlying tension for many of the health care providers we spoke with and a significant motivation to retire from obstetrics for those who had ceased to provide care. As one nurse said:

This is the same for any rural nurse that's been in a rural area for any length of time: how difficult it is to maintain skills because you just don't see these things on an ongoing basis but yet you have to be able to manage [them]...the nurses [in any small community]...have to have maternity skills and trauma and emergency and they also have to be able to deal with a patient who has an MI and...deal with the geriatric patient that might need acute care services...

Some care providers in this study, typically physicians, undertook work in high-volume maternity care units during time away from practice in their home community to compensate for the low levels of obstetrical cases they saw. This option, however, was unavailable to most nurses who did not have the financial or professional resources to leave the community on a regular basis for additional training.

Local health care providers described limits they placed on their maternity care services due to concerns about safety. One such limit was a “no primip policy.” Many rural communities without local access to cesarean section have instituted recommendations and policies discouraging women who are having their first child from birthing locally. The rationale behind this acknowledges that nulliparous women will require transfer for cesarean section to manage nonprogressive labour more often than multiparous women.<sup>1</sup> Such a policy further reduced the number of local deliveries and contributed to general practitioners' decreased sense of competen-

cy and comfort with providing local maternity care. One doctor said:

Twelve years ago or more they started with...no primip births in [our community] so the birth rate[s]...were definitely going down...their competency was going down and their comfort level being there at a birth...ultimately, the care of the mum and babe rests on the medical staff...So if they're not comfortable because they're not the ones doing the births all the time or because there just aren't too many births happening...their skills go down...

Nevertheless, care providers consistently acknowledged that there will always be a need to maintain maternity care skills even when maternity care is not an officially provided local service; births will still happen owing to precipitous deliveries and some women's refusal to leave their home community to give birth. This led many participants to express their sense of being caught in the dilemma of not wanting to offer obstetrical care because of safety concerns, but recognizing that by not offering care, their skills and experience would diminish, leading to further anxiety when they needed to provide care in emergencies, as one physician stated:

I do have mixed feelings because it is difficult to transfer patients in labour. It is risky...it happens and then if I don't do [obstetrics] here there will be more women who...will deliberately stay in town until they get into labour anyway...and with the nurse not being exposed to it regularly and with somebody who just shows up out of the blue, they will be...less prepared for it.

### *The safety of local maternity care without cesarean section*

Several participants reported concerns about the safety of local maternity practice without cesarean section capabilities and how this determined the referral strategy. One physician noted:

I don't like being in a spot where it isn't safe to practise and that's what I feel strongly about here with maternity. Is it safe to practise? It's fine [if] everything goes well...[with]...a woman in labour...we have no provisions for cesarean section...to me if a woman insists on it here I just think she's foolish...what is more important than having a safe delivery [and] healthy baby?...I don't want to be in that position, I don't want to see that happen.

Concomitant to a discussion of the relative safety of local obstetrical care was an awareness of the legal and professional repercussions health care providers could face when providing local birthing services. In a focus group discussion with local rural

doctors, anxiety about being sued for malpractice surfaced: "Things could go wrong, and people more and more are being sued." In addition to the risks of facing legal action, care providers were concerned about their professional reputations and licensing and, ultimately, their roles in the community.

### *Balancing women's needs with the realities of practice*

Rural care providers undertake a complex decision-making process to determine the suitability of parturient women for local births. This considers not only community-specific variables such as geography and distance to referral hospital, but also the culture of birth within the community. This process is context-specific and cannot be reduced to a general formula transferable between rural communities. As this statement from a rural physician illuminates, their practices are imbued with tacit and local knowledge:

I've got mixed feelings. I feel sorry for the woman who has to leave her family and her young ones and has to go down and stay for 2 weeks waiting for baby to be born. And I sympathize [with] the stress they are facing while they are waiting...But yet we are so isolated and we have such terrible transportation and...if something does happen to a woman or baby we might not have enough time to get them out...So it's a risk that they have to take anyway. And I choose my patients carefully, but there are always unexpected situations...so it's a risk you take.

### *The changing rural health care context*

Local care providers, in most cases family physicians and nurses, are caught within the maelstrom of change affecting rural health service delivery. They face difficulties of social integration into a small community, local political disputes related to health services and the time demands of rural call schedules. These issues contribute to physicians' decisions to discontinue providing local maternity services and even to leave the community for good. One rural nurse described this:

[A]ready the doctors were leaving...Probably because of the conditions—it was the structure of the health care society [that] was changing too and I think the conditions they were working under were unbearable. Just the way they were treated and the time they had to work...it hasn't been very livable for anybody that's why we've got such a turnover of doctors here. We end up with doctors who don't have a lot invested here and they come and go and there's no continuity.

For some providers, no longer bearing the responsibility of providing maternity care leads to feelings of

relief. For others, the loss of providing such care leads to a sense of grief over the absence of a cherished part of the practice and a realization that maternity care was one of the highlights of their practice. As one physician articulated, his job satisfaction was intricately linked to the opportunity to provide birthing care to women from the community:

I think it's been very disappointing for me because it's a part of a practice that I really enjoyed...[the] continuity of pre-natal right through delivery. And I think... it changes the relationship...when you see someone through the delivery of their child...I really miss that aspect of it. And I think it's certainly a joyful part and [there's] not very many other instances where you get that kind of experience so I miss that...I worry about...losing certain kinds of skills...and I think it just has contributed to me being dissatisfied with practicing here...it extends to other areas; just a lack of commitment to provide basic care...

## DISCUSSION

Our results demonstrate the challenges that rural health practitioners face in trying to provide maternity care services in small rural communities. How can we better support these practitioners so that they are able to maintain and develop competency in the context of decreasing volume, have the confidence to provide safe care without local access to cesarean section, balance women's needs with the realities of practice and cope with the changing rural health care environment?

We lack a comprehensive policy framework for rural maternity care and the lack of this framework is allowing this important service to erode away. This lacuna in our policy exists in spite of the recommendations of reports such as the British Columbia Rural Commission on Health Care and Costs<sup>20</sup> and the joint position paper on rural maternity services published by the SOGC, the SRPC and the CFPC in 1998, both of which argued for the advantages of birthing in a woman's home community.<sup>21</sup>

The standards of accessibility to health services published by the BC government in 2002 recommended that maternity care services be available within 2 hours travel time for most women (based on aerial distance, which does not account for road and water travel) and that this should apply to 95% of BC residents.<sup>22</sup> The application of this standard as a guide to the placement of rural maternity services is challenging in a number of ways, including distance approximation, inattention to issues of social vulnerability that may increase the need for local services, and the dampening of the needs of rural

populations within the much larger urban, suburban and regional populations. We need better evidence to inform us about the nuances of establishing criteria for birthing services, such as the relative importance of geography, the sociodemographics of the population, and the desires, skills and experience of local health care providers in rural communities. This lacuna leads to decisions based on responses to events (such as a bad outcome), human resource challenges, fiscal priorities and the vagaries of local and regional health decision makers. It points to the importance of the need for a strategic policy to guide decision making.

Policy can be defined as "a definite course or method of action selected (by government, institution, group or individual) from among alternatives and in the light of given conditions to guide, and usually, to determine present and future decisions."<sup>23</sup> It recognizes and endeavours to balance issues of access, quality and cost control.<sup>24</sup> The representation of each imperative is crucial in policy decision-making. Despite the productive role of policy in determining the parameters of rural maternity care, it is also useful to note the potential for dissonance between policy objectives and the delivery of health services. As Panelli and colleagues<sup>25</sup> note, there are "gaps between health policies and the access to (and experience of) health-care services. We argue that there is a continued need to simultaneously read policy discourse with, and against, the experiences of those affected by policy decisions" (p. 2).

There are several important prerequisites to planning how to support small rural Canadian communities with maternity care services. First and foremost, we need better evidence about the safety and outcomes for rural populations served by different levels of maternity care, particularly the importance of access to local cesarean section. If this evidence continues to support the safety of these small limited services, we need to adopt a systematic strategy that supports the continuous professional development of rural maternity care providers.

Perhaps we need to explore new models of interdisciplinary collaborative practice between physicians, midwives and nurses that might integrate local women who have labour support roles as doulas into routine care. These innovative practice models must overcome the barriers posed by low-volume, fiduciary and funding challenges to shared care. Doulas are an underdeveloped human resource in most communities and we lack only a systematic approach to education and a balanced policy framework to realize this valuable contribu-

tion. Most significantly, we need to recognize the importance of meeting the needs of rural women and families by supporting the maternity care providers who serve them.

There are several limitations to this study. We visited only 4 communities and all of these communities had either recently closed their maternity care services or were on the verge of closing them. It may not be appropriate to generalize providers' perceptions to rural communities that have not provided maternity care services for a long time or that are still providing services. Further, British Columbia has experienced dramatic shifts in political governance during the past 15 years and philosophical approaches to health policy may differ significantly in other Canadian provinces, let alone in other countries.

## CONCLUSION

This exploratory study examined a system under stress. Rural maternity care providers have identified themes of low volume, safety concerns and a rapidly evolving health policy environment as contributing to the loss of services. As David Fletcher, former president of the Society of Rural Physicians of Canada, noted, "It is not that there is a plan to destroy rural health care, but that there is no plan to save it."<sup>26</sup> Further research needs to be carried out to document the effects of health service delivery changes on provider service patterns and policy development.

**Competing interests:** None declared.

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