ORIGINAL ARTICLE

Understanding the maternity care desert: A qualitative study on factors contributing to the closure of obstetrical programmes in rural northern Ontario

Iain R. Lamb, PhD[1], Nicole A. Dumonski, MD[2], Heidi Corneil, BSc[2], Chandelle C. M. Mensour, MD[2], Eliseo Orrantia, MD, MSc[1,3]

[1]Division of Clinical Sciences, Northern Ontario School of Medicine University, Marathon, Canada, [2]Undergraduate Medical Education, Northern Ontario School of Medicine University, Sudbury, Canada, [3]Marathon Family Health Team, Marathon, Canada

Correspondence to: Eliseo Orrantia, eorrantia@mfht.org

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Abstract

Introduction: Northern Ontario continues to experience closures of rural obstetric programmes, forcing pregnant persons to travel for care. This reduced access is associated with poorer maternal and newborn health outcomes and creates logistical and financial barriers to care. Despite closures, factors underlying this trend are not well understood. Administrators, nurses and physicians involved in rural obstetrics at the time of programme closure are well positioned to identify factors contributing to service attrition. This qualitative study aimed to explore their perspectives regarding factors contributing to closure.

Methods: Semi-structured interviews were conducted with administrators, nurses and physicians involved in rural obstetric programmes in northern Ontario at the time of closure. Interview questions were developed from a literature scan and refined by an experienced practitioner to identify factors influencing closures. Thematic analysis of interviews identified common themes regarding factors perceived to contribute to programme closure.

Results: Twelve administrators, 6 nurses and 10 doctors were interviewed. Analysis revealed several perceived factors contributing to programme closures: (1) a decline in obstetric competence and confidence among healthcare workers attributable to inadequate obstetric exposure in schooling, low birth volumes and limited ongoing training opportunities; (2) shortage of health human resources providing obstetric care due to lack of provider reluctance and recruitment challenges and (3) limited support from the provincial government and tertiary referral centres.

Conclusions: Closure of rural obstetric programmes in northern Ontario is seen as a result of complex, multifaceted challenges. Understanding these factors can better inform strategies to sustain rural obstetric programmes and prevent further attrition of care.

Keywords: Health human resources, health service, healthcare access, healthcare sustainability, maternity care, obstetrics, rural communities, rural health

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Résumé

Introduction: Le nord de l'Ontario continue de subir des fermetures de programmes obstétriques ruraux, ce qui oblige les femmes enceintes à SE déplacer pour obtenir des soins. Cet accès réduit est associé à de moins bons résultats en matière de santé pour la mère et le nouveau-né et crée des obstacles logistiques et financiers aux soins. Malgré les fermetures, les facteurs qui sous-tendent cette tendance ne sont pas bien compris. Les administrateurs, infirmières et médecins impliqués dans l'obstétrique rurale au moment de la fermeture du programme sont bien placés pour identifier les facteurs contribuant à l'attrition des services. Cette étude qualitative avait pour but d'explorer leurs points de vue sur les facteurs contribuant à la fermeture.

Méthodes: Des entretiens semi-structurés ont été menés avec des administrateurs, des infirmières et des médecins participant à des programmes d'obstétrique en milieu rural dans le nord de l'Ontario au moment de la fermeture. Les questions ont été élaborées à partir d'une analyse documentaire et affinées par un praticien expérimenté afin d'identifier les facteurs influençant les fermetures. L'analyse thématique des entretiens a permis d'identifier des thèmes communs concernant les facteurs perçus comme contribuant à la fermeture d'un programme.

Résultats: Douze administrateurs, six infirmières et dix médecins ont été interrogés. L'analyse a révélé plusieurs facteurs perçus comme contribuant à la fermeture des programmes: 1) un déclin des compétences obstétricales et de la confiance des travailleurs de la santé, attribuable à une exposition insuffisante à l'obstétrique au cours des études, à de faibles volumes de naissances et à des possibilités limitées de formation continue; 2) une pénurie de ressources humaines en santé fournissant des soins obstétricaux en raison de la réticence des prestataires et des difficultés de recrutement; et 3) un soutien limité du gouvernement provincial et des centres de référence tertiaires.

Conclusions: La fermeture des programmes d'obstétrique en milieu rural dans le nord de l'Ontario est considérée comme le résultat de défis complexes et à multiples facettes. La compréhension de ces facteurs peut permettre de mieux informer les stratégies destinées à soutenir les programmes d'obstétrique en milieu rural et à prévenir l'attrition des soins.

Mots-clés: Soins de maternité, obstétrique, communautés rurales, santé rurale, accès aux soins de santé, durabilité des soins de santé, ressources humaines en santé, services de santé.

INTRODUCTION

Over the past two decades, rural northern Ontario has seen a persistent decline in obstetric care services.[1,2] This trend, characterised by a reduction in the number of hospitals and healthcare providers offering obstetric care, has resulted in a growing maternity care desert throughout the region, reducing access to care for pregnant persons living in these areas.[1,2]

Hutten-Czapski (1999) was among the first to describe the attrition of obstetric care in rural northern Ontario, finding that the number of hospitals without an obstetrics programme rose from 3 to 15 between 1981 and 1997.[1] A subsequent study, conducted in 2020, found that programme closures had risen to 24, with no instances of previously discontinued programmes being reopened.[2] Since publication in 2022, the region has seen the closure of two more programmes, leaving only nine rural hospitals offering obstetric care across northern Ontario.[3,4]

Closure of rural obstetric programmes has led to longer travel times for accessing care. Pregnant persons in rural northern Ontario communities where obstetric services have been discontinued now face travel times of over 1.5 h to access hospitals with basic obstetric services and more than 2 h to reach facilities with caesarean-section capability.[2] With the recent closure of two more rural obstetric programmes, it stands to reason that average travel times to access care have only increased since last reported.

The increased time required to access care is concerning given the correlation between access to obstetric services and maternal and newborn health outcomes.[5-11] Research has shown travel times between 60 and 119 min are associated with a higher incidence of stillbirth, preterm birth and other complications compared to those living closer to care.[11] For pregnant persons, delayed access to care is associated with a two-fold increase in the risk of eclampsia, amniotic embolism and uterine dehiscence or rupture compared to those living closer to care.[12] Further, the lack of access

has also been shown to negatively impact maternal psychological well-being, leading to heightened levels of stress and anxiety compared to those with local access to care.[6,7]

Beyond health implications, medical travel also creates logistical and financial barriers to care for those living in rural areas.[5,6,13,14] Coordination of travel in rural areas can be challenging as transportation options are often limited.[13] Securing overnight lodging near healthcare facilities can be expensive, and managing absences from work can place financial strain on families, especially for those without paid leave.[5,6,13] Particularly burdensome can be out-of-pocket expenses associated with travel, especially for those advised to stay near healthcare facilities weeks before their delivery date.[5-7,13,14] These logistical challenges and financial burdens can lead to further stress and anxiety, compounding existing pressures faced by pregnant persons.[7]

Sustaining obstetric programmes that remain operational in rural northern Ontario can help mitigate further disparities in access to care and the health risks associated with travel. Central to developing strategies for maintaining rural obstetric programmes is understanding factors underlying their closure. Yet, these factors remain poorly characterised, creating a knowledge gap that hinders approaches to prevent further attrition of care.

Key personnel such as hospital administrators, nurses and physicians involved in rural obstetric programmes in northern Ontario at the time of closure are uniquely positioned to provide perspectives on factors contributing to service attrition. By drawing on their experience, we can begin to develop an understanding of the challenges that contribute to programme closure. These insights may help inform strategies to prevent further closures and support the sustainability of obstetric care in the rural north. Therefore, this study aims to identify factors contributing to the closure of rural obstetric services in northern Ontario, based on the experiences of key personnel involved at the time of programme closure.

METHODS

This study used a purposeful sampling of senior hospital administrators, nurses and physicians involved in rural obstetric programmes in northern Ontario hospitals at the time of their closure. Individuals were invited to participate via phone or email. Prospective participants received a participant information letter before the interviews, which outlined the study details, the requirements of their involvement and a consent form detailing their rights as a participant.

From June 2021 to October 2021, semi-structured interviews were conducted by two researchers (ND and CCMM). Interviews were conducted via telephone or a virtual teleconference platform and were audio-recorded after obtaining verbal consent from participants. Interview questions followed a structured interview guide developed by the research team. Questions were developed based on a literature review on health service closures and with input from author EO, who has over 25 years of practising obstetrics in rural northern Ontario. Using an interview guide informed by both primary literature and personal experience ensured questions were evidence-based yet tailored to the regional context of rural northern Ontario. The semi-structured interview process allowed participants to freely respond to each open-ended question. Interviewers used prompts and follow-up questions to encourage participants to elaborate on factors contributing to obstetric programme closures at their institutions. In acknowledgement of their time, participants received $75 compensation upon completion of the interview.

Participant audio recordings were transcribed verbatim by members of the research team (ND and CCMM), and the accuracy of transcriptions was confirmed by comparing them with the original recordings. To ensure anonymity, identifiable information was redacted throughout interview transcripts. All transcripts were uploaded to qualitative data analysis software Nvivo (QSR International Pty Ltd. Version Release 1.5.1 (940) 2021). Using Nvivo software, thematic analysis was guided by the inductive coding approach outlined by Braun and Clarke.[15] In brief, one member of the research team (IRL) familiarised themselves with each interview transcript. Codes were created to capture perspectives and opinions shared by participants and organised into common themes and subthemes based on their content. A member of the research team (EO) reviewed identified themes. Through consensus among the research team members involved in

data analysis (IRL, HC and EO), key themes and subthemes were named and defined. Thematic saturation was achieved when the team concluded that no new themes were emerging from the data, indicating that all thematic elements present in the interviews had been captured.

Ethics approval for this study was granted by the Research Ethics Board (REB) at Lakehead University in Thunder Bay, Ontario, Canada (Approval No. #1468648).

RESULTS

Of the 46 participants invited, 28 (61%) participated in the study, representing perspectives from nine rural obstetrics programmes that closed between 2009 and 2018 [Table 1].

Perceived lack of confidence and competence

'*Well, the reason that nobody else is doing obstetrics up here is because I supposed they don't feel competent, and I suppose the reason for that is that they have no experience.*'

- [W4-003]

Thematic analysis reveals a compelling narrative about the competence and confidence of nurses and physicians in providing obstetric care. Participants felt a lack of comprehensive obstetric training and limited practical experience in nursing and medical education programmes hinder the confidence and competence of new graduates. Low birth volume in rural areas was thought to limit opportunities for hands-on practice and skill development, reducing confidence and competence in both new graduates and current healthcare workers. For some institutions, resource constraints were cited as limiting opportunities for continuing medical education (CME) and training needed to maintain obstetric competence and confidence. Together, these factors were perceived to undermine healthcare workers' confidence and competence in delivering care, ultimately reducing their willingness to provide obstetric care.

Table 1: Participants occupation and location of employment

	Northeastern Ontario (*n*=4 obstetric programmes)	Northwestern Ontario (*n*=5 obstetric programmes)	Total
CEO	4	3	7
CNO	0	5	5
Nurse	4	2	6
Physician	2	8	10
Total	10	18	28

CEO: Chief executive officer, CNO: Chief nursing officer

Educational gaps and their impact

Some participants felt that the lack of competence and confidence in providing obstetrical care stems from current medical and nursing education, which they believed often fails to provide adequate exposure to obstetrics. One participant said:

'*Like our new practitioners, our new physicians that are coming out of school,* (obstetrics) *is not an area that they're comfortable with at all.*'

- [E4-005]

Another participant noted the lack of exposure to obstetrics for nursing students:

'*They try in schools, but you can only learn so much in a rotation. And some will go through it* (and say), *'oh I had a week in labour and delivery, but I never seen a baby.*'

- [W1-002]

With regard to post-graduate medical education, one participant said:

'*The rural residency programs that used to have a required rotation in obstetrics don't necessarily have that anymore, so when I graduated you didn't have a choice, you had to do high volume obstetrics as one of your rotations, I don't think that's necessarily the case anymore and I think that assists in steering away new grads. Even the ones choosing to do broad scope rural medicine, are still tending to steer away from things like obstetrics and more towards doing extra training in emerg and extra training in ICU and trauma care and that, I think, has been a disservice to that whole section of care.*'

- [W5-003]

Perceived impact of low delivery volumes on competence and confidence

Low delivery volumes in rural hospitals were perceived as a challenge in maintaining competence and confidence among physicians and nursing staff. Fewer clinical encounters were believed to limit the opportunities for healthcare workers to develop and refine their obstetric skills, diminishing their sense of competence and confidence in providing care.

One participant said:
'So, the lack of deliveries does not lend way to expertise and so people didn't feel skilled enough. It's one thing to do that perfect delivery, and it's another thing to know what to do and feel confident when there's issues and to have everything you need when there are issues.'
- [W1-005]

Another participant noted that:
'I think it (low birth volume) *was definitely an actual factor in competence once our numbers went down. Like once you get down to that many births, as a nurse you can go many months without having a delivery.'*
- [E3-005]

Another participant shared this sentiment:
'They're not getting enough practice and there's not enough babies around for them to do it frequently. We all feel like there are skills that aren't necessarily (where) *they should be or what we want them to be.'*
- [E2-002]

Importantly, the negative impact of low patient volumes on provider competence and confidence was not uniformly felt. Some participants noted that their institutions implemented measures to maintain provider competence in the face of low birth volumes. One participant described:
'While I was there, we saw our numbers dropping. So, we started a practice where we had two physicians at every delivery, for a combination of reasons. One is to maintain everybody's skills, and the second was because things can go sideways in a delivery and the more experienced hands you have, the better your outcomes are going to be.'
- [W5-004]

Another noted that:
'I think sort of having a lower volume of obstetrics, people lost their confidence, and I think our hospital actually did a good job of trying to keep people up-to-date. We would have, you know, obstetrical in-services, obstetrical teaching days.'
- [E2-003]

Resource constraints hinder effort to maintain obstetric competence and confidence

Despite some institutions implementing training programmes to maintain provider competence and confidence, resource constraints hindered initiatives to help sustain competence and confidence. As one participant noted:
'We had no funds to be able to invest in (obstetric) *training.'*
- [E1-001]

This financial strain is compounded by the broad skill sets required in rural settings, making maintaining specific competencies like obstetrics particularly challenging for nurses:
'But it's the budget for making the nursing staff skilled. Yeah, and I think that probably played a role because budgets are tight and, you know, you want to have an emergency skill set for rural nurses. They have to have the skill set to work on the floor, the skill set to work with psychiatric patients, and with demented patients, and also, they delivered chemotherapy, and so there's lots of skill sets to deliver. And maintaining the obstetrics skill set is perhaps, next to emergency, the most complex and the most difficult.'
- [W5-004]

Shortage of health human resources

'We lost a physician, so between the two schedules there were only 3 of us on, we couldn't create a schedule that allowed us to cover both obstetrics and emergency, so we had to place the obstetrical service on hold.'
- [W3-003]

Obstetric programmes heavily rely on the availability of health human resources providing care. Given shortages of those providing obstetrical care, many rural hospitals found it challenging to sustain these programmes, with the burden of care often falling to a small number of healthcare workers. Participants felt these shortages stemmed from declining interest or reluctance among healthcare workers to pursue obstetrics, potentially driven by the perceived higher risks of practising in rural settings and the difficulty of recruiting healthcare professionals to rural communities. Ultimately, the shortage of health human resources was believed to negatively impact the work–life balance of those providing obstetrical care, deterring new providers from incorporating obstetrics into their practice.

Impact of health human resource shortages on the sustainability of rural obstetric care programmes

The lack of human resources often resulted in the burden of obstetrical care falling to a small

number of providers. One participant noted that:

'Because we were short-staffed in our physicians, we had to close some of our programming, and obstetrics was one of them because we didn't have the physicians that practised obstetrics.'

- [W2-002]

This perspective highlights the shortage of healthcare workers providing obstetrical care in northern Ontario's rural communities. Another participant noted that:

'Over the years, it (obstetrics program) *became really heavily dependent on two physicians.'*

- [E2-001]

The reliance on a few individuals created significant vulnerabilities in the sustainability of rural obstetric programmes as departure of key personnel often served as a tipping point, leading to programme closure. As one participant described:

'The retirement of the last physician who was willing to provide those services was the tipping point, and there was nobody else coming in who felt confident enough.'

- [E1-001]

In other cases, the departure of key personnel placed the entire burden of obstetric care on a single individual:

'I think some doctors were interested, whether that be with retirement or moving on. Of course, this leaves the strain of one provider being the sole person, you know, on call and doing the work for obstetrics.'

- [E2-001]

Perceived impact of reluctance to practice obstetrics on the shortage of healthcare workers

The shortage of rural healthcare workers skilled in obstetrics is likely influenced by multiple factors. However, participants suggested that one contributing factor could be a lack of interest or reluctance among new physicians, particularly recent graduates, to include obstetrics in their scope of practice. As one participant noted:

'Zero, there was zero so any new physicians we had over the past ten years had no interest in obstetrics. Not only just new grads, it was just like anybody moving had no interest.'

- [E4-003]

Another participant suggested that:

'While they were in medical school we had a lot of talks, and they were actually excited to get more knowledge about obstetrics and bring obstetrics back in the community because they actually all grew up in (community). *But once they were through their training and saw the risks associated, they realized that it was too risky for patients and babies to be able to do that locally. They didn't feel confident in the risk level.'*

- [E1-001]

This sentiment was echoed by another participant:

'I'm not sure it's a lack of interest. They might have wanted to do it, but the medical legal environment and the lifestyle impact made it less attractive, right?'

- [W1-001]

Challenges of recruiting healthcare workers

The challenge of fewer healthcare workers providing obstetric care is compounded by the difficulties of recruiting healthcare workers to rural areas. One interviewee noted that:

'Ruralness of the community, probably attributed to not having physicians come. It's probably where the difficulty (is) *in recruiting.'*

- [E3-005]

This sentiment was echoed by another participant:

'So, isolation plays a role in recruiting and that's an issue of manpower.'

- [W2-003]

Impact of limited human resources

The lack of human resources in rural settings has significantly impacted the work–life balance of those providing obstetrical care.

'So, physicians don't want to be on call when they're not on call. So not every physician is committed to delivering babies, that was a big burden on the final physician who was doing it because he was always on call 365 days a year.'

- [E1-001]

The demanding lifestyle that results from the limited healthcare was perceived to potentially dissuade new physicians from pursuing rural obstetrics.

'A lot of our older physicians are on call 24/7, and you're the only one with no back-up support for it. I think, as healthcare changed and you have newer

physicians in the younger generation coming in, I don't think they wanted that lifestyle, right? There's not that balance to have someone cover you off, and you're the only one person on call, and there's no support. I think that contributes to people not wanting to come to the community as well because the continuous on-call responsibilities that can be burdensome.'

- [E3-005]

Limited systemic support

'I mean I do think if the government and the ministries were more aware and more public about information from studies where data shows that local access to care improves patient outcomes then that would be helpful to people's understanding of why it's worth keeping rural programs open and that their money is well spent by doing that kind of thing.'

- [W5-003]

Interviews revealed a perceived lack of systemic support from the provincial government and regional tertiary referral centres in sustaining rural obstetric programmes. Participants highlighted challenges related to insufficient government policies and funding. In addition, limited support from tertiary referral centres was noted as a barrier to accessing consultation, training and specialised care.

Perceived lack of support from the Ministry of Health

Participants noted a perceived absence of support from the Ministry of Health. As one participant stated:

'Well, I think I just talked about the lack of a strategy. You know there is no provincial strategy for rural and northern obstetrics.'

- [E4-001]

This sentiment was echoed across various discussions, where interviewees felt the lack of clear support led to an understanding among healthcare workers in small hospitals that the government preferred them to discontinue obstetric services:

'I think most of the small hospitals had the impression that the Ministry wanted us to stop delivering. That was never the written message, but we had that because there was no support in trying to support programs. You know, we felt implicitly that they wanted us to stop doing deliveries.'

- [E1-001]

Others suggested the lack of attention to rural communities perhaps stemmed from a focus on urban centres:

'You know if they took the time to understand the small number of voters that live in rural places, that would be helpful, that's the whole political system isn't geared towards-it's all about volume right so their funding is better spent at a SickKids in Toronto than in a community that's not gonna get them a lot of votes but trying to fix the political system that's a challenge also.'

- [W5-003]

While some participants felt that the Ministry of Health played a role in the closure of their rural obstetrics programme, others were unaware or unsure of the role the provincial government had in the closure of their institution. Other participants acknowledged the challenges faced by their programmes but did not specifically attribute these difficulties to a lack of governmental support.

Lack of relationships and resources that support rural obstetrical services

Participants highlighted significant gaps in support and collaboration that affected the sustainability of their obstetric programme. A recurring theme was the availability of support programmes for other healthcare services, but that were absent for obstetrics. One participant described:

'I wasn't aware of any obstetrical support programs, so when I was scheduling there was an emerg support program, and if I thought our emerg was going to have to close down, I could access a group of people to try and find replacement positions to fill the gaps and keep the emerg open. That doesn't exist, or at the time I was aware of it, it didn't exist for obstetrics. So, at the governmental level that could've been developed.'

- [W2-004]

The importance of fostering relationships with larger, more equipped centres was also emphasised as a way to enhance the capability and confidence of rural healthcare providers, particularly nursing staff:

'I think having a formal relationship with the obstetrical program in a larger centre could have been helpful, because the problem with only one physician, or even two, being the ones that have the knowledge was that– it doesn't help the nurses. So,

from a nursing perspective, they had no one to call, um, from the same discipline to be able to get them all, you know, the feedback or direction they needed.'
- [E1-001]

Further discussions with this participant pointed to the absence of coordinated efforts with tertiary centres:

'There is no coordinated, sort of regional effort in that respect-which, you know, as far as ideas that that's a big gap as well in these rural communities, that there's not usually a formalized relationship.'

DISCUSSION

Through the thematic analysis of interviews conducted with senior hospital administrators, nurses and physicians involved in rural obstetric programmes at the time of their closure, the study sought to understand the factors perceived to contribute to closure of obstetric programmes in rural hospitals of northern Ontario. Our study identified common contributing factors, including a perceived lack of healthcare worker confidence and competence in providing obstetrical care, shortages of health human resources and a lack of systemic support to help sustain rural obstetric programmes. These insights offer perspectives that could guide and inform strategies and approaches to sustain obstetric programmes that remain operational in rural northern Ontario.

Perceived lack of confidence and competence

The perceived lack of competence and confidence among physicians and nurses providing obstetrical care was identified as a contributory factor in the closure of rural obstetric programmes. Participants felt that current undergraduate medical and nursing education, along with residency programmes, provide limited exposure to obstetrics, leading to new graduates being less confident and competent in their obstetric skills and less inclined to practise obstetrics.

Low birth volumes in rural areas were also seen as a factor further contributing to decreased competence and confidence. The infrequency of births resulted in fewer and infrequent opportunities for physicians and nurses to maintain and enhance their obstetric skills.

Some participants cited implementing ongoing training opportunities or ensuring wide involvement when births occurred in the community as a means to maintain healthcare worker competence and confidence. However, others pointed out a lack of resources to support these initiatives, with budgetary constraints cited as significant barriers. In some cases, a lack of interest or reluctance to practise obstetrics compounded the problem, making it challenging to sustain obstetric competence and confidence among healthcare workers.

Addressing the lack of competence and confidence among new medical and nursing graduates may require changes to undergraduate medical and nursing curricula to increase exposure to obstetric care. This could involve more hands-on training and clinical rotations to provide more practical experience.[6,16,17] Integrating these approaches into the medical and nursing curriculum could develop and enhance competence and confidence of new graduates. This, in turn, may increase the likelihood that those who choose to practise in rural areas possess obstetric competency, thereby strengthening the sustainability of obstetric care in the region.

Increasing obstetric CME and training opportunities is another potential solution to improve healthcare worker confidence and competence in providing care.[6,18] However, given the financial and logistical limitations cited by participants, implementing such opportunities locally may be challenging. Therefore, given resource constraints, alternative approaches may be required to build and sustain competence and confidence among healthcare workers. These could include the development of mentorship programmes where experienced obstetricians provide guidance and support to less experienced healthcare workers.[18] In addition, establishing partnerships between rural hospitals and larger, higher-volume centres could provide access to simulation-based learning and opportunities to gain hands-on experience and refine skills by assisting with births.[18] However, the success of such initiatives is dependent upon collaboration between rural hospitals and larger centres in the region.

Shortage of health human resources

Rural northern Ontario has long faced challenges with the recruitment and retention of healthcare workers.[19] Therefore, it is unsurprising that participants perceived the lack of health human resources as contributing to the closure of obstetric

programmes. For some, the lack of healthcare workers in obstetrics led to the closure or temporary suspension of these programmes. For others, the continuation of obstetric programmes fell on a small number of key healthcare personnel, requiring them to take on additional responsibilities and extended on-call periods to keep programmes operational, resulting in an unfavourable work–life balance.

Participants spoke about the challenges of addressing the shortage of healthcare workers. They cited the rurality and isolation of communities as significant barriers to recruiting healthcare workers with obstetric competence. Compounding this issue was the perceived lack of interest or reluctance among new graduates to integrate obstetric care into their practice, thought to be partly due to an aversion to the perceived risks associated with obstetrics and the lifestyle implications of practice.

The isolation of rural northern Ontario communities, coupled with the demanding nature and perceived risks of practising rural obstetrics, adds to the challenge of recruiting and retaining healthcare workers who provide obstetric care. However, studies indicate regionally tailored recruitment and retention strategies can be effective at attracting and retaining healthcare workers.[18] These strategies may include offering targeted incentives such as financial bonuses, housing allowances and competitive salaries.[18,20] Therefore, implementing regional tailored incentives may make rural practice more attractive and enhance recruitment efforts to help ensure that these communities have sufficient health human resource to sustain obstetric care.

To address the reluctance among new graduates to practise obstetrics in rural areas, it may be beneficial to increase exposure to rural obstetric care during their training. This could help mitigate the aversion to perceived risks by building confidence and competence in obstetrics. Furthermore, while the demanding lifestyle associated with obstetrics is challenging to address, increasing the number of healthcare workers through targeted recruitment could help distribute the workload, reducing clinical demands and improving work–life balance.

Limited systemic support for sustaining rural obstetrics

Participants reported varying levels of perceived support for local obstetric services from government agencies and regional care sites. Many identified limited systemic supports as a key factor contributing to the challenges in sustaining obstetric services in rural areas.

Participants' awareness and understanding of the Ontario Ministry of Health's role in the closure of their obstetric programmes varied. Those who perceived a lack of support from the Ministry of Health expressed feelings of abandonment and uncertainty about the future of rural obstetrics in northern Ontario. These perceptions may indicate the need for a government-supported regional strategy focused on sustaining rural obstetric services in the region. Such a strategy could offer clear guidance and establish defined expectations for the role of rural obstetric programmes, creating a clearer vision for the future and fostering a sense of stability and support among healthcare professionals and administrators.

Participants expressed concerns about the lack of resources and supportive relationships essential for sustaining rural obstetrics. They noted that while other areas of medical care had dedicated resources and support programmes, these were absent for obstetrics. In addition, some participants felt that the lack of formal relationships with their tertiary referral centres contributed to a sense of professional isolation, leaving those providing obstetric care without guidance and support. Consequently, establishing more formalised and standardised support mechanisms for rural obstetric programmes may be worth considering. These could include regular training and mentorship opportunities from tertiary centres and the development of a collaborative network that facilitates communication and resource sharing between rural obstetrics programmes and larger centres.

Limitations

Interviews were limited to senior hospital administrative staff, nurses and physicians involved in rural obstetric programmes at the time of closure. We recognise that perspectives from other personnel involved in rural obstetrics such as midwives, support staff and other administrative personnel may have additional insights into factors contributing to programme closure that are not represented in this study.

A potential limitation of this study pertains to the interview questions posed to senior administrative

staff regarding the role of hospital administration in the closure of obstetric programs. The nature of these questions, such as asking why a healthcare service closed, for example, may have led to biased responses that portrayed efforts to sustain the service in a more favourable light. Similarly, questions directed at physicians and nurses about the role of healthcare worker confidence and competence in programme closure could have also resulted in biased responses.

The time between obstetric programme closure and when interviews were conducted may have impacted the accuracy of participants' responses, potentially introducing recall bias. This could result in inaccuracies and an incomplete understanding of the factors contributing to closure.

CONCLUSION

Timely access to obstetric care services is crucial for the health and well-being of pregnant persons and their newborns. However, the closure of these programmes in rural northern Ontario significantly undermines access to care, putting the health and well-being of pregnant persons and their newborns at risk. Understanding the factors contributing to the closure of rural obstetric programmes provides insights that can guide the development of interventions and policies to prevent further attrition of care. By addressing issues such as the lack of healthcare worker competence and confidence, health human resource shortages and limited systemic supports, stakeholders can create and implement strategies to more effectively support and sustain the obstetric programmes that remain operational in rural northern Ontario.

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