Stronger together: Interprofessional collaboration and sustainability of maternity services in a small northern Ontario hospital

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INTRODUCTION

Many small Canadian communities face challenges in maintaining intrapartum care services. This has been due to a variety of factors including retirement of family physicians (FPs) who have experience in maternity care, shortages of nurses with obstetrical training and experience, and barriers facing midwives working in communities with small and widely scattered populations.[1-4] Helpful factors have included offering rural and remote educational experiences for learners in the health professions, providing supports and incentives to health professionals working in Canada's rural and remote communities and the development of formal and informal regional networks between small hospitals and their local referral centres. In addition, there has been strong interprofessional support across Canada to keep birth as close to home as possible, recognising the importance to families and communities of having high quality local care which is an essential component of healthy communities.[5-8] Midwives can play a valuable role in this endeavour. With this in mind, a midwife approached the hospital maternity unit manager in Parry Sound, Ontario, as well as the Chair of the FP maternity group in 2012, to discuss the potential for a midwifery practice to open there. We explore here the genesis and the current ongoing collaboration among midwives and FPs in Parry Sound.

PARRY SOUND

Parry Sound, Ontario, has approximately 10,000 year-round residents in a catchment area that extends approximately one hour's drive to the north, east and south of the town and includes 5 First Nations' communities. In the summer, the population significantly increases due to an influx of tourists and cottagers. While that definitely increases the demands on the hospital emergency services and on maternity assessments, it does not contribute significantly to the overall

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annual birth numbers. Approximately 100 births take place in the West Parry Sound Health Centre (WPSHC) each year. We currently have 16 FPs providing care within a Family Health Team, 5 of whom provide maternity care, 4 midwives (MWs) and 6 registered nurses (RNs) who are obstetrically trained and available to work on the maternity unit in a full or part-time capacity. We have caesarean section capacity with 2 general surgeons and 4 anaesthetists sharing call. We acknowledge that we are relatively well resourced for a small community. However, the past 8 years have seen 5 retirements and 4 parental leaves in the FP maternity group, along with the addition of 4 new FPs. The MWs have had 1 resignation, 1 retirement, and 4 additions, and the maternity RNs have had 2 retirements, 3 resignations, 7 parental leaves and 3 new additions.

GENESIS

When the midwife approached the hospital in Parry Sound, there had been some home births attended by midwives from a midwifery practice group 80 km away, but there had not previously been midwives with hospital privileges at WPSHC, even though midwifery in Ontario had been legally recognised for 18 years. Preliminary discussions were held which included sharing of information about the midwifery scope of practice, model of care, education and regulation of midwives in Ontario.

The FPs were clear that they expected the midwives to consult with regional obstetricians and paediatricians for complications in pregnancy, labour and for newborns, as the FPs did. The FPs were, however, open to receiving requests for medical consultations that were appropriate for FP referral and outside the scope of Ontario midwives, such as testing and treatment of thyroid conditions, prescribing antibiotics for endometritis and management of SSRIs.

SHARING ON-CALL RESPONSIBILITIES FOR THE HOSPITAL MATERNITY UNIT

The FPs were aware that their call group which was 6 at that time would likely be shrinking to 4 within the subsequent year or two and were keen to know whether midwives could share in their on-call coverage rota for the hospital maternity unit. At that time, each of the FPs provided continuity of care for their own maternity patients. In addition, they were also on-call for the hospital maternity unit 1 week in six. On-call duties included coming into the hospital if someone without a local care provider presented for assessment, or if the local care provider was unavailable due to illness or being away or if another FP was having a difficult case and requested an additional care provider beyond the RN.

This seemed reasonable to the midwife, and support was obtained from the midwifery regulatory body and the professional association. An alternate practice arrangement was approved which included the midwife being supported to have an expanded scope of practice to include conducting vacuum-assisted deliveries, ordering laboratory tests and prescribing relevant medications beyond MWs' current scope through the use of medical directives. The WPSHC administration was fully supportive of this plan, and the midwifery practice received approval from the Ontario Ministry of Health and Long-Term Care (MOHLTC) in August, 2013. The first midwife began to work at WPSHC in February 2014 and was on-call for the maternity unit that month for the first time.

FUNDING OF HOSPITAL ON-CALL COVERAGE

The FPs had previously secured funding for their on-call services through the Hospital On-Call Coverage program (HOCC) of the MOHLTC some years earlier as Parry Sound is considered a remote community given its distance from the nearest referral centre and geographic isolation. In addition, FPs were able to bill on a fee-for-service basis for any assessments and deliveries conducted during their on-call weeks. However, HOCC was a program that was only open to physicians in Ontario, and midwives were not eligible for HOCC funding.

The midwife approached the Ontario Midwifery Program at the MOHLTC and proposed a funding model roughly equivalent to the HOCC funding for the on-call services provided by midwives, along with an evaluation structure. Funding was approved on a 2-year pilot

project basis and has been extended following a positive evaluation conducted in 2016. Shadow billing calculations were included to determine the cost implications of midwifery participation in the hospital on-call rota. Results demonstrated a marginal increase in costs to the MOHLTC in the first 2 years, and a decrease in costs in the 3rd year during the midwife on-call weeks.

STRUCTURE OF COLLABORATION

Four midwives currently provide maternity care for 75–85 pregnant individuals in Parry Sound per year including prenatal, intrapartum and postpartum care up to 6 weeks after the birth, at which time they return to their FPs or Nurse Practitioners for ongoing primary care services. Midwives provide continuity of care and choice of birthplace for their clients and work at WPSHC and also have privileges at the Level II referral centre, Orillia Soldiers' Memorial Hospital (OSMH), approximately 115 km away. At WPSHC, midwives and physicians work with the RNs as the second trained care provider at births, as that supports RNs to maintain their skills and experience at births. When a midwife is on-call for the maternity unit, a 2nd midwife covers the midwifery clinic and is on-call for any births planned at OSMH.

If a cesarean section is required, the midwife requests the on-call surgeon and anaesthesiologist directly, and the surgeon becomes the most responsible provider (MRP) for the parturient, while the midwife remains the MRP for the baby. The anaesthesia team had requested that a FP also attend every caesarean section to ensure the presence of an additional 'unscrubbed physician' in the operating room (OR). However, this request has been withdrawn since COVID-19 to minimise the number of health care providers in the OR.

Unlike some other models of physician/midwife collaboration across Canada, [9,10] midwives and FPs in Parry Sound do not have a shared practice so are not seeing the same childbearing patients throughout their care. While the FPs originally provided individual continuity of care to their own maternity patients, the FP group now offers a shared prenatal clinic where they participate in a weekly rotation and weekly team meetings to review cases and patient care. The physician on-call for obstetrical care that week provides the prenatal care as well as the labour, birth and postpartum care. This change to a shared prenatal clinic model has encouraged new graduates to include obstetrical care in their practice and has provided the community with continuous physician coverage. In 2019, the FP group identified that they wanted to increase learning opportunities in intrapartum care for their newly qualified FPs and residents. There is now a FP on-call to attend the FP patient births during the week that the MW is on-call for emergencies and pregnant patients without a local care provider presenting for assessment. The MWs have remained on-call for their own clients. There has been a high level of patient satisfaction as reflected in the hospital and midwife surveys received.

CONSULTATION AND REFERRAL

Some of the FPs have been referring patients to the midwives when patients require intrapartum care at the Level II hospital, including those requesting trial of labour after caesarean or those with elevated body mass index that exceed the existing protocols at WPSHC. This collaboration enables pregnant individuals to have local prenatal care and to have a known care provider for their labour and birth at OSMH. The midwives have also undertaken shared care with obstetricians from OSMH for clients who are appropriate for delivery at OSMH but can benefit from having a significant proportion of their prenatal care locally, such as those with socioeconomic challenges and medical or obstetrical conditions such as significant hypertension, substance abuse, insulin-dependent gestational diabetes, foetal growth concerns or uncomplicated twin pregnancies.

The FPs in Parry Sound have had an established relationship of consultation and referral with the obstetricians and paediatricians at the Level II hospital, which the midwives were welcomed to utilise. The midwives working at both hospitals has been very helpful in becoming known and respected members of both teams and in sharing clinical practice protocols. Both midwives and FPs are able to initiate telephone consultations with the obstetricians or paediatricians on-call at OSMH in labour or postpartum if they have an urgent concern or to refer patients for in-person or virtual

consultation appointments. Unit managers of both hospitals also meet periodically as part of a regional maternity care support network. The open links of communication both at the clinical level and at the regional level have ensured that high quality care is well supported in a small and geographically isolated hospital.

CHALLENGES

As with any human endeavour, challenges have presented themselves over the past 8 years. We recognised from the outset that MWs and FPs would likely have different "practice cultures" but we shared a commitment to joint continuing education activities, lots of communication and a common goal of strengthening the sustainability of maternity services in this community. Not all members of the wider health-care team have been comfortable with offering maternity care at WPSHC, and as maternity care providers, we have had to work hard at communicating the importance of maintaining excellent maternity care locally, including intrapartum care in this community. Rural poverty and socioeconomic disadvantage are significant in many of Canada's rural and remote communities and having care close to home has been demonstrated to improve outcomes. [11-13]

The issue of birth numbers has not been raised as a concern at our joint FP/MW meetings except with regard to all practitioners wanting to keep the overall numbers sufficient at WPSHC. Both the FP group and the MW group recognise that a proportion of our childbearing patients have medical and obstetrical risk factors that make them unsuitable for local delivery. In the past 3 fiscal years, the MW group has attended 31.6%–42.5% of their births at OSMH, 45%–55% at WPSHC and 4%–10% at home. It is important to note that WPSHC provides valuable back-up, including surgical services, which supports the safety of planned home and hospital births in this community.

We note the lack of evidence linking specific provider delivery numbers to competence in providing care in Level I settings. [14-16] The midwives are choosing to have a reduced caseload to have improved work life balance and as of 2021 are attending 18-23 births each as MRP per year. They are also attending more births in the role of 2nd during the past year as part of orienting midwives who are new to the practice and in response to shortages of OB trained nurses.

UNEXPECTED COLLABORATIONS

When situations arise where a pregnant individual or baby has required ambulance transport to a higher level centre, a midwife or a nurse has accompanied the patient with the paramedics for the transport. A midwife has come from home to accompany the transport when there was only one obstetric nurse available; had the RN left, the maternity unit would have had to close. There have been other occasions where the unit was closed due to the lack of obstetrical nurse availability, and the MWs have agreed to be called in if a patient with imminent delivery was admitted. On another occasion, a patient in preterm labour was being transported to a Level II hospital, and both a FP and MW went in the ambulance with the paramedics in case of delivery enroute. Three of the obstetric RNs have been available over past years to attend home births with a midwife when not working at the hospital. Some of them commented that they felt that their experience at home births had enhanced their skills in caring for women giving birth at the hospital. Regular re-certification in the Neonatal Resuscitation Program (NRP) has been offered for years to RNs, FPs and MWs by one of our FPs who is an NRP instructor. She has now been joined by a MW NRP instructor and most courses are co-taught.

DISCUSSION

Over time, this model of collaboration has evolved and changed, demonstrating that flexibility is important on the part of all maternity care providers to keep the local service sustainable and available to meet local needs. Medical, midwifery and nursing students have been involved in providing maternity care in our community, benefiting from exposure to an inter-professional model of care that is unique in our province. In 2021, FPs attended 54.3% of the births at WPSHC and midwives attended 45.7%. Interprofessional communication, case reviews, educational activities such as MORE^{OB}, skills drills, ALARM, a Fetal Health Surveillance course and joint participation on hospital committees that develop policies and procedures are essential for a positive inter-professional working environment

and the provision of ongoing high-quality services to meet local needs. Our committee meetings include lively discussions and thoughtful review of policies with an awareness of current clinical guidelines and research. Having excellent specialist support at our regional Level II hospital has also been an important component of our ongoing success.

CONCLUSION

A number of authors have identified the challenges and successes of a variety of models of inter-professional collaboration in maternity care for rural and remote communities. [17-22] We hope that our description of what is working well in Parry Sound, Ontario, will offer another example that may contribute to the development of additional models of sustainable maternity care in other rural and remote communities across Canada.

RECENT UPDATE

At the time of this publication, the WPSHC has closed its obstetrical unit due to a critical shortage of obstetrically trained RNs. Prior to that difficult decision, the option of using midwives in the role of OB RNs was explored. It has become clear that more time and preparation are required before this can be put into action. Creative thought, support from administration and ongoing inter-professional collaboration are needed to come up with solutions that will allow us to continue to provide this vital service to our community.

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