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CASE 2

Saving the Rural Ontario Maternity Services – Can We Do It?

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“If you want to go quickly, go alone. If you want to go far, go together.”

– African Proverb

It was a warm summer morning in Toronto, Ontario; Inaya Roy – a promising, young project manager at the Provincial Council for Maternal and Child Health (PCMCH) and already a starlet of the organization – was shifting uncomfortably in her chair. She was intermittently losing her focus trying to read through a report on the recent closure proposal of a birthing unit in Leamington (a small rural town southwest of Toronto). While reading the report, she couldn't help but reminisce on her conversation with an old family friend, Lisa Brown who, like many others, had shared her pregnancy experience with Inaya.

This was the story of Lisa's second baby's birth when she was 25 years old. She had decided to have her delivery at home with a midwife, just like she did three years prior with her first born. Lisa had recalled the first delivery as incredibly peaceful and unobtrusive. The comforting nature of her first delivery and her synergic partnership and established relationship with her midwife had made her choice of home delivery for her second child a no-brainer.

However, Lisa's second birth did not go as smoothly as she had expected. The midwife sensed something was off as soon as Lisa's water broke and observed that her amniotic fluid was thick with meconium, the early stool that an infant usually passes after, not before, they are born. In such a scenario, it is highly likely for the baby to inhale meconium in the mother's womb and struggle to breathe at birth (Grant, 2015). With her midwife's recommendation, Lisa and her husband abandoned the plan to deliver at home, and she was rushed to the nearest obstetrics ward in an ambulance 15 minutes after the complication arose. After half an hour, her second baby, Aaron, emerged – frighteningly silent. The midwife's suspicion came true; Aaron didn't cry out loud until all the meconium was suctioned out of his lungs in the obstetric ward.

Inaya could vividly recall Lisa's shuddering – even three years after the incident – at the thought of not having access to an obstetrics unit so close to her home during her pregnancy complication, as she feared she would have lost her baby son that day. Now three years old, Aaron is completely healthy, giggling, and waving at aunt Inaya from his mother's lap.

Lisa's story is not unique. Inaya has heard countless stories of how lack of access to maternity care plagues the rural and remote areas and adversely affects pregnancy outcomes. Most troubling were the stories about women who live more than four to five hours away from maternity wards and how this affects them both financially and emotionally. Many women must travel a long distance, leave their communities three or four weeks before their due dates, and sometimes have to arrange to stay in hotels close to the hospitals.

Already a rising star at PCMCH, Inaya's unrelenting passion for maternity care had not gone unnoticed by her superiors. They tasked her with a formidable challenge: coming up with an integrative solution for the issues encompassing maternity and prenatal care in Ontario.

BACKGROUND

Ontario, the largest province by population in Canada, is divided into 14 Local Health Integration Networks (LHINs) for better integration and coordination of services and funding health care costs (Born & Sullivan, 2011). However, in this regionalized system, each hospital has its individual board of directors. Currently, there are a total of 96 hospitals in the province providing maternal and newborn services (PCMCH, 2017). According to Ontario's Better Outcomes Registry & Network (BORN, 2015) in 2013-14 a total of 97.1% Ontario births were hospital births and only 2.6% were home births (Exhibit 1).

Maternity Ward Closure at Leamington District Memorial Hospital

Leamington District Memorial Hospital (LDMH) is located in Leamington, Ontario - a rural municipality in the Essex County with a population size of approximately 28,403 (Statistics Canada, 2016). Since 1950, the hospital has been serving the city of Leamington as well as Essex and Chatham-Kent with a catchment area containing a population of 75,000 (LDMH, 2011).

Besides LDMH, the next closest hospital is in the urban city of Windsor, Ontario, and it takes between 40 to 60 minutes (sometimes even longer, depending on weather and traffic) to drive there. When the LDMH board submitted a proposal on October 31, 2014 to close its obstetrical unit in 2015, many community residents and stakeholders expressed concerns regarding the potential risk of having no other birthing centre in Leamington (Erie St. Clair LHIN, 2014). As a result of public protests by the local midwives, midwifery clients, and community residents, on November 27, 2014, the Erie St. Clair LHIN created an expert panel to review, assess, and evaluate the proposal and identify solutions. After assessment and evaluation, the panel recommended a new, sustainable, integrated, community-based, patient- and family-centric birthing service model in their report.

Maternity Services in Rural Ontario

LDMH was not the only maternity ward in Ontario facing closure. In response to external and internal challenges facing Ontario's health system, the province saw the closure of other rural maternity programs, over the last few years (PCMCH, 2015b). More than 40 hospitals, mainly in rural areas, have closed their obstetric wards in the last decade in Canada, and at least ten maternity hospital wards have closed in Ontario in the past ten years (Grant, 2015). Often, the closure of maternity care units in rural hospitals has resulted from the growing trends of centralization of health services towards regional centers (Association of Ontario Midwives [AOM], 2015).

According to the Southwestern Ontario Regional Perinatal Services Project Coordinating Committee report (2003), 12 hospitals in the region have stopped offering obstetrical care and obstetrical units and another 11 hospitals are at risk of closure in the near future (AOM, 2015). Similarly, BORN data shows that another five hospitals in Ontario have closed their obstetrical units since 2011 (AOM, 2015). According to the AOM (2015), different factors contribute to this trend of rural maternity unit closure, including decreasing birth volumes, shortage of different health professionals to provide intra-partum and newborn care, difficulty in recruiting maternal care providers, concerns about the quality of maternal and newborn outcomes in small facilities, occupational stress, perceived medico-legal risk, and budgetary or financial constraints.

Effect of Local Maternity Unit Closure

In Ontario, the number of people living in rural regions is 1.8 million, which is 14.1% of the province's population (Statistics Canada, 2011). Seen through an equity lens, huge disparities and health inequity persist between the urban and rural populations. For example, people living in rural areas have a lower life expectancy at birth, higher all-cause mortality, and worse self-rated health compared to urban populations (AOM, 2015). Additionally, compared to urban women, the rate of severe maternal morbidity is higher in rural women (2.4% versus 1.7%) (Canadian Institute for Health Information, 2013).

Closure of maternity or obstetric units in rural regions has a wide range of effects, from negative health outcomes of mothers and newborns to economic impact on the families of the pregnant women (as they have to pay out of pocket to travel to access maternity care elsewhere). Socioeconomically disadvantaged women face additional challenges such as accessing transportation, getting paid time off work, and finding childcare. Closures can also negatively affect the local businesses and eventually recruitment of young families to the region, as the unavailability of maternity services nearby can increase the chance of absence from work and undue hardships (AOM, 2015). Furthermore, it can cause disruption to the community's sense of belonging - a key health and wellness indicator (Miewald et al., 2001).

According to the Public Health Agency of Canada (2009), 25.6% women had to travel to another city or community to give birth in 2009, and the percentage of these women who travelled more than 100 kilometers to give birth was 2.5%. The separation of pregnant women from their families and communities can cause negative outcomes. The health and economic impacts of the unavailability of local maternity programs is well documented.

Grzybowski, Stoll, & Kornelsen (2011) in their provincial rural study found that distance to service is positively linked to adverse maternal and newborn outcomes. The study showed that women who live more than four hours away from maternity services were at 3.17 times higher risk of experiencing perinatal mortality than women served by local maternity units. Additionally, the study found that women living two to four hours away from maternity services experienced a higher induction rate, and the women living one to two hour(s) away had a six times higher rate of unplanned out-of-hospital delivery or delivery at the side of the road.

“No Robust Evidence Base” for Closing Rural Maternity Units

The co-director of the Centre for Rural Health Research at the University of British Columbia states that there is no 'robust evidence base' for closing small rural facilities. However, there is a concern regarding the quality of maternal and newborn outcomes in small facilities, as there is small delivery volume. Although there are a limited number of studies exploring the link between quality and volume in obstetrics, some Canadian studies showed that there is no relationship between delivery volume and adverse outcomes (Silversides et al., 2013). Klein, Spence, Kaczorowski, Kelly and Grzybowski (2002) found that family physicians' delivery volumes were not associated with adverse or negative maternal or newborn outcomes. Additionally, different studies at national and regional levels show that with or without caesarean section capacity, service models at rural sites are associated with positive outcomes (Grzybowski et al., 2015). In fact, Grzybowski and associates demonstrated the strong need for sustained, small, local maternity services by composite analysis of data from three Canadian provinces.

OVERVIEW OF THE PROVINCIAL COUNCIL FOR MATERNAL AND CHILD HEALTH

In 2008, the transition of the Provincial Council for Children's Health (PCCH) (formed in 2006) to become PCMCH (hosted by The Hospital For Sick Children [SickKids]) began with an expanded mandate recognizing the continuum of care within the maternal, newborn, child, and youth

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health care system in Ontario. Two unique goals of PCMCH are to generate information to support the evolving needs and serve as a resource to the maternal-child health care system in Ontario. The goal is to support system improvement and to influence how services are delivered across all levels of care (PCMCH, 2015a). The organizational structure of PCMCH is shown in the Exhibit 2.

The vision of the organization is “The Best Possible Beginnings for Lifelong Health” and the mission is as follows:

- **Be the provincial forum** in which clinical and administrative leaders in maternal and child health can identify patterns and issues of importance in health and health care delivery for system support and advice.
- **Improve the delivery** of maternal-child health care services by building provincial consensus regarding standards of care, leading practices and priorities for system improvement.
- **Provide leadership and support** to Ontario's maternal and child health care providers, planners and stewards in order to maximize the efficiency and effectiveness of health system performance.
- **Mobilize information and expertise** to optimize care and contribute to a high-performing system, thereby improving the lives of individual mothers and children, providers and stewards of the system (PCMCH, 2015a; PCMCH, 2016a)

‘LOW RISK’ PROJECT OF PCMCH

On November 17th, 2014, the Minister of Health and Long-Term Care met with the AOM. The Minister committed to exploring opportunities to devise a provincial, low-risk maternal/birthing strategy that would develop sustainable models and options for maternity care in smaller communities, support communities that are currently facing difficulties sustaining their local maternity care programs, and support appropriate and safe growth in home and out-of-hospital births (PCMCH, 2015b).

In the ensuing months, ministry staff engaged in discussion with the PCMCH to assess the Council’s interest and capacity to lead the development of the strategy on behalf of the Ministry and provide recommendations to the Ministry. PCMCH leadership reciprocated with earnest interest to undertake this project for the Ministry (PCMCH, 2015b).

The Low Risk Maternal Newborn Strategy project of PCMCH aims “... to design and develop effective low risk maternal and newborn strategy for Ontario (Exhibit 2). Maternal and newborn care lies as a foundational core of healthy continuity of any society – and thus the province of Ontario spends approximately one billion dollars annually to provide and ensure a healthy beginning for mothers, babies and their families” (PCMCH, 2015b).

However, the lack of systemic, province-wide policies and strategies in place engenders equity issues, especially in accessing services like delivery options and timely access to care centers. According to PCMCH, “an effective low risk maternal and newborn strategy will help to ensure that all women have equitable choice of delivery options, and access to the right level of care at the right time, no matter where they live in the province as the majority of pregnancies and births are considered as low risk or ‘normal’” (PCMCH, 2015b, Exhibit 3).

To lead the development of this provincial strategy, PCMCH conducted an environmental scan on the evolving changes in access, quality, technology, etc... of provincial maternity care, as well as quantitative data analysis. They identified potential affected stakeholder groups and convened a group of dedicated professionals to form a Low Risk Maternal Newborn Leadership

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Team and Expert Panel comprised of leaders ranging from midwifery, family medicine and obstetrics to nursing, anaesthesiology, and paediatrics from across Ontario (PCMCH, 2015b).

The identified affected stakeholders are as follows:

- Women and their families who require maternal and newborn services
- Obstetricians
- Midwives
- Primary care providers (e.g. family physicians, nurses) who deliver maternal/obstetrical services
- Other clinicians who deliver maternal services
- Other physicians who support maternal programs (e.g. general surgery; anesthesia)

In developing the framework for a low-risk model of maternal and newborn care, the Leadership Team and Expert Panel defined five unique periods of time, including the pre-pregnancy, antenatal, late third trimester, labour and birth, and postpartum periods and listed specific essential components for each of the five identified time periods.

ENGAGING THE WOMEN OF ONTARIO IN DEVELOPING THE STRATEGY

Engagement of Ontario women is imperative in the development of the strategy. As an ongoing effort, PCMCH conducted a survey in 2015 to examine a diverse set of perspectives of Ontario women from urban, rural, and remote areas. A total of 3,445 women who had given birth in the past five years (2010-2015) participated in the online survey and provided feedback on the draft component developed by PCMCH. The overview of the survey participants is shown in Exhibit 4. The survey also allowed them to share their views on the current system and comment on how it could be improved. The analysis of the survey results suggested strong agreement of the majority with the key components of the strategy (i.e. vision, values, and the essential components of care). Despite certain limitations of the survey (like selection bias), the invaluable feedback would be incorporated into the strategy. PCMCH's final survey report (2016) included the following recurrent key themes from the survey:

1. Health Care Services – Availability, organization, and delivery of certain services needs to be improved.
2. Medicalization of Pregnancy – Pregnancy should be viewed as a normal process.
3. Autonomy & Informed Choice – Women should be provided with the information they need to make the right decisions for themselves. Individual decisions must be respected.
4. Perinatal Support (Educational & Emotional) – Evidence-based information, support and referral should be provided throughout the perinatal period.
5. Interaction with Health Care Providers & the System – Women should be empowered to be equal partners with their care providers during their care (PCMCH, 2016a).

INTER-PROFESSIONAL COLLABORATION – SOLUTION FOR SUSTAINING RURAL MATERNITY SERVICES

During the bi-weekly and monthly meetings, the Leadership Team and Expert Panel of PCMCH, as well as other stakeholders across the province, has indicated the importance of alternative, sustainable models of inter-professional collaboration (IPC) of different maternity care providers and the efficient allocation of human health resources as potential solutions for preventing the closure of rural maternity wards (Exhibit 3). Additionally, the model will ensure access equity and long-term sustainability of rural maternity units. Effective collaboration between general practitioners, midwives, and nurses can potentially ensure the equity in access and quality of care to rural women, given that the rural community services often struggle to sustain a full-time surgical or obstetric specialist due to lack of resources or low patient volume. IPC has also been

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identified as the cornerstone of ensuring birth remains close to home by the Society of Rural Physicians of Canada (AOM, 2015).

IS A CULTURE OF COLLABORATION POSSIBLE IN ONTARIO?

One morning, Inaya was reviewing some research articles about IPC, as she would soon start working with the Leadership Team and Expert Panel on a framework for an integrated, sustainable, low-risk model. Looking at the conceptual framework, models, indicators, and components of collaboration, Inaya realized that developing frameworks for a sustainable inter-professional model is theoretically and practically complex, given the diversity of partners, agencies, funders, programs, and health professions across the pregnancy continuum. She found that currently there are different providers and different models of care that exist for delivering maternal and newborn care. In Ontario, obstetricians do 75 to 80 percent of deliveries, and midwives and family physicians share the remainder (Born & Laupacis, 2011). The distribution of low risk and all Ontario births across different care providers is shown in Exhibit 5. Although in some rural settings, different health care providers often have to work inter-professionally, there are several factors that act as barriers for effective collaboration, such as:

- Lack of awareness about the skills and qualifications of other health professionals.
- Fears over liability and risk.
- Lack of funding to support inter-professional work (AOM, 2015).

DEFINING THE FRAMEWORK AND IDENTIFYING THE MOST COMMON BARRIER TO ACHIEVING THE INTER-PROFESSIONAL MODEL

The Low Risk Maternal Newborn Leadership Team and Expert Panel met on May 9th, 2016 to define the framework of an inter-professional model of care that could support the Ontario Ministry of Health and Long-Term Care (MOHLTC) call for proposals. While developing the framework, it became evident that there is a continuum of inter-professional care, and that most low-risk maternal-newborn models today are at the early stages of this continuum. In order to explore different care providers' perspectives, at the PCMCH meeting, Inaya asked the teams to identify one of the main challenges they face working inter-professionally, especially in a low volume rural setting. The Leadership Team and Expert Panel started to discuss the barriers to achieving an inter-professional model of care, which would be further explored with them over the coming weeks.

INEQUALITY IN CURRENT FUNDING MODEL – THE MOST COMMON BARRIER

After the long meeting, when Inaya was reviewing her notes of different care providers' responses, she noticed that almost all of them identified the current funding model as a main barrier for achieving inter-professional models of care. Some of the key themes that emerged from their responses are listed below.

From the Physicians' Perspectives

- There is no difference in remuneration based on patient complexity (i.e. low risk and complex high risk pay is the same).
- Physicians' payments should be considered based on complexity in a fee for service model.
- Physicians' fees for antenatal and for in-patient postpartum and newborn care are low, which creates an incentive to provide intrapartum care and a competition between care providers as to who "catches" the baby. Thus, antenatal and postpartum care remuneration should be reconsidered (right now greatest incentive is for intrapartum care).

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- They should be paid based on complexity of care to give up the 'low-risk' pool to midwives or other providers.

From the Nursing Perspective

- The difference in nursing remuneration in a hospital setting vs. out of hospital (i.e. lower compensation in community) creates disincentive to work in both settings. However, from the patients' perspectives, continuity of nursing care from hospital to community is lost. Patient and nursing satisfaction would be higher if nurses could provide continuous hospital and community care throughout the perinatal phases.

From the Midwives' Perspectives

- Although within their scope, there is no compensation for preconception or pre-pregnancy care.
- There should be equality of payment for different care providers.

From All Perspectives

- Generally, each provider group feels that there is pay inequality – different care provider groups are paid differently for equivalent perinatal care services rendered.
- Case complexity needs to be taken into account in, whatever funding model is used.
- The funding model cannot create incentives/disincentives that would jeopardize women's access to quality of care.
- All providers should be allowed to practice the extent of their scope/skills. There should not be a hierarchy of power in the integrated model.

FINDING A SOLUTION AND HOW TO SATISFY ALL STAKEHOLDERS

After reviewing all these perspectives and her own research notes, Inaya was contemplating the complex problem and how to disentangle the Gordian Knot. Dealing with pregnancy and child birth by itself can be quite daunting and an arduous task for mothers; under no circumstances should a mother have to worry about the availability of skilled help in case of unexpected complications – such help should be available to her immediately and seamlessly. Thus, from a mother's perspective, she should be able to choose the care she wants and a provider who will follow her throughout the process, ensuring best possible clinical outcomes and an overall positive experience. From the perspective of the Ontario Ministry of Health and Long-Term Care, there is an incentive to provide the best care possible in the most cost efficient manner, which is achieved by distinguishing mothers by risk level and availing services accordingly to minimize cost (Born & Laupacis, 2011).

Only a well-integrated model of care can satisfy the wishes of both patients and the health care system. In this model, midwives, obstetricians, nurses, and family physicians all must cooperate and work in collaboration to provide care to patients, each using their special skills when needed. However, the two co-existing and largely independent systems currently in place in Ontario – comprising of midwives and obstetricians – are causing fragmentation and friction between them, resulting in sub-optimal, and likely costly or inefficient, care (Born & Laupacis, 2011).

Inaya pondered whether one integrated model exists that would satisfy all stakeholders in this scenario. In this model, how will provider autonomy be respected? What will be the problem resolution mechanism? How will the decisions be made and who will be held accountable? How will a client's/patient's information (i.e. medical charts) be shared between care providers from different professions? And how can she more effectively engage all the important stakeholder

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groups and incorporate their invaluable input to find solutions? Although seemingly impossible, what gave her hope was the over-arching common end goal: to ensure a safe delivery and the well-being of the mother and a healthy baby.

NEXT STEPS

After a week, using the description of the desired future state of inter-professional models of care, Inaya sent a form by email to the Leadership Team asking them to describe the barriers to achieving this model across the perinatal phases of care (i.e. pre-pregnancy to postpartum care). They would also provide possible solutions to these barriers. This feedback would then be shared with the broader Expert Panel for additional input. In order to obtain the perspectives of different key players of maternity care in Ontario, the findings would then be used to work with relevant partners such as AOM, the Ontario Medical Association, The Ontario College of Family Physicians, The Society of Obstetricians and Gynecologists of Canada – Ontario, the Ontario Nurses' Association, the Joint Provincial Nursing Committee, and the Ontario Hospital Association to develop potential solutions to be shared with the Ministry.

**EXHIBIT 1
Maternity Care in Ontario**

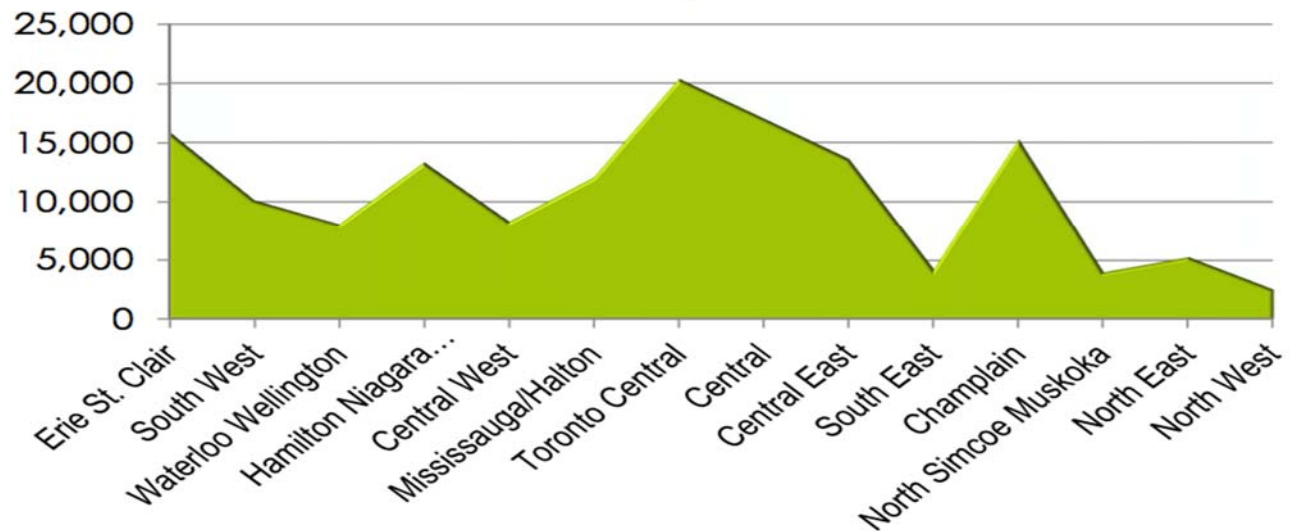
Table: Total Number of Births to Ontario Residents

LOCATION OF BIRTH	2012-2013		2013-2014	
HOME	3563	2.5%	3,705	2.6%
HOSPITAL	137,206	97.0%	135,871	97.1%
BIRTH CENTRE*	N/A		42	0.0%
OTHER†	681	0.5%	336	0.2%
MISSING	11	0.0%	15	0.0%
TOTAL ONTARIO BIRTHS	141,461		139,969	

Source: BORN Ontario, 2015.

Birth in Ontario by the Local Health Integration networks (LHINs)

**Total Births by LIHN 13/14
n=139,594**



Source: BORN Ontario, 2015.

EXHIBIT 2
Organization of the Provincial Council for Maternal and Child Health



Source: PCMCH, 2016b.

The Low Risk Maternal-Newborn Strategy Vision

“Every woman in Ontario will have choice and access to maternal and newborn care that is close to home, from before conception, throughout the pregnancy, and in the first six weeks after birth.”

Source: PCMCH, 2016a.

The Low-Risk Maternal-Newborn Strategy Values

Acceptable & Patient-centered
Health care providers should offer services in a way that is sensitive to an individual's needs and preferences.

Accessible
People should be able to receive the right care at the right time in the right setting by the right health care provider.

Equitable
People should receive the same quality of care regardless of who they are and where they live.

Effective & High Quality
People should receive care that works and that is based on the best available scientific information.

Safe
People should not be harmed by an accident or mistakes when they receive care.

Efficient
The health system should continually look for ways to reduce waste, including waste of supplies, equipment, time, ideas and information.

Source: PCMCH, 2016a.

EXHIBIT 3 Definitions

Low risk pregnancy cohort

Women whose pregnancies fall into Robson criteria 1 to 4, and who do not have any of the health conditions specified below.

- Robson 1 – Nullipara, singleton cephalic, ≥ 37 weeks, spontaneous labour
- Robson 2 – Nullipara, singleton cephalic, ≥ 37 weeks (induced or Caesarean section before labour)
- Robson 3 – Multipara, singleton cephalic, ≥ 37 weeks, spontaneous labour
- Robson 4 – Multipara, singleton cephalic, ≥ 37 weeks (induced or Caesarean section before labour)

Excluding the following health conditions,

Maternal: Diabetes, diabetes complications/ comorbidities, cancer, autoimmune, genetical, cardiovascular, craniofacial, neurodevelopmental, gastrointestinal, gastrouterine, neurology, musculoskeletal, haematological, placental, pulmonary disorders and maternal pregnancy complications.

Fetal: Anomalies or complications.

Source: Best Start, 2016.

Inter-professional collaboration

According to the Canadian Interprofessional Health Collaborative (CIHC), interprofessional collaboration is defined as being “the process of developing and maintaining effective interprofessional working relationships with learners, practitioners, patients/clients/families and communities to enable optimal health outcomes.”

Source: CIHC, 2010.

Inter-professional team models

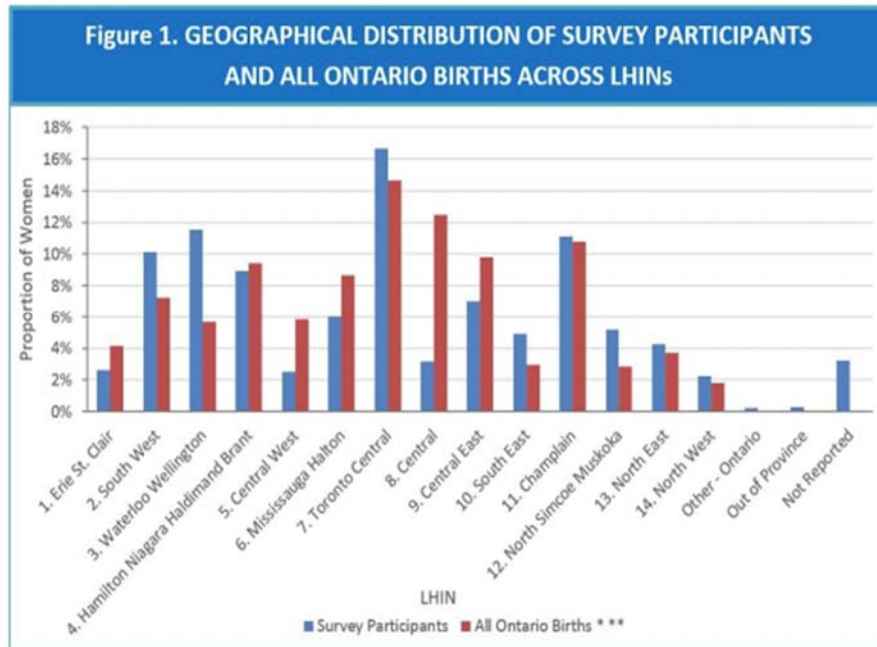
According to Canadian Health Service Research Foundation:

“Interprofessional team models are teams with different health care disciplines working together towards common goals to meet the needs of a patient population. Team members divide the work based on their scope of practice; they share information to support one another’s work and coordinate processes and interventions to provide a number of services and programs. In advanced or mature collaborative teams, the patient and family are included as key members of the team. Examples of interprofessional team models include family health teams, community health centre teams, and integrated health teams. Positive evidence of interprofessional team models is building, particularly for teams working with patients with chronic diseases and/or mental health needs. Interprofessional team models of care vary based on the context, intra-group processes, nature of the tasks, and intensity of collaboration that are engineered in the structure and processes of the teams. The intensity of collaboration ranges from consultative activities to integrative work practices. The effectiveness of teams is dependent on the team members’ knowledge of one another’s roles and scopes of practice; mutual trust and respect amongst the team members; commitment in building relationships; willingness to cooperate and collaborate; and the extent to which the team has organizational supports. Incentives such as appropriate system-level policies/legislation, favourable compensation models, balance in workload, working arrangements (opportunities to communicate, discussion, conducting joint work) and team characteristics (team size, team leadership) influence how team members collaborate to achieve positive outcomes.”

Source: Canadian Health Services Research Foundation, 2012.

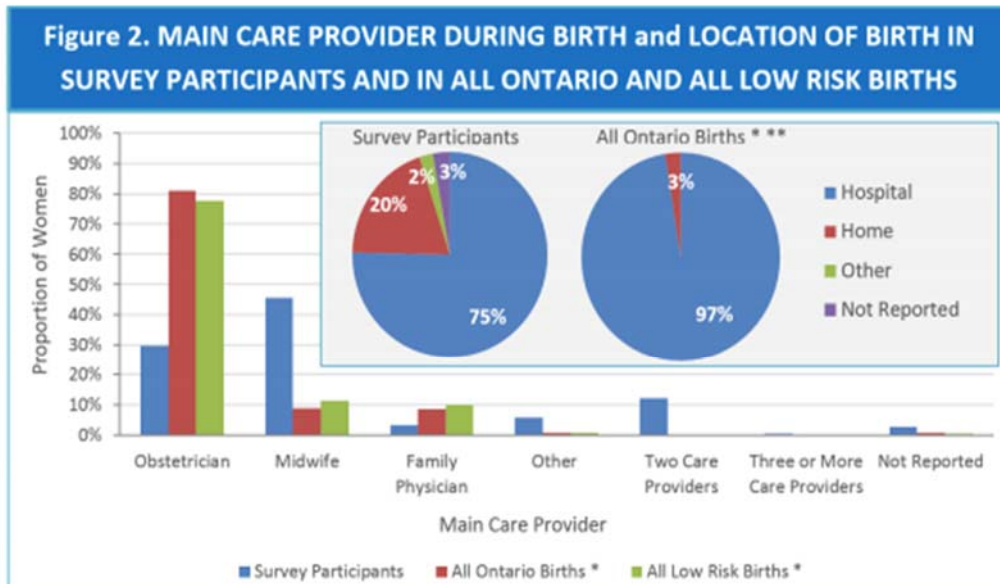
EXHIBIT 4

Overview of the Low Risk Maternal Newborn Strategy Ontario Women Survey



** The distribution of low risk births across Ontario LHINs is comparable to the distribution of all Ontario births

Source: PCMCH, 2016a.



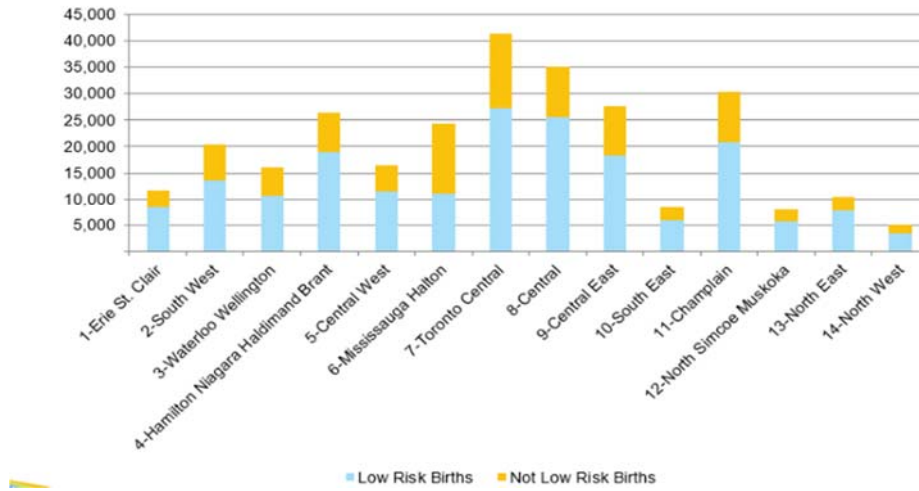
Data Source: BORN Ontario, 2012-2014

** The proportion of hospital vs. home births among low risk women is similar to that in all Ontario women.

Source: PCMCH, 2016a.

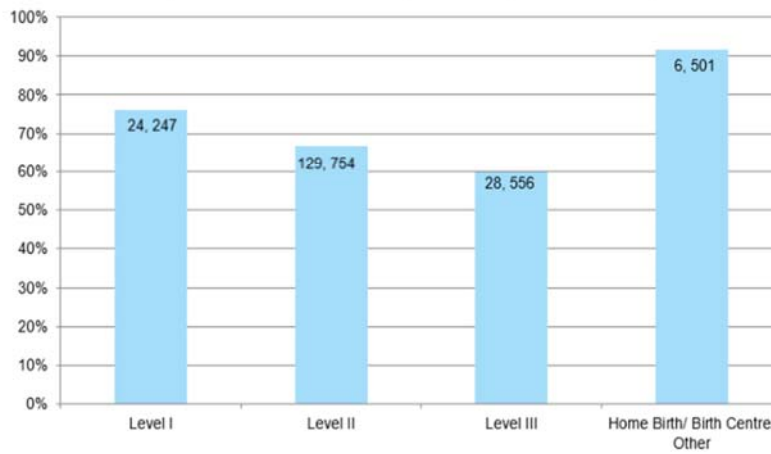
EXHIBIT 5

Number of low risk and not low risk births by LHIN (Ontario, 2012-2014)



Overview of Low Risk & All Ontario Births

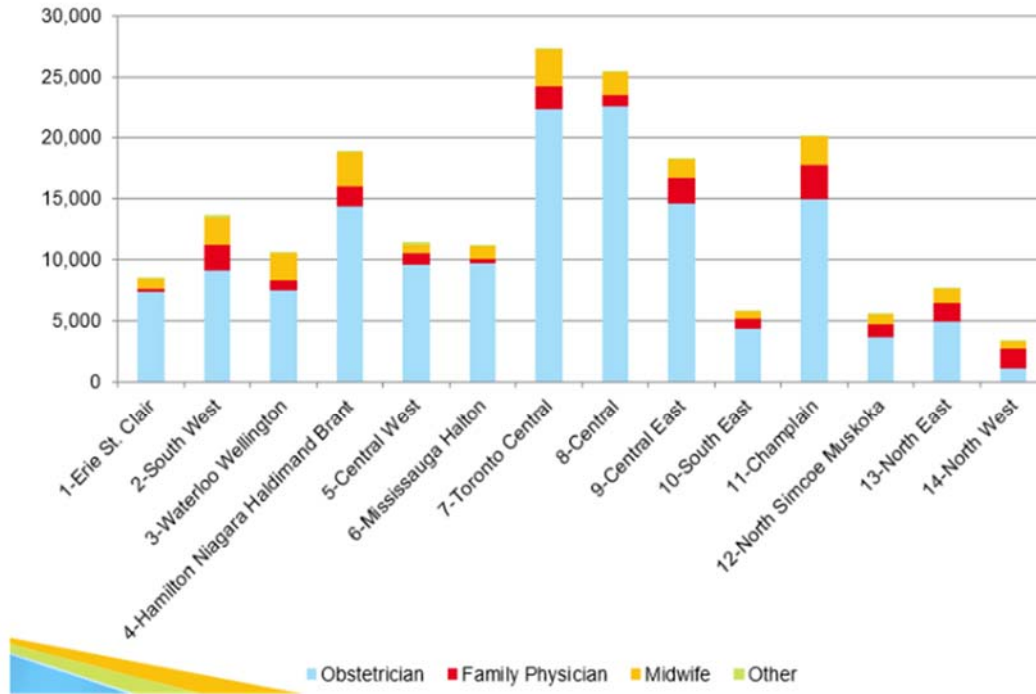
Proportion of all women who are low risk by location of birth (Ontario, 2012-2014)



Source: Best Start, 2016.

EXHIBIT 5 (cont'd)

Distribution of the number of low risk births across delivering healthcare provider specialties by LHIN (Ontario, 2012-2014)



Source: BORN Ontario, 2015.

Number of unattended low risk births across LHINs (Ontario, 2012-2014)

LHIN	Number of Unattended Births
2-South West	18
11-Champlain	13
4-Hamilton Niagara Haldimand Brant	11
1-Erie St. Clair	<6
3-Waterloo Wellington	<6
5-Central West	<6
6-Mississauga Halton	<6
7-Toronto Central	<6
8-Central	<6
9-Central East	<6
10-South East	<6
12-North Simcoe Muskoka	<6
13-North East	<6
14-North West	<6

Source: Best Start, 2016.

REFERENCES

1. Association of Ontario Midwives. (2015). Rural and remote maternity care in Ontario: Analysis and recommendations. Retrieved from http://www.ontariomidwives.ca/images/uploads/documents/Rural_and_Remote_Maternity_Care_in_Ontario_Analysis_and_Recommendations_FINAL.pdf
2. Best Start (2016). Retrieved from http://en.beststart.org/sites/en.beststart.org/files/u4/K4_PCMCH_Best_Start_Conference_Presentation_19Feb2016.pdf
3. Better Outcomes Registry & Network (BORN). (2015). Ontario Annual Report 2012–2013 and 2013–2014. Retrieved from <http://www.bornontario.ca/assets/documents/specialreports/121187%20Final%20Web%20-%20English.pdf>
4. Born, K., & Laupacis, A. (2011). Why isn't there a system of integrated maternity care in Ontario? Retrieved from <http://healthydebate.ca/2011/06/topic/cost-of-care/maternitycare>
5. Born, K., & Sullivan, T. (2011). LHINs and the governance of Ontario's health care system. Retrieved from <http://healthydebate.ca/2011/06/topic/cost-of-care/lhins-2>
6. Canadian Health Services Research Foundation. (2012). Interprofessional collaborative teams. Retrieved from http://www.cfhi-fcass.ca/Libraries/Commissioned_Research_Reports/Virani-Interprofessional-EN.sflb.ashx
7. Canadian Institute for Health Information. (2013). Hospital births in Canada: A focus on women living in rural and remote areas. Retrieved from http://www.cihi.ca/cihi-ext-portal/pdf/internet/BIRTH2013_SUMMARY_EN
8. Canadian Interprofessional Health Collaborative (CIHC). (2010). Retrieved from <https://www.cihc.ca/>
9. Erie St. Clair Local Health Integration Network. (2014). Retrieved from <http://www.eriesticlairlhinc.on.ca/Resources.aspx>
10. Grant, K. (2015, April 8). A ward worth saving: Rural obstetrics units are closing and communities are fighting back. *The Globe and Mail*. Retrieved from <https://www.theglobeandmail.com/life/health-and-fitness/health/the-disappearing-rural-maternity-ward/article23840490/>
11. Grzybowski, S., Fahey, J., Lai, B., Zhang, S., Aelicks, N., Leung, B. M., ... Attenborough, R. (2015). The safety of Canadian rural maternity services: A multi-jurisdictional cohort analysis. *BMC Health Services Research* 15(1). Retrieved from <http://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-015-1034-6>
12. Grzybowski, S., Stroll, K., & Kornelsen, J. (2011). Distance matters: A population based study examining access to maternity services for rural women. *BMC Health Services Research* 11:147. Retrieved from <http://bmchealthservres.biomedcentral.com/articles/10.1186/1472-6963-11-147>
13. Klein, M.C., Spence, A., Kaczorowski, J., Kelly, A., & Grzybowski, S. (2002). Does delivery volume of family physicians predict maternal and newborn outcome? *Canadian Medical Association Journal* 166(10), 1257-1263. Retrieved from <http://www.cmaj.ca/content/166/10/1257.short>
14. Leamington District Memorial Hospital (LDMH). (2011) Retrieved from <http://www.leamingtonhospital.com/patients.php?id=54>
15. Miewald, C., Klein, M.C., Ulrich, C., Butcher, D., Estekhary, S., Rosinski, J., & Procyk, A. (2001). "You don't know what you've got till it's gone": The role of maternity care in community sustainability. *Canadian Journal of Rural Medicine* 16(1). Retrieved from <https://www.srpc.ca/PDF/cjrm/vol16n1/pg7.pdf>

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16. Provincial Council for Maternal and Child Health. (2015a). PCMCH Fact Sheet. Retrieved from <http://www.pcmch.on.ca/wp-content/uploads/2015/07/Fact-Sheet-2015-final.pdf>
17. Provincial Council for Maternal and Child Health. (2015b). Low Risk Maternal Newborn Strategy. Retrieved from <http://www.pcmch.on.ca/the-low-risk-maternal-newborn-strategy/>
18. Provincial Council for Maternal and Child Health. (2016a). The low risk maternal-newborn strategy survey of Ontario mothers final report. Retrieved from http://www.pcmch.on.ca/wp-content/uploads/2016/04/Low-Risk-Strategy-Survey-Report_Final_2016APR26.pdf
19. Provincial Council for Maternal and Child Health. (2016b). Retrieved from <http://www.pcmch.on.ca/about-us/committees/>
20. Provincial Council for Maternal and Child Health. (2017). Retrieved from <http://www.pcmch.on.ca/health-care-providers/maternity-care/pcmch-strategies-and-initiatives/loc/>
21. Public Health Agency of Canada. (2009). What Mothers Say: The Canadian Maternity Experiences Survey. Retrieved from <http://www.phac-aspc.gc.ca/rhs-ssg/survey-enquete/mes-eem-2-eng.php>
22. Regional Perinatal Services Project Coordinating Committee. (2003). AT RISK: Perinatal services in Southwestern Ontario – issue summary and recommendations for action. London, ON: Regional Perinatal Services Project. Retrieved from http://www.lhsc.on.ca/About_Us/SPL/projects/completed/SWOPP/finalrpt.pdf
23. Silversides, A., Tepper, J., & Konkin, J. (2013). Maternity services disappearing in rural Canada. Retrieved from <http://healthydebate.ca/2013/05/topic/wait-times-access-to-care/maternity-services-disappearing-in-rural-canada>
24. Statistics Canada. (2011). Population, urban and rural, by province and territory (Ontario). Retrieved from <http://www.statcan.gc.ca/tables-tableaux/sum-som/I01/cst01/demo62g-eng.htm>
25. Statistics Canada. (2016). Retrieved from <http://www12.statcan.gc.ca/census-recensement/2011/as-sa/fogs-spg/Facts-cma-eng.cfm?LANG=Eng&GK=CMA&GC=557>

INSTRUCTOR GUIDANCE

Saving the Rural Ontario Maternity Services – Can We Do It?

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BACKGROUND

Inaya, manager of the 'low-risk' project at Provincial Council for Maternal and Child Health (PCMCH), had to come up with an integrative solution for the issues encompassing maternity care in Ontario. The low-risk project aims "to design and develop effective low risk maternal and newborn strategy for Ontario (2015-2018) to ensure that all women have an equitable choice of delivery options, and access to the right level of care at the right time, no matter where they live in the province". In response to external and internal challenges facing Ontario's hospitals, the province has seen the closure of rural maternity programs over the last few years. The women in communities that are unable to sustain local services must travel to access distant services, and depending on the distance to the nearest referral center, may be away from their homes and communities during the critical pregnancy period and child birth. The separation of pregnant women from their families and communities can cause negative outcomes. The health and economic impacts of the inability to access local maternal programs are well documented. Different stakeholders have indicated the importance of alternative, sustainable models of inter-professional collaboration of midwifery, primary and specialty care, and the efficient allocation of human health resources (PCMCH, 2015). To create the framework of the model, PCMCH formed a leadership team and expert panel consisting of different care providers. Inaya had to identify barriers and potential solutions by engaging different care providers and exploring the challenges from their perspectives. The findings would be used to work with relevant partners, such as associations of different health care professionals, to develop potential solutions for the Ministry.

The goal of the case is to provide readers with the opportunity to apply the concept of collaboration and also explore the barriers to achieving inter-professional collaboration from the key stakeholders' perspectives.

OBJECTIVES

1. Understand the effect of different social determinants on pregnancy outcomes.
2. Understand the importance or role of effective province-wide policies or strategies ensuring equity of maternal and newborn care.
3. Discuss and identify barriers to accessing maternity services in rural settings.
4. Understand the concept and importance of inter-professional collaboration for long-term sustainability of rural maternity services.
5. Identify the key stakeholders and effectively engage with them to determine different barriers to achieving inter-professional care.
6. Explore different maternity care providers' perspectives to find solutions regarding issues related to inter-professional care.

DISCUSSION QUESTIONS

1. What is the main problem or issue discussed in the case?
2. What are some social determinants that can potentially affect pregnancy outcomes?
3. What are some factors or reasons contributing to the problem or closure of maternity services in Ontario?
4. Name some important/key stakeholders in the maternity care sector in Ontario?
5. What is collaboration or inter-professional collaboration? Do you think it is important? Why? Does anyone want to share an experience where you had to work in collaboration with people from different disciplines? How was that? If that was a bad experience, in your opinion, what was the reason behind that?
6. What are the indicators or factors that influence inter-professional collaboration? Which one is the most important for collaboration? Why? In this case scenario, which one is the most important one in your opinion? Why?
7. What are some key challenges or barriers for inter-professional collaboration?
8. Name some funding/remuneration models for care providers in Ontario? What are the strengths and weaknesses of each of the models?
9. What incentives should/could be given to different care providers to ensure effective collaboration and integrated care and to encourage them to work in rural or low volume areas?
10. What are some other challenges that should be taken into consideration while planning and creating a framework for the inter-professional working model?
11. Do you think communication or sharing information between two different care providers would be a challenge in this type of model? If yes, how can this problem be solved?

KEYWORDS

Inter-professional care; collaboration; access; equity; rural health; maternal and newborn health; continuum of care; Ontario policy; funding models; sustainability; maternal services; care providers; Low Risk Strategy.