

# Family Medicine Maternity Care: Implications for the Future

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**Anne Biringer, John Maxted and  
Lisa Graves**

Contributions are acknowledged  
from the following people:

Monica Brewer  
William Ehman  
Andrée Gagnon  
Sharon Northorp  
Larry Reynolds

Observers  
Elizabeth Brandeis  
Kathryn Doren  
Dean Leduc



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## INTRODUCTION

The 2007 National Physician Survey (NPS) reveals that 11.1% of Canadian family physicians offer intrapartum care.<sup>1</sup> The comparable number in the 1997 Janus Project survey was 20%.<sup>2</sup> In addition, 2.6% of family physicians providing intrapartum care in 2007 indicated that they were either going to stop doing this or retire within the next two years. There are large regional variations of those providing intrapartum care, ranging from a low of 8.1% of family doctors in Ontario to a high of 31.4% in the Territories.

While a much higher percent of family physicians offer prenatal and postpartum care (approximately 50% in the 2007 NPS), this continued incremental decline in intrapartum involvement by family doctors has been interpreted as the death knell of family medicine maternity care. However, given the number of patients with family doctors across this country, an estimated 26% of Canadian babies were still delivered by family physicians in 2004-2005. (1)

The decrease in the number of family physicians providing intrapartum care has been striking in large urban settings. The decline has been less precipitous in smaller rural and remote areas. However, much smaller decreases have tremendous potential to disrupt obstetrical and, secondarily, general medical care in these communities.

This paper is intended to inform The College of Family Physicians of Canada (CFPC), its members and other key stakeholders about the current state of family medicine maternity care across the country – in practice and in education / training. It will make recommendations based on the findings of a survey, the current literature and the expert opinions of members of the CFPC's Maternity and Newborn Care Committee (MNCC).

(1) Combined data from the Canadian Institute for Healthcare Information and Statistics Canada indicates that in 2004/2005 (the most recent period for which reliable data is available), family physicians delivered 86,541 babies - including 3,495 by caesarean section. This represents 25.6% of all Canadian births but does not include labours attended by family physicians where the baby was, in fact, delivered by an obstetrician.

## FAMILY PHYSICIANS AND INTRA-PARTUM CARE

Family physicians provide safe, effective maternity care. The family medicine accoucheur is a resource to the community, providing comprehensive, continuous care throughout all parts of the life cycle. Several studies have revealed lower intervention rates for family physicians than for obstetricians with equivalent or better outcomes for comparable low risk patients.<sup>3-6</sup>

Women appreciate the continuity of care offered by their family physician accoucheurs. The Canadian Maternity Experiences Survey found that 88% of women who had the same provider for pregnancy and birth believed that this continuity was important. 42% of women who did not experience this continuity from pregnancy to birth believed that it would have been important to have had the same provider.<sup>7</sup> Although, it is not only family physicians that are able to provide continuity of care from prenatal through to postpartum care, it is the model of family practice that confers this benefit in many rural and urban centres. Indeed, many would argue that a national maternity care system should be based in family practice / primary care.

*“The care that they (midwives and general practitioners) can give to the majority of pregnant women whose pregnancies are not affected by any major illness or serious complication can often be more responsive to their needs than that by specialist obstetricians.”<sup>7</sup>*

The reasons behind today’s soaring intervention rates and resultant complications in obstetrical care are multiple and complex. Although these changes in intervention rates coincide temporally with a wide-spread decrease in the numbers of family physicians involved in intrapartum care, association or causality cannot be implied. In recent years, obstetricians and midwives (to a much lesser extent) have stepped into the family physician void to provide Canadian women with the care that they require. Health human resource challenges in Canada have thus led to more collaborative models of maternity care which involve combinations of different providers. Although there is much support for collaboration, each maternity care provider should also be recognized for the unique knowledge and skills they bring to the delivery of care, both in answer to the reproductive needs and expectations of patients as well as their needs for comprehensive continuous care throughout the life cycle.

The reasons for decreasing family physician involvement in intrapartum maternity care are well documented. The major factors cited include concerns about its impact on both personal and professional lifestyles, a lack of confidence in or concerns about adequate training, questions about sufficient reimbursement and for some, concerns about litigation.<sup>8,9</sup>

## CHALLENGES IN EDUCATION AND TRAINING

New family medicine graduates have not been filling the gaps in intrapartum care provided by family physicians. This is not only a great concern in terms of the availability of family physician resources in practice, but also poses challenges for teachers providing intrapartum care in family medicine training programmes.

Much has been written about education in family medicine maternity care, including factors that may be contributing to our residents' lack of interest in intrapartum care as an important part of their practice upon graduation. Medical students and residents enter training with their own value systems as well as preconceived notions about the discipline of family medicine and the rewards or risks of attendance at births. The educational process affects these learners. They may encounter a lack of role models or challenging hospital environments and may leave their educational programmes feeling unequipped to provide intrapartum maternity care. Godwin et al followed an Ontario cohort throughout their family medicine residency and 2 years into practice at which time only 16% were attending births.<sup>10</sup> The 2007 NPS survey of second year family medicine residents indicated that 42.2% intended to practice obstetrical care. Unfortunately, the survey did not separate intrapartum care from pre and postnatal care – but 23.4% also indicated that they intended to include vacuum assisted deliveries in their future practice. The latter percentage may be taken as a “proxy” indicator of family medicine resident intent to practice low risk maternity care. The same survey revealed that 59.6% of family practice residents felt that they were adequately trained in obstetrical care and that 25.2% and 22.2% felt adequately trained for vacuum assisted deliveries and manual removal of the placenta respectively.<sup>1</sup>

In 2006 the CFPC released a discussion paper entitled: “An approach to maternity care education for family medicine residents.”<sup>11</sup> Recommendations, based on the MNCC’s interpretation of the literature and expert opinion, encompassed learning opportunities, formative evaluations and core competencies. However, it appears that few of the recommendations included in this paper were implemented by teaching programmes in Canada. On the other hand, the Chairs of the Departments of Family Medicine across the country have expressed concern about the recently reported trends in maternal and neonatal morbidity and mortality – which have, in some instances, shown deterioration.<sup>12</sup> These data need to be interpreted carefully; however, they provide an opportunity to review maternity care in Canada.

## **THE SURVEY**

In 2008, the MNCC decided to follow up the recommendations in the above paper and the concerns of the Departmental Chairs with a survey of the 16 medical schools with family medicine residency programmes (NOMS did not have a residency programme at the time of the survey) – to determine the scope of their training in maternity care and to compare the current status with the recommendations from the discussion paper.

All 16 Family Medicine Residency programmes which were operational in 2008 were approached to complete a survey about their maternity care teaching programmes either on paper or on-line. All 16 university programmes responded to the survey after one reminder. Since maternity care is often taught in a decentralized fashion, it was suggested that the programme director complete one survey for each site involved in maternity care teaching. Thus, responses ranged from one response per university site to a maximum of 10 sites at one university. In total, we had information about 38 maternity care teaching sites. As there can be as much variation between sites at one university as between university programmes, data are reported descriptively with ranges.

### **a) Faculty participation in maternity care.**

In 2008 geographic full-time (GFT) family medicine faculty participation in intrapartum maternity care ranged from 4-75%. However, most sites reported 10-30% participation by GFT's. Some sites only had 1 or 2 GFT's providing this service with other sites having groups as large as 9-11. Most sites had community physicians as part of their family practice obstetrics teaching faculty – particularly in rural sites where there were no GFT's. Numbers were much more robust when it came to the provision of prenatal care, although there were sites where as few as 22% of GFT's provided prenatal care with or without intrapartum care.

### **b) Curricular components**

The number of months of maternity care training ranged from 1 to 3-4, with the average being 2 months. Call periods per month ranged from 4 to 9 with teaching being provided by either family physicians or obstetricians alone in 15% of all programmes. Another 70% reported maternity care training by both family physicians and obstetricians. Didactic teaching varied from 0 to 26 sessions over the two year program (which could mean between 0 and 26 hours – most being about 10 hours). The average number of births attended by each resident over the 2 years ranged from 15-20 to 60-100, with most being 25-30. The residents followed anywhere from 1 to 30 pregnancies over their two years, with most programs reporting 6-8. Over those longitudinal cases, it is estimated that the resident attended from 2 to 80% of their “own” deliveries.

The Neonatal Resuscitation Program (NRP) was mandated in all programs. The Advanced Life Support in Obstetrics (ALSO) course was offered in most programs and mandated at six

universities. Some programs mandated either ALSO, ALARM or MOREob; however, most programs did not offer the latter 2 courses. Where participation was mandatory, residents were funded either by the Department of Family Medicine or the hospital. All programs paid their ALSO instructors. For programs which did not offer ALSO, major barriers cited were: financial, inadequate interest and lack of instructors.

Didactic sessions varied widely from formal half day skills sessions to interactive, case based discussions to sessions given by obstetrics residents. However, almost all programmes had a compulsory teaching component.

Analysis of the written comments revealed more about the wide range of experiences and programmes offered across the country. They also revealed the dedication and creativity of family medicine maternity care teachers. Prenatal care opportunities included alternating visits with family medicine staff, assignments to family physician led prenatal clinics and out-patient obstetrics clinics. The biggest challenges cited was the lack of preceptors who provided maternity care, challenges of longitudinal follow up in programmes which were not horizontal, and lack of volume in some sites. There were clear discrepancies between different sites in a single programme in both quantity and quality of the experience for residents.

### **c) Support for maternity care faculty**

In general, programme directors cited dynamic, enthusiastic and dedicated faculty as the biggest strengths of their programmes. They emphasized the importance of family physician role models, high case volume –both intrapartum and prenatal, and having the objective that ALL FP residents graduate with the skills to deliver a baby so that we are able to “raise a new generation of family medicine ob providers.”

Programme directors identified their biggest challenge as maintaining family physician interest in intrapartum care and recruiting faculty who provide intrapartum care. Another major challenge was having adequate numbers of pregnant patients so that residents were actively involved in enough births to achieve confidence and competence. This was true both for family physician and obstetrics teaching and exacerbated by increasing numbers of residents in each programme which had the potential to “dilute” their experience. The third major challenge was the lack of interest by residents and difficulty getting the residents to attend the births of their “own” patients. Several of the community

#### **Table1: Special consideration for faculty providing intrapartum care**

- Nothing
- Retain fee for service for maternity cases
- Hourly stipend
- Paid fees for ALSO, MOREob, etc.
- Free parking when attending births
- Recruitment bonus
- On call funding (provincial)
- Less general family medicine call

teaching sites noted that lack of nursing manpower affected their programme’s ability to provide maternity care and teaching.

We asked whether special considerations were given to faculty who provide intrapartum care. Responses ranged from zero to coverage of MOREob fees, allowing faculty to retain fees for intrapartum services, teaching stipends, time off “in lieu”, “hospital on-call” (HOC) funding as well as paid parking when attending births (**Table 1**).

We also asked programme directors to rate support for family medicine maternity care by residents, colleagues, department chairs, hospitals and other members of the maternity health care team from poor to excellent. In general, support for maternity care by family physicians was good to excellent; however, ratings varied greatly by site. Of concern, support by their colleagues was rated as poor or fair by seven programmes. Department chairs provided good or excellent support in all but two programmes. Hospital support was rated as poor or fair by nine programs, whereas the directors in four programmes felt that nursing support was fair. However, of most concern was the fact that programme directors believed there was only fair or poor

**Table 2: Support for family medicine maternity care at 38 sites**

	Fair or poor n (%)	Good or excellent n (%)
Residents	13 (34%)	25 (66%)
Colleagues	7 (18%)	31 (82%)
Dept chairs	2 (5%)	36 (95%)
Hospital	10 (26%)	28 (74%)
Obstetricians	5 (13%)	33 (87%)
Nurses	4 (11%)	34 (89%)

support for maternity care by FM residents in 13 programs (**Table 2**).



## DISCUSSION OF SURVEY RESULTS

Although most programme directors reported good or excellent support for family medicine maternity care, it was clear that many sites face challenges. Our survey revealed that several of the programmes were not meeting the recommendations on maternity care education for family medicine residents, as identified in the MNCC discussion paper. Six programmes had teaching only by obstetricians. Residents at five sites were probably participating in fewer than 30 births in the course of their training and nine sites reported fewer than 6 “continuity” cases where the residents were involved in prenatal care. Twelve of the 26 sites having GFT’s reported 3 or fewer GFT’s who provided intrapartum care. Obviously this poses a challenge for those teachers in that they may be relied on too heavily to supervise maternity care and may have challenges establishing a call system compatible with personal life style. Even more sites described residents as being unsupportive. We know from Ontario’s “Babies Can’t Wait” project that the labour and delivery environment can be “hostile” for learners who feel a competition for clinical experience and a hierarchy within the labour and delivery room.<sup>13</sup>

The limitations of this survey include the fact that estimates of clinical participation in birth were made by programme directors, not by the residents or any log system. The survey was a challenging document to complete, and some sites reported unusual numbers of faculty – both GFT and community. The desire to meet the CFPC minimum standard may have also affected some of the reporting. However, the information gleaned is important and will be helpful in determining next steps.

Family medicine “accoucheurs” and educators have long been deliberating how to reverse the trend away from family medicine maternity care. There is some evidence that changing the residency curriculum in maternity care can increase the number of graduates who provide maternity care. Helton et al were able to increase the number of residency graduates including pregnancy care in their first practice after graduation from 27.5% to 52% after an extensive revamping of their programme.<sup>14</sup> They based the changes in their programme on Taylor and Hansen’s “essential characteristics” for successful obstetrics training in family practice residencies.<sup>15</sup> These characteristics were derived by a Delphi panel of 28 family practice maternity care experts. The characteristics of the *family medicine faculty and teaching service* were rated as most important. Other essential characteristics were an *adequate obstetrical training volume, mutual respect between obstetric and family medicine faculty and residents, support for family practice maternity care from obstetricians, administration and nursing staff, and family physicians being accepted in the community as maternity care providers*. Helton et al also included the ALSO programme and NRP for all residents and faculty in their restructured pregnancy care curriculum.

In 1997, the Residency Review Commission in the US stipulated that all family medicine residencies have at least one family physician to serve as an intrapartum attending physician for resident deliveries.<sup>16</sup> For many programmes, this meant resurrecting a model of family practice maternity care that had been dormant for decades. Five years later, Ratliff et al surveyed all family practice residency programme directors, replicating Sakornbut and Dickinson’s 1993

survey which asked family practice programme directors to describe programme characteristics associated with residents' decision to include maternity care in their future practice.<sup>17</sup> Compared to the 1993 study, programme directors reported a 16% increase in the number of graduating residents choosing to practice obstetrics. Factors which increased the likelihood included having at least one full time faculty delivering babies; however, having four or more full-time faculty who deliver babies, having part-time faculty practicing intrapartum care (i.e. diverse role modeling) and having more than 10 births/month from the family practice centre were even more highly associated with the likelihood that graduates would practice obstetrics.<sup>16</sup>

There is agreement that exposure to maternity care should start early. Westra et al developed a curriculum designed to expose first-year medical students to the longitudinal experience of prenatal care and delivery by family physicians.<sup>18</sup> The students who had been randomly selected to participate in the programme expressed greater likelihood to include deliveries in their future practice. This was not expressed as a higher likelihood of choosing obstetrics and gynecology as a career.

In fact, family medicine can look at the obstetrics and gynecology literature to see myriad ways in which obstetricians and gynecologists have been attempting to address their recent lack of popularity with medical students. The major emphasis has been on improving the clerkship experience and "getting the students interested early" – with interest groups, mentorship programmes and support from professional organizations such as ACOG and the SOGC. In fact, obstetrics and gynecology residencies in Canada have been completely filled in recent years – a testament to the efforts of their professional organizations.

## RECOMMENDATIONS

### **1. The CFPC in association with the expertise of its Accreditation Committee should re-examine the suitability of current maternity care expectations in family medicine residency programmes.**

This is key to the sustainability of family medicine obstetrics and is perhaps the most important issue arising from this review. This examination opens the door for a range of possibilities, including the reinforcement of current standards in two-year family medicine post-graduate programmes to the establishment of enhanced 3<sup>rd</sup> year programmes with special academic standing in all Canadian medical schools. When this is agreed upon, then further steps must be taken to reinforce the appropriate requirements for family medicine maternity care training in all programmes across the country – rather than allowing the locally available learning opportunities (or lack thereof) to determine standards.

### **2. Opportunities for enhanced maternity care skills should be available after residency.**

Although it is the preference of the MNCC that all family medicine residents complete their residencies with the skills required to practice intrapartum care independently, it is clear from this survey of residency programmes that this is, in fact, not the case. Opportunities should be made available for additional training – to reinforce the skills of those residents who wish to become more confident with intrapartum care and to provide additional skills for those residents who plan to practice in less supported environments. Consideration should be made for a third year programme in maternity and newborn care. This will probably require the establishment of a working group reporting to the Executive and Board of the CFPC with shared membership, including the MNCC and Section of Teachers.

### **3. All family medicine residency programmes should have programme and site directors for maternity care.**

Each family medicine programme should have a maternity care coordinator. In addition, each individual teaching site should have a family physician involved in maternity care to link appropriately with the postgraduate director of the university department of family medicine, local hospital and obstetrical colleagues.

### **4. All residents must have adequate educational exposure to ensure competency in basic maternity care skills. The curriculum should be based on core competencies.**

There is no consensus on the number of births required to achieve competence. However, Godwin's study indicated that performing more than 40 deliveries during training was one of the factors associated with the likelihood of providing intrapartum care in practice.<sup>10</sup> Interestingly, following a minimum of 6 women longitudinally did not affect residents' decisions. Taylor and Hanson suggested that the ideal training volume was 100 births during the

course of residency, of which 20 to 30 would be continuity deliveries.<sup>15</sup> Most practitioners feel that they achieve competency somewhere between 50 and 100 births; thus the current guideline of 25 births in the MNCC's discussion paper is conservative.

Having a competency based curriculum will ensure that all residents graduate from family medicine training with a predictable set of skills, regardless of where they started out. Core competencies in maternity care would include (but not be limited to) prenatal care, conduct of normal labour and delivery as well as management of common intrapartum problems and basic postpartum care (see previous MNCC discussion paper). Unfortunately, many family medicine residents enter practice having conducted no vaginal deliveries.

**5. ALSO or another emergency obstetrical course should be a mandatory part of training for all family medicine residents.**

These structured courses address the concern cited by graduating family medicine residents that lack of training in emergency obstetrical skills is the reason for not providing intrapartum care.<sup>19</sup> Bower et al were able to show a significant increase in residents' perceived confidence to manage obstetrical emergencies after completing the ALSO course.<sup>20</sup> However, no significant changes were found in intention to provide maternity care on entering practice.

The current CFPC curriculum mandates NRP and ACLS for all residents, regardless of their practice aspirations. Yet currently, only six university programmes mandate ALSO as part of residency training. Sites differ in how this is conducted – either in the traditional two day format or interspersed throughout the academic programme in half day segments.

**6. All residents must have access to family medicine accoucheur role models in their teaching units.**

It is not adequate to use outside faculty to teach maternity care. Universities and teaching units need to make concerted efforts to recruit, train, support and reward family medicine maternity care teachers. Larger numbers of role models are not only associated with more resident uptake of maternity care, but also assure that the faculty are well supported by a large enough peer group to ensure that life style factors are addressed. The faculty needs to demonstrate different models of maternity care which are sustainable and share the joy of birth with the family medicine residents.

**7. Family medicine maternity care teachers must be adequately rewarded.**

**Table 1** lists some of the innovative ways in which family medicine accoucheurs are supported. However, not all rewards are, or should be, monetary. Consideration must be given to the extra time spent on call by providers of intrapartum care when compared to their colleagues. In addition, the face-to-face teaching when following a labour, attending a birth and suturing the perineum must be acknowledged and rewarded by unit chiefs and chairs. This almost “invisible”

teaching often goes unnoticed – however, is the target of complaints by residents if done poorly.

**8. Family medicine residents should be taught in a clinical environment which supports the family physician accoucheur.**

In our survey of teaching programmes, 26% of programmes responded that hospital support for family medicine maternity care was poor or fair. Family medicine residents should not be required to spend time in maternity care settings which are not supportive of family medicine. Their experience during training has the power to introduce residents to the joys and rewards of birth or to eliminate maternity care as a career option. In the “Babies Can’t Wait” study, family medicine residents, in particular, identified the lack of family physician role models, the general harshness of the environment and a hierarchy of learners interferes with their ability to access the clinical experiences which they need to become confident and competent. They found that nurses play a pivotal role in their educational experience.

It is essential all efforts be made to transform the clinical learning environment into one which is supportive of all learners. If that is not possible, then programmes must consider other options for core rotations in maternity care which support the family resident and do not negatively influence learners who have not yet decided if they will include intrapartum care in their future clinical practice.

**9. Family medicine programmes should facilitate undergraduate exposure to labour and birth.**

Family medicine faculty should partner with their obstetrical and midwifery colleagues to ensure that undergraduate medical students have the opportunity to participate in birth. In particular, these students should be exposed to the role which family physicians play in maternity care. Family physicians can also be involved in laboratory teaching with pelvic models, interprofessional teaching opportunities and the Family Medicine Interest Groups coordinated by the CFPC.

**10. Family medicine teaching programmes should provide faculty development in maternity care.**

Young faculty require mentorship by senior faculty members with special expertise. It is critical that faculty be comfortable with their own skills before they are required to mentor and teach residents. Courses such as ALSO and other emergency obstetrical courses are critical for the maintenance of ongoing competence and should be supported by the department of family medicine. It would be possible to create a “toolkit” which elucidates the diverse components of different models of teaching, such as managing sign-outs and case mix.

## **CONCLUSIONS**

This paper provides a stepping stone for family medicine leaders to participate in a national discussion and study of family medicine maternity care. It is the advice of the MNCC that a working group be created to build on the above recommendations, enhance existing programmes, and strengthen the teaching and practice of all aspects of family medicine maternity care. The Maternal and Newborn Committee is committed to being a participant in this process.

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