Medicine and Motherhood: Can We Talk?

A Consensus Statement

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Physician Health Program
British Columbia

Connecting Physicians to Health

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The Physician Health Program of British Columbia
Suite 980 - 1125 Howe Street Vancouver, BC, V6Z 2K8
Tel 604-742-0747 Fax 604-742-0744 Toll Free 1-800-663-6729 www.physicianhealth.com

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Medicine and Motherhood: Can We Talk?

This guide is a consensus-based document that was developed by the Task Force on the Accommodation of the Pregnant Physician published by the Physician Health Program of British Columbia (PHPBC). The task force, which was created and supported by the PHPBC, included members of the practising physician community in BC, as well as those who brought the perspectives of various stakeholders: academic and medical education, professional associations, healthcare employers and occupational health and safety. For a list of task force members, please see Page 26.

This document uses existing evidence to support its findings and recommendations, with the goal of informing discussion about accommodation of pregnant physicians among resident associations, physicians in private practice, residents, medical schools, hospitals, students, medical associations, governments, health-care employers, residency programs and others with an interest in physician well-being.

Although we have tried to make this report as useful as possible to a broad range of audiences, we anticipate that others may want to adapt it to other purposes and needs, or to update it as new evidence and experience emerges. To facilitate this adaptation and reuse, we have chosen to publish the report under a Creative Commons License. For more information about your rights to adapt and redistribute this report, please see

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Executive Summary

The increasing importance of women in the Canadian physician labour force raises important questions about how to accommodate the workplace needs of women when they are pregnant and become parents. The extent to which the needs of physician mothers are – or are not – accommodated is recognized as a significant influence on:

- Maternal and fetal health.
- Mother and child well-being during pregnancy and postpartum.
- Female physicians' career progression, career choices and practice patterns.

Accommodation of pregnant physicians is also a key issue in human resources planning. This consensus statement tries to make recommendations on how best to respond to and plan for the improved integration of the pregnant physician in the workplace.

The physician labour force in Canada is changing dramatically. Not only are there more women graduating as physicians but increased training requirements mean that women are older before they achieve 'practice-readiness.' In order to effectively utilize the contributions that women make to the physician labour force, stakeholders within practice groups, health-care entities, educational settings, professional associations, policy makers and employers need to engage in a constructive dialogue about improving the working conditions for pregnant physicians and parents of young children. The potential costs of not having this conversation are significant and include dysfunctional practice patterns and educational settings and lower rates of retention in a profession that already faces a labour shortage.

This paper provides a summary of the current evidence regarding the impact of work on maternal and fetal health, including the implications for women who delay pregnancy until later in life. It also highlights workplace conditions that may need to be modified for the pregnant physician. It is intended to serve as a guide to assist the pregnant physician and her colleagues with conversations about workplace accommodation as set out in the Human Rights Code of Canada. The paper provides:

- An overview of the types of accommodation that are emerging as best practice.
- Recommendations for the various participants in the conversation.
- A list of resources to assist physicians and other parties in making informed decisions that take into account the rights and responsibilities of all.

Purpose and Scope

> *"Basically, I don't remember the first year of my son's life. My daughter was three and still in diapers, he was a newborn and I was a specialist in a group of two, doing call one in two nights while breastfeeding, running my practice and running my home.*
> *Thank goodness I have photos."* A British Columbian physician, now age 50

This consensus statement seeks to provide a framework for discussions on how human resources health planners can best meet the challenge of accommodating the needs of pregnant physicians. This document presents:

- The workplace needs of pregnant physicians, including risks to maternal and fetal health and impact on postpartum well-being of the mother and child.
- Analysis of the current discourse about the accommodation of pregnant physicians.
- Information about the types of accommodation, resources and recommendations that may help meet the needs of both the service delivery system and pregnant physicians.

In this context, the term "accommodation" is derived from the Human Rights Code of Canada, based on the principle that:

> All individuals should have an opportunity equal with other individuals to make for themselves the lives that they are able and wish to have, and to have their needs accommodated, consistent with their duties and obligations as members of society, without being hindered in or prevented from doing so by discriminatory practices based on race, national or ethnic origin, colour, religion, age, sex, sexual orientation, marital status, family status, disability or conviction for an offence for which a pardon has been granted. (1)

As discussed in the consensus statement, accommodation is understood as a conversation between the person seeking accommodation of their needs and the individuals or organizations in a position to provide for these needs. The conversation is based on a mutually respectful relationship that helps the two parties:

- Determine what barriers might affect the person requesting accommodation.
- Explore options for removing those barriers.
- Accommodate to, but not beyond, a point of undue hardship for colleagues or the employer (1).

The scope of this consensus statement is intended to be directional, not comprehensive or exhaustive. It does not cover all possible situations, but is intended to provide a sufficiently broad overview to inform discussions about accommodation among medical students, residents and physicians in medical schools, residency programs, private practice, hospitals, medical associations, governments and health authorities.

The majority of the maternal and fetal health-related data is derived from studies of pregnant physicians, women in working conditions similar to those of doctors and occupational health norms implemented by employers or programs like WorkSafeBC.

This document strives to take a common sense approach to workplace accommodation for the pregnant physician, taking into consideration the scientific data and evidence along with such qualitative factors as personal choice, cultural background, social support, family situation, finances and workplace variability. Readers are encouraged to reflect on their own and their colleagues' attitudes, experiences and cultural contexts as they consider how they might participate in the discussion.

The document does not include discussions of postpartum issues such as maternity and parental leave and return-to-work policies, except where these are related to situations arising from pregnancy.

Finally, this document emphasizes the importance of thoughtful, respectful conversation in reaching mutually acceptable solutions that ensure maternal and fetal well-being and that are workable for pregnant physicians, their families and colleagues. This dialogue is essential, given that pregnancy and childbirth can sometimes follow an unpredictable course. Moreover, a long-term perspective is helpful. Pregnancy is a short period of time in a medical career that should span 30 or more years. It is imperative that employers, medical organizations, educators and other stakeholders work together to develop policies that accommodate this aspect of physicians' lives (2).

Context: When Doctors Have Families

> *"Having a child during residency makes life significantly more complicated, but considering my age I couldn't wait until later to have my first child."*
> Sinal S, Weavil P, Camp MG. Survey of women physicians and issues relating to pregnancy during a medical career. J Med Educ [Physicians' survey respondent]. 1988; 63:531-538

Canadian health care is facing dramatic demographic changes. The population is aging and as the baby boom generation grows older, a large portion will seek ongoing care for multiple co-morbidities. This will create an increase in demand for medical services at the same time that the country faces not only a shortage of physicians, (3) but a squeezing of already-strained public resources.

There is another important demographic trend – the feminization of the medical profession in Canada. More physicians than ever are women and this proportion is increasing each year (3). Currently, more women than men are enrolled in Canadian medical schools (4) and it is estimated that at least 70 per cent of family medicine graduates will be women within a decade (5). This trend is particularly noticeable in specialties such as family medicine, pediatrics, obstetrics and gynaecology and psychiatry, where between one third and one half of Canadian practitioners are women (4). Feminization of the physician labour force raises important questions about how to accommodate the pregnancy and childbearing needs of women physicians and physician trainees.[1]

The extent to which the needs of physicians as mothers are met is recognized as a significant influence on their career progression, choices and practice patterns. Gender appears to be a significant indicator of the practice patterns of doctors in Canada and the career trajectory for women physicians is generally different from their male counterparts (3, 4). One recent study found that if today's gender-specific work patterns persist, there will be an overall decrease in doctor productivity at a time of high demand for services. "Although gender issues represent an inherently sensitive and controversial topic, they significantly influence the practice pattern of doctors and must be factored into any estimates of doctor productivity, future doctor requirements, and health human resources planning." (4)

Accommodating the needs of the pregnant physician must be discussed within the context of the following demographic changes:

- Increased numbers of Canadian women now in medical school and practice.
- Increased age of registrants on admission to medical school.
- Increased length of required training for physicians prior to licensure to practice.
- Increased number of maternal and fetal complications related to delayed childbearing.
- Increased legislated protections for pregnant and working mothers, albeit with uneven application, depending upon one's employment status.

[1] For the purposes of this consensus statement, when the word 'physician' is used, unless otherwise specified it will include physicians-in-training, medical students, residents, fellows, etc.

It is essential that physician associations, educators, employers, practice groups and policy makers find ways to accommodate female physicians through workforce planning and related measures. Without such accommodation, these mothers may either place themselves or their children at risk, or may exit the profession at a time when society most needs their expertise.

Statistics Canada data show that the majority of Canadian women bear their children between the ages of 25 and 34 (6). For those pursuing a career in medicine, juggling professional education and personal plans can lead to delays in starting a family. Age of admission into medical school has been increasing steadily; the median age for registrants in medical school has risen from 20 years, 11 months in 1987-88 to 22 years, 10 months in 2002-03. It has stayed relatively constant since then (7). Given that it takes a minimum of six years of training to practice as a family physician and nine to 14 years to be licensed as a specialist, it is clear that career and parenting priorities can clash.

Overall, 78.2 per cent of Canadian women physicians who responded to the National Physician Survey reported that they have children, compared to 85.7 per cent of their male counterparts (8). According to the survey, 98.2 per cent of respondent family physicians and general practitioners, both men and women, under the age of 35 reported being parents of children five years and younger. This suggests that these children were born when the physicians were aged 30 to 35. The same survey reported that 61.1 per cent of respondent physicians aged 35 to 44 had children aged five and under, suggesting that the births occurred when the doctors were as old as 39 (9).

The National Physician Survey also reported on the parental status of second-year family medicine residents. Almost one quarter, or 23.5 per cent, of residents responding to the survey reported having children, with a mean age of 3.9 years. A further 7.4 per cent reported that they or their partners were currently expecting a child (10). A further 34.4 per cent of second-year residents surveyed reported that they planned to take maternity or paternity leave within two to three years following completion of their training (11).

Taken together, these data suggest that questions of whether or not and when to bear children are priorities for female physicians both in training and at the start of their professional careers.

A myriad of factors: physiologic, financial, social and career-related, contribute to women's decisions about when to become pregnant. These include age, overall health, religious beliefs, family preferences, relationship status and contraceptive failure (12). Many of these factors are inherently in conflict, such as the demands of a professional career and the age-related decline in fertility (13).

It is recognized that after age 35 women face a decline in the number and quality of eggs they produce, leading to increased risks of infertility, in-vitro fertilization (IVF), miscarriage and birth defects associated with chromosomal aberrations and disorders (14). There are also increased risks to maternal health, including hypertension, diabetes, increased rates of caesarean section and even perinatal mortality (15). Thus for every year a woman defers childbirth, the risk of complications increases – something that medical students and physicians are well familiar with due to their training.

Finally, a number of social policies have been introduced over the past two decades in Canada that provide increased legislative protection for pregnant women and parents that recognize the importance of evidence-based protections for maternal and fetal health. This includes more comprehensive workplace safety legislation, broader maternity leave policies and stronger human rights protection.

Collective agreements and other workplace policies and agreements increasingly address this issue. Some of these laws and policies apply only to women who are employed, as compared to those who are self-employed or are students. However, the policy framework for pregnant and women parents is more supportive of accommodation, rights and financial support than it was two decades ago. Female physicians whose employment status may have excluded them from these policies will need to ensure that these protections are extended to them as well.

Practicing Medicine While Pregnant

> *"Life is full of choices, and few are larger than deciding whether, when and how to have and raise children. This is compounded for someone pursuing a profession, particularly one that has many demands and rewards similar to motherhood."*
> Bowman MA, Allen DI. Having and raising children. In: Women in Medicine. 3rd ed. New York: Springer; c2002. p. 44-77, Chapter 6

Impact of Work on Maternal and Fetal Health

Pregnancy introduces physical, professional and emotional demands for the pregnant physician, her fetus and her co-workers. As a consequence, many occupational health and safety rules, policies and legal structures are in place to protect health-care workers, including physicians. This section reviews the evidence examining how certain occupational hazards in a medical practice uniquely affect women's reproductive health. Also discussed are the ways in which the demands of pregnancy are exacerbated by the challenges and stresses of medical training and practice.

As with all expectant mothers, a pregnant physician's ability to safely continue working during pregnancy may be compromised by complications of pregnancy, pre-existing maternal medical conditions, or problems associated with pregnancy such as back and pelvic pain, sleep disruption, nausea, preterm labour and gestational hypertension (16).

The impact of reproductive health for the pregnant physician can be briefly summarized into three broad categories: harmful exposures, physical demands and stress and a lack of social support.

Harmful Exposures

Depending on the workplace and practice patterns, pregnant physicians may be exposed to violence, toxins, radiation, biological and chemical agents, infectious diseases and other conditions that are recognized as risks to maternal and fetal health (16).

Research has pointed to the risks for pregnant women and their fetuses from exposure to chemicals including organic solvents, anaesthetic gasses and heavy metals (17). These agents can act as teratogens or fetotoxins at levels much lower than those at which they exert mutagenic or gametotoxic effect (18). In addition, training or practising medicine in certain fields such as psychiatry and emergency medicine may expose pregnant physicians to risks of violence in the workplace (19).

Risk of exposure to infectious diseases is a consideration for pregnant physicians working in areas such as emergency medicine, family practice, internal medicine, surgery and anaesthesia. Different infectious diseases pose different risks and appropriate responses can range from standard infection control precautions to avoiding contact all together where circumstances dictate. As a peer-reviewed article in the Journal of the American Academy of Family Physicians advised in 2007: "Physicians have a responsibility to provide the best possible patient care — even to patients who pose infection risk. This responsibility does not dictate that a physician must always care for these patients personally. Each physician must find his or her own level of comfort with the inherent risks of the job. In circumstances that increase the risk of pregnancy-related complications, pregnant physicians should feel comfortable asking nonpregnant colleagues for assistance." (20)

Physical Demands

Research indicates that some physical activities are generally contraindicated by the physiological changes that accompany pregnancy (18). The demands include: physician schedules, long periods of time spent standing, physical exertion, heavy lifting and shift work (16, 17, 21-26).

Croteau, Marcoux and Brisson (27) found that the risk of bearing a 'small for gestational age' infant increased for working pregnant women with an irregular or shift-work schedule alone and with a cumulative index of the following occupational conditions: night hours, standing, lifting loads, noise, and high psychological demand combined with low social support at work. Risk was also found to increase with the number of physically stressful conditions to which a woman was exposed during pregnancy. Intervention to reduce exposures earlier in pregnancy was found to result in a decrease in risk.

A 2000 meta-analysis of working conditions and adverse pregnancy outcomes found a statistically significant relationship between pre-term birth and both prolonged standing and shift and night work (21). In general, physically demanding training rotations have been shown to cause additional strain for pregnant residents and those newly returned to work after child-bearing (28, 29). Evidence also suggests that exposure to excess noise may be contributors to complications such as low birth weight, (30) preterm birth and intrauterine growth restriction (31) as well as high-frequency hearing loss in newborns (32).

In Quebec, the negative impact of shift work has been recognized in the collective agreement of the residents' association (Fédérations des Médecins Résidents du Québec). It states: "A pregnant resident's basic regular schedule shall not exceed eight hours per day, from Monday to Friday, with the exception of call duty. In the twenty weeks prior to the expected date of delivery, the resident shall be entitled to exemption from call duty. If the resident's work is organized in shifts, she shall also be entitled on a weekly basis, from that moment, to two consecutive days of leave; moreover, she is also entitled to exemption from any night shifts, where applicable." (17)

Stress and social support

A common source of stress for the pregnant physician arises from the high psychological demands that can be related to certain aspects of medical practice, particularly when long work hours or shift work are involved (33).

A 2003 review of the research literature on pregnancy during residency training[2] found that major stressors for the pregnant resident included the sometimes onerous work demands of residency and an often-unspoken expectation that the absent resident's workload will be shouldered by other residents. This is compounded by a lack of acknowledgement, dialogue and problem-solving on the part of program directors and departments (34). Also noted by this literature review was evidence of stressors such as frequency of call, fatigue, long hours, emotional strain, too little time with partners and real or perceived feelings of denial, resentment and hostility from colleagues and program directors.

Consequences for Maternal and Fetal Health

As outlined above, the evidence examining three key elements of physician work on maternal and fetal health suggests that "bearing a child during residency or practice may be associated with adverse pregnancy outcomes."(29) According to a comprehensive 2003 literature review of pregnancy during residency, (34) these outcomes include:

- A higher than normal overall complication rate, including incidences of preterm labour, abruptio placentae, hypertension, hyperemesis and preeclampsia.
- A higher than normal miscarriage rate, and increased relative risks of still birth, preterm labour and delivery and caesarean section.
- Significantly increased incidence of low birth weight and intrauterine growth restriction.

Physician work can also lead to longer-term health outcomes that include sexual dysfunction for the mother, sterility, genetic or chromosomal defect, intrauterine growth retardation, spontaneous abortion, fetal death, premature birth, congenital defect, behavioural problems and certain infant cancers or other diseases. As specifically noted in the collective agreement of Fédérations des Médecins Résidents du Québec, a higher incidence of preeclampsia, anaemia, placental infarct and underweight babies is also reported, especially among residents in obstetrics, surgery, anaesthesiology and radiology (17).

This daunting list must be considered in context, since even at an increased level of incidence overall, the absolute risks of some of these complications remain quite low. None the less, the demands of residency and clinical practice do conflict with the psychosocial realities of childbearing. These include fertility concerns, the time needed to develop a relationship with a partner, the time and energy needed to carry a baby to term, the need to eat and sleep properly, the time needed for bonding and attachment, the need for breastfeeding and the juggling of demanding schedules to accommodate child care needs (34).

[2] The majority of literature reviewed related to the experience of trainees in programs in the United States, but research from other countries was also cited.

Postpartum Issues Important for the Pregnant Physician

Postpartum issues also need to be taken into account when developing and implementing accommodation policies. These include the impact of physician work on breastfeeding, the need for leave related to complications arising from childbirth, challenges associated with securing safe infant child care and the impacts of maternal sleep deprivation and fatigue. Evidence relating to the risks of each of these is summarized below.

Breastfeeding

The Canadian Paediatric Society recommends breastfeeding exclusively for the first six months after birth for healthy, term infants. The society further asserts that breast milk, being the optimal food for infants, may continue for two years and beyond (35). However, research shows that female physicians do not maintain breastfeeding at the rates recommended, citing return to work, diminished milk supply and a lack of space and time to pump (36). This occurs despite the fact that research has demonstrated the benefits of breastfeeding for at least six months postpartum for child health and maternal and child bonding. For employers, providing workplace support to help mothers maintain breastfeeding results in higher workplace satisfaction for the mother and therefore enhanced recruitment and retention of employees (37).

Complications arising from birth

The possibility of complications arising from birth needs to be considered. Given that female physicians generally have children later in life, it is important to take into account the risk of complications, such as a caesarean section or preeclampsia or, for the infant, low birth weight or pre-term birth. This can have an impact upon the timeline for a physician's return to work.

Obtaining infant child care

Long hours, unpredictable work demands, guilt because of absences from work, increased workload for colleagues and high personal expectations cause pregnant residents and physicians severe stress. This stress continues upon returning to work, as finding adequate child care can be difficult (28).

Fatigue and sleep deprivation

One study found progressive worsening of sleep quality during pregnancy with serious sleep problems after delivery, persisting for up to three months postpartum. There is a significant interaction between sleep and both perinatal and postpartum mood disorders for hormonal and psychosocial reasons. Napping does not result in restorative REM sleep (38). Sleep deprivation also has a negative impact on emotional and cognitive functions. The effect accumulates over time when sleep is regularly less than seven hours per night. This impacts mood, cognitive performance, working memory, executive function and attention. Sleep deprivation leads to deficits in neurocognitive performance and results in fatigue, loss of vigour and confusion. The impact is even more evident when multi-tasking and flexible thinking are required (39).

Longer-term Considerations

By choice, default or tradition, women physicians, like other women, tend to take on more than their share of child care and parenting responsibilities. Female residents are more likely to have a spouse who works outside the home – often another resident or physician – than their male peers (40, 41).

'Role overload' is common among women physicians (42) who suffer from an increased likelihood of stress and burnout and who have a higher tendency to work part time to try to achieve improvements in their work and life balance (4). Some observers argue that the combination of managing a medical career and parenting levies an unusually high price on women physicians, pointing to higher divorce and suicide rates compared to women who are not physicians (12).

In a 1999 report on physician numbers in Canada, "the pattern of practice is changing for all physicians – male and female. Increasingly, physicians are recognizing the need to balance work with family and community needs. The long hours that house staff have traditionally worked are being questioned. These efforts have resulted in changes in employment contracts for residents." Moreover, the same report notes that the general public is increasingly "beginning to question the appropriateness of medical care being delivered by physicians working excessive hours."(3)

In summary, these three main issues: working conditions, postpartum concerns and the longer-term impact of combining a medical career with parenting, point to the necessity of 'getting it right' early on in the career of female physicians. Providing career options, modifications, accommodations and solutions early on can set the stage for a fruitful career that benefits not only a female physician but her family and the health care system overall.

Medicine and Motherhood: The Current Experience

> *"The need to nurse my child would require 20 to 40 minutes, three times a day, during a 10- or 11- hour day."*
> Hayes-Jordan A. Childbearing and child care in surgery. Arch Surg. June 2001. Toronto, ON: invited critique of Mayer, et al.

In recalling her own pregnancy, one physician exemplifies the current experience for many pregnant doctors: "I was able to decrease my call [but] I felt guilty about that. I felt like I really let everyone down, [even though due to pregnancy complications] I could not physically go on." (3) Unfortunately, this type of experience is all too common; a physician requests changes to her work environment such as her call schedule but feels guilty about it and anticipates resentment from her colleagues. She therefore delays putting her request forward and pushes herself to carry on until her situation becomes extreme.

When starting a conversation about how to meet her needs for a healthy pregnancy, a physician may be talking with colleagues who have paid less attention to their own similar needs, while pregnant or otherwise. Privately, these colleagues might think: "So she wants a bit of a break. Don't we all? She knew what she was getting into when she decided to have a child." Publicly, they might be less than fully supportive of their pregnant colleague's proposed strategies to meet her needs.

The pregnant physician's experience is probably somewhat different from that of her friends and colleagues in workplaces outside medicine. There are two reasons for this difference. First the culture of medicine has its own unique values, assumptions and practices that doctors take for granted but rarely discuss (43-46). Second, although there is a clear legal and policy framework that protects the occupational health of pregnant workers in most work settings, it is unclear in many cases if and how these rules and norms apply to doctors.

Impact of medical culture

Even though more attention than ever is being paid to issues of physician health, medical practice is still embedded in a culture that values professional achievement and scientific mastery over personal, family and relationship needs (47). This culture carries such hidden messages as 'push yourself to succeed' and 'pay your dues,' (28) leaving doctors reluctant to acknowledge their needs privately, let alone discuss them with colleagues.

Recently, these cultural messages and their means of transmission from one generation of physicians to another has received much attention in the academic literature, which defines it as the 'informal curriculum, the metacurriculum, or the hidden curriculum.' Although one could argue that there are almost as many medical cultures and hidden curricula as there are medical workplaces,

some common themes emerge. Haidet and Stein (43) recently listed some of these themes and the unspoken assumptions underlying them. These include:

- Doctors must be perfect; they never make mistakes.
- Uncertainty and complexity are bad – avoid them.
- The outcome is more important than the process.
- Medicine takes priority over everything else.
- Hierarchy is necessary.

To understand some of the sources of tension in the workplace for pregnant physicians, it's useful to look briefly at each one.

Doctors must be perfect. Although this assumption is often thought of as contributing to some physicians' lack of resilience in the face of personal error, it has an interesting application here. If doctors never make mistakes, then surely every pregnant physician must have planned her pregnancy. This chain of reasoning can lead to unspoken assignment of blame if a pregnancy turns out to be inconvenient for a physician's colleagues. The reality is, of course, that pregnancy is often not controllable, even for physicians.

Uncertainty and complexity are bad – avoid them. Much of medical training and certification takes place in scientific educational environments where doctors learn that every problem has one right answer. But no such perfect solution exists for a pregnant physician seeking to find a working arrangement that meets the needs of all stakeholders while her own physical needs and working capacity are in constant flux. This leaves many pregnant physicians working either much more or much less than they would like to work because the culture of medicine seems to prefer these all-or-nothing temporary solutions over better ones that are more complex.

The outcome is more important than the process. It's typical in medical culture to expect that any conflict or acrimony that emerges as a pregnant physician tries to negotiate accommodation of her needs would disappear upon the birth of a healthy child. Realistically, though, these conflicts are not entirely forgotten, but instead tend to erode job satisfaction and lead to burnout.

Medicine takes priority over everything else. Many doctors see medicine as a 'higher calling' and interpret the need to attend to their own needs as a sign of weakness. This can lead pregnant physicians to postpone discussion of their physical and emotional requirements until the need is dire. One commentator observes: "As physicians we feel comfortable recommending modified work hours to pregnant women [patients] in physically strenuous jobs. However no such recommendations [are] made for physicians who are pregnant." (34)

Hierarchy is necessary. One of the ways that medicine escapes from the intractability of complex problems is to concede to the authority of those who rank higher due to training, experience or organizational role. A problem is solved when someone with more positional power says it is. Doctors trump nurses and specialists trump generalists. It is not seen as 'professional' for a pregnant physician to reach an accommodation solution in a discussion where she and her colleagues openly and honestly discuss their needs. Rather, the conventional approach involves a series of exchanges of positional power. For example, a pregnant physician might make an accommodation request to a colleague who is at an equal or higher level in the medical hierarchy. The colleague might deny her request until it is bolstered by documentation from a third physician who is attending the woman's pregnancy. Colleagues who believe that their needs were not taken into account might invoke hierarchy as a response to a proposed accommodation arrangement. They may be openly skeptical about its necessity or submit to it grudgingly if the authority of their colleague's attending physician is high enough. Or, they may ask for more information such as an opinion from another physician high in the hierarchy.

Policy Framework

Physicians face unique challenges when trying to negotiate accommodation during pregnancy. Existing human rights statutes that govern workplace accommodation (both during pregnancy and in general) have been tested in many traditional business settings. But physicians and health organizations tend to assume that their rights and responsibilities regarding accommodation are different from the non-medical workplace. This is because few physicians' work is governed by an employment relationship in the technical legal sense. However, the same human rights framework that protects workers in an employment setting also applies to doctors and residents, even though their work setting is less clear-cut. Physicians may not be employees in the general sense of the word, but they are still protected by the same human rights statutes that apply to all workers in Canada.

However, even when an employment relationship is present, as is the case with physicians in postgraduate training programs (residencies), no national standard emerges. An informal survey of associations of physicians and residents across the country showed that in many provinces, relevant employment contracts and collective agreements are silent on the issue. In those jurisdictions that do have policies, these generally state that accommodation will be made when necessary, with reductions in work hours and on-call responsibilities being the most common. But even jurisdictions that show the clearest support for the principle of accommodation provide little or no guidance about who decides what is necessary and when. This lack of guidance leaves pregnant physicians and their colleagues back in the mire of medical culture, which does not support ongoing and open discussions about the changing needs of physicians and their colleagues.

All this tends to lead to one of two archetypal stories. The first situation was presented earlier: a pregnant physician keeps working up to (or past) the point of exhaustion, then feels guilty when she asserts her needs. The second story articulates another extreme: a pregnant physician would like to continue working, but leaves practice altogether at a point early in her pregnancy because of the difficulty of negotiating suitable accommodation with her colleagues. These situations occur all too frequently, and neither ensures "the healthy and sustainable growth of the number of women in medicine." (48) To achieve this growth, the medical profession must find a way to meet the needs of the pregnant physician and her fellow doctors.

Although we have pointed out the need for a better way to structure accommodation conversations to retain female physicians in the workforce, it is worth noting the progress that is being made in supporting women who choose to take a break from medicine to give birth. Provinces such as British Columbia, Alberta and Saskatchewan have gone so far as to establish supplementary benefit plans in partnership with provincial medical associations. These plans typically provide continuing income for self-employed physicians during the postpartum period. Program eligibility and funding varies by province. In some cases, there is a cap on the overall program funding allocated under the applicable collective agreement.

Medicine and Motherhood: Imagining a Different Experience

> *"Having colleagues and workplaces work together towards reduced role conflict for all physicians is important for physician health. Our challenge will be engaging creatively to make it happen."*
> Maier DB. Mama doc, papa doc. Alberta Doctor's Digest. Jan/Feb 2005

The medical profession and society in general will gain much by optimizing the contribution to the medical workforce that female physicians make during their reproductive years. We believe that this is only possible if we shift our thinking away from a paradigm of control and predictability (49) towards one of shared decision-making (52, 53). This shift will challenge us to make changes in the medical workplace that are both cultural (attitudes) and structural (policies). As even greater numbers of women enter the medical profession, this challenge will only grow. Policy makers and leaders must therefore act now to prevent suffering, conflict and lost productivity.

Cultural Change: Reframing the Conversation

Collective efforts must focus on a cultural change. While legislation enables and shapes institutional policy, neither it nor policy guarantees implementation (50) without a supportive culture. Strong and persistent cultural norms, such as those found in medicine, are slow to change. Shifting cultural norms takes time, patience, persistence, intelligence and insight (54, 55). We suggest three simple changes to current practice that should make meaningful differences. These are:

- Start talking early.
- Understand everyone's needs before proposing strategies to meet them.
- Pay attention to the conversation itself.

Start talking early. There are many reasons why a pregnant physician might want to postpone discussions with colleagues. These include a need for personal privacy and the relatively high rate of fetal loss in the first trimester. However, the earlier the discussion starts, the less pressure there is to reach a satisfactory solution and the more time there is to ensure that everyone's feelings and needs are heard and understood. For those who work in medical specialties where exposure to radiation and chemicals is high, this might involve having a pre-conception conversation. Each physician must make her own decision about when to initiate the discussion with her colleagues. If a physician feels she needs help initiating the topic of accommodation with her colleagues (or her employer), she can consult first with her local Physician Health Program or with another trusted resource.

Understand everyone's needs before proposing strategies to meet them. One of the reasons we suggest starting a conversation early is because satisfactory solutions can take some time to emerge. Bringing up the subject of how a pregnant physician might meet her needs can trigger strong reactions among colleagues who may have struggled silently with their own needs. Physicians are oriented towards quick solutions. Putting forward a solution too early tends to invite others to say "no." Saying and hearing "no" too early in the conversation can present its own difficulties, especially when there are asymmetries of positional power involved. Try to take an approach that will minimize, but not eliminate, the chances of hearing "no" too early in the conversation. Several short conversations will likely be needed, as most physicians will need time to reflect on what their needs are. When the stakeholders' needs have been articulated and heard, the process of generating potential solutions can begin. Consensus about which solution to try first should be reached in a free-flowing discussion.

Pay attention to the conversation. With everyone's needs heard and several solutions presented, a longer series of conversations should continue. As each solution is tried, stakeholders should be given the opportunity at regular meetings to say what is working for them and what isn't. Ensure that the conversations are conducted in a spirit of mutuality and respect. This is more important than the outcome of each conversation (51).

Structural and Policy Change: Clarifying the Expectations

Given some of the challenges inherent in the current culture, we expect that some pregnant physicians might encounter resistance trying to initiate a reframing of the conversation about their needs. Discussions should begin with the assumption that some temporary accommodations will be made and that these will vary over time.

The following section provides a list of resources for physicians and leaders in the workplace. It is intended to help initiate conversations and to raise awareness of the existing policy framework.

Recommendations

Having reviewed commonly cited approaches to accommodation, as well as their own experience, the task force[3] developed recommendations for resident associations, physicians in private practice, residents, medical schools, hospitals, medical students, medical associations, governments, healthcare employers, residency programs and others with an interest in physician well-being. These recommendations include:

- Pre-pregnancy guidelines: creating a healthy foundation.
- Pregnancy guidelines: creating a safe maternal/fetal environment.
- Postnatal: creating a supportive environment for new parents.

These recommendations are organized in accordance with the two broad groups that are party to the accommodation conversation. These are the workplace, including employers, education programs and practice partners as well as female physicians. They also embrace physicians in training who are now pregnant or who plan to bear children in the years to come.

It is acknowledged that this approach results in a long list of recommendations and some overlaps and repetition. During development of this consensus paper various alternative approaches were explored regarding the presentation of recommendations, such as numbering them and organizing them according to topic or the employment status of the physician. It was thought that using numbers would suggest a hierarchy of priority. The list presented here is in the order that the relevant issues are expected to arise.

Before Pregnancy: Creating a Healthy Foundation

A strong foundation must be in place in advance of a pregnancy. This foundation requires not only strong communication but also a firm basis in policies and procedures, shared understanding of all parties' duties and obligations and a climate of willingness to share in the conversation.

[3] The Task Force on the Accommodation of the Pregnant Physician (created and supported by the Physician Health Program of British Columbia) consisted of members of the practising physician community in British Columbia, as well as those who brought the perspectives of various stakeholders, including academic/medical education, professional associations, healthcare employers and occupational health and safety. A list of Task Force members is provided on page 28.

Recommendations for Workplaces

- Understand and apply guidelines and policies of the Canadian Association of Interns and Residents (CAIR), the Royal College of Physicians and Surgeons of Canada (RCPSC) and the College of Family Physicians of Canada (CFPC).
- Ensure that policies and guidelines regarding pregnancy and parental leave are in place and well communicated, in order to make the process of accommodation as open, smooth and rewarding as possible. Do so whether or not any pregnant physicians are present in the workplace, since existing mechanisms for accommodation send a positive signal to female employees and recruits whose futures include starting a family.
- In workplaces where policies do not exist, develop well-written and well-defined guidelines on maternity, parental leave and postpartum accommodation.
- Ensure that policies and guidelines are reflected in a supportive and open attitude to encourage female colleagues to discuss their needs as early as possible.
- Implement 'stop the clock' tenure and earning tracks that allow for interruptions due to family needs.
- Address preconception risks or threats to optimal fetal and maternal health in the work environment that could be prevented, mitigated or eliminated for female physicians.

Recommendations for Physicians Considering Pregnancy

- Familiarize yourself with work conditions that present risks or can lead to complications in pregnancy. Consider the conditions that apply to pregnant women in general such as repetitive stooping and bending, high job strain, long hours and shift work. Consider conditions that affect pregnant physicians specifically, including exposure to radiation, violence, infectious and antineoplastic agents and solvents.
- Analyze the specific employment conditions and leave policies when selecting a training program, residency programs or practice. Look for arrangements that offer flexible hours, part-time work or job sharing, on-site childcare services, emergency and sick-child care and facilities for breastfeeding or the expression of milk.
- Discuss the physical, professional and psychosocial demands of your work with your personal physician to understand your unique needs as dictated by your personal health status, age and reproductive history.
- Obtain full information about the policies, procedures and guidelines regarding pregnancy and maternity, such as leave entitlement and shift variation where you work.
- Obtain full information that will support decisions about your own and your family's financial situation in the event of complications during pregnancy or after birth, including disability insurance, particularly considering education debt.
- Understand your options regarding duration of leave after delivery, including paid or unpaid leave, continuation of insurance benefits, whether vacation and sick leave can be accrued from year to year or used in advance and whether schedule accommodations are allowed and supported.
- Given the increased risks associated with pregnancy for older mothers, there is a possibility that you may require costly and time-consuming fertility treatment. Early prenatal screening is also recommended.

During Pregnancy: Creating a Safe Maternal-Fetal Environment

Maternal and fetal health are of paramount concern to everyone during pregnancy and a strong, shared understanding of risk factors should underpin efforts to ensure accommodation by providing safeguards.

Recommendations for Workplaces

- Ensure that policies and programs are in place to reduce or eliminate risks to mother and fetus, including:
  - Reduce or eliminate requirements for night shifts and on-call duties for pregnant physicians from 24 weeks gestation onwards.
  - Provide pregnant physicians with opportunities to change work posture to avoid standing more than four hours at a stretch.
  - Adjust work hours to allow for rest and proper nutrition.
  - Provide flexible schedules for residents including flexibility in rotation and limits to on-call scheduling without penalizing non-pregnant colleagues.
  - Ensure that pregnant residents and employees have at least two consecutive days off every week and work no more than five days in a row.
  - Arrange back-up coverage of all clinical duties of pregnant physicians from 36 weeks of gestation onward in the event of an early delivery.
  - Minimize physicians' exposure to potentially violent patients who may endanger the pregnancy.
  - Reduce work activities for pregnant physicians in situations of high job fatigue, such as work weeks of 40 hours or more.
- Modify work conditions and allow pregnant physicians to opt out of work when:
  - Infectious disease prophylactic measures are not deemed by an occupational health specialist to provide sufficient protection.
  - Exposure to infectious diseases and the potential impact of treatment or post-exposure prophylaxis is determined to be unsafe for the mother or fetus.
- Provide flexible leaves during medical training and make an effort to allow the pregnant trainee to complete her education or residency in a timely fashion without having to repeat training.
- Be prepared to provide for situations where bed rest or other activity modifications are needed in higher risk pregnancies.

Recommendations for Pregnant Physicians

- Monitor changes in the physical, professional and psychosocial demands of your work with your personal physician to better understand the kinds of accommodation you may require, in keeping with your changing physiological and emotional needs.
- Ensure that practice partners, employers and program leaders are made aware in a timely fashion of medical conditions or complications of your pregnancy that require accommodation or may lead to a premature delivery.

- Ensure that you obtain appropriate support from your physician to document requirements for accommodation.
- Comply with all infectious disease prophylactic measures recommended by occupational health, including opting out of work in circumstances where:
    - Infectious disease prophylactic measures (e.g. personal protective equipment) are deemed by an occupational health specialist not to provide sufficient protection.
    - Exposure to infectious diseases and the potential related impact of treatment or post-exposure prophylaxis is determined to be unsafe for mother or fetus.
- Eliminate physically strenuous work and heavy lifting, especially during the latter stages of pregnancy.
- Avoid continuous prolonged standing of greater than four hours at a time and, after 32 weeks gestation, do not stand for more than 30 minutes at a stretch.
- Do not work more than five consecutive days without at least two consecutive days off.
- Well in advance of delivery, identify and secure arrangements for infant daycare or other domestic and childcare support that will needed to return to work following birth.

After Birth: Creating a Supportive Environment for New Parents

For new mothers and fathers, the transition to life as a working parent is a demanding time and this is particularly the case for women who are also dealing with the physiological changes associated with the postpartum period.

Recommendations for Workplaces

- Provide health-related leave lasting six to 13 or more weeks postpartum depending on the circumstances of the birth. For example, uncomplicated vaginal deliveries will require six to eight weeks health leave while more complicated deliveries will need nine to 13 weeks or longer. Canadian labour law provides for maternity leave of up to one year.
- Encourage and support female colleagues to take an adequate period of voluntary leave postpartum to breastfeed and nurture their infants.
- Create a workplace that is progressive in promoting benefits for women who combine medicine and motherhood such as facilitating part-time and shared practice models.
- Provide support, including private space and equipment and time for breastfeeding or the expression of milk by mothers.

- Offer a comprehensive set of supports to parents such as flexible hours, part-time work or job sharing, on-site childcare services and backup in case of a sick child.
- Provide support to colleagues when they return to work after giving birth. Sometimes, when a colleague is no longer visibly pregnant, they are offered less support. Yet the demands of motherhood: sleep deprivation, hormonal changes and infant health concerns can be even more demanding than pregnancy.
- Address postpartum risks or threats to maternal health that could be prevented, mitigated or eliminated by modification or reducing work hours.

Recommendations for Physicians as New Parents

- Consider the recommendation of the Canadian Pediatric Society to maintain exclusive breastfeeding for the first six months after birth for healthy, term infants.
- Engage in discussions about return to work well in advance of the actual return.
- Recognize that, for even the most committed women professionals, leaving a newborn to return to work is stressful. Seek support and accommodation to mitigate this stress and resist 'toughing it out.'
- Recognize that postpartum sleep disruption and deprivation may have a real and significant impact on thinking and memory and seek accommodation as required.
- Consider a graduated return to work and 'keeping in touch' mechanisms during leave.

Recommendations for Research

The task force recommends that policies and guidelines relating to accommodation of physician mothers be enhanced through the conduct, commissioning or promotion of national studies, especially research that:

- Defines appropriate, acceptable work-weeks for part-time or flexible practices and the duration of leaves of absence for child-bearing and child care.
- Seeks to understand the unique characteristics of physician work that pose risks to maternal and fetal health.
- Identifies mechanisms that will effectively enhance the work-life balance and satisfaction of physician parents, in order to contribute to their retention in the profession.

Resources for the Pregnant Physician

> *"Often during a woman's prime reproductive years, the demands of residency can collide with the challenges of planning for and undergoing pregnancy. Pregnancy presents special challenges for medical residents, including the potential maternal-fetal health risks of undergoing a pregnancy simultaneous to rigorous medical training, and the associated stressors of starting a family and a career simultaneously."*
> van Dis J. Residency training and pregnancy. JAMA. 2004; 291(5): 636.

Productive, respectful conversations about accommodation need a strong foundation in the policy and legislative context for maternity and parental leave. The table that follows provides links to some of the key resource sites that should be consulted.

In addition to the resources listed, physicians are encouraged to review all of their professional memberships and affiliations, such as the College of Family Physicians of Canada, to ascertain whether there are pregnancy and maternity policies in place that allow for reduction or temporary suspension of membership fees or changes to leave and part-time status.

Selected Resources for the Pregnant Physician

Audience	Organization	Topic	Source/Link(s)
Employed Persons in Canada	Employment Insurance	Parental leave benefits for those who are employed and have paid EI premiums (does not apply to self-employed physicians, although new legislation is being contemplated that may alter eligibility rules so please check for updated information)	http://142.236.54.112/eng/sc/ei/benefits/maternityparental.shtml
Pregnant Employed Persons in Canada	Employment Insurance	Maternity leave benefits for those who are employed and have paid EI premiums (does not apply to self-employed physicians, although new legislation is being contemplated that may alter eligibility rules so please check for updated information)	http://www.servicecanada.gc.ca/eng/ei/types/special.shtml#Maternity3
Employed Persons in BC	BC **Employment Standards** Act	Parental leave standards for those who are employed	http://www.labour.gov.bc.ca/esb/igm/esa-part-6/igm-esa-s-51.htm
Pregnant Employed Persons in BC	BC **Employment Standards** Act	Maternity leave standards for those who are employed	http://www.labour.gov.bc.ca/esb/igm/esa-part-6/igm-esa-s-50.htm
BC Health	BC **Health Professions** Act	Licensure legislation	http://www.bclaws.ca/Recon/document/freeside/--%20H%20--/Health%20 Professions%20 Act%20%20 RSBC%20 1996%20%20c.%20 183/00_96183_01.xml
BC Physicians	Physician Health Program	The Physician Health Program strives to provide advocacy and support for physicians, including those in training and their families, relating to their personal and professional lives. This website contains information and links of interest that relate to physician health, physician illness - both emotional and physical.	http://www.physicianhealth.com/

Selected Resources for the Pregnant Physician

Audience	Organization	Topic	Source/Link(s)
BC Physicians	Physician Health Program	Support is also provided through a Toll Free Helpline 1-800-663-6729. Services include confidential support and referrals for issues including career and life transitions, work accommodation issues and other occupational health matters. Services are available to all British Columbia physicians, physicians-in-training, including medical students and residents, and physicians' families – spouses/partners/dependent children.	http://www.physicianhealth.com/
BC Physicians	College of Physicians and Surgeons of BC	Interruption of College registration Detailed list of requirements that must be fulfilled by a physician who has been on leave, before returning to practice "as described under Section 2-7(1) - (2) of the Bylaws under the Health Professions Act, RSBC 1996, c.183."	https://www.cpsbc.ca/physicians-area/registration Section 2 – 7 of the CPSBC Bylaws: https://www.cpsbc.ca/files/u6/HPA_Bylaws_-_June_1_2009.pdf#nameddest=2-7
Pregnant BC Physicians	BCMA	Pregnancy Leave Benefits The Pregnancy Leave Program (PLP) was established under the 2004 Working Agreement, with funding in the amount of $1.3 million annually. The $1.3 million was reconfirmed under the Benefits Subsidiary Agreement (BSA) of the 2007 Physician Master Agreement. The PLP is identified as the first priority for allocation of surplus benefit funds under the BSA for the period 2006/7 to 2009/10. Pregnancy and Disability Insurance Pregnancy complications experienced by a female physician are covered under the BCMA disability insurance plans (Physicians' Disability Insurance (PDI) and/or BCMA Disability Income Insurance. Births requiring a caesarean section are considered complicated.	http://www.bcmj.org/maternity-program-shortfall-bcma-responds http://www.bcmj.org/pulsimeter-0 (see bottom of page) http://www.bcma.org/about-bcma/join-bcma-benefits

Selected Resources for the Pregnant Physician

Audience	Organization	Topic	Source/Link(s)
Pregnant BC Residents	PAR-BC	Benefits for Pregnant Residents The objective of the Plan is to supplement employment insurance benefits received by eligible female Residents who are on approved Maternity Leave pursuant to the Collective Agreement.	http://www.par-bc.org/Collective-Agreement-Constitution.php
BC Physician Parents	Canadian Medical Protective Association	Interruptions to CMPA membership for parental leave	http://www.cmpa-acpm.ca/cmpapd04/docs/tools/com_faq-e.cfm#membership_interruption

The Task Force

The Task Force on the Accommodation of the Pregnant Physician was created and supported by the Physician Health Program of British Columbia (PHPBC) and was comprised of the following members:

Andrew Clarke, MD DOHS
Executive Director, Physician Health Program of British Columbia
Clinical Associate Professor, Department of Psychiatry, University of British Columbia

Renée-Louise Franche, PhD
Director, Disability Prevention, Occupational Health and Safety Agency for Healthcare in British Columbia
Adjunct Professor, Faculty of Health Sciences, Simon Fraser University
Adjunct Professor, School of Population and Public Health, University of British Columbia

Corinne M. Hohl, MD, FRCP, MHSc
Attending Physician, Emergency Department, Vancouver General Hospital
Assistant Professor, Department of Emergency Medicine, University of British Columbia
Scientist, Centre for Clinical Epidemiology and Evaluation
Mentored Clinician Scientist, Vancouver Coastal Health Research Institute

Robert Liston, MB, CHB, FRCOG, FRCSC, FACOG
Professor/Head, Department of Obstetrics and Gynaecology, University of British Columbia and Clinical Investigator, Child and Family Research Institute

Nancy Kent, MD, FRCSC, MEd
Clinical Professor and Maternal Fetal Medicine Fellowship Program Director, Department of Obstetrics and Gynaecology, University of British Columbia

Kelsey D. M. Kozoriz, MD MSc
Resident Physician, University of British Columbia Department of Family Medicine
Director of Communications, Professional Association of Residents of British Columbia

Shelley Ross, MD, CCFP, FCFP
Honorary Secretary-Treasurer, BC Medical Association
Secretary-General, Medical Women's International Association
Past President, Federation of Medical Women of Canada
Chair, Council on Health Economics and Policy British Columbia Medical Association

Alexandra Tcheremenska-Greenhill, MD
Associate CEO, British Columbia Medical Association

Eric M. Webber, MD, FRCSC
Assistant Dean, Postgraduate Medical Education
Faculty of Medicine, University of British Columbia

Flora Wong, MD, CCFP
Clinical Instructor, University of British Columbia Department of Family Practice Family Physician, Langley, BC

The Task Force was supported by:

Patricia Evans
Consultant, Patricia Evans & Associates Inc.

Barbara Grantham
Consultant, Barbara Grantham Consulting Services

Allison Prieur
Research Associate, Barbara Grantham Consulting Services

Claire Sauvé
Education Coordinator, Physician Health Program of BC

Suzanne Schulhof
Administrative Team Coordinator, Physician Health Program of BC

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Jennifer Hutcheon, PhD
Post-Doctoral Fellow
Department of Obstetrics and Gynaecology University of British Columbia

Sarka Lisonkova, PhD
Post-Doctoral Fellow
Department of Obstetrics and Gynaecology University of British Columbia,

K.S. Joseph MD, PhD
Professor Department of Obstetrics and Gynaecology
School of Population and Public Health University of British Columbia

Ken Seethram, MD, FRCSC, FACOG
Co-Director, Pacific Centre for Reproductive Medicine

Dorothy Shaw, MD
Senior Associate Dean, Professional Affairs, and Clinical Professor, Departments of Obstetrics and Gynaecology and Medical Genetics, University of British Columbia and
BC Women's Hospital

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