PREPPING THE CUT:
CAESAREAN SECTION SCENARIOS IN ENGLISH CANADA, 1945-1970

by

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ABSTRACT

At the beginning of the 21st century, Canadian public debates about caesarean section centre on the relative agency of mothers and medical professionals in choosing the preferred birthing method. A 2006 study at the University of British Columbia aims to determine why the Pacific has the highest caesarean rate in the country. According to its authors, BC’s rate is 27% despite the World Health Organization’s advocacy of a rate between 10 and 15 percent.1 The highlighting of this discrepancy in the pages of the popular Vancouver Sun typifies the public concern that today so commonly echoes professional unease.

Sandwiched between the era of development and professionalization – 1900 to 1950 – explored in Mitchinson’s critical chapter on c-sections2, and the widespread acceptance that occurred in the 1970s and beyond, lie the often overlooked years, 1945-1970, which first saw c-sections solidified in treatment and entrenched in medical and social discourses. At the end of WWII, Canadian mothers and medical professionals were about to embark on a quarter-of-a-century consideration of how reduction of risk in c-sections could contribute to positive outcomes. This dissertation examines the social, technological, professional, and discursive factors that converged throughout the post-war period in Canada, arguing that medical technological developments of this time period coupled with developments in the professionalization of obstetrics, the substantial broadening of state health infrastructure post-WWII, and a significant shift in ideological constructions of motherhood according to white, middle-class standards contributed to an increased comfort with the practice of caesarean section.

# TABLE OF CONTENTS

ABSTRACT ........................................................................................................................... ii

TABLE OF CONTENTS ........................................................................................................... iii

LIST OF TABLES .................................................................................................................... iv

LIST OF FIGURES .................................................................................................................... v

ACKNOWLEDGEMENTS ........................................................................................................ vi

INTRODUCTION .................................................................................................................... 1

CHAPTER 1: A Critical Perspective on Women’s Bodies: Review of Literature and Methods 14

CHAPTER 2: Monitoring the ‘Traveler in Inner Space’: Technological Incongruity in Obstetrical Safety .................................................................................................................. 50

CHAPTER 3: Monitoring the Navigator in Outer Space: Professionalization of Obstetrics in Post-WWII Canada ........................................................................................................ 83

CHAPTER 4: “Submit with Good Grace for Your Own Sake”: Constructing the Ideal Birth in Post-WWII Canadian Popular Discourses ........................................................................... 109

CHAPTER 5: Caesarean Sections in Vancouver 1952-1970: St. Paul’s Hospital ........................................ 144

CONCLUSION ................................................................................................................................ 183

BIBLIOGRAPHY ................................................................................................................................ 190
LIST OF TABLES

Table 1: St. Paul’s C-section Patient Ethnicity......................................................... 161

Table 2: Metropolitan Vancouver Population by Ethnicity........................................ 162

Table 3: St. Paul’s Caesarean Section Patient Marital Status........................................ 163

Table 4: St. Paul’s births by Maternal Age................................................................. 163

Table 5: British Columbia Births by Maternal Age..................................................... 164

Table 6: Percentage by Indicator of St. Paul’s Caesarean Sections 1952-1970.............. 171

Table 7: Percentage by Indicator of St. Paul’s Caesarean Sections Continued.............. 172
LIST OF FIGURES

Figure 1: St. Paul’s Hospital Caesarean Section Rate, 1952-1970......................160

Figure 2: St. Paul’s Hospital Patient Addresses..............................................165

Figure 3: St. Paul’s Hospital Births, 1952-1970..............................................167

Figure 4: Canada Births, 1952-1970...............................................................167

Figure 5: BC Births, 1952-1970.................................................................167

Figure 6: Top St. Paul’s Caesarean Indicators, 1952-1970............................170

Figure 7: Relative Indicators for Caesarean Section at St. Paul’s, 1952-1970......177

Figure 8: Changes in Proportion of Absolute and Relative Caesarean Section Indicators at St. Paul’s, 1952-1970.................................................................180

Figure 9: Caesarean Section Rates, Canada and BC, 1969-1990.........................183

Figure 10: Relative Indicators in BC, 1986-1992..............................................184
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3 In chronological order… Jack Freeman, Ben Freeman, Nigel Young, Josh Newell, Victoria Martin, Miranda Malcolm, Gwen Buechler, Elizabeth Baker, Simone Winters, Elizabeth Martin, Jack Quattrocchi, Jack Nelson, Sebastien Young, Miriam Malcolm, Eleanor Newell and Doyle Raines.
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INTRODUCTION

In October of 2006, North American magazines, *The New Yorker* and *The Walrus*, ran articles addressing childbirth in the 21st century. Both articles assessed the current state of birthing in the context of past practices, questioning the efficacy and appropriateness of perceived high rates of caesarean section. Indeed, the issue of overuse of caesarean birth echoes throughout both popular and medical press during these years. An October 2009 news release in the British *Daily Mail* reported that one quarter of babies in the United Kingdom were born by c-section, a rate that had been confirmed in Canada two years previously. Such concern was not new. Nearly 25 years earlier the World Health Organization was compelled to issue a directive suggesting that “there is no justification for

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any region to have a rate higher than 10-15%.” In Canada, c-section rates have been steadily climbing since 1970. From a rate of 5.6% in 1970, the frequency of surgical childbirth increased almost threefold by 1980 to a rate of 14.7%. While the trajectory waned in the early 1980s, Canada’s rates have since continued to rise. The overall rate in the fiscal year 2008-2009 was 26.9%, with even more frequent incidences in British Columbia (31.1%) and Newfoundland and Labrador (31.5%). Speculation across North America about causes has ranged from discussions of rising obesity and maternal age, to physician comfort and legal conflicts. Whatever the motivation and contributing factors, caesarean sections in 21st century North America are seen as unjustifiably high.

This study investigates the period of time immediately prior to the exponential rise, examining continuity and change in the practice of caesarean section in the key period of 1945 to 1970 when a new ‘normal’ was established in which surgical birth offered promise for better birthing outcomes. From the mid-1940s when the operation was deemed by English Canadian specialists to be “safe” for both mother and child, to the early 1970s when concern about its possible overuse became prevalent, technical, professional and ideological changes encouraged increased physician and patient comfort with the operation.

Once surgical safety could largely be taken for granted in the early post-WWII years, medical science began a decades-long effort to nullify risk in caesarean section. This dissertation aims to determine the technological, professional, and social forces that shaped that effort in English Canada between 1945 and 1970. I argue that innovations in medical

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10 Wendy Mitchinson, Giving Birth in Canada 1900-1950 (Toronto; University of Toronto Press, 2002) 231.
technology and technique converged with developments in the professionalization of obstetrics and a shift in ideological constructions of motherhood to contribute to significant medical acceptance of caesarean section by 1970. After World War Two and in the midst of Cold War uncertainty, parents and practitioners were motivated to create a better life in which risk could be contained and managed. When it came to childbirth, the newly-declared safety of caesarean section offered promise for better outcomes. The development of standardized tests and record-keeping, technological developments, including maternal and fetal monitoring during pregnancy and labour, and a campaign among obstetricians to increase peer recognition of the scientific merit of the profession were shaped by, and helped to shape, social and medical discourses that encouraged mothers and their care-givers to embrace new medical standards and the expert advice of medical practitioners. As a result, indications for caesarean section shifted in the years between the Second World War and the end of the 1960s. In particular, c-sections were no longer limited to situations of life or death for either the mother or her fetus. Instead they were increasingly prescribed to prevent difficult labours from ever taking place.

As Wendy Mitchinson and Denyse Baillargeon confirm in their respective analyses of the medicalization of childbirth, after World War Two it became “almost unthinkable” not to seek medical care during pregnancy and childbirth. ¹¹ Practitioners focused increased attention on difficult births and attempted to improve maternal and infant morbidity and mortality through medical techniques and practices, including surgical intervention during labour. In much the way they were going to save the Western world from communist encroachment, technology and expertise were going to contain the risk in childbirth. After

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significant improvements in haematology, combating infection, and incision technique in the first half of the century, c-sections emerged to form a central part of this scenario.

In her influential historical analysis of the relationship between motherhood and the Canadian state, Cynthia Comacchio argues that health initiatives in general “mirror the priorities and organization of the larger socio-economic system.”12 After World War II, Canada, alongside much of the Western world, was engaged in a project of modernization, technological advance, and the creation and expansion of state-funded social programs. In the Cold War context of creating a safe nation and accompanied by a baby boom that defined the socio-political landscape of the rest of the twentieth century, these factors contributed to a specific trajectory in terms of medical care and parenting. As I explore, reliance on professional expertise both Canadian and international, an extended medical infrastructure, and social rhetoric emphasizing the importance of medicalized pregnancy and delivery affected the conditions under which women gave birth.

Practitioners sought birthing scenarios that could reduce maternal and infant/fetal mortality. At mid-century they grappled with new techniques and technologies within the paradigm of preventive medicine. Preventive medicine, as American sociologist William Ray Arney argues, complicated obstetrics when it “located childbirth in a wider social order and subjected it to the power of a structure that creates birth in field of visibility.”13 This regulatory medical discipline exemplifies the idea of the Foucauldian panopticon whereby physiological processes are located within a normalizing gaze.14 Specifically, the panopticon maximizes surveillance not only of the observed but also of the observer. Patients,

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14 Arney 88.
administrators and governments held practitioners to rigorous and evolving standards in the drive to create safer birthing outcomes. The impact of this gaze is equally explored in this dissertation, where I argue that continuously evolving standards and administrative requirements increased practitioner comfort with intervention in birth in general and c-section in particular.

Women and practitioners were not passive recipients or disseminators of medicalization. In the face of medicalization, parturient women and their medical caregivers engaged variously in both personal and collective resistance, exemplifying the ongoing negotiation of what constitutes the ideal birth. While the medical and popular discourses that I analyse offered limited options for women to challenge the medicalized model, the work of Grantly Dick-Read and Fernand Lamaze opened up opportunities for counter-hegemonic discourses after World War Two. While the “natural” childbirth movement they endorsed did not take firm root until the 1970s in Canada, its ideas were increasingly visible in the 1950s and 60s.

Health outcomes in Canada generally improved throughout the era, in part as a result of demographic and socio-political changes including “hospital construction, the expansion of medical and social services, and better housing, transportation and working conditions.” With particular reference to pregnancy and birth, Cheryl Warsh details factors that contributed to improved maternal health outcomes, including “blood-banking and intravenous fluid therapy; safer hospital deliveries; and improved contraception, which allowed women to space their pregnancies.”

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16 Cheryl Warsh, Prescribed Norms: Women and Health in Canada and the United States since 1800 (Toronto: University of Toronto Press, 2010)117.
better milk, regular prenatal care, and increased public awareness of the relationship between the health of mothers and the health of their babies also led to better results.

Changes to the state funding of health care further improved outcomes. The introduction of federal grants to provinces for health research and hospital construction through the National Health Program in 1948 increased access to hospital care; so too did the Hospital Insurance and Diagnostic Services Act, which introduced federal-provincial cost-sharing for emergency services, curative medicine, and hospital surgery in hospitals beginning in 1958. By 1960 approximately 95% of Canadian babies were born in hospitals, where they and their mothers were expected to reap the benefits of modern medicine. Neonatal and maternal mortality dropped substantially. Better birthing outcomes were the result of the concerted expansion of health care facilities, education, and accessibility.

Limits persisted, however, on what medical doctors could achieve. While technology and technique were so significantly improved in the 1950s and 1960s that mothers and babies

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17 On pure milk campaigns in the early twentieth century see Comacchio (1993).
19 In 1948 the federal government enacted the Hospital Insurance and Diagnostic Services Act, patterned on the hospital insurance scheme of Premier Tommy Douglas in Saskatchewan, introducing a cost-sharing program with provincial governments for the provision of hospital insurance to all Canadians. By 1961, such insurance was available across the country. That same year, the Royal Commission on Health Services began investigations into health insurance in Canada, one result of which was the 1966 introduction of the Medical Care Act, which provides for universal coverage of hospital and physicians’ services across Canada. No exhaustive research has yet been published providing a feminist perspective on the history of medicare’s implementation in Canada. Feldberg et al.’s edited volume, Women, Health and Nation: Canada and the United States Since 1945 (2003) addresses some specific issues related to socialized medical care and women’s experience, but that is not the subject or aim of the collection.
20 Katherine Arnup, Education for Motherhood: Advice for Mothers in Twentieth-Century Canada (Toronto: University of Toronto Press, 1994) 74.
rarely died or became ill because of caesarean delivery, physicians struggled to keep premature babies alive. In particular, although babies who needed to be extracted early from their mothers in order to save one or the other could survive the operation, remedies for premature lungs were minimal and many preemies died as a result. Not until diagnostic technology to determine fetal age and technologies for lung development were improved and introduced into mainstream practice in the 1970s was a substantial rise in c-section rates possible.

Social circumstances shaped by class and race as well as gender profoundly informed access to healthcare. The 1964 report of the Royal Commission on Health Services noted the difficulty of low income families in accessing services related to preventive medicine. Working-class and negatively racialized women had more limited access to medical care generally and c-sections specifically. Despite the close association of poor health and low income, poor women of every background had fewer options. Several studies in this era link caesarean section to insurance coverage; significantly more operative deliveries occurred for private rather than public patients. Patients from rural and remote areas of the country also had more limited access to obstetrical care. Because women with complications were

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encouraged to travel to a better equipped area to give birth, small rural institutions were still more likely to have lower c-section rates than urban teaching hospitals.  

Ethnicity and citizenship status shaped options but few studies have examined women’s reproductive health status in the 1950s and 1960s. Nevertheless, we know that health and parenting propaganda aimed at new and racialized Canadians circulated during these years. Cold War tensions heightened suspicions of foreigners and encouraged the Canadianization of immigrants under the regulatory gaze of the medical system. While its exact implication for c-sections is not clear, racialized Canadian women were subject to the medical gaze in their position as childbearers and from the perspective of those whose experience was outside the socially constructed norm.

Aboriginal mothers elicited similar attention. Unlike newcomers, however, most Aboriginal Canadians lived in rural and remote areas that lacked medical and obstetrical services beyond the minimum provided through a separate and unequal regime imposed by the Department of Indian Affairs. Moreover, Western childbirth authorities were, at best, 

26 See, for example, Lloyd W. Johnston, “Cesarean Section in Non-Teaching Hospitals” CMAJ 90, 20 (16 May 1984) 1143-1146. The rate of c-section reported in 2 Lethbridge, Alberta hospitals between 1955 and 1962 was 1.48%.
27 In her research on the “blue books” series of health leaflets circulated by the federal government in the 1920s Dianne Dodd points out that among the documents of this eugenics-based public health campaign were those directed specifically at new arrivals to Canada. This campaign continued throughout the century with various publications and programs. Dianne Dodd, “Advice to Parents: The Blue Books, Helen MacMurchy, MD, and the Federal Department of Health 1920-34” Canadian Bulletin of Medical History 8 (1991): 203-230. On Canadianizing propaganda after WWII, see, for example, Mona Gleason, Normalizing the Ideal: Psychology, Schooling, and the Family in Postwar Canada (Toronto: University of Toronto Press, 1999); Analee Götz, “Family Matters: The Canadian Family and the State in the Postwar Period” Left History 1, 2 (1993): 9-49.
28 On the treatment of immigrant women in Cold War Canada see, in particular, the work of Franca Iacovetta, especially “Recipes for Democracy: Gender, Family and Making Female Citizens in Cold War Canada” Canadian Woman Studies 20, 2 (Fall 2002/Winter 2003)12-21; and Gatekeepers: Reshaping Immigrant Lives in Cold War Canada (Toronto: Between the Lines, 2006).
suspicious of Aboriginal birthing traditions.\textsuperscript{30} As Mary Ellen Kelm argues, “sustained contact with Europeans fundamentally altered the physical health of the First Nations, and that change has become emblematic of the effects of Euro Canadian domination on both Native and non-Native people.”\textsuperscript{31} In the context of childbirth, this meant increased denial of the validity and comfort of Indigenous practices. In these years, as before and after, the ideal birth, and therefore deviations from it, was rarely constructed with non-Western practices or cultures in consideration.

Few post-WWII documents specify the racial or immigrant identity of patients, but since c-sections were most available in urban areas and often involved greater use of technology and greater costs, poorer women of all origins were likely to have less access. They are thus rarely the subject of professional journals or popular parenting advice available in the widely-read Canadian women’s magazine, \textit{Chatelaine}. Birth, both normal and abnormal, was overwhelmingly constructed as a white, middle-class, anglophone, heterosexual experience. Racial and class differences among women rarely appear in commentaries in the medical, popular, or patient records.

My own perspective as a white, middle-class, able-bodied woman of educational privilege who was born and raised with access to the Canadian medical system informs my research. I am also a labour and post-partum doula, a woman who provides emotional and educational support as well as advocacy for parturient mothers. Supporting friends and colleagues during over-medicalized births has informed my feminist perspective on modern medicine. Sometimes births require very little outside mediation to be successful. I have also,

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\textsuperscript{31} Kelm \textit{xv}.
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however, observed occasions where medical intervention saved lives. In short, I have witnessed first-hand the multiplicity of possibilities in childbirth. This has tempered my suspicions of a deeply masculine and authoritarian medical system.

My approach to illuminating the broad context of c-section in the post-WWII era offers an interdisciplinary, intersectional feminist reading of the relations of power. In particular, I draw on the work of Michel Foucault and its interpretation by feminist scholars to investigate the dynamic roles of practitioners and patients in an era when surgical childbirth transitioned from mere safety to routine. I employ feminist understandings of bio-power, defined by Foucault as “an explosion of numerous and diverse techniques for achieving the subjugation of bodies and the control of populations,” and discourse, which he explains as a collection of statements that provide a particular language for discussing any given topic. Feminist scholars such as Deborah Lupton, Barbara Duden and Emily Martin expand on Foucault to inform my analysis of the balancing of obstetrical imperatives, gender relations, and the subjugation of women’s bodies under the newly-cemented ideology of preventive medicine.

These and other feminist scholars show that bio-power’s medicalization of the female body served to de-humanize and disembodied women in their reproductive capacities. Women were discouraged from active participation in the construction and dissemination of the ideal medicalized birth. In the process, the opinions of medical experts took precedent in decision-making on topics such as intervention in general, and caesarean section in particular. Parturient women as patients under medical supervision were not included in discussions of the relative necessity and utility of the surgery, nor were they routinely consulted about their

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wishes during delivery, especially in cases of medical emergency. The norm of the period was also constructed without attention to difference among women; it always centred white, middle-class Canadians. As later chapters demonstrate, I have brought this critical awareness to my reading of mainstream professional and popular sources for the post-WWII years.

This introduction is followed by five chapters and a conclusion. Chapter One reviews the relevant scholarly literature. Emphasizing an interdisciplinary approach, it treats influential works in Canadian women’s history, studies of motherhood, and both historical and social analyses of medical care in relation to women and reproduction. This chapter also details my methodological approach and considers the implications of the accessibility of medical records for historical analysis.

Chapter Two explores technological and technical innovations of the era. New approaches to the use of anaesthetic, changes in methods of induction, and the introduction of maternal and fetal monitoring into obstetrical practice created new indications for surgical childbirth. These innovations improved the success of caesarean delivery, but their meaning for neonatal mortality rates was less positive. The ability to remove the fetus did not always coincide with the ability to keep a premature baby alive. New methods of induction and an increase in the willingness of medical practitioners to perform caesarean section in instances where the mother’s health was threatened resulted in increased premature births. However, understanding of fetal lung development was still in its infancy and there was no reliable method available to detect fetal age in utero. As such, the broadening of indications for c-section resulted in reductions in maternal mortality but there was no corresponding reduction in neonatal morbidity and mortality.
While monitoring mothers and fetuses forms the subject of Chapter Two, monitoring the physicians is explored in Chapter Three. Professionalization in the Canadian obstetrics field in this era informed the decision-making practices of physicians, their professional and peer interactions, and their relations with patients. Specifically, the early twentieth century shift from ‘interventive’ to preventive medicine contributed to the setting of standardized trajectories for “normal” labour. By the late 1960s, this resulted in an increase in c-sections to prevent difficult birth rather than intervene during already complicated labour. New developments in obstetrical practice employed a regulatory discipline, the Foucauldian medical gaze, which affected obstetrical outcomes. This chapter demonstrates that the development of clearly defined standards of care, in combination with new technologies for fetal and maternal monitoring during labour, enabled practitioners to regularize the indications for surgical intervention in labour. As we shall see, the resulting over-reliance on established norms also potentially compromised case-specific care.

Chapter Four moves from practitioner to patient, examining the discourses of parenting in the popular and professional literature of the era of my study. I compare two widely-circulated childbirth and mothering texts to analyze the interactions of the era’s changing discourses of motherhood and compare them with the changes in professional discourse and practice as discussed earlier. In particular, the changes noted across three separate editions of each manual show the increased medicalization of pregnancy and childbirth in the construction of ideal birth. Gendered parenting norms and the echoes of Victorian notions of bodily propriety served to figuratively distance women from their bodies in the processes of parturition, and reinforced the discourses of medical and health care
experts. This chapter suggests that practitioners were becoming more comfortable with increased intervention into childbirth.

The fifth chapter turns to an illustrative case study of one urban Vancouver hospital between 1950 and 1970. The delivery registers and a sample of patient charts at St. Paul’s hospital demonstrate increasing acceptance of c-section by doctors and parents, and resulting increases in surgical childbirth. Specifically, diagnosis of the need for c-section at St. Paul’s expanded in this era to feature not only absolute life or death scenarios in which the fetus must be removed quickly from its mother in order for both to survive, but also a growing incidence on relative indications for c-section in situations where threats were not as clear cut.

The conclusion summarizes and draws correlations among the medical, professional, and ideological contexts in which caesarean section took place in this era, situating these ideas once again in the realm of ideal birth. It also suggests further areas for research continuing from this broad contextual understanding of post-WWII interventional birth.

This dissertation begins to assess the broad contexts of an area of study that is need of much more exploration. In particular, I do not include the voices of women in my analyses at this time. Rather, my study examines the larger social forces at play in influencing physicians’ and women’s experiences in surgical birth in the post-WWII years, confirming the gendered, medicalized, and increasingly standardized nature of childbirth after World War II in English Canada. It shows that the continuing drive to reduce risk in childbirth in this era of omnipresent efforts at risk-containment combined with technological advance to turn a procedure that had been abnormal and dangerous into a viable option that no longer existed outside the norm.
CHAPTER 1: A Critical Perspective on Women’s Bodies: Review of Literature and Methods

Caesarean section is much more than a surgical operation. As Rosemary Mander points out in her sociological study of the operation, “through etymological, hagiographical and fashionable influences, this operation has become imbued with an aura of supernatural power.”¹ It appears in multiple global mythologies, including Hindu, Egyptian, Grecian, Roman, and Norse folklore. These often ascribed god-like or supernatural prowess to surgical birth.² The operation appears in religious texts as well: one history of the operation describes “ancient Chinese etchings depict the procedure on apparently living women” and “the Mischnagoth and Talmud prohibited primogeniture when twins were born by cesarean section and waived the purification rituals for women delivered by surgery.”³ In European lore, c-sections are associated with power, as in the births of the Roman military commander Scipio, the fictional Macduff of Shakespeare’s Macbeth, and more recently, birthing of and by powerful women from Queen Elizabeth II to Victoria Beckham.⁴ Whether in the context of the rights of inheritance, as discussed in sacred Jewish texts, or reproductive rights and technologies, as are hotly debated in the 21st century North American and other media, c-sections embody social and cultural relationships as much as they reflect the state of medical technology and women’s health. The mid-twentieth century shift from surgical birth as the fearsome finale to a life-threatening situation to a low-risk alternative to problematic

² Notably, removal of a fetus by cutting into its mother’s abdomen is not referred to in every culture as Caesarean section. In fact, it this term for surgical childbirth was not in common use until the 16th century. See Dyre Trolle, The History of Caesarean Section (Copenhagen: C.A. Reitzel Booksellers, 1982): 13.
parturition reflects more than just medical refinement. It offers an understanding of birth in multiple and intersecting social and cultural contexts.

Illuminating caesarean section as a socio-cultural and medical phenomenon in any given time period and in any particular place necessarily involves an interdisciplinary, multi-methodology, and intersectional approach. Theory, methodology, and historiography converge in providing a framework for unpacking the social, political, and scientific components that encourage a dynamic conception of this medical procedure. In twentieth century Canada, c-section discussion and debates were influenced by medical innovation, the configuring of obstetrics as a recognized specialty, and ever-evolving concepts of women’s reproductive health. In particular, women’s perceived responsibilities as the bearers of future citizens affected pregnancy and birthing discourses. This chapter examines and reviews critical bodies of scholarship that have addressed such topics and influenced my work. I begin with a brief history of caesarean section, then examine literature on motherhood and medicine with particular reference to medicalization. I then discuss writing on Canadian women, health, and reproduction, culminating in an overview of work specifically devoted to caesarean section in the last half of the twentieth century. Finally, I outline the multi-faceted method by which I approach my illumination of caesarean section in post-WWII Canada.

Brief Medical History of Caesarean Section to 1950

The long history of caesarean section has been explored by numerous twentieth century Western scholars from varying disciplines and with varying interpretations of its origin.\(^5\) The generally accepted understanding of the term is that it derives from Roman law under the time of Caesar, *Lex Caesaria*, which stated that in the event of a woman dying in

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childbirth or while pregnant, all fetuses had to be buried separately from their mothers, necessitating their surgical removal from their mothers. It is unlikely that Julius Caesar himself was born surgically, as evidence of his mother’s survival of the birth leads to the presumption that she gave birth vaginally. Written evidence of surgical childbirth in which both the mother and the child survived before the 18th century is minimal. In the same era, debates about the ethics of caesarean section circulated widely with Catholic and Protestant churches debating the importance of saving the mother or a child in instances where both would not survive the birth. Several scientists advocated the use of the operation in the eighteenth century, though few were routinely successful.

In 1788, a Parisian doctor recorded that only 79 successful caesarean sections had occurred in the whole of Europe since 1500. In 1794 the first successful operation was recorded in North America. Most physicians continued to advocate restraint and the operation was most common only where the mother was already deceased. As Helen Churchill notes in her history of the operation, “by the end of the eighteenth century the caesarean remained a controversial issue and few [known] obstetricians would actually

6 Churchill 1.
7 Churchill 3.
8 Also influential in church doctrine on childbirth was the idea of the “curse of Eve,” the exact wording of which is found in the book of Genesis 3:16: “Unto the woman he said, I will greatly multiply thy sorrow and thy conception; in sorrow thou shalt bring forth children; and thy desire shall be to thy husband, and he shall rule over thee.” (King James version). Christian doctrine until the late nineteenth century suggested that it was women’s duty to experience pain during childbirth because it was explicitly laid out in the bible as punishment for disobeying the Lord in the garden of Eden. Not until Queen Victoria elected to use chloroform anaesthesia during the birth of one of her children in the mid-nineteenth century did Protestants seriously re-visit this doctrine. And it was not revised in the Catholic Church until almost a century later. See Michael C. Lewis, “Religious and Cultural Controversies Surrounding the Advent of Anaesthesia: Some Myths Debunked” Conference paper delivered 13 October 2007 during the annual conference of the American Society of Anaesthesiologists. See also Jeffrey Boss, “The Character of Childbirth According to the Bible” BJO 69, 3 (June 1962): 508-513.
9 Churchill 7.
10 Churchill 10.
11 Churchill 10-11.
attempt the operation.”\textsuperscript{12} Debate continued throughout the 1800s, but not until late in that century and into the next, after significant medical discoveries were achieved in the areas of anaesthesia, anti-sepsis and incision technique did women and their babies begin to routinely survive.\textsuperscript{13} Only with innovations in technology and technique in the early twentieth century did physicians lower the inherent risk in abdominal birth.\textsuperscript{14}

After the general acceptance of the germ theory of disease in the late nineteenth century, perhaps the most ground-breaking discovery in the lead-up to caesarean safety was that of antibiotics to combat infection. The discovery of sulpha drugs in the 1930s and the related development of penicillin in the 1940s profoundly influenced the ability to combat postnatal and post-operative infection. As Wendy Mitchinson points out in her history of childbirth in Canada from 1900 to 1950, “these drugs did not prevent [infection], but they countered its virulence and thus lowered mortality from infection.”\textsuperscript{15} Puerperal sepsis declined rapidly after the introduction of antibiotics, as did post-caesarean infections of the peritoneum. One post-war doctor observed that “there is a vast difference between indications for which Cesarean section was performed in the period after the discovery of the sulphonamides and those sections which were done in the preceding 50 years.”\textsuperscript{16} Combating infection was the first major step in encouraging safety in surgical childbirth.

Hand in hand with the introduction of antibiotics went discoveries related to blood typing and transfusions. The discovery of blood groups in 1901 led to the development of blood transfusions, although they were not widely used until after World War Two.\textsuperscript{17} A study

\textsuperscript{12} Churchill 12.
\textsuperscript{13} Churchill 33-38.
\textsuperscript{14} A. W. Andison, “Caesarean Section” \textit{CMAJ} 56 (Feb. 1947): 170.
\textsuperscript{15} Wendy Mitchinson, \textit{Giving Birth in Canada 1900-1950} (Toronto; University of Toronto Press, 2002) 280.
\textsuperscript{16} Henry Fitzgibbon, “Vaginal Delivery After Previous Cesarean Section” \textit{CMAJ} 85 (25 Nov 1961), 1187.
of maternal mortality in Vancouver and British Columbia from 1941 to 1943 showed that, thanks to the widespread use of antibiotics, the leading cause of maternal death in relation to childbirth was no longer infection, but haemorrhage.\textsuperscript{18} The introduction of blood transfusions into common practice helped to reduce maternal mortality from blood loss. By the early post-war years, both antibiotics and transfusions were commonly used as preventive measures for new mothers, whether they delivered surgically or not.\textsuperscript{19}

A third early-twentieth-century development to contribute to the declaration of caesarean section as safe was the method of opening the abdomen. In particular, the introduction in 1921 of the transverse incision to complement the 1908 retrovesical (under the bladder) incision\textsuperscript{20} lowered the infection rate. Post-WWII era practitioners argued for the obliteration of the ‘classic’ incision, which was more likely to lead to uterine rupture in subsequent pregnancies as well as being more likely to lead to infection. Moreover, the introduction in the 1930s of absorbable suture material\textsuperscript{21} further reduced possible complications presented by both uterine and abdominal sutures. Such early twentieth century inventions and techniques in maternal/fetal health continued to make caesarean section more acceptable in situations where the lives of mothers and fetuses were threatened.

By 1947 physicians such as A.W. Andison of Winnipeg were able to declare that “In recent years, due largely to improvements in technique the safety of Caesarean section has markedly increased.”\textsuperscript{22} Andison went on in his assessment of the operation to point out that

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\item Murray Blair, “The Role of Haemorrhage in Mortality Rates in Pregnancy and Childbirth” \textit{CMAJ} 52 (Feb 1945), 168.
\item See Blair, for example. Various case reports from the era indicate regular use of transfusion and antibiotic treatments, for example, George M. White, “An Unusual Obstetrical Experience” \textit{CMAJ} 57, 8 (August 1947): 167-168.
\item Schuurmans 70.
\item Andison 170.
\end{enumerate}
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this increase in safety “has resulted in a widening of its indications.” As the comparative success of the operation improved throughout its evolution, its prescribed employment changed. This phenomenon of increasing indications for c-section continued throughout the period 1945 to 1970. The operation became more attractive as risk was minimized, with new technologies and techniques promising success. As soon as surgical childbirth was deemed ‘safe’, the opportunities for its use extended beyond matters of life and death.

Medicalization

Studies of childbirth in the twentieth century are inevitably couched in direct relation to women’s encounters with medical systems. In particular, the oppression of women at the hands of gendered scientific medical discourses is a matter of frequent debate among scholars of multiple disciplinary persuasions. By the end of the twentieth century feminist scholars pointed to the discriminatory aspects of reproduction in North America. Critical assessments by scholars such as Barbara Duden, Deborah Lupton, and Emily Martin have shown that contemporary understandings of parturition are riddled with disempowering cultural assumptions about women’s desires, capabilities, and bodies. In particular, modern medical science and the techniques of power inherent in the doctrine of preventive medicine have been patriarchal, authoritarian and gendered.

Feminist sociologists and historians have examined the impact of medical professionalization, modernization, innovation and regulation on populations and individuals, articulating how medical science structured and shaped Western thought. Moreover, reproductive history has been revolutionized by the incorporation of theoretical perspectives on the relations of power such as those of Michel Foucault to articulate the mechanisms by which medical science has permeated Western society and culture. In

23 Andison 170.
particular, Foucault saw the reproductive body as “imbued with the mechanics of life and serving as the basis of the biological processes” the supervision of which “was effected through an entire series of interventions and regulatory controls.” Such regulation and intervention gave “rise to infinitesimal surveillances, permanent controls, extremely meticulous orderings of space, indeterminate medical or psychological examinations to an entire micro-power concerned with the body.”

Bio-power, as demonstrated in the medicalization of childbirth, manifests itself in the discursive regulatory surveillance of and intervention into the processes of parturition.

While Foucault himself was generally neglectful of gender relations and women in particular, feminist scholars have expanded on his work to discuss the role of hegemonic bio-power as it influenced the social control of women’s bodies as well as the complexity of the roles of women and practitioners in this process. In particular, social theorist Deborah Lupton has employed discourse analysis in dissecting the gendered effects of bio-power. She criticizes the medical profession “as a patriarchal institution that used definitions of illness and disease to maintain the relative inequality of women by drawing attention to their weakness and susceptibility to illness and by taking control over areas of women’s lives such as pregnancy and childbirth that were previously the domain of female lay practitioners and midwives.”

Lupton addresses the combination of social regulation of bodies for the effective maintenance of the nation and the understanding of women’s bodies as innately flawed. A feminist interpretation of Foucault’s insights highlights the production of medical discourses that serve to undermine women’s reproductive autonomy.

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24 Michel Foucault, (1990) 139.
Historian Barbara Duden, in her analyses of medicalization as related to pregnancy and childbirth, has further expanded on the role of bio-power in the subjugation of women and their bodies. In particular, she identifies metaphorical disembodiment as a potent effect of twentieth century medicalization: “in one generation, technology along with a new discourse has transformed pregnancy into a process to be managed, the expected child into a fetus, the mother into an ecosystem, the unborn into a life, and life into a supreme value.”

She further argues that this transformation “not only disembodies [woman]’s perceptions but forces her into a nine-month clientage in which her ‘scientifically’ defined needs for help and counsel are addressed by professionals.” The possibility of disembodiment was especially heightened in the early and mid-twentieth century when prevailing notions of propriety discouraged many women from openly discussing bodies.

The disembodiment that Duden identifies is a critical component in the medicalization of women’s health. As Lupton concludes in her study of the relationship between discourse and medicine, medicalization was a process that served “to monitor and administer the bodies of citizens in an effort to regulate and maintain social order as well as promoting good health and productivity.” Moreover, feminist sociologists Ellen Annandale and Judith Clark add that medical discourses are founded on “the understanding that patriarchy privileges men by taking the male body as the 'standard' and fashioning upon it a range of valued characteristics (such as good health, mastery, reason and so on) and, through a comparison, viewing the female body as deficient, associated with illness, with lack of

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28 Duden 4.
29 Lupton 100.
control and with intuitive rather than reasoned action.”

Medicalization of pregnant and laboring bodies is therefore fraught with notions of controlling and normalizing an innately flawed body. In short, “medical knowledge [is] not simply [a] given and objective set of ‘facts’ but [a] belief system shaped through social and political relations.”

Londa Schiebinger provides a salient, feminist deconstruction of the gendered social and political relations of early science in her *Nature’s Body – Gender in the Making of Modern Science*, arguing that the eighteenth century “scientific sexism related to modern notions of femininity and masculinity, and scientific racism. This triad – science, and scientific notions of sexual and racial differences – emerged not as disassociated and unencumbered phenomena, but as developments that informed each other in decisive ways.” In her most poignant example, Schiebinger refers to the taxonomic categorization of humans by Carolus Linnaeus in 1758 as mammals. As she says, “Linnaeus devised this term – meaning literally ‘of the breast’ – to distinguish the class of animals embracing humans, apes, ungulates, sloths, sea cows, elephants, bats, and all other organisms with hair, three ear bones, and a four-chambered heart. In so doing, he idolized the female mammae as the icon of that class.” This gendered term was chosen, Schiebinger argues, because of the period’s social and cultural values.

As Roy Porter notes in his overview of the history of Western medicine, the institution itself was built upon gendered constructions of authority. Schiebinger confirms that “gender was to become one potent principle organizing eighteenth-century revolutions in

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31 Lupton 99.
33 Schiebinger 40.
views of nature, a matter of consequence in an age that looked to nature as the guiding light for social reform.\textsuperscript{35} Science, in the age of enlightenment, was associated with rational male thought, while nature was associated with emotional female thought. This powerful dichotomy carried medicine well into the twentieth century, a factor that feminist scholars the world over have analysed from numerous angles in order to privilege women’s experiences and break down long-standing gendered divisions in medical thought.\textsuperscript{36}

Emily Martin illuminates the impact of the gendered structure of medical authority in her exploration of the social and cultural assumptions that underlie constructions of medicalized bodies. She states that all women “are affected in one way or another by medical and scientific views of female bodily processes”\textsuperscript{37} and elucidates the way in which discourses generated by those views serve to figuratively disembody women at the hands of medical authority. In her exploration of women’s experiences of their bodily functions, she seeks to uncover cultural assumptions associated with discourses of menstruation, reproduction, and menopause, arguing that medical science is a complex hegemonic system rather than a self-proclaimed set of unbiased truths.

Deborah Lupton takes up this notion of medical hegemony and the disembodiment of women in her analysis of Foucauldian techniques of power. In particular, she points out that feminist scholars of women’s health understand “medical knowledge not simply as a given and objective set of ‘facts’ but as a belief system shaped through social and political

\textsuperscript{35} Schiebinger 4.
\textsuperscript{37} Martin 5.
She pinpoints the concept of risk as a particularly poignant social construct wielded by medical authority in the era of preventive medicine. In mid-twentieth century Canada, when obstetrical practice saw an increase in intervention and surveillance as crucial components to the functioning of preventive medicine, risk was an important discursive tool.

Defined by Canadian sociologists Richard Ericson and Aaron Doyle as “the frequency with which an unwanted outcome is likely to occur and the severity of losses suffered when it does,” risk has been the driving force behind obstetrical research for centuries. In the middle of the twentieth century in Canada, understandings of risk were compounded by the Cold War climate of containment and ideological emphasis on creating a better, safer life than Canadians had seen in the previous two decades. As risk theorists Ulrich Beck and Anthony Giddens explain in their respective works, in the last half of the twentieth century the Western world evolved towards a “risk society,” in which science and technology offered opportunities for the management and containment of risk. In the 1950s and 1960s, Canadian practitioners mitigated uncertainty in childbirth with exploration of its possibilities. Risk reduction was the goal of Canadian parents and scientists in improving maternal and fetal outcomes.

Giddens differentiates between external risk, or “risk of events that may strike individuals unexpectedly (from the outside, as it were)” and manufactured risk, which “is created by the very progression of human development, especially by the progression of

38 Lupton 99.
science and technology.” In particular, he defines the newer, more modern kind of risk as a social discourse that extends to individual life rather than a collective experience such as an earthquake. The rise of science and technology in the 20th century was a critical component in this re-visioning of risk, as both theorists point out. Specifically, Beck argues that risks are now defined as “the probabilities of physical harm due to given technological or other processes. Hence technical experts are given pole position to define agendas and impose bounding premises a priori on risk discourses.” In the context of women’s reproductive health, and caesarean section in particular, “technical experts” refers to clinical medicine. And, as theorist William Rothstein points out with regard to risk, public health, and clinical medicine, “The role of public health is to identify risk factors, educate the public about prevention and treatment, and promote changes in individuals and public and private organizations. The role of clinical medicine is to diagnose risk factors in individual patients and treat them.” By the middle of the twentieth century as many Western states incorporated public medical care systems, this modernized concept of risk formed the foundations of such systems alongside modern medical innovation.

Risk, as such, was employed discursively after World War Two to regulate women’s engagement with preventive medicine. As a Foucauldian technique of power, it is crucial to the appeal and the effective functioning of surveillance-style preventive medicine. As Alan Petersen points out in his examination of risk and governance, medical doctrine shifted over the course of the twentieth century from intervening in dangerous medical situations via face-to-face interactions and confinement “to an emphasis on anticipating and preventing the

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43 Beck 4.
44 Rothstein 359.
emergence of undesirable events such as illness, abnormality and deviant behaviour.”

Moreover, this shift “represents the imposition of a far more subtle and effective mode of population regulation… .By focusing not on individuals but on factors of risk, on statistical correlations of heterogeneous elements, the experts have multiplied the possibilities for preventive intervention.” Finally, as Deborah Lupton explains, the invocation of risk in medical encounters acts as “a disciplinary power that provides guidelines about how patients should understand, regulate and experience their bodies.” The machinations and impacts of risk-based discourses as effective systems of both medical and personal health surveillance are crucial to placing caesarean sections in social context. Managing risk was the goal of practitioners and scientific medicine in their quest for further improvement of childbirth options, but it was also a powerful discourse used to further medicalize childbirth and to make medicalization attractive to patients and their families.

Medicalization and childbirth have been analyzed in a Canadian historical context in a number of studies by Wendy Mitchinson. By placing women patients at the centre of her investigations, Mitchinson clearly delineates the ways in which Western medicine is gendered. She discusses the agency of female patients in the late nineteenth as well as the first half of the twentieth century, making the point that a gendered, classed, raced power structure rendered female patients deficient. Women were at a double disadvantage because

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45 Petersen 192-193.
46 Petersen 193.
47 Lupton 99.
49 Mitchinson (2002).
they were seen as particularly weak by the medical establishment: “as well as being patients, they were women and thus were constrained by their place in society.”

Ironically, Mitchinson’s delineation of how women were deprived of their agency is best exemplified in her treatment of a woman doctor. Clearly, like her male colleagues, she was a perpetrator of the medical gaze. Dr. Marion Hilliard, chief of obstetrics and gynaecology at Toronto’s Women’s College Hospital when she retired in 1956, was concerned about the exchange of experiential wisdom among pregnant and parturient women. Mitchinson quotes Hilliard’s advice manuals to emphasize her dismissal of any sort of personal power on the part of patients: “[Hilliard] warned [her patients] ‘Don’t trust yourself or anyone else… Ask me instead. I’m taking over while you go through this. When the time comes, I’ll give you back to yourself.’” In the practice of conceiving, bearing and birthing babies the subjection of women to medical scrutiny was particularly disempowering, yet the rhetoric was so salient that even a woman practitioner succumbed.

Mitchinson identifies the rhetoric used by the medical establishment in her discussion of experts bombarding women with numbers regarding ‘normal’ pregnancy and childbirth. By speaking in terms of statistics and established norms, “physicians generalized the experience of women. They created what became ‘a woman’s’ experience.” In this way, women whose experiences deviated from the prescription merited caution and intervention. The effect of this codification of normality was to essentialize women and their medical experiences. Generalization of normal experience became a way to anticipate and make medical pronouncements without much need for consultation. The effect was that “[p]erson

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52 Wendy Mitchinson, “‘Feminism and Canadian history: The impact of feminism on the research and writing of medical history: A personal view,” Atlantis 25, no.2 (Spring, 2001): 96.
and body became separate and the physician looked to the latter to provide the clues to
disease instead of the patient who interpreted what her body was saying.”\textsuperscript{54} Mitchinson’s
treatment of these effects of medicalization forms a crucial starting point in my own
investigation.

Gendered historical analyses of medicine like Mitchinson’s help to bring to light the challenges faced by marginalized populations. This project has been helped immensely by the introduction of post-structural deconstructions of normalizing discourses. Mitchinson’s later work examines discourses of homogenization and surveillance, albeit without explicit reference to Foucault.\textsuperscript{55} \textit{Giving Birth in Canada} pays close attention to the language of medicine, arguing that it was and is used to exclude patients from a complete understanding of their medical condition or situation. From the very beginning, physicians used complex and specified language with the particular intent of excluding others from their knowledge base: “Physicians obfuscated medical information in a technical language, which made it next to impossible for patients to understand and lessened their ability to make informed judgments.”\textsuperscript{56} Mitchinson also argues that catastrophic language served to disempower. In her words, “What I have done is to point out the apocalyptic language that physicians sometimes used when trying to convince pregnant women that they should follow medical advice. Physicians’ use of binaries to emphasize the value of what they had to offer – civilized as opposed to primitive birth; educated as opposed to midwife care – was an additional language stratagem.”\textsuperscript{57} In their position as disseminators of knowledge, medical officials used language to construct scenarios in order to influence the patient’s decision.

\textsuperscript{54} Mitchinson (1991) 360.
\textsuperscript{55} Mitchinson (2001) 96.
\textsuperscript{56} Mitchinson (2002) 6.
\textsuperscript{57} Mitchinson (2002) 8-9.
Power and knowledge are particularly wedded to each other in this situation. Mitchinson’s identification of this trend in the medicalization of parturition in Canada is influential in understanding the relationships among practitioners and patients in my own work.

Mitchinson is careful to offer an even-handed approach to understanding physicians’ motives, noting that “the purpose of this book is not to blame anyone but to point out the consequences of certain types of perspectives.”

She emphasizes that she intends neither to apologize for, nor to glorify physicians and their motives, rather to acknowledge the diversity and sometimes contradictory nature of their beliefs. Practitioners were determined to reduce morbidity and mortality in parturition while employing scientific innovation to minimize the risk in childbirth.

American sociologist William Ray Arney analyses the relationship of practitioners and patients in his work on the growth of the obstetrics profession in Britain and North America. While, much like the medical literature of the era in question, Arney’s Foucauldian analysis of the impact of medicalization and related technological developments in the 1950s and 1960s on physicians overlooks difference, it offers insight into the relationships of practitioners within the medical profession. In particular, he highlights the relevance of the Foucauldian panopticon in “controlling the controllers,” arguing that “the controllers become subject to the power of the very structure through which they presume to exercise control.”

However his specific discussion of the dynamic role of obstetrics in medicalizing childbirth is effective in elucidating the growth of the profession in Canada, as I explore in chapter 3.

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60 Arney 150.
Contemporary Studies of Medicalized Motherhood

In the 1970s and 1980s American feminist scholars such as Adrienne Rich in *Of Woman Born* and Nancy Chodorow in *The Reproduction of Mothering* introduced mothering into scholarly debate. In the ensuing years, feminist studies of motherhood expanded to involve numerous angles of interpretation and fields of interest but all are informed by Rich’s and Chodorow’s recognition that motherhood is a social construction widely informed by the patriarchal, class-based and racialized aspects of Western social relations. For the purposes of my own study, analyses by international scholars of varying discourses that inform and disturb common assumptions about emergent motherhood are especially relevant. Edited by Sarah Franklin and Helena Ragoné, the collection *Reproducing Reproduction* (1998) sets about examining cultural assumptions about reproduction. The contributors analyze issues related to the social production of childbirth, arguing that “despite more than two decades of ongoing and determined critical intervention, biologistic assumptions about reproduction that position it as a universal, timeless, essential, and ahistorical component of human existence remain ubiquitous within anthropology, as they do within the larger culture of which it is part.” The editors identify two main goals, the first “to foreground the defamiliarizing impact of new technologies, through which many of the most deeply taken-for-granted assumptions about the ‘naturalness’ of reproduction are

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displaced,” and the second to make sure to “situate changing cultural definitions of reproduction in the context of their lived articulation.” The authors in this collection specifically address the importance of representation in the understanding of discursive phenomena relating to mothering: “representations… are themselves (discursive) ‘technologies’ and are reproductive in the sense that they are generative of actual and possible worlds.” Their largely American-based studies examine women’s experiences with various reproductive technologies, analyzing the public, medical and academic discourses in each context and relating them to the experiences of women and their caregivers. They conclude that “the intensification of reproductive intervention has contributed to the increasing visibility of a significant site of late-twentieth-century cultural contestation, namely the foundational meanings connected to reproduction. At stake are not only traditional definitions of family, disability, parenting, kin connection, and inheritance, but the conventional understandings of nature, life, humanity, morality and the future.”

Drawing correlations among technology, morality and the idea of ‘natural’ as a social construction, Franklin, Ragoné, and their contributors encapsulate variations in contemporary ideas and experiences of childbirth. The intensification of social constructions of reproduction is directly implicated in post-WWII technologies.

American sociologist Sharon Hays’ *Cultural Contradictions of Motherhood* offers a broad understanding of the ideological backdrop for the issues explored in Franklin and Ragoné’s volume. Hays argues that intensive mothering, as she labels the active ideology at the end of the 20th century, persists “because it serves the interests not only of men but also

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65 Franklin and Ragoné 4.  
66 Franklin and Ragoné 5.  
67 Franklin and Ragoné 7.  
68 Franklin and Ragoné 9.
of capitalism, the state, the middle class, and whites.”69 She first assesses the history of child-rearing ideas, examining their impact on women and the growth of intensive mothering, defined as “a gendered model that advises mothers to expend a tremendous amount of time, energy, and money in raising their children.”70 She then offers a textual analysis of contemporary child-rearing manuals and describes interviews with mothers of toddlers who consumed such manuals. Her approach to these contemporary manuals addresses critical issues of accessibility, readership, and choice. Unfortunately Hays’ analysis ultimately sidesteps agency: mothers are not imagined as capable of subverting or choosing popular discourses. Her concept of intensive mothering and, in particular, its historical roots, is nevertheless effective and well-articulated.

**Canadian Women at the Intersection of Motherhood and Medicine**

Numerous Canadian historians have specifically examined women’s bodies and the negotiation of power and risk in the post-WWII years.71 Doug Owram, Valerie Korinek, Katharine Arnup, Analee Gölz, Mona Gleason, and Denyse Baillargeon have been important in addressing parenting, technology, and the role of experts in the lives of 1950s and 1960s Canadians.

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70 Hays x.
Owram’s history of the Baby Boom Generation points out quite succinctly that in the 1950s “society seemed to revolve around babies.” Specifically, the second chapter of *Born at the Right Time*, “Babies,” offers an important perspective on the rise of experts and the growing reliance on science in the discourses on child-rearing: “the shift from hospitals took birth from the realm of nature to the interventionist world of science.” In an age when science and technology were featured in everyday life alongside an emphasis on family, parenting was subject to intense scrutiny. The presence of experts was crucial: “What was new and of increasing influence…was the ready availability of professionals: Doctors, child psychologists, public health nurses, and other experts had, over the past decades, proliferated.” Although his study also gives clues as to why, by the end of the 1960s, mothers were questioning the authority and wisdom of such experts.

Owram treats neither the impact of expertise on families nor the question of who chose to read and rely on to these experts. Valerie Korinek’s exploration of discourses circulated in the 1950s and 1960s is more thorough and, most significantly, shows that women engaged actively with the reading material they encountered. Korinek analyses *Chatelaine* magazine’s emphasis on the contradictions of post-WWII life. She positions her work carefully within a body of scholarly assessments of the post-war years that “note instances of rebellion and resistance to the circumscribed roles of suburban women as wives and mothers.” Reading and writing in *Chatelaine* magazine could be an act of resistance or conformity. Korinek shows that women thought carefully about choices in relation to the

73 Owram 31.
74 Owram 33.
discursive ideas and material practices popular in the era in question. She employs multiple theoretical approaches, pointing out that Foucault’s “emphasis on the relations of power, resistance, and the multiplicity of discourses informs the way that the analysis of Chatelaine has been framed.”

Chatelaine’s content encouraged readers to question the status quo even as it surfaced in its pages. Korinek finds dissent in letters written to the magazine. Moreover, they showed a multiplicity of viewpoints on any given topic. She argues strongly that “the responses of readers to this material indicate that, while many people applauded [the magazine’s] new activist direction, an equal number of critics frowned on the changes both in the magazine and, more pointedly, in women’s lives.” The magazine’s divergent expressions of womanhood and motherhood in the 1950s and 1960s show that many women interpreted the circulating discourses with a critical eye, choosing what ideas and techniques to incorporate into their lives. This is fundamental to consider in the light of my own discourse analysis, particularly as I chose not to interview women and can therefore not feature a multiplicity of their voices. Understanding Chatelaine’s readership and the context of the era as discussed by both Korinek and Owram helps contextualize my analysis.

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76 Korinek 18.
77 Korinek 365.
Katherine Arnup’s *Education for Mothers: Advice for Mothers in Twentieth-Century Canada* deals more specifically with ideologies of motherhood and is to date the most comprehensive historical analysis of expert-led parenting advice literature in the Canadian context. Motivated by her experiences as a graduate student and new mother, Arnup’s examination of the ideology of motherhood focuses on two issues: “the changes that have taken place in advice on child rearing during this century, and the impact that these changes have had on women as the primary caretakers of children.”

Careful to point out the difficulty in discerning the readership, Arnup argues that “changes in reproductive and household technology, in fertility patterns, family size, and patterns of divorce and remarriage, coupled with drastic changes in ideas about maternal practices, underlie the shifting social organization of the bearing and rearing of children.” While there was no unitary experience of this shifting ideology, there was “a dominant view of ‘good mothering,’ a developing ideology of appropriate Canadian child-rearing practices.” Arnup asserts that dramatic shifts occurred in prescribed parenting “from a rigid, health-oriented focus in the interwar years to the more relaxed, ‘permissive’ approach of the post-Second World War years.” She does not treat birth with much detail and her analysis ends in 1960.

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80 Arnup (1994) 5.
81 Arnup (1994) 8.
before the “natural” childbirth movement had a major impact on shifting understandings of appropriate and ideologically-sanctioned birth. Arnup leaves more in-depth analysis of birthing technologies and professional discourses for future scholars. Her work nonetheless provides a critical backdrop for analysis of expert advice in the construction of the ideal birth in the post-WWII years.

Annalee Götz and Mona Gleason expand the study of the construction of family expertise in post-WWII. Götz looks specifically at the state’s idealization of the family, focusing on the role of experts in the creation of such discourses. She points out that “the persistent fear that the family may be threatened or in a state of crisis has often engendered an even more fundamental anxiety that the very foundation of the nation was being undermined.” Management of perceived threats to family stability “became the subject of considerable discussion and controversy” in this era.

Götz looks specifically at the state’s idealization of the family, focusing on the role of experts in the creation of such discourses. She points out that “the persistent fear that the family may be threatened or in a state of crisis has often engendered an even more fundamental anxiety that the very foundation of the nation was being undermined.” Management of perceived threats to family stability “became the subject of considerable discussion and controversy” in this era.83 Government expertise offered an “ideological redefinition of the nature of marital/familial relations and an increased emphasis on the moral obligations of the state to provide the socio-economic conditions necessary to protect the welfare of the Canadian family.”84 Such moral obligations as Götz described in relation to this hegemonic emphasizing of the family were decisive in women’s interactions with experts and ideas about motherhood.

Gleason also takes up this notion of expertise and moral pressure, analyzing “how popular psychological discourse shaped attitudes towards family life.”85 She argues that psychologists’ discussions of normal families and normal family members were shaped not

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84 Götz 9.
by objective, unchanging unscientific ‘truths,’ but by the hegemonic values and priorities of the middle class in postwar Canada."  

Her analyses of the role of psychology experts in the dissemination of hegemonic parenting discourses informs my discussion of medical experts. She identifies the expert-endorsed family ideology of the era: “in the conventional imagination, the 1950s family is stereotypically white and middle class” with a successful wage-earning father and an apron-clad stay-at-home mother who are “submersed in an aura of hyper-consumerism, technological advancement, and faith in the future.” The reality of women’s lives always, however, disrupted and complicated that ideal. While Gleason’s work explores the intersection of family life, expert advice, and changing definitions of ‘normalcy’ after World War Two, the study here addresses the expertise of medical doctors and focuses on one specific aspect of parenting. In both instances, Canadians did not always listen or agree.

In a recent English translation of her exploration of the medicalization of motherhood in Quebec between 1910 and 1970, Denyse Baillargeon examines this convergence of discourse and practice in technology and maternity in French Canada. Her poignant analysis of maternity experiences in Quebec in this critical era when pregnancy and early infancy were transformed “into matters that required medical attention or the mediation of medical science” shows multiple agents implicated in the regulation of medicalized maternity. While she focuses less on childbirth itself, her insightful revelation of medical hegemony, the interests of the state, and women’s self-regulatory practices inform my own investigation of surgical birth. While my study is restricted to English-Canadian discourses, Baillargeon’s

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86 Gleason (1997) 443.
elucidation of the impact of medicalization and agency is relevant. She points out that resistance “was expressed less by a complete, radical rejection of medical precepts than by an acceptance of it that was conditional and dependent on circumstance.”

Surveillance and normalization, as identified by Foucault, are critical. She argues that many women tended to assimilate and adopt discursive and institutional practices “because in return this brought them the reward of social approval.” Most importantly, she emphasizes “for a norm to become effective, it seems to us that material conditions also must allow it to be actualized by a majority.” The acceptance of medicalization throughout Canada demonstrates that Canadian women desired its promise of better birthing outcomes. Baillargeon’s 60 interviews of women who raised their families between 1930 and 1960 confirm this response. She explores the navigating of medicalized processes and ideas of pregnancy and child-rearing, arguing that women in Quebec were ready and willing to follow and disperse the advice. While I did not interview mothers, Baillargeon’s conclusions complement my appreciation that women were active and willing consumers of parenting advice.

Scholarship on Childbirth and Caesarean Sections

While work investigating the historical and socio-cultural contexts of childbirth is expanding, very few scholars, international or Canadian, have undertaken examinations of the relation of technology, medical and social ideology, and popular conceptions of childbirth to specific procedures. Only one Canadian study has specifically assessed c-

89 Baillargeon 5.
90 Baillargeon 6.
91 Baillargeon 6.
92 Baillargeon 11.
section in historical perspective. Two comprehensive British studies nevertheless offer useful perspectives. Sociologist Helen Churchill’s *Caesarean Birth: Experience, Practice and History* (1997) documents the operation from pre-industrial times through the end of the twentieth century and then focuses on specific issues such as indications for the operation and its effects both short-term and long. She also examines “women’s experience of caesarean birth.” Her data is drawn from 300 questionnaires and 17 interviews with women who underwent caesarean section from the early to mid-1990s. Churchill argues that “high rates of caesarean section in the late twentieth century have not led to improvements in maternal or infant outcome, and may be responsible for iatrogenic morbidity and mortality.” While it sidesteps women’s agency or resistance, this volume shows the influence of bio-power on choice: “at best women are misinformed, at worst they are lied to. What this means is that women make decisions (or agree to decisions) that may not be in their best interest. Caesarean sections provide a powerful and contemporary example of how women are often steered towards one course of treatment when another less invasive one may be appropriate.”

She condemns medicalization in her association of high c-section rates with medical ambition. That conclusion might, however, have been modified if she had attributed more agency and diversity to patients as do Mitchinson and Baillargeon. While her study does not examine in detail the historical factors that led to the rise in c-section rates of which she is so critical, Churchill locates that rise to the medicalization of childbirth in the post-WWII era.

A 2007 study from the UK by Scottish midwife and professor of midwifery, Rosemary Mander examines caesarean section in contemporary childbearing and pays heed

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95 Churchill 105.
to the historical continuities associated with the operation. She analyses the operation in various academic and health-related contexts, looking specifically at the increase in rates, questioning the context and repercussions of the operation, putting the British experience in international context, and considering the social impact of caesareans for women and babies. She does not include the opinions or voices of women, focusing rather on criticizing and exploring contemporary debates, professing to offer an “unevenly balanced” view because “stringent analysis of research-based material is unlikely to lead to the balance which some may seek.”

Mander ultimately concludes that c-section is not so much of benefit to mothers and babies as it is to practitioners. Obstetricians, unlike midwives such as herself, have always been disposed towards surgical intervention. Keeping her perspective in mind, the study does nonetheless effectively describe the appeal and danger of medicalization and the implications of the operation’s role in parturition. It is thus helpful for contextualizing the topics of this study.

One of the first historical studies of medicalized childbirth in Canada came from Veronica Strong-Boag and Kathryn McPherson in 1986. Their investigation of Vancouver in the inter-war years provides multiple parameters with which to assess women’s birthing experiences. They look closely at this crucial period of the entrenchment of hospital birth in British Columbia, arguing that “within this institutional setting medical professionals found

96 Mander 2.
97 Strong-Boag and McPherson’s discussion of hospitalization was preceded by a collection of work on similar topics grounded in Ontario history. Specifically, Jo Oppenheimer’s “Childbirth in Ontario: The Transition from Home to Hospital in the Early Twentieth Century” (1983) and C. Lesley Biggs’ “The Response to Maternal Morality in Ontario, 1920-1940” (1982) discuss the role of medical hegemony in bringing birth from home to hospital. These portrayals of early twentieth century Canadian appropriation of normal birth by medical science set the stage for later explorations of women’s experiences of pregnancy and parturition and the impact on women, their families, and their doctors or medicalized birth. See also Cecilia Benoit, Ivy Lynn Bourgeault and Robbie Davis-Floyd, eds., Reconceiving Midwifery (Montreal: McGill-Queen’s, 2004) and Ivy Lynn Bourgeault, Push! The Struggle for Midwifery in Ontario (Montreal: McGill-Queen’s University Press, 2006).
new opportunities to set the terms of which the city’s women experienced childbirth.” They further show that “the spread of hospital care correlates very positively with doctors’ drive for professional dominance in the health care delivery field.” These authors examine the emergent profession of obstetrics in BC and the role of public health education in the campaign to encourage women to give birth in hospitals throughout the inter-war years noting, importantly, that accessibility was determined by factors such as affluence and ethnicity. They conclude that “the absence of real alternatives and the medical profession’s ability to campaign for its own interpretations of the road to good health directed women to the relief that hospitals could provide. …Relief, however, did not include provision for allowing women to make an informed choice about their experience of confinement…”

Their work provides crucial context for the focus of my investigation.

Nothing has yet been written specifically on the role of interventions in twentieth century Canada, nor on birthing in general in the post-WWII years. Mitchinson’s chapter on caesarean sections from 1900 to 1950 and Cheryl Warsh’s chapter on technologies in her overview of women and health care in North America constitute the only such Canadian work. Mitchinson’s chapter positions operative childbirth on the cusp of success, arguing that by the beginning of WWII doctors had hailed caesarean delivery ‘safe’ and were even beginning to caution each other on the frequency of its use. She describes how c-sections emerged first as dangerous manoeuvres to be employed upon the death of the mother and

99 Strong-Boag and McPherson, 145.
100 Strong-Boag and McPherson, 160.
then became appropriate to “save both mother and child.”¹⁰² My own work carries on from this specific turning point.

Warsh’s discussion of caesarean section in her survey of women’s health in Canada and the USA since 1800 also features discussion of risk in relation to birth before WWII. The stress on caution disappears, as she notes, in the post-WWII years with a resulting rate increase. Her data in relation to the 1950s and 1960s is derived largely from American sources. Factors such as maternal age, technology and increased issues of legality determine c-section choices in the 1960s and 1970s. Warsh relies on the work of Georgina Feldberg on Toronto’s Women’s College Hospital to address c-sections in Canadian contexts. To date the only scholarly article on c-sections in post-war Canada, it focuses on the years between 1945 and 1960 and describes differences among hospitals. At Women’s College Hospital the rates of c-section were almost double the national average. Warsh points out that “the evidence that women physicians practicing at Toronto’s pre-eminent women’s hospital performed ‘too many’ Caesarean sections complicates standard historical accounts of women’s medical work.”¹⁰³ As she also argues, c-section rates at large, urban specialty hospitals are always higher since they treat the more exceptional and complicated deliveries. That insight into the importance of specific locations informs my treatment of St. Paul’s in particular.

A complex confluence of discourses, technologies, and changing social and professional values influenced delivery in post-WWII Canada. Studies by historians and interdisciplinary scholars of women’s health set up the parameters of this investigation, which aims to understand the evolution of c-sections in the critical years before 1970.

¹⁰³ Feldberg 124.
Medical Records in Historical Research

Canadian historians have employed feminist understandings of bio-power to explicate the construction of normal in discursive contexts. In addition to Mitchinson’s application of the medical gaze specifically to Canadian birthing and the work of Gleason and Gölz in understanding constructions of normal, other historians’ application of a feminist lens to Foucault’s notions of bio-power and discourse helps to nuance my own analysis. To best glimpse the diversity of patient experiences in case files such as medical records, reading “against the grain” is a crucial tactic. Careful analysis of hegemonic discourses similarly forms a significant portion of my methodology.

Medical journal articles compared and contrasted with articles in the popular press from the post-WWII era offer a broad introduction to the ideas and attitudes circulating about women’s health. In particular, I investigated all issues between 1945-1970 of the Canadian Medical Association Journal, the BC Medical Journal, the Journal of the American Medical Association, the British Medical Journal, the British Journal of Obstetrics and Gynaecology, Obstetrics and Gynecology (an American publication), and the Bulletin of the History of Medicine. All, with the exception of the BC Medical Journal (which began publication in 1961), were published regularly throughout the period. In each publication I systematically sought out all clinical studies by physicians, surgeons, public administrators, and other medical professionals on various aspects of caesarean section between 1945 and 1970. The articles presented clinical findings, and debate among medical practitioners in Canada, the

United States and Britain. Articles dedicated to caesarean section were rare in the general medical journals but relatively common in those dedicated specifically to childbirth. All publications nevertheless conveyed shifts in ideas and technologies. They offer rich sources for analysis of attitudes towards women, technology and surgery, in other words the backdrop for my understanding of caesarean section in this historical context.

I also explored popular magazines to determine how birthing in general, and c-section specifically was represented in literature written for and read by women, focusing in particular on a discourse analysis of Chatelaine magazine, the most widely-read Canadian women’s periodical of the era. I looked at every issue of the magazine published between 1945 and 1970 and extracted all articles related to childbearing, in addition to selected articles on women’s health in general to add to my understanding of the context in which these articles were being published. This search of the literature that provided many Canadian women with health information that they could consider in relation to their own birthing experiences offers insight into how the ideal birth was constructed. Articles very rarely referenced the explicit details of labour and delivery, focusing instead on parenting and the contexts in which women chose to have babies. There were no articles about c-section, which further underscores the medicalization of childbirth and the overall assumption that doctors know best.

My analysis of Chatelaine is complemented by an analysis of parenting manuals that circulated throughout the period of my study. Two manuals were especially important for Canadians in this study. The successive editions of Canadian government-published advice manual, The Canadian Mother and Child, authored by Dr. Ernest Couture, the Director of the Maternal and Health Division of the federal Department of National Health and Welfare,
between 1940 and 1955, and the anonymously authored revisions issued in the 1960s, were widely distributed by public health agencies throughout anglophone and francophone Canada and provide an excellent example of official Canadian discourses about childbearing and child-rearing. In contrast, Dr. Benjamin Spock’s *Baby and Child Care*, first published in the United States in 1946, and twice updated, in 1957 and 1968 (later revised again in a further four editions revised by the doctor between 1976 and his death in 1998) was the most popular and widely circulated mass-market advice literature on childcare available in the English-language North American market. The authors of these two volumes represent two kinds of highly respected expertise in the 1950s and 1960s: a state-endorsed civil servant who is also a doctor, and a private physician. The popularity of both manuals in multiple editions shaped common understandings about parenting in this era, and changes from one edition to the next demonstrate the evolution in medicalized birth throughout the era.

A third set of sources is found in the fonds held by the British Columbia Medical Association archives. To complement my understanding of obstetrical care in this era, I accessed the papers of Dr. Sydney Segal, a prominent paediatrician and neonatologist in Vancouver in the 1950s, 1960s and 1970s who was heavily involved in the local expansion of medical care as well as prominent studies in neo-natal lung development. I also accessed the papers of the BC Medical Association’s professional advisory committee on perinatal care, the purpose of which was to establish a province-wide perinatal morbidity and mortality study. Both contained a wealth of information on local, national and international childbirthing imperatives and contributed to my ability to contextualize caesarean sections in

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specific British Columbia context as well as to understand the process of record-keeping in medical care.

My fourth set of primary sources draws from medical records at St. Paul’s Hospital, the largest Catholic institution and one of three large, tertiary-care hospitals in Vancouver, BC’s largest city. Its delivery records and patient charts provided insight into the specificities of care in that hospital and that city, reflecting issues faced by patients and practitioners in a large, urban, tertiary care facility. Analysis of these records, systematic in terms of delivery registers and extreme case-focused for patient charts, reflects a particular trajectory of rising relative indications for c-section in the place of the previous era’s absolute indicators.

Patient records are still under-used by historians. Scholarly work discussing their relative merit often claims their use as fraught with issues of confidentiality, partisanship, and lack of comparability. However such problems occur with many primary sources. A careful reading of the patient files within the contexts of their creation offers insight into the workings of hospitals, the practice of medicine, the clinical perspectives of doctors, trends in treatments and differences in patient care. Patient charts are multi-faceted, active documents. Barbara Craig’s 1991 discussion of hospital records in Ontario and London, England, illustrates the discursive capacity of patient charts inasmuch as they create situations while

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simultaneously documenting them. Reading charts while understanding the contexts in which they were created and for which audiences shows the breadth of their value as an historical source. An article by Guenter Risse and John Warner further reminds readers of the necessity of complementary sources: “To draw meaning from descriptions of behaviour based on patient records, these accounts must be interpreted in the light of information gleaned from other discursive sources.”

I chose St. Paul’s Hospital as it was one of three in Vancouver, one of Canada’s largest metropolitan centres and the site of a medical school. It offered the further advantage of providing obstetrical services to a broad range of patients. Still more important, it was the only Vancouver hospital with records dating before 1970. Most of its archives are devoted to the preservation of documents relating to its nineteenth century founding of the hospital and nursing school. Extant, however, for the later period are Delivery Registers, which exist as a kind of ledger book that records the basic information about each delivery for the hospital. They are only one kind of hospital register. Craig notes that “registers were the customary records of administrative offices” and likens them to ships’ logs. That certainly appears the case at St. Paul’s. Registers are kept in spreadsheet-style with each delivery occupying a row of the spreadsheet. Fields include the demographic information of the patient and her husband, if she had one, as well as various delivery-related fields. Entries indicate what time the woman’s membranes ruptured, whether or not forceps were employed and what kind, the time of birth, sex of the baby, and the name of the practitioner who aided in the delivery.

They were typeset in a specific format that did not change, although occasional hand-written columns were added.

The function of delivery registers appears to have been both that of cataloguing and that of supervising. Nurses kept them meticulously on the delivery ward, though reporting on busy days appeared generally briefer. Craig notes that “the principles of summarization and control embodied in traditional document registers were extended to embrace other functions in the hospital so that the register, as a type of record, was introduced to control surgical and medical functions, departmental activities and employment.” At the end of each register year, a page summarized the number of births and other statistics for that year. I employed these statistical summaries as well as compiling my own data from the logbooks.

In addition to calculating c-sections each month of each year, I compared them to the numbers of all births to glean a c-section rate for St. Paul’s. I also isolated various components of the registers such as maternal demographics, the types and frequency of interventions used in addition to caesarean section, as well as the recorded diagnoses that led practitioners to advocate surgical delivery. This data analysis process allowed comparisons of St. Paul’s with findings from the medical literature.

Analysis of delivery registers also allowed me to hand-pick individual patient charts where c-sections were recorded. I employed an extreme case sample, looking at highly unusual cases presented in the delivery registers, which allowed me to ascertain how deviations from the norm were addressed at St. Paul’s. After considerable time spent compiling lists and negotiating with the Records department of the hospital, I gained access to 41 charts for specific patients. Wendy Mitchinson comments on both the usefulness of

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patient charts and on the care with which they must be handled. She asks whether patient charts reveal the voice of that patient and in what way. She notes that “[p]atient records add to the literature in women’s history by exposing the harshness of some women’s lives and their resiliency in living them. They suggest that women may have had a different concept of health and view of their bodies than physicians did.”\(^\text{113}\) She goes on to identify some important limitations to patient charts: “The files represent women who were self-selected. The vast majority chose to enter the hospital, and all were there because of some real or perceived health problems.”\(^\text{114}\) The limited choices of women whether to enter the hospital and submit to the care of the professionals must be kept in mind in any reading of these records.

Mitchinson concludes that the ‘voice’ in patient charts reveals important aspects of women’s lives such as finances, domestic situations, and personal medical history. I have found much information can be gained from a careful contextualized reading of both delivery registers and patient charts. The limited number of charts that I employed in my ‘extreme case sample’ made it impossible to identify trends or specificities regarding the choices women made about the kinds of care they received. As Mitchison and Iacovetta have noted “these records [nevertheless] can illuminate the ways in which dominant class, gender and racial ideologies shaped official discourse and action, and relations between experts and clients.”\(^\text{115}\)


\(^\text{115}\) Mitchinson and Iacovetta, 6.
CHAPTER 2: Monitoring the ‘Traveler in Inner Space’: Technological Incongruity in Obstetrical Safety

In November of 1950 an article in Chatelaine magazine exclaimed that “the announcement of a pregnancy – which used to be received like the announcement of a broken leg – now calls forth whoops of enthusiasm.”\(^1\) Commenting on the growing trend of large families associated with the postwar baby boom, the author alluded to the sense of relief on the part of mothers and their doctors that childbirth, no matter how complicated, was now largely survivable. Numerous developments in technology and technique throughout the first half of the twentieth century\(^2\) helped to decrease infant and maternal mortality in Canada and around the world, and reduced the fear of death. In particular, technical developments in surgery and caesarean section lowered the risk in complex interventions. As Dr. Andison of Winnipeg noted in his 1947 Canadian Medical Association Journal article, “in recent years, due largely to improvements in technique, the safety of Caesarean section has markedly increased. This has resulted in a widening of its indications, so that today there are few obstetrical complications which may not, on occasion, be best dealt with by abdominal section.”\(^3\) Increased hospitalization of childbirth\(^4\) and changes in the ideology of medical care, discussed in chapters 3 and 4, together with ‘technical’

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\(^1\) “New baby – A Cure for Middle Age” Chatelaine (November 1950): 60.
\(^2\) In his differentiation between technology and technique, William Leiss states that “techniques are solutions to practical or theoretical problems arising out of the environmental forces that impinge upon organisms. … Those transmissive techniques that attain general significance in particular societies or historical epochs become technologies.” William Leiss, Under Technology’s Thumb (Montreal and Kingston: McGill-Queen’s University Press, 1990) 29-30.
refinements\textsuperscript{5} were associated with significant improvements. Maternal mortality in Canada went from approximately 5.3 maternal deaths per 1000 live births in the early 1920s to 2.3 maternal deaths per 1000 live births in 1945. Infant mortality decreased from 102 deaths per 1000 live births in the 1920s to 52 deaths per 1000 live births in 1945.\textsuperscript{6} Yet if childbirth in general was clearly safer for mothers and babies, mortality rates remained a concern for doctors and patients, as risk reduction was not yet comprehensive. In the post-WWII years as public discourse focused on the primacy of family in Canadian society, life-saving technologies and techniques were welcomed. The increasing safety of caesarean section allowed medical experts to reconfigure it as another technology to further reduce perinatal mortality. As new experiments with monitoring and protecting mothers and babies altered the indicators that influenced the decision to perform caesarean section,\textsuperscript{7} the rate began to rise from two or three percent per live birth\textsuperscript{8} in 1945 to six percent in 1970.\textsuperscript{9}

This chapter considers contributions to the increasing rate found in new developments in anaesthesia, the induction of labour, and maternal and fetal monitoring. As a result, conditions under which a c-section became considered effective multiplied. However, 

\textsuperscript{5} For example, before World War Two, innovations including the discovery of blood types and the availability of transfusion for cases of haemorrhage, the introduction of increasingly oxygenated anaesthetic agents, the widespread use of the low transverse incision instead of the classic vertical one, and the ability to combat infection with sulfa drugs and penicillin enabled the declaration of Caesarean safety. On these and other early 20\textsuperscript{th} century obstetric technologies and techniques see Wendy Mitchinson, \textit{Giving Birth in Canada 1900-1950} (Toronto: University of Toronto Press, 2002); S. Nan Schuurmans et al., “Birth Technology” in Annette Burfoot, ed. \textit{Encyclopedia of Reproductive Technologies} (Boulder Colorado: Westview Press, 1999); Helen Churchill, \textit{Caesarean Birth: Experience, Practice and History} (Hale, England: Books for Midwives Press, 1997); Anne Oakley, \textit{The Captured Womb: A History of the Medical Care of Pregnant Women} (Oxford: Basil Blackwell, 1984); Murray Blair, “The Role of Haemorrhage in Mortality Rates in Pregnancy and Childbirth” \textit{CMAJ} 52 (Feb 1945).


\textsuperscript{7} Mitchinson 231.

\textsuperscript{8} While no national or provincial statistics appear to have been compiled for c-sections in these years, the rate of two or three percent is the average of estimates given by doctors in the \textit{Canadian Medical Association Journal} in the 1940s and 1950s. See, for example, William F. Baldwin, “The Repeat Caesarean Section: A Study of 619 Cases from the Vancouver Area” \textit{CMAJ} 77 (15 Aug 1957), 329 and D. C. Ritchie, “Maternal and Perinatal Mortality Associated with Cesarean Section in Alberta (1955-1959)” \textit{CMAJ} 88 (30 March 1963), 649.

as I also consider, not all technologies were yet adequate; while many lives were saved overall,\(^{10}\) risk remained and this was especially true for premature infants for whom the available technology was still minimal. Complexity was further heightened since shifts in technological and technical capability were rarely nation-wide. While large medical school-affiliated institutions could consider the latest innovations, small rural and remote hospitals and practices relied on more traditional means to assist in safer births.

**Anaesthesia**

Modern anaesthesia\(^ {11}\) was first used in obstetrics in 1847 when Edinburgh doctor James Simpson used ether inhalation to deliver a deceased fetus.\(^ {12}\) His technique gained popularity after his colleague, Dr. John Snow, employed chloroform during Queen Victoria’s delivery of her eighth child in 1833.\(^ {13}\) Inhalation of ether and chloroform continued to dominate obstetric anaesthesia well into the next century. Before WWI, however, German obstetricians Carol Gauss and Bernhard Kröning popularised ‘dämmerschlaf’, the use of a combination of systemic anaesthetics, or those that are employed by injection, for obstetrical practice.\(^ {14}\) Twilight sleep, as it is known in English, involved morphine and scopolamine followed by smaller amounts of incremental scopolamine throughout labour. While the

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\(^{11}\) Opiates and other analgesics have been used throughout history. Pharmaceutical anaesthetics were applied to obstetrics in the nineteenth century. See Donna Stampone, “The History of Obstetric Anaesthesia” *Journal of Perinatal and Neonatal Nursing* 4, 1 (1990): 1-13.

\(^{12}\) Stampone 3.

\(^{13}\) Stampone 3.

morphine reduces pain, scopolamine inhibits memory, leaving women with no memory of childbirth.

Information about Twilight Sleep circulated in North America in medical journals and the popular press. Although access was largely limited to those who could afford to pay, it was enthusiastically promoted by some first-wave feminists as a way to experience pain-free labour and delivery. As American historian Judith Leavitt notes, “although women were out of control during twilight sleep births… this loss of control was less important to them than their determination to control the decision about what kind of labour and delivery they would have.”15 Wendy Mitchinson observes that effective employment required “the transfer of a complete working force to [the patient’s] room for the entire duration of labour.”16 Moreover, Twilight Sleep often led to further interventions, thus creating a more complex

and difficult birthing scenario.\(^{17}\) Enthusiasm fell markedly after the well-publicized death of an American mother during the procedure in August 1915.\(^{18}\)

In 1902, Emil Fischer and Joseph von Meyring, German chemists employed at the Bayer laboratory, synthesized barbital, the first commercially available barbiturate, which was subsequently introduced into obstetrical practice. Since barbiturates led to respiratory depression in mothers and babies, they were not commonly used during labour before the 1940s.\(^{19}\) Late in that decade, improved barbiturates such as sodium pentothal, sodium secobarbital, and sodium pentobarbital gained popularity but continued to threaten the respiratory systems of mothers and fetuses. As a result, anaesthetic was the topic of considerable debate as doctors and researchers, focused on relieving women’s pain and sought to balance pain relief with the risk of respiratory depression and other side effects.

*Anaesthesia by inhalation*

In the first half of the twentieth century, inhalation of ether in various concentrations remained the most popular form of anaesthetizing a woman in preparation for caesarean delivery. It nonetheless also potentially led to superfluous bleeding and poor uterine muscle

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\(^{17}\) Mitchinson also notes the relationship between anaesthesia and forceps use, pointing out that “while anaesthesia may have obviated the use of forceps in some cases, forceps almost always necessitated (for humane reasons) the use of anaesthesia.” (219) The history of forceps is fraught with conflict and discussion among practitioners, as Mitchinson notes in her chapter on Obstetrical Intervention (pages 219 through 224). Much the way physicians became concerned about high rates of c-section towards the end of the 20\(^{th}\) century, similar concerns were expressed about forceps in the interwar years. See, in particular, Joseph B. DeLee, “The Prophylactic Forceps Operation” *American Journal of Obstetrics and Gynecology* 1 (1920): 34-44. No conclusive data was available for forceps rates during the post-WWII, though in the 1970s and 1980s as c-section rates went up, forceps rates were noted to have gone down. See, for example, the argument that “Cesarean section appears to afford greater protection against the effects of forceps delivery than does spontaneous vaginal delivery” in Scott A. Farrell, “Cesarean section versus forceps-assisted vaginal birth: It’s time to include pelvic injury in the risk–benefit equation” *CMAJ* 166, 3 (5 February 2002): 337-338. See also S. C. Zahniser et al., “Trends in obstetrics operative procedures 1980-1987” *American Journal of Public Health* 82, 10 (1992): 1340-1344, in which they argue that forceps rates declined as c-section rates went up.

\(^{18}\) Leavitt 162.

\(^{19}\) Stampone 6.
retraction.\textsuperscript{20} The development in the 1930s of cyclopropane as an alternative to ether and chloroform was significant.\textsuperscript{21} Like its predecessors, it is a colourless gas employed by inhalation. It differs in that it is less irritating to mucous membranes and does not repress maternal or fetal breathing, resulting in fewer post-operative complications. Used in combination with high levels of oxygen, cyclopropane normally reduced blood loss\textsuperscript{22} and death from haemorrhage.

The \textit{Canadian Medical Association Journal} first mentioned cyclopropane as an anaesthetic in 1929.\textsuperscript{23} Internationally renowned Montreal anaesthetist Dr. Harold Griffith conducted trials in 1933.\textsuperscript{24} His findings, published in the \textit{CMAJ} in 1934, reported on 350 operations, thirteen of which were c-sections, at the Homeopathic Hospital of Montreal. He reported being “particularly pleased with the results of cyclopropane” in caesarean section as well as 24 other obstetrical cases.\textsuperscript{25} Specifically, he noted, “In our cases there has been remarkably little postpartum bleeding” and “the subsequent condition of the patients has been excellent, with none of the shock one often sees after the use of chloroform or ether.”\textsuperscript{26} Griffith concluded that “it is our impression that cyclopropane, when handled carefully, is a

\begin{thebibliography}{99}
\bibitem{Andison171} Andison 171.
\bibitem{Andison} Andison notes that induction methods such as pituitrin are contraindicated (173).
\bibitem{GriffithTestimonial} On Griffith’s anaesthesia legacy see “Testimonial Dinner for Dr. Harold R. Griffith” \textit{Anesthesia and Analgesia} 42, 2 (March/April 1963): 187.
\bibitem{GriffithAnaesthesia} Griffith 158.
\bibitem{GriffithAnaesthesiaAndAnalgesia} Griffith 158.
\end{thebibliography}
safe, convenient anaesthetic agent which can be used for all types of surgery.\textsuperscript{27} By 1950, cyclopropane replaced ether as the preferred general anaesthetic in Canada.\textsuperscript{28}

\textit{Regional and general anaesthesias}

In the inter-war years in both Europe and North America, scientists experimented with regional anaesthetics to block feeling in the lower region of the body so that patients remained conscious.\textsuperscript{29} In 1952 Dr. John Cleland of Montreal developed the ‘segmented peridural block,’ which consisted of the insertion of two catheters into the spine to inject anaesthetic to the lower half of the patient’s body.\textsuperscript{30} Thereafter, regional application of anaesthesia in the form of spinal and epidural injections gained popularity. The use and efficiency of injected anaesthesia during caesarean section, the balance of drugs used in infiltration, and the indications for use of regional versus general anaesthesia during labour were all debated by medical practitioners throughout the period without achieving consensus. As a 1959 study published in the \textit{Journal of the American Medical Association} suggested, “The entire gamut of anaesthetic agents and techniques have been employed in a vain search for the ideal obstetric anaesthetic procedure which would be suitable for all patients under all circumstances. It now seems clear that there is no such ideal.”\textsuperscript{31}

After 1945, Canadian practitioners and medical students could read studies and reports on spinal and general anaesthetic during childbirth in widely-read and influential medical journals including the \textit{British Journal of Obstetrics and Gynaecology} (BJOG), the \textit{Journal of the American Medical Association} (JAMA), and the \textit{Canadian Medical

\textsuperscript{27} Griffith 159-160.
\textsuperscript{29} Stampone 8-9.
\textsuperscript{30} Stampone 9.
Association Journal (CMAJ). The debate in the English-language medical press demonstrates the breadth of professional opinion informing practitioners throughout North America. Ultimately the specific conditions of any given practice were influential in determining the choice of anaesthetic.

Articles in the JAMA and the BJOG argue back and forth for the use of regional or general anaesthesia in caesarean section. These discussions revolved largely around the impact of the anaesthetic cocktail on both maternal and fetal circulation and respiration. For example, in 1957, British obstetrician F. Holmes argued “had it not been for occasional reports of sudden and fatal circulatory collapse occurring during Caesarean Section performed under spinal block, it is likely that there would have been few advocates for general anaesthesia for this operation.”32 A later British study firmly stated that spinal anaesthesia “has been thoroughly condemned.”33

In 1959 Dr. Little of Connecticut provided a thorough examination of various types of anaesthesia. His study evaluated the efficacy of different agents for different obstetrical complications, arguing against the usefulness of a single specific agent for all obstetrical procedures, as certain “complications of pregnancy and labour constitute definite indications for one type of anaesthetic procedure and define contraindications to the employment of others.”34 He categorized the inter-relationship between each anaesthetic agent, its indications and contraindications. For example, the constriction of blood vessels resulting from spinal anaesthesia, Little argued, contraindicates its use in cases of extrauterine pregnancy, placenta praevia and other placental abnormalities, and incidences of breech birth where haemorrhage is more likely. In contrast, spinal anaesthesia does not interfere with the

33 C. J. Goosen, “Anaesthesia, Analgesia and Ataralgesia in Obstetrics” BJOG 70, 1 (Feb ’63): 141.
34 Little 1465.
body’s metabolism and is therefore less likely to aggravate symptoms of toxaemia, unlike general anaesthesia which produces “profound metabolic upset.” General anaesthesia is also contraindicated in instances of heart disease of the mother, diabetes, and breech births where the fetus is likely to have undergone trauma. Little concluded that “the high incidence of complications during pregnancy, labour, and delivery demand special anaesthetic management for each complication.” Ultimately several British studies also concluded that “no single anaesthetic is suitable for every type of case.”

Canadian physicians reporting on obstetric anaesthesia in the *Canadian Medical Association Journal* were similarly divided. In a 1947 survey of c-sections, Dr. Andison of Winnipeg expressed a preference for inhalation general anaesthetic, rather than spinal anaesthesia. In 1950 Dr. Van Wyck of Toronto nevertheless observed the rising trend to spinal approaches, stating: “Spinal anaesthesia is more and more being used satisfactorily for Caesarean section and is specially indicated where the infant is premature or the mother has a respiratory infection.” Two years later, Dr. Chaplin of the same city reported the use of spinal anaesthesia in 55 cases but emphasized the need to avoid some of the dangers thought inherent to its use. Spinal anaesthesia continued to be popular in the *CMAJ* throughout the late 1950s, but general anaesthesia also contended for favour. In 1955 Dr. McNab of Vancouver proclaimed that regional rather than general anaesthetics were the “safest for mother and baby in Caesarean section.” He further explained that “this can be spinal, lumbar-epidural, caudal, paravertebral, or local block [but] in our hospitals [Grace Maternity and

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35 Little 1466.
36 Little 1468.
38 Andison 172.
Burnaby General, we prefer spinal anaesthesia.” Conversely, in a 1958 study of c-sections at the Winnipeg General Hospital maternity pavilion between 1951 and 1956, Dr. Bradford noted that by 1954, spinal anaesthesia had largely been replaced by general anaesthesia. Further studies in the latter half of the decade showed that preferences varied from practitioner to practitioner and hospital to hospital. No general pattern of preference for spinal or general anaesthetic is visible in the CMAJ.

Anaesthetists

By the end of the decade, Canadian articles discussing anaesthesia focused less on the agent and technique and more on the person employing it. A 1959 report on the 33rd Congress of the International Anaesthesia Research Society, attended by Harold Griffith, the pioneer of cyclopropane in Canada and the chairman of the Department of Anesthesia at McGill University from 1950 through 1957, noted that a panel on obstetrics “made a plea for more attention to obstetrics by qualified anaesthesiologists.” While technical considerations appear to have driven discussion in the 1950s, observers also appeared increasingly concerned with professional qualifications.

An American study, published in 1955 in the JAMA, commented on the pattern of assigning the obstetrical delivery room jobs to the least experienced practitioner, arguing that “obstetric anaesthesia deserves the interests of the expert anaesthesiologist.” In particular, it

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41 J. A. McNab “Obstetrical Analgesia and Anaesthesia” CMAJ 72, 9 (1 May 1955): 685.
warned that “in some cases, interns and residents in obstetrics and even an obstetric nurse without any training in anaesthesiology are requested to administer the anaesthetic.” They recommended a 24-hour anaesthetic service dedicated specifically to obstetrics, arguing that the expertise of specialist anaesthetists promised reductions in maternal and infant mortality: “teamwork and co-operation between anaesthesiologist and obstetrician are the prerequisites for optimal results in producing adequate pain relief for the mother without detrimental effect to the infant.” Two years later, a study of 1011 c-sections carried out under general anaesthesia between 1948 and 1956 by American obstetricians argued that “the results obtained by the different methods are quite variable, but it can be noted that good results are possible by use of all methods by trained anaesthesiologists.” Such findings reinforced the emerging consensus favouring diversity of anaesthetic techniques, while stressing the credentials of the expert.

A similar conviction that mothers and babies benefitted from the consistent employment of a trained obstetrical anaesthetist (or a trained anaesthetist specializing in obstetrics) characterized British publications. In a 1949 overview of caesarean section anaesthesia, Drs. Vincent Corbett and Pugh Thomas insisted that “in modern obstetric practice no woman should die of haemorrhage; she ought not to die of infection; she may still die of anaesthesia. We believe that only by the combined and persistent exertions of surgeon and anaesthetist working together as a team can this tragedy be indefinitely deferred.” Similarly, J.D. Watt et al.’s 1959 British study of spinal anaesthesia in obstetrics concluded that “aspiration [of vomit] was more common in the patients of inexperienced anaesthetists

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46 Bonica and Mix 551.
47 Bonica and Mix 554.
than in those of experienced anaesthetists.”\(^{50}\) Aspiration of stomach contents was a leading cause of death and it could often be attributed to the inexpert administration of inhalation general anaesthesia.

English-language Canadian studies also stressed that properly trained specialists in obstetrical anaesthesia saved lives. In a 1957 study of repeat caesareans in five Vancouver-area hospitals, William F. Baldwin, a Burnaby obstetrician, noted that “prior to 1951, anaesthetics were given in this area for the most part by unskilled persons. Many were managed by housemen and other casual operators, but since 1951 there appear to have been less than five repeat Caesarean section anaesthetics given by physicians not accredited in anaesthesia by the Royal College of Physicians.”\(^{51}\) He linked greater expertise to the absence of maternal deaths in 449 cases and to a fall in infant mortality from 2.34% to 1.56% in the reporting period.\(^{52}\)

A similar study by C.R. Bradford, obstetrical resident at Winnipeg General Hospital attributed reduced c-section-related mortality to the arrival of trained anaesthetists. In order to “define the scope and limitations” of caesarean section,\(^{53}\) given the expansion of situations in which it was deemed to be necessary, Bradford surveyed the 19,379 deliveries at the hospital’s Maternity Pavilion from 1950 until 1955, including 476 surgical deliveries. He concluded that the employment of a “full-time qualified anaesthetic staff” in 1954 resulted “in great improvement in the anaesthesia provided.”\(^{54}\)

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\(^{50}\) J. D. Watt et al, “Low Spinal Anaesthesia in Obstetrics” *BJOG* 66, 3 (June 1959): 425.

\(^{51}\) Baldwin 330.

\(^{52}\) Baldwin 334.


\(^{54}\) Bradford 394.
Both Bradford and Baldwin surveyed large, urban institutions. Many patients did not, however, have access to such facilities. Not only were all doctors concentrated in Canada’s larger cities, obstetricians and anaesthetists rarely left their confines. In his 1963 study on maternal and perinatal mortality related to c-section in Alberta, Edmonton-based doctor D. C. Ritchie noted that specialists were employed in only the province’s ten urban hospitals but that caesarean-sections had been performed in 100 suburban and rural hospitals. Describing the vicissitudes of rural Alberta hospital care, Ritchie identified “delay in getting blood or in getting a second doctor to give an anesthetic. There is sometimes delay in getting the operating room ready; a delay of four hours due to nursing staff inadequacy was actually recorded on one of the perinatal death forms.” He described distance, weather, and roads as further barriers to rural deliveries. All hindered local doctors from timely attendance and made more difficult the evacuation of a woman experiencing complications during labour to a larger, better-equipped facility. While he did not focus on anaesthesia, Ritchie observed the limited availability of anaesthetists, concluding that the lack of properly-administered anaesthesia and higher perinatal and maternal deaths resulting from c-sections reduced the safety of the procedure in rural Alberta hospitals.

A similar study by Lloyd Johnston, published in 1964 in the CMAJ, examined caesarean sections in two Lethbridge hospitals. Located in a town of fewer than 37,000 residents, these institutions lacked affiliation with any medical school or teaching hospital. Johnston documented shifts in anaesthesia from 28 spinal and three general

55 Ritchie 650.
56 Ritchie 653.
anesthetics in c-section in 1956, to 50 general and ten spinal in 1961. Like Ritchie, he found non-teaching hospitals weak in the latest advances in technology and techniques. Nearby residents had to go further for state-of-the-art intervention.

While Canadian and international debates over the type of anaesthesia to use in caesarean section increasingly emphasized the significance of trained and licensed anaesthetists, they were in short supply in Canada as elsewhere. As one American doctor argued in 1958, “In the past six years, anesthesia has become one of the most discussed problems in obstetrics. …Unfortunately there is still a shortage of trained anesthetists for ‘all-around-the-clock’ anesthesia.”

*Induction*

In much the way that new anaesthetic agents made c-sections safer, new techniques for medically inducing labour also encouraged abdominal deliveries. The case of induction suggests that innovations did not always produce better outcomes. In a 1975 article discussing innovation in induction, one medical sociologist pointed out that “initially such techniques were only used where there were clear medical indications that to allow a pregnancy to proceed naturally would carry risks to either the mother or baby or both. …Lately the same techniques have been applied to cases where no medical indications exist but it is felt to be convenient to induce a mother at a prearranged time.” While complicated pregnancies or labours could be eased, new techniques could threaten neonatal survival. The induction of labour in this period led directly to higher incidences of prematurity.

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particular, many Canadian hospitals were not equipped for premature babies despite being able to offer induction.

Attempts at induction of stalled labours in the late nineteenth and early twentieth centuries included the use of ergot and quinine but the high risk of uterine rupture and/or foetal deaths kept use infrequent. The development of oxytocic drugs – synthetic forms of the hormone that causes the start of labour – made safer induction theoretically possible after 1954. However, induction did not gain widespread indications for use until the late 1950s and early 1960s, when the titration method of administering oxytocic drugs and the cervical scoring system developed by Bishop were introduced. British obstetricians Alexander Turnbull and Anne Anderson reported successful titration induction in instances of both induction and acceleration of labour. In Canada, the date of the adoption of this method remains unclear. As part of an ongoing nation-wide Maternal Mortality Study, a 1966 case report in the *CMAJ*, however, shows that non-titration forms of inducing labour were in use during the early 1960s. Notably as well, the report blamed “injudicious use of subcutaneous oxytocin” for maternal death, warning that “when [oxytocin] is used for induction of labour in any patient, it should only be given as an intravenous oxytocin infusion….This should be started slowly and under the constant personal observation of the attending physician.” The Canadian Medical Association’s committee on maternal welfare agreed with their British colleagues that the titration method was the best choice to avoid uterine rupture.

62 Oakley 198-199. See also Arney pages 78-79.
65 “Rupture of the Uterus” 191.
The conditions for successful induction, as well as the best means of inducing labour were widely reported in the medical press. In the early 1960s, a Philadelphia physician, Edward Bishop, observed that the cervix should be soft and the fetus significantly low in the pelvis for induction to have the most success. He added that elective, or non-emergency, induction was controversial among practitioners: “the proponents offer as support the resultant short, easy, and convenient labour associated with a minimal and an acceptable perinatal mortality. In other areas, elective induction is condemned with equal vigor as being not only unnecessary but actually dangerous.” He considered induction’s relative safety in terms of technique, including the importance of amniotomy and titration, arguing that the selection of appropriate candidates was critical. He recommended that elective induction be available only to multiparous women pregnant for at least 36 weeks, that the fetus be in the vertex, or head-first position, and that the mother have a ‘normal’ obstetric history and be aware of the procedure. He defined categories to assess suitability of patients: “dilatation, effacement, consistency and position of the cervix, and the station of the presenting part.” Each factor was scored on a scale of 0-3 for the first three and 0-2 for the latter two, and a woman had to score a nine or more to be considered a good candidate: “Utilization of such a score permits the obstetrician to perform elective induction of labor in close proximity to the...
time when spontaneous onset of labor would naturally occur.”\textsuperscript{71} This scoring system continues to be used widely in obstetrics today.\textsuperscript{72}

These two developments in technique, the titration method of administering oxytocic drugs and the Bishop scoring system, encouraged medical practitioners to add induction to the delivery-room practices. As feminist sociologist Anne Oakley argues, “with the increase in the safety of pharmacologically-initiated labour in the period since the 1950s, it has been possible for obstetricians to broaden indications for induction to include many pregnancies which 50 or 20 years before would have been regarded as normal and inappropriate for induction.”\textsuperscript{73} Induction advances were part of the phenomenon known as the ‘cascade of interventions’ in which one intervention into labour increases the likelihood of further interventions. In 1979, ten years after induction was solidified by the introduction of synthetic prostaglandin gels to ripen the cervix,\textsuperscript{74} a British study showed that its use encouraged more caesarean sections.\textsuperscript{75} As Helen Churchill illustrates in her history of the operation, prolonged labour leads to augmentation using oxytocic drugs, which in turn creates more painful contractions. Their intensification creates demand for more pain medication, which tends in turn to desensitize patients and inhibit ability to manage their own labour. This leads to fetal distress, which once more promotes caesarean section.\textsuperscript{76}

\begin{itemize}
\item \textsuperscript{71} Bishop 268.
\item \textsuperscript{72} While various modifications have been appended in recent years, numerous contemporary studies reference the Bishop score. See, for example, R. B. Newman et al., “Preterm Prediction Study: Comparison of the Cervical Score and Bishop Score for Prediction of Spontaneous Preterm Delivery” \textit{Obstetrics & Gynecology} 112, 3 (Sept. 2008): 508-515; and J. Tenore, “Methods for cervical ripening and induction of labour” \textit{American Family Physician} 67, 10 (Oct 2003): 2123-2128.
\item \textsuperscript{74} Oakley 204. Oakley notes that the combination of prostaglandins and oxytocic drugs for induction of labour increased the ability of medical authorities to invent time-oriented, quantifiable limits for ‘normal’ labour.
\item \textsuperscript{75} A. Cartwright, \textit{The Dignity of Labour? A Study of Childbearing and Induction} (London, Tavistock, 1979) 45.
\item \textsuperscript{76} Churchill 78.
\end{itemize}
Emphasizing the strength of contractions caused by oxytocin, Churchill agrees with the 1979 study in noting the rise in surgery.77

Perhaps most significant in linking induction and surgical birth is Bishop’s conclusion that scoring could also be used to time the diagnosis for caesarean section: “determination of the date for such a procedure solely on the basis of the expected date of delivery, even if combined with a clinical estimation of fetal size, is notoriously inaccurate and frequently results in the delivery of an infant weighing less than 2500 gm.”78 As other studies confirmed, inaccurate gestational estimates could also lead to the use of induction and an increase in premature babies. Until the development of better safeguards for premature infants, delivery prior to 38 weeks often resulted in death. Saving mothers could injure babies. Early intervention could produce babies threatened by prematurity.

Baldwin’s study of consecutive repeat caesarean sections in Vancouver hospitals between 1946 and 1956 suggested the possible complications of early delivery. In particular, the erroneous estimation of fetal age could mean negative outcomes for both induction and non-emergency caesarean section. Baldwin linked the higher fetal mortality rate to “faulty estimation of the duration of the pregnancy.”79 The deaths of eleven of the sixteen infants in the study were related to prematurity,80 which Baldwin attributed to their accidental early delivery. Despite the increased possibility of mortality in high risk cases, early delivery put the babies at further risk. Baldwin concluded that “unquestionably stronger babies would...

77 Churchill 77.
78 Bishop 268.
79 Baldwin 329.
80 Baldwin 332. Causes of death were noted as prematurity, hyaline membrane pneumonia, and atelectasis (the latter two are caused by underdeveloped lungs).
have been obtained\textsuperscript{81} with vaginal deliveries. He recommended better estimation of fetal age before induction.

**Prematurity**

A proliferation of research throughout the 1950s and 1960s on various birthing-related innovations indicates that prematurity was considered a serious problem in perinatal mortality rates. A 1962 study of 548 caesarean sections in Britain that occurred in 1949, 1954, 1959 and 1964, showed “that the perinatal mortality when the baby was mature, over 5 ½ pounds, was 1.7 per cent whereas it was 22.8 per cent in babies weighing less than 5 ½ pounds.”\textsuperscript{82} In a subsequent article employing the same data, John Peel and Geoffrey Chamberlain traced neonatal deaths at nine teaching hospitals in Britain between 1949 and 1964. In 1949 the primary cause of death was atelectasis, or the failure of pulmonary alveoli to expand at birth. This disorder gradually dropped from 48% of neonatal deaths in 1949 to just under 10% in 1964. It was supplanted gradually over the 15-year study period by respiratory distress syndrome (RDS), also known as hyaline membrane disorder, in which newborn lungs have difficulty holding air because of immature development. RDS formed 6% of the neonatal deaths in 1949 but rose gradually over 15 years to form 26% by 1964.\textsuperscript{83} Peel and Chamberlain stated that caesarean section does not eliminate perinatal mortality but rather “if the national figures are showing a small but definite rise in maternal mortality from Caesarean section without any fall in perinatal mortality this should make us review more critically the indications for section.”\textsuperscript{84}

\textsuperscript{81} Baldwin 333. Emphasis mine.
\textsuperscript{82} As quoted in John Peel and G.V.P. Chamberlain, “Caesarean Section 1949-64” *BJOG* 75 (December 1968): 1284.
\textsuperscript{83} Peel and Chamberlain 1284.
\textsuperscript{84} Peel and Chamberlain 1284.
Similar findings were reported in the *British Columbia Medical Journal* in 1960. The Medical News section of the journal drew data from provincial vital statistics to show that “infants delivered by Caesarean section experienced a mortality rate almost double that for infants delivered by other procedures:” 22.3 deaths per 1000 live non-caesarean births compared to 42.7 deaths per 1000 live caesarean deliveries.85 While high risk births are correlated to increased incidence of caesarean section and the attendant problem of premature delivery, the news report specifically attributed heightened mortality to lung problems, specifically postnatal asphyxia and atelectasis.86 The lack of ability to detect fetal age with any certainty, coupled with the readily available technologies of induction and caesarean section threatened premature babies.

Infant prematurity seems to have been a driving concern among Canada’s English-speaking medical community throughout the 1960s. As Dr. David Grewar of Winnipeg pointed out in 1962, “the premature babe, at one time of little or no concern to either paediatrician or obstetrician, ‘rescued from the delivery room floor waste can and nursed in an improvised bed on a shelf in a linen room or on top of a radiator in the nurse’s room’, is now a focus of much medical interest.”87 Alluding to an increase in the survival rates of sick or disabled premature babies in his study of births between 1953 and 1961, Grewar posited that improvements in obstetric and anaesthetic practice led to improved “prospects for survival of an increasing number of premature infants.”88 Colleagues across the country

85 “High Death Rate for Infants Delivered by Caesarean Section” *BCMJ* 2, 12 (Dec 1960): 811.
86 “High Death Rate” 811.
88 Grewar 1008.
shared Grewar’s interest in the causes of prematurity in order to “define the scope of the problem.”

Two later articles in the Canadian medical press also refer specifically to the relationship between prematurity and caesarean section. Both cautioned practitioners. Dr. D.C. Ritchie of Edmonton studied Alberta’s perinatal mortality and c-section, considering over 180,000 births between 1953 and 1958. In a series of statistical analyses, he concluded that emergency caesarean sections were largely unavoidable and an effective tool only for situations of imminent danger. He warned, however, that “in elective sections prematurity should be preventable,” expanding his caution in the case of repeat sections. Ritchie’s Lethbridge colleague, Dr. Lloyd Johnston, concurred: “One of the dangers in doing elective repeat sections is that of delivering a premature baby.” He identified the source of the problem as the inability to determine the end date of any given pregnancy. A few months later, in an article assessing the challenges of obstetrics, Calgary’s Harry Brody concluded that “prematurity remains a leading cause of foetal mortality and likely contributes greatly to foetal morbidity.” All these practitioners targeted neonatal morbidity and mortality associated with a poor understanding of how to safeguard preemies.

One Canadian specialist investigating answers was Dr. Sydney Segal, a Vancouver-based paediatrician and neonatologist. He identified the problem of neonatal lung immaturity in a 1953 lecture delivered to medical students at the University of British Columbia. He observed that while infant survival rates during the first year of life had steadily increased

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90 Ritchie 653.

91 Johnston 1144.

92 Brody 443.
throughout the twentieth century, little progress had occurred when it came to death by asphyxia within the first few hours of delivery. The much-honoured Segal devoted a great deal of his career to research into neonatal and infant health issues, including such disorders as asthma and SIDS, with the goal of ensuring that premature delivery was as safe for the neonate as it was for the mother. He helped improve survival rates by establishing criteria to differentiate babies born before the completion of their gestational period and those born at term but with deficiencies that made them appear premature. In a 1964 presentation to members of the executive session of the National Advisory Council on Child Health and Human Development, Segal described this problem: “In much of the research on premature infants, differences are found (if looked for) between the infant who is small in conformity with a shortened period of gestation, and the infant whose gestational age would in most instances have led to a larger birthweight. The latter is coming to be called the ‘small-for-dates’ baby, or the baby with intrauterine growth retardation.” Identification was crucial in determining treatment. He noted, however, that “the method of recognition of such instances that may require early intervention is yet to be developed.”

Three years later, in a 1967 address to the National Conference on Maternal and Child Health in Ottawa entitled “The Needs of Mothers and Children in a Changing Community: Clinical Considerations with Respect to the Newborn Infant,” Segal discussed the difficulty of saving premature and malnourished infants. By the end of the decade,

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93 Sydney Segal, “Respiration of Newborn” UBC 5 March 1953. BCMA Segal fonds. Series 3 Sub-series 3, Box 2 File 2-3.  
95 Ibid.  
despite considerable research in oxygenation and incubator efficiency,\(^97\) neither Segal nor his international colleagues had perfected any means to treat lung deficiencies in either premature or small-for-dates babies. Not until the late 1970s, when Dr. Tetsuro Fujiwara of Japan introduced synthetic surfactant to line the lungs of underdeveloped fetuses did the survival rates improve.\(^98\)

In her 1993 article on the medical benefits and costs of c-section, Dr. Elizabeth Shearer discusses such shifts in mortality. In examining the balance between mortality rates and c-section rates, she argues that “with less fear of maternal mortality, the greater application of technology to childbirth was seen as a prime strategy to get the infant mortality rate heading downward.”\(^99\) She notes, however, that while medical experts assumed a direct correlation between rising c-section rates and plummeting mortality rates, improved neonatal intensive care was the actual cause of reduced infant mortality. Rising rates of caesarean section led, moreover, to higher rates of respiratory distress syndrome and other lung disorders since babies born via c-section regardless of maturity “tend to have more fluid in their air passages since they have not passed through the birth canal.”\(^100\) Technologies like synthetic surfactant and infant incubators took decades to develop, but their employment helped keep premature babies alive. Today babies born at just 24 weeks gestation have a chance of survival.\(^101\)

\(^97\) See, for example, Segal’s work in J.A. Taylor and A.E. Davidson, “Recommendations for the Use of Oxygen and Oxygen Analyzers in the Care of Premature Infants” *BCMJ* 6, 6 (June 1964): 231-233; S. Segal, “Inhalation Therapy” *CMAJ* 92 (9 January 1965): 77-78.


\(^99\) Elizabeth Shearer, “Cesarean Section: Medical Benefits and Costs” *Social Science and Medicine* 37, 10 (1993): 1223.

\(^100\) Shearer 1226.

\(^101\) Mander 5.
Monitoring

The introduction of electronic fetal monitoring and obstetrical ultrasound in the 1960s provided new criteria to determine the necessity or desirability of caesarean section. Sociologist William Ray Arney’s study of the history of professional obstetrics identifies monitoring as involving the replacement of a mechanical by an ecological metaphor. This development reflected the growing view that the body was not so much a machine housing an infant until its emergence as an environment containing several correlated systems, all contributing to fetal growth: “Obstetrics reconceptualized pregnancy as a process which had a trajectory, the ‘normal’ course of which was known to obstetrics but which was influenced by the many systems with which the body articulated and communicated.” In a 1957 Chatelaine article, Dr. Marion Hilliard, chief of obstetrics at Toronto’s Women’s College Hospital, summed up this ideological turn when she pointed out that “obstetricians have the opportunity, rare in medicine, of treating the whole life of a patient rather than just the health.”

Monitoring risk subjected patients to a normalizing gaze: “After the ‘normal’ trajectory of a process is known and probability distributions of deviations from the ‘norm’ are constructed, each individual must be monitored, subjected to surveillance, and located precisely in terms of deviations on those probabilistic normalizing distributions. Finally, any deviations for an optimal, ‘normal’ course must be normalized.” Technological innovations such as electronic foetal monitoring (EFM) and ultrasound applied to obstetrics after WWII contributed to the development of normalizing trajectories. Both enabled a direct

102 Arney 8.
103 Arney 8.
104 Marion Hilliard, “Your First Baby” Chatelaine (January 1957) 9.
106 Arney 89.
relationship between the practitioner and the fetus. Physicians had a direct window on the foetal environment: the result could save lives even as it simultaneously contributed to the growing pathologizing of pregnancy. Monitoring via these innovative systems anticipated possible problems, one solution of which was surgical. While these two forms of monitoring were only beginning in the 1960s, their development and early implementation would contribute in time to the higher incidence of abdominal delivery.

Electronic Fetal Monitoring

Electronic fetal monitoring first occurred in 1931 in Germany by Dr. Otto Bode who sought to study the role of pituitary hormones in pregnancy. In the 1940s, “papers began to appear documenting the electrical activity of the uterus in true and false labour and in progressive and unprogressive labour.” In 1952, the British research team Alistair Gunn and Michael Wood published details of their invention of an electrocardiography machine to amplify foetal heart sounds and show them on a fluorescent screen. This machine was one of the first to record and display the pattern of foetal heart sounds.

In the late 1950s, the American doctors Edward Hon and Orvan Hess developed a method for foetal electrocardiography readings by affixing surgical clips to the presenting part of the fetus during labour, and by the mid-1960s their new technology was ready for use. In July 1967 the first continuous foetal heart rate monitor was operational in the United Kingdom, and by 1970, one in 279 British women had fetal heart rates monitored.

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108 Oakley 192.
during labour and delivery. As Raymond Kennedy notes, however, effectiveness and safety were much debated. The first American-controlled trial of the effect of EFM on high risk mothers took place in Denver between 1973 and 1975 and “showed an increased rate of caesarean section in women monitored continuously” but no other outcome. Subsequent trials with larger samples showed that monitoring foetal heart rates electronically offered some advantages for fetuses but also resulted in consistently elevated rates of caesarean section.

Monitoring helped determine fetal positioning with the goal of early detection of complications including abnormal positioning and congenital heart disease. As Nan Schuurmans explains in her investigation of birth technology, “because worrisome fetal heart rate tracings had an association with abnormal fetal acid-base status and fetal asphyxia, it was hoped that routine use of EFM would lead to a reduction in the incidence of cerebral palsy.” Doctors specifically wanted to avoid fetal asphyxia with its threat of brain damage during labour and delivery.

In Canada, electronic fetal monitoring did not appear in the English language medical press until the mid-1970s. The first study of a Canadian population seemed to be that by Winnipeg Dr. K. S. Koh who discussed his “experience with foetal monitoring in a

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111 Kennedy 245-246.
113 Kennedy 249. In the ensuing decades of continued EFM use, medico-legal factors have compounded the complexity of assessing fetal heart rates. For example, practitioners are compelled to intervene in instances where there is an EFM recording that deviates from the norm.
Koh examined intrapartum monitoring in a high-risk group of mothers from July 1, 1973 to November 30, 1973, noting that EFM for high-risk cases had been available at his hospital since the fall of 1972. He reported that 286 of 1080 deliveries were monitored. He also observed that “in 1973 there was a large decrease (about 20%) in the number of vaginal deliveries. The cesarean section rate was doubled and the cesarean section rate for fetal distress quadrupled.”

Equally significant, he pointed out that the hospital had recently become a major referral centre for the province. The rate of intervention would necessarily be higher. Indeed, the c-section rate for the women involved in his study was 22%, substantially higher than the average rate of 6.9% for 1973 in Manitoba and of 8.8% in Canada.

Despite the rate and its possible link to fetal monitoring, Koh stressed the benefits of EFM use. Perinatal deaths in the unmonitored group were, at 13.9%, effectively double that of the monitored group at 7%.

He ascribed the advantage directly to new developments in obstetrics:

Proper surveillance of the fetus during labour depends on adequate staffing and instruction of nurses, clinical clerks, interns, residents and obstetricians in the techniques of fetal monitoring and interpretation of fetal heart rate patterns. The establishment of a fetal monitoring team, to include consultants with adequate experience in fetal monitoring, would improve fetal surveillance during labour.

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118 Koh 459.
120 Koh 459.
121 Koh 459.
While monitoring of pregnancies and deliveries via observation and documentation was widely practised in North America, EFM remained a minority experience until the mid-1970s or later. It did nonetheless signal the future while being consistent with the past.\textsuperscript{122} While Arney argues that “when a pregnancy is monitored with a wide range of surveillance techniques potential problems can be detected early and often corrected by precise, carefully designed interventions, much simpler and ‘lighter’ than those that would have been necessary had the problem gone undetected,”\textsuperscript{123} his contemporaries and critics point out that EFM had no such outcome. Oakley emphasizes that “no [British] study found it helpful in decreasing perinatal mortality or morbidity.”\textsuperscript{124} While some North American studies suggest a more favourable result, Nan Schurmaans et al. show that assessments are far less positive about EFM’s advantages in the prevention of cerebral palsy and other disorders caused by fetal lack of oxygen.\textsuperscript{125}

Moreover, “the use of EFM, combined with an increased concern for medical risk, has clearly contributed to rising cesarean section rates.”\textsuperscript{126} The passive positioning of the labouring mother that is required by constant fetal monitoring during labour leads to ‘uterine inertia.’ This discourages active labour and may challenge the fetus. The identification of so-called ‘normal’ fetal heart rates that came from fetal monitoring over time also created a corresponding range of abnormality, as is discussed in the next chapter. The combination of medical surveillance ideology and EFM technology once again encouraged the resort to caesarean sections.

\textsuperscript{123} Arney 100.
\textsuperscript{124} Oakley 179.
\textsuperscript{125} Schuurmans et al., 67.
\textsuperscript{126} Schuurmans et al., 67.
Ultrasound

In the mid-1960s, at the same time that EFM was gaining ground, obstetrics also experimented with the ultrasound, a new method for monitoring the fetal environment from a very early stage of pregnancy. Originally developed during the First World War to detect submarines, it was first applied medically in the 1920s at high intensities as a neuro-surgical tool and in physical therapy to break down tissue. Diagnostic use of the technology appeared in the 1940s, first in Köln, Germany for locating brain tumours. A decade later ultrasound usage had increased all over the world but it was not applied to obstetrics until 1962 with the invention of a machine that could be manually moved around the patient.

For diagnostic purposes, ultrasound involves sonic waves “pitched higher than the human ear can hear” and “directed into the body, [producing] echoes from points where different body tissues meet.” This principle was applied in obstetrics in the late 1950s in both Japan and Scotland, but was not widely understood or researched until the late 1960s. While not used as frequently or as commonly as it is today, that decade saw its assessment for diagnostic purposes in research-oriented hospitals in both Europe and the USA. Like EFM, ultrasound was employed to monitor and survey the fetal environment in order to prevent complications. More specifically, “it became standard practice to use ultrasound scanning to determine gestational age and due date, to determine if there were twins or

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128 Woo, Part 1.
129 Brodsky 140.
multiple pregnancy, and to localize the placenta.” 132 Although ultrasound does not appear to have been used diagnostically in Canada before 1970, its prospects were enhanced by the rising receptivity to preventive medicine. 133

In its bypass of the mother to observe the fetus, ultrasound is a prime example of modern obstetrical surveillance. The practice of taking measurements of fetal growth in utero, the assessment of uterine development throughout pregnancy, and the continued monitoring of fetal heart rate via ultrasound revolutionized the application of the normalizing gaze. The fetus and its uterine home emerged as “separated, individualized, subjected to constant and total visibility, and then offered technologies of normalization to guarantee an optimal experience….“134 Like the EFM, it sets out to solve problems before they occur.

Uneven Technologies and Practitioner Caution

The ability to apply monitoring technologies allowed obstetricians to measure and sort both the maternal and fetal experience in terms that identified the ideal experience as well as acceptable levels of deviation. As such, indications for caesarean section previously categorized as relative, were now readily taken to be more vital. What is more, as Oakley notes, “the new monitoring lands woman flat on her back despite the knowledge that that is the worst thing.”135 The requirement of maternal passivity in order to obtain optimal monitoring of fetal activity increased mothers’ risk for uterine inertia or ‘failure to progress.’

The culmination of technical and technological developments in relation to obstetrics was a

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132 Brodsy 140.
133 Earliest discussions of ultrasound in the Canadian medical media are in a 1971 article refuting a claim that ultrasound can be used to induce abortion. This indicates that its use as a diagnostic tool was not yet being discussed in Canada, as it is most certainly its destructive capacity at high intensities that would be presumed suitable for therapeutic abortion. See K. E. Hodge, “Therapeutic Abortion and Ultrasound” CMAJ 105, 10 (20 November 1971): 1021. In February of 1976 the first article on ultrasound as a diagnostic technology appears as a news brief in the same journal: “Ultrasound providing valuable information in pregnancy” CMAJ 114, 3 (7 February 1976): 253.
134 Arney 89.
135 Oakley 183.
rise in medical indications for abdominal childbirth. As early as 1921, a British study noted that “the scope of any surgical procedure or operation will always extend as the technique is improved and the mortality and morbidity reduced, and it is for us obstetricians to perfect the technique of Caesarean section that we can extend its scope… I am quite convinced that 20 years hence, when the youngest here have become the seniors, the accepted indications for Caesarean section will be extended even beyond the limit suggested.” By the 1950s and 1960s, the reduction in loss of life from caesarean section led to vigorous debate by practitioners on the difference between absolute and relative indications for its use, and the beginning of caution among obstetricians about the overuse of c-section. In his 1947 article on Canadian C-sections, Andison, like others, reminded readers that “delivery by Caesarean section is still a more dangerous method for the mother than delivery per vias naturales.” A similar article on c-section in Britain from 1926 to 1948, published in 1950 in the British Journal of Gynaecology, noted that a “general tendency, quite apart from any deliberate policy, has been to take advantage of the increased safety of the operation under present conditions and to perform section on patients for whom at an earlier date it would not have been considered either safe or justifiable.” The author described the increasing willingness to perform the surgery, explaining that where previously the only indicator was “contracted pelvis or suspected disproportion,” factors such as maternal age and obstetric history were now supplying ‘relative indicators.’ Eighteen years later an article by John Peel and G. V. P. Chamberlain, also published in the BJOG, assessed

136 Churchill 43.
138 See Baldwin, Bradford, and Fitzgibbon in the CMAJ, for example.
139 Andison 170.
140 Lawrence 189.
141 Lawrence 192.
indications for c-section, commenting on differences from 1949 to 1964.\textsuperscript{142} While in 1949 one third (33\%) of c-sections were indicated for cephalopelvic disproportion, by 1964 this accounted for only a fifth (21\%) of all c-sections. Remaining operations were more or less equally attributed to fetal distress (14\%), placenta praevia (11\%), previous c-section (11\%), malpresentation (10\%), disorderly uterine action (also known as uterine inertia) (9\%), and pre-eclampsia/hypertension (7\%).\textsuperscript{143} Despite greater caesarean safety by the end of WWII, practitioners debated broader implications of its increased use. If women very rarely died of abdominal childbirth, the impact of related discourses and practices on their babies worried some modern practitioners.

\textit{Conclusion}

In the post-WWII years, technological and technical innovation promised improved outcomes in pregnancy. New anaesthetic techniques and their increasing administration by qualified anaesthetists in large medical centres helped some mothers and babies. Improvements in and regulation of induction technique led to further interventions in labour and delivery, some of which endangered premature and small-for-dates babies. As fetal monitoring and ultrasound became possible, the medical ideology of surveillance and monitoring that dominated post-war development further normalized technologically-enhanced childbirth. As practitioners continued their quest to reduce maternal and fetal morbidity, many turned when they could, notably in large centres and teaching hospitals, to innovations such as induction and ultrasound. Abdominal birth could save lives. They also began to acknowledge that caesarean section could create new problems, most notably in the delivery of greater numbers of premature infants. As physicians were able to employ surgical

\textsuperscript{142} Peel Chamberlain 1282-1286.
\textsuperscript{143} Peel and Chamberlain 1284.
delivery to contain the risk in labour and delivery, they were limited in their capacity to prevent risk in premature birth.
CHAPTER 3: Monitoring the Navigator in Outer Space: Professionalization of Obstetrics in Post-WWII Canada

The 1950s and 1960s, a time characterized by the growth of the welfare state, brought rapid change in the relatively new profession of obstetrics in Canada. As William Ray Arney argues in his history of the obstetrics profession in Britain and North America “the historical record indicates that all aspects of obstetrics – its mode of inquiry, its field of interest, its underlying metaphor, its social organization, its technology – changed around World War Two.”¹ Arney traces the international context, beginning with the attempt by practitioners of obstetrics to create “a social boundary around a ‘new’ profession” in order to distance themselves from midwives.² By the early twentieth century, he argues, the profession was engaged in “the defense, the patching, the manipulation of that boundary in order to protect the interests that it encircled.”³ In the 1940s and early 1950s a further profound shift occurred, as the profession “experienced (and was partly responsible for bringing about) a qualitative transformation in its mode of social control over women, pregnancy, and childbirth generally.”⁴ In Canada, this shift towards social control occurred just as obstetrics was recognized as a separate medical specialization and in the era of Cold War uncertainty that prompted so much attention to the containment of risk. That development in turn coincided with increase in caesarean sections. This chapter examines the national and international development of the profession of obstetrics and explores the professional ramifications for doctors of the technological and discursive shift in medical care that occurred in the post-war era. By 1970, doctors were more willing and more equipped to

² Arney 21.
³ Arney 21.
⁴ Arney 6.
perform c-sections. The establishment of and adherence to professional standards of care increased the prestige of obstetrics. In the process, interventions in labour, particularly surgical delivery, became more likely.

**Professional Recognition**

Just before World War Two, just as the location of most births in urban Canada shifted from home to hospital, the specialty of obstetrics “began at its lowest point: that is, without professional recognition.”5 When the Royal College of Physicians and Surgeons of Canada was incorporated, obstetrics was a sub-specialty in the surgery division. In a 2006 editorial in the *Journal of Obstetrics and Gynaecology of Canada/ Journal d'obstétrique et gynécologie du Canada*, Timothy Rowe argued that the twentieth century was marked by a prolonged struggle for recognition by obstetrician-gynaecologists. The Society of Obstetricians and Gynaecologists of Canada/ Société des obstétriciens et gynécologues du Canada was not established until 1944, long after the majority of births occurred in hospitals.6 Throughout the 1950s and 1960s, internal disputes among clinicians and academics prevented the construction of a “united and progressive image” of scientific prowess to bolster the reputation among “other physician groups and to policy-makers.” Indeed, Dr. Harold Rocke Robertson, chief of surgery at Vancouver General Hospital throughout the 1950s, remarked that the teaching of obstetrics was “awfully cut and dried and easy to do” when compared to other fields.7 This supposed lack of scientific rigor culminated in the 1979 award to obstetricians “of the ‘wooden spoon’… for having the

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7 Dr. Rocke Robertson, interviewed by Sharlene Stacey, Early History of the UBC Faculty of Medicine, Charles Woodward Memorial Room, University of British Columbia, 20 June 1985. http://www.library.ubc.ca/woodward/memoroom/collection/oralhistory/ .
fewest evidence-based practices of any medical discipline,” an award typically given in scientific contexts for the least successful individual in a profession.8

The problem was that obstetrics did not fit comfortably into the dominant model of curative medicine. Not only was it restricted in scope to the treatment of women, whose gender posed a threat to practitioners’ image of scientific rigor and respectability,9 as Wendy Mitchinson notes, “the traditional image of a physician was of someone who cured, but in childbirth women were not ill and the physician’s responsibility was to wait and intervene only when something went wrong.”10 While dominant medical discourses worked to pathologize pregnancy and childbirth, “solving” the problem of the patient was nonetheless not readily measurable in obstetrics. Success in childbirth was the absence of medical intervention, whereas it was the exact opposite for other fields of medicine. Given the absence of scientific innovation as an indication of success, obstetricians were hard put to demonstrate professional value according to the wider standards of medical science.

The institutionalization of obstetrics was the first step in the drive to gain professional credibility. While there has always been medical interest in childbirth and women’s health, the professionalization of obstetrics as a medical specialty began in the late nineteenth century. Just as the formation of the British Medical Association in 1832,11 the American

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8 Rowe 861. The tradition of giving a wooden spoon to the least capable in a group of colleagues originated at Cambridge University in the early 19th century, where it was awarded to the student with the lowest mark in mathematics. It was adopted thereafter in the Commonwealth to signify a low level of achievement in any given group. See, for example, http://www.quns.cam.ac.uk/page-1152.


Medical Association in 1847,\textsuperscript{12} and the Canadian Medical Association in 1867\textsuperscript{13} characterized the professionalization of medical practice in general, obstetrical specialists set out to draw their own boundaries and set professional standards of practice.\textsuperscript{14} In the United States, organizations devoted to obstetrics appeared as early as 1863\textsuperscript{15} and were brought together in 1888 under the umbrella of the American Association of Obstetricians and Gynaecologists.\textsuperscript{16} Development was, however, far from rapid. Key journals such as the *American Journal of Obstetrics and Gynecology* appeared only in 1920, and *Obstetrics and Gynecology* not until 1953.\textsuperscript{17} In the USA, the culmination of a century of the medical profession’s struggle to establish dominance in the field of childbirth, as Cheryl Warsh points out, was the 1951 formation of the long-gestating American Academy of Obstetrics and Gynecology. This at long last signaled “the recognition of obstetrics as a hospital-based surgical specialty.”\textsuperscript{18}

Legitimation of the profession in Britain and Canada was slower to develop and took different forms. In Britain, the 1902 beginning of *The British Journal of Obstetrics and Gynaecology* predated the founding of the British College of Obstetricians and

\textsuperscript{16}Beacham 117.
\textsuperscript{17}On the broader issue of defining the boundaries of scientific discipline, see Thomas F. Gieryn, "Boundary-work and the demarcation of science from non-science: strains and interests in professional ideologies of scientists," *American Sociological Review* 48, 6 (December 1983): 781–795.
Gynaecologists in 1929. The latter was granted a royal charter in 1947.\textsuperscript{19} The Society of Obstetricians and Gynaecologists of Canada / Société des obstétriciens et gynécologues du Canada (SOGC) waited until 1944, and its bilingual journal, the \textit{Journal of Obstetrics and Gynaecology of Canada/Journal d'obstétrique et gynécologie du Canada} did not commence until 1978.

In his history of Canadian developments, Timothy Rowe argued that the 1944 inauguration of the SOGC was a watershed: “once united and organized, obstetrician-gynaecologists had to accept that to outside viewers their practice was seen as not very scientific.”\textsuperscript{20} The society’s inauguration provided only a starting point, rather than the culmination of the quest for professional recognition: it would take the better part of 40 years for obstetrics to gain legitimacy in the Canadian medical community. Not until 1989 was the wooden spoon withdrawn from obstetrics.\textsuperscript{21} Canadian obstetricians had their work cut out for them in the post-war era.

\textit{Professionalization via Clinical Standards}

The shift from interventive (and curative) to preventive medical practice profoundly affected obstetrics in Canada. Practitioners were expected to monitor their parturient patients far more closely, establishing norms to inform decisions about appropriate, safe, and efficient birthing. Heightened discourses of risk and the need for its containment encouraged women and practitioners to adhere to standardized protocols based on a model of preventive medicine. As risk theorist Anthony Giddens points out, “science and technology create as many uncertainties as they dispel – and these uncertainties cannot be ‘solved’ in any simple

\textsuperscript{20} Rowe 861.
\textsuperscript{21} Rowe 861.
way” other than the use of further scientific innovation.\textsuperscript{22} By the late 1960s, the result was that c-sections were increasingly indicated for \textit{potentially} difficult births rather than an intervention during \textit{actual} difficult births.

Foucault’s panoptic analogy provides a helpful lens to view this critical transformation. In his work spanning 1963’s \textit{Birth of the Clinic} to 1977’s \textit{Discipline and Punish}, Michel Foucault identifies the medical gaze as a pervasive force in Western cultures.\textsuperscript{23} As Deborah Lupton elucidates, Foucault developed the argument that “the body and its various parts are understood as constructed through discourses and practices, through the ‘clinical gaze’ exerted by medical practitioners.”\textsuperscript{24} Analysis of the body is constructed and carried out both literally and discursively through surveillance. In other words, “the central strategies of disciplinary power are observation, examination, measurement and the comparison of individuals against an established norm, bringing them into a field of visibility.”\textsuperscript{25} Foucault argues that medical authority carries out its discoveries and treatments by observing bodies from all perspectives: “the panopticon creates a structure of power through its design. By means of minimal but calculated architectural constraints it creates the capacity to see objects dispersed in a wide, heterogeneous field and effects a new form of control through the creation of fields of visibility.”\textsuperscript{26} Arney further argues that “obstetrics located childbirth in a wider social order and subjected it to the power of a structure that creates birth in a field of visibility.”\textsuperscript{27} Surveillance and monitoring became the keys to

\textsuperscript{25} Lupton 99.
\textsuperscript{26} Arney 88.
\textsuperscript{27} Arney 88.
charting pregnancy and childbirth in the 1950s and 1960s. As described in the previous chapter, the new ontology of birth wherein all aspects are monitored and recorded resulted in the alteration of professional practice.

Before physicians could standardize its medical treatment, they had to bring birth firmly within the realm of the hospital. By the 1950s, parents, urged by medical rhetoric and governments, brought deliveries to hospitals. This location meant, in and of itself, a shift in power relations. No longer mistress of a home in which the doctor was the intruder, the parturient woman was a guest in the house of medicine. Encouraged by widely-circulated public and medical health advice, as explored in chapter 4, women were urged to seek “safe” supervised experiences under the regulating gaze of professional surveillance.

A major part of the motivation for the relocation of birth from home to hospital and for the growing presence of obstetrical expertise was medicine’s drive to reduce infant and maternal mortality. Identification and prevention of risk were paramount. Emphasizing risk helped pathologize pregnancy and childbirth. As Arney states, due to the continuing value of preventive medicine “a new logic and a new metaphor changed the conceptual basis of medicine. The body… became a system composed of systems articulated at many points and levels.”  

The effective functioning of the body’s ecosystem in its capacity to grow a baby had to be carefully monitored and categorized, and the onus was on practitioners to oversee that process.

While family doctors continued to oversee the majority of deliveries in hospitals and to do the bulk of the baby-catching generally, obstetricians and other specialists increasingly

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28 For more specifically on this campaign see, for example, the writings of Diane Dodd on Helen MacMurchy in Dodd and Gorham, eds., Caring and Curing: Historical Perspectives on Women and Healing in Canada (Ottawa: University of Ottawa Press, 1994 and Comacchio (1993).

29 Arney 8.
determined professional criteria for intervention. Canada joined Britain and the United States in seeing that “The elite – the specialists, the teachers, the writers of textbooks – determined what [the indicators for c-section] were. General practitioners did not have to apply the elite opinions to their own practices, but if anything went wrong they knew they would need to justify their actions by the literature available.”

*Experts catalogue normal birth*

In the 1950s, Dr. Emanuel Friedman pioneered the cataloguing of the aspects and functions of labour. While still an obstetrical resident at Columbia University, Friedman aimed to evaluate anaesthesia’s effect on labour progress. He prepared various graphico-statistical analyses and generated the Friedman curve, “an S-shaped curve relating cervical dilation to the duration of labor.” On the vertical axis of the graph he measured dilation and on the horizontal axis, time in hours. Optimal timing for each stage is recorded with several hours being appropriate for the latent phase, then a steep rise in the amount of time appropriate for active labour, then a leveling off for the third stage.

Friedman’s 1953 study attempted to “define the limits of the normal primiparous labor on the basis of statistical deviations from the curve, in its various phases.” He observed what he termed ‘aberrations’ in order to define them and their etiology. He and his team calculated the duration of patients’ various phases of labor aiming to establish the parameters of a ‘normal’ birth. After a discussion of the ‘limits of normal’, he situated his

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30 Mitchinson 61.
31 Mitchinson 245.
33 An example of Friedman’s curve can be found at the Women’s Clinic of Northern Colorado: [http://www.fcwc.com/InPrep/IPImages/LbrBrth.gif](http://www.fcwc.com/InPrep/IPImages/LbrBrth.gif) Accessed October 2010.
findings explicitly in the realm of the medical gaze: “Where aberrations from the established normal are noted, one must be alerted to seek and correct, if possible, the offending factor or factors. This method, therefore, allows for careful surveillance of individual labors in progress and has great value as a critical diagnostic tool in obstetrics.” Subsequent work continued this project nationally in the USA where this model was widely adopted as the standard description of normal labor. While obstetricians, midwives and birthing women alike have recently challenged the Friedman curve, it shaped the international practice of obstetrics throughout the second half of the twentieth century, exemplifying the monitoring of women’s birthing and the drive to legitimate the profession through rigorous application of scientific observation, classification, and reporting.

The quantification of labour contributed to the imposition of time limits that continues in obstetrics today. As a way to control labour and further classify the indications for interventions, practitioners used Friedman’s averages as definitive parameters for action. Studies of labour and delivery published in medical journals such as the Canadian Medical Association Journal throughout the 1950s and 1960s cited Friedman’s standards for measuring the success of confinements. Contextualized as many were within the pathology of complications or interventions carried out during delivery, including induction and the use of forceps, some studies focused specifically on caesarean sections and/or related procedures.

35 Friedman (1955) 576.
C. R. Bradford of Winnipeg General Hospital and the University of Manitoba Medical School analysed caesarean sections over for a five-year period in the early 1950s to “define the scope and limitations of the operation.”

Couched in the language of mortality-prevention, Bradford studied 19,379 surgical deliveries and concluded that “an analysis of Caesarean section may be considered an indication of the type of obstetrics practised in a hospital or area.”

His work is typical of late-1950s broad-scale analyses of births, undertaken to determine the general state of parturition.

Such studies expanded upon and qualified Friedman’s standards as applicable in specific Canadian contexts, particularly in rural and remote locales. One 1954 publication in the *Canadian Medical Association Journal* by S. C. Robinson, a practitioner in the Kootenay area of eastern BC, reviewed 250 consecutive labours and deliveries between 1948 and 1953 at a rural hospital. The author grouped the data, as Friedman had done, by primiparous and multiparous pregnancy. Births were further categorized by single/twin pregnancies, prenatal care, average length of labour, use of pituitrin, use of forceps, position of delivery, episiotomies and tears, placental position, post-partum haemorrhage, maternal and fetal deaths, and breast feeding. While his conclusions resembled others, he also pointed to “the history of rapid previous labour in a woman living a considerable distance from hospital” as a critical factor in rural obstetrics. He ultimately concluded that rural deliveries required reworking of classification systems reflective of urban practices.

A subsequent study comparing the birthing standards of primiparas in Hamilton, Ontario similarly noted local exigencies. Richard Weaver and Fred Johnson compared the

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40 Bradford 396.
42 Robinson 372-3.
experiences of “elderly” and young primiparas to draw conclusions about deviation from Friedman’s standards. As they observed: “There is, however, one important difference between Mount Hamilton and most other hospitals which may be of some interest; ours is an open institution, with most women delivered by general practitioners. …Relations between [obstetricians and general practitioners] in Hamilton are very friendly; consultations are freely asked and given whenever a problem arises.” Implied here is the possible lack of cordiality elsewhere. Whatever the techniques preferred, professional relations everywhere shaped standards and experiences.

Common birthing regulations were firmly in place by the end of the 1950s. Similar norms established in the realm of neonatal care, such as the Apgar Newborn Scoring System, which reduced the danger from neonatal asphyxiation and helped curb maternal and infant mortality rates. Professional literature hailed the reduction of perinatal mortality as a triumph for modern medicine. In 1960 the British Columbia Medical Journal reported that “the lowest infant mortality rate in the province’s history was recorded in 1959. …Of interest, too, is the fact that the mortality among infants under one day old was not much less than that among all infants between one month and one year of age.” In addition to lower infant mortality, maternal mortality rates reached an all-time Canadian low of 50 deaths per

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43 Weaver and Johnson 163-165.
44 Weaver and Johnson 163.
45 Virginia Apgar, an anaesthetist at Columbia University, published in 1953 a system for scoring the heart rate, breathing, muscle tone, colour and reflexes of a baby at one minute and five minutes after birth, recognizing that the first few breaths drawn by a newborn are crucial to its survival. The Apgar test, as it is commonly known, revolutionized the observation and care of newborn babies and is reputed to have significantly reduced infant mortality in the process. See Selma Calmes, “Virginia Apgar: A Woman Physician’s Career in a Developing Specialty” Journal of the American Medical Women’s Association (Nov/Dec 1984): 184-188, and H.S.J. Lee, ed., Dates in Obstetrics and Gynecology (New York: Parthenon, 2000) 109.
46 “Infant Mortality Rate at Record Low” BCMJ 2, 1 (1960): 6.
100,000 live births in 1960, half the rate recorded ten years previously.47 Such results seemed to confirm the merits of obstetrical initiatives. 

*Experts pathologize complicated birth*

Once the trajectories of so-called ‘normal’ labour were established, researchers defined the range of deviation. In his argument about the interconnections of surveillance and normalization, Arney notes that “after the ‘normal’ trajectory of a process is known and probability distributions of deviations from the ‘norm’ are constructed, each individual must be monitored, subjected to surveillance, and located precisely in terms of deviations on those probabilistic distributions.”48 A series of American and Canadian studies in the 1960s charted the impact of anaesthesia on mothers and infants. Others examined neonatal survival outcomes following the application of new obstetrical technologies and methods of surveillance. A 1969 study from London, Ontario categorized high risk births, noting that “some of the newer techniques used to assess fetal reserve and placental function must be standardized, and their risk assessed and balanced against the benefits that may accrue.”49

A concurrent study reviewed rural and urban labour and delivery in Quebec.50 Couched in the language of perinatal mortality and comparing Canada to other industrialized countries, the author aimed to “provide some evidence on the distribution and utilization of [obstetrical] resources throughout the province, both geographically and in relation to certain socio-economic and other maternal characteristics.”51 He monitored high risk birth, not from the perspective of technological intervention or specific management of labour but according

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48 Arney 89.


50 Michael J. Ball, “High-Risk Obstetrical Cases and Type of Obstetrical Care in the Province of Quebec” *CMAJ* 100 (17 May 1969): 882-887.

51 Ball 883.
to maternal lifestyle and socio-economic situation, which was a rare approach in this era. Not surprisingly, he concluded that “the results suggest that to have the greatest chance of being delivered by an obstetrical specialist, a woman should live in an urban location, choose a large maternity unit and have a white-collar husband.”

His careful analysis of the outcomes of labours in differing areas of the province and different sized maternity units showed urban birthing experiences for high risk mothers to be far more comprehensive and “safe” than in rural areas. This study was unusual in emphasizing not so much clinical issues as the social context that set the critical parameters for patient well-being.

The analysis of birthing for the purposes of prescribing appropriate social and clinical circumstances and identifying pathologies and procedures was commonplace throughout the post-war era. Starting with Friedman’s survey, researchers and specialists constructed standards and norms for labour and delivery to reduce maternal and infant mortality. Canadian rates of caesarean section more than doubled, from under 3% at the end of WWII to just under 7% in 1970. As mortality rates improved throughout the 1960s, physicians found concrete scientific justification for standardization.

Friedman himself lamented the rigid use of his curve. In 1966 he commented: “We found an average. People think the average is what women should fall upon. That is clearly not true but rather a broad range of normality beyond which a potential abnormality may or may not exist. Those abnormalities are not in themselves justification for forceps or cesarean. . . . It doesn’t mean she’s doing so badly that you have to do something terrible to

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52 Ball 885-886.
53 While numbers vary from province to province and hospital to hospital, all are within the general vicinity of those reported here, which are gleaned from BC Caesarean Section Task Force, “Report of the Caesarean Section Task Force” (Vancouver: BC Caesarean Section Task Force, 1993).
her. That is being abused.”54 This doctor and others well understood the fine line between employing established standards to effectively manage a labour and relying on those standards as a judgment in themselves of abnormality for individual patients.

A late 1960s investigation of maternal mortality by the Canadian Medical Association’s Committee on Maternal Welfare showed the dangers. The CMAJ published regular summaries of maternal deaths. In one case, despite adherence to Friedman’s time-oriented laboring standards, the mother died of a haemorrhage. As the author pointed out:

This was a preventable direct maternal death. The cause of death was shock due to hemorrhage from vaginal and uterine lacerations which resulted from a difficult forceps rotation and extraction. The professional factors were inadequate prenatal assessment of the pelvis, inadequate maternal sedation during labour, not permitting the patient to have a longer second stage of labor…. This patient should have been allowed an additional two hours of labour after full cervical dilatation had occurred, to give the normal forces of labour a chance….55

In other words, disaster occurred because rules were rigidly applied.

Over time, the medical press issued cautions. One 1961 article on vaginal birth after caesarean section reviewed the indications for surgical delivery and the dictum of “once a caesarean always a caesarean”. Dr. Henry Fitzgibbon of Brantford, Ontario, a retired navy surgeon and former surgeon and assistant to the Master at the Rotunda hospital in Dublin,56

54 As quoted in Tina Cassidy, Birth: The Surprising History of How We Are Born (New York: Grove, 2006) 158.
56 Henry Fitzgibbon, “Endometriosis of the Colon and Fibroids” CMAJ 78 (1 May 1958): 701. The Rotunda hospital in Dublin is the oldest known lying-in hospital in Western Europe, built in 1757 after having been founded and operated at a different site in 1745. It continues to provide maternity care today. The Master is the co-ordinating administrator at this institution. Author unknown, “The History of the Rotunda Hospital” (Dublin: Rotunda Hospital, 2008): http://www.rotunda.ie/default.asp?p=hs
analysed over 3000 abdominal deliveries over 60 years to conclude that: “Vaginal delivery after Cesarean section, if undertaken after an adequate evaluation of the state of the uterus, the current pregnancy and with adequate medical supervision during labour, is a safe procedure and should never be denied any patient.” Such medical practitioners made clear their willingness to challenge existing standards and backed up their position by evidence. Challengers appeared, however, relatively rarely. In the 1950s and 1960s obstetricians and general practitioners focused on influential professional guidelines and standards for the effective carrying out of labour and delivery. As Arney argues, “Instead of searching out and containing potential pathology, obstetrics turned its attention to developing systems of monitoring and surveillance of all births. Monitoring and surveillance deal with the problem of residual normalcy by ignoring it.” Intervention became the basis of preventive medicine.

Professional Prestige

The establishment of clinical standards of care was accompanied by administrative standardization. As practitioners applied rigorous standards of care to obstetrics, they also struggled to demonstrate to their medical colleagues and regulatory bodies scientific and academic worth. The demonstration of surgical success became an important benchmark in legitimating the profession in Canada. This coupled with administrative factors such as hospital accreditation and uniformity of record-keeping facilitated obstetrics’ recognition as a specialty. Caesarean sections were again legitimated.

58 Arney 85.
Surgical success

As noted in the previous chapter, the declaration of caesarean safety was an effective claim of the clinical and pathological strength of obstetrics. Mitchinson argues that “surgery had prestige, status, and dominance… because it, more than other aspects of medical care, was linked to laboratory science.”⁶⁰ Indeed, Arney also points out that clear-cut solutions to pathologized problems, such as a safe caesarean section, supply concrete examples of obstetrics as medical science.⁶¹ In obstetrics, where lack of practitioner intervention signals success – the direct opposite of more easily pathologized specialties – the ability to invoke surgical achievement nevertheless contributed to more recognition by other medical specialists. As Arney argues, “Obstetricians used their ability to treat childbirth as pathological to create their profession.”⁶² Caesarean section was a definitive expression of the specialty’s value.

Even more than emergency surgery, a significant indicator of obstetrical success for other medical professionals was “elective c-section.” While the concept gained additional meaning in the ensuing decades,⁶³ in the 1960s and 1970s the term elective caesarean section described planned surgical delivery carried out under carefully controlled conditions rather than as an emergency intervention. These carefully-determined c-sections were scheduled to eliminate dangerous emergency intervention. Commonly carried out as part of the “once a caesarean, always a caesarean” dictum, elective surgical delivery was also indicated when

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⁶⁰ Mitchinson 59.
⁶¹ Arney 51.
⁶² Arney 51.
the mother’s pelvic measurement was smaller than her baby’s expected head size, in placenta praevia, and other similarly life-threatening situations.\textsuperscript{64}

Elective c-sections were far less likely to result in fetal or maternal loss. As Mitchinson pointed out “increased elective c-section would lower the mortality statistics (from c-section), which in turn would encourage more physicians to resort to it.”\textsuperscript{65} As soon as elective c-section was a possibility, the reporting of success could contribute to the prestige of obstetrics and greater professional status for obstetricians among their peers, made especially visible in the increasingly rigorous tracking and documenting of consistent practices.

\textit{Administrative standards}

Even as surgical success positioned obstetrics as a legitimate medical specialty, so too did the application of rigorous administrative standards of practice. Not only did doctors apply the medical gaze to their patients, they also subjected themselves to constant monitoring. The panopticon invites the observation of the observer: monitoring of physicians meant “the reordering of the powerful and the subjugation of them to its power.”\textsuperscript{66} Self-reflexive monitoring became the norm as state-funded medical infrastructure expanded.

As Iacovetta and Mitchinson point out in their discussion of Canadian case files, patient records offer “a way of examining in specific contexts the complex power dynamics

\textsuperscript{64} While there is no known document defining elective caesarean in this era, more than one article in the \textit{CMAJ} refers to its use. For example, in his 1957 publication on repeat c-sections in the Vancouver area, William F. Baldwin reviews sixteen cases of infant death and classifies each one according to whether it was an elective or an emergency operation. Six years later, Dr. Ritchie of Edmonton discusses the elective section in the context of rural obstetrical practice, pointing out that non-emergency surgical deliveries were most often transferred to city centres. Neither of these practitioners defines elective versus emergency c-sections in their publications, which indicates perhaps that it was a commonly accepted phenomenon.

\textsuperscript{65} Mitchinson 239.

\textsuperscript{66} Arney 151.
that characterized relations between dominant and subordinate groups." Record-keeping reveals how physicians and administrators demanded benchmarks of professionals. Post-war professional literature debated documentation and chart-creation. In the same way that the application of standardized norms to the treatment of pregnancy and childbirth increased the possibility of caesarean section, the standardizing of record-keeping increased the surveillance of physicians for compliance with the new professional norms.

In publications, conferences and committees of professional associations, doctors discussed the best way to document patient care. Their debates clearly indicate the primacy of the communicative and documentary roles of patient charts in establishing and maintaining professional legitimacy. Every aspect of the standardization of medical forms, from the necessity of appropriate charting for effective patient care to the efficacy of centralized, and later, computerized records, preoccupied doctors and regulatory bodies in Canada as well as internationally. The creation, accessibility, and, most importantly, the standardization of information emerged as a crucial component of preventive health care. Especially influential in the international literature of the era was the 1965 report of the British Ministry of Health entitled “The Standardization of Hospital Medical Records.” The culmination of several years of observation, the report argued that “diversity results in medical records being ‘underrated as an instrument in the discipline of medicine.’”

Similarly, a 1966 article in the *Journal of the American Medical Association* (JAMA)  

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70 As quoted in “Standardization of Medical Records” BMJ (16 October 1965): 892.
affirmed that “the medical record is envisioned as the ‘showcase’ of medical practice, and the reservoir of clinical and fundamental knowledge.”\textsuperscript{71} By the mid-1960s, standardized medical records were taken for granted as the goal.

In 1960s British Columbia, several professional committees focused on record-keeping reforms. Individual doctors also took up the issue, sometimes rejecting standardization. In particular, a committee of the British Columbia Medical Association which analyzed perinatal morbidity and mortality, championed uniform provincial records as an important component of professional practice. In September 1965 this committee, in association with the University of British Columbia’s medical school, conducted a BC-wide study on perinatal morbidity and mortality, commissioned by the Professional Advisory Committee to the Ministry of Health with the support of the College of Physicians and Surgeons and the BC Medical Association. A Continuing Advisory Sub-Committee initiated the Perinatal Morbidity and Mortality Study (PM&MS), which lasted until 1974. The committee’s initial explorations included numerous observations about obstetrical records.

While initiated to help reduce maternal and infant mortality, the study also monitored practitioners involved in perinatal health with the goal of increasing “the educational process among medical professionals in the field of perinatal health.”\textsuperscript{72} Practitioners from 54 of the province’s 89 hospitals offering maternity services reported on their cases. The study’s long-term aim was “to create central advisory groups who would advise the local committees on standards of professional care in the perinatal field.”\textsuperscript{73} It also revealed how BC practitioners

\textsuperscript{71} Gordon 141.
\textsuperscript{73} BC Medical Association Archives: Box 278 File 10: PAC CASC on Perinatal Care, Subject files. Annual reports, 1966-1971. Page 3 of 1971 annual report.
monitored, via discourses around record-keeping, professional standards of practice at the
instigation of the provincial government, and with the funding of the federal government.

Front and centre was the creation of uniform records. The study’s directors
commented frequently on the use of data generated by standardized reporting, and sought the
advice of colleagues in other provinces conducting similar studies. In 1964 Dr. W.C. Taylor
of the University of Alberta sent a sample of the form adopted in the Alberta Study of
Perinatal Deaths to BC committee member Dr. Sydney Segal of the UBC Faculty of
Medicine.74 The Alberta doctor listed the various classifications in place for perinatal deaths
and commented on the processes. While he stated that “to date we have not carried out a
major analysis of the information received from these new forms,” Dr. Taylor made
numerous observations on errors, showing the usefulness of the records in monitoring both
mothers and practitioners.

Comments about the efficacy of patient records in determining the location of
problems occurring in pregnancy and childbirth are found throughout the archives of the
BCMA and those of the prominent Vancouver neonatologist and paediatrician, Dr. Segal.75
Throughout the minutes of the CASC on Perinatal Care in the 1960s, administrators
considered gaps in medical care linked to inadequate records. A letter from the committee
dated 5 July 1967 and sent to all hospital chiefs and administrators stated that “it has been the
experience of the PM & MS of BC, and of other interested observers, that antenatal records
are generally inadequate in almost all hospitals. There has been much difficulty in persuading
members of medical staffs to transfer by memory, and in writing, or by dictation, the
antenatal information existing in their office records, with any degree of detail, to hospital

74 BC Medical Association Archives. Segal fonds Series 3, Sub-series 2, Box 5, File 3: Letter dated 21 April
1964.
75 Segal fonds 1937-1997.
Similarly, the committee’s second annual report, also in 1967, concluded that “the activities of the study have clearly revealed the inadequacy of antenatal records on the charts of the hospitals in this province.” Five years later, a new form, a sample of which was published in the *BC Medical Journal*, contained two pages of categorized check-boxes, creating a record that required the physician simply to fill in the blanks. In addition to personal identifying information, the form included sections for obstetrical history, menstrual history, current pregnancy history, details of the doctor’s examination, family medical history, prenatal care, and a summary of patient care up to 36 weeks. The form’s circulation throughout the province’s 86 hospitals aimed to improve communication between practitioners’ offices and hospitals as it confirmed standards of care.

The publication of the PM&MS standard antenatal form was not an isolated event in the *BC Medical Journal*. In addition to serving a critical function as a communication tool among doctors, it joined other medical journals in providing disciplinary surveillance. From its appearance in 1960, the *BCMJ* addressed data management. That very year the BC Medical Association’s Committee on Maternal Welfare reported that “through educational efforts towards standardization of reporting methods, and also the provision of financial assistance for the purchase of [perinatal] forms that ha[ve] been provided by the Federal Health Granting body” major steps forward were being made toward “standardized reporting within the province.” The next year the same committee commented on a new obstetrical discharge form as part of a “project designed to see if we can determine our maternity

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statistics accurately, and put them to use.” These statistics helped the Perinatal Morbidity and Mortality Study to discover “a considerable body of statistical evidence [that] exists to show that in the area of neonatal and stillbirth mortality, Canada as a whole, as well as British Columbia, is in a rather unfavorable position when compared with other countries in the western world.” Clearly much work remained to be done. The job of obstetricians was clear.

In February of 1970, Dr. John Gillis published an article on record-keeping in the *BCMJ*, culminating a decade of on-going discussion. He waxed poetic on the days of his father’s medical practice, when “a physician could keep much of the information about his patient in his head” before arguing that documentation of the processes, diagnoses and treatments was “ever more important in patient care.” Moreover, Gillis argued that organized data “functions in a retroactive and disciplinary way as far as patient care for that admission is concerned.” He likened medical to legal documentation, invoking Oliver Wendell Holmes who said that “the duty of the Court is not only to dispense justice but also to seem to do so.” Medical records, he opined, “must not only give quality care, but they must seem to do so. Good medical records should provide documentary proof of the level of patient care that the hospital people give.” Gillis’s article captured the regulatory function of medical records for practitioners. In documenting care, they hold physicians accountable.

In order for standardization and accountability to function effectively, individual physicians must comply. The ongoing concerns about the lack of uniformity in record-

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83 Gillis 35.
84 Gillis 35.
85 Gillis 35 (emphasis in original).
86 Gillis 35.
keeping expressed by the administrators co-ordinating the Perinatal Morbidity & Mortality Study, and the perceived reticence of many practitioners across the province to accept their guidelines, suggests that not all obstetricians fell in line. While the records of the study do not indicate the specificities of opposition, clues suggest a lack of unanimity at the top. In particular, only 54 of the province’s 89 eligible hospitals participated in the study.

Correspondence in the PM&MS fonds also indicates administrators’ frustration with physicians. In a letter to the assistant director of vital statistics at the provincial department of health services, Dr. Hardyment, the director of the study, observed, “at least at the Vancouver General Hospital, that the multitude of doctors who fill these Obstetrical Discharge Summary forms in, do so with great carelessness, with little interest, and with hopeless inaccuracy.”

More common are documents urging professionals to use the standardized forms. A 1969 draft of a report by the BC Medical Association’s Fetus and Newborn Committee commented: “Our committee urge [sic] most strongly that all BC hospitals irrespective of size adopt these Prenatal Forms as a means of improving both Paediatric and Obstetric care.” Such authors continued to insist, in the face of evident disinterest or opposition, that “well-documented records will result in attainment of higher standards of health care for mother and infant.”

As Arney notes in his examination of obstetrics in the post-WWII period:

“Monitoring is a new order of obstetrical control to which not only women and their

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87 BC Medical Association Archives PAC CASC on Perinatal Care: Letter from Hardyment to Burrowes, 9 June 1970, page 1.
89 BC Medical Association Archives PAC CASC on Perinatal Care: E. Johnson et al., “Perinatal Programme of the Province of British Columbia Brief on Standard Obstetrical and Newborn Records” Presented at an unknown meeting in Victoria, 10 February 1976.
pregnancies are subject but to which obstetrical personnel themselves are subject.”

The observation of pregnancy and birth for the purposes of standardization, as shown above, brought obligations to record and analyse patient experience. In so doing, practitioner actions and analyses come under scrutiny. Hospital administrators, professional overseers, and regulatory bodies, as well as patients, in BC as elsewhere, tried to hold doctors to their standards.

One of the few historical investigations of the surveillance of obstetrics, Georgina Feldberg’s study of c-section rates at Toronto’s Women’s College Hospital conveys the complex relationship between standard-setting and surveillance. She examines the process through which the hospital attempted to obtain accreditation as a post-graduate training site. Accreditation “required conformity to standards of clinical practice” and deviation jeopardized claims to professionalism. More specifically, accreditation boards in the 1950s questioned this hospital’s relatively high rate of caesarean section. But, as Feldberg argues, the supervising official failed to identify the population that defined the “national standard,” leaving plenty of wiggle room for WCH. The problem persisted. A 1960 accreditation report announced that “in 1949 at WCH, doctors delivered 4.2 per cent of the viable infants born (88 of 2,104) by c-section. This rate was almost double the ‘national average’ and ‘expected normal rate’ of 2.3.”

Importantly, however, the assessment failed to notice that high-risk pregnancies were far more likely at WCH and that the institution’s infant mortality rate was “well below the national norm.” Such subtleties of care could be lost in the face of rigid administrative standards. As Feldberg concluded, “The high rate of c-sections reflected, and

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90 Arney 100.
91 Arney 151.
92 Feldberg 131.
93 Feldberg 124.
94 Feldberg 130.
needed to be assessed in, these contexts of care." The WCH’s caesarean section rate shows that standards of care within the field of obstetrics in the 1950s and 1960s were negotiable. The resistance of practitioners and hospitals to standards applied under the Perinatal Morbidity and Mortality Study of BC showed that obstetricians and hospital administrators may show similar sensitivity to individual circumstance. The era nevertheless saw increasing implementation and enforcement of standards of obstetrical practice in the search for improved maternal and newborn outcomes.

**Conclusion**

This chapter has shown that establishing norms of practice, entrenching them in official forms, and enforcing compliance helped to professionalize obstetrics. Once the profession was institutionalized through professional organizations and clinical or academic journals, the establishment of measurable, quantifiable standards of practice and the ability to demonstrate that adherence brought obstetrics from the realm of medical “art” to that of “science”. Practitioners also increasingly understood that a transformation was underway in caesarean sections as they continued to reduce risk in childbirth. In a 1951 retrospective article on caesarean section published in the *Bulletin of the History of Medicine*, Pierce Rucker and Edwin Rucker strongly argued that

> it is evident that the attitude of the profession and the public to abdominal delivery has undergone a remarkable transformation. Formerly, physicians were loath to perform the operation and called in every available consultant before undertaking it. Now the family demands the operation if an easy, normal delivery cannot be guaranteed the

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95 Feldberg 132.
patient. The surgeon is only too eager to acquiesce and many hospitals require a consultation in order to prevent unnecessary operations.96

Although the authors do not present any evidence of families requesting caesarean section in scenarios other than grave medical emergency, they imply that practitioners of caesarean section required supervision to prevent needless operations. Contrary to their hopes, however, subsequent decades of surveillance did not narrow the indications for c-section.

Increasing standardization of practice, diagnosis, and treatment helped generate a slow but steady increase in the rate of abdominal childbirth. Moreover, professional benchmarks and standardized medical records reduced options for individual patient assessment. The post-war era’s categorized norms of parturition worked with the surveillance of practitioners and the professional prestige of successful surgery to encourage caesarean sections.

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CHAPTER 4: “Submit with Good Grace for Your Own Sake”: Constructing the Ideal Birth in Post-WWII Canadian Popular Discourses

Just as practitioners and specialists were busily establishing standards of practice in the 1950s and 1960s, so were physicians and families revising and negotiating social standards for maternity care and parturition. Maternal and infant health had been the topic of discussion and debate in Canada since the public health movements of the early twentieth century. The health of citizens was increasingly tied to the success of the nation. As a result, mothers, as the custodians for health, were subjected to the gaze of diverse experts who constructed standards and ideals about pregnancy and child-rearing. As Cynthia Comacchio argues in her discussion of Ontario’s child welfare campaigns in the first half of the century, “Science and the state together lent their authority to social constructions depicting the ideal mother, the ideal child, and the ideal family relationships.” This chapter explores how the ideal birth was constructed after World War Two in the context of such expertise, noting in particular the abstract enthusiasm for technological innovation in childbirth and, simultaneously, the silence in advice literature regarding the specificities of labour and delivery. In the Cold War climate of risk containment, experts were eager to advise mothers and fathers via mass-marketed prescriptive manuals on the best ways to nourish and guide their offspring, but reticent about describing the experience of parturition. Both vaginal and

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2 Comacchio 95.
surgical childbirth were described in advice literature as controlled by medical experts, and parturition as something that happened to rather than by women.

In her analysis of *The Cultural Contradictions of Motherhood*, American sociologist Sharon Hays points out that “ideas about child rearing, like all ideas, bear a systematic and intelligible connection to the culture and organization of the society in which they are found.” Moreover, as historian Mona Gleason argues in examining post-war psychological discourses, “advice from experts, on any subject and in any time period, represents a cultural artifact in and of itself.” While this chapter does not explore women’s own interpretations of prescriptive literature, an interrogation of popular birthing and mothering texts suggests how changing discourses of motherhood are linked to innovations in medical science and technology.

As we have seen, prevention-oriented surveillance portrayed women as passive actors. That portrayal was reinforced in post-war mothering advice. A 1949 advertisement in *Chatelaine* magazine typically advised women in their relations with physicians: “If you are still doubtful, get the opinion of one or two other qualified men. If the decision is still for a hysterectomy, submit with good grace for your own sake.” Recommendations regarding childbirth were often much the same: experts should determine vaginal or caesarean birth. The ideal birth was constructed as physician-led with passive patients accepting decisions.

A review of prescriptive parenting advice in international and Canadian scholarly discussions, an exploration of influential examples of the prescriptive literature widely available to mothers of the era, as well as a careful reading of available popular media such

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5 Dorothy Sangster, “The Operation Nobody Talks About” *Chatelaine* (May 1949) 82.
as *Chatelaine* magazine show how medical intervention in childbirth complemented the mothering ideology of the post-war era. This chapter next addresses the specific prescriptive literature that was widely available to Canadian mothers in the 1950s and 1960s: the widely-circulated Canadian government publication, *The Canadian Mother and Child*, and the ever-popular American counterpart, *Dr. Spock’s Baby and Child Care*. These two manuals were revised once per decade throughout the era in question. Considered alongside articles on childbirth from *Chatelaine*, Canada’s highest circulation women’s magazine in these years, these expert-endorsed manuals reveal the evolution of ideas about medical authority, extant Victorian ideals about gendered parenting, and prescriptive ideas about women’s bodies. Obstetricians were clear beneficiaries of the dominant discourses.

*The Purview of Prescriptive Discourses*

In the construction of the ideal birth, the increased entrenchment of medical science and the ideology of preventive health as the *modus operandi* of the nascent post-war Canadian welfare state elevated bio-power as the dominant discursive force in discussions of women’s bodies. Bio-power, as Foucault labeled the hegemonic effects of state-sanctioned medicalization, has governed the creation and marketing of mothering manuals in English Canada as it has elsewhere. The primary interest of biopower focuses on life, how to secure, extend, and improve it. As Foucault articulates, it is a technique of power that “centre[s] on the body as a machine: its disciplining, the optimization of its capabilities, the extortion of its forces, the parallel increase of its usefulness and its docility, its integration into systems of efficient and economic controls… .” The supervision of such power is “effected through an

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7 Foucault (1978) 139.
entire series of interventions and regulatory controls: a bio-politics of the population.”

The common goal of the state, modern medicine, and parents to reduce maternal and infant morbidity and mortality encouraged the employment of bio-power to regulate birthing.

Expert discourse constructed the ideal birth for mass-market consumption. The ontology of risk was ever-present much as it is in today’s debates about idealized birthing. In the early post-war era, the idea that “health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” became entrenched as the definitive health model in Western thought. A form of bio-power in the context of medical discourses, risk was invoked by medical experts in the name of preventive health. Indeed, as risk theorist Giddens points out, “the welfare state is more correctly seen as a form of collective risk management.”

Embraced by the state in the interests of creating and maintaining healthy citizens, and reified or resisted by practitioners and recipients of health care in Canada, risk functions discursively when it “is represented as a self-evident danger to be avoided.”

American communications theorist Jennifer Harding elucidates the role of risk in the specific context of reproductive health when she argues that “in both medical and women’s health discourses, perceived susceptibility to risk is essential in motivating behaviour and this perception is facilitated by the supply of information about ways of preventing disease.” Moreover, “through their deployment of the construct ‘risk’, which fuels desire for health and disease prevention, medical and women’s health discourses

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8 Foucault (1978) 139.
12 Harding 141.
encourage women to make themselves objects of self-surveillance.”13 In reproductive health
discourses in particular, the discourse of risk is an especially potent form of bio-power, as it
can be invoked in the name of the fetus as well as the mother. Expert literature in the 1950s
and 1960s regularly invoked persuasion and self-surveillance to sell its message.

Feminist and some Foucauldian scholars have dissected bio-power, criticizing the
medical profession “as a patriarchal institution that used definitions of illness and disease to
maintain the relative inequality of women by drawing attention to their weakness and
susceptibility to illness and by taking control over areas of women’s lives such as pregnancy
and childbirth that were previously the domain of female lay practitioners and midwives.”14
Robbie Davis-Floyd, Harriet Marshall and Anne Woollett, and other scholars interrogate and
deconstruct the role of contemporary mothering manuals in North American culture.15 In
particular, they identify the effects of discursive regulation and medical hegemony on the
writing and reading of these texts. American cultural anthropologist and childbirth expert,
Davis-Floyd identifies the bio-medical technocracy as the dominant force informing the
contemporary discursive construction of child birthing: “under the technocratic model the
female body is viewed as an abnormal, unpredictable, and inherently defective machine.”16
The destruction of a physiological process and its replacement with a “supposedly better

13 Harding 147.
14 Deborah Lupton, “Foucault and the Medicalisation Critique” in Foucault, Health and Medicine, Alan
15 See also Sbisà, M. “The Feminine Subject and Female Body in Discourse about Childbirth” The European
Authoritative Knowledge in American Prenatal Care” Medical Anthropology Quarterly 10, 2 (1996): 141-156;
225-34; Anne Oakley, Essays on Women, Medicine and Health (Edinburgh: University of Edinburgh Press,
1993); Emily Martin, The Woman in the Body: A Cultural Analysis of Reproduction (Boston: Beacon, 1987);
Barbara Katz Rothman, Recreating Motherhood: Ideology and Technology in a Patriarchal Society (New
16 Robbie Davis-Floyd, “The Technocratic Body: American Childbirth as Cultural Expression” Social Science
cultural process” lies at the very base of this construction. As she argues, normal pregnancy and labour are treated in the modern Western society “as a dysfunctional medical process … through the selective application of medical technologies for the de- and reconstruction of that process.” Even though the majority of births do not require medical intervention, uncomplicated birth is not represented as something physiologically normative. Instead, normal labour becomes conflated with more complicated births, with the result that all labour becomes dangerous and requires technological intervention. This discourse of risk in late twentieth century childbirthing advice is rooted in the earlier medicalization of birth and post-WWII technological expansion of medical knowledge. Healthy birthing is transformed into a passive experience that requires expert control and mechanical operation.

Marshall and Woollett’s discussion of the regulative role of American pregnancy texts also explores the discursive disembodying of women’s participation in birth. They deconstruct “the recurring use of certain repertoires, attending to tensions in their use and the ways in which parents, mothers and health professionals are positioned, located as subjects and hence accorded or disallowed certain rights….” Women’s embodied knowledge disappears:

The pregnant body is rendered as isolated from women’s previous knowledge or interest in their bodies, and pregnancy is decontextualized – separate and distinct from women’s prior histories and experiences. The notion of preparation and gaining of bodily knowledge is set out as if for the first time.

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17 Davis-Floyd uses the example of salmon to explain this theory, derived from Reynolds, explaining that damming a stream stops salmon from being able to spawn, so scientific technology is brought in to allow salmon to spawn artificially, rather than removing the dam.
18 Davis-Floyd 21.
20 Marshall and Woollett 357.
Pregnancy and birth become about risk management and problems emerge as the fault of individuals who do not manage their bodies wisely. The outlines of this model are found in postwar discourses around prenatal care and in the birthing-related discussions presented in advice literature. In the popular press in particular, women are directly faulted for any so-called failures relating to their pregnancies. In their portrayal of the ideal birth, post-WWII advice manuals aimed to guide readers into appropriate childbirthing choices within a biomedical technocratic framework. They relied on gender constructs and mounting medical and technological intervention to discursively distance women from their bodies, couching advice in the language of risk, passivity, and the separation of women from their embodied knowledge.

Readership

Determining how prescriptive literature was consumed after World War Two is difficult. Most mothers were too busy to record their reading habits. As Arnup points out in analysing English Canadian prescriptive literature between 1920 and 1960, “We cannot merely assume that advice manuals provide an accurate representation of either official wisdom on child rearing or parental behaviour without even putting those assumptions to the test.” Mothers were hardly passive recipients of ideas about pregnancy, childbirth, and childrearing. Personal perspectives and social locations informed all interpretation.

Contemporary feminists have examined advice literature, noting that “different people make use of culture in different ways” and that parenting manuals “do not, of

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22 Arnup 7.

23 Hays 52.
course, tell the whole story of reproductive management.”²⁴ While many mothers may have requested, read, and re-read guides to motherhood, whether and how they applied this knowledge is difficult to discern. Arnup shows that parents were certainly consulting the available information.²⁵ Requests for The Canadian Mother and Child outstripped supply in the 1940s.²⁶ Hays’ sociological analysis notes that the American readership of Dr. Spock’s Baby and Child Care was second only to The Bible by the 1980s.²⁷ These influential texts joined other sources of information. Arnup points out that women attended seminars and displays, listened to radio programs, wrote letters to government officials and women’s magazines, and participated in well-baby clinics in the post-war era.²⁸ As she concludes, although “there was no unitary experience of motherhood for Canadian women” there did emerge a dominant view of ‘good mothering,’ an ideology of “appropriate Canadian child-rearing practices.”²⁹ Mona Gleason’s study of advice to Canadian parents argues that “conceptualizing advice as an ideological artifact in itself, rather than as a flawless blueprint of how parents actually behaved, allows social historians to learn something about the climate of ideas in the past.”³⁰ A careful reading offers a glimpse of “what those in a position to shape social convention, such as parenting experts, had to say.”³¹

Canadian women and mothers have never been homogenous and their response to dominant or other ideologies has always varied. North American child-rearing advice literature largely reflected the priorities and commonalities of the dominant white middle-

²⁵ Arnup 122.
²⁶ Arnup 118.
²⁷ Hays 51.
²⁸ Arnup 118-121.
²⁹ Arnup 8.
³¹ Gleason 190.
class. For the most part, manuals appeared to speak to women who were not obligated to work for wages. Spock typically placed his discussion of “The Working Mother,” alongside “The Fatherless Child” and “The Handicapped Child” in a chapter entitled “Special Problems.” He advised his readers that “some mothers have to work. Usually their children turn out all right… but others grow up neglected and maladjusted.” In Spock’s world, working mothers are readily stigmatized, critically “handicapped” or at the very least disadvantaged.

While *The Canadian Mother and Child* does not specifically discuss wage-earning mothers, images located women routinely within a domestic workplace. As pregnant readers learn about what advice to follow, they see a photograph of a woman lounging before a fireplace knitting (with a copy of the book next to her). A discussion on exercise during pregnancy suggests that “a very common mistake for the expectant mother to make is to stay in bed until late in the afternoon.” Waged labour remains invisible.

Both *The Canadian Mother and Child* and *Baby and Child Care* similarly ignore racialized minorities. They assume a white readership: cultural or ethnic differences that might affect non-white women’s birthing and child-rearing experiences are once again left out of the story they have to tell. This lack of attention to difference occurs similarly in *Chatelaine*, where it, however, raised some concern. As Valerie Korinek notes in her discussion of the magazine’s readership: “there were repeated tensions in the readership community over representations of the ideal Canadian woman, which, more often than not,

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33 Spock (1949) 459-460.
35 Couture (1949) 19.
provided readers with images of white, middle-class, urban women."36 Although the magazine occasionally examined ethnic diversity, refugees, and featured a non-white woman on the cover of three issues during the 50s and 60s, feedback indicated that “readers were not prepared to accept racial ‘difference’ as representative of Canadian beauty.”37 Depictions of Canadian womanhood – and by extension Canadian motherhood – remained for the most part ethnically homogenous and middle-class.

Demographic shifts in post-war English Canadian society nevertheless encouraged many women to turn to contemporary experts when it came to pregnancy and child-rearing.38 In particular, the growing medicalization of childbirth and its removal from home to hospital distanced women from mothers, grandmothers, and extended family. Arnup points out that “as traditional female support networks broke down… new mothers found themselves alone on what must have often appeared to be alien terrain.”39 In an era before government-funded healthcare, impoverished and rural women were hard put to afford regular visits to the doctor or connection by telephone. Parenting guides, on the other hand, were a relatively cheap and abundant source of information that could be consumed at the discretion of readers. Some combination of such factors encouraged women across Canada to seek parenting guides.40 Few would have been able to ignore dominant ideas and discourses about maternity, parturition and child-rearing.

37 Korinek 118.
39 Arnup 124.
40 Arnup 118.
**Alternative options**

The lack of consensus among women about “the ideal birth,” and signs of active resistance to experts underscores women’s diversity and engagement. *Chatelaine* offers evidence of critical readers. Korinek points out that “*Chatelaine* did not trade on stereotypes or uncritical portraits of domestic bliss. Instead, the editors, writers, and readers more often dealt with the difficulties in adjustment to modern living, and continually debated both the joys and the challenges of marriage and motherhood.”

41 The April 1947 series, “Now About Having Babies” demonstrated a range of opinions. It needs to be remembered as well that many women appeared happier with the experts. One article, “I’ve Just Had My Last,” reflected prescribed ideology in its emphasis on a maternal appearance that offspring can be proud of, as well as in its promotion of hospital births. 42 In “I’m Having My First,” another author in contrast challenged the pervasive romanticization of motherhood by critiquing the idea that “the birth of a baby is the most glorious achievement in the life of a woman.”

43 For her, the public portrayal of pregnant women showed how their bodies remained a taboo subject: “Canadian society is still in mental hoopskirts when it comes to accepting a woman great – with – child… .”

44 If children are so valuable to Canadian society, why didn’t clothing designers, beauticians and others put more effort into revering rather than hiding the pregnant body?

45 “I’m Not Having Any… Now” in the same series, also rejected the dominant ideology: “My reasons are simply that I think the woman who tries to live the traditional kind of life today is gypped. Moral and sociological pressure, bent on making

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41 Korinek 7.
42 “I’ve Just Had My Last” *Chatelaine* (April 1947) 15.
every woman bring forth babies, has only a raw deal on hand for her kind."46 While never commonplace, such views always offered an alternative to the dominant imagery and discourses of the day. Proper motherhood and womanhood were always at least somewhat open to debate.

International discourses about childbirth in the post-war era were also evolving. A few physicians in the UK, France and other parts of Europe re-envisioned women as active participants in labour and birth. They questioned the role of hospitals and technology, and the necessity of highly medicalized childbirth. British physician Grantly Dick-Read’s *Childbirth Without Fear* was first published in England in 1933 and in an American edition in 1943. An American lecture tour followed in 1947. French obstetrician Fernand Lamaze’s *Painless Childbirth* was released in 1956.47 Both doctors focused on preparing patients physically, psychologically, and intellectually for labour and delivery. They rejected a mechanistic, doctor-directed model of birth and emphasized emotional and physiological preparedness through education and preparation.

In an address delivered in Britain in 1948, Dick-Read identified a telling shortcoming of modern obstetrics: “The fact that in childbirth there is usually a woman present is not always remembered.”48 Better educated mothers were more important than mere reliance on new technology. Fear created nervous tension, which rendered labouring mothers physiologically less capable and caused psychological problems. As Arney points out, Dick-Read “felt that the ‘mind’ side of the mind-body dichotomy had to be resurrected from the depths to which obstetricians had tried to banish it if obstetricians were to understand the

experience of pain in childbirth and treat it properly.”⁴⁹ Such ideas challenged the mainstream paradigm.

Lamaze’s ideas about pain-free childbirth, which he called psychoprophylaxis, advocated preparing women for childbirth. Education about what to expect was combined with breathing and relaxation techniques. At the height of the Cold War, his ideas, which drew on his observation of Russian birthing experiences, were initially less well-received.⁵⁰ Despite concerns, Lamaze quickly reached a broader reader audience than Dick-Read. Ironically, Lamaze’s disparaging comments about Dick-Read in his introduction, and his own claims to scientific method generated further interest in women’s roles in their own pregnancies.⁵¹

Experts and the Canadian press took up the debate. Articles on “natural childbirth” appeared in the Canadian Medical Association Journal as early as 1955.⁵² Three years later Chatelaine joined in the fray.⁵³ Awareness of Thank You, Dr. Lamaze: A Mother’s Experiences in Painless Childbirth, a book published by American Marjorie Karmel, who had experienced childbirth under the Lamaze method in Paris,⁵⁴ encouraged interest in

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⁵¹ See this argument in Caton 955-964.
⁵³ See, for example, Evelyn Hamilton, “Dr. Grantly Dick Read Answers Your Questions on Natural Childbirth” Chatelaine (January 1958): 17.
psychoprophylaxis. The 1958 *Chatelaine* article “Having Your Baby” presented both Dick Read’s and Lamaze’s ideas for the consideration of its readers.\(^{55}\)

A popular movement towards “natural childbirth” appeared in Canada in the late 1960s.\(^{56}\) While the term ‘natural’ is contested in today’s discussions of childbirth, its appearance marked opposition to medicalized maternity care.\(^{57}\) Such resistance set the stage for a later reconfiguring of women’s roles in childbirth. Specific, detailed information about “natural childbirth,” however, remained scarce in popular postwar parenting advice literature. Above all, this presented an idealized birth focused on the medicalized body.

**Prescriptive Literature in Canada**

Prescriptive childbearing and child-rearing marketing was well-developed by the mid-twentieth century. Although manuals on the care and feeding of infants were available as early as the 1760s in Britain and the United States, widespread distribution did not occur in Canada until the late 1800s.\(^{58}\) In her history, Katherine Arnup notes the changing nature of discursive texts: “In contrast to those [earlier] volumes, child-rearing manuals of [the twentieth] century are presented as scientific tracts, written by officials in various levels of governments and members of the medical, nursing, and psychological professions.”\(^{59}\) Sharon Hays similarly points out that “toward the end of the nineteenth century middle-class, child-

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\(^{57}\) See Margaret Macdonald, “Gender Expectations: Natural Bodies and Natural Births in the New Midwifery in Canada” *Medical Anthropology Quarterly* 20, 2 (June 2006): 235-256.

\(^{58}\) Arnup 6.

\(^{59}\) Arnup 6.
rearing ideologies took a somewhat curious turn. A mother’s instincts, virtue, and affection were no longer sufficient.” ‘Scientific’ training was needed.  

Mass-produced advice literature circulated through magazines, radio programs, government pamphlets, and books. It was variously a response to industrial capitalism, social Darwinism and the eugenics movement, the modernizing and reforming agendas of Western imperialism, and emerging public health systems. Women’s very citizenship became tied to maternal responsibility while many activists embraced public parenting or mothering. In a discussion of the relationship between motherhood and imperialism in Britain, historian Anna Davin points out that “good motherhood was an essential component in [the] ideology of racial health and purity. Thus the solution to a national problem of public health and politics was looked for in terms of individuals of a particular role – the mother – and a social institution – the family.” The situation was much the same in the Canadian dominion.

Mass-market maternity literature in Britain and North America drew on patriarchal, imperial, and racialized priorities that aimed to make motherhood more scientific and modern. This transformation is visible in the pages of The Canadian Mother’s Book, published in the early 1920s as part of the “Little Blue Books” series of public health publications, by the Child Welfare division of the newly formed federal Department of Health. The director of the division, Dr. Helen MacMurchy advocated “prenatal care, rest, nutrition, cleanliness, and especially physician-attended births” as the guarantee of national well-being. These priorities, accompanied by a focus on positive eugenics as “a means to

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60 Hays 39.
62 Comacchio 9.
64 Dodd (1994) 136.
both improve ‘the race’ and preserve the authority and prestige of the movements’ professional leaders”65 shaped much prescriptive child-rearing literature. MacMurchy’s publications addressed infant and maternal mortality, particularly in the context of Canada’s overall health.66 Her strictures were a powerful endorsement of doctors’ care in an era when many women birthed at home under the care of a midwife, relative, or neighbour.67

While knowledge of Nazi atrocities encouraged Canadian child-birthing and –rearing advice to turn away from negative eugenic messages, the postwar agenda of raising better citizens through adherence to science continued to link maternal and child health to national progress. In the opening pages of *The Canadian Mother and Child* (1949), the federal successor to MacMurchy’s publications, Dr. Ernest Couture, chief of the Division of Child and Maternal Hygiene of the federal Department of Health, asserted that “the governments of the present day are giving more attention than ever before to the care of mothers, because it is recognized that the mother holds the key position with regard to the health of the nation.”68

*Prescriptions for post-war mothers*

In his history of the Canadian Baby Boom, Doug Owram identified generational shifts in mothering ideology. Mothers and fathers were rooted in experiences of war and depression: “This generation, comprising more than a quarter of the Canadian population, could scarcely remember a time in which home life had not been threatened.”69 Assisted by post-war housing programs aimed to revitalize the Canadian economy and unprecedented

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66 While MacMurchy’s advocacy for mothers and babies in terms of adequate prenatal care to resolve serious problems of morbidity and mortality was grounded in genuine concern and public health expertise, her eugenic agenda added a problematic discriminatory angle to her rhetoric. Angus McLaren, among others, analyses MacMurchy’s eugenics-oriented approach in chapter two of his *Our Own Master Race: Eugenics in Canada, 1885–1945* (Toronto: McClelland and Stewart, 1990).
67 Dodd (1994) 150.
68 Couture (1949) 6.
69 Owram 7 & 8.
levels of employment, they placed their hopes on post-war prosperity. Encouraged by representations of romanticized and idealized domesticity in the ever-broadening mass media market, most Canadians aspired to marriage, babies and home-ownership.\(^70\)

Prescriptions for child-rearing reflected the hopes of the day as they became increasingly permissive. More accepted than ever before was “the idea that the natural development of the child and the fulfillment of children’s desires are ends in themselves.”\(^71\) As Korinek concluded of the 1950s and 1960s, “for the first time in many years, personal destinies and dreams took precedence over economic, political, and military tensions.”\(^72\) At the same time, ironically, the prescription for ideal mothering became more intensive and rigid: mothers were increasingly advised, “to expend a tremendous amount of time, energy and money in raising their children.”\(^73\) They should devote themselves to ensuring their children’s social, emotional, and psychological well-being, including adhering to medical imperatives in the producing of those children.

Not only the parenting manuals but the very infrastructure of the nascent welfare state was geared to prioritizing reproduction. Owram points out that “society seemed to revolve around babies.”\(^74\) Advertising in newspapers and magazines concentrated on household consumption. Veteran compensations and programs focused on supporting family life. The

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\(^71\) Hays 45.

\(^72\) Korinek, 7.

\(^73\) Hays x.

\(^74\) Owram 5.
1944 national housing act encouraged suburban dreams of child-centred domesticity.\textsuperscript{75} The baby boom became a social project, and not just a demographic anomaly.

\textit{Spock and Couture}

While a wealth of media featuring tips and ideas about parenting circulated throughout the era, two volumes offered a comprehensive portrait of the construction and dissemination of the ideal birth. First published in 1945 and selling over four million copies in North America before its first revision in 1957, Dr. Spock’s \textit{Baby and Child Care} was a household favourite in both the United States and Canada.\textsuperscript{76} Spock, an American paediatrician, emphasized the instinctiveness of child-rearing, urging parents to trust themselves and to take their clues from their baby. He focused on babies’ mental and emotional well-being, contradicting earlier advice that suggested that offspring manipulated parents from the very start. He urged loving, cuddling and indulging in order to create a strong sense of self in the future citizens of the world. As he stated in his opening paragraph, “We know for a fact that the natural loving care that kindly parents give to their children is a hundred times more valuable than their knowing how to pin a diaper.”\textsuperscript{77} The apparent practicality of Spock’s message appealed strongly to readers, and was influential in shaping ideas of how to best nurture children’s minds, bodies, and souls.\textsuperscript{78}

Canadian rivals to \textit{Baby and Child Care} also existed. In \textit{The Canadian Mother and Child}, Dr. Ernest Couture, a French-Canadian specialist in obstetrics and gynaecology,\textsuperscript{79} offered basic child-rearing advice while addressing, in part, women in rural and outport areas

\textsuperscript{75} Owram 11.
\textsuperscript{76} On the Canadian popularity of Spock’s work, see Strong-Boag (1991).
\textsuperscript{77} Spock (1949) 3.
\textsuperscript{78} Gleason’s \textit{Normalizing the Ideal} discusses in more depth the growth in popularity of psychological discourses in the post-WWII parenting literature.
\textsuperscript{79} Comacchio 102.
whose circumstances might well be far from the ideal. His *The Canadian Mother and Child* sold over two million copies between 1940 and 1953 and was widely disseminated free of charge by the federal Department of Health to householders, public health nurses, physicians, women’s organizations, members of the clergy, the Royal Canadian Mounted Police, and Indian agents. As Denyse Baillargeon remarks in her analysis of the medicalization of motherhood in Quebec, the provincial league for dental hygiene “claimed to have sent out over 50,000 copies in French in 1950 alone, at the request of listeners and correspondents.”

*La Mère Canadienne et Son Enfant* also reached French-speaking citizens elsewhere in Canada.

Changes in the advice supplied by *Baby and Child Care* and the *Canadian Mother and Child* over the three editions of each that appeared between 1949 and 1965, reveal important shifts in approaches to North American family life. Spock’s 1946 edition and Couture’s 1949 edition reflect wartime and immediate post-war concerns with practicality, infection, accessibility, and the need to convince mothers and fathers of the usefulness of professional advice. In the mid to late 1960s, new editions shifted in goals and tone. In 1965 *The Canadian Mother and Child* addressed audiences accustomed to medical care and a parenting permissiveness. Three years later Spock clearly foresaw middle-class readers familiar with discourses of medicalized maternity and childbirth. Both manuals showed the trajectory of the prescribed relationship between parenting and medical technology. As *Baby and Child Care* and *The Canadian Mother and Child* shifted in their portrayal of medicine

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and technology from the postwar to the 1960s, the beneficiary was medicalization as the 
means of ensuring the ideal birth.

**Medicalization**

The language in Spock and Couture was always clearly oriented towards 
hospitalization – reassuring parents that institutions offer the safe, appropriate choice. 
Differences between the two books, particularly in their earlier editions, suggest somewhat 
different national agendas but later editions shared confidence in the entrenchment of 
medically supervised birth.

In 1946, Spock emphasized engaging a doctor during pregnancy and childrearing: 
“The way to be sure your baby is doing well is to have him checked by a doctor regularly.”

His meagre discussion of birthing options stressed physicians in every setting: “Whether you 
have your baby at home or in the hospital depends mostly on where you and your doctor 
live.” Hospitals are the ideal sites with benefits that include helpful staff, the “magical 
equipment” and the fact that it “makes the mother feel very safe.”

Most telling is the 
location of these advantages in the section of the book entitled “The Right Start” and under 
the sub-heading “Hospital Impressions.” Spock waits until later to address disadvantages 
that include the babies sleeping away from their mothers, the fact that fathers feel like 
outsiders, and the impersonality of the masks worn by the delivery room staff.

While he is 
careful to acknowledge that home-birthing still occurs, the very structure of his argument 
clearly favours hospitalization.

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82 Spock (1946) 10. 
83 Spock (1946) 12. 
84 Spock (1946) 12. 
85 Spock (1946) 12. 
86 Spock (1946) 12.
More than 20 years later Spock was still more outspoken. Hospital birth was safer than ever and more appealing to all family members. His 1968 treatment of labour and delivery begins: “Nowadays most babies in this country are born in a hospital.” Advantages were linked to technology: “A hospital offers all the complicated equipment, like incubators and oxygen tents to cope with sudden emergencies.” Risk was mastered in this setting. Drawbacks to hospitalization remain the same as the previous editions. The 1968 version, however, explains how to overcome them and points out innovations that enhance the choice of the institution. Spock’s extended discussion of hospital birth in 1968 suggests both growing popularity and contemporary debates around medicalized versus “natural” childbirth. It nevertheless confirmed firm links between safety and preventive medical technology.

The Canadian government manual follows a similar trajectory. The 1949 *The Canadian Mother and Child* insisted that “Today, all Canadian mothers, without exception, can obtain the benefit of proper guidance during and after pregnancy. If at all possible, they should remain throughout these months under the constant supervision of a medical man.” Couture’s work focused more overtly and at greater length than Spock’s on medical care, reflecting Canada’s smaller and more dispersed population. The author warned against “unfortunate prejudice” against medical care: “Many have ignored the necessity of having recourse to competent medical assistance unless special circumstances occurred, but experience has definitely proved that this is a gross error, and that better results are obtained where close medical supervision is exercised.”

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87 Spock (1968) 55.
88 Spock (1968) 55.
89 Couture (1949) 3.
90 Couture (1949) 6.
In the section on “the doctor and his assistants” Couture addresses home versus hospital births. Direct language imparted to readers the importance of experts: “first of all, follow your doctor’s advice. He is most assuredly interested in obtaining the best possible results in your case, and it’s only fair that you should give him your full co-operation by allowing him to work under conditions of his choice.”\(^91\) The choice of where to give birth is clearly the doctor’s, not the patient’s. Couture also specifically emphasized the absence of infection in maternity wards in his determination to convince mothers of the proper choice.

*The Canadian Mother and Child* advised that “no amount of practical experience or reading of instructions can take the place of a doctor with his long and intensive training, or equal the services of a fully qualified nurse.”\(^92\) Couture nonetheless substantially addressed home births, especially those in rural or remote areas. The chapter, “Preparations for the Confinement,” describes the supplies for mothers delivering at home and a separate chapter addresses Canadians without access to medical attendants. Despite the acknowledged audience in home-births of “willing but inexperienced friends,”\(^93\) Couture’s images of proper procedures, from suctioning the baby’s mouth, dressing the cord, to dealing with vernix are of uniformed and masked doctors and nurses. Admission of the significance of home births is, however, perhaps the most significant difference between the Canadian public and American commercial publications.

Just as references to hospital and physician care increased in the 1968 edition of *Baby and Child Care*, the 1965 edition of *The Canadian Mother and Child* places increased emphasis on medical innovation as normative and useful. Readers are assured that birth in Canada is safer than ever, resulting in happier Canadian mothers whose “confidence comes

\(^{91}\) Couture (1949) 60.  
\(^{92}\) Couture (1949) 68.  
\(^{93}\) Couture (1949) 68.
from knowing that medical care of mothers and babies is as advanced in Canada as anywhere else in the world. More is known about the general hygiene of pregnancy than ever before, and continuous research in this field assures mothers of the safest possible childbirth.”94 The 1965 edition also pays heed to the popularity of ‘natural childbirth,’ beginning the first chapter with the statement that “childbirth is a natural process, beautiful in its complexity and efficiency.”95 Much like Spock’s subtle nod to Dick-Read and Lamaze in 1968, the Canadian 1965 edition insisted on mothers’ preparation: “When the processes of pregnancy are fully understood, fear is replaced by confidence.”96

Unlike 1949, the chapter entitled “The Doctor’s Role” in the 1965 edition of The Canadian Mother and Child97 assumes that readers will have engaged an expert and describes appropriate care. The need to convince consumers of the importance of medical supervision is no longer so apparent; a cursory paragraph at the chapter’s end is the only acknowledgement that doctors might be absent. Nevertheless, the 1965 edition also includes “A Chapter for the Midwife,” which discusses sanitary conditions and offers helpful hints to midwives guiding the mother through labour, although with repeated references to the preference for doctor-oriented care. In addition to a mid-section paragraph listing circumstances under which to call in professional assistance, the chapter also closes with in a section sub-titled “When to Call the Doctor” which gives examples of post-partum complications.98 While consistently undermined, alternatives to doctors remain a feature of the Canadian, unlike the American, publication.

94 Couture (1965) 9.
95 Couture (1965) 11.
96 Couture (1965) 11.
97 Couture (1965) 14.
98 Couture (1965) 60.
In the 1960s both manuals applauded medical advances. Unlike postwar editions, neither made any attempt to affirm the supremacy of physician-directed delivery in the portrayal of the ideal birthing scenario. Readers were presumed fully attuned to the benefits of modern medical birth.

*Disembodiment*

The medicalized birthing process threatened to distance women from their bodies. In her exploration of how metaphors of production inform medical descriptions of female bodies, cultural theorist Emily Martin draws attention to the regulation and normalizing measurements applied to the birthing and labour experience in the post-war era. Pointing out the impersonal language used to describe uterine contractions, she observed that “women talk as if [they] were separate from the self and as if labour were something one went through rather than actively played out.”99 Modern science reduced women to individual organs, as when “the uterus is held to a reasonable ‘progress,’ a certain ‘pace,’ and not allowed to stop and start with its natural rhythm” owing to the assigned rate of progression based on statistical study.”100 Martin asks “If the uterus is a machine being held to certain standards of efficient work, what is the woman’s role? …She is seen as a passive host for the contracting uterus.”101 Post-war Canadian advice literature similarly encouraged the construction of women as passive hosts.

Perhaps the single most disemboding effect of *Baby and Child Care* is the lack of detail on birth. Each edition began with chapters on preparing for a baby’s arrival, including lists of needed supplies, suggestions on the hiring of help for the immediate postpartum days, and discussion of engaging a pediatrician. Spock largely ignores the details of labour and

99 Martin 10.
100 Martin 59.
101 Martin 61.
delivery, implying that women did not need that knowledge. In the 1946 edition, the chapter “The Right Start” begins with the decision of whether to have the baby in the hospital or at home, acknowledges the often poor hospital experience for the father, and then moves directly to post-partum depression and infant feeding. The 1968 edition is much the same. The section on “The Hospital” falls between preparing for the baby and nursing it. Birthing is simply absent.

In contrast, advice in The Canadian Mother and Child provides detailed information for readers lacking professional help. Both editions devote three chapters to birthing, including information about preparation, the actual event, and aftercare. The language, however, is polite and formal, distancing readers from actual bodies. While the book is largely written with a second person narrative, referring to “Your baby” and “Your doctor” for example, bodily references are consistently in the passive voice. A section on caring for the pregnant body in the 1949 edition, typically suggests that “the circulation in the breasts must be perfectly free from any constraint”\(^\text{102}\) and later emphasizes that “it is of the utmost importance that the bowels be kept regular.”\(^\text{103}\) Perhaps most significantly, in a chapter entitled “Medical Attention,” Couture warns against a “Special local examination” (i.e. a gynaecological exam) without actually saying what this might be:

On no account should you let false modesty influence you in the matter of this local examination. Unfortunately, this is often the case, particularly with mothers expecting their first baby. You would not forgive yourself if, through neglect of this very important examination, some mishap occurred.\(^\text{104}\)

\(^{102}\) Couture (1949) 24.
\(^{103}\) Couture (1949) 25.
\(^{104}\) Couture (1949) 7.
The manual encourages blind trust of physicians. Reflective of social codes and narrative customs designed to preserve modesty, the cost is women’s agency. Couture’s clinical references to bodies underscore German historian and theorist Barbara Duden’s reminder that the removal of the woman from medical language “not only disembodies her perceptions but forces her into a nine-month clientage in which her ‘scientifically’ defined needs for help and counsel are addressed by professionals.”

Couture’s chapter on delivery similarly speaks not to the mother but to her helper and again refers to bodily functions in the passive voice. “The genitalia,” “the womb” and “the breasts” become clinical actors in their own right. Descriptions of a mother’s relationship with her doctor also encouraged passivity: “The doctor has no means of fixing the exact date. If however, he considers it advisable, he will induce labour.” For all his acknowledgements that homebirths continued, Couture constructs doctors, not mothers, as the main agents in childbirth.

A later edition of The Canadian Mother and Child refers, in contrast, more specifically to relevant anatomy. A new chapter, entitled “The Miracle of Life,” describes the physiology of reproduction. Here the doctor shares agency with ‘Mother Nature,’ perhaps a reflection of the success of the ‘natural childbirth’ movement: “The mother who understands what is happening during the nine months before her baby is born is impressed many times by the wonderful way in which Mother Nature takes over to prepare her for the physical effort of producing a baby… .” Notably, however, mothers remain largely passive. The language of physiology in the 1965 edition, while more concrete than previously, remains impersonal: “The uterus rests on the pelvic floor and the cervix, or lower end of the uterus,

106 Couture (1949) 50.
107 Couture (1965) 11.
protrudes through the floor and opens into the vagina." Pelvises without bodies appear in photos. Similarly, although the discussion of the doctor’s “special exam” has expanded to explain how it actually happens, the woman goes unmentioned. In the chapter entitled “The Doctor’s Role”, the text states that “he will… make a vaginal examination to detect changes in the uterus and to examine the pelvic organs. This examination is very important to ensure a healthy birth, and should not be put off because of shyness.” While the advice no longer ignores the realities of female bodies, it still avoids personalizing physiological processes despite its otherwise more direct approach. Decisions about birthing remain squarely with medical personnel. While referring to the new-to-Canada Lamaze method of coping with labour pain, the text emphasizes that “of course, the doctor is anxious to see the mother as comfortable as possible, and he will decide what she needs in the way of sedatives.”

Isolation

Portrayal of ideal births in these popular manuals also disempowered women by discrediting personal support networks. Advice for pregnancy and birthing had long largely ignored women’s community support. As Arnup points out, “One of the most powerful means of ensuring that women consulted and followed their doctors’ advice was to attack the credibility of traditional sources of information.” As early as the 1920s, experts advised against heeding friends and relatives, lest stories alarm or mislead. 1950s advisors continued this refrain. Both Spock and Couture rejected advice from friends as did Dr. Marion Hilliard in 1957. The sometimes feminist popular medical counselor to many

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108 Couture (1965) 11.
109 Couture (1965) 17.
110 See Caton 955-964, and Cassidy 98.
111 Couture (1965) 34.
112 Arnup 68.
113 Arnup 68.
Canadian women weighed in on the side of professional expertise when it came to natural childbirth: “This is the decision only an obstetrician can make, not an overeager patient and her friends.”¹¹⁴ Friends offer misinformation and contribute to poor decision-making.

In multiple editions of *The Canadian Mother and Child* Dr. Couture warned of non-experts. In 1949, he dismissed “Gatherings such as bridges and teas” as “often occasions of unwise discussions as to the relative merits of doctors.” He warned, “Do not let yourself be influenced by those who are not qualified to advise.”¹¹⁵ On the topic of determining the onset of labour, he advised “do not listen to versions of their labours given to you by friends.”¹¹⁶ Once again in the chapter on preparation for birth, he emphasized, “Do not rely on members of your own family for help, and especially do not insist on it.”¹¹⁷ Finally, on caring for the newborn, readers learned that they should “not rely on information you may pick up from neighbours and friends for many of the ideas concerning the care of a baby given by well-meaning people may be positively harmful to the baby, while other advice, although not actually harmful may be of little or no value. Herein lies, too often, the cause of failure.”¹¹⁸ The Director of Child and Maternal Health always presented non-professional help, advice and care as threats.

Spock is far less adamant. He does, however, dismiss:

In many parts of the world grandmothers are considered experts…. In our country, though, a new mother is often more inclined to turn to her doctor first, and some women don’t ever think of consulting their mothers. This is because we are so used to consulting professional people about our personal problems…. Also, we take it for

¹¹⁴ Marion Hilliard, “Your First Baby” *Chatelaine* (January 1957) 46.
¹¹⁵ Couture (1949) 21-22.
¹¹⁶ Couture (1949) 64.
¹¹⁷ Couture (1949) 67.
¹¹⁸ Couture (1949) 84.
granted that knowledge advances rapidly and so we often think that anyone who knew how to do a job twenty years ago is behind the times today.\textsuperscript{119}

Such dismissal of family and community relationships clearly encourages isolation. While his disdain for family and friendly advice is relatively mild in comparison to Couture’s, the American nevertheless relentlessly positions his readers as beneficiaries of medical experts’ knowledge.

Couture and Spock’s message was echoed in the popular press. A 1964 article in \textit{Chatelaine} specifically suggested that: “Doctors all know that the safest way to deliver a baby, all other things being equal, is without the intervention of instruments or drugs. …But the choice should be the doctor’s.”\textsuperscript{120} Popular discourses similarly devalued advice from family and friends. Once again too, women were regularly disembodied. The use of the passive voice when referring to women’s bodies, vagueness about physical processes, and insistence that women disconnect themselves from community advice once again served to de-personalize the experience of childbirth. The result encouraged medicalized birth.

\textit{Idealizing Motherhood}

The key component of the post-war ideology of intensive mothering was gendered parenthood. This remained consistent across successive editions of the advice manuals. Gendered constructions weren’t new in parenting discourse; they now reinforced messages that Canadian mothers should leave wartime workplaces and re-embrace domestic life. As historian Annalee Gölz argues, the growing welfare state, especially provision for families, helped define the parameters of the Canadian family more precisely. In face of the Great Depression and World War Two, the burgeoning welfare state, and the perceived threat of

\begin{thebibliography}{9}
\bibitem{119} Spock (1968) 31.
\bibitem{120} Geraldine Maloney, “The Modern-Day Cult of Childbirth” \textit{Chatelaine} (March 1964) 46.
\end{thebibliography}
the Cold War, the ideal Canadian family had a “potent ideological force.” As Gölz observed, “metaphors of the ‘united’ and ‘harmonious’ family were invoked to describe Canadian nationhood both in terms of its international status and its domestic relations.” In the face of such uncertainty, child-birthing and child-rearing manuals asserted the centrality of the maternal presence to family survival. No better an example can be found than in Spock’s 1946 opening apology to parents of girls: “I want to apologize to half the fathers and mothers who are going to read the book. I mean the parents whose first baby is a girl. Everywhere I’ve called the baby ‘him.’… I need ‘her’ to refer to the mother.” In addition to erasing the significance of baby girls, the role of the father is so minimal that the male pronouns, other than those employed for medical experts, are unnecessary. In fact, only a few words explain how fathers can be useful in the early days of the child’s life. Fathers were cautioned that they will feel useless during the delivery but later they can be just as involved as mothers. That conclusion is, however, contradicted by that statement that, “of course, I don’t mean that the father has to give just as many bottles or change just as many diapers as the mother. But it’s fine for him to do these things occasionally.” Pitching in at times is not the same as an equal partnership.

Spock further delineated gender roles in his later editions, prescribing appropriate ways to interact with girls and boys for both the mothers and the fathers: “The boy yearns to be like his idealized father and spends all day practicing, in activities and manner. At the same time he develops a strong romantic attachment to his mother and idolizes her as his

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122 Gölz 10.
123 Spock (1946) 2 and Spock (1968) xv.
124 Spock (1946) 15. See also Spock (1968) 28-30.
Similarly, the girl “yearns to be like her mother – in occupation and in having babies of her own. She forms a possessive romantic attachment to her father.” Similar Freudian-inspired analyses proliferate throughout the discussion of developmental stages in children’s lives. As Mona Gleason argues, “not only did parenting advice reflect uneasiness and uncertainty about acceptable gender roles in the postwar period; it added its own mental health imperative to the maintenance of traditional meanings surrounding ‘man’ and ‘woman’, ‘mother’ and ‘father’.”

The Canadian Mother and Child offered similarly little mention of fathers. Child-bearing and child-rearing was placed entirely with mothers. The 1949 edition echoed much of the early post-war era’s discourse in its construction of motherhood as the ultimate fulfillment of womanhood: “The birth of a baby is the most glorious achievement in the life of a woman, for, in becoming a mother, she completely fulfils the special purpose of her existence as a woman. It is also an event which should bring her great satisfaction and real joy.” Family health is also placed squarely in the hands of mothers in Couture’s discussion of nutrition: “A housewife has the responsibility of giving her family meals planned carefully and correctly…. The 1965 edition’s discussion of activities such as gardening, ironing, and baking that must be scaled back during pregnancy confirms women’s responsibility for domestic labour. While the 1949 version doesn’t acknowledge women’s employment outside the home, the 1965 edition includes a brief paragraph recommending that pregnant

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125 Spock (1968) 14.
126 Spock (1968) 14.
128 Couture (1949) 3.
129 Couture (1949) 17.
130 Couture (1965) 21.
women seek help with the housework if they are employed. As I’ve noted already, Spock’s includes “working” mothers in a section called “Special Problems.”

Similar sentiments appeared in *Chatelaine*. Fertility was the core of women’s lives: “The bearing of a live baby represents the fulfillment of a woman’s femininity.” Even as late as August 1969 *Chatelaine* portrayed a longing for babies as an expression of true femininity. Dorothy McClearn’s “Why You Can’t Get Pregnant,” focused entirely on female fertility problems and constructed women’s searches for solutions as desperate. In 1955, Kate Aitken, a leading Ontario radio talk show host and sometime newspaper columnist, explained to the magazine’s readers that “In Canada, it is almost universally conceded that the woman in the home sets the standard of family-life – and women have never had to work with such system and forethought as we must today.” From Aitken’s perspective, contemporary definitions of femininity are shallow: “Our concept of femininity today focuses more on the secondary sex characteristics – figure, dress, and hair – and less on the emotional qualities of femininity – tenderness, warmth and a giving attitude.” Despite her complicated position on femininity, she nevertheless embraces passivity:

With pregnancy, not only is the woman’s body adjusting to look after the new life within, but her emotional self is being prepared too. She becomes more introverted, more passive in essence, more maternal.

Aitken’s perspective was rejected by another popular Canadian writer, Shirley Wright. In “A Mother Inferior,” published in June of 1959, she argued that “I, for one, would like to tell the experts that their standards of maternal perfection plus the overwhelming preoccupation with

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133 Kate Aitken, “It’s Fun Raising a Family” *Chatelaine* (January 1955) 48.
134 Morris 70.
135 Morris 71.
the delicacy of the child’s psyche have placed an intolerable burden of inadequacy and failure on many of us.”136 After advocating common sense in listening to popular child-rearing advice, she concluded that “I shall soothe myself with the thought that mothers are just human beings like anyone else.”137 Wright’s identification of intensive mothering as overwhelming and guilt-inducing shows a critical reader at work. In contrast, however, the vast majority of representations subscribed to Aitken’s idealized, passive mother.

Sharon Hays points out that postwar North American stressed “maternal omnipotence” and that “women were either held responsible for all that was good in children and morally desirable in society or blamed for their children’s individual psychological disorders and the larger social ills that resulted from them.”138 Many scholars have identified mother-blaming as pervasive. It sometimes intensified in the post-war years. The emotional as well as the physical health of the child was now reliant on risk. A 1957 Chatelaine article entitled “Why do So Many Canadian Babies Die?” directly addressed the infant mortality rate in Canada, which at the time ranked thirteenth in the world. It absolved medical professionals of any responsibility and focused on mothers: “One person who came in for a scolding from all quarters was you – the Canadian woman. Far too many of you are charged with failing in your obligations as mothers and mothers-to-be. …I have heard you called self-indulgent, careless and willfully ignorant by people deeply concerned with our infant mortality problem.”139 The author, Frank Croft, argued that mothers made bad choices and concluded that “If the false pride which keeps many women from the public clinics, and the indifference or laziness which prevents thousands more from making full use of their doctors

136 Shirley Wright “A Mother Inferior” Chatelaine (June 1959) 102.
137 Wright 109.
138 Hays 48.
139 Croft 62.
help, could be overcome… we could scan the international infant mortality score sheet and hold our heads up.”

Mothers who failed to listen to the medical establishment let themselves and Canada down.

Women’s failure could come still earlier. Problems with conception were often laid at their door. In the 1950s and 1960s, Chatelaine’s authors consistently constructed fertility problems as women’s fault. In 1952 Dorothy Sangster asked “What hope for the childless couple?” only to appear amazed by male sterility: “One of the most revealing findings of modern research into the sterility problem is that in approximately half of all cases it is the husband who is at fault.” Sangster nevertheless persisted in emphasizing female sterility. Psychological causes rested entirely, it seemed, with women: “Some psychiatrists are convinced that if a woman hates her husband, or despises her feminine role in life or is emotionally immature, or if while outwardly craving a child she is subconsciously reluctant to become pregnant, a state of ‘functional sterility’ may occur.”

Other articles offered similar Freudian-influenced analyses. While doctors might cite the physical factors for male infertility, they attributed psychological factors only to women. Very typically, a 1959 article entitled “You Can’t Have a Baby” moved quickly on from noting that “sterility is far from being a female problem only” to focus almost entirely on women’s psychological shortcomings.

Post-war gender constructs revolved around the primacy of the household as mothers’ domain. They determine the survival of the family. While constructed as crucial, mothers

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140 Croft 67.
141 While devoid of methodological discussion, Croft’s article situates Canada as among the lowest ranking nation in infant mortality among northwestern European countries, New Zealand, Australia and the USA. Only Northern Ireland and France had higher rates of infant mortality. Croft offered no other detailed comparison, focusing on problems specific to Canada.
142 Dorothy Sangster, “What Hope for the Childless Couple?” Chatelaine (February 1952) 14.
143 Sangster 61.
144 Joan Morris “You Can’t Have a Baby” Chatelaine (May 1959) 64.
were to be docile and acquiescent. This contradictory ideal extended into the idealization of childbirth, wherein expert advisors encouraged mothers to submit to overwhelmingly male medical doctors.

**Conclusion**

To what extent women submitted – with good grace or otherwise – to the paternalistic authority of medicalized birth is currently unknown, as is the extent to which individual Canadian practitioners adhered to this construction of the ideal birth. Nonetheless, its social construction in popularly-circulated parenting manuals indicates a government-endorsed and physician-directed concept of parturition consisting of obedient, willing mothers, eager to reduce the risk in childbirth by submitting to the authority of modern medicine. Prescriptions for motherhood in this era endorsed both state and medical imperatives or reducing risk in childbearing while encouraging women to embrace motherhood and domesticity after World War Two. The advice of Drs. Spock and Couture, echoed by other authorities in *Chatelaine* magazine, encouraged parturient women to engage the services of qualified medical experts. Gendered prescriptions for appropriate parenting placed mothers at the centre of decision-making, echoing Victorian modesty and docility in the process. While alternatives occasionally surfaced, as with Dick-Read and Lamaze and occasional contributors to *Chatelaine*, the progression of advice from one edition of Spock’s and Couture’s volumes to the next paid little attention. Even by the late 1960s, both government and commercial manuals addressed birthing in vague and disembodied terms. Not surprisingly, caesarean section is never discussed; nor does it much disturb *Chatelaine*. The absence of discussion underscored the dominance of the ideology that enshrined passivity for expectant mothers.
CHAPTER 5: Caesarean Sections in Vancouver 1952-1970: St. Paul’s Hospital

Professional, technological, and ideological factors all contributed to the increase in caesarean sections performed in Canada in the post-WWII era. This chapter examines the history of caesarean section in one institution in urban British Columbia in order to explore the outcome of these forces. St. Paul’s Hospital, located on Burrard Street in downtown Vancouver, opened its doors to patients in late November, 1894.1 Founded by the Catholic Sisters of Charity of Providence and administered by the sisters until the late 1960s, it served patients from all religious denominations. By the end of World War Two, St. Paul’s was the second largest hospital in Vancouver with a 500-bed capacity.2 Like Vancouver General Hospital, the city’s other large, multi-purpose institution, and Royal Columbian in nearby New Westminster, St. Paul’s expanded and modernized significantly during the 1950s and 1960s. As a commemorative history of the institution notes, “patient care underwent a revolution in the 1950s with the introduction of new medical procedures and drugs, many of which were developed during the war.”3 Between 1950 and 1970 close to 40,000 women gave birth at St. Paul’s with over 2200 deliveries by caesarean section.4

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4 These numbers were gleaned from the hospital delivery records, held in the Providence Health Care archives.
history of obstetrical care at St. Paul’s offers a picture of what c-section meant in the context of a large urban hospital, the site for increasing numbers of Canadian births.\(^5\)

Selected records of c-sections occurring at St. Paul’s in the post-WWII era suggest a change in attitude towards surgical childbirth. Operations occurred in cases when the fetus had to be removed quickly to prevent the death of both mother and child, but they were also relied upon increasingly in scenarios where the threat of death was not the primary determining factor. By the end of the 1960s, relative indications for surgical childbirth had overtaken absolute ones. Caesarean birth had become an option even when existing records suggest that danger was not clear cut.

As Barbara Craig notes, hospital records “have an organic relationship with the activities they document and this most intimate tie makes them of unequalled value to historical studies.”\(^6\) Their interpretation requires a certain amount of “reading between the lines.” Patient records “form part of the action they document”\(^7\) and therefore must be understood in the contexts in which they were generated, taking into account the authors, the intended audience, their function within the departmental and hospital structure, the philosophy and operations of the hospital in question, and the particular role of the institution within the larger community. My interpretation of the records is located in wider context of both Vancouver and St. Paul’s in the 1950s and 1960s and of the ideological and technological environment described in earlier chapters. It takes into account commonplace

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\(^5\) Histories of hospitals in the Lower Mainland are proliferating in the 21st century. In addition to G. Harvey Agnew, *Canadian Hospitals 1920 to 1970, a dramatic half century* (Toronto, University of Toronto Press, 1974), see also Providence Health Care,*St. Paul’s Hospital: A Proud Tradition of Compassionate Care* (Vancouver: Echo Memoirs, 2007); Donald Luxton, *Vancouver General Hospital: 100 Years of Care and Service* (Vancouver: Vancouver Coastal Health, 2006); and Sally Carswell,*The Story of Lions Gate Hospital* (West Vancouver: Carswell, 1980).


\(^7\) Craig 264.
discourses about motherhood, medical care, and structural changes within the rapidly secularizing hospital throughout the period, while focusing on a select group of individual mothers having c-sections in BC’s largest city after World War Two.

In her analysis of the role of place in the writing of Canadian medical history, Megan Davies notes that various factors influence medical practice across the country. Of particular relevance here is her discussion of the role of “the metropolis in the development of medical institutions and medical culture in the Western province.”

Throughout the first half of the twentieth century, as Davies documents, British Columbia had no centre for medical education, and relied on physicians with training outside the province. Into the 1930s, the majority of urban and rural practitioners in BC were trained at medical schools in central Canada, most notably at Montreal’s McGill. By the early 1950s, however, many of BC’s rural doctors had trained in Manitoba and Alberta. While the medical profession in Vancouver was “well-established and relatively prosperous” by the 1930s, and UBC had a strong public health nursing program since 1921, the University of British Columbia’s faculty of medicine waited until 1952. This study considers medical services at St. Paul’s Hospital in the context of the development and consolidation of Vancouver as a metropolitan medical centre.

Vancouver in the 1950s and 1960s

After World War Two, citizens of the Lower Mainland of British Columbia entered the era that historian Jean Barman characterizes as “The Good Life.” The province offered

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9 Davies 84.
10 Davies 84.
prosperity for many, rapid population growth, suburbanization, and the expansion of social welfare programs. The measure of normalcy became in BC, as elsewhere, the heteronormative white, middle-class family.

Housing and social programs were key aspects to hopes for prosperity. As Jill Wade has documented, the Depression, the war, and the return of veterans produced an acute postwar housing shortage in Vancouver. Government programs offered by the Department of Veterans Affairs and the Canadian Mortgage and Housing Corporation set the stage for reinvestment in Canadian homes. Throughout the 1950s and 1960s, British Columbia was also among the top Canadian provinces for population growth: “immigration, migration from elsewhere in Canada, and natural increase combined to put the west coast province at the forefront of population, tripling to 2.7 million by 1981.” The growth in obstetrical care at St. Paul’s in the same years was one result.

Two further demographic trends are also relevant in considering the hospital’s clientele. Increasing suburbanization was associated with population growth. While the population of Vancouver expanded between from 275,353 in 1941 to 426,256 in 1971, the city’s population declined from 33.7% of the total provincial population in 1941 to 19.5% in 1971. In contrast, the population of the entire Lower Mainland (representing the communities of New Westminster, Vancouver, Greater Vancouver and the Fraser Valley) doubled between 1941 and 1961, and tripled by 1971, increasing from 449,114 in 1941 (54.9% of the population of BC) to 647,927 in 1951 (55.6%) to 897,193 in 1961 (55.1%) to 1,172,612 in

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13 Wade 296.
14 Barman 313.
1971 (53.7%). British Columbia’s smaller towns and cities also expanded.\textsuperscript{15} Large natural resource development projects in hinterland areas encouraged newcomers.\textsuperscript{16} These expanding local communities required medical facilities. Smaller sites could not, however, readily compete with large, medical-school affiliated tertiary care facilities in Vancouver. As a result, patients came to St. Paul’s from the province’s largest city but also from its less-well-served centres near and far. Women from smaller centres in eastern and northern BC contributed significantly to the hospital’s patient load.

\textit{Vancouver hospitals in the 1950s and 1960s}

The City of Vancouver was served by two large multi-purpose hospitals and a number of smaller, more specialized institutions in the 1950s. Vancouver General Hospital, with its origins in the Canadian Pacific Railway’s tent hospital for railway workers, was taken over by the City of Vancouver in 1886. By 1951, it had become Canada’s largest hospital, “known for break-throughs in medical research and treatment.”\textsuperscript{17} Almost as old as VGH, St. Paul’s remains the only hospital in the city to persist at one location throughout its history. While its affiliation as a Catholic hospital evolved over more than a century, it took pride in a tradition of recruiting “people who care about looking after the poor and disenfranchised,”\textsuperscript{18} treating patients of all denominations. A centenary history of St. Paul’s highlights the original vision of the five founding nuns, who wished to be “responsible and relevant to the community”\textsuperscript{19} with the special goal of “reaching out to the vulnerable and the underserved.”\textsuperscript{20}

\textsuperscript{15} Barman 281.
\textsuperscript{16} Barman 289.
\textsuperscript{17} Donald Luxton, \textit{Vancouver General Hospital: 100 Years of Care and Service} (Vancouver: Vancouver Coastal Health, 2006): 84.
\textsuperscript{18} Providence Health (2007) 17.
\textsuperscript{19} Providence Health (2007) 18.
\textsuperscript{20} Providence Health (2007) 20.
In addition to VGH and St. Paul’s, Vancouver had Grace Hospital, another large, labour and delivery-focused institution. Founded in 1907 as the Salvation Army Maternity Home, an enlarged building opened in 1927.21 One of eleven Grace hospitals across the country devoted to maternity care, it “was the largest maternity hospital in the country; it also had a prenatal and diagnostic treatment centre.”22 Closed in 1994, it was replaced by BC Women’s Hospital. The historical medical records of Grace Hospital were destroyed.23

In addition to VGH, St. Paul’s, and Grace, several smaller hospitals offered specialized care within the city boundaries. St. Vincent’s Hospital opened in 1939 with 100 beds; by the 1970s it focused on extended care and geriatric psychiatry. To its east, Mount St. Joseph, run by the Sisters of the Immaculate Conception, opened in 1946 as a general hospital, replacing St Joseph’s Oriental Hospital in the Strathcona neighbourhood.24 Many doctors of Chinese origin practiced at Mount St Joseph’s, which served the city’s Asian population; before the maternity ward closed in the 1960s, many women of Chinese origin gave birth there.25 Holy Family Hospital in southeast Vancouver, run by Sisters of Providence of St. Vincent de Paul, opened in 1947 as a nursing home for elderly women, and

23 A series of email correspondence among myself and several employees of the Women’s Health Research Institute at BC Women’s hospital in February and March of 2008 revealed that medical records at Grace were regularly destroyed and that no records prior to 1985 exist. The Toronto-based Salvation Army archivist also confirms that all extant records for Grace hospital were transferred to BC Women’s when Grace was transferred to the government in 1993.
evolved after an expansion in the 1950s into a facility specializing in the rehabilitation of arthritis and stroke patients. Other specialized facilities included the G. F. Strong Centre, which opened in 1947 as a rehabilitation facility. Pearson Hospital opened in 1952 to provide care for tuberculosis patients; it added a polio wing in 1955.\textsuperscript{26} Children’s Hospital provided general paediatric care, while Princess Margaret’s Children’s Village, later Sunny Hill Hospital, offered rehabilitation facilities and long-term care for children with disabilities.\textsuperscript{27} Such sites suggest the wealth of services available in the province’s biggest city.

Outside of the City Vancouver but within the Greater Vancouver area, the two closest birthing centres were Burnaby General Hospital, which opened its doors in 1952 and included a small maternity unit, and New Westminster’s Royal Columbian hospital. BC Vital Statistics tables on Live Births in Institutions suggest that most Burnaby mothers gave birth elsewhere in the 1950s and 1960s.\textsuperscript{28} Many may have chosen Royal Columbian, the third largest tertiary care facility in the Lower Mainland. Founded in 1862 to serve gold miners, it merged in 1901 with the local maternity hospital. Royal Columbian expanded after WWII to serve surrounding municipalities such as Port Moody and Coquitlam as well as New Westminster and Burnaby. Births in New Westminster were one-fifth of those in the city of Vancouver after 1945.\textsuperscript{29} Like VGH and St. Paul’s, Royal Columbian was affiliated with UBC’s new medical school and offered a nursing program.\textsuperscript{30}

\textsuperscript{27} BC Children’s Hospital, “History” \textit{About Us} \url{http://rotaryvancouver.org/History} (accessed July 2011).
\textsuperscript{29} Ibid.
\textsuperscript{30} Royal Columbian Hospital Foundation, “Our History” \url{http://www.rchfoundation.com/about/history.html} (Royal Columbian Hospital Foundation, 2011).
St. Paul’s hospital after World War Two

In the decades following World War II, obstetrical care at St. Paul’s was shaped by the growing secularism of hospital administration, the incorporation of new medical procedures and technologies, including the introduction of neo-natal care in the 1950s, and its emergence after 1952 as a teaching hospital with the arrival of interns and residents from UBC. These developments shaped patient care and birthing experiences, although most women who gave birth at St. Paul’s did so because their family doctor or specialist held privileges there.31

St. Paul’s claimed to make care accessible to the entire population of Vancouver. As a nursing graduate of the class of 1952 said, “We never turned anyone away. If they couldn’t pay their insurance or they had no money to pay, we always had beds for them.”32 Impoverished patients might work in the hospital to discharge their debt once they were well and the Sisters of Charity routinely raised funds for services for indigent patients. Delivery registers show a diverse population of clients, classified as either “staff”, meaning uninsured, or “private”, meaning insured or able to pay. As Myrna (Walker) Skazel, a nursing alumna and head delivery nurse for seventeen years notes, nurses were expected to treat all patients the same.33 There were, however, different settings. These included seven private post-partum care rooms, ten to twelve semi-private ones, and three multi-bed staff wards where mothers would spend eight to ten days recovering after caesarean sections.34

Many physicians held privileges at St. Paul’s during this period, including a small number of obstetrical specialists who practiced throughout the post-World War Two era.

32 Sister Marie-Paul Vinet, as quoted in Providence Health (2007) 57.
33 Myrna (Walker) Skazel, interviewed by Sally Mennill, 17 June 2011.
34 Myrna (Walker) Skazel, interviewed by Sally Mennill, 17 June 2011.
Two doctors headed the obstetrics department in these years. Dr. E.B. Trowbridge, who trained at the University of Alberta and later did post-graduate work in Cleveland before serving in the Royal Canadian Air Force, was head from 1947 until 1967. He also served as hospital chief of staff for much of that time. Trowbridge was succeeded as head of obstetrics by Dr. R.H.F McNaughton, likewise born and trained in Canada. McNaughton received his medical degree from McGill in 1949 and completed his specialist training in San Diego and Cleveland before appointment to St. Paul’s staff in 1958. He served as head of obstetrics until 1978, when he relocated to Oregon. Former head of maternity nursing, Myrna (Walker) Skazel believed that both doctors were well-liked by patients and that they practised exclusively at St. Paul’s. Some patients travelled from great distances to receive the care of these specialists.

While their doctors’ admitting privileges consistently determined which hospital women would enter for delivery, a reputation for modernity and medical innovation further motivated families to choose St. Paul’s Labour and Delivery ward. In 1950 a Premature Baby Clinic also provided “the only premature baby ward in BC” that was “entirely separate from the hospital’s infant ward.” The introduction of the first suction device to combat asphyxiation from mucous in the neonate’s throat and the addition of “two ambulances and two BC airplanes [that] were equipped to plug in the new machines for emergency transportation of infants from around the province,” further enhanced its reputation as a site specializing in complicated deliveries. It did, however, have competitors. Vancouver General

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38 Providence Health (2007) 89.
Hospital opened Canada’s first Neo-natal Intensive Care Unit in the 1960s. A steady stream of higher risk deliveries throughout the 1950s and 1960s at St. Paul’s and VGH by women from out of the Lower Mainland was one response to these innovations.

Another shift in the care offered in the 1950s underscores St. Paul’s role as a provincial medical centre. In 1952 UBC medical students began to train on its wards, although the obstetrics department did not include them until the late 1970s. The site’s doctors were put on warning that they had to “stay abreast of the latest medical advances.” As the history of St. Paul’s points out, the arrival of a new generation of doctors “changed St. Paul’s from a community hospital into a modern teaching and tertiary referral facility.” This elevated status produced a specialized consultative centre, staffed by specialists who could take referrals from smaller and less equipped facilities.

The school of nursing shared in the shift to increasing specialization and expertise. As Kathryn McPherson notes in her examination of nursing in twentieth century Canada, in the post-WWII years “duties entailed learning new sets of rapidly changing procedures and techniques.” Nursing education developed to manage more highly specialized technology and complicated cases. Medical and nursing shifts were accompanied at St. Paul’s as elsewhere by “the rapid proliferation of new drugs and procedures.” Technological and professional development throughout the 1960s introduced bedside monitors, computerized laboratories and Canada’s first adult Intensive Care Unit in 1966. Women who gave birth in this atmosphere of innovation and development were accessing care considered at the

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40 Luxton 49.
41 Myrna (Walker) Skazel, interviewed by Sally Mennill, 17 June 2011.
45 McPherson 220.
cutting edge of Canadian obstetrical practice. St. Pauls’ evolution as both an accessible and innovative institution is crucial to understanding the c-section records being analyzed.

Methods

In a discussion of the uses of patient records by historians, John Harley Warner points out that “to extract historical meaning from [patient records] we have to use them in conjunction with other ‘medical records’.”\(^{47}\) Multiple medical sources allow a broader, more nuanced understanding of what actually occurred in medical care of any given time period. They are best used in concert with medical texts that are more distant from daily practice.\(^{48}\) Patient records always offer only a portion of the patient’s story. “Reading between the lines” is necessary but even sensitivity to what is formally left out can never recover the full meaning for actual patients.

To examine childbirth at St. Paul’s hospital between 1945 and 1970, I undertook the textual analysis of patient records generated by and for the staff of the hospital. Delivery registers, produced by delivery ward nurses, offered general statistics about birthing and the identification of representative patient charts. Extant delivery registers are large ledger books recording details of deliveries in chart form. Each record contains the name and contact information for each patient and her husband, if identified, and the details of pregnancy, including the length of gestational period and previous pregnancies. Details of the birth follow, including entries such as ‘Position of Delivery’, ‘Ruptured Membranes’, ‘Induction’, and ‘Forceps’. Some fields require a simple numerical entry or checkmark, while others, such as ‘Duration of Labour’, are completed with text. A ‘Comments and Remarks’ section appears at the end of the chart, initialed by the nurse in charge of the case.


\(^{48}\) Warner 103.
I used the data from these charts, in particular the fields that indicated the patient or file number for that delivery, the use of c-section, and the justification for the operation, to create spreadsheets that mirrored the delivery registers, including the details of each c-section delivery. These spreadsheets allowed me to create a statistical profile of surgical deliveries as well as to select specific patient charts for further examination.

Patient files form the second major source for this chapter. Each accessible file contained various forms and records, including ‘Obstetrical Discharge’ forms, ‘Consultation Reports’, ‘Labour and Delivery Records’, ‘Operative Records’, ‘Obstetrical Summaries’, ‘Anaesthesia Reports’, and even social service records. Some charts contained only two or three pieces of paper, while others were three or four inches thick. As well as changes in the system of identification of files, the types of information recorded and the method of completing forms and reports evolved from 1952 to 1970. The creation and maintenance of uniform records as a requirement of professional standards of practice, as discussed in chapter three, were clearly major tasks. Records from the early 1950s are often inconsistent but by the late 1960s each record is filled out more precisely with comparable types of information.

The parameters of my study were determined by the availability of delivery registers and patient files. Delivery registers prior to July 1951 were not available to the Providence Health Care archivist so I began with 1952, the first fully-accessible year of registers. Patient files from the late 1960s were far more accessible, whether because they were filed according to a specific system or because in some cases the paper records had yet to be microfilmed. I began by reading and analysing the annual registers for each year up to and including 1970. By identifying c-sections documented by the birth registry, I was able to
select what is termed an extreme case sample of 41 specific charts. Knowing I was limited in the number of charts I could obtain, I elected to access the records of patients who had particularly unusual experiences or for whom the reason for caesarean section was not indicated.

The vicissitudes of carrying out analysis of patient records in a major urban hospital are discussed more thoroughly in chapter 1, however it bears repeating that historians and medical professionals have different interests. Patient charts have been kept at St. Paul’s hospital as far back as the early 1930s. They are filed by patient surname and are accessible only by Records department staff (none of whom is an historian). Staff must locate the record, comb it for the specific information I am authorized to view, and make copies of the relevant pages. After examining the copies, I was instructed to return them to the staff for destroying. Such procedures create difficulties, which scholars have to accept.

While most records employees proved eager to provide assistance, the department is suffering from budget cuts. Staffing problems mean retrievals for immediate patient and doctor access are prioritized. Even when they do have time to aid historians, department rules require considerable work from records staff. They alone can access the microformed charts generated before the 1970s. Many staffers are not, however, accustomed to using microfilm nor to the filing methods of their predecessors. It would often take them an hour or more to find a requested chart. I recommend that this process be reviewed and that perhaps charts of a certain age be assigned to Providence Health Care’s archives for filing according to historical criteria. Furthermore, accessibility of charts by researchers themselves, upon

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receipt of relevant ethics approval, would allow hospital staff to focus on records work pertinent to current patients and reduce research costs for the researcher.

A 1995 journal article by Risse and Warner on the use of patient records as a source of evidence for historical research, published at a time when such sources were only beginning to be used by historians of medicine argues that, “reading and interpreting the patient records as a distinct literary text prompts questions of structure and terminology, style and tone, authorship and audience. From such analyses it is possible to retrieve the cultural, institutional, and professional perceptions, values, and power that case history reflects and encodes.”

Three years later, the collection of essays on social history edited by Franca Iacovetta and Wendy Mitchinson underscored the importance of case files in women’s and gender history. As the editors note, “records can illuminate the ways in which dominant class, gender and racial ideologies shaped official discourse and action, and relations between experts and clients.”

Records of births in general, and caesarean sections in particular, at St. Paul’s hospital in the period between 1952 and 1970 reveal just such relations and suggest shifts over time. As my findings show, delivery registers and patient files document a period of transition in the 1950s and 1960s during which caesarean section became indicated for a wider variety of diagnoses.

Findings

Patient demographics and characteristics reflect the growth of the city of Vancouver as well as expansion in hospital outreach to include a patient base in outlying areas of the province. Changes in technological, technical and professional capabilities, as noted in

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earlier chapters, are conveyed by the hospital’s fluctuating indications for surgical delivery. Most importantly for this investigation, the rate of caesarean section shows an increased comfort with its use.

Between 1500 and 2500 babies were born per year in the decades following WWII; some 100 to 150 annual deliveries were surgical. The St. Paul’s c-section rate rose steadily from 4.5% in the early 1950s to just under 10% in 1970.

Figure 1

St. Paul's Hospital Caesarean Section Rate, 1952-1970

An examination of the details of these births, as contained in the delivery registers, provides an overview of c-section patients, suggests the relationship between other interventions and surgical delivery, and demonstrates a transition in the practice of surgical birth when it came to diagnosis.

Maternal characteristics

Delivery Registers at St. Paul’s reflect a cross-section of the population of a city that was still relatively homogenous. The majority of women who had caesarean sections were white, married, between the ages of 25 and 40, and lived within the Vancouver/Burnaby area.
Table 1 indicates the ethnic background of babies born by caesarean section. Registers did not indicate the ethnicity of the parents, only that of their offspring; if the babies died, however, their ethnicity was sometimes omitted. The categories in this chart are those indicated by nurses in the registers. A rise in the number of Chinese babies born towards the end of the era reflected the general demography of the Lower Mainland demonstrated in Table 2.

<table>
<thead>
<tr>
<th>Year</th>
<th>White</th>
<th>Negro</th>
<th>Indian</th>
<th>Indian</th>
<th>Chinese</th>
<th>Japanese</th>
<th>Korean</th>
<th>Spanish</th>
<th>Mulatto</th>
<th>Not recorded</th>
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<td>1953</td>
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<td>1957</td>
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Table 2: Metropolitan Vancouver Population by Ethnicity\textsuperscript{52}

<table>
<thead>
<tr>
<th></th>
<th>1951</th>
<th>1961</th>
<th>1971</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>530,728</td>
<td>790,165</td>
<td>1,082,350</td>
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<tr>
<td>British Isles</td>
<td>376,085</td>
<td>491,084</td>
<td>633,825</td>
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<tr>
<td>French</td>
<td>19,070</td>
<td>30,507</td>
<td>42,870</td>
</tr>
<tr>
<td>German</td>
<td>19,328</td>
<td>51,056</td>
<td>89,675</td>
</tr>
<tr>
<td>Italian</td>
<td>6,563</td>
<td>18,300</td>
<td>30,050</td>
</tr>
<tr>
<td>Jewish</td>
<td>4,424</td>
<td>4,777</td>
<td>10,815</td>
</tr>
<tr>
<td>Netherlands</td>
<td>10,178</td>
<td>23,946</td>
<td>31,965</td>
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<td>Polish</td>
<td>7,899</td>
<td>12,861</td>
<td>14,985</td>
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<td>Russian</td>
<td>6,401</td>
<td>9,324</td>
<td>7,310</td>
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<td>Scandinavian</td>
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<td>51,870</td>
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<td>Other European</td>
<td>16,790</td>
<td>40,613</td>
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<tr>
<td>Asiatic</td>
<td>12,507</td>
<td>25,519</td>
<td>58,255</td>
</tr>
<tr>
<td>Other not stated</td>
<td>n/a</td>
<td>18,326</td>
<td>79,605</td>
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</table>

Mothers having c-sections at St. Paul’s were overwhelmingly married. Only a few each year were widowed or separated, or had not listed their baby’s father. Myrna (Walker) Skazel indicated in discussion with the author that when the father was not listed in the register, it was because he “was not around.”\textsuperscript{53} Only one mother was reported in the register as divorced.

\textsuperscript{52} Statistics Canada. 1951, 1961, 1971 Census of Canada Population by specified origins, for census metropolitan areas. Notably, Canada’s indigenous peoples were not included in this census table for any of the years under examination, with the exception of the population of the specified ethnic groups on urban Indian Reserves.

\textsuperscript{53} Myrna (Walker) Skazel, interviewed by Sally Mennill, 17 June 2011.
Table 3: St. Paul’s Caesarean Section Patient Marital Status

<table>
<thead>
<tr>
<th>Year</th>
<th>No partner listed</th>
<th>Partner listed</th>
<th>Widow</th>
<th>Separated</th>
<th>Divorced</th>
</tr>
</thead>
<tbody>
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<td>1952</td>
<td>5</td>
<td>101</td>
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<td></td>
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</tr>
<tr>
<td>1953</td>
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<td>102</td>
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<td>92</td>
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<td></td>
<td></td>
<td></td>
</tr>
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<td>1958</td>
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<td>120</td>
<td></td>
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<td>1968</td>
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<td>7</td>
<td>122</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1970</td>
<td>7</td>
<td>144</td>
<td></td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

C-section mothers at St. Paul’s, like others across the province, gave birth mostly between the ages of 20 and 40. Unfortunately, delivery registers did not start recording maternal age until 1965 as shown in Table 4. In Table 5, BC Vital Statistics report maternal age throughout the period in question. Notably, table 5 covers maternal age at all births.

Table 4: St. Paul’s births by maternal age

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Age</th>
<th>Under 20</th>
<th>20-25</th>
<th>26-30</th>
<th>31-35</th>
<th>36-40</th>
<th>Over 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>29.6</td>
<td>5</td>
<td>30</td>
<td>29</td>
<td>26</td>
<td>18</td>
<td>7</td>
</tr>
<tr>
<td>1966</td>
<td>28.4</td>
<td>6</td>
<td>34</td>
<td>40</td>
<td>14</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td>1967</td>
<td>26.9</td>
<td>16</td>
<td>42</td>
<td>27</td>
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<td>1968</td>
<td>27.9</td>
<td>10</td>
<td>38</td>
<td>41</td>
<td>16</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>1969</td>
<td>27.6</td>
<td>5</td>
<td>48</td>
<td>35</td>
<td>20</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>1970</td>
<td>27.4</td>
<td>8</td>
<td>46</td>
<td>56</td>
<td>20</td>
<td>8</td>
<td>6</td>
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</table>
Table 5: British Columbia births by maternal age\textsuperscript{54}

<table>
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<tr>
<th>Year</th>
<th>Under 15</th>
<th>15-19</th>
<th>20-24</th>
<th>25-29</th>
<th>30-34</th>
<th>35-39</th>
<th>40-44</th>
<th>45 and over</th>
<th>Not known</th>
<th>TOTAL</th>
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<td>14</td>
<td>2236</td>
<td>8417</td>
<td>9086</td>
<td>6210</td>
<td>3027</td>
<td>784</td>
<td>50</td>
<td>3</td>
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<tr>
<td>1953</td>
<td>15</td>
<td>2301</td>
<td>9033</td>
<td>9505</td>
<td>6677</td>
<td>3244</td>
<td>913</td>
<td>50</td>
<td>8</td>
<td>31,746</td>
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<td>14</td>
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<td>9228</td>
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<td>10352</td>
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<td>12223</td>
<td>11036</td>
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<td>4146</td>
<td>1137</td>
<td>76</td>
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<td>10500</td>
<td>6984</td>
<td>3830</td>
<td>1103</td>
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<td>3748</td>
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<td>3545</td>
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<td>5491</td>
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<td>912</td>
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<td>4823</td>
<td>2611</td>
<td>770</td>
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<tr>
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<td>2465</td>
<td>n/a</td>
<td>n/a</td>
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<td>36,861</td>
</tr>
</tbody>
</table>

While factors such as suburbanization, the opening of new hospitals, and the provision of specialized services influenced choices, the most significant factor was the privilege of physicians to attend patients in particular institutions. Women from all over BC came to Vancouver for surgical deliveries even as a consistent stream from the city’s West End also chose it.

\textsuperscript{54} British Columbia Department of Health and Welfare, “Live Births by Age of Mother and Birth Order” Vital Statistics Reports 1950-1970 (Victoria, Queen’s Printer, 1951-1971). Average Age of mother at birth is not available after 1953, as reports were based on age-range. The average age of mother at birth in 1952 was 27.3 and in 1953 it was 27.4. From 1954 through 1956 the largest number of births was in the 25-29 age-range. Thereafter it was in the 20-24 age range.
Perhaps the most obvious demographic factor visible in the delivery registers is the post-war popularity of the new East Vancouver area neighbourhoods. There was a decided increase, albeit uneven, in arrivals at addresses from Renfrew Heights and Boundary Road by the middle of the 1960s. 24 of 108 (22%) of caesarean sections in 1952 were performed on women from east Vancouver, whereas 56 of 135 (41%) occurred on such patients in 1964. By contrast, the west side of Vancouver produced 35 of 108 (32%) caesarean babies in 1952, but only 28 of 135 (21%) in 1964. This trend towards increased patronage of St. Paul’s by families from East Vancouver continued into the 1970s, as did an increase in the number of St. Paul’s births for Burnaby parents.

Many parents tended to live closer to the centre of the city at the time of their first child’s birth, but the addresses entered for subsequent births indicate more suburban locations, which promised larger homes and bigger lawns. In her study of suburbanization in Canada, Veronica Strong-Boag quotes a Vancouver Regional Planning Board study that pointed out, “to a young family without much money, faced with the alternative of a small apartment in the city... It is no small thing to be able to look out of the living-room window
at one's children playing in relative freedom with fields and woods beyond them." St. Paul’s demographics reflect the trend towards suburban living.

Another influence reflected in the addresses is the appearance of new hospitals. Before Lions Gate hospital on the north shore opened in 1961, between 12% and 14% of St. Paul’s c-sections were for women from that area. By 1964 that number had dropped by half and thereafter remained low. While there is not a significant enough number of St. Paul’s-based caesarean births from other growing suburbs to offer accurate statistical reporting, local hospitals opened in Richmond, Langley, and White Rock during the 1950s and 1960s. In fact, as figure #3 demonstrates, total deliveries at St. Paul’s dropped from 2074 in 1960 to 1350 in 1967:

---


The birth rate declined somewhat more rapidly at St. Paul’s after 1957, particularly between 1958 and 1966, than it did in the province and the rest of Canada, suggesting that more locally-derived demographic factors such as the expansion of hospital services and new hospitals throughout the province reduced demand.


Finally, the growth of new suburban areas in Coquitlam, Surrey and elsewhere in the Lower Mainland is apparent in the gradual appearance in the registers of towns like Cloverdale and Port Moody, and cities like Richmond and Langley. The first Port Coquitlam address appears in 1959 and the first Port Moody address in 1961. The number of c-section patients from Richmond rises from two or three per year in the early 1950s to six in 1957, and stays around six or eight thereafter.

*Flying-in*

Consolidation of municipal services and population growth was common all over BC in the 1950s and 1960s. This trend is reflected in the c-section rate at St. Paul’s, as women arrived from many locations in the province. Many came from the Squamish area, not surprisingly since no major hospital existed in the mining towns along the Vancouver to Pemberton road. Women in high risk categories would have been sent from Britannia Beach and other small hospitals for more advanced care. Between 1952 and 1970, 48 mothers from this region arrived to give birth and sometimes have caesarean sections.

The next largest group of out-of-town but provincial patients came from the more remote areas, such as the small northern Vancouver Island towns of Mahatta River and Coal Harbour, and from further north. 41 women came from the north Island and 20 came from northern BC towns and regions such as Kitimat, Terrace, and the Queen Charlotte Islands. Smaller numbers arrived from Powell River and the Sunshine Coast (14), the Cariboo/Chilcotin region (8), southern Vancouver Island and various islands in the Strait of
Georgia (6), and parts of the southern Interior (6). Seven women also came from the USA (Washington and Oregon), and one from Mexico City.\(^{59}\)

The majority of out-of-towners (66) came to St. Paul’s for repeat caesarean sections, some more complicated than others. Other reasons given for strangers to the Lower Mainland are rarely distinguishable from those women who lived closer to St. Paul’s. The second most common indicator for out-of-town c-sections was placenta praevia (13) followed by disproportion (11), placental abruption or other placental difficulties (10), and inertia (7).

**Interventions**

Interventions into labour other than Caesarean section were employed at St. Paul’s during the post-WWII era. In particular, use of forceps, surgical induction in the form of artificial rupture of membranes, and medical induction with intravenous medication show instances where women underwent a trial of labour before a surgical delivery. Delivery registers suggest a cautious use of forceps as well as low rates of induction in attempts to deliver babies vaginally before having to resort to c-section.

**Indications**

The stated indications for caesarean section are the most significant result of this study. Explanations shifted between 1952 and 1970, with a trend towards relative indicators such as dystocia and a move away from absolute indicators such as toxemia. By far the top indicator for caesarean section throughout this period (and, indeed, throughout the second half of the 20th century across Canada) was repeat caesarean. Reasons for repeat c-section

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\(^{59}\) Reflecting both the availability of technological expertise and the preference for specific physicians, this woman from Mexico City came to St. Paul’s four times during the era under consideration. She had recovered from polio in Vancouver in the early 1950s and required special care from her preferred physician, who was the head of obstetrics as well as the hospital’s director in the 1960s. Despite her husband’s diplomatic appointment in Mexico City, she chose to return to her home town for care during all of her children’s births. (Myrna (Walker) Skazel, interviewed by Sally Mennill, 17 June 2011.)
were rarely given, making it difficult to ascertain how often it was an absolute or relative indicator. With the exception of the years 1968 and 1969, it supplied the primary justification at St. Paul’s. This is not surprising in the era when it was believed that once a woman had given birth by c-section all her subsequent births necessarily had to be the same. Despite the commonality of lateral incisions by mid-century, the “once a caesarean always a caesarean” dictum remained in force.\(^{60}\)

While repeat sections before 1967 were almost always double those performed for dystocia,\(^{61}\) in 1968 and 1969 dystocia edged ahead by a small margin, as shown in Figure 6. In the last three years of the decade the difference is minimal.

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\(^{60}\) Myrna (Walker) Skazel, interviewed by Sally Mennill, 17 June 2011.

\(^{61}\) Dystocia, defined loosely as a difficult or long labour, is the name given to a group of indicators including prolonged labour or ‘inertia’.
Other frequent indications include placenta praevia, Less common indications were placental abruption or other placental deficiencies, fetal distress, elderly primipara, toxemia, contraction ring, diabetes, pre-eclampsia, cord prolapse and uterine fibroids. The c-sections at St. Paul’s between 1952 and 1970, as seen in Table #6 show the frequency:

<table>
<thead>
<tr>
<th>Year</th>
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<th>Contraction Ring</th>
<th>Breech</th>
<th>Fibroids</th>
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<th>Pre-eclampsia</th>
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62 Placenta Praevia is when the placenta lies over the cervix obstructing the fetal path through the vagina.
63 For the purposes of clarity I have included in this figure all caesarean sections that were performed due to the positioning of the fetus.
64 Placental abruption occurs when the placenta separates prematurely from the uterine wall. Other placental deficiencies include placenta accreta, which means the placenta has grown abnormally deeply into the uterine wall and requires surgical removal.
65 An elderly primipara is a woman whose first pregnancy occurred after the age of 35.
66 Toxemia, also known as eclampsia, consists of toxic substances in the blood, which cause high blood pressure, edema, and protein in the urine.
67 A contraction ring, also known as Bandl’s ring, is a constriction in the uterus that obstructs labour. It is often thought to be a sign of imminent uterine rupture.
68 Pre-eclampsia is the rise in resting blood pressure and the presence of protein in the urine that can lead to eclampsia (also known as toxemia) if left untreated.
69 A prolapsed cord is when the umbilical cord precedes the arrival of the fetus or travels alongside it.
70 Uterine fibroids are benign tumours found in the uterus, sometimes obstructing the cervix.
Table 7: Percentage by Indicator of St. Paul’s Caesarean Sections 1952-1970 cont’d

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<tr>
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Rate of caesarean section

The rate of caesarean section at St. Paul’s rose in accordance with those cited for the rest of Canada during the same period (see Figure 1). The numbers are, however, slightly higher than average since the hospital was professionally and technologically equipped to handle high risk births from outlying areas.

Discussion

Careful analysis of the delivery registers and select patient charts at St. Paul’s Hospital from 1952 to 1970 reveals the gradual increase in c-section rate. This rising rate is explained by the diagnoses of labour difficulties offered by physicians. The indications given for caesarean section at St. Paul’s shift in favour of relative rather than absolute reasons for abdominal delivery.
Physicians and medical historians have examined the changing indications for caesarean section. The accessibility and relative safety of the operation changed with new technologies, ideologies, and advances in medical science. Medical experts have continuously debated the results and logic of the operation. In a 1993 publication addressing the medical benefits and costs of surgical delivery, medical sociologist Elizabeth Shearer concludes that a decrease in infant mortality has been erroneously attributed to more surgical interventions. She points out that “other changes during this time period, particularly the development of neonatal intensive care units, clearly played a major role in declining infant mortality rates.”\(^1\) She ultimately argues that evidence “suggests that social, economic, professional and personal factors may have a stronger influence on whether or not a baby is delivered by cesarean than does expected medical benefit or risk.”\(^2\) My own study examines the years prior to those she examined, offering an understanding of the factors involved before the 1970s that may have influenced the suggested rise in social, economic, professional and personal explanations for the operation.

Other studies substantiate Shearer’s claims, pointing to a late-twentieth century rise in c-sections performed for probable rather than absolute need. Leitch and Walker’s 1998 investigation of the c-section rate at Glasgow Royal Maternity Hospital from 1962 to 1992 shows that “‘failure to progress in labour’ has contributed almost one-third of the increase in caesarean section rate,” as have repeat caesareans and “malpresentation” or breech position.\(^3\) None of these indicators offers definitive evidence of maternal or fetal danger. A recent Canadian study similarly notes that “there has been a decrease in vaginal delivery of

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\(^1\) Elizabeth Shearer, “Cesarean Section: Medical Benefits and Costs” *Social Science and Medicine* 37, 10 (1993): 1227.
\(^2\) Shearer 1228.
the breech presentation associated with an increase of Caesarean section.” Management of risk by caesarean section evolved throughout the era to reflect the possibilities for safe delivery and the priorities of practitioners and patients.

Even in the immediate post-war era, historians and physicians were beginning to question the increase in surgical solutions. As shown in the previous chapters, the newfound safety of c-section led to a possible expansion in its practice from situations of life or death to those where the option of preventing of such situations from even arising led to a decision for surgical birth. At St. Paul’s, the stated reasoning for the operations performed there from 1952 to 1970 demonstrate this transition.

Absolute indicators

Many studies differentiate between the absolute necessity of caesarean section and the relative safety of its use. As Shearer notes, “Cesarean section can be life-saving for the infant in certain situations, such as cord prolapse…, separation of the placenta before birth, or the presence of active herpes lesions….” She similarly points out that “in certain situations a cesarean section can safeguard mothers’ health and even save lives.” She lists hemorrhage and toxemia as examples along with severe coexistent medical disease and absolute contracted pelvis. In both circumstances, be it the safety of the fetus or the mother at stake, she argues that “there is no indication that these cases occur more frequently compared to 20 years ago” despite the unprecedented rise in c-section rates between 1970 and 1993,

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75 Shearer 1223-1224.
76 Shearer 1226.
77 Shearer 1226.
when her study was published. These absolute indicators stayed at the same rate throughout the period, as they did in the post-WWII years.

Between 1952 and 1970, the absolute indicators at St. Paul’s were similarly steady. Comparative analysis of absolute indicators shows that incidents of cord prolapse, toxemia, placenta praevia and placental abruption/separation stayed more or less constant. In fact, a small decrease in c-sections done for these reasons shows that perhaps physicians found new ways to combat such difficulties.  

Other absolute indicators, including active herpes lesions, severe coexistent medical disease, or absolute contracted pelvis, did not occur with enough frequency to warrant statistical analysis at St. Paul’s, although their occurrence is occasionally noted on the patient charts. For example, in Chart #18 the patient underwent a c-section at 37 weeks gestation because she suffered from leukemia and had a low platelet count. In Chart #7 a woman with cervical cancer was flown in from the central coast area for a repeat caesarean in conjunction with a hysterectomy. Another underwent five caesarean sections at St. Paul’s between September 1958 and July 1963 because she was quadriplegic as a result of polio.  

While there were no explicit diagnoses noted in relation to sexually transmitted infections, one woman was given a c-section in September of 1962 because of an unidentified (in the chart) vaginal infection that could be transferred to the baby.  

Although very few diagnoses of contracted pelvis were noted, one woman was brought into St. Paul’s from Prince Rupert in December 1968 to undergo a third c-section

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78 Diagnoses of toxemia, eclampsia and pre-eclampsia are included in this figure as all are currently defined on the toxemia spectrum.  
79 In discussion, Myrna Skazel indicated that she had once observed a vaginal delivery with placenta praevia, noting that it was a very rapid delivery with the baby and placenta still contained in the amniotic sack. She stated that the speed of delivery was what prevented a c-section in this instance.  
80 Chart #29.  
81 Chart #22.
due to extreme disproportion. Her chart notes that she was 4 foot 11 inches and her baby
(previous two c-sections did not take place at St. Paul’s) was almost eight pounds. The
duration of her first labour was excessive, as the fetus was unable to pass through her
pelvis.\textsuperscript{82}

Absolute indicators at St. Paul’s remained much the same throughout the period.

Women underwent c-sections for placenta praevia, other placental problems, cord prolapse
and toxemia at more or less the same rate, showing that with the exception of placenta
praevia, the necessity of c-section in these instances was unaffected by technological or
ideological changes.

\textit{Relative indicators}

At St. Paul’s, as in Shearer’s study, it is not the absolute indicators that are
responsible for the rise in c-section rates. She notes “four diagnoses – previous cesarean,
dystocia, breech presentation, and fetal distress – account for over 80% of all cesareans.”
Moreover, she points out, these indications “were responsible for 75-90% of the rise in
cesarean rates in the 1970s, and 98% of the rise in the early 1980s.”\textsuperscript{83} These indications offer
“the least clear cut benefit” to mother and child.\textsuperscript{84} In other words, Shearer suggests that
women birthing under these conditions are as likely to be able to deliver vaginally as not.
Her evidence for this argument extends from contemporary research on the various factors to
be considered in the diagnosing of such conditions. It would be unfair to judge the
performance of surgical birthing in the post-WWII years by standards set in 1993, but the
numbers of deliveries performed at St. Paul’s as a result of relative indications demonstrate
that the trend began before 1970:

\begin{itemize}
  \item \textsuperscript{82} Chart #5.
  \item \textsuperscript{83} Shearer 1224.
  \item \textsuperscript{84} Shearer 1224.
\end{itemize}
Figure 7

Relative Indicators for Caesarean Section at St. Paul's, 1952-1970

In particular, diagnoses of dystocia and breech positioning gradually rose at St. Paul’s between 1952 and 1970. While perhaps not demonstrative of Shearer’s argument that too many c-sections are being performed, this trend shows that doctors were becoming increasingly comfortable with a wider range of diagnoses.

Repeat Caesareans remained more or less constant throughout the study period.

While the validity of vaginal births after caesarean sections (VBACS) is now acknowledged,\(^{85}\) in the decade immediately following World War Two medical consensus recommended that subsequent births had to repeat the procedure. Occasional studies questioned whether vaginal birth was possible, but such studies were rare and did not

translate into clinical practice. Throughout the files consulted at St. Paul’s only one VBACS birth was noted. In July of 1965 a North Burnaby woman gave birth for the fifth time. Her first baby was born vaginally in 1956, after which she bore a second child in 1957 by c-section. Babies three and four were also born vaginally in 1958 and 1961, while baby number five was born by c-section in 1965. Notably, not all the babies were born at St. Paul’s as this woman was a recent immigrant to Canada. No other cases of VBACS were noted in the delivery registers, which suggests rather that “once a caesarean, always a caesarean” was characteristic of St. Paul’s throughout the era. While repeat caesarean is considered a relative indicator in the 21st century, it tended more towards the absolute in the 1950s and 1960s.

Dystocia refers to difficult or prolonged labour. It is caused most commonly by inadequate uterine contractions or otherwise difficult vaginal delivery. Diagnoses are most commonly related to the norms developed by Emmanuel Friedman for labour (the Friedman curve), as discussed in chapter 3. At St. Paul’s, diagnoses of dystocia rose significantly, from under 25% in 1952 to between 35% and 40% in 1970. Women were not likely to be suffering to at all the same degree from the malnutrition that caused much cephalopelvic disproportion in the nineteenth century. Nor was there any significant rise in maternal age in this period. A more likely explanation is that when caesarean section could be performed without obvious threat to mother or fetus, practitioners and patients alike found it an acceptable solution in instances of difficult labour and/or delivery.

88 While not an authority on hospital policy, Myrna Skazel confirms that this was the accepted practice (Myrna (Walker) Skazel, interviewed by Sally Mennill, 17 June 2011.).
Fetal distress, as Shearer defines it, “is usually signaled by changes in the fetal heart rate, and suggests that the fetus may not be receiving enough oxygen through the placenta.”\textsuperscript{89} The minimal rise in this diagnosis at St. Paul’s in the post-war years seems related to the introduction of electronic fetal monitoring as common practice in the late 1960s. The presence of fetal monitoring in combination with prescribed standards outside of which a fetus would not have been allowed to stray led to quicker and more common diagnoses of distress even when the heart rate may only have strayed outside the prescribed norms by a small margin or for a brief period.

Breech delivery by caesarean section saw a more significant rise in diagnoses in this era. Several recent studies have discussed the incidence of breech delivery resulting in caesarean section, all of them noting that the trend towards delivering breech babies by c-section is unjustified.\textsuperscript{90} In 1986 the National Consensus Conference on Aspects of Cesarean Birth noted that “there has been an increasing trend in Canada toward universal performance of cesarean section for breech presentation. Extensive review of the research literature has failed to uncover any evidence to support this trend.”\textsuperscript{91} Similarly, Shearer argues that “breech presentation has not increased in incidence, and occurs in approx. 3.5% of births. However, the use of cesarean to deliver breech infants has increased markedly.”\textsuperscript{92} Diagnoses of breech positioning accounted for just under 2% of c-sections in 1952 and rose to over 8% in 1970, due in part to the availability of the operation but also to the improved diagnostic capacity.

\textsuperscript{89} Shearer 1224.
\textsuperscript{91} “Indications…” 1350.
\textsuperscript{92} Shearer 1224.
As the following chart summarizes, caesarean sections diagnosed with relative indicators increased at St. Paul’s Hospital in the period from 1952-1970:

Anticipating the more dramatic rise in rates after 1970, the post-WWII years see an increasing comfort with the practice of caesarean section.

*Broadened health context*

Perhaps the ultimate indication that doctors and parents were more comfortable with caesarean section in the post-WWII years is the appearance of c-sections performed in scenarios where prior to the safety of the operation they might not have been considered.

Two of St. Paul’s operations, specifically noted in the charts as being appropriate for personal, emotional or psychological reasons, show that by the 1950s and 1960s physicians were able to employ surgical delivery in a broader context than life and death. One case involved c-section for a woman who had multiple miscarriages and the other was a unique case involving an 11-year-old victim of abuse. Their stories show a new facet of c-section
that emerged with its presumed safety: the psychological context. When the operation was no longer risky, the health of the woman could be considered in a broader context. Physician and nurse comments in patient charts show that non-medical factors were beginning to play a part in c-section diagnosis. In these complex medical scenarios where absolute and relative exist on a continuum, the safety of caesarean played a crucial role.

Chart #39 shows that in October of 1959 a woman delivered a live baby boy after four previous pregnancies had ended in tragic circumstances. In 1952 she had delivered a stillborn baby at full term. In 1953 she had miscarried at 23 weeks. In 1957 she had delivered another stillborn baby. And again in 1958 she experienced miscarriage at 27 weeks gestation. Finally, in 1959 she was admitted to hospital in mid-September with a diagnosis of “threatened premature labour” and five weeks later underwent caesarean section after a consultant recommended “elective caesarean section” due to a “socially important baby.” While she observed in her post-operative notes that the placenta was not sufficiently nourishing the baby, at the time of delivery no documented medical diagnosis was offered. The acceptability of an emotional basis for c-section is evident in this type of reporting. The mother was fortunate to deliver a second live baby a year later, also by caesarean section. Like her brother, this baby was delivered early because the pregnancy was threatened by health complications.

A second example of surgical delivery performed in this broader health context involved a girl raped either by a travelling salesman or her step-grandfather, depending on how the social services documents are interpreted. In Chart #19 we learn the story of the unfortunate patient who was living with her paternal grandmother and that adult’s partner at the time of the assault in the summer of 1957. According to the social service records
included in the patient file an unknown male hit the girl while she was playing hide-and-go-seek with her friends, dragged her into the woodshed, and impregnated her. Social workers, in contrast, clearly believed that the step-grandfather was the putative father, as did the family doctor. The grandparents had hoped to keep the young girl and her baby, but both mother and child were eventually apprehended by social services and placed in foster care. The baby boy was born in late April of 1958 and the reason given for the caesarean section was “11-year-old primipara, psychological reasons.” A more detailed description of the operation notes that “rather than put this young girl through a long labour which might end up in Cesarean section anyway, to save her the psychiatric shock of a long labour and because the child was large, it was decided to do a Cesarean section.” Like the earlier case, while physiological reasons certainly existed for this operation, the documentation of its existence instead stressed emotional and psychological reasons as the primary diagnosis.

These two cases are exemplary of the broadened indications for c-section in the post-WWII era of surgical safety. Both mothers found themselves in extraordinary health circumstances, which were able to find resolution in the promise of this no-longer life-threatening operation. Moreover, the documented reasons for these operations emphasized emotional and mental health rather than physiology. While only two of the 41 extreme cases I analysed showed such unique circumstances, it is nonetheless significant that they existed. Practitioners were able to minimize the risk, rendering childbirth overall safer for these women and showing that relative indicators could be valid choices for surgical delivery. Such decisions demonstrated the increased comfort with which practitioners approached the operation after World War Two.
Conclusion

Increased indications for caesarean section at St. Paul’s hospital in the 1950s and 1960s pay more attention to relative indicators and suggest some recognition of psychological justification for surgical childbirth. Practitioners were able to capitalize upon the safety of the operation to embrace its promise in resolving difficult and delicate birthing scenarios. While the rate of c-section in 1970, calculated from delivery registers as 9.94% was not considered inappropriate or dangerous at the time, it had risen significantly over the past 20 years, more than doubling from a rate of 4.74% in 1952 (see Figure 1).

This rate increase is mirrored across the country, as is evident in several studies reported in the CMAJ throughout the era. Reflective of both large, technologically-advanced urban hospitals and smaller local facilities, a general c-section rate of 5.5% across Canada was reported in 1970.

Figure 9

Caesarean Section Rates, Canada and BC 1969-1990

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94 BC Caesarean Section Task Force, 53.
In British Columbia 15-20 years later, the most frequently occurring indicators for c-section continued to be relative ones.\(^{95}\)

Figure 10

As the above chart shows, by the 1980s dystocia had solidly overtaken repeat caesarean as the leading diagnosis of c-section and remained on the rise. The trend of relative indicators leading to c-section with increasing frequency that began in the post-WWII era continued into the ensuing years. Demonstration of the decrease of absolute indicators in favour of relative indicators at St. Paul’s hospital during the period from 1952 to 1970 reflects the general medical and demographic tendencies of the era. This increased comfort with c-section not only as an intervention tool in problematic deliveries but as a tool to prevent them from occurring in the first place was part of post-WWII Canada’s containment of risk. No longer were caesarean sections an ultimate, desperate act to salvage lives from dangerous birthing scenarios; instead, those scenarios should never occur.

\(^{95}\) BC Caesarean Section Task Force, 57.
CONCLUSION

Caesarean sections in Canada have become more frequent since the post-World War Two era, a trend that is influenced by more than just medical technology and expertise. Throughout its history, the operation has been discussed in specific social, political and cultural circumstances. Its role in reproduction evolves as the possibilities for its employment shift and as social and political movements around the world alter the contexts in which the operation takes place. In 1950s and 1960s Canada the social framework of technological and technical innovation, obstetrical professionalization, and intensifying discourses of parenthood converged with the declaration of caesarean safety to encourage a turn to more reliance on the operation. This dissertation has demonstrated and analysed these contexts in which patients and doctors strove to manage risk in childbirth in the middle of the twentieth century. Caesarean section is more than a medical procedure; it is a social phenomenon. Over the thousands of years of its known existence, it has evolved within multiple contexts and will continue to do so in years to come. Even as medical developments affect the indications for its use, social movements and ideologies mitigate those indications.

In Canada, developments in obstetrical technology and technique, changes in professional goals and expectations among practitioners, and social parenting discourses converged after 1945 to expand ideas about and opportunities for surgical delivery. As Canadians worked towards building a better, safer country after the devastation of the Great Depression and the Second World War, medical science began to embrace the promise of the operation deemed safe for employment in difficult birthing scenarios. The relative success and pervasiveness of both medical and ideological factors in this era influenced changes in the accepted indications for the operation. For the first time in the history of caesarean
section, justification moved along a continuum from reliance on absolute indicators towards opening up more scenarios when relative indicators offered new promise in complex situations.

Specifically, discoveries in anaesthesia, induction technique and maternal/fetal monitoring made the science of birthing more precise, rendering c-section an ever more viable way of containing risk in labour and delivery. A diversification in method of anaesthesia combined with its increased employment by trained anaesthetists meant fewer difficulties and therefore greater license for the operation. Induction and fetal monitoring similarly acted to encourage the turn to surgery both through their ability to monitor difficult pregnancies and their potential for complicating what might otherwise be normal deliveries. Yet even as significant advances in technology and technique improved the success of surgical delivery, the ability to remove babies did not always coincide with the ability to preserve them, especially if premature. The inability to detect fetal age with any certainty meant the births of more premature infants whose lives might well be ended or compromised. As risk theorist Anthony Giddens points out, “risk is not only closely associated with responsibility, but also with initiative and the exploration of new horizons.”¹ Indeed, the ability to perform safer operations continued to contain risk for mothers but not always for babies.

Alongside changes in technology and technique the profession of obstetrics was growing. Regulatory bodies and disciplinary journals existed by mid-century as obstetricians set about claiming a professional reputation. Simultaneously, the shift from interventive to preventive medicine aided obstetricians to set standardized trajectories, the result of which, by the late 1960s, meant more c-sections being indicated to prevent risk in childbirth rather

than as an intervention into already complicated ones. Canadian obstetricians in this era strove to establish professional prestige via standards of practice, linked carefully to the intensifying belief of other medical specialists, and Canadians in general, that science and technology offered promise for better futures. In order to control labour and further classify the diagnoses for various interventions that would prevent unsatisfactory outcomes, Canadian practitioners used Friedman’s averages as definitive parameters for what could be allowed. Setting such standards contributed to pressures for uniform responses to difficult scenarios, and to establishing specific conditions under which labour decisions were to be made. This resulted in professionally prescribed indications for caesarean section.

These standards of care were accompanied by the creation of accreditation and professional transparency, which manifested most prominently in the disciplinary requirement of keeping standardized patient records. Record-keeping had a dialectical function as it became consistent in the 1960s in Canada: setting standards of care as well as holding physicians to those standards. Uniform patient charts allowed obstetrics to continually examine difficult birthing scenarios in the continued effort to contain maternal and infant morbidity and mortality, as well as to demonstrate professional legitimacy in a time when obstetrics was still working towards equality with other specialties. Careful analysis of documented birthing outcomes resulted in new standards and innovations, however those innovations occasionally had negative ramifications for patient care. As Feldberg’s study of an urban hospital focused on high risk care demonstrates, applying rigid standards without consideration of context sometimes led to inaccurate conclusions. The professionalization of obstetrics via standardization of care continued to reduce risky birthing
scenarios by establishing conditions under which to diagnose c-sections, but sometimes sacrificed individualized contexts in the process.

In addition to these developments in technology and professionalism and their impact on opportunities for c-section, the popular discourses of parenting that were circulating in the 1950s and 1960s affected choices. Chapter 4 examined two widely-circulated childbirth and mothering texts, *The Canadian Mother and Child*, published by the Canadian Ministry of National Health and Welfare, Spock’s *Baby and Child Care*, as well as discussions in *Chatelaine* to demonstrate the interactions of the era’s changing discourses of motherhood with burgeoning discoveries in medical science and technology. In particular, the relationship of prescriptive mothering to the ever-present medical ideology of prevention-oriented surveillance could discursively disembodied women in the processes of labour and delivery. Gendered prescriptions for parenting in post-war advice literature and the simultaneous positing of mothers as wholly responsible for their children’s personal well-being combined with this medical ideology to encourage acceptance of heightened technological interference in childbirth. Simultaneously, the complete absence of discussion of the actual birthing process underscored the notion that increased possibilities for technological intervention, including caesarean section, were the purview of practitioners and not mothers. While parenting advice positioned mothers as wholly proficient, with expert advice, at raising babies, it suggested that they were less than competent for birthing. Women were represented in these manuals as passive hosts. Some women challenged this inference of incompetence. The burgeoning ‘natural’ childbirth movement shows options for resistance but they remained a minority among the public discourses in Canada until the 1970s. Medical and health care experts were the dominant authority in risk-reducing medical
A case study of deliveries in a Vancouver hospital showed that indications for c-section at St. Paul’s hospital expanded to feature not only absolute life or death scenarios in which the fetus must be removed quickly from its mother in order for both to survive, but also a growing incidence of relative indications for c-section in complex situations where life and death were not as clear cut. By the end of the 1960s at St. Paul’s Hospital, indications for surgical childbirth had moved further along the continuum from absolute to relative, showing that safety of c-sections was no longer the primary issue. Caesarean birth had become an option in scenarios where medical indications were not absolute. Whereas at the beginning of the era physicians performed operative childbirth in instances where the life of either the mother or her fetus was threatened, within twenty years the conditions under which a practitioner might diagnose a need for c-section had expanded to include situations where survival might be threatened due to numerous complex factors. Deliveries at St. Paul’s reflect the trend throughout the 1950s and 1960s that practitioners across Canada and elsewhere in the developed world contested and negotiated these indications once they accepted the safety of the operation. As technologies and techniques were introduced and refined to enhance the operation’s effectiveness, practitioners re-defined the possibilities for its performance.

In the twenty-first century, indications for c-section are largely the same as those in use at St. Paul’s in 1970. In her examination of the current state of caesarean section, Rosemary Mander lists the accepted indications for the operation in 2007. Of the seven indications she lists, three are noted as absolute: placenta praevia, cord prolapse, and placental abruption. The other four indicators, dystocia, fetal distress, breech position, and
cephalo-pelvic disproportion are considered by Mander to be contentious and, in some contexts, frivolous. She argues that indications vary according to numerous factors, some of which are obvious as in the case of absolute indicators, and others of which are mutable and changing. Both the social and medical contexts of this operation have evolved considerably since the post-WWII years, however the expansion of opportunities in which to offer caesarean sections began as a result of changes in its technological, professional and social make-up during this era. The comfort practitioners gained with the diagnosis for c-section in the 1950s and 1960s led to further re-consideration of scenarios in which surgical childbirth is appropriate.

While Mander’s argument vilifies practitioners without providing substantive proof, her point that shifting relative indicators supply the key to understanding caesarean section in historical perspective is important. Whether in the scientific and religious discussions of early modern Europe when c-sections required a decision of whose life to save, or in the twenty-first century North American discussions of empowering birthing experiences, caesarean sections are inextricable from the social and professional contexts informing their use. In 1950s and 1960s English Canada, these social and professional contexts saw increased use of the operation as it made the transition from a helpful intervention in the face of life-threatening outcomes to a useful preventive measure in situations where conditions were interpreted as less than optimal for vaginal delivery. Indeed, the safety of caesarean section, rather than being a mere observation, allowed a re-configuration of its role in the continued aim to minimize maternal and infant morbidity and mortality.

3 Mander 42.
Many more questions remain, in particular the specificities of women’s personal childbirth and c-section experiences in the post-WWII years. There is a pressing need for feminist historians to engage in collecting oral histories that could provide the evidence necessary to interrogate women's constructions of their sexual identities and understandings of their agency as engendered bodies during parturition, before the opportunities have passed to interview women who were of childbearing age in the postwar period. In addition, a separate study of the nursing literature and its relationship to advice literature in the popular press, building on my research, might provide scholars with further perspective on the ways that gender and power were textually constructed, maintained, and mitigated. A similar study of educational materials and tactics used in medical schools would be useful in further uncovering the impact of relations of power in obstetrics in this era.

Nevertheless this thesis, “Prepping the Cut: C-Section Scenarios in Canada, 1947-1970,” reminds us that the safety of caesarean section as established in the early post-WWII years allowed a reconfiguration of its role in addressing risk in childbearing. Understanding the social, technological and professional framework of the era provides a base from which to understand the context in which women and their medical caregivers made decisions about birth. Caesarean sections in post-WWII Canada became an effective tool for the reduction of maternal and infant morbidity and mortality in numerous scenarios, while at the same time reminding practitioners and parents alike that surgical childbirth was not without risk.

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5 Elise Chenier’s methodology in her discussion of the preservation of lesbian oral histories is particularly relevant here. See Elise Chenier, “Hidden from Historians: Preserving Lesbian Oral History in Canada” *Archivaria* 68 (Fall 2009) 247-269.
BIBLIOGRAPHY

PRIMARY SOURCES

Interviews

Newspapers and Journals

British Medical Journal, 1945-1970
Bulletin of the History of Medicine, 1945-1970
Canadian Journal of Medical Technology, 1945-1970
Canadian Medical Association Journal, 1945-1975
Chatelaine, 1945-1970
Journal of the American Medical Association, 1945-1970
Obstetrics and Gynecology, 1945-1970

British Columbia Medical Association Archives
Sydney Segal Fonds
Professional Advisory Committee on Perinatal Care Fonds

Providence Health Archives
St. Paul’s Hospital Delivery Registers, 1952-1970
Government Commissions and Reports


Books


Articles and Chapters


**SECONDARY SOURCES**

**Book, Theses, and Unpublished Manuscripts**


**Articles and Chapters**


Macdonald, Margaret. “Gender Expectations: Natural Bodies and Natural Births in the New Midwifery in Canada.” *Medical Anthropology Quarterly* 20, no. 2 (June 2006): 235-256.


**Government and Health Authority Reports**


