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High-Tech Obstetrics, Colonialism, and Childbirth Choice in Late Twentieth-Century Canada

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SUMMARY: Developed in the United States in the late 1950s and 1960s, the electronic fetal monitor (EFM) was increasingly used in obstetric practice throughout North America by the 1970s. In identifying and delineating the “normal” fetal heart rate, EFM played a central role in defining obstetric risk and, in the eyes of many practitioners, quickly became an essential tool of “modern” and safe hospitalized birth. Focusing on one specific settler-colonial context, this article explores the relationship between obstetric technologies including the EFM and the childbirth “choices” available to mothers giving birth in late twentieth-century Canada. As smaller hospitals, health centers, and nursing stations, particularly in rural, remote, and northern areas, lacked access to what were framed as essential technologies, obstetric services were withdrawn from many communities, a shift that continues to disproportionately affect Indigenous mothers who are routinely evacuated out to give birth in provincial hospitals.

KEYWORDS: obstetric technology, electronic fetal monitoring, maternal evacuation, Indigenous health, colonialism, pregnancy, childbirth, reproductive justice

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In November 1981, Canada's leading women's magazine, *Chatelaine*, published an article entitled "Childbirth in the '80s: A New Mothers' Primer." Unpacking "today's world of high-tech obstetrics," the authors of the piece, June Engel and Elizabeth Parr, described the routine use of electronic fetal monitor (EFM) in just under half of Canadian hospitals, a procedure during which "a large belt strapped over the mother's abdomen confines her to bed, while her baby's heartbeat is recorded on a screen."¹ With fetal monitoring positioned as one of "The Miracle Machines of High-Tech Medicine" that allowed for greater technological surveillance of "high-risk" pregnancies,² discussions of the practice were regularly juxtaposed with medical and lay expressions of concern surrounding rising rates of cesarean section, both in Canada and internationally. Birth reform advocates, and a small but growing subset of medical practitioners, positioned the widespread and routine use of the EFM, along with other technologies, as blurring the line between help and harm in obstetric care. Alongside the ambiguities and ongoing debates surrounding its use, inequitable access to obstetric technologies like the EFM had a material impact on the childbirth "choices" available to expectant mothers giving birth in late twentieth-century Canada.

Drawing on a selection of Canadian and international medical journals, including the *Canadian Medical Association Journal (CMAJ)* and the *Canadian Nurse*, popular magazines and newspapers, feminist newsletters, and the archived reports of provincial, territorial, and federal

¹ June Engel and Elizabeth Parr, "Childbirth in the '80s: New Mothers' Primer," *Chatelaine*, November 1981, 63–65, 136, 140–41, 144, quotation on 140.

² Charlotte Gray, "The Miracle Machines of High-Tech Medicine," *Chatelaine*, June 1980, 35, 46, 50, 54–57.

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health organizations, this article explores the development and growing use of obstetric technologies like the EFM in Canada during the second half of the twentieth century. As Jacqueline Wolf has shown in her history of cesarean section in the United States, shifting perceptions of “risk” were central to the medicalization and pathologization of birth.³ In the Canadian context, as the majority of medical experts increasingly framed technologies including the EFM as essential for ensuring healthy pregnancies and safe childbirth, the same group of experts continued to position Indigenous birth knowledges and techniques as “primitive” and “risky” in comparison to the “modern” scientific advances of Western biomedicine.⁴ As community health centers, outpost nursing stations, and smaller hospitals in rural, remote, and northern areas of what is now known as Canada lacked access to many of these tools of technological surveillance and were not staffed or equipped to handle “high-risk” deliveries, obstetric services were gradually removed from these communities.

This removal went hand in hand with the implementation of government policies mandating routine evacuation for childbirth (a process in which pregnant people are flown out of their communities prior to delivery) around the thirty-sixth or thirty-seventh week of pregnancy, shifts that disproportionately impacted—and continue to impact—First Nations and Inuit mothers who give birth in Canadian health care systems.⁵ Tracing the uniquely Canadian history

³ Jacqueline H. Wolf, *Cesarean Section: An American History of Risk, Technology, and Consequence* (Baltimore: Johns Hopkins University Press, 2018).

⁴ On the standardization of biomedical technologies and the impact of their routine use, see Margaret Lock and Vinh-Kim Nguyen, *An Anthropology of Biomedicine* (Oxford: Wiley-Blackwell, 2018).

⁵ In Canada, the term “Indigenous” is used to refer to First Nations, Métis, and Inuit nations, communities, and peoples. Health researchers studying the impacts of maternal evacuation have predominantly focused on Inuit and First Nations communities, with “the limited research on

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of evacuation for childbirth is by no means a straightforward process. Midwife and gender studies scholar Karen Lawford from Lac Seul First Nation positions Health Canada's evacuation guidelines as an "invisible policy" that falls between federal and provincial jurisdictions, is supported by state-allocated resources, and has marked physical and material impacts on the lives of those mothers-to-be who are evacuated out to give birth.⁶ Lawford argues that "the absence of a clearly articulated policy means that provincial policies are not linked to the federal evacuation policy, resulting in dependence on individual practitioners for the success, or failure, of maternity care services" for First Nations and Inuit women who give birth in provincial and territorial health care systems.⁷ Existing outside of easily identifiable policy language and official government directives, the development of Canada's evacuation policies, shaped by the decisions made by individual practitioners, is difficult to trace in the extant colonial record; the fact that experiences of evacuation are individual and subjective further contributes to their lack of visibility.

These changes in the provision of maternity services, ironically, took place just as the Canadian government articulated a new sense of national identity and pride following the introduction of Medicare in the late 1960s and continued to emphasize the "universality" and "accessibility" of health services under the Canada Health Act (1984). Both individually and on a collective level, mothers resisted technological surveillance, medicalization, and colonial

evacuation among Métis communities" representing "a critical knowledge gap." Hilah Silver et al., "Childbirth Evacuation among Rural and Remote Indigenous Communities in Canada: A Scoping Review," *Women and Birth* 35, no. 1 (2022): 11–22.

⁶ Karen Lawford, "Locating Invisible Policies: Health Canada's Evacuation Policy as a Case Study," *Atlantis* 37, no. 2 (2016): 147–60.

⁷ *Ibid.*, 148.

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control in the form of maternal evacuation, working to keep birth in the community as an exercise of sovereignty and self-determination. Fundamentally, a historical examination of the shifting childbirth experiences of those giving birth in late twentieth-century Canada further calls into question the often-unproblematized relationship between technology and progress in obstetric practice, particularly in relation to health care inequities rooted in the historical legacies of ongoing settler colonialism. In this particular context, the EFM functioned as an obstetrical object that reduced the parturient female body to an easily readable output for the convenience of the practitioner, facilitating the continued colonial surveillance of Indigenous mothers and suppression of traditional birthing practices, and, in its absence, fueling ongoing health disparities in the Canadian North.

Looking at the history of childbirth in Canada, the first half of the twentieth century saw the continuation of several trends well underway by the close of the 1800s, including the professionalization of obstetrics and the related decline of midwifery in many—but not all—areas of Canada. As Wendy Mitchinson has argued in her now classic *Giving Birth in Canada, 1900–1950*, “midwives did not disappear,” and midwifery persisted in several rural and remote regions, Newfoundland, and the North well into the twentieth century.⁸ As doctors in southern Canada, and particularly in urban areas, worked to corner the midwifery market, a new generation of physicians, often with limited training in obstetrics, worked to carefully construct their professional knowledge and authority, positioning themselves as the only qualified interpreters of the progression of labor. Drawing on a burgeoning sense of professional expertise,

⁸ Wendy Mitchinson, *Giving Birth in Canada, 1900–1950* (Toronto: University of Toronto Press, 2002), 69–103.

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physicians relied on obstetric technologies including the stethoscope and auscultatory techniques (namely, listening for and carefully distinguishing the placental soufflé) to “read” the female body and distinguish between “true” and “false” labor pains.⁹ These professional trends went hand in hand with the gradual shift from home to hospital birth, with the majority of births taking place in hospital by the post–World War II period,¹⁰ as well as the ongoing pathologization of childbirth, albeit for some women giving birth in Canada more than for others.

Constructions of “civilized” and “primitive” childbirth were a mainstay in both medical and anthropological literature published and read by Canadian practitioners by the second half of the nineteenth century. Here, “expert” commentators across fields centered what they framed as a key distinction between the bodies and birth experiences of white, middle-class, urban-dwelling women, who were cast as having difficult and painful births, and the more “natural,” less painful deliveries of Indigenous, Black, racialized, working-class, and rural mothers.¹¹ In the context of jurisdictional disputes over treaty rights, “medicine chest” provisions, and Canada’s duty to care, detailed by historians of Indigenous health including Maureen Lux, Mary Jane

⁹ Whitney Wood, “‘Don’t Tell Them You’re Guessing’: Learning Obstetrics in Canadian Medical Schools, c. 1890–1920,” in *Transforming Medical Education: Historical Case Studies of Teaching, Learning, and Belonging in Medicine*, ed. Delia Gavrus and Susan Lamb (Montreal: McGill-Queen’s University Press, 2022), 455–79.

¹⁰ The shift from home to hospital birth had broad regional variations. In Ontario, arguably the province at the forefront of the medicalization of childbirth, the majority of births took place in hospital by the late 1930s. Nationally, Wendy Mitchinson notes that 45.3 percent of births took place in hospital in 1940, and rising to 63.2 percent in 1945. Mitchinson, *Giving Birth in Canada* (n. 8), 175.

¹¹ See, for example, George J. Engelmann, *Labor among Primitive Peoples. Showing the Development of the Obstetric Science of To-day, from the Natural and Instinctive Customs of All Races, Civilized and Savage, Past and Present* (St. Louis: J.H. Chambers, 1883).

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Logan McCallum, and Mary-Ellen Kelm,¹² cultural and medical descriptions of “natural” birth were used to justify different standards of treatment, particularly for First Nations women giving birth on reserves.¹³ Shifting medical perspectives on Indigenous health in the mid-twentieth century fueled growing efforts to effect assimilation through health care, establish an expanding network of Indian hospitals,¹⁴ and carry out a range of northern health surveys in the immediate postwar decades.¹⁵ These surveys, particularly those focused on prenatal nutrition and reproductive health (which singled out the diets of expectant mothers, reliance on regional and seasonal hunting and gathering, and extended, non-nuclear-family households for scrutiny) fueled the further pathologization of First Nations and Inuit bodies and lifestyles.¹⁶ In effect,

¹² Treaty promises including the “medicine chest” clause of Treaty Six (1876) entrenched First Nations’ right to health care as a federal responsibility. In Canada, however, provincial and territorial governments are responsible for the delivery of health care, with services for First Nations and Inuit peoples provided through the federal Non-Insured Health Benefits (NIHB) program. This patchwork of service provision creates gaps in care that disproportionately affect Indigenous communities. Maureen Lux, *Separate Beds: A History of Indian Hospitals in Canada, 1920s–1980s* (Toronto: University of Toronto Press, 2016); Mary Jane Logan McCallum, “Starvation, Experimentation, Segregation, and Trauma: Words for Reading Indigenous Health History,” *Can. Hist. Rev.* 98, no. 1 (Spring 2017): 96–113; Mary-Ellen Kelm, *Colonizing Bodies: Aboriginal Health and Healing in British Columbia, 1900–1950* (Vancouver: University of British Columbia Press, 1998).

¹³ Into the mid-twentieth century, Canadian medical discourses continued to record the opinion that “the federal government does not encourage doctors to confine Indians on reserves.” F. W. Jackson, N. R. Rawson, and E. Couture, “Maternal Mortality in Manitoba, 1933–1937,” *Can. Pub. Health J.* 31, no. 7 (July 1940): 320.

¹⁴ Lux, *Separate Beds* (n. 12).

¹⁵ See, for example, Otto Schaefer, “Medical Observations and Problems in the Canadian Arctic,” *Can. Med. Assoc. J.* 81, no. 5 (September 1, 1959): 386–93.

¹⁶ Krista Walters, “‘A National Priority’: Nutrition Canada’s *Survey* and the Disciplining of Aboriginal Bodies, 1964–1975,” in *Edible Histories: Cultural Politics: Towards a Canadian Food History*, ed. Franca Iacovetta, Valerie J. Korinek, and Marlene Epp (Toronto: University of Toronto Press, 2012), 433–51; Jennifer Fraser, “Seizing the Means of Reproduction? Canada,

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heightened colonial surveillance in the postwar decades laid the groundwork for new constructions of Indigenous pregnancies as “high risk,” particularly in need of medical supervision and intervention. As Patricia Jasen has detailed in her analysis of the colonization of childbirth in northern Canada from the late eighteenth century through the twentieth, assimilationist efforts framed childbirth in the North as lacking “adequate” supervision and targeted what the state cast as First Nations and Inuit mothers’ “unfortunate allegiance to ‘native customs’ in pregnancy, birth, and infant care.”¹⁷ This framing contributed to the ongoing erasure of Indigenous birthing knowledges and culminated in the interventionist policy of evacuation out for birth beginning in the 1970s. As Erika Dyck and Maureen Lux aptly demonstrate, this period saw renewed—and unprecedented—state investment in and surveillance of the reproductive bodies of Indigenous (and especially Inuit) women, particularly in northern Canada.¹⁸

This article builds on this historiography, extending Dyck and Lux’s argument from contraception and population control to childbirth, and departing from Jasen’s foundational analysis to center the role of obstetric technologies like the EFM in the introduction and shoring up of maternal evacuation policies in a uniquely Canadian settler-colonial context.¹⁹ In doing so,

Cancer Screening, and the Colonial History of the Cytoscope,” *Can. Bull. Med. Hist.* 38, no. 1 (2021): 128–76.

¹⁷ Patricia Jasen, “Race, Culture, and the Colonization of Childbirth in Northern Canada,” *Soc. Hist. Med.* 10, no. 3 (1997): 383–400, quotation on 395.

¹⁸ Erika Dyck and Maureen Lux, *Challenging Choices: Canada’s Population Control in the 1970s* (Montreal: McGill-Queen’s University Press, 2020), 25.

¹⁹ Looking at the American context, Brianna Theobald has detailed that when the U.S. Indian Health Service “was unable to provide necessary gynecological and obstetric services on or near a reservation, the federal agency contracted with medical institutions off the reservation, an arrangement that required some women to travel two or more hours to deliver a baby.” While similar travel for delivery occurs in other countries, the scale of evacuation for childbirth in

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we draw on recent work from historians of medicine, including Jacqueline Wolf, Ilana Lowy, and Lara Freidenfelds, who have explored the transnational relationships between diverse childbirth technologies and techniques and the construction of obstetric risk during the twentieth century.²⁰ Finally, in addition to this rich body of work, this historical analysis is indebted to the efforts of Indigenous scholars, anthropologists, sociologists, and public health researchers who have, over the past three decades, worked to unpack the wide-ranging impacts of maternal evacuation in the Canadian context.²¹

The analysis that follows is organized into three sections. After first tracing the postwar development of obstetric technologies including the ultrasound and EFM, the article considers the myriad ways in which these technologies, working together to facilitate heightened medical surveillance of both pregnancy and labor, led to shifting definitions of obstetric risk during the 1970s and 1980s. As new techniques like electronic fetal monitoring enabled the more precise definition of the “normal” fetal heart rate during labor, obstetric technologies were at the heart of

northern Canada—both in terms of the near total application of the policy and in terms of the distanced traveled—is unique. Brianna Theobald, *Reproduction on the Reservation: Pregnancy, Childbirth, and Colonialism in the Long Twentieth Century* (Chapel Hill: University of North Carolina Press, 2019), 8.

²⁰ Jacqueline H. Wolf, *Deliver Me from Pain: Anesthesia and Birth in America* (Baltimore: Johns Hopkins University Press, 2008); Jacqueline H. Wolf, “‘They Said Her Heart Was in Distress’: The Electronic Fetal Monitor and the Experience of Birth in the U.S.A., 1960s to the Present,” *ICON* 26, no. 2 (2021): 33–61; Wolf, *Cesarean Section* (n. 3); Ilana Löwy, *Tangled Diagnoses: Prenatal Testing, Women and Risk* (Chicago: University of Chicago Press, 2018). See also Lara Freidenfelds, *The Myth of the Perfect Pregnancy: A History of Miscarriage in America* (New York: Oxford University Press, 2020).

²¹ Karen M. Lawford, Audrey R. Giles, and Ivy L. Bourgeault, “Canada’s Evacuation Policy for Pregnant First Nations Women: Resignation, Resilience, and Resistance,” *Women and Birth* 31, no. 6 (2018): 479–88; Patricia A. Kaufert and John D. O’Neil, “Cooption and Control: The Reconstruction of Inuit Birth,” *Med. Anthropol. Quart.* 4, no. 4 (1990): 427–42.

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both creating and policing the boundaries of obstetric risk, and delineating the “high risk” pregnancy and delivery. Settler-colonial spaces, including the Canadian North, served as a key laboratory for constructing and testing these ideas, as health surveys and medical technologies facilitated the mapping and surveillance of Indigenous bodies.²² The second section turns to exploring the material conditions of childbirth in rural, remote, and especially northern areas, arguing that the absence of obstetric technologies including the EFM—increasingly framed as central to “safe” and “modern” childbirth in colonial medical discourses—reinforced the positioning of First Nations and Inuit pregnancies and deliveries, in particular, in the “high risk” category, leading to the growing implementation and routinization of evacuation for childbirth. Relying on the archives of settler and Indigenous women’s organizations, popular magazines and newspapers, and extant oral history collections, the final section of the article highlights the ways in which individual mothers and mothers-to-be pushed back against technological surveillance and colonial control as well as collective efforts to reclaim childbirth as an event taking place within the community.

Postwar Technologies and the Construction of Obstetric Risk

Throughout North America, routine aspects of postwar obstetric practice—the ritualized “prep” for childbirth that included shaving and the administration of an enema, the use of Pitocin to induce labor and restraints to protect the sterility of the birth field, episiotomy, and regular anesthetization (at times without patient consent, and often to the surgical degree at the moment

²² Mary Jane McCallum, “This Last Frontier: Isolation and Aboriginal Health,” *Can. Bull. Med. Hist.* 22, no. 1 (2005): 103–20, discussion of “mapping” on 110–11.

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of birth)—were intended to make births as efficient as possible, particularly for the attending physician.²³ Jacqueline Wolf argues that in the immediate postwar period “a new focus on the fetus” as the primary obstetric patient drove the development of diagnostic tools, including the Friedman curve and the Bishop and Apgar scores, that delineated the boundaries of “normal” and “pathological” labor.²⁴ In the decades that followed, new technologies that held the promise of reducing inefficiencies in the North American obstetric ward while safeguarding the fetus became particularly attractive to a range of North American practitioners. Two of the most popular technologies introduced during these transformative decades were the ultrasound and the EFM.

Ultrasound technology, developed in Scotland in the late 1950s, promised to allow parents-to-be to visualize and bond with their expected children in new ways.²⁵ By the early 1970s, Scottish researchers built on their initial work to use ultrasound to detect fetal heart movement and measure the size of the fetus, thereby estimating gestational age, during the first trimester of pregnancy.²⁶ As Lara Freidenfelds has argued in her study of the American context,

²³ Wolf, *Deliver Me from Pain* (n. 20), and on the mechanization of birth in Canadian obstetrics, Whitney Wood, “‘Put Right Under’: Obstetric Violence in Post-war Canada,” *Soc. Hist. Med.* 31, no. 4 (2018): 796–817.

²⁴ Wolf, *Cesarean Section* (n. 3), 98–103; Rebecca L. Jackson, “Constructing *Centimeters*: Emanuel Friedman’s Cervimeter and the Dilatation-Time Curve,” *Bull. Hist. Med.* 99, no. 1 (2025): XX–XX.

²⁵ Ian Donald, J. MacViar, and T. G. Brown, “Investigation of Abdominal Masses by Pulsed Ultrasound,” *Lancet* 271, no. 7032 (June 7, 1958): 1188–95.

²⁶ H. P. Robinson, “Detection of Fetal Heart Movement in First Trimester of Pregnancy Using Pulsed Ultrasound,” *Brit. Med. J.* 4, no. 838 (November 25, 1972): 466–68; and H. P. Robinson, “Sonar Measurement of Fetal Crown-Rump Length as a Means of Assessing Maturity in First Trimester of Pregnancy,” *Brit. Med. J.* 4 (1973): 28–31.

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“the ultrasound ritual” quickly came to be an important part of “modern” pregnancy.²⁷ North of the border, Canadian physicians began to report the widespread use of ultrasound as “an aid to diagnosis in obstetrics,”²⁸ noting the value of technology in identifying potential complications, including neural tube defects, hydrocephalus, and “below-normal” fetal growth early in pregnancy.²⁹ Women also learned that ultrasound could detect fetal movement as early as the seventh week of pregnancy, long before they themselves could begin to feel and interpret “fetal flutters and kicks,” facilitating the all-important maternal-child bond.³⁰ Offering effective imaging of the fetus “from the age of five weeks on” that enabled careful monitoring of fetal growth and development throughout pregnancy, the ultrasound was positioned as widely available, well worth the average cost of \$30,000 per unit, and, significantly, “ideal for monitoring risky pregnancies.”³¹

Positioned as a complementary diagnostic device, the EFM played a crucial role in measuring and defining fetal risk. Building on earlier efforts to listen to the fetal heart with a range of auscultatory technologies, Yale University obstetrician Edward Hon began working on a project to use continuous electronic monitoring to record the fetal heart rate during labor and diagnose potential distress in the late 1950s.³² In the eyes of American obstetricians, Wolf notes,

²⁷ Freidenfelds, *Myth of the Perfect Pregnancy* (n. 20), 152–65.

²⁸ K. E. Hodge, “Letter to the Editor: Therapeutic Abortion and Ultrasound,” *Can. Med. Assoc. J.* 105 (November 20, 1971): 1021.

²⁹ “Ultrasound Providing Valuable Information in Pregnancy,” *Can. Med. Assoc. J.* 114 (February 7, 1976): 253.

³⁰ Charlotte Gray, “The Meaning of Fetal Flutters & Kicks,” *Chatelaine*, July 1984, 32.

³¹ Gray, “Miracle Machines of High-Tech Medicine” (n. 2), 36.

³² Edward H. Hon, “The Electronic Evaluation of the Fetal Heart Rate: Preliminary Report,” *Amer. J. Obstet. Gyn.* 75 (June 1958): 1215–30.

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“the ability of the fetal monitor to continually record every nuance of the fetal heartbeat” represented a “demonstrably superior” way of gauging fetal well-being.³³ In Canada, monitoring technologies were framed as a key intervention in continuing the forward “March of Medicine” that offered doctors invaluable indicators of fetal distress “in time to save infants’ lives,” and attracted the attention of the popular press by the early 1960s.³⁴ Continuing this work over the course of the decade that followed, Hon and his colleague Richard H. Paul introduced their “clinical fetal monitor” in 1970, describing the new piece of equipment as “simple and convenient enough to be used in a routine manner on an obstetric service.”³⁵ The emphasis on the monitor’s suitability for routine use remained an important characteristic of how EFM continued to be described in the decades that followed.

Building on technological developments that facilitated smaller and more portable monitors, electronic fetal monitoring was used in half of all hospital births in the United States by 1976.³⁶ EFM was also an increasingly commonplace feature of Canadian hospital birth, though, as in the United States, there were considerable variations across regions. At Winnipeg’s St. Boniface General Hospital, a teaching hospital affiliated with the University of Manitoba that saw approximately three thousand deliveries per year, intrapartum fetal monitoring for selected

³³ Wolf, *Cesarean Section* (n. 3), 127.

³⁴ Joan Hollobon, “March of Medicine: Heart Monitor Helps Save Unborn Child,” *Globe and Mail*, June 17, 1961, 10. See also “New Device Measures Rate of Fetal Heart,” *Globe and Mail*, September 7, 1972, W5.

³⁵ Richard H. Paul and Edward H. Hon, “A Clinical Fetal Monitor,” *Obstet. Gyn.* 35, no. 2 (February 1970): 161–69; Wolf, *Cesarean Section* (n. 3), 130.

³⁶ Wolf, *Cesarean Section* (n. 3), 136. Wolf notes that teaching hospitals in the United Kingdom were also quick to embrace EFM as the gold standard of care. Wolf, ““They Said Her Heart Was in Distress”” (n. 20), 35.

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high-risk pregnancies was introduced in late 1972, with the obstetric service relying on three Hewlett Packard fetal monitors with components that allowed for both external and internal monitoring. By 1973, EFM was conducted in just over one quarter of deliveries, with primigravida patients making up 53.8 percent of cases.³⁷ Mechanized monitoring and technological surveillance reassured Canadian physicians, including Dr. Murray Enkin of Hamilton, Ontario, professor of obstetrics and gynecology at McMaster University and one of the leading national supporters of “family-centred” birth, which he saw as rooted in the framing of birth as a “normal” healthy event, including the active involvement of fathers in the delivery room. As Enkin wrote in a letter to the June 1974 issue of the Berkeley-based *Birth and the Family Journal*, “The lulling whir of the monitor is the best possible sedative for the obstetrician,” as EFM reassured the attending practitioner that labor was progressing normally. Technological and interpretive problems aside, the EFM, Enkin argued, provided a clear picture: “Either the labor is progressing well and the baby is fine, or it is not and intervention is called for.”³⁸ A growing number of medical experts saw the availability of EFM as a marker of medical

³⁷ K. S. Koh, D. Greves, S. Yung, and L. J. Peddle, “Experience with Fetal Monitoring in a University Teaching Hospital,” *Can. Med. Assoc. J.* 112, no. 4 (February 22, 1975): 455–56, 459–60, quotation at 456. This study was completed between July 1 and November 30, 1973. “Fetal monitoring, initially by external and then by internal methods, was established only after the fetal heart rate irregularity had been detected by auscultation.” Of the patients, 37.8 percent received external monitoring, 11.2 percent received internal monitoring, and 51.0 percent received a mixed method of monitoring (459).

³⁸ Enkin continued, “We are given the data from which a judgement is so easy that it does not call for judgement at all” and lamented the depersonalized care that went hand in hand with recognizing “the superiority of the machine, as we rely on it to replace our clinical judgement, we tend to imitate it.” He concluded, “The fetal monitor is a most useful obstetric tool, with a life-saving potential. I hope we use it, but wisely.” Murray W. Enkin, “Letters,” *Birth Fam. J.* 1, no. 3 (June 1974): 11.

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progress, drawing a sharp distinction between older methods of evaluating the intrauterine environment—including “auscultation of the fetal heart,” which as traditionally practiced “proved an unreliable indicator of fetal distress”—and “more sophisticated fetal monitoring systems” that were “no longer restricted to the research laboratory” and were framed as having the valuable ability to “provide early warning of fetal distress during labour.”³⁹ By the early 1980s, in many large Canadian maternity wards, including at Toronto’s Mount Sinai hospital, fetal monitoring was “standard procedure once a woman goes into labor, whether she is a high risk pregnancy or not,” reflecting the assessment that monitoring technology alone could safeguard against obstetric risk.⁴⁰ Across the country, estimates held that EFM was performed in just under half of Canadian hospitals.⁴¹

Alongside this initial enthusiasm, Canadians began to weigh the benefits and drawbacks of this particular obstetric technology. Many early adopters found the EFM difficult to interpret. Responding to these difficulties in an address at the 1974 meeting of the Society of Obstetricians and Gynecologists of Canada (SOGC), Dr. D. W. Cudmore of Dalhousie University recommended “vigorous continuing education” in the use of monitoring equipment, “especially for doctors and their staffs at non-university centres,” noting that “the interpretation of fetal heart rate patterns is not always straightforward” and could lead to unnecessary interventions.⁴² Other

³⁹ Koh et al., “Experience with Fetal Monitoring” (n. 37), 455. For a nurse’s perspective, see Ellen Hodnett, “Fetal Monitoring: Why Bother?,” *Can. Nurse*, March 1977, 44–47.

⁴⁰ Dorothy Lipovenko, “Mobile Unit Monitors Fetus in Womb,” *Globe and Mail*, October 1, 1980, 11.

⁴¹ Engel and Parr, “Childbirth in the ’80s” (n. 1), 140.

⁴² “Doctor Warns of Possible Danger in Monitoring the Fetal Heartbeat,” *Globe and Mail*, June 21, 1974, 12.

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doctors were careful to underscore the relationship between monitoring, medical knowledge, and physician authority, noting that “electronic fetal heart rate monitoring . . . does not replace clinical judgement or concern and compassion for the patient” but rather “improves clinical perspective by permitting better surveillance of the fetus.”⁴³

Despite this fundamental instability of the instrument, the fact that the EFM was difficult to interpret, requiring specialized knowledge and skill, was an attribute that positioned this piece of obstetric technology as having the potential to both undermine and undergird professional expertise. In the first of two pieces appearing in *Chatelaine* in 1981, Dr. John Patrick of the University of Western Ontario expressed the belief that “while the monitor may provide lifesaving information in high-risk pregnancies, 20 to 50 percent of its alarms are false,” with errors attributed to both machine malfunctions and the misinterpretation of data.⁴⁴ In a subsequent piece, Patrick noted, “Fetal reactions are often interpreted by inexperienced staff, producing false alarms of fetal distress in perfectly healthy babies and result in much needless cesarean surgery.”⁴⁵ The monitor’s output could confound practitioners, and this was positioned by a growing cadre of medical experts as leading to unnecessary cesarean section. Dr. Corinne Devlin of McMaster University, for example, suggested that Canada was entering an era of “defensive medicine” that was directly linked to the technological surveillance of the parturient body; as Devlin summarized, “Well-intentioned doctors get jumpy when the fetal heart monitor needle wavers a bit. . . . If you produce a dead baby, God help you. . . . If you’ve performed a

⁴³ Koh et al., “Experience with Fetal Monitoring” (n. 37), 460.

⁴⁴ Fredelle Maynard, “Cesareans: A Better Way to Give Birth?,” *Chatelaine*, August 1981, 43, 58, 60–61, 64, 68, quotation at 64.

⁴⁵ Engel and Parr, “Childbirth in the ’80s” (n. 1), 140.

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cesarean, you're covered. If you haven't, you're maybe negligent."⁴⁶ At the same time, however, the recurring emphasis on the expertise required to accurately interpret EFM results—and make the accurate call that could prevent a perinatal death—had the potential to shore up professional hierarchies between specialists and general practitioners, and physicians and nurses.

The EFM was also positioned as having economic benefits for Canadian hospitals. Wolf argues that in the United States EFM became “a lucrative mainstay” of maternity care, leading to higher obstetric billings that shored up hospital budgets and subsidized other services.⁴⁷ Medicare billing models, entrenching birth as a hospital-based health service covered by provincial, and later federal, insurance plans, made this feature of electronically monitored birth less of a draw for Canadian hospital administrators.⁴⁸ Nevertheless, across North America, the “EFM also cut down on the need for costly personnel,” as previous and time-intensive efforts, mostly on the part of nurses and residents, to diligently record fetal heart rates, were repudiated by the efficiency and autonomy of the monitor.⁴⁹ Assessing debates over EFM in 1977, Ellen Hodnett of the University of Toronto Faculty of Nursing argued that a key benefit of the EFM was that it relieved nurses of “fetoscope duty,” enabling them to “have more time to give to the emotional and physical comfort of their patients.”⁵⁰ In addition to preventing tragic intrapartum deaths, Canadian practitioners positioned the monitor’s estimated cost of six thousand dollars per

⁴⁶ Devlin quoted in Maynard, “Cesareans” (n. 44), 61.

⁴⁷ Wolf, ““They Said Her Heart Was in Distress”” (n. 20), 51.

⁴⁸ On the relationship between Medicare and hospital birth, see Whitney Wood, “Medicare and Maternity: Historicizing Inequities in Women’s Health,” in *Medicare’s Histories: Origins, Omissions, and Opportunities in Canada*, ed. Delia Gavrus, Esyllt W. Jones, and James Hanley (Winnipeg: University of Manitoba Press, 2022), 131–52.

⁴⁹ Wolf, *Cesarean Section* (n. 3), 136.

⁵⁰ Hodnett, “Fetal Monitoring” (n. 39), 44–47.

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unit and the costs of educating obstetric personnel to interpret EFM data as being well outweighed by the considerable savings that this particular tool of technological surveillance—having the promise to prevent fetal asphyxia, “halve the incidence of mental retardation,” and relieve the considerable “expenditure for complete custodial care of a brain-damaged child for life”—would pass along to the Canadian taxpayer.⁵¹

Even in the face of mounting criticisms and anxieties surrounding cesarean section rates, the EFM was widely positioned as a marker of technological progress. In popular magazines and newspapers, fetal monitoring was quickly situated alongside an ever-expanding range of obstetric technologies and interventions—including but not limited to blood and urine tests, genetic counselling, ultrasound, amniocentesis, fetoscopy, and the use of drugs like oxytocin and Pitocin to induce labor—that were represented as hallmarks of the “modern” childbirth experience.⁵² Canadians learned about two types of monitors, with the distinction between external and internal monitoring laid out as a matter of degree. Internal EFM, which called for rupture of the membranes, a plastic catheter passed through the partially opened cervix, and an attached electrode “screwed into the baby’s scalp,” was distinguished from the more superficial method of external monitoring in which an ultrasound probe was strapped around the abdomen.⁵³ In emphasizing the greater reliability of the internal versus the external method, medical experts

⁵¹ Koh et al., “Experience with Fetal Monitoring” (n. 37), 455; and Hodnett, “Fetal Monitoring” (n. 39), 44–47.

⁵² “Health—Births by Daylight,” *Chatelaine*, September 1970, 12; Maynard, “Cesareans” (n. 44); Engel and Parr, “Childbirth in the ’80s” (n. 1); Gray, “Miracle Machines of High-Tech Medicine” (n. 2), 36.

⁵³ Maynard, “Cesareans” (n. 44), 61.

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constructed a hierarchy of obstetric technologies that positioned more interventionist tools as the gold standard.⁵⁴

Calls for increasing technological surveillance of the fetus, tied to more intensive internal monitoring, continued over the years that followed. Pressing for a reassessment of “normal” fetal heart rates in the early 1980s, Patrick suggested that prolonged internal monitoring, including a “biomechanical backup of fetal blood-oxygen levels—by fetal-scalp testing (screwing sensors into the baby’s head)—done for at least an hour, not the usual 20 minutes,” could render the procedure more reliable.⁵⁵ As Jacqueline Wolf writes, “The medical model of birth requires obstetricians to assign a risk category to all pregnant women, ensuring that even the most robust women will view themselves as trouble-prone.”⁵⁶ With all pregnancies framed as walking the fine line between “normal” and “pathological,” even the birth experiences of those mothers categorized as “low risk” were seen as having the potential for immediate complication and danger. In this context, the technological surveillance of all pregnancies, namely through tools like the EFM, was seen by a growing number of practitioners as a medical necessity for safe and modern birth.

“Risk” was—and remains—a historically situated and shifting category. Those expectant mothers who were seen to be at higher risk for complicated births demanded “more sophisticated” monitoring, with designations of risk often based on the age and lifestyle habits of

⁵⁴ Koh et al., “Experience with Fetal Monitoring” (n. 37), 460.

⁵⁵ Patrick suggested that sporadic monitoring was “no better than the regular stethoscope readings formerly done by a nurse or midwife.” Engel and Parr, “Childbirth in the ’80s” (n. 1), 140.

⁵⁶ Wolf, *Cesarean Section* (n. 3), 9; Jacqueline Wolf, “Risk and Reputation: Obstetricians, Cesareans, and Consent,” *J. Hist. Med. & Allied Sci.* 73, no. 1 (2018): 7–28.

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the parturient in question.⁵⁷ In her 1977 assessment of the place of fetal monitoring in Canadian obstetric practice, Ellen Hodnett pointed to the growing consensus, on the part of many obstetric authorities, that “fetal monitoring is a necessity when the patient is classified as being of ‘high risk.’” Hodnett posed the question. “What about the ‘low-risk patient, the well-nourished, healthy, married, twenty-two-year-old middle-class housewife who has had excellent prenatal care and is in labor at forty weeks’ gestation?”⁵⁸ Here, the “low-risk” parturient patient was explicitly positioned as middle-class, and drawing on the description of her access to “excellent prenatal care,” implicitly situated as urban-dwelling. At the same time, the description of the low-risk obstetric patient as “well-nourished” gains additional meaning in the context of postwar Canadian medical and nutritional surveys that consistently pathologized “Indian” and “Eskimo” populations and, by the 1970s, fueled widespread anxieties surrounding prenatal malnutrition in Indigenous communities, as compared to white or settler Canadian populations.⁵⁹ Here, then, we can also see the construction of a tacitly racialized form of obstetric risk that neglected to account for the range of very real health risks rooted in settler colonialism, including how the disruption of traditional foodways and a growing lack of affordable food in many rural, remote, and northern communities actively contributed (and contributes) to nutritional disparities

⁵⁷ Engel and Parr, “Childbirth in the ’80s” (n. 1), 63–64.

⁵⁸ Hodnett, “Fetal Monitoring” (n. 39), 46.

⁵⁹ Nutrition Canada, *Eskimo Survey Report* (Ottawa: Department of National Health and Welfare, 1975), and Nutrition Canada, *Indian Survey Report* (Ottawa: Department of National Health and Welfare, 1975), as discussed in Walters, “‘National Priority’” (n. 16). These links would be made more explicit in a September 1987 piece in the *Canadian Nurse* that, in discussing high rates of infant mortality “among natives in Canada,” noted a “high incidence of childbirth complications and perinatal death . . . caused by malnutrition.” Marilyn Madiros, “Primary Health Care and Canada’s Indigenous People,” *Can. Nurse*, September 1987, 20–24.

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between Indigenous and settler Canadian mothers, shaping birth outcomes. These links would be made more explicit in a September 1987 piece in the *Canadian Nurse* which, in discussing high rates of infant mortality “among natives in Canada,” noted a “high incidence of childbirth complications and perinatal death . . . caused by malnutrition.”⁶⁰ In the context of late twentieth-century Canadian obstetric practice, these culturally specific constructions of risk, continually reinforced by “evidence” collected during colonial surveys, would be inseparable from widening gaps in obstetric care.

Obstetric Equipment and Evacuation for Childbirth

Emphasizing the promise of innovations in obstetric practice, physicians recommended that technologies including the EFM be widely available throughout the modern Canadian hospital.⁶¹ Building on this enthusiasm, by the mid-1980s “advances in obstetrical care” were popularly represented by medical experts, including Hamilton perinatologist Dr. Patrick Mohide, secretary of the SOGC, as making pregnancy safer than ever before for the majority of Canadian women.⁶² The childbirth technologies that were at the heart of these advances, however, were unequally distributed, concentrated in large, urban hospitals with dedicated obstetric wards.⁶³ Smaller hospitals, nursing stations, and health centers often lacked access to the latest obstetric

⁶⁰ Madiros, “Primary Health Care” (n. 59).

⁶¹ Koh and his colleagues argued that EFMs “should be stationed in the delivery room as well as the first stage room,” with “the establishment of a fetal intensive care unit . . . believed to be strongly desirable in improving fetal surveillance during labour.” Koh et al., “Experience with Fetal Monitoring” (n. 37), 455, 460.

⁶² “Good News about Advances in Prenatal Care,” *Chatelaine*, June 1985, 40.

⁶³ Louise Hanvey and Shirley Post, “Changing Patterns in Maternity Care,” *Can. Nurse*, September 1986, 30.

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technologies, and throughout the postwar decades, the provision of medical care was materially different in rural and remote areas, particularly in the North. As McCallum has argued, however, the regional “isolation” that was consistently noted as an imperative for the removal of obstetric services and a characteristic that was itself rooted in the scarcity of health care was and “is not a naturally occurring geographical feature, but is made historically through relations of power.”⁶⁴

These disparities in the availability of obstetric technologies and maternity care were and are rooted in the structures and history of health care provision in northern Canada, inextricably shaped by ongoing settler colonialism and the slippages between different levels of government. The federal government shifted responsibility for Indian Health Services (IHS) from the Department of Indian Affairs to the Department of National Health and Welfare in 1945. Reflecting the strong state association between Indigenous peoples and the Canadian North, IHS was renamed as the Indian and Northern Health Service in 1955 and, from 1962 onward, was amalgamated with other branches and referred to as the Medical Services Branch.⁶⁵ In conjunction with the territorial governments of the Yukon and Northwest Territories, the Medical Services Branch, headquartered in Ottawa, held responsibility for northern health care delivery. Hospitals were situated in major population centers, including Whitehorse, Frobisher Bay, and Inuvik, institutions described in 1974 by Harriet E. Ferrari, a Medical Services Branch employee and regional nursing officer of the Northwest Territories as varying in size, but “relatively fully equipped” and each staffed by a team of physicians, including a surgeon. Nursing stations were located in settlements with populations ranging from a hundred fifty to

⁶⁴ McCallum, “This Last Frontier” (n. 22), 109.

⁶⁵ Lux, *Separate Beds* (n. 12), 49, 205.

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approximately a thousand people, with approximately forty such facilities, each staffed with one to four nurses, located throughout the North. Each station, Ferrari wrote, consisted of “outpatient facilities, inpatient beds, and living quarters for the nursing staff.” Health stations (sometimes referred to as health centers) provided basic health care facilities to small communities, often under the supervision of a community health representative. Across the North, problems with transportation and communication regularly arose, with the evacuation of patients to territorial or southern provincial health centers, for a range of medical reasons, often “delayed or precarious due to transportation difficulties.”⁶⁶

Looking at the material realities of rural, remote, and northern medical care, reports of the obstetric technologies available in community health clinics, nursing stations, and outpost hospitals—important sites, as McCallum argues, for “the interior mapping and observation of otherwise ‘isolated’ Aboriginal bodies”⁶⁷—were few and far between. Those that are available often came from nurses, charged with providing the bulk of frontline care. In outpost hospitals, obstetric technologies in the immediate postwar years might be limited to a fully equipped “baby bag,” which the outpost nurse kept “on hand for immediate action.”⁶⁸ Nursing stations, such as

⁶⁶ Harriet E. Ferrari, “Role and Activities of the Outpost Nurse in Northern Canada” (speech extracts, Third International Symposium on Circumpolar Health, Yellowknife, NT, 1974), folder 7, file 5, Vera Roberts Collection, Northern Ontario School of Medicine Library, Thunder Bay, ON.

⁶⁷ McCallum, “This Last Frontier” (n. 22), 112.

⁶⁸ Kathleen G. DeMarsh, “Red Cross Outpost Nursing in New Brunswick,” *Can. Nurse*, June 1973, 26–29. “Maternity suitcases” carried by outpost nurses to confinements in the 1930s and 1940s contained “rubber sheets, various basins, sterile dressings, and supplies . . . but also clean bed linens, towels, nightgowns, and new baby clothes.” Basic medications as well as equipment to administer ether anesthesia were also included in the first half of the twentieth century. Jayne

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the one in Brochet, a northern Cree community near the Manitoba-Saskatchewan border, were described as “highly operational with no frills . . . equipped with outpatient facilities, inpatient beds for the severely ill, and living quarters for the staff.”⁶⁹ The silences surrounding specific obstetric technologies through the 1970s, particularly when maternity cases were described in the same piece, are perhaps telling of a broader lack of equipment.⁷⁰

In the June 1971 issue of the *Canadian Nurse*, Helen Taylor offered a report of “the confinement of an Eskimo woman.” Taylor described the unmedicated delivery, which “took place in a well-equipped nursing station” as “the most normal and best managed delivery I ever saw.” Reflecting historically rooted and racialized constructions of “natural” or easy birth, Taylor continued, “I think the mother was geared to have a more normal delivery than perhaps some of the inhabitants of the south.”⁷¹ Though this birth took place before the widespread use of EFM, the subjective meaning and interpretation of “well-equipped,” particularly in relation to

Elliott, “Blurring the Boundaries of Space: Shaping Nursing Lives at Red Cross Outposts in Ontario, 1922–1945,” *Can. Bull. Med. Hist.* 21, no. 2 (2004): 303–25, quotation at 313.

⁶⁹ Hilary Brigstocke, “The Nurses of Brochet,” *Can. Nurse*, April 1974, 21–24.

⁷⁰ A 1984 piece in the *Canadian Nurse* detailed the case of a fifteen-year-old Inuit primipara patient, in premature labor at 34 weeks’ gestation, who was evacuated from Pangnirtung (where the nursing station had an incubator on hand) to Frobisher Bay, Northwest Territories, to give birth. This report mentioned a check of the fetal heart rate but was silent on how this was completed; with other equipment—like the incubator—highlighted, this can be interpreted as a manual check in the absence of EFM technology. “The North . . . the People . . . the Job,” *Can. Nurse*, January 1984, 28–29. A broader lack of access to equipment in the nursing station could be reason alone for patient transport, as two outpost nurses in northern Newfoundland in the late 1970s recalled that “occasionally the equipment needed for laboratory tests which could confirm a suspected diagnosis was not available in the nursing station and the patient had to be flown to North West River for examination.” Jane Graydon and Judith Henry, “Outpost Nursing in Northern Newfoundland,” *Canadian Nurse* (August 1977), 34–37.

⁷¹ “Deep-Freeze Seminar—A Warm Experience,” *Can. Nurse*, June 1971, 35–38.

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maternity care, may have shifted over the decade that followed. At small-town hospitals in northwestern Ontario, fetal monitoring was available by the late 1980s, but as hospitals lacked access to surgical facilities, and in the face of declining birth rates—Nipigon doctors, for example, delivered twenty-five babies in 1985, a number “too low to ensure a necessary competency level for obstetric care”—physicians increasingly made the decision to refer maternity cases to out-of-town physicians in Thunder Bay for labor and delivery.⁷² By 1989, nursing stations in the Northwest Territories were described as having basic laboratory facilities, including X-ray equipment, but the reasons for evacuation for childbirth were positioned as “medically sound,” based on the reality that nurses lacked the equipment (and, according to one nurse, the time and skill) necessary to manage abnormal births.⁷³

Lawford’s argument regarding the “invisible” nature of government evacuation policies is borne out by an examination of the colonial archival record.⁷⁴ In an oral history recorded in the late 1980s, Northwest Territories midwife Betty Anne Daviss-Putt noted “it is in vain that one searches for a definitive policy statement from the Medical Services Branch directing the evacuation of all women out of the North for their births. The history of evacuation has been an evolution of practice rather than the result of an official written directive.” Still, Daviss-Putt argued, the process entailed two distinct steps: the transfer of births, first, from local settings into

⁷² The decision met with considerable opposition from the community and the newly established Committee to Reinstate Birthing Services (CRIBS). See Fiona Karlstedt, “Committee to Reinstate Birthing Services, 1985–,” in *Northwestern Ontario Status of Women Initiatives, 1973–1987* (Thunder Bay: Northwestern Ontario Women’s Decade Council, 1987), 153–54; Kathy Thompson, “No More Labour Pains,” *Northern Woman J.* 9, no. 4 (1986): 4; and Holly Rupert and Dianne Lai, “Long Distance Delivery,” *Healthsharing* 10, no. 1 (Winter 1988): 16–20.

⁷³ Daphne Ross, “Commentary: Nursing Up North,” *Can. Nurse*, January 1989, 22–24.

⁷⁴ Lawford, “Locating Invisible Policies” (n. 6), 147–60.

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the nursing station and, second, from the nursing station and into the hospital.⁷⁵ Obstetric technologies (or lack thereof) played a central role in how evacuation policies and practices were framed and understood.

In the postwar years, the Canadian government began constructing health centers and nursing stations throughout the North, a process that accelerated following the establishment of the Federal Department of Northern Affairs in 1953, and the construction of the Distant Early Warning (DEW) radar line. These stations were staffed by nurses, many of whom had received midwifery training, often from the United Kingdom.⁷⁶ In a 1954 piece titled “Health for Indians and Eskimos,” published in the *Canadian Geographical Journal*, Dr. Percy E. Moore, director of IHS, reported that “an increasing number of expectant mothers come to the nursing stations to have their babies,” where deliveries were supervised by nurses or nurse-midwives.⁷⁷ The federal Department of National Health and Welfare estimated that 66 percent of Inuit births took place outside of the hospital or nursing station in 1964.⁷⁸ That number “had fallen to 14 per cent by

⁷⁵ Betty Anne Daviss-Putt, “Rights of Passage in the North: From Evacuation to the Birth of a Culture,” in *“Gossip”: A Spoken History of Women in the North*, ed. Mary Crnkovich (Ottawa: Canadian Arctic Resources Committee, 1990), 101–2.

⁷⁶ Kaufert and O’Neil, “Cooption and Control” (n. 21).

⁷⁷ Percy E. Moore, “Health for Indians and Eskimos,” *Can. Geog. J.* 48, no. 6 (June 1954): 216–21. At the time of writing, Moore recorded thirty-three nursing stations throughout Canada, “mostly on Indian reservations,” containing between four and thirteen beds in addition to “a number of bassinets and living quarters for the nurse and at least one assistant.” Regarding the persistence of nurse-managed birth in nursing stations and outpost hospitals, nurses in Cartwright, Newfoundland, reported in 1977 that they were responsible for “delivering most multiparous women with uneventful pregnancies.” Graydon and Henry, “Outpost Nursing in Northern Newfoundland” (n. 70).

⁷⁸ Medical Services Branch, Department of National Health and Welfare Canada, *Report on Health Conditions in the Northwest Territories* (Yellowknife, N.W.T.: National Health and Welfare Canada, 1966).

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1969, and continued to drop to almost zero in the following decade.” While the consolidation of hospital birth in the postwar decades occurred across geographic contexts, Daviss-Putt argues that these rapid shifts are unique “in the speed, completeness, and power with which they are enforced in the North.”⁷⁹

As Erika Finestone and Cynthia Stirbys have argued, as settler-Canadian physicians positioned Indigenous knowledge of childbirth firmly in the past, “as something not quite on par with the scientific and technological advances of the medical profession, they framed Indigenous birth methods as ‘risky’ by comparison.”⁸⁰ This formulation of biomedical risk, and the related call from many physicians for heightened technological surveillance of all pregnancies, undergirded the emphasis on relocating birth and is inseparable from broader and systemic efforts to separate Indigenous bodies from the land, impose colonial birth places and practices, and undermine Indigenous sovereignty. While the first step in this relocation was the transfer of births into the nursing station, distinctions between nursing stations and hospitals were brought into sharper relief, shifting the place of birth again, over the decade that followed.

In the 1970s and 1980s, Canadian medical discussions surrounding evacuation for childbirth often focused on the Keewatin Region of the Northwest Territories, 225,000 square miles to the west of Hudson’s Bay, an area that had a population of approximately 5,000 Inuit. Seven communities in the area, ranging from 200 to 1,100 residents, each had their own nursing stations, with the nearest hospital in Churchill, Manitoba, and a tertiary care center in Winnipeg,

⁷⁹ Daviss-Putt, “Rights of Passage in the North” (n. 75), 96.

⁸⁰ Erika Finestone and Cynthia Stirbys, “Indigenous Birth in Canada: Reconciliation and Reproductive Justice in the Settler State,” in *Indigenous Experiences of Pregnancy and Birth*, ed. Hannah Tait Neufeld and Jaime Cidro (Bradford, Ont.: Demeter Press, 2017), 180.

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the provincial capital. Assessing the period between 1970 and 1985, anthropologists John O’Neil and Patricia Kaufert determined that the total number of annual births in the region ranged from 105 to 161. Though nursing stations offered prenatal care and handled select births—usually in cases where the onset of labor occurred before mothers were set to be evacuated to Churchill or Winnipeg two to three weeks before their anticipated date of confinement—they identified a “gradual but steady” decline in the number of births taking place in the region.”⁸¹

During the 1970s, criteria for determining eligibility for delivery in the nursing station involved a basic and “relatively informal assessment of the likelihood that birth complications might develop.” O’Neil and Kaufert found that with only slight variations in language, Annual Reports on Health Conditions in the Northwest Territories published between 1969 and 1977 noted a continuing policy directive that called for “all primigravida and grand multiparae (fifth or subsequent infants) evacuated to hospital for delivery as all are complicated pregnancies or anticipated complications. Provided no complications ensued at the birth of the first infant or if all else is well, second, third, or fourth babies are delivered in the nursing station.”⁸² The technological surveillance of pregnancy entailed the growing identification of potential risks that, in many cases, would have negated this provision. Though the formal criteria for evacuation did not appear to shift during the 1970s, the decade saw a steady decline in the number of nursing station births and a related rise in the number of hospital deliveries.

⁸¹ John O’Neil and Patricia A. Kaufert, “The Politics of Obstetric Care: The Inuit Experience,” in *Births and Power: Social Change and the Politics of Reproduction*, ed. W. Penn Handwerker (Boulder, Colo.: Westview, 1990), 54.

⁸² *Ibid.*, 61.

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One of the earliest Canadian descriptions of evacuation for childbirth appearing in the international medical literature, published in the *British Medical Journal* in 1978, echoed O’Neil and Kaufert’s findings. In his examination of “Obstetric Care in the Central Canadian Arctic,” Dr. Thomas F. Baskett, who worked for the Northern Medical Unit in the Department of Obstetrics and Gynecology at the University of Manitoba, described the “liberal” policy of evacuation for childbirth in Keewatin district between 1971 and 1975 as “very simple: all primigravidae, grand multiparae, and any patient with a significant obstetric history of antenatal complication are electively evacuated for delivery in hospital.”⁸³ Highlighting the limits of “elective” evacuation or childbirth choice, particularly in the context of ongoing medical colonialism and declining obstetric services in the North, Baskett clarified that all high-risk cases required evacuation, with only carefully selected patients, in exceptional circumstances, eligible for delivery “in isolated settlements without immediate medical back-up.”⁸⁴ This process of careful selection, informed by new technological measurements of obstetric risk, effectively meant that only rare—and oftentimes, only emergency—deliveries would be completed in the North. Indeed, Baskett concluded that “in the context of modern obstetrics in the Western world it is difficult to defend patients delivering their babies in isolated areas without medical help or hospital facilities.”⁸⁵ At the same time, Alan Murdock, an Ottawa-based physician who worked as a consultant for the federal Medical Services Branch, called for a broader reassessment of existing scales of obstetric risk, which he positioned as less effective for “remote areas of the

⁸³ T. F. Baskett, “Obstetric Care in the Central Canadian Arctic,” *Brit. Med. J.* 2 (October 7, 1978): 1001–4, quotation on 103.

⁸⁴ *Ibid.*, 1003.

⁸⁵ *Ibid.*, 1004.

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country.” In areas where equipment and expertise were lacking and referral to secondary or tertiary care centers would be necessary, Murdock argued, the threat posed by potential complications required examination “from the perspective of the primary-care centre—in this case, the nursing station.”⁸⁶ Other physicians writing at the close of the decade raised similar concerns, arguing that given the challenges in reliably identifying the “normal” obstetric case, small rural hospitals that wanted to continue obstetric practice had to be prepared to handle the full range of complications, with adequate equipment, expertise, and facilities to perform blood transfusions, anaesthetization, and cesarean sections. Newfoundland physicians Douglas P. Black and Susan Gick suggested in 1979 that hospitals that saw fewer than one hundred deliveries per year lacked the caseload to maintain staff expertise and should “discontinue all obstetric practice.”⁸⁷ In short, delivery rooms were tasked with being at the ready to handle potential problems; as many nursing stations and health centers, particularly in rural, remote, and northern areas, lacked equipment, technologies, and staff, these imperatives led to the further decline of delivery services.

These discussions of the material shortcomings of care in rural and northern Canada were reinforced by an emphasis on the cost-effectiveness of routine evacuation for birth. Medical experts, including Baskett, were quick to stress the “considerable expense of emergency

⁸⁶ Alan I. Murdock, “Factors Associated with High-Risk Pregnancies in Canadian Inuit,” *Can. Med. Assoc. J.* 120 (February 3, 1979): 290–94, quotation on 294.

⁸⁷ Douglas P. Black and Susan Gick, “Management of Obstetric Complications at a Small Rural Hospital,” *Can. Med. Assoc. J.* 120 (January 6, 1979): 31–37, quotation on 37. Evacuation for childbirth was described not just in terms of the inability to provide effective and safe obstetric care in northern, rural, and remote regions, but also in relation to “surplus facilities” available at larger hospitals, which were “willing and anxious to accept referrals from small centres” (31).

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evacuations” as compared to scheduled flights out of northern communities ahead of delivery.⁸⁸

An assessment of maternity services in northern Labrador in the mid-1980s noted that “the cost to the taxpayer of an emergency evacuation is \$1200. Thus an average medivac would cost \$4500.” In contrast, the same piece noted that “a patient day in the hospital in Goose Bay costs \$490.” As “emergency” evacuations from nursing stations not equipped to handle obstetric cases were described as increasing “anxiety not only among the caregivers, but also for the woman and her family,” the blanket approach to evacuation for birth was framed as relieving both financial and familial stress.⁸⁹ While assessing the additional expense associated with emergency deliveries and last-minute travel versus scheduled routine evacuation, health officials remained largely silent on the comparative costs of maintaining (or reinstating) obstetric services in the North.

Expanding the definition of the “high risk” obstetric patient to include the material requirements for “safe” delivery ensured that growing numbers of women left their communities to give birth. The 1970s saw a growing withdrawal of obstetric and gynecological care in many northern settlements. Detailing the University of Manitoba’s role in the provision of care in Churchill and seven Keewatin communities between 1971 and 1977, T. F. Baskett noted that “as a matter of policy of the Health and Welfare Canada regional office, obstetric and gynecological consulting visits to the settlements are not regularly made.”⁹⁰ By the early 1980s, evacuation

⁸⁸ Baskett, “Obstetric Care in the Central Canadian Arctic” (n. 83), 1003–4.

⁸⁹ M. L. Stevenson, “The Provision of Maternity Services in Northern Labrador, 1984–1986,” *Arctic Med. Res.* 47 (1988): 492–94.

⁹⁰ T. F. Baskett, “A University Department’s Involvement with Medical Care in the Canadian North,” *Can. Med. Assoc. J.* 120 (February 3, 1979): 298–300, quotation on 298.

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policies were increasingly commonplace across northern Canada. In a 1988 study, Kaufert and her colleagues found that “new technologies which improved the determination of risk (such as the use of ultrasound to establish the expected date of confinement)” played an important role in facilitating this shift, as the perceived gap in care between nursing station and hospital continued to widen.⁹¹ A 1986 piece in the *Globe and Mail* reported that “regulations introduced in 1982” required expectant women in the Keewatin Region “be flown hundreds or thousands of kilometres to have their babies delivered in Churchill or Winnipeg.”⁹² Similarly, writing in 1998, a team of University of Ottawa researchers including community health nurse Joyce England, who, during this period, had worked in Rankin Inlet, Northwest Territories, recalled that “by 1982, births in nursing stations ceased as a result of a combination of factors, including the recommendation by obstetricians that all pregnant women should deliver in hospitals, and the resignations of nurse-midwives in Baker Lake, Rankin Inlet, and Arviat.”⁹³

⁹¹ P. A. Kaufert, P. Gilbert, J. D. O’Neil, R. Brown, P. Brown, B. Postl, M. Moffat, B. Binns, and L. Harris, “Obstetric Care in the Keewatin: Changes in the Place of Birth, 1971–1985,” *Arctic Med. Res.* 47, no. 1 (1988): 481–84, quotation on 484.

⁹² Geoffrey York, “Hiding from Harassment: Pregnant Inuit Forced to Give Birth in South,” *Globe and Mail*, November 10, 1986, A1.

⁹³ Marie Chamberlain, Rama Nair, Carl Nimrod, Alwyn Moyer, and Joyce England, “Evaluation of a Midwifery Birthing Center in the Canadian North,” *Int. J. Circumpolar Health* 57, suppl. 1 (1998): 116–20, quotation on 116. As nurse-midwives, often trained abroad, retired, they were replaced with “either nurses or nurse-midwives reluctant to take on the responsibility of community-based births” (116). See also Patricia Kaufert, Michael Moffat, John O’Neil, and Brian Postl, “The Epidemiology of Obstetric Care in the Keewatin District: Methodological Issues,” in *Childbirth in the Canadian North: Epidemiological, Clinical, and Cultural Perspectives*, ed. John D. O’Neil and Penny Gilbert (Winnipeg: University of Manitoba Faculty of Medicine, 1990), 5–11.

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While it is difficult to tease out formal policy from community practice, reports confirm that evacuation for childbirth had become routine in the overwhelming majority of cases by the middle of the decade, a shift that had significant and often traumatic impacts on mothers, families, and communities. A 1981 report by the Manitoba Community Task Force on Maternal and Child Health, which recorded the results of a brief survey of Native women giving birth in Winnipeg's Health Sciences Centre, noted that the average stay for rural patients evacuated out was twenty-three weeks, with "the most commonly expressed concern of the mothers [being] their loneliness in being separated from their families and communities."⁹⁴ The evacuation policy was at the heart of what Michi Saagig Nishnaabegscholar Leanne Betasamosake Simpson has called the "colonization of the womb," as ongoing histories of cultural disruption rendered the birth of a child an event that many Indigenous women had to "endure alone," rather than "celebrate with the support of extended family and community."⁹⁵ Predicated on the assimilationist goal of modernizing and controlling childbirth for "high-risk" First Nations and Inuit mothers and implemented without any substantive assessment of the emotional and family impacts of leaving the community to give birth, individual and collective responses to evacuation for childbirth reveal the broad health risks of ongoing Canadian colonialism.

⁹⁴ Manitoba Community Task Force on Maternal and Child Health, *The Manitoba Native Indian Mother and Child: Discussion Paper on a High-Risk Population* (Winnipeg, Man., August 1981), 34.

⁹⁵ Leanne Simpson, "Birthing an Indigenous Resurgence: Decolonizing our Pregnancy and Birthing Ceremonies," in "*Until Our Hearts Are on the Ground*": *Aboriginal Mothering, Oppression, Resistance, and Rebirth*, ed. D. Memee Lavell Harvard and Jeannette Corbiere Lavelle (Toronto: Demeter Press, 2006), 28.

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Pushing Back: Resisting Technological Surveillance and Medical Control

Women giving birth in Canadian health care systems resisted technological surveillance and medical control—including evacuation policies—in myriad ways. For settler-Canadian women who gave birth in urban settings, birth reform activism often centered around the desire for a less-medicalized birth experience and included pushback against the status quo of obstetric practice, dehumanized care, and alarmingly high rates of cesarean section.⁹⁶ In a number of Canadian provinces, including Ontario, British Columbia, and Alberta, the 1980s were a formative period in terms of the reemergence of what many referred to as the “new” midwifery, a process that Sheryl Nestel has described as shaped by persistent racial exclusion, particularly in terms of the erasure of Indigenous midwifery knowledges and practice, and the marginalization of immigrant midwives of color from the Global South. In short, Nestel argues, “the benefits resulting from the legitimization of midwifery have been very unevenly distributed. Like many other feminist projects of the last three decades, the . . . midwifery movement has produced social and political rewards primarily for white women.”⁹⁷

Indeed, alternative or less-medicalized birth options, described as of interest to “consumers who are actively seeking a more satisfying childbirth experience,” were positioned as “new” ways to birth that were most available to urban-dwelling, middle-class, and settler-Canadian mothers.⁹⁸ Individual and collective criticisms often came to center on specific

⁹⁶ See, for example, Valmai Howe Elkins, *The Rights of the Pregnant Parent: How to Have an Easier, Healthier, Hospital Birth Together* (Ottawa, Ont.: Waxwing Productions, 1976).

⁹⁷ Sheryl Nestel, *Obstructed Labour: Race and Gender in the Re-emergence of Midwifery* (Vancouver: University of British Columbia Press, 2006), 6.

⁹⁸ Alison Rice and Elaine Carty, “Alternative Birth Centers,” *Can. Nurse*, November 1977, 31–34, quotation on 34. See also Fredelle Maynard, “The Joy of Having Your Baby at Home,”

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interventions, including the EFM. Detailing her second pregnancy in the July 1979 issue of *Chatelaine*, Hamilton, Ontario, mother Wendy Keitner, for example, recorded “getting restless, impatient, irritable with the intrusive machinery” of the fetal monitor, alongside her efforts to avoid a cesarean section, and her desire for a more family-centered birth experience.⁹⁹ Those involved with a growing number of feminist health and birth reform organizations throughout the 1970s and 1980s rallied against routine obstetric practice, often centering their criticisms around mounting technological interventions in birth.¹⁰⁰ The popular press readily linked technological surveillance with delays in labor, with *Chatelaine* noting in 1981, for example, that a “crucial factor in the relationship between the EFM and cesareans is the machine’s effect on the laboring woman. . . . Her unease at the whole process—the wires and strange noises and leaps on the chart—may indeed stop labor completely.”¹⁰¹ Questioning “the traditional features of managed birth,” Montreal-based childbirth educator Valmai Howe Elkins suggested that the monitor, rather than allaying risk, “may actually *trigger* the fetal distress the equipment is designed to

Chatelaine, August 1977, 29, 55–56, 59; Wendy Keitner, “A Family-Attended BIRTH,” *Chatelaine*, July 1979, 31, 68–74; “Home Birth on the Defence,” *Maclean’s*, December 10, 1979, 53; Elaine M. Carty, Ilene Tanz Gordon, and J. Allison Rice, “An Alternative Birth Center Proposal,” *Can. Nurse*, December 1981, 34–35; Jane Swanson Ross, “Gentle Birth: Childbirth at Pithiviers, France,” *Can. Nurse*, October 1984, 18–21.

⁹⁹ Keitner, “Family-Attended BIRTH” (n. 98), 71.

¹⁰⁰ See, for example, Claire Dow, “Is There a Better Way to Birth?,” *HERizons*, August 1984, 17–22, 46, and Kris Robinson, “Letter to the Editor,” *HERizons*, January–February 1985, 5–6.

¹⁰¹ Maynard, “Cesareans” (n. 44), 64. These arguments were juxtaposed with the framing of EFM as a lifesaving intervention and the personal stories of women who found monitoring reassuring. See Monica Howard, “My Baby Was Saved by a Cesarean,” *Chatelaine*, June 1983, 36, 146, 148, quotation on 146.

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detect.”¹⁰² Echoing and contributing to resonant medical critiques that drew a clear line between the “overzealous” embrace of medical technologies and the “deluge of interventions to maternity care,” women and their partners demanded greater control over childbirth.¹⁰³

Demands for control over childbirth, alongside individual and collective efforts to resist reproductive injustices, however, vary depending on the identity of the expectant mother, with the limits of “choice” in childbirth fundamentally shaped by historical and ongoing legacies of racism and settler colonialism. As anthropologists and Indigenous health researchers Jaime Cidro, Rachel Bach, and Susan Frohlick illustrate, the bodies of Indigenous mothers-to-be were (and are) disproportionately the target of efforts to impose a biomedical model, as settler-colonial structures, including Canadian health care systems, function to inequitably restrict reproductive mobility and impose new regimes of movement for Indigenous peoples living in rural, remote, and northern communities.¹⁰⁴ Historian Brianna Theobald’s *Reproduction on the Reservation* deftly demonstrates that Indigenous women have responded to the twentieth-century medicalization of birth in a number of diverse ways and, on some occasions, actively embraced hospital-based care as the “safest” option, particularly in cases where mothers-to-be lived close to the hospital in question or anticipated a difficult delivery.¹⁰⁵ Without neglecting the varieties of individual experience, it is clear that many Indigenous women opposed medicalization and

¹⁰² Valmai Howe Elkins, “How to Find Your Obstetrician,” *Chatelaine*, March 1977, 28, 30, 121; Elkins, quoted in Maynard, “Cesareans” (n. 44), 64.

¹⁰³ Hanvey and Post, “Changing Patterns in Maternity Care” (n. 63), 30; Cynthia Carver, “Ask a Doctor: Medical Controversies around Childbirth Procedures,” *Chatelaine*, November 1986, 206.

¹⁰⁴ Jaime Cidro, Rachel Bach, and Susan Frohlick, “Canada’s Forced Birth Travel: Towards Feminist Indigenous Reproductive Mobilities,” *Mobilities* 15, no. 2 (2020): 173–87.

¹⁰⁵ Theobald, *Reproduction on the Reservation* (n. 19), 78–79, 125–26.

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pushed back against both technological surveillance and Canada's evacuation policy in distinct ways that Karen Lawford, Audrey Giles, and Ivy Bourgeault argue can be characterized by the overlapping themes of resignation, resilience, and resistance.¹⁰⁶

As historian Sarah Nickel argues, “Although women’s political strategies, alliances, and identities fluctuated across time and space, Indigenous motherhood, which focused on family and community well-being, remained a central yet flexible concept grounding and propelling women’s political activities” throughout the postwar decades.¹⁰⁷ With motherhood at the heart of social and political activism, pronatalism—and keeping birth in the community—was linked to Indigenous sovereignty, self-determination, and efforts to counter ongoing colonial oppression.¹⁰⁸ Focusing uniquely on the North, the efforts of Inuit women to protect traditional childbirth knowledges and midwifery practices, resist evacuation, and reclaim birth have a long history.

In response to the continued withdrawal of birth services from communities in the 1970s and 1980s, organizations including Pauktutit, the Inuit Women’s Association of Canada, formally established in 1984, quickly expressed concern around “the lack of recognition of midwives in the north” and called for “experienced Inuit midwives” to work alongside nurses employed by the federal Medical Services Branch. At a 1985 conference including settler nurses and Inuit midwives and elders, Pauktutit resolved that “Inuit women should be given the choice

¹⁰⁶ Lawford, Giles, and Bourgeault, “Canada’s Evacuation Policy” (n. 21).

¹⁰⁷ Sarah A. Nickel, “‘I Am Not a Women’s Libber Although Sometimes I Sound Like One’: Indigenous Feminism and Politicized Motherhood,” *Amer. Ind. Quart.* 41, no. 4 (Fall 2017): 299–335, quotation on 300.

¹⁰⁸ Grace Ouelette, *The Fourth World: An Indigenous Perspective on Feminism and Aboriginal Women’s Activism* (Halifax, N.S.: Fernwood, 2002), 88–89.

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of delivering their babies in their communities . . . providing no medical or birth complications are expected.”¹⁰⁹ The following year, Pauktuutit delegates from the Keewatin region voiced “a major concern about women being sent out of the Keewatin to Churchill to have their babies,” commenting “on the fact that women rarely have their children in the community anymore.” Delegates recommended that “this situation should be changed so that health services are delivered on a local basis,” with traditional birthing methods . . . revived, and home births encouraged.”¹¹⁰ Pauktuutit committed to lobbying provincial and territorial governments in Quebec, Newfoundland and Labrador, and the Northwest Territories on this issue. Collective resistance was positioned as an effort to alleviate the trauma experienced by expectant mothers who were forced to leave their families and communities to give birth, regularly traveling to “far-away hospital[s] where often, none of the staff speak Inuktitut.”¹¹¹ Reflecting on her work with the Native Women’s Association of the Northwest Territories’ Family-Centred Maternity Care project in the late 1980s and her experiences at these meetings, Mohawk midwife Lesley Paulette described these mothers and mothers-to-be as “caught somewhere between the traditional experience of their grandmothers and the high-tech hum of the case-room.”¹¹² Efforts to restore birth to the land, achieved, for example, when a birth center run by Inuit and non-Inuit midwives opened in Purvurnituq, Quebec in 1986, were an exercise of Indigenous sovereignty.¹¹³

¹⁰⁹ Pauktuutit Inuit Women’s Association, *Annual Report, 1984–1985*, 12.

¹¹⁰ Pauktuutit Inuit Women’s Association, *Annual Report, 1985–1986*, 10.

¹¹¹ Pauktuutit Inuit Women’s Association, *Annual Report, 1984–1985*, 12.

¹¹² Lesley Paulette, “The Family Centred Maternity Care Project,” in Crnkovich, “*Gossip*” (n. 75), 79–80.

¹¹³ Kate Plummer, “From Nursing Outposts to Contemporary Midwifery in 20th Century Canada,” *J. Midwifery Women’s Health* 45, no. 2 (2000): 169–75.

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Individually, women resisted biomedicalization on multiple levels in ways that underscore the relationship between technological surveillance and broader evacuation policies. In the mid-1980s, the *Globe and Mail* reported that expectant Inuit women in the Keewatin region concealed their pregnancies in the hopes of delaying departure from the community or having the nurse conduct an emergency delivery and, on some occasions, hid following the arrival of flights from the secondary care center in Churchill, Manitoba to avoid becoming passengers on a return trip.¹¹⁴ At the close of the decade, Northwest Territories midwife Betty Anne Daviss-Putt, who had worked with Pauktuutit since 1985, noted that women who wanted to give birth in the North intentionally misled outpost nurses about their “dates,” a strategy that sought to obscure settler-colonial efforts to track and surveil Inuit pregnancies and, at least on some occasions, was successful in allowing for “accidental” births in the community.¹¹⁵ Individual efforts to resist evacuation for childbirth regularly centered the twinned goals of remaining in the community and the aim of not giving birth in a hospital setting, a desire contextualized by the fact that the hospital represented a key site of colonial surveillance and intervention, including child apprehensions that from the 1960s onward overwhelmingly targeted Indigenous mothers and families.¹¹⁶

¹¹⁴ York, “Hiding from Harassment” (n. 92), A1, A9.

¹¹⁵ Daviss-Putt, “Rights of Passage in the North” (n. 75), 92.

¹¹⁶ Allyson Stevenson, *Intimate Integration: A History of the Sixties Scoop and the Colonization of Indigenous Kinship* (Toronto: University of Toronto Press, 2021), 146.

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Conclusion

While the evolution and implementation of the “invisible” policy of evacuation for childbirth can be difficult to trace, looking at the medical and cultural attitudes toward childbirth that informed these shifts in practice offers valuable historical context. Developed in the postwar decades and positioned as some of the hallmarks of modern medical innovation, a new arsenal of obstetric technologies including the ultrasound and EFM allowed medical experts to objectively and efficiently distinguish “normal” from “abnormal” births, redefining obstetric risk. As criteria for these categories shifted, and a growing number of births came to be positioned as “high risk,” technological surveillance during delivery came to be seen as essential for safeguarding the health of the fetus, changing the material conditions of childbirth for many expectant mothers. Despite concerns surrounding their routine use and persistent links to snowballing medical interventions (including high rates of cesarean section), by the 1980s the availability of technologies like the EFM was regularly positioned as a necessary precondition for safe obstetric practice. As smaller hospitals, nursing stations, and health centers often lacked access to what were now framed as essential resources, birth services were gradually withdrawn from rural, remote, and especially northern areas, a shift disproportionately impacting First Nations and Inuit mothers who give birth in Canadian health care systems. Fundamentally, a historical examination of place of birth and access to childbirth “choice” that centers the role and availability of material resources—including obstetric technologies—and their link to shifting understandings of risk calls into question the relationship between technology and progress in obstetric practice, shedding new light on persistent gaps in care as well as the ways in which these inequities are inextricably rooted in ongoing colonialism.

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