

RECLAIMING CHILDBIRTH:
THE INUULITSIVIK
ABORIGINAL
MIDWIFERY PROGRAM

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The Inuulitsivik Midwifery Program was created in response to the inefficient evacuation policy implemented by the Government of Canada in the 1950s. Under this evacuation program, pregnant women from the Nunavik region would be sent to deliver in southern Canadian hospitals, in an effort to decrease the high perinatal mortality rate in this region. Maternal and child health disparities persisted, with Inuit women and their babies continuing to suffer worse health outcomes than the rest of the Canadian population. The Inuulitsivik Midwifery Program, implemented in 1986, is designed to bring birth back to the isolated Nunavik communities. The program is currently based in three main birthing centres located in Puvirnituk, Inukjuak, and Salluit, Quebec. Implementation of the program saw a major decrease in the evacuation of pregnant Inuit women to southern hospitals in Canada. The program is correlated with a decrease in perinatal mortality rates, and increased patient satisfaction. Canada's brutal history of residential schools and attempts at a "cultural genocide" of Indigenous peoples (encompassing First Nations, Metis, and Inuit) have resulted in vast economic and health disparities that are rooted in a multitude of factors. For this case study, the focus will be on Inuit communities in Northern Quebec. A critical evaluation of the Inuulitsivik Midwifery Program, a community-based initiative in response to the Evacuation Policy of the 1970s, will be conducted, followed by concluding recommendations. It is believed that midwifery programs may act as a potential solution to address several relevant Sustainable Development Goals proposed by the United Nations: good health and well-being, reduced inequalities, and sustainable cities and communities (2). This case study examines the impact of culturally sensitive interventions in assisting Canada's most marginalized population.

Background:

Inuit Communities

The Inuit people have much lower life expectancy relative to other Canadians; Inuit men are at a gap of 10 years in Nunavik compared to non-Indigenous men. The birth rate in Inuit communities is twice that of the Canadian average, which led to a 12% increase in the Inuit population between 2006 and 2011. Within such demographics, it is noteworthy that 25% of all

first-time mothers are under the age of 20 at the time of their first pregnancy (3). The rapid growth of these communities combined with stark health disparities, exemplify major public and global health concerns. It is important to note that data on Indigenous health is widely regarded as inadequate and incomplete; there are several limitations to this case study as there has not been enough meaningful research and data collection performed in these communities (4).

So What?

From this case study we learn about the importance of having global health solutions that are tailored to the specific needs and context of the communities being served. The Inuulitsivik Midwifery program was established by members of the Inuit community who saw a significant lacking in the way pregnancy and birthing services were administered. The vital take away, that can be applied in many global health contexts, is the significant impact associated with listening to communities, and providing them with platforms through which they can voice their needs and proposed solutions.

Inuit in Canada live in 53 remote isolated communities across regions of Arctic Canada. Health care in these areas consists of limited nursing stations, as well as doctors, dentists and specialists who visit two to three times annually. Nunavik patients in need of urgent and emergency care must be transported by air approximately 1000 km (a four to eight-hour flight) to Montreal, Quebec or Moose Factory, Ontario (5). This is particularly problematic for Inuit women who experience higher rates of complications during pregnancy and have infant mortality rates more than four times the national average (3). As Professor Yves Bergevin, Senior Maternal Health Advisor to the United Na-

tions Population Fund argued, the scaling up of quality services and the targeting of the vulnerable allows us to address poverty and inequity (6).

Evacuation Plan

Due to difficulties in recruiting medical professionals to rural Inuit communities, the Evacuation Policy was implemented in the 1970s by the Canadian government. Pregnant First Nations and Inuit women were routinely sent to the south and other regional centres, typically at 36 weeks' gestation, to complete their pregnancies in a medical facility. Women who rejected this evacuation were often deemed uneducated, selfish, and guilty of putting the health of their families at risk. This evacuation policy has resulted largely in "needless isolation, duress and distress for Aboriginal women forced to give birth apart from their partners and families". This situation would indeed be regarded as unacceptable to any other Canadian population (7).

The evacuation plan was partly successful in decreasing stillbirth and perinatal death rates among Indigenous populations; however, by its end, perinatal mortality rates among the Inuit were still two and a half times the Canadian average (8). Women who were separated from the support of family and friends experienced low social support and high stress during the perinatal period, which may increase the risk for many maternal and newborn complications, including premature and small for gestational age infants, and postpartum depression (9, 10). The most significant negative impact is psychological, as demonstrated by mothers who mentioned to researchers that "only their first children were real Inuit, not [those delivered outside the community]" (11). The cultural identity of those born outside Inuit communities is compromised by the evacuation policy, as these Inuit children are denied traditional ceremonies and rites of passage integral to Indigenous upbringing.

Before the Evacuation Plan:

Traditional Birthing Practices

Beliefs and traditions based on pregnancy and childbirth vary among Aboriginal communities, and reflect unique views and needs. The Indigenous way of life interweaves medicine and spirituality, representing an interconnection between mind, body, spirit, and emotions – all of which are viewed as essential to optimal health (12). The birth of a child signifies new life and balance between the spiritual and physical worlds (13). Aboriginal birthing practices are an art form that has been passed down through generations, preparing girls to grow into mothers. Extended family members, especially grandmothers, play an important role in the traditionally natural approach to pregnancy and childbirth, as they guide women through the entire pregnancy and childbirth experience. Pregnancy is viewed as a gift from the creator; a woman's ability to give life and raise children is deemed sacred, bestowing upon them authority and respect within Aboriginal cultures (14,15,16).

During pregnancy, Inuit women increase their intake of caribou, muktuk, and seal, while limiting their consumption of berries and aged food based on the sage advice of the elderly women in the community (17). Although their avoidance of berries is based on anecdotal evidence, it coincides with scientific findings suggesting that berries may contain small amounts of alcohol due to natural fermentation, which is harmful to the developing fetus (18). A woman-centred process (19), childbirth is an event eagerly anticipated by the local community. Following birth, ceremonies are conducted to establish familial relationships and strengthen communities (20). The baby is kept in constant contact with the mother, either in the hood of her parka, or nestled in the front of the parka feeding (21).

Traditional Midwifery

Prior to implementation of the evacuation policy, traditional Aboriginal births were assisted by older, experienced women from the community (21). Because of the cultural familiarity of the Aboriginal midwife, she was able to incorporate various traditional elements

involving spiritual, mental, physical, and emotional health in the community services she provided. Aboriginal midwives were charged with passing moral and ethical values from one generation to the next, in addition to guiding the birthing process (21). In contrast, Westernized evidence-based medicine is based on the biopsychosocial model which views health and disease as an independent entity from other aspects of well-being. An extensive comparison between modern methods of medicine and Indigenous practice was reported by Durie et. al. (2004) which noted that Indigenous knowledge is often discredited on the premise of scientific evaluation, which disregards anything that cannot be supported by empirical evidence. It considers Aboriginal knowledge of social, physical, spiritual, and mental health as inferior, subordinate or irrational superstitions (22). Modern medicine has institutionalized the birthing process, prioritizing birth outcomes and leaving little room for the Aboriginals' spiritual understanding of childbirth (22,23).

Loss of birth, loss of spiritual life

The evacuation policy, officially implemented in the early 1970s, sought to improve perinatal and maternal health outcomes, using modern science as a supposedly superior knowledge system. The policy was unsuccessful, with large disparities persisting between Aboriginal communities and the rest of Canada (24). Furthermore, the evacuation policy has been reported to have profound spiritual and cultural consequences on Aboriginal communities (25,26). Health Canada, public health officials, and many Aboriginal organizations are now beginning to acknowledge the pivotal role loss of culture has played in shaping the health conditions of Aboriginal Peoples, and have recognized the possible benefits of Indigenous knowledge, language and spirituality in health services for the population (27). The Society of Obstetricians and Gynecologists of Canada (SOGC) also concluded in 2007 that improving prenatal and birth experiences for Aboriginal women should involve "expanding health centres and providing training for Aboriginal midwives within [their] communities" (10). These parallel lines of thought have contributed to the marriage of traditional Aborigi-

nal values with evidence-based medicine, in order to create modern Aboriginal midwifery programs better suited to serving this high-risk population.

Post-evacuation policy:

The re-birth of Aboriginal Midwifery

The Inuulitsivik Aboriginal Midwifery program began as a result of activism for Inuit cultural revival and self-government, with the opening of a birthing centre in Puvirnituk in 1986. The main objective: to bring birth back to the community. Following the opening of the birthing centre in Puvirnituk, similar centres were created in Inukjuak in 1998, and in Salluit in 2004. These three birthing centres provide intrapartum care to 75% of the Hudson coast. The remaining 25% live outside these three communities and need to "leave home"; however, unlike with the evacuation policy, they still receive care in their own region, language and culture (28).

As mentioned, midwifery has always been a part of traditional Aboriginal birthing culture. Respecting the importance of Aboriginal traditions, the current midwifery program integrates Western medicine with traditional knowledge. The midwives in Nunavik are the lead caregivers for maternal and newborn care. The midwives lead a weekly meeting with a perinatal review committee – an interdisciplinary team consisting of midwives, student midwives, nurses and doctors. During these meetings, they agree on a plan of care, including site of delivery, for each individual patient. At this time, the midwives begin weekly follow-ups with the pregnant mother until birth. Two midwives are normally present at parturition, with nurses or an on-call doctor in Puvirnituk ready to assist if needed. Following delivery, the mother and baby are seen daily for one week. Subsequent follow-up visits then occur once per week for up to 6 weeks post-partum. These midwives also provide care outside of pregnancy, from adolescence to menopause, such as contraception education, STI prevention, and uterine and cancer screening (28).

Program Implementation: Training and Selection Process

A critical component to the success of this program is the competence of the midwives. Midwifery students are chosen from the community; both the health care providers and community members base the selection on applications and interviews. Selecting the students from amongst the community guarantees culture and language proficiency, as well as sustainability of the program. These students are trained for day-to-day clinical situations in the community, in conjunction with structured learning modules. Training on-site avoids reviving the nightmare of residential schools, and equips trainees with important skills to cope with the settings and situations that are frequently seen in Nunavik. The return of childbirth facilitated by the midwives provides a sense of empowerment and autonomy to the community (28).

Teaching and evaluation are facilitated by two groups: Inuit mentors and non-Inuit mentors. The non-Inuit mentors are asked to recognize their role as teachers, not as leaders, respecting the Inuit culture and tradition. The teaching method follows the Inuit pedagogy, which emphasizes “being shown rather than told”, mentorship, storytelling, and other traditional oral methods (28).

By the time the students graduate, they are expected to have acquired emergency skills, well-women/baby care, and community health experience at a comparable, if not more extensive, level as the rest of Canadian midwives. Requirements for graduation include completion of 1240 supervised clinical hours, follow-up of 60 perinatal cases up to 6 weeks postpartum, and attendance of 40 births as a second attendant, where the student takes responsibility for the immediate care of the newborn (28).

Program Evaluation:

A major limitation of the evacuation policy, which governed Nunavik maternal health until the implementation of the Inuulitsivik Midwifery program in 1986, was the cost of transporting pregnant mothers. Transportation costs for the region of Nunavik are

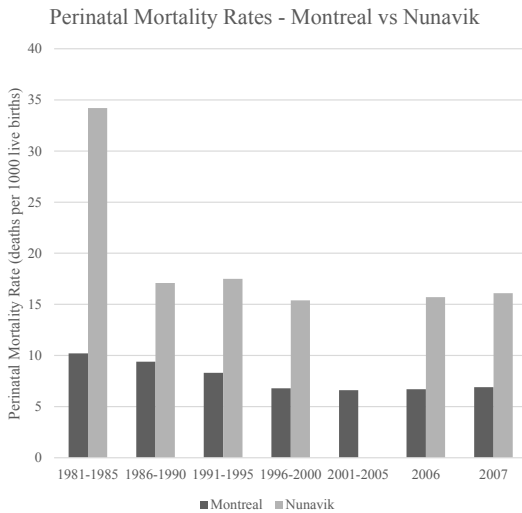
undocumented, however we examine Nunavut's transportation costs, as both regions are similar in terms of geography and population demographics (29). Of the \$100 million transferred from the federal government to Nunavut health care between the years 1996-2006, over \$50 million was used for transportation (30). This figure highlights the burden of transportation on health care expenses when relying on evacuation to southern hospitals as primary modes of treatment for Aboriginal communities. In addition to the high cost of transportation, Inuit women report greater dissatisfaction with treatment in southern hospitals. Although difficult to quantify, this dissatisfaction certainly adds to the monetary costs of the evacuation program, jeopardizing its efficiency. Dr. Gary Pekeles, director of the Northern and Native Child Health Program at the McGill University Health Centre, estimates a cost of \$20,000 to evacuate a single pregnant mother from Nunavik (31). Using this figure, it was estimated that the Inuulitsivik Midwifery program avoided a total of approximately \$2,900,000 in transportation costs between 2000-2007 by overseeing 1,184 births in Nunavik (86.3% of all births in that time frame) (32).

Perinatal Mortality Rates

Perinatal mortality rates are used as a primary evaluative indicator of the Inuulitsivik Midwifery program, as it is “arguably the most important indicator of the quality of perinatal and maternity care” (33). Between 1981 and 1985, under the final years of the evacuation policy implemented by the federal government, the perinatal mortality rate (per 1000 live births) in Nunavik was a staggering 34.2, compared to 10.2 in Montreal. Nunavik's perinatal mortality rate decreased from 34.2 to 17.1, recorded between 1986-1990, and was as low as 15.4 between 1996-2000, compared to 6.8 in Montreal the same year (23) (see Figure 1). These decreases in perinatal mortality observed in Nunavik since 1986 are coincident with the implementation of the Inuulitsivik Midwifery program (1986), pointing to a correlation between the implementation of the midwifery program and lower perinatal mortality.

The persisting disparity between Montreal and Nun-

avik perinatal death rates cannot be blamed on ineptitude of the Aboriginal midwifery program, as there are many upstream contributing factors to the higher perinatal mortality rates in the Nunavik population. Namely, most pregnancies in Nunavik are considered high risk due to the harsh realities of Aboriginal health, including high risk of mental illness, alcohol abuse, smoking, food insecurity (9), and a greater likelihood of developing certain gestational complications (32).



Transfer Rates

The main objective of the Inuulitsivik Midwifery program was to return childbirth to the Inuit communities of Nunavik, and reclaim its cultural significance. Thus, transfer rates may be analysed as a processing indicator of this program. Under the previous Evacuation Plan, 91% of pregnant women in Nunavik were transferred to medical facilities outside of the region, mainly in Montreal and Moose Factory Ontario (32). With the implementation of the midwifery program, this percentage decreased dramatically: 13.7% of pregnant women were transferred outside of Nunavik between 2000-2007, with 86.3% of Inuit women giving birth at one of the three Inuulitsivik health centres. Moreover, Inuit midwives made up 72.8% of the birth attendants in the same time period, with the remain-

ing 27.2% consisting of non-Inuit midwives and physicians (32)

Hudson Coast and Ungava Bay - A Comparison

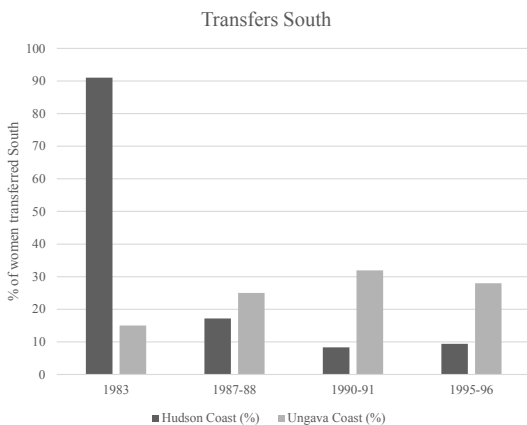
The Ungava Tulattavik Health Centre is another health centre in Nunavik, located on the Ungava Bay. This health centre is staffed mainly by non-Inuit physicians, and existed before the creation of the Inuulitsivik Midwifery Program in 1986. This created a kind of natural experiment, to observe any differences the Inuulitsivik Midwifery program would have on important outcome measurements such as perinatal mortality (34).

When comparing perinatal birth outcomes on the Hudson Coast, where births are led by Aboriginal midwives of the Inuulitsivik Health Centre, to the Ungava Coast, where births are led by trained physicians stationed at the Ungava Tulattavik Health Centre, it was found that there was no statistically significant difference in perinatal death rates between the two communities (33). As such, measures such as episiotomy intervention rates between the two delivery programs are studied as a proxy for unnecessary interventions. There is a stark contrast between episiotomy intervention rates between the Hudson Coast and the Ungava Bay, with rates almost six times higher on the Ungava Bay from 1990-1991 (33). Additionally, there was a higher rate of evacuations to hospitals in the south on the Ungava Coast, despite the dominant presence of professionally trained medical doctors at the Ungava Tulattavik Health Centre (see Figure 2). A possible explanation is that there is a high turnover of doctors on the Ungava Coast, which perpetuates the constant presence of less experienced medical professionals on site (33). This hypothesis illustrates an important strength of the Inuulitsivik Aboriginal midwifery program, being that local Inuit are trained to oversee the low-risk births, reducing the turnover rate and increasing the collective knowledge and experience shared among the midwives.

Reflections and Recommendations:

The implementation of the Inuulitsivik Midwifery program is novel in that it accommodates the culture

of the Inuit communities of Nunavik, while providing modern medical treatment and care to delivering mothers. This program veers from the colonial oppression, marginalization, and forceful integration policies of the past which prevented Aboriginal communities from developing in accordance with their own needs and interests (35). It is important to note that Indigenous communities have higher health disparities compared to the rest of Canada, with Aboriginal women carrying an even more disproportionate burden of disease as well as poorer social outcomes (36). Thus, it is paramount that policies targeted to serve this population be stringently evaluated and revised, as was the case with the Evacuation Policy. This policy was catered towards the Western ideal of medical practice, and failed to acknowledge the cultural significance of Aboriginal ways of healing.



A major accomplishment of the midwifery program is the nature through which it was established. Members of the Hudson Bay Inuit community who had personally experienced the shortcomings of the Evacuation Policy created the Inuulitsivik Health Centre Midwifery initiative. Furthermore, the program achieves the integration of modern, evidence-based medicine with traditional Aboriginal practices to deliver more suitable care to the Inuit women of Nunavik (16). Finally, continuity and stability of the program is accomplished through the integrated midwifery educational system. The Inuulitsivik midwives are long term staff

that deliver culturally relevant care to their fellow community members. This eliminates the problem of the high staff turnover rates seen in non-Inuit managed health centres (10).

It is immensely important, however, to keep in mind that the establishment of this program should not bring an end to the discussion surrounding the provision of permanent services that would enable all mothers to deliver their children within their own region. This program is only feasible when it comes to delivering low-risk births – high-risk births still need to be evacuated south (32). This study concludes that efforts to establish resources and facilities catered to the delivery of high risk births in the community should be undertaken. This may help reduce the stagnant perinatal death rates of the Nunavik population observed in the most recent data (Fig. 1). Aboriginal women should not have to choose between their culture and their safety.

This case study is wary of declaring the Inuulitsivik Midwifery program a success, as there is crucial data missing from this analysis. Firstly, the cost analysis is incomplete, as there are discrepancies in the financial reporting between different organizations (37,38), and full audit reports are not publically available for the Inuulitsivik Health Centre. Costs specific to the Midwifery program are also unavailable. A full cost-benefit analysis is also missing from our report, as it is difficult to represent qualitative successes in a way that can be compared to costs in dollars. In a program such as this, total social costs and benefits must be included when evaluating the overall efficiency of the program. This case study calls for further data collection from the midwifery program, including qualitative measures that can evaluate community development, cohesiveness, gender inequalities, and overall satisfaction. Furthermore, a lack of comprehensive quantitative data (with sufficient statistical power) such as a complete history of perinatal mortality rates with the Evacuation Policy vs. the midwifery program, interrupt the complete evaluation of the intervention. It is paramount to the long-term success of the Aboriginal mid-

wifery program that more research is done to evaluate the impact of this program and all other First Nations health care initiatives. A comprehensive monitoring and evaluative system must be integrated into the Inuulitsivik midwifery program in order to allow local and provincial policy makers to address and improve critical areas of weakness.

Concluding Remarks:

The Inuulitsivik Midwifery program is recognized by numerous organizations, including the International Confederation of Midwives, the World Health Organization, and the Canadian Society of Obstetricians and Gynecologists (39). As the first midwifery program of its kind in Canada, it has been used as a model for the implementation of other midwifery programs in the country, serving Aboriginal populations outside of Nunavik (17). Potential scalability in other countries with marginalized Indigenous populations is questionable, and must be considered on a case-by-case basis. Currently, the midwifery-led health centres are unable to manage high-risk deliveries, and must resort to evacuating these pregnant women to deliver in a hospital setting. This solution may not work, for example, in a country whose government cannot or will not afford the transportation costs of high-risk pregnancies.

Contemporary global health trends focus on increasing the proportion of physician-led deliveries in established medical facilities worldwide – a concept at odds with the Inuulitsivik Midwifery program. It is important to understand that global health is an extremely nuanced field, with no such thing as a one-size-fits-all solution. This leads to more tailored global health interventions, best-suited to the population being served. In the case of the Nunavik population, deliveries in hospital required the isolation of the Inuit mother from her family, her language, and her culture. A more suitable approach, tailored to the Inuit population of Nunavik, was achieved through the collaboration of the Inuit, physicians, and health experts alike.

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