Bringing Birth Back to the Community: Midwifery in the Inuit villages of Nunavik
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“to bring birth back to the communities is to bring back life . . .”

Puvurnituq elder 1988

“There is a major happening in perinatal care in Puvurnituq. This happening to my eyes is as important to northern maternal and child health care as the biophysical profile is to southern obstetrics”

Pierre Lessard, CMAJ 1988

Nunavik is the Inuit region of the Quebec Arctic, in northern Canada (see map -Figure 1). The villages of Nunavik are located on the east coast of Hudson Bay, on the coast of Hudson Strait and on Ungava Bay. Nunavik is a vast region of over 500,000 square kilometers of tundra. Traditional and modern ways of life mix, with many Inuit families still practicing subsistence hunting and fishing. Inuutitut is the first language of the region, with many Inuit also speaking English and/or French. The population is young, with 50% under age 20, and growing, with a birth rate twice the Canadian average. First time mothers are young with 25% of births to women under 20 and most women have three or more children. Adoption rates in Nunavik are 20-30%, with traditional custom adoption within the family or community.

Inuulisivik Midwifery
The Inuulitsivik Health Centre serves the 7 Hudson Bay coast communities, a population of about 5500. Inuulitsivik has a CLSC (Centre Local de Santé Communautaire) in each village, a small 25 bed general hospital in Puvirnituq and a mental health centre in Inukjuak. There are currently about 200 births per year taking place in three birth centres in the three largest villages: Puvurnituq (pop. 1403), Inukjuak (1439), and most recently in Salluit (1,108). All of the communities are remote fly-in villages, with transfer for tertiary care many miles south in Montreal.

The midwifery service started in 1986 in Puvurnituq. The opening of the Maternity was inspired by community organizing by Inuit women and growing activism for Inuit cultural revival and self-government. As in many other northern Canadian communities, women and the local community had concerns about the policy of evacuating all pregnant women to southern hospitals to give birth, which had become the “standard of care” in the mid 1970s. This policy involved women being flown south at 36 weeks or earlier and spending weeks and sometimes months away from home.

Inuulitsivik Health Centre is governed by an Inuit community board and has a history of commitment to the education of Inuit health workers and to community development. The development of the Maternity involved consultations with elders, traditional midwives, childbearing women and young women. Midwifery students were selected by the community and Qallunaaq (non-Inuit) midwives were hired to support development of an Inuit midwifery service. The community expressed a strong desire to reclaim
midwifery skills and traditional knowledge about birth and to combine both traditional and modern approaches. It is important to note Inuulitsivik midwifery predates the legal recognition of midwifery in Quebec by over a decade. Quebec passed the Midwifery Act to recognize midwifery in June 1999.

When the Puvurnituq Maternity opened, women on the Ungava coast continued to be served by physicians at Tuulatavik Hospital in Kuujjuak. This created a kind of “natural experiment” with two groups of women in very similar circumstances cared for by different services. Since 2004, Tuulatavik has been unable to recruit physicians for maternity care, leading to transfer to Inuulitsivik birth centres or to Montreal. Plans are currently underway to establish a midwifery service for the Ungava region.

**Midwifery-led Interdisciplinary Model**

Midwives are lead caregivers for maternity, well woman and newborn care for the population, regardless of risk status. Midwives and student midwives work together to provide care and facilitate an “on the job” education. Student midwives are employees of the health centre and vital health workers.

The midwives work as part of a team with nurses, physicians, social workers in the health centres, particularly in the care of women living in the smaller villages and those with significant medical or social risk factors. For women living in Inukjuak, Puvirnituq and Salluit, prenatal care, “low risk” births and postpartum care are with midwives in the birth centres. Because these are the larger villages, 75% of the Hudson coast population has access to care in their home community. Women from the four smaller villages (population 3-700) where there are no birth centres, receive prenatal care from nurses in the nursing stations, in consultation with the midwives. They travel to one of the birth centres at 37-8 wks for birth. Although this means that 25% of women still have to “leave home” for birth, they receive care in their own region, language and culture, often surrounded by relatives or friends.

The hospital staff is governed by the Conseil de Médecins, Dentistes, Pharmaciens et Sages Femmes (CMDPSF), an interdisciplinary council which sets policy and protocols. Each woman’s case is reviewed at about 34 weeks gestation by Perinatal Committee, an interdisciplinary team, led by the midwives. This review considers both medical and social factors and plans care and place of birth. Births are planned for Puvirnituq or Montreal when pregnancy screened as at risk.

There is a primary care physician on call on site in Puvirnituq, and and another on call by phone only for the other villages. Specialist consultation is by phone or medevac. Transport time is normally between 4 and 8 hours to Montreal, weather permitting. Normally a physician sees the woman for one visit in early pregnancy and when consulted by the midwives.

Births are normally attended by two midwives. In Puvirnituq, nurses and family physicians are available on site to assist in the case of an emergency where more hands are needed. In the other villages, nurses are called to be present in the CLSC when a birth
is happening to assist in case of an emergency and to help nurses maintain perinatal skills. As is common for all care providers working in remote communities, midwives work within an expanded scope of practice. They are involved in well woman and baby care, community health and health promotion and in managing emergencies as the most responsible care provider.

At the Puvirnituq hospital there is access to lab services, induction, augmentation, admission of baby for care and monitoring and treatment. There is usually access to ultrasound and intermittent access to providers skilled in uterine evacuation. Puvurnituq is the first step in a medevac process from the other villages as there is a landing strip for an Emergency Medical Services jet which comes from Montreal. Transfer from the smaller villages is via Twin Otter. Transfer from the smaller villages to tertiary care in Montreal may take 6-8 hours, weather permitting.

**Educating Midwives at Inuulitsivik**

The Inuulitsivik Midwifery Education Programme provides on the job academic and clinical education for Inuit women in their own communities. The programme uses a modularized competency-based curriculum consistent with clinical content of southern midwifery education programmes and adapted for northern realities and an expanded scope of practice. The curriculum puts an emphasis on ways of learning appropriate to Inuit culture, emergency management and the midwives’ community health role, especially in areas of sexual health and STDs, well woman and well baby care.

Inuulisivik has created an Emergency Skills course which is an adaptation of southern midwifery emergency courses, ALARM and ALSO and NRP to remote practice. It focuses on when to transfer and management prior to transfer. The expanded scope for midwives in the north includes skills such as use of vacuum, manual removal of the placenta, intubation and umbilical vein catheterization of the newborn.

To date nine there have been nine graduate midwives in Nunavik, five of whom were recognized by Midwifery Act in 1999. Quebec law did not provide for continuing recognition of graduates from Nunavik but included a clause providing for specific arrangements for aboriginal communities to be negotiated. This negotiation has proved to be a complex and lengthy task. The education programme has continued and four more community midwives have graduated since 1999. They are recognized and employed by Inuulitsivik, as provincial negotiations are ongoing.

**Bringing Birth Back to the Communities: Weighing Risks and Benefits**

This distance from tertiary care means that careful risk screening and emergency management are critical to safe maternity care. The risks and benefits of birth in the north have been carefully weighed by the communities. Evacuation is seen by both providers and the health care team to carry its own kind of risks, both medical and social, which puts the risk of birth in the north in perspective. Routine evacuation is seen as recreating the trauma and social dislocation of residential school policy both on an individual and community level. It is associated with loss of autonomy, poor diet, substance use, family stress, child neglect. Care in the south is often marked by lack of understandable...
information and lack of sensitive, culturally appropriate care and high rates of intervention. In Nunavik, taking birth out of the community is symbolic of disrespect and neglect and a colonialist approach to health care and to indigenous communities.

Birth in the community is seen as part of restoring skills and pride and building capacity in the community. Participating in birth builds family and community relationships and intergenerational support and learning. It can be part of both “re-Inuitization”, through promoting respect for traditional knowledge, and of teaching trans-cultural skills both within the local community and with non-local health care providers. The Inuit midwives play a vital role in promoting healthy behaviour and in health education and can be effective in this role in ways that health care workers who do not speak the language or know the culture could not hope to be.

Risk Screening
Perinatal care and risk screening are guided by an extensive set of protocols. For example, planned birth or triaging in Puvurnituq is indicated in the following situations:

- Hypertension unresponsive to therapy
- History of PPH/retained placenta
- Postdates
- First trimester complications
- Preterm labour <36 weeks

Births are planned for Montreal in the following situations:

- Twins
- Breech
- VBAC
- Severe hypertension
- Preexisting/other medical conditions
- Preterm labour <35 weeks

Results of Evaluative Studies
There have been a number of evaluations\textsuperscript{4,5,6,7,8} of the Inuulitsivik midwifery service conducted externally. This data has the limitations inherent in retrospective reviews of clinical records. What follows is a summary of these evaluations and a report on more recent data gathered internally. Some evaluations have used historical comparisons looking at data from 1983 when available (before the Puvirnituq Maternity opened) and evaluations done in 1987-88, again in 1990-91\textsuperscript{6} and in 1995-96\textsuperscript{7}. There have also been studies using regional comparisons\textsuperscript{5}, comparing outcomes during the same time periods on both the Ungava coast and Quebec as a whole.

Each of these studies showed improvements in:

- Perinatal mortality (both over time and across regions)
- Preterm labour (more than half the rate compared to Ungava)
- Small for dates (both over time and across regions)
- Increased rates of breast-feeding (compared to Ungava)
Higher Hb postpartum and in subsequent pregnancies

Comparisons across regions were also favourable, particularly in terms of rates of intervention. These rates are from 1995-96 unless otherwise noted:

- CS 3.1% (Ungava 8.1, Quebec 26.8)
- Induction 4.8% (Ungava 13.4, Quebec 23.6)
- Episiotomy 3.5% (Ungava 28.8 Quebec 36.5)
- Reduced rates of transfers south (9.4 vs 28.0 Ungava)
- Transfer of adolescents 7% vs 32% in Ungava
- Prenatal visits: earlier and increased number (over time and regional)
- Less reported alcohol consumption (over time)
- Average days away from home reduced from 52 in 1983 to 14.8 in 1987

These findings are consistent with Baskett’s 1978 findings about midwifery care and birth in the communities on west Hudson coast prior to a move to a policy of evacutation of all women until the opening of the Rankin Inlet birth centre. They are also consistent with findings from the first five years of the Inukjuak birth centre reported by Houd, Epoo and Qinjuak.10

Ongoing internal evaluation of outcomes report over 2200 births in Puvirnituq, 200 births in Inukjuak and 40 births in Salluit with approximately 3000 women cared for in total by March 2005. To date 80% of women from the Hudson coast villages give birth in Nunavik. Further research is needed to identify reasons for planned births in Montreal. A report on medevacs for the years 02-05 shows that of births planned for Inuulitsivik Maternities:

- 92% of births happen in Nunavik
- 1% of births involve neonatal transfer
- 9.3% of births involve maternal transfer

- 7.8% of births are transfers to Montreal
- 1.6% of births are transfers to PUV

From this data the most common reason for transfer is preterm labour (33% of transfers with 64% of these delivered at term). The two other common reasons for transfer are neonatal problems (17% with 9.5% of these indicated and 3.7% routine transfers after an unplanned birth in a village with no midwifery care) and hypertension (16%). The other 33% of medevacs occurred for the following reasons:

- Placenta previa 1x Placental abruption 2x
- 3rd degree tear 1x PPH 1x
- Breech 1x Maternal Choice 1x
- Twins 2x Incomplete Abortion 1x
- Dystocia 1x IUGR 1x
- TPLRM 1x

For births planned for or occurring in Nunavik 1986-2004, from the opening to the
present, there have been no maternal deaths. In total, of the 2051 (2253)* births, there were 18 (21) perinatal deaths (fetal and neonatal) for a perinatal mortality rate of 9 per 1000 (0.9%). Perinatal deaths have been reported as follows:

- 6 (7) neonatal deaths due to extreme prematurity
- 11 (12) stillbirths: 6 IUFD, 2 placental abruption, 1 unexplained, 1 cord prolapse/compound presentation and 1 multiple congenital anomalies
- 1 (2) term neonatal deaths: 1 at 28 days (twins with complications of IUGR, 1 at 5 days of CHD)

These outcomes are consistent with Canada as a whole (8-10 per 1000 or .8-1%), and lower than combined rates of fetal and neonatal mortality in NWT (19 per thousand or 1.9%) and Nunavut (11 per thousand or 1.1%), reported in the Canadian Perinatal Health Report (2003). It is important to note that that genetic screening and termination of pregnancy is almost universally declined in this population as this has a significant impact on reporting and comparing perinatal mortality.11

In summary, the Inuulitsivik midwifery service exemplifies the principles of the Royal Commission on Aboriginal Peoples12 and the Society of Obstetricians and Gynecologists of Canada Guidelines on Working with Aboriginal Peoples13 (Dec 2000 – March 2001) for health services that:

- are close to home
- support self-determination
- support health as defined by aboriginal people
- support improved health outcomes
- provide services in aboriginal languages
- acknowledge the importance of family and community
- integrate traditional and western medicine
- educate local health care providers
- have a preventive and community health focus

“The midwives have become a voice for our families and our way of life”

Nellie Tukalak, 96

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* Numbers are reported from Puvirnituq alone and then in brackets following, include births in Inukjuak and Salluit as complied by Houd, Epoo and Qinjuak and the author.
Figure 1

References

3 Hodgins S. Health and what affects it in Nunavik: how is the situation changing? Kuujuaq: Nunavik Regional Board of Health and Social Services; 1997.
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