

# The outcome of perinatal care in Inukjuak, Nunavik, Canada 1998-2002

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## ABSTRACT

**Introduction.** From the 1950s women in Nunavik were transferred to South Quebec to give birth. Since 1986 women have had the opportunity to give birth in Povungnituk, Nunavik, and the education of community midwives began. Inukjuak, a small community in Nunavik, was included in the project in 1998. There is no possibility for caesarean section or transfer during birth, in any of the places. Women can be transferred in pregnancy or post partum to the small hospital in Povungnituk or to a specialist obstetrical unit in Montreal. **Study design.** A 5-year retrospective survey of the perinatal care in Inukjuak. **Method.** Data were collected from 1. Birth registrations. 2. Antenatal records in Inukjuak. 3. Records and follow-up of medical evacuations to either Povungnituk or Montreal. **Results.** Of the 182 women from Inukjuak who gave birth, 72.5% of the women gave birth in their own community. 4.5% women or/and newborn was evacuated for reasons related to birth. The rate of premature birth is 3.3% of all pregnant women from Inukjuak. The PMR is 0.5% of all babies born by women from Inukjuak and 0.7% of all babies born in Inukjuak. **Conclusion.** Three out of four women can stay in Inukjuak and give birth with a PMR of 0.7%

**Keywords:** Nunavik, Inuit midwives, decentralized perinatal care, arctic perinatal care

## INTRODUCTION

Nunavik is a very remote area in the northern part of Quebec. The population consists of 10,000 Inuits and a few hundred non-Inuits. The health services are quite well developed, with nursing stations in all the villages along the coast, with nurses and at least one doctor and in two villages also midwives. There is a small hospital in Povungnituk with a clinical laboratory and a ward with staff around the clock.

From 1960 until 1986 all pregnant women were transported south three weeks before the due date and stayed one to two weeks after the birth. They were alone and surrounded by people who did not speak their language. In 1985 a joint group of the Inuit women's association, Pauktuutit, together with a multidisciplinary group of health workers decided to make it possible for women to stay up North to give birth using evidence-based guidelines and, at the same time, to start the edu-

cation of Inuit midwives. This was at a time where official midwifery did not exist in the rest of Canada.

Today the maternity in Povungnituk has approximately 125 births per year and 7 women have undergone education as midwives. Six of the midwives have been working at the Maternity since then. Several surveys have been conducted looking at the health status of the population (1,2). In 1997 the Public Health Department in Nunavik issued a report of a survey of infant health and development in Nunavik (3). Compared to the previous period 1979-86 there were far fewer deaths from prematurity and low birth weight.

The population is to a certain degree a "high risk" population. Almost 100% of the population smoke and although it is a "dry" community there are alcohol-related problems, problems connected to domestic violence, and problems connected to child abuse and neglect.

It was very important for the people in Nunavik to bring birth back to the north in order to be born an Inuit and "with a home", as the old traditional midwife Miko says. In 1996, 92.3% of the women in Nunavik gave birth up north with no possibility for a caesarean section or to transfer during birth. The results have been reassuring.

The reasons for the program's success are: the multidisciplinary approach; a system of education of Inuit women, which is of a high level and is decentralized; the work of the perinatal committee. This Perinatal Committee consists of midwives, nurses, and doctors. At weekly meetings the Committee does an "audit" on every pregnant woman reaching 32 weeks' gestation. A joint decision and recommendations for each woman are made and followed.

Because the other larger village on the coast, Inukjuak, with 1,600 inhabitants, also wanted their own maternity, the training of student midwives in antenatal and postnatal care began in 1993. I arrived in Inukjuak on January 28, 1998, the day the Maternity opened. From the beginning most of the perinatal care has been done by three student midwives. They each have their own caseload of women, providing care during pregnancy, birth and postpartum. This means the three midwives are on call for their "own women". There is also a senior midwife in

Inukjuak responsible for the teaching and evaluation of the students. In addition, this senior midwife is on call to provide backup for births and emergencies. The position as senior midwife rotates among a team of experienced midwives from Canada and myself from Denmark.

Over the past five years at the Inukjuak Maternity, the students have attended to 70 to 80 pregnant women a year. During this time 28 to 42 women a year from Inukjuak have given birth – a total of 182 women. Of these women 16 to 33 have given birth in Inukjuak a year – a total of 132 women. Women who did not give birth in the village were referred to Povungnituk Maternity or to Montreal, often by joint decision of the Inulitsivik Perinatal Committee.

During the 5-year period 72.5% of women from Inukjuak have given birth in Inukjuak. The numbers of women who were referred or chose during the pregnancy to give birth in Povungnituk were from a high of 14 in 1998 to a low of 3 in the year 2000. The number of women referred during the pregnancy to give birth in Montreal has been quite stable, between 1 and 4 a year. This means the percentage of women giving birth in Inukjuak has gone from 44.4% in 1998 to 79% in 2002, with the year 2000 showing the most women giving birth in Inukjuak, 86% (figure 1).

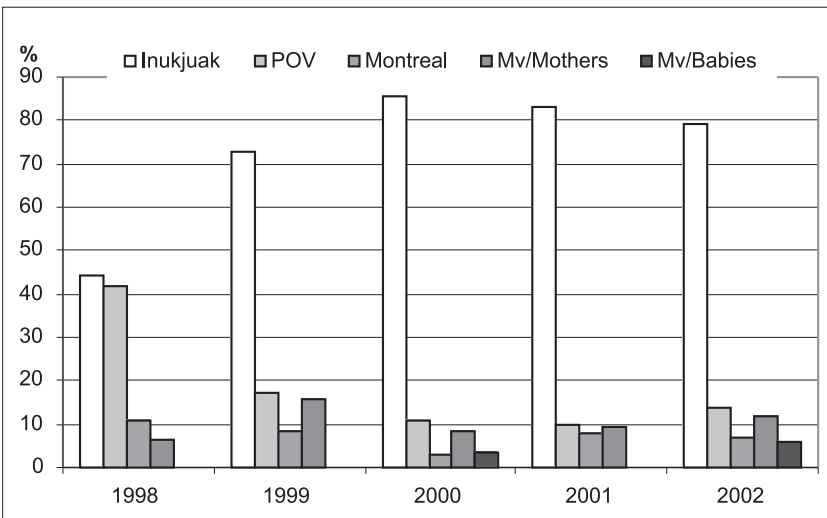


Figure 1. Place of birth for women from Inukjuak and Medevac for women and babies.

The jump from 44.4% in 1998 to 74% in 1999 is the most interesting development. In 1998 women having their first baby could not give birth in Inukjuak, but after a discussion in the perinatal committee this policy was changed. Also women going to Povungnituk by choice were a factor that has an influence.

In 2002 no women went to Povungnituk by choice. Over the years several women have had more than one child in Inukjuak and most women prefer to stay in Inukjuak to give birth, even at times when the recommendation is to go to Povungnituk.

Here is an overview of the reasons for giving birth in Povungnituk or Montreal. 36 women gave birth in Povungnituk during the 5-year period. The main reasons for referral to POV are the following:

1. A history of post-partum haemorrhage: 25%
2. Choice: 22.2%.
3. No senior midwife in Inukjuak: 19.4%
4. Pre-eclampsia / hypertension: 11%

14 women gave birth in Montreal during the 5-year period. The main reasons for referral to Montreal are the following:

1. Pre-eclampsia/hypertension: 21.3%
2. Twins, Vaginal Birth After Caesarean, abruptio placenta, each of these: 14.2%
3. Remaining reasons for referral: history of cervical tear, stillbirth, breech, Hyperthyroidism, pulmonal stenosis, Each one of these: 7.1%.

Reasons for emergency medical transfer (Medevac) during pregnancy or immediately after birth (woman or baby). In all, 4.5% of the mothers and babies had to have a medical evacuation. The two main reasons for transfer/medevacs were post partum bleeding and premature labour and birth. Post partum haemorrhage (pph.) or a history of pph. is the most common reason for refers to Povungnituk, and the second most common reason for Medevac. In looking at the incidence of pph. it is seen that no primiparas had pph. over 2,000 ml. Altogether 1.5% of the women having pph. had a haemorrhage exceeding 2,000 ml, and 4.7% of the women had pph. between 1,000 ml and 2,000 ml. It is interesting that anecdotal observations from several different midwives in Nunavik indicate that even when a woman has a pph. of more than 2,000 ml or even 3,000 ml, she is not as clinically influenced by it as one might think.

The premature birth rate among the women from Inukjuak is 3.3%. The intervention rate is extremely low: One caesarean section among the women transferred to Montreal (0.5% in total) and one vacuum extraction among the women giving birth in Inukjuak (0.7%). There were no episiotomies among the women giving birth in Inukjuak.

### Perinatal mortality rate

There has been one perinatal death: An unexpected premature birth at home, 1,250 gr. at 29 weeks. The perinatal mortality rate of all births in Inukjuak is 5 per thousand births and of the women giving birth in Inukjuak it is 7 per thousand births.

### CONCLUSION

This analysis has demonstrated that 1) the work of the Inukjuak midwives is outstanding, 2) the way the local Perinatal Committee works is very effective. Nunavik can be proud of its unique Midwifery service as the care is safe, health-promotive and meets the community's demand for women to stay in their own community to give birth.

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