THE INUIT POPULATION OF NORTHERN QUEBEC: PRESENT SITUATION, FUTURE TRENDS

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Abstract: The Inuit population of Northern Quebec, 5,000 approximately in 1981, is scattered in fourteen villages along the coasts of Hudson Bay, Hudson Strait and Ungava Bay (Figure 1). None of these villages had, in 1981, more than a thousand Inuit and the proportion of non-Inuit in most of these villages was negligible. The purpose of this paper is to compare the present demographic situation of the Inuit of Northern Quebec, to its past trends and likely future. We also included information concerning the Inuit of the Northwest Territories, and the total population of Quebec for comparison.

Résumé: La population inuit du Nouveau-Québec se chiffre à environ 5 000 personnes en 1981 et est dispersée dans 14 villages le long des côtes de la baie d'Hudson, du détroit d'Hudson et de la baie d'Ungava (Figure 1). Aucun de ces villages possède en 1981 une population supérieure à 1 000 habitants et la proportion des individus d'origine non-inuit est négligeable dans la grande majorité de ces villages. Dans cet article, les auteurs comparent la situation démographique actuelle des Inuit du Nouveau-Québec aux tendances observées dans le passé et présentent des scénarios possibles pour l'avenir. Des comparisons sont aussi établies avec les Inuit des Territoires du Nord-Ouest et l'ensemble de la population du Québec.

Past Trends and Present Situation

In this section we will discuss the changes in the Inuit population from 1941 to 1981, the last year for which we have observed data. Even if data prior to 1941 are sometimes shown on the graphs, they will not be discussed extensively because of their lack of reliability. Information concerning 1981 to 2001 which can be seen on graphs and tables consists of projections and will be discussed later in the paper.

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Age Structure

A look at the population pyramids of the Inuit in 1961 and 1981 (Figure 2, left) shows a very young age structure at the first date, and a population still young at the second one, though signs of a decrease in fertility can be observed on the second one: People in the youngest age group, 0-4 years, are less numerous than in the next youngest (5-9). For comparison, on the same figure, the pyramid of the total population of Quebec is presented. While the pyramids of 1961 were still young, with a large base (Figure 1, upper right), the pyramids of the total population of Quebec in 1981 had a much older structure, with younger generations being much less numerous than the young adults. The contrast between the two age distributions emphasizes the young age structure of the Inuit population which was, in 1981, younger than the one of the total population of Quebec in 1961.

One puzzling detail about the comparison between the age structures of the Inuit population and that of the total population of Quebec, is the fact that, in 1961, the Inuit pyramid shows a hollow in the young adult population (15-24) much greater than that observed for the total population of Quebec (20-29). While the gap in the total Quebec population can easily be explained by the decrease in fertility (due to birth control) which occurred in 1931-1941, another explanation has to be found for the Inuit population, for which there is no evidence of birth control between 1936 and 1946.

We see two factors which are likely to explain this anomaly of the pyramid. The first might be related to health conditions between 1936 and 1946. During this period it is possible that health conditions became worse and that fertility decreased while infant mortality increased, causing a reduction in the number of young children for generations born between 1936 and 1946. This might have been caused by the economic crisis of the thirties and by World War II which heavily decreased supplies in the North (Lachance 1979:296). This situation caused famines (Duhaime 1983:33) which might be related to a decrease in fertility, and an increase in infant mortality. The situation seems to have improved during the forties, at least in some areas, with the settlement of a military base in Fort Chimo (Kuujjuag). If health conditions at the end of the forties and in the fifties were better than they were earlier, we can imagine how bad the conditions were before that time. In 1952, 120 out of 700 Inuit at Ungava Bay died from measles (Charbonneau 1984). In 1955, 50 of the 130 Inuit at Akulivik were transferred to southern hospitals for treatment (Audet 1974 and AIK 1973, ref. taken from Duhaime 1983:35). By the next year, according to Robertson 1961 and Jenness 1972 (Duhaime 1983:35) one Inuk out of seven had been hospitalized in the South.

The second explanation might be found in migration. It is known that at the beginning of the fifties, Inuit families were relocated from Northern Quebec to create two villages, Grise Fiord and Resolute Bay, in northern parts of





Source: Robitaille and Choinière (1984).





Sources: Registre de la population inuit du Nouveau-Québec, Département de démographie, Université de Montréal; Censuses of Canada; Quebec (1984).

the Northwest Territories (Canada MAINC 1984:18). It is possible that this migration involved mainly young adults (mostly from Inukjuak) who are still missing on the pyramid of 1961 (15-24), and on the pyramid of 1981 (35-44). To prove this hypothesis, an analysis of the numbers, and of the age structure of the emigrants of this period would be required.

Finally, looking at 1981, one can see that the youngest age group (0-4 years) of the Inuit population is smaller than the following one (5-9). It will be seen later that this is probably due to a decrease in fertility in recent years.

Population Growth

Figure 3 shows the annual growth rates of the Inuit population. For comparison, information about the Inuit of the Northwest Territories has been included as well as information about the total population of the province of Quebec. Since we will discuss the projections later, we will here examine the 1931-1981 period. We will leave aside the first period (1931-1941) because the data do not seem to be sufficiently reliable. Notice that the annual growth rate (calculated on a ten year base) increased from a level as low as 0.9%, in the forties, to a level of 3.5% for the more recent period, the seventies. This increase in the growth rate is probably partly due to a better coverage of the census and lists and also to better health conditions which, initially, had an effect on fecundity and mortality.

Fertility

Figure 4 shows the crude birth rates for the Inuit population of Northern Quebec, for the Northwest Territories, as well as the rate for the total population of Quebec. This index, which is the ratio of the number of births to the total population, as well as the general fertility rate (number of births per number of women 15 to 49 years old) presented in Figure 5, shows the same main trend which is, on first sight a bit puzzling. Leaving aside the first period for which the data are very unreliable, it can be observed that from 1941 to 1961 the rates are increasing, and from that point on, decreasing. Let us look first at the increase which might be accounted for in two ways. Firstly, there might have been a real increase in the number of births due to better health conditions. Secondly, a better registration of births, especially those followed by an early death, might cause an increase in the number of registered births and in apparent fertility.

The total fertility rate (Table 1) is the average number of children that each woman would bear, while passing through the childbearing period, if fertility stayed constant. For the Inuit of Northern Quebec, this rate has been computed for the first time for the 1976-1981 period, at a level of 4.86, nearly three times the general level of the total population of the province of Quebec. Since the total fertility rate is very much correlated with the general fer-













tility rate, and since this index had already decreased from a level of around 260% in 1961, to a level of around 165% in 1978, it is obvious that around 1961, the total fertility rate of the Inuit of Northern Quebec was much higher than 5.

Mortality

The decrease in the crude death rate (number of deaths per 1,000 people, Figure 6) since the forties illustrates that the mortality rate is much lower now than it used to be. However, the fact that the present level of the crude death rate of the Inuit is approximately the same as the one for the total population of Quebec does not mean that the level of mortality in both populations is comparable. It would be so if the age structure of these two populations were similar, but as we showed earlier, the Inuit population is much younger. The comparison of the infant mortality rates of both populations (Figure 7) shows that in 1981, the probability of an Inuit newborn dying before reaching his or her first birthday, is more than six times higher than for the average newborn Quebecer. This is in spite of a tremendous decrease in the Inuit infant mortality rates since the fifties from approximately 206% in 1956 to 69% in 1981.

The life expectancy at birth is the number of years a newborn can hope to live if mortality conditions remain constant. This index is most adequate to compare the general level of mortality because it is not biased by the age structure of the population observed. Table 2 shows an important increase in this index since the first period of observation. From 35 years in 1941-1951, it increased to 61 years in 1971-1981. However, there is still a gap of more than ten years between life expectancies of the Inuit and those of the total population of Quebec (73 years in 1975-1977).

It is difficult to draw firm conclusions from Table 3 concerning causes of death because of the small absolute number of deaths among the Inuit. Even so differences between the distributions by cause of death among the Inuit and among the total population are worth noting. While perinatal (in particular) violent deaths, as well as, deaths caused by diseases of the respiratory system, and diseases of infectious and parasitic origin are very frequent among the Inuit, deaths from neoplasms, diseases of the nervous system, the sense organs and the circulatory system are much less frequent. It is normal that among a younger population such as the Inuit the distribution of deaths by cause is different from the similar distribution of an older population. However age is surely not the only factor, and a more in-depth study of mortality by cause would surely bring insights into the real differences, and on ways to prevent some of those deaths.









Figure 8 Inuit Population of Northern Quebec, 1931 to 2001



Source: Robitaille and Choinière (1984).

Table 1 Total Fertility Rates of the Inuit Population of Northern Quebec and the Total Population of Quebec, 1976 to 2001

	al Population Québec	ation Total Pop ébec Quét	on
	ods Rates	Rates Periods	tes
	76 1,80	1976	,80
	31 1,62	1981	,62
Projected rates		3,83	<u>(</u>)
	30 I,OU	2,97	,60
	/1 1,60	2,46	,60
	<i>i</i> ,60	1996 2,19	,60
)1 1,60	2001	,60
	1 1 1 1 1 1 1 1	1991 2,46 1996 2,19 2001	

Sources: Robitaille and Choinière (1984); Statistics Canada, Vital statistics; Quebec (1984).

Table 2
Life Expectancy at Birth of the Inuit Population of Northern
Quebec and the Northwest Territories and the Total
Population of Quebec, 1940 to 2001

	Inui	t Pop	Total Population			
	Northern Québec		Northwest Territories		Québec	
	Periods	e0	Periods	eo	Periods	eo
	1941-1951	35	1941-1950	29	1940-1942	62
	1951-1961	39	1951-1960	37	1950–1952 1955–1957	66 69
	1961-1971	59	1963-1966	51	1960-1962 1965-1967	70 71 72
	1971–1981	61	1978–1982	66	1975–1977 1981	73 75
	1981-1986	61			1007	77
e0	1986-1991	63			1986	76
cted	1991-1996	64			1991	77
oje	1996-2001	66			1996	77
Ρr	1//0-2001	00			2001	78

Sources: Robitaille and Choinière (1984); Statistics Canada, Vital statistics; Censuses of Canada; Quebec (1984).

Table 3Causes of Deaths of the Inuit Population of Northern Quebec and
the Northwest Territories and the Total Population of Quebec,
Recent Periods

Causes of Death	Inuit Population Total				
	Inuit Population				Population
	North	ern Québec	Northwest		Québec
	1974-1979		1975-1981		1979-1981
	Nb	»	Nb	ž	%
Infectious and Parasitic Diseases	9	7	6	1	0
Neoplasms	13	10	79	13	25
Diseases of the Nervous System and Sense Organs	10	8	14	2	1
Diseases of the Circulatory System	27	21	96	16	46
Diseases of the Respiratory System	21	17	85	14	6
Certain Conditions Originating in the Perinatal Period	13	10	42	7	1
Injury and Poisoning	28	21	208	34	10
Symptoms, Signs and Ill-Defined Conditions	10	8	62	10	1
Others			27	4	10
Total	131	100	619	100	100

Sources: Robitaille and Choinière (1984); Statistics Canada, Vital statistics.

Future Trends

Even if it is impossible to guess with certainty what will happen in the future, much of it is already written in the present. This is especially true for demographic phenomena which are slow to change. We have, therefore, tried to project what would happen to the Inuit population if fertility, mortality and migration trends remain the same. This projection is shown on Figure 8; it requires few comments. However, while past trends are unique, future trends are multiple. But let us focus first on what is called the average trend (A). It shows changes in the total Inuit population, if the tendencies shown on mortality and fertility graphs continue. It indicates a steep decrease in fertility (Figure 5), and a slow increase in life expectancy (Table 2). Migration, for which we have very little information is not considered. Figure 8 (curve A) shows that these tendencies would suggest an increase in the Inuit population from a little more than 5,000 at present to approximately 7,300 in 2001. It can be seen, on Figure 3, that this increase would suggest a decrease in annual growth rates for the first time since the 1941-1951 decade. As a consequence, age structure, as shown on the pyramid for 2001, would be much older than the present one (Figure 2). However, even with the drastic decrease in fertility, and in spite of the very high mortality rate, the Inuit population would continue to be much younger than the total population forecast for the province of Quebec for the same year.

The other projections on Figure 8 are based on different hypotheses of fertility. Curve "H" and curve "L" are based on what are, in the opinion of the authors, the maximum and the minimum values of what is very likely to occur considering the total fertility rate for 2001 (83% and 60%). The two more extreme curves are based on hypotheses which are much less likely to occur, in the opinion of the authors. The highest (PR) relies on a total fertility rate that maintains its present level until 2001 while the lowest (QUE) supposes a level for the Inuit in 2001 as low as the present rate for the total population of the province of Quebec.

Conclusion

The demographic situation of the Inuit is far from being completely known. Due to the quality of the data all rates and statistics provided in this article are to be interpreted as having a margin of error. However, levels and tendencies are such that there is no risk of error in saying that even if fertility and mortality rates have decreased recently, they are still at a higher level for the Inuit than for the general population of the province of Quebec. For how long this will continue, no one can say for sure but, in our opinion, tendencies indicate that this higher level may persist for many years into the next century. This suggests, according to our projections, a rate of increase much higher than one percent for many years to come. However these projections should not be taken as granted. Two factors might play against the Inuit population of Northern Quebec: its small size; and the fact that, for this ethnic group, cultural changes have occurred at an unprecedented rate during the last thirty years. The small size might be a liability since in 1981, for example, fewer than a thousand Inuit women were of childbearing age. Such a small population is always vulnerable to unexpected events. On the other hand, cultural changes may have been detrimental to the Inuit group since, over the last 30 years, skills which once were essential to survival have become much less important. They were very important in Inuit culture and the Inuit will have to supplement them with others yet to be developed.

Notes

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