

RESEARCH NOTES

INFANT AND CHILD MORTALITY AMONG CANADIAN ESKIMOS*

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Résumé—Dans cette étude nous avons examiné l'information démographique couramment disponible sur la population esquimaude en concentrant notre attention sur la mortalité infantile. L'examen préliminaire du taux d'accroissement de la population esquimaude surtout en comparaison avec celui de la population totale sur une base décade par décade évoque d'abord un sentiment d'incertitude en ce qui concerne les données de recensement.

Alors, quand on utilise les statistiques vitales pour évaluer le taux de mortalité infantile, la situation montre un manque réel de qualité dans l'inscription, surtout avant 1960 dans les Territoires Nord-Ouest et après 1960 dans la province de Québec.

Finalement, quand on rencontre des contradictions flagrantes dans les résultats de l'analyse de la mortalité infantile, les auteurs sont contraints à conclure que les données globales officielles qui sont disponibles maintenant sont inexactes et non appropriées à l'étude de la situation démographique de la population esquimaude canadienne et à l'évaluation et l'analyse des phénomènes démographiques qui les caractérisent.

Pour faire face à de telles circonstances, on a établi un registre démographique des Esquimaux québécois d'après les données nominales de base au Département de Démographie de l'Université de Montréal où tous les événements démographiques sont compilés dans des classeurs individuels. Les auteurs ont l'impression que ce registre, une fois corrigé pour sous-inscription, leur donnera, dans un proche avenir, une connaissance et une compréhension meilleures de la population esquimaude du Québec.

Abstract — This paper gives an overview of the currently available demographic information on the Canadian Eskimo population, focussing on infant and child mortality. The preliminary examination of the Eskimo population growth rate, especially in comparison with the one for the total population on a decade-by-decade basis firstly brings about a feeling of uncertainty with the census data.

Then, when Vital Statistics are used to evaluate infant mortality rate, the situation shows a real lack of quality in the registration, especially before 1960 in the Northwest Territories and after 1960 in the province of Quebec.

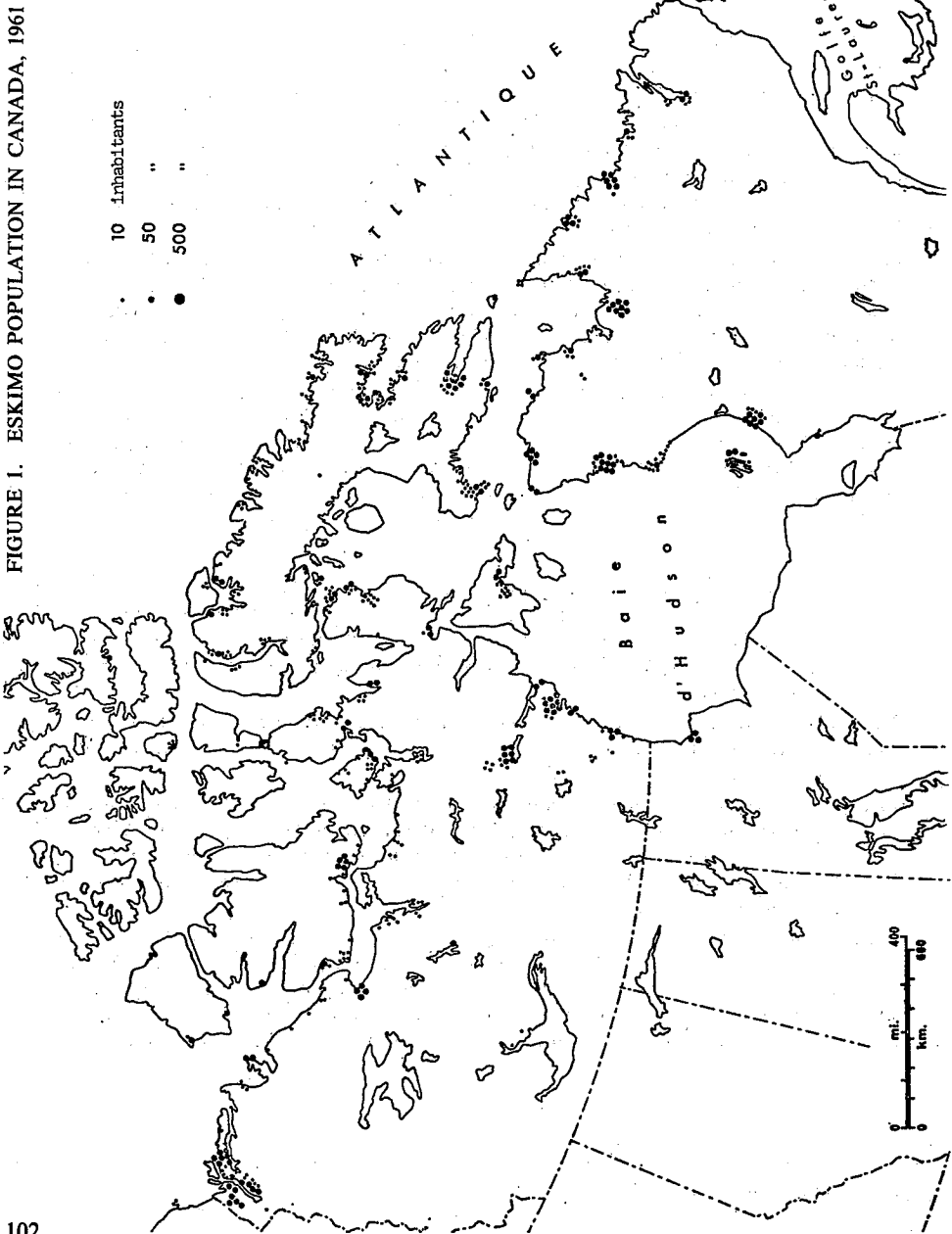
Finally, when flagrant contradictions are also found in the results of child mortality analysis, the authors are forced to conclude that the official aggregate data now available are inaccurate and not suitable for the study of the demographic situation of the Canadian Eskimo population and for the evaluation and analysis of the demographic phenomena that characterize them.

Facing such circumstances, a population register for Quebec Eskimos has been established from the nominal basic data at the University of Montreal's Demography Department where all demographic events are compiled in individual files. The authors feel that, this register, when suitably corrected for under-registration, will give them a much better knowledge and understanding of the Eskimo population of Quebec within the not too distant future.

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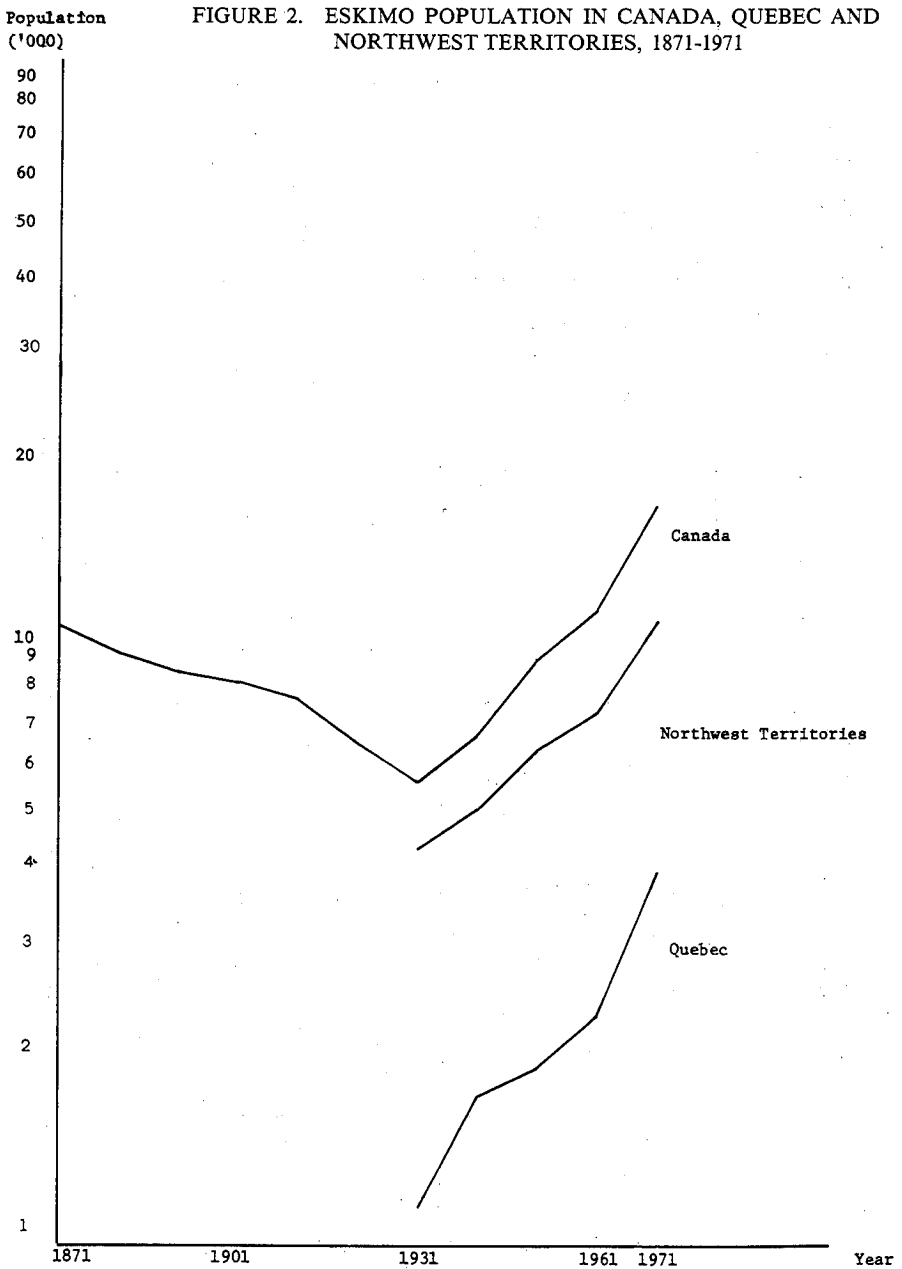
Introduction

According to a recent UNESCO publication (Stevenson, 1975), the world Eskimo population is about 80,000, distributed as follows: Greenland—38,000; Alaska—24,000; Northern Canada—15,000 and 3,000 in Siberia. In Canada, the most recent official census count (1971) has enumerated 17,550 of them. As we can see (Figure 1), the Eskimos are spread out along the northern shores of the country: 90 per cent of them live in the Northwest Territories and in Quebec, 66 per cent in the former and 24 per cent in the latter.



Historical Overview

Let us take a rapid look at the historical evolution of the Canadian Eskimo population. According to Figure 2, the number of Canadian Eskimos would have decreased during the latter part of the nineteenth and the first part of the present century, and would have started



Source: Dominion Bureau of Statistics, Canadian Censuses from 1931 to 1971, unpublished data and Atlas National du Canada.

TABLE 1. TOTAL AND NATURAL GROWTH RATES FOR CANADA, QUEBEC AND NORTHWEST TERRITORIES POPULATION AND TOTAL GROWTH RATES FOR THE ESKIMO POPULATION, 1931-1971

DECADE	CANADA			QUEBEC			NORTHWEST TERRITORIES		
	All Population		Eskimos	All Population		Eskimos	All Population		Eskimos
	Total ¹ %	Natural ¹ %	Total ³ %	Total ¹ %	Natural ¹ %	Total ³ %	Total ¹ %	Natural ² %	Total ³ %
1931-1941	10.33	11.17	16.60	14.73	14.80	42.16	25.41	4.85	14.50
1941-1951	16.78	15.46	29.85	19.60	19.93	11.20	28.36	10.88	23.90
1951-1961	26.23	19.53	19.49	25.84	21.43	21.40	35.86	26.02	15.61
1961-1971	16.73	13.36 ²	38.90	13.62	13.59 ²	41.40	40.85	33.52	35.29

Sources: 1. Dominion Bureau of Statistics, Canadian Censuses, 1931-1971.

2. Dominion Bureau of Statistics, Vital Statistics, 1931-1970.

3. Dominion Bureau of Statistics, 1931-1971, unpublished data.

FIGURE 3. INFANT MORTALITY RATES FOR TOTAL POPULATION IN CANADA AND QUEBEC AND FOR THE ESKIMO POPULATION IN QUEBEC AND NORTHWEST TERRITORIES (MOVING AVERAGES OVER FIVE YEARS), 1938-1970

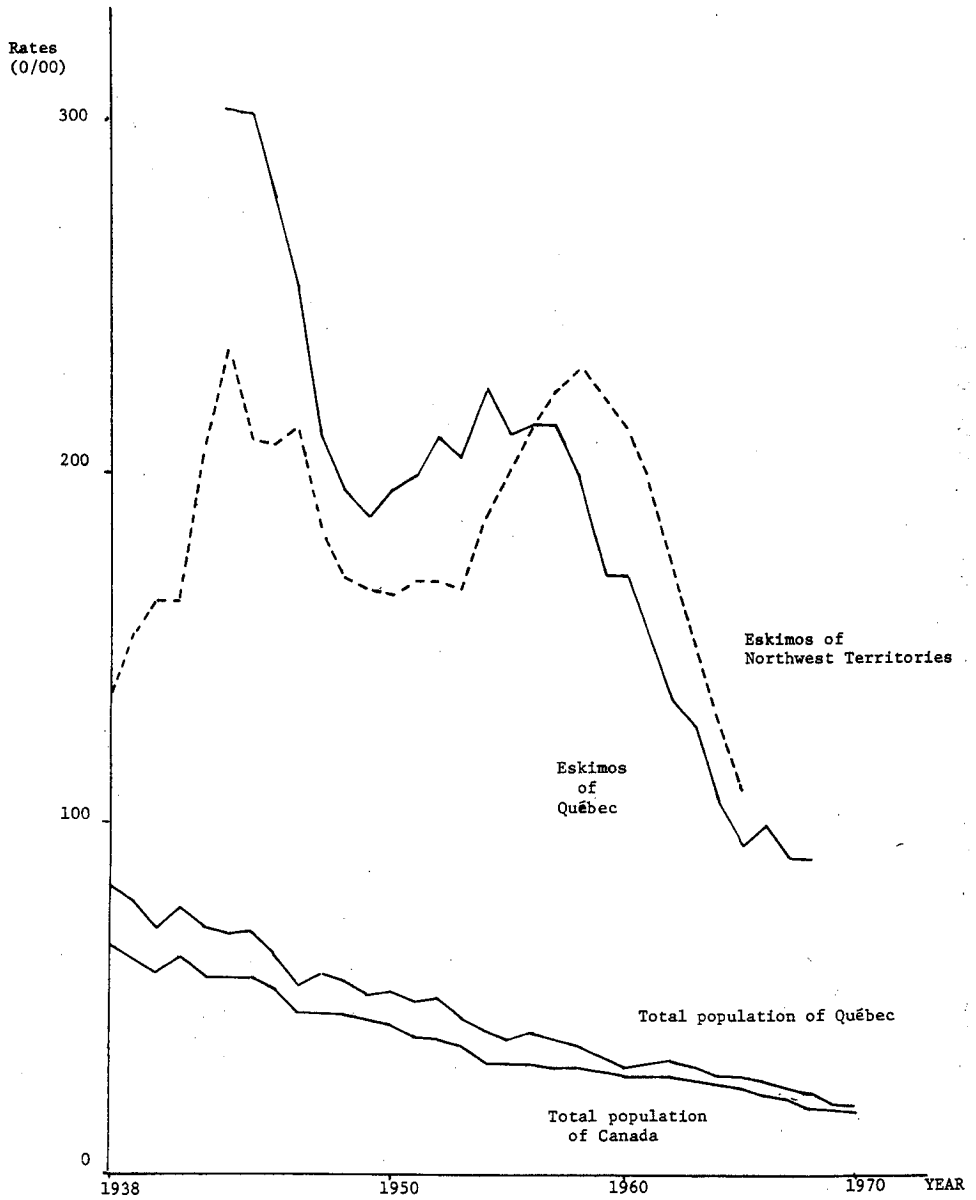
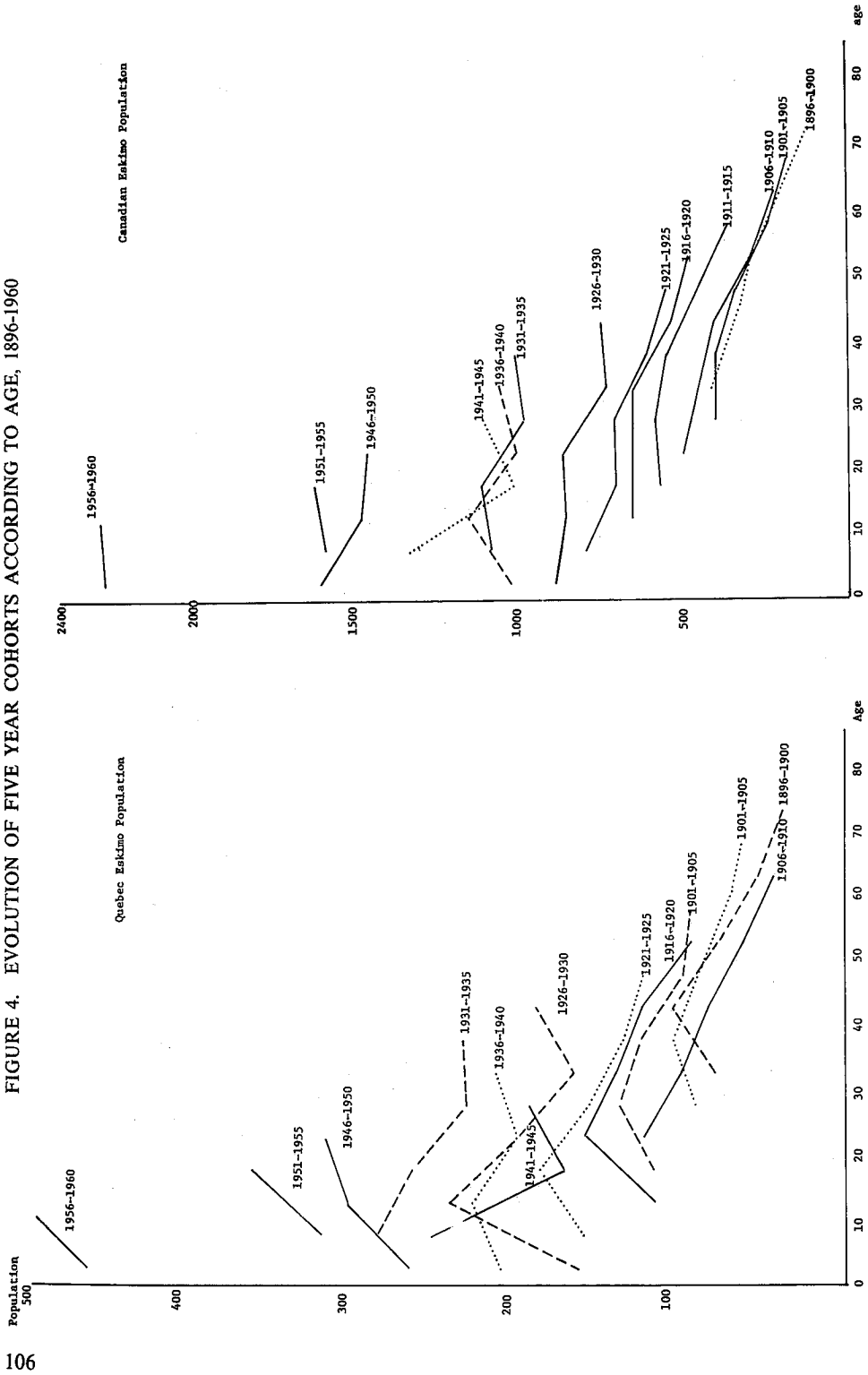
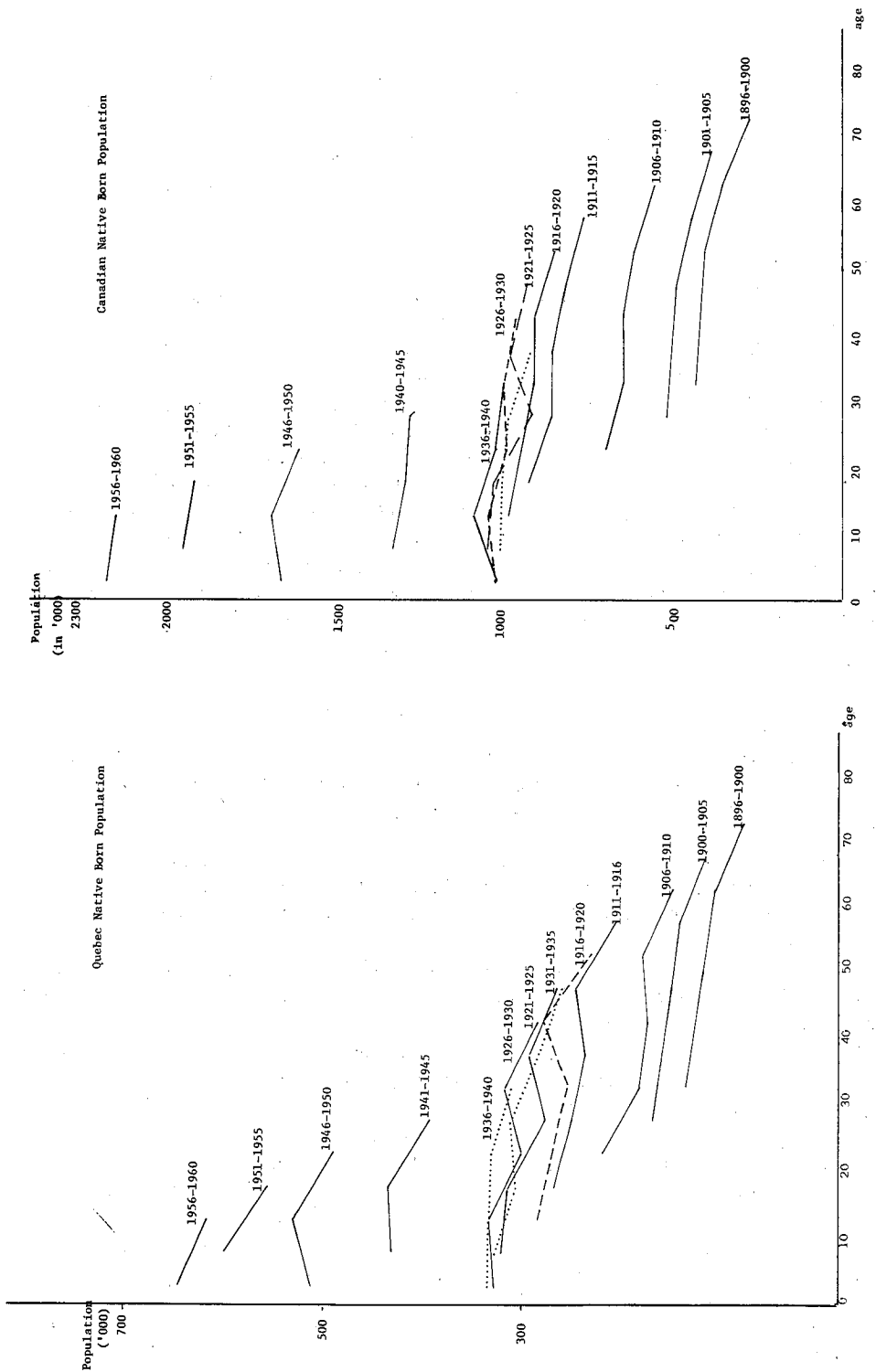


FIGURE 4. EVOLUTION OF FIVE YEAR COHORTS ACCORDING TO AGE, 1896-1960



Infant and Child Mortality Among Canadian Eskimos



Source: D.B.S., Canadian Censuses, from 1931 to 1971
(Unpublished data)

an exponential growth in the early thirties. How far this picture corresponds to reality still has to be shown since the first official census giving "reliable" statistics on the Eskimo population was taken in 1931. Between 1931 and 1971, the Canadian Eskimo population has more than tripled while the total population only doubled. The same is true for Quebec, but the situation is just the opposite for the Northwest Territories, the rapid growth of the non-Eskimo population being explained by a high immigration linked to the development of that region.

Growth Rates of the Eskimo Populations

We get a clearer, not necessarily more accurate, picture of the situation when a decade-by-decade analysis is introduced (Table 1). The rapid growth rates for the Eskimo population during the sixties show a sharp contrast with the fifties figures, most probably due to an important under-enumeration in the 1961 Census.

As we may safely assume that there is no international Eskimo migration, their total growth rate for Canada should give us a good estimate of their natural growth rate. But it is impossible to determine what part of the evolution of the rates is due to a change in mortality and what part, due to an improvement in birth registration. For the period 1951-61, the identity between the natural growth rate of Canada and that of the Eskimos — obviously far from plausible — gives us even more reason to doubt the 1961 Census count.

If we further assume that there is no internal migration besides local, Quebec and the Northwest Territories figures can be used in the same manner as those for Canada to evaluate natural growth rates. So, even the most general census figures concerning the Eskimos leave us with a feeling of uncertainty when compared with data for the total population.

Infant Mortality

Moving closer to our topic — infant mortality — we now have to deal with the analysis of Vital Statistics. Up to the mid-fifties, vital events in Canada were registered according to ethnic origin. Since then, some provinces have stopped asking this information altogether. Although the Northwest Territories and Quebec continue asking the ethnic origin, the Northwest Territories do not make the information concerning the Eskimos available in a published form since 1956 and Quebec since 1952. Even though official registration has been in effect since the late twenties, only post-war data can be used with some confidence when it pertains to the Eskimos.

In order to evaluate infant mortality levels, one has to use moving averages of the rates, as the small size of the population causes the year-to-year data to fluctuate without significance.

Even before questioning the value of the data, we can have a good idea of the level of infant mortality among the Eskimos (Figure 3): it is high, well above the 20 per thousand level now reached in southern Canada.

The long-run trend for Quebec is quite plausible, lowering gradually from 280 per thousand in the forties to 100 per thousand in the more recent period. The one for the Northwest Territories has to be interpreted with more caution. The pre-1960 data show fluctuations in level certainly due to the lack of quality of registration.

The upward trend of the late fifties remains very suspicious as the one for the late thirties. For the sixties, it is possible that the level given for the Northwest Territories better reflects reality than Quebec's, since we know from other sources, that for that period there has been in Quebec a deterioration of the quality of registration, mainly due to political and administrative upsetting.

Child Mortality

As we are still in the process of tabulating child mortality rates, for the present, we have decided to evaluate survival rates from data by age groups found in the censuses. Indeed, where international migration does not interfere, a generation can be followed from one age to the other. Here again, the censuses are not accurate enough to permit a satisfactory analysis of Eskimo demographic parameters. This is especially the case for the Quebec Eskimo population since the younger generations show unrealistic increase in their number between two censuses. Even the data for total native-born population are unreliable in these respects, since they sometimes show the same contradiction (Figure 4).

In short then, the official aggregate data now available have been shown to be inaccurate and not suitable for the study of the demographic situation of the Canadian Eskimo population and for the evaluation and analysis of the demographic phenomena that characterize them.

From Aggregate Data to a Population Register

In such circumstances, two solutions are possible: one can either work with models or try to establish a population register from the nominal basic data. The latter has the disadvantage of taking time to set up, but then it rapidly becomes very useful to the administrator and to the statistician who wish to acquaint themselves with this remote population in order to help them better. Accordingly, we have started to establish such a register for the Eskimos of the Province of Quebec. All demographic events are compiled in individual files. We are thus in a better position to identify exactly where these data are inaccurate and to rectify them. Our register, when suitably corrected for evident under-registration, may help to give better understanding of the Eskimo population of Quebec within the not too distant future.

Reference

- Stevenson, Alexander. 1975. The Changing Canadian Eskimos — The Development of the North is an Historical Process that Cannot be Reversed. The Unesco Courier, January: 12-13, 30-33.