

The result is a sensitive document which has many of the characteristics of a literary masterpiece. Anyone who knows Brody's earlier book, *The people's land* (1975) will not expect a neutral work of social science, which this book certainly is not. It is a skilful piece of advocacy, for a people whose culture is threatened through the contact with modern industrialism. Brody believes that this total transformation might be avoided. In pressing for this, he presents us with an engaging picture of the tough life that hunters lead, so that we may realize what is at stake. But he takes us further—into the world of their aspirations, and ultimately into their dream world.

As I have indicated it is not orthodox ethnography, yet there is nonetheless meticulous detail on such matters as hunting routes and routines. It is clear from the above I have a major difficulty in categorizing the book; I have none in assessing its quality and its value to all who wish to be informed about the contemporary situation in the Canadian sub-Arctic. Brody has the ability to bring to both the informed reader and the neophyte the desire to participate in his view of this complex social situation. We may not all agree with his judgements on the fur trade, but that is perhaps beside the point. For once we have an opportunity of hearing the views of his informants quite directly.

If I have any criticism it relates to the lack of illustrations, and perhaps the occasional dislocation that his pattern of alternate chapters of narrative and analysis sometimes involves.

INFANT MORTALITY IN THE NORTHWEST TERRITORIES

[Review by S. R. S. Haraldson* of *The report of the Northwest Territories perinatal and infant mortality and morbidity study* prepared by D. W. Spady. Occasional Paper 16, Boreal Institute for Northern Studies. Edmonton, University of Alberta, 1982, 305 p, softcover.]

This important study arose from the high infant mortality rates recorded in Canada's Northwest Territories, particularly among non-white populations. As recently as 1970 mortality in Inuit infants was 105 per thousand live births, roughly twice that of Indians, five times that of local white infants and seven times the rate for Canada as a whole. The year-long research here presented, based on 1 191 infants, was the work of a multidisciplinary team of some 50 experienced Arctic doctors, sociologists, educators and administrators, investigating a wide range of health, social and environmental factors. The objectives of the study were to identify causes of illness and death and the socio-economic, nutritional and other risk factors involved, to assess adequacy of infant care, and to recommend remedies for the high morbidity and mortality.

The study took place in 1973–74 when the total population of the Territories was 36 000 (approximately 13 000 Inuit, 10 000 Indians and the balance whites), typically living in small, widely-scattered settlements. The health services were staffed by 42 physicians, 11 dentists and 150 nurses and nursing assistants, and organized through five fully-staffed hospitals, nine health centres (staffed by public health nurses), 38 nursing stations (nurses, midwives, X-ray facilities) in settlements of up to 1 000 people, and six health stations (lay dispensers with treatment manuals) for settlements of fewer than 100. Data were gathered from a wide area, despite difficulties arising from harsh climate, language barriers, inaccurately-compiled birth and death certificates, and the mobility of much of the population.

The findings of the study were not surprising; infant morbidity and mortality in the Northwest Territories depend on socio-economic and environmental circumstances, much as they do in the tropics and elsewhere. Health care is only one of several factors determining the health status of infants. Hardships directly imposed by polar conditions were found to be of little significance; what mattered was the poverty of Arctic peoples in transition from old ways of life to new.

Handicapped at the outset by their socio-economic environment, native infants were most at risk. Compared with white infants, Inuit had three times as many cases of illness during their first year and Indians twice as many. Commonest were respiratory and gastro-intestinal complaints, and otitis media (which affected 63 per cent of Inuit infants). Meningitis too was prevalent. The high incidence of otitis

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media showed no particular correlation with bottle feeding; however, breast feeding, currently in decline, emerges as an important factor in general infant health. Some 60 per cent of Inuit mothers breast-fed but only 30 per cent of Indians, and the decline was most noticeable in the larger settlements.

Indians seemed more adversely affected by social change than Inuit; on the whole more urbanized, they tended to use the health facilities less. Poor quality housing affected most native settlements (for example only 7 per cent of Inuit houses had indoor flush toilets, compared with 92 per cent for white families). Other environmental factors of importance were unemployment (affecting about half the natives of Northwest Territories) and alcoholism; 17 per cent of Indian fathers and nine per cent of Indian mothers were 'often' alcohol-intoxicated. Compared with whites, more than twice as many native mothers were at the extremes of the age range (under 20 or over 35 years); four times as many native mothers were single. Infants of teenage native mothers were especially at risk. The importance of hospital deliveries is documented. Some 70 per cent of Inuit infants were delivered in institutions, though only one in four by physicians. Inuit babies had the lowest birth weights, often below 2.5 kg; low birth weights were closely associated with maternal smoking and its accompanying malnutrition.

Many infant deaths were considered preventable, though not readily predictable by nursing and lay staff. The report makes a strong case for more qualified physicians to be employed, so that infants at risk might be detected and treated earlier. Whether there is justification for 'qualified medical professionals (pediatricians) in all settlements of any size' (one of the report's desiderata) is perhaps open to question. The high staff turnover rate (over 50 per cent each year among doctors and almost 100 per cent among nurses) may indicate a need, not for more physicians, but for a radical reorganization of frontline health services, in which professionals will come to play a less important role in the peripheral settlements.

This report has taken a long time to emerge. In the ten years since the survey was done much has changed in the Northwest Territories, and some of the report's findings may no longer apply. A follow-up study is now in progress, with results expected some time this year. One hopes for a smaller study, focussing perhaps on single factors that can actually be influenced by changes in practice or policy. This present report fails to take into account recent findings from comparable populations, which might have broadened its discussions and put them into better perspective; of the 95 items in its bibliography 55 are over ten years old, only two more recent than 1978. The Territories are in many respects a 'developing country', though one with the good fortune to be part of a rich nation. Comparisons with infant mortality studies in some tropical rural areas would have been fruitful; both problems and solutions are surprisingly similar. Closer to home there are more direct and no less interesting comparisons to be made with Inuit populations in Alaska and Greenland. The success of the Alaskan frontline health services is surely due to the employment of native auxiliary health workers—206 Eskimo girls provided with effective communications and transport—who establish trust and collaboration with native villagers. Here, where almost all infants are born in health centres or hospitals, an infant mortality rate about one third that of the Northwest Territories has now been achieved.

The report makes the important point, however, that infant health in developing populations is a multidisciplinary problem, requiring close cooperation of experienced professional workers in many fields; in this respect the Canadian team have led in a direction which others must follow. The multidisciplinary approach admits the possibility of non-medical solutions to medical problems; perhaps the first and most important step toward better health for both infants and adults in the Territories is improved standards of primary education for the native populations.

WHO DISCOVERED ANTARCTICA?

[Review by Morton J. Rubin* of A. G. E. Jones' *Antarctica observed*. Whitby, Caedmon, 1981, 130 p, illus. £7.95.]

This short book will interest anyone who is curious about the early exploration of the Antarctic. It analyses extensive original and later documentation concerning the probable first discoverer of the continent—James Cook, Thaddeus Bellingshausen, William Smith and Edward Bransfield, or

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