EDITORIALS

Community development: an approach to health care for Indians

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In this issue of the Journal (starting on page 249) Drs. Evers and Rand discuss morbidity in Canadian Indian and non-Indian children in the first year of life. They show that, in 1976, Indian children were 1.5 times more likely to become ill (17.6 times more likely to get pneumonia), 4 times more likely to be admitted to hospital and 2 times more likely to be seen for an office-reported illness than non-Indian children. They speculate that the high morbidity in Indian children is due to environmental influences, health care behaviour and distance from medical services, rather than ethnic differences. It is to be hoped that in continuing their study Evers and Rand will determine not only the frequency of breast-feeding in the two cohorts but also the number of occupants per dwelling, the occupants' employment status, the type of housing, including the presence or absence of electricity, central heating and refrigeration, the water supply and bathing facilities, and the method of sewage disposal.

The experience with the University of Toronto's health care delivery project in the Sioux Lookout Zone of northwestern Ontario[1] over the past 12 years confirms Evers and Rand's observations. The Sioux Lookout Zone is as harsh and forbidding an environment and as greatly isolated as any other region of Canada; therefore, the observations of those of us working on the project are widely applicable.

What are the problems of this region, what has been accomplished since the project began and are there any readily apparent solutions?

Young[2] has studied the impact of medical care on the health status of people living in the Sioux Lookout Zone. Before contact with "the white man" and before the fur-trade era the population was said to be generally healthy: chronic malnutrition was rare, acute starvation occurred occasionally, and arthritis and rheumatism were common in the elderly. Accidents and injuries were a common cause of death. The coming of "civilization" meant that by the early 1900s the rate of death among liveborn infants exceeded 200/1000, diseases such as tuberculosis, gastroenteritis, pneumonia, venereal disease and skin infections were widespread, and the commonest cause of death was tuberculosis. The nomadic way of life was disappearing, and crowded semipermanent settlements were scattered over the area.

There were no major changes until after World War II, when organized health care services first became available in the Sioux Lookout Zone. By the 1970s the rate of death among liveborn infants had declined to about 50/1000, deaths from tuberculosis were rare, as was maternal death, and obesity had replaced malnutrition as a common problem. However, other indicators of health status, such as the rate of accidents and violent deaths (many of which were related to alcohol abuse), and the incidence of tuberculosis, pneumonia, skin problems and dental disease had not changed. Even more significant was the fact that the greatly improved quality of health care delivery associated with the Sioux Lookout project since 1969 had yielded little additional improvement in health status. The birth rate for Indians was twice that for all Canadians; the infant mortality was 2 to 3 times, the neonatal mortality 1½ times, the postneonatal mortality 5½ times and the incidence of tuberculosis 13 times that for all Canadians. However, 45% of the deaths in all age groups were due to accidents and injuries. Pneumonia and respiratory disease ranked second in importance. Of all the postneonatal infant deaths 40% were due to gastroenteritis, meningitis and pneumonia.

Most of the deaths occurred at home or in transit rather than at the Sioux Lookout Zone Hospital or in the presence of a doctor. The rates of death in infants up to 1 month of age were nearer the national rate when medical control was greatest. Wallace[3] found similar rates of illness and death among American Indian infants.

As Goldthorpe[4] stated, "there will always be a price to pay in infant deaths for the choice of living in an isolated village accessible only by air onto a lake, *no matter what a health service does or how much it spends per capita.*" In 1974 the per capita expenditure for health care services in the Sioux Lookout Zone compared favourably with the Canadian average, although a large proportion of the expenditure related to travel costs for patients and staff (A. Ruderman: unpublished data, 1974).

Thus, although the quality of the health care system is high in the Sioux Lookout Zone, the health of the Indian residents is poor. Therefore, the excess morbidity and mortality cannot be explained on the basis of

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defects in the health care delivery system. In fact, Young[2] found very little difference in health status between natives living in small (satellite) communities served by only native community health workers and visiting nurses and doctors, and natives living in nursing stations served by resident nurses and by doctors and other health care professionals who visited frequently. He concluded that the crucial factor in the delivery of services is the availability of basic primary care in all communities as well as good systems of transportation and communication; he thought it was unlikely that more intensive medical care — for example, more frequent visits by physicians or more sophisticated facilities — would significantly improve the residents' health.

What, then, are the causes of the increased morbidity and mortality in these populations, and how should we allot our resources to deal with these problems?

Half the Indian population consists of children less than 15 years old, among whom accidents, injuries and violence account for 40% of deaths, and nontuberculous respiratory disease accounts for 14%. In this age group dropping out of school, juvenile delinquency, pregnancy out of wedlock, drug abuse and venereal disease are commonplace. There are virtually no recreational facilities for adolescents. Perhaps the greatest unmet need is community services.

Many of the illnesses that plague native children — otitis media, gastroenteritis, streptococcal infection (particularly of the skin), pneumonia and influenza — are preventable through better living conditions. During the past decade transportation and communication have improved greatly, and the importance of breast-feeding has been rediscovered. The immunization status of native children is as good as that of all Canadian children, but still not good enough.[5] On the other hand, sewage disposal, running water, bathing facilities and electricity are virtually nonexistent in most Indian communities. Health status indicators are much more likely to improve if these deficiencies are corrected rather than if the frequency of visits by health care professionals is increased or medical facilities are improved.

Perhaps the greatest deficiency in the present health care delivery system is meaningful input from the Indians themselves. It is they who must analyse the benefits and risks of continuing their traditional way of life in isolated areas and decide what type of health care personnel they want for their communities and what level of training is needed. They must spearhead a move to provide better housing, a safe water supply and sewage disposal system, recreational and other facilities for their children, and job opportunities for their adults.

However, as Badgley[6] has warned, the health care of Indians must not be discussed in isolation but in a broader social context. What is needed is economic, political and social development of the Indian communities but with much more involvement of the native people.

This, of course, will take a great deal of time. However, there are some encouraging signs; for example, the federal government's Indian Health Policy Statement of Sept. 19, 1979, which recognized the importance of the socioeconomic, cultural and spiritual development of communities to "remove the conditions of poverty and apathy which prevent the members of the community from achieving a state of physical, mental and social well being . . . [while] maintaining the traditional relationship of the Indian people to the Federal Government, in which the Federal Government serves as an advocate of the interests of Indian Communities".

In the Sioux Lookout Zone the native people of Sandy Lake developed a self-help program for children, pregnant women and the elderly as their project for the International Year of the Child, and they were successful in having it funded by a private foundation. Although the funding will soon run out, it seems certain that the project will continue with community support. The natives of Treaty 9, again with funding from private foundations, are developing a training program for health care auxiliaries better suited to their needs. They mounted a pilot project of native mental health counsellors under the sponsorship of the federal government's Youth Corps Job Program. Band chiefs and administrators are increasing their requests for consultation with the environmental health officers of the medical services branch, Department of National Health and Welfare, which reflects an increased awareness of environmental health issues. Native health councils are being formed in many communities and areas.

Nationally there are other signs of progress; for instance, the University of Manitoba is offering native people an upgrading premedical course that will enable students to qualify for training in medicine and other sciences.

The Canadian Paediatric Society,[7] through its Indian and Inuit health committee, has been an advocate for Canada's native children since the early 1960s. It promoted collaboration between Canadian universities and the federal government in providing health care projects for native communities, recommended the development of training programs in northern services for nurse–practitioners and developed a White Paper, presented to the prime minister in 1969, dealing with the disparities in the standard of living and socioeconomic development of native people compared with other Canadians.

Health problems among natives can be corrected only by a total community approach by the natives. Governments, universities, professional societies, private foundations and Canadians in general appear willing to help. The time is ripe to proceed.

References

1. BAIN HW, GOLDTHORPE G: The University of Toronto "Sioux Lookout Project" — a model of health care delivery. *Can Med Assoc J* 1972; 107: 523–525, 527–528
2. YOUNG TK: *Indian Health Care in Northwestern Ontario: Health Status, Medical Care, and Social Policy*, MSc thesis, U of Toronto, 1979
3. WALLACE H: The health of American Indian children. *Am J Dis Child* 1973; 125: 449–454
4. GOLDTHORPE WG: Infant health in an outpost area. *Can Fam Physician* 1975; 21 (5): 74–78
5. PLAXTON EK, SHAH CP, BAIN HW, YOUNG K: Preventive health care of native Indian preschool children in the Sioux Lookout Zone. Presented at the annual meeting of the Canadian Paediatric Society, Winnipeg, June 1981
6. BADGLEY R: Social policy and Indian health services in Canada. *Anthropol Q* 1973; 46 (3): 150–159
7. BAIN HW: Canada's native children. *Can Med Assoc J* 1980; 123: 1237–1238