This issue of the *International Journal of Circumpolar Health* contains four important articles on the health of the Native peoples of the North. These cross-sectional studies form the essential foundation for planning interventions and the rationale design of public health policy. Two reviews focus on Alaska Natives, one on the Greenland Inuit and another on Kivalliq Inuit of Northern Canada. These separate populations have common, escalating burdens of degenerative chronic disease. Rising rates of diabetes, increased prevalence of cardiovascular risk factors and cardiovascular disease are associated with dynamic and dramatic transformations in the traditional diet, activities of daily living, and the cleanliness of the arctic waters, land and air.

Professor Bjerregaard and his associates provide the results of two population surveys of the Inuits of Greenland. In comparisons to Danes or Inuits living in Denmark, the Greenland Inuits consume a high proportion of traditional foods, engage in generous amounts of physical activity and enjoy fairly low rates of obesity. They have low rates of hypertension, slightly higher rates of obesity and an admirably low atherogenic blood lipid profile. The picture of health though is marred by extraordinarily high rates of smoking and considerable numbers with known and undiagnosed diabetes.

Diabetes is clearly on the rise among Alaska Natives and the most striking feature of it is the steep increase over time and in comparison to the low rates of nearby relatives leading a more traditional lifestyle. Naylor and Schraer carefully review decades of local research and piece together incontrovertible evidence of increasing prevalence of diabetes and pre-diabetic states. Data are derived from casual reported observations, public health records, and direct surveys. Differing criteria and divergent methods of testing and measuring glucose tolerance make exact and reliable statistics elusive. Nonetheless, rejecting these data because they don’t meet rigorous epidemiological standards would defy good logic and ultimately do a disservice to the people who deserve good health and not just perfect science.

Schumacher and her colleagues summarize decades of observations and establish clear trends toward more Alaska Native obesity, more atherosclerotic disease and diabetes. While the statistics used to establish these trends could also be criticized for differing degrees of rigor, varying methodologies and some inferences, the trend is clearly that of more disease without any indication of a reduction in the incidence of new disease. The commonly
held belief that cold-water-fish-consuming coastal natives are protected from atherosclerotic heart disease is now a myth. Whatever benefits large amounts of 3-omega fatty acids may have in terms of cardio-protection may be overridden by cigarette smoking, inactivity, obesity, diabetes and consumption of large amounts of saturated and trans-fatty acids. The Alaska Native has rates of ASCVD similar to that of the non-Natives, and unlike the non-Natives, the rates continue to rise.

The pattern of Health and disease among the Kivalliq Inuit of Northern Canada is a mixed picture consisting of low levels of diabetes and hypertension and relatively high rates of smoking, obesity and alcohol consumption. As with the other reports, this population is undergoing change, and follow-up studies will be needed to confirm the direction and velocity of those alterations. Dr. Kue Young’s survey, although small, represents a random sample from a large, well-defined population and its credibility is strengthened by a high rate of Native participation. To assist with local health care planning, Young conducted a bi-lingual, 2-day workshop with the Keewatin Regional Health Board. Others involved in studies of aboriginal health should model this practice.

These studies represent sophisticated efforts by researchers facing obstacles often unapparent to funding bodies and scientists doing similar work in more hospitable environments. Funding bodies rarely grasp the financial expense and human hardships that go into the collection of data on Native health. Small isolated populations, remote conditions and over-studied people present formidable barriers. Participation rates in health surveys vary but are frequently low in comparison to larger studies from more accessible areas. Natives rightfully ask if any good will come from study participation. They carry suspicion about yet another study: they have too frequently suffered neglect at the hands of researchers who take the data and run back to their academic homes. A tangible motive for study participation is too often unclear.

The papers in this issue of the International Journal of Circumpolar Health come from researchers dedicated to Native health and sensitive to the rights and visions of the people they serve. They have had the energy and tools to offer us useful insights. Native health will improve only if we can reliably describe it and detect significant change over time. Thus, credible data are needed and should be updated periodically. Those engaged in Native health research must strive to standardize methods to allow comparisons both among native groups and with more robust studies from other populations. Investigators should design and carry out a col-
laborative, prospective cohort study. Data will be most useful when the measurements are well-standardized and comparable. This will give the Native people and funding agencies the clear data they need to make substantive change. This won’t happen without frequent communication and working alliances between researchers. Every effort to bring data out of the Circumpolar North must be coupled with equal efforts to empower the people from whom it was derived. Data, despite the formidable obstacles encountered in getting it, must be gathered with the intent to apply it to better health. The data must be given back to the community to use it in ways that the Natives define and see fit. This will only happen in a meaningful way when research is designed, executed, analyzed and used in partnership with the study communities. Native research must be a joint venture. As scientists, we have to face the challenges of using research funds wisely, pursuing common methodologies, planning interventions and vigorously incorporating Native voice and ultimate Native control of the research and definition of their health care paths.

It may be premature to hold the disturbing rates of obesity, diabetes and cardiovascular risk factors described in this issue as early warnings of an impending epidemic. The rates are still much less than those facing the Pima-Papago of Arizona. Nevertheless, the epidemiological creep among Northerners is plainly in that direction, and there are too many genetic and socioeconomic similarities to ignore the analogy. The challenge is to confront the epidemic in its earlier stages. Native people may rightfully view material wealth and westernization as a reasonable alternative to survival in the world’s toughest environment, especially considering of the issues of social disruption and the change to a cash economy. However, the people of the Circumpolar regions should not have to choose between a good life and good health.

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1Bjerregaard P and the Greenland Population Study. Contribution of population surveys to the study of cardiovascular disease and diabetes in Greenland. Int. J. Circumpolar Health 2003; 62(4): 331-342.

2Naylor JL, Schraer CD, Mayer AM, Lanier AP, Treat CA, Murphy NJ. Diabetes among Alaska Natives. Int. J. Circumpolar Health 2003; 62(4): 363-387.

3Schumacher C, Davidson M, Ehrsam G. Cardiovascular disease among Alaska Natives: A review of the literature. Int. J. Circumpolar Health 2003; 62(4): 343-362.

4Young TK. Contributions to chronic disease prevention and control: Studies among the Kivalliq Inuit since 1990. Int. J. Circumpolar Health 2003; 62(4): 323-330.

5Howard BV, Lee ET, Cowan LD, Devereux RB, Galloway JM, Go OT, Howard WJ, Rhoades ER, Robbins DC, Sievers ML, Welty TK. Rising tide of cardiovascular disease in American Indians. The Strong Heart Study. Circulation. 1999 May 11;99(18):2389-95.

6Lee ET, Cowan LD, Welty TK, Sievers M, Howard WJ, Oopik A, Wang W, Yeh J, Devereux RB, Rhoades ER, Fabsitz RR, Go O, Howard BV. All-cause mortality and cardiovascular disease mortality in three American Indian populations, aged 45-74 years, 1984-1988. The Strong Heart Study. Am J Epidemiol. 1998 Jun 1;147(11):995-1008