

Comparisons of communities will bring out differences resulting from different environments as well as similarities that exist despite the different environments.

The three major populations to be studied are: Alaskan Eskimos at Wainwright, a Canadian Arctic Eskimo community, and the Upernavik Eskimos of Greenland.

The specific areas of research are as follows: Genealogy and demography; Genetic markers; Anthropometry; Epidemiology; Nutrition; Physiology; Behavior, attitudes, and mental illness; Ecology and microclimatology (impact of ecosystems on man); Population history.

Details concerning seven of these areas follow:

Genealogy and Demography.—Because the populations are small, a detailed description of genealogies will be made to provide the basis for identifying and coding individuals. Later the genealogies will be verified by genetic markers.

Nutrition.—Aspects to be included are: Clinical examinations for signs of specific deficiencies, laboratory examination for signs of specific deficiencies (hemoglobin, serum iron, serum proteins, blood levels of vitamin C, folic acid, vitamin B₁₂, and serum lipids), estimation of caloric intake by major food types and season variations (dietary histories, diet analysis, 24-hour urinary nitrogen excretion, etc.), use and management of local food sources, distribution of food in the community, and type and quantity of food brought into the community.

Physiology.—Aspects to be included are: Cardiovascular function, respiratory function, adaptations to heat and cold, work capacity, thyroid and other endocrine studies, and carbohydrate and protein digestion, absorption, and metabolism.

Behavior, Attitudes, and Mental Illness.—Aspects to be included are: Observation of people during their daily activities, use of diaries and activity logs, use of heartbeat, totalizers and other devices, systematic study of cultural values, testing attitudes and aptitudes, and interviewing by psychologists or psychiatrists.

Genetic Markers.—These consist of data that should be collected on the total population. In one group are blood group antigens, serum enzymes, serum haptoglobins and hemoglobinopathies, salivary substances, urinary substances, and hair characteristics. In another group are dermatoglyphics, taste testing, chromosome characteristics, special dental features, and special eye features.

Anthropometry.—Aspects to be included are: Physical anthropometry (head, face, body, limbs, and skinfolds), photographs, X-rays (head, teeth, joints, and spine), and bone density measurements.

Epidemiology.—Aspects to be included are: Nutritional diseases, infectious diseases (viral, bacterial, and parasitic), metabolic and degenerative disorders, neoplasms, injury and accident, environmental factors and pollution, mental and behavioral disorders, and principal causes of morbidity and mortality.

The study of Eskimo populations is a joint United States-Canadian program. It will be coordinated with similar programs conducted by Scandinavian scientists in Greenland and Lapland, by Japanese scientists in -----, and by scientists of the USSR in the Siberian Arctic.

The following scientists have planned the U.S.-Canadian program:

J. A. Hildes, member of the Subcommittee on Human Adaptability, Canadian National Committee for the IBP (Chairman);

Frederick Sargent, II, Chairman of the Subcommittee on Human Adaptability, U.S. National Committee for the IBP;

J. S. Hart, Chairman of the Subcommittee on Human Adaptability, Canadian National Committee for the IBP;

William S. Laughlin, member of the Subcommittee on Human Adaptability, U.S. National Committee for the IBP;

L. Irving, Institute of Arctic Biology, University of Alaska; and

Frederick A. Milan, Aeromedical Laboratory, Fairbanks, Alaska.

This group has held two meetings and plans to hold a working conference in November 1967.

IBP units involved.—Subcommittee on Human Adaptability, Canadian National Committee for the IBP, and Subcommittee on Human Adaptability, U.S. National Committee for the IBP.

Funding.—To be developed.

Director.—To be selected.

Coordinator.—Frederick A. Milan, Aeromedical Laboratory, Fairbanks, Alaska.