



News from the

Center for Alaska Native Health Research

Building and increasing research capacity to improve the health of Alaska Natives.

Volume 2, No. 1

Winter 2004

Visit the CANHR web site:
<http://www.alaska.edu/canhr/>

University of Alaska Affirms Growing Commitment to CANHR

INSIDE THIS ISSUE

University of Alaska Affirms Growing Commitment to CANHR.....1

What Has CANHR Been Doing?.....2

Local Residents Hired as CANHR Assistants..2

Genetics of Obesity Core Update.....3

Cultural-Behavior Core Update.....4

Kathy Graves Completes Doctoral Degree....4

ANHR Conference Around the Corner.....4

Epidemiology/Biostatistics Core Update.....5

Institute for Circumpolar Health Studies Heads New ANSRPH Project.....6

Institute of Arctic Biology
Irving I Room 311
Box 757000
Univ. of Alaska Fairbanks
Fairbanks, AK 99775-7000
(907) 474-5528
FAX: (907) 474-5700
Email: fycanhr@uaf.edu



CANHR is supported by NIH's National Center for Research Resources, under the Centers of Biomedical Research Excellence Program

UAF is an affirmative action/equal opportunity employer & educational institution.

During the Eternal Advisory Council's visit to Fairbanks in May 2003, University of Alaska President Mark Hamilton voiced a passionate commitment to support the work of CANHR. President Hamilton is dedicated to assuring that the State continues to expand its support

for the University. He has been actively promoting sponsored research and encouraging proposals to federal funding agencies to build new investigative programs. President Hamilton articulated the desire to move into the fields of basic and applied health research, where the needs of Alaskans are high when compared to national levels and goals.

President Hamilton and his staff have also been fostering greater partnerships between State of Alaska programs and



UA President Mark Hamilton
(photo credit: Alaska Rural Health Notes)

As a state with limited population and fiscal resources,... Alaska will greatly benefit from collaboration and partnering.

Alaska Native Corporations and Tribal bodies. As a state with limited population and fiscal resources, but with significant health disparities, Alaska will greatly benefit from collaboration and partnering.

The Provost at UAF has made available two full-time faculty positions for CANHR, located within the Institute of Arctic Biology. One position will support the Director of CANHR, and thus become a regular position for the continuation of the program. The second position is for a Biostatistician, and a third is also being discussed for a Health Research Scientist. These positions serve all of the research

projects at CANHR, making the programs sustainable as the initial infrastructure development award comes up for renewal.

The UAF core genetics facility contains an integrated program that links the efforts of CANHR with the following two organizations: the Biomedical Research Infrastructure Network (BRIN), supported by the National Institutes of Health (NIH), and the Experimental Program to Stimulate Competitive Research (EPSCoR), supported by the National Science Foundation (NSF). New Chancellors at both UAF and UAA are being recruited for the coming year, and the interdependent infrastructures of the three major academic units of the University (Anchorage, Fairbanks, and Juneau) are being reviewed.

(Continued p.3)

A Publication of the
University of Alaska





What Has CANHR Been Doing?

During the last year, staff members at CANHR have been busy preparing for data gathering in Yukon-Kuskokwim (Y-K) villages. They have been ordering supplies and hiring extra staff; most recently, a phlebotomist and a physician were added to the team. In August, local people from four villages participated in training and orientation to help with the research.

Spring 2003: The Cultural Understandings of Health project conducted focus groups to develop a Health and Wellness Questionnaire in which Yukon Kuskokwim Health Corporation (YKHC) employees and other health care professionals in Bethel provided valuable feedback. In Fairbanks, Anna Jacobson, Eliza Orr, and Michelle Rasmus began working together to translate this measure into Yup'ik.

September 2003: The Diet and Nutritional Knowledge project piloted their diet and nutrition survey instruments. They visited three Y-K villages to test their vari-

ous survey instruments and to get feedback on the best ways to collect data.

October 2003: Jack Wang from the Body Composition Unit of St. Luke's/Roosevelt Hospital at Columbia University in New York traveled to Fairbanks to conduct a two-day anthropometric training workshop. Six members of the field research team participated in the training, which focused on the most reliable methods to measure body composition using circumferences and skin fold thickness (see box below for description of measuring body composition).

November 2003: To prepare for data collection in the field, the research team piloted the data collection effort in an interior village. This pilot provided a valuable opportunity to test our procedures before beginning the study.

December 2003: Data collection began, with the CANHR team conducting its first health screening/health research project in a Y-K village. It was a great success, with

over 110 participants.

January 2004: The CANHR research team traveled to its second Y-K village to collect more data. Over 60 community members participated in the project.

February 2004: Despite the challenges of extreme weather, data collection continued in the third village, with over 40 individuals participating in the study.

March 2004: Two local field research assistants were added to the CANHR staff. Currently, the research team is conducting the health screening/health research project in the fourth village. Preliminary enrollment is good, and it is expected to be another successful field experience.

The CANHR team would like to thank the villages for their hospitality and willingness to participate in the project. This spring, health screening/health research projects will be conducted in the last two Y-K villages. ▲

Scarlett Hutchison,
Research Associate

Measuring Body Composition

Skinfold thickness and circumference of trunk and limbs are indicators of musculature and fatness that can be objectively tracked over time. Skinfolds are performed by lifting a fold of skin and subcutaneous fat away from the underlying muscle and bone and then measuring its thickness with a caliper designed for this purpose.

Mid-arm circumference measurements can be used to calculate mid-arm muscle circumference and mid-arm muscle area. Waist and hip circumferences are also commonly measured and waist/hip ratios calculated. Waist circumference, a surrogate measure of abdominal fat, is used to assess risk for disease.

from Univ. of Iowa, General Clinical Research Center

Local Residents Hired as CANHR Assistants

CANHR has hired a Field Research Assistant (FRA) in each participating village to assist with setting up appointments, data gathering, and future information dissemination. The FRAs create an important link between the community and the researchers. Each FRA is fluent in both English and Yup'ik or Cup'ik, and has extensive knowledge about the local community and culture. The CANHR FRAs are: Filma Peter, Peggy Williams, Anna Angaiak, Dora Nicholai, Susie Walter, and Margaret Pavila.



Front Row: Dora Nicholai, Susie Walter, Deanna Paul, & Anna Angaiak / *Back Row:* Alisa Jenny & Wiz Ruppert

CANHR Contacts

CANHR Main Office
474-5528

Bert Boyer, PhD
Project PI, Genetics of
Obesity; Leader, Genetics
Core; 474-7733

Michelle Dondanville
Program Coordinator,
Assistant to the Director;
474-6230

Carl Hild, MS
Research Coordinator,
KAD Core; 786-6584

Scarlett Hutchison, MA
Research Associate;
474-5335

Jean James, MHA
Consultant; 474-7659

Cécile Lardon, PhD
Project PI, Cultural
Understandings of
Health; 474-5272

Bret Luick, PhD
Project PI, Diet and
Nutrition Knowledge;
474-6338

Gerald V. Mohatt, EdD
Director and PI;
474-6415

Judy Romans, Travel
Coordinator; 474-5528

Elizabeth "Wiz" Ruppert
YKHC Research Partner;
543-3962

Brian Saylor, PhD
Leader, Knowledge
Application & Dissemi-
nation Core; 786-6581

University Affirms Commitment... (Cont. from p.1)

Programs such as CANHR, BRIN, and EPSCoR are being viewed as models for fostering a healthy and vibrant statewide University of Alaska. As each group takes aspects of the research and training needs, the overall system will become stronger and more resilient during times of change.

In efforts to continue building health research capacity, CANHR is offering seed grants of up to \$75,000 per year to UA faculty at all of its sites, focusing on work involving Alaska Health Disparities. The goal is to provide faculty with the means to collect baseline or preliminary data to successfully submit competitive proposals to the National Institutes of Health.

CANHR is a capacity-building program aimed at leveraging infrastructure

"The hospitality of the villages is wonderful, and the participation in our research has been extensive."

development and encouraging faculty to engage in research. By providing a small bit of the support available through CANHR to faculty members, the flow of future research dollars can come into the University and benefit the partners and people of Alaska.

According to Jerry Mohatt, director of CANHR, "The most heartening and enjoyable part of building the Center has been the Health Screening Research projects taking place in each of the partner villages. The hospitality of the villages is wonderful, and the participation in our research has been extensive. We look forward to returning with results, and to continuing to work together to build the health of each village." ▲

Genetics of Obesity Core Update

Dr. Bert Boyer has been participating in collecting anthropometrics data during his recent village visits and is reviewing comparative data from other populations that have similarities to the people of the Y-K delta region. The bulk of his time in Fairbanks has been preparing the expanding genetics core laboratory. Dr. Boyer hired Dr. Gaby Antunez de Mayolo and Dr. Anya Goropashnaya to work in the following three areas: DNA isolation, plasma/serum banking, and pedigree construction with Dr. Rosemarie Plaetke in the CANHR Biostatistics Core. They are also working on setting up studies aimed at elucidating the genetic risk factors for obesity and diabetes.

The latest equipment to come on line is an ABI Taqman 7900, purchased under the EPSCoR program. It will become available for use in the CANHR program within the Genetics Core.

Setting up the genetics core will facilitate progress on the genetics project. Project plans include working with Dr. Antunez de Mayolo and Dr. Goropashnaya on the CIDR proposal and the RO1. Bert Boyer is preparing a number of proposals to build from the CANHR base of support. This summer or fall he plans to submit a research proposal to the Center for Inherited Disease Research for genotyping. This effort will expand the scope of the CANHR program to gain greater insight into the overall genetic susceptibilities to weight gain and diabetes in the target communities.

Dr. Boyer is also preparing an individual investigator award (R01) to the National Institutes of Health that will be submitted in either the fall 2004 or spring 2005 to follow up on the CIDR proposal. In addition, he is beginning to discuss a possible Fogarty International Center proposal to collaborate with Dr. Andrew Kozlov on comparative studies involving Yup'ik Eskimos in the Russian Far East. ▲

Bert Boyer, PI



Bert Boyer in his office





Cultural-Behavioral Core Update

The University of Alaska Fairbanks Department of Psychology and CANHR collaborated with Dr. Spero Manson, Director of the National Center for American Indian and Alaska Native Mental Health Research, to secure a \$150,000 minority supplement to their center from the National Institute of Mental Health (NIMH) to study Alaska Native concepts of treating and preventing psychosocial trauma (headed by Dr. Pamela Deters).

CANHR is also assisting Dr. Catherine Koverola in developing a R34 submission to NIMH to study Alaska Native based promising practices in treating serious emotional disturbance among Alaska Native Children. Both of these projects are being done in collaboration with interior Athabascan villages.

Dr. Augusto Legaspi and Ms. Eliza Orr have been translating the Community Readiness Assessment

into Yup'ik, and making the English more intelligible for use in Yup'ik villages. The tool will be utilized in various CANHR projects to help assess various communities' stage of readiness for health promotion and prevention projects.

Efforts in these areas have the capacity to expand the behavioral research components of improving the well-being of Alaska Natives. ▲

Gerald Mohatt, PI

Kathy Graves Completes Doctoral Degree

Kathy Graves recently completed the requirements for a doctoral degree from Smith College School of Social Work. Her dissertation was titled "Resilience and Adaptation among Alaska Native Men." Kathy's research was supported in part by the CANHR KAD Core, in both travel and access to the Social Transitions of the North materials that have been prepared for use under this program. Kathy, of Sugpiaq and Athabascan heritage, has worked in the behavioral health field for 20 years, mainly with Alaska Native and American Indian individuals and families.



Kathy Graves

ANHR Conference Around the Corner

Planning is coming to an end for the Alaska Native Health Research Conference, taking place March 30 and 31, 2004 in Anchorage. The conference is a collaborative effort between the Alaska Native Tribal Health Consortium, Southcentral Foundation, the Alaska Native Health Board, the Alaska Native Science Commission, the CDC's Arctic Investigations Program, and the Center for Alaska Native Health Research.

The purpose of the conference is to highlight the outcomes of Alaska Native health research and to provide a forum for tribal leaders and researchers to discuss research service processes. The Steering Committee prepared an agenda that will include:

- ▲ Examples of health research that have been of benefit to the Alaska Native community;
- ▲ Examples of ongoing research, and how it can be used to improve health status of Alaska Natives;
- ▲ The mechanics of human subjects protection and the development of research projects; and
- ▲ Background information that will help Alaska Native health leaders develop a research agenda for the future.

The conference will be attended by invited Alaska Native health leaders and researchers, and will be video taped for future distribution. Proceedings will also be available on CD ROM for Alaska Native leaders unable to attend the conference. ▲



Source: USFWS

Yup'ik woman fishing for tomcod

Epidemiology/Biostatistics Core Update

The Epidemiology/Bioinformatics Core within CANHR provides the necessary expertise and tools for addressing health problems occurring among Alaska Native populations. One task will be to establish a computer database in which data collected can easily be entered, stored, and extracted for statistical analyses and reports. The database will first be built to store data collected during the current study of obesity, diabetes, and cardiovascular disease among Yup'ik Eskimos. Additionally, this core will help the three investigators with the statistical analyses of their data and the preparation of new studies and grant proposals whose funding will be essential to the continuation and establishment of new research at CANHR.

Initially, the Epidemiology/Bioinformatics Core will consist of three members: the core leader, Dr.

Rosemarie Plaetke; Xiaoming Zhang, a programmer responsible for database development and management; and Wolf Blaum, a German medical student from the Charite in Berlin. Mr. Blaum began a 1-year training in genetic epidemiology in Dr. Plaetke's lab and is working on his medical doctor-thesis dealing with the genetics of type 2 diabetes. In addition, one data entry technician has been hired (an Alaska Native biology major, Brandon Saito), and a search is underway for a second data entry technician.

Dr. Plaetke and Wolf Blaum are currently at the University of Texas Health Science Center at San Antonio, TX, but will relocate to Fairbanks in the spring of 2004. Recently, Dr. Plaetke's major research has focused on the genetics of diabetic kidney disease. As a Co-Principle Investigator, she has

been involved in the establishment and management of the multi-center study *Family Investigation of Nephropathy and Diabetes (FIND)* at the San Antonio Center. In the past, Dr. Plaetke was also involved in statistical analyses of data to build maps of human chromosomes and to search for the genetic background of diseases such as prostate cancer or schizophrenia.

In addition to offering support in the development and analysis of studies, the Epidemiology/Bioinformatics Core will also provide an opportunity for students and postdoctoral fellows interested in obtaining training in a variety of statistical analyses or working on theoretical problems linked to statistics and genetics. In this way, the core's function will be expanded from pure service to training and research. ▲

Rosemarie Plaetke, PI

What is Biostatistics?

Biostatistics is the application of statistical techniques to scientific research in health-related fields, including medicine, biology, and public health, and the development of new tools to study these areas. Since the beginning of the twentieth century, the field of biostatistics has become an indispensable tool in improving health and reducing illness.

Biostatisticians play essential roles in designing studies, analyzing data and creating methods to attack research problems as diverse as:

- ▲ the determination of major risk factors for heart disease, lung disease and cancer
- ▲ the testing of new drugs to combat AIDS
- ▲ the evaluation of potential environmental factors harmful to human health, such as tobacco smoke, asbestos or pollutants.

*from the University of Minnesota
Biostatistics School of Public Health*



Joy Huber collecting nutrition data



Institute for Circumpolar Health Studies Heads ANSRPH Project

Involving more Alaska Natives in health research that effects their community is one of the keys to using research results to improve the health and welfare of Alaska Natives. This is the primary goal of the Alaska Native Science Research Partnership for Health (ANSRPH) project. ANSRPH is the result of a \$1.1 million dollar grant awarded to the Institute for Circumpolar Health Studies at the University of Alaska Anchorage, and an outgrowth of the activities of CANHR. The Center's aim is to develop a stable and useful research infrastructure for the study of health and welfare among Alaska Native people.

ANSRPH is an important part of infrastructure development efforts. It

is a collaborative project with the Alaska Native Health Board and the Copper River Native Association. The program has three approaches to enhancing Alaska Native Health Research capabilities throughout the state. First, Alaska Natives will be mentored and trained to initiate and conduct health science research.

Second, non-Native researchers will be trained to work effectively and respectfully in cross-cultural settings. Lastly, the researchers will foster health science research partnerships among various Alaska Native associations, health care delivery systems, and research organizations.

The federal award comes to UAA through the National Institute of



Health, National Center on Minority Health and Health Disparities. The program's ultimate objective is to establish a permanent center for minority health research training, conducted for and with Alaska Natives at UAA.

For more information, contact Lawrence Weiss, PhD, ICHS, UAA: 786-6574. ▲

Nonprofit Org
U.S. Postage
PAID
Permit No. 107
Anchorage, AK

Center for Alaska Native Health Research
Institute of Arctic Biology
Box 757000
University of Alaska Fairbanks
Fairbanks, AK 99775-7000
In conjunction with the University of Alaska Anchorage