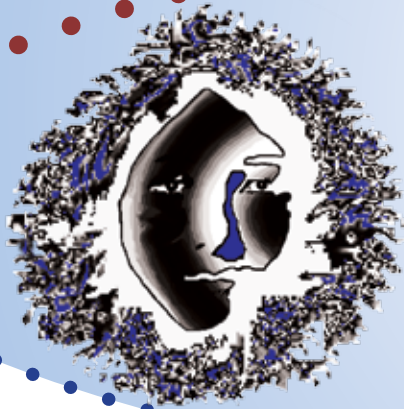


# News from the CENTER for ALASKA NATIVE HEALTH RESEARCH



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Paula Ayunerak showing a picture of her grandson, The Little Doc, named for the late Jerry Mohatt, CANHR's first director, to her friends in the Qasgiq.  
Photo by Leandra Andrews

## \$1.4 million project funds suicide intervention research

The Center for Alaska Native Health Research at the University of Alaska Fairbanks has received \$1.4 million to support rural Southwestern Alaska Yup'ik communities in their suicide and substance abuse intervention efforts.

The award will supplement a CANHR program exploring how Alaska Native people are using ancestral knowledge and cultural traditions to promote well being in young people and their families.

“It's been working for thousands of years,” said Ray Oney, project training coordinator, referring to traditional Yup'ik ways. “People would come together and work it out. We're using that method in keeping our community members in tune with one another.”

Alakanuk, the Yup'ik community on the Yukon River where Oney lives, was one of two villages that collaborated with CANHR to design their own prevention program, grounded in the idea that communities can solve their own problems using their indigenous heritage. This approach was developed as part of the Center's research program funded by the National Institute of Minority Health and Health Disparities.

The award will not directly support research, but will instead be used to hire additional rural project staff, to develop a training center to bring the project to

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## Collaboration brings changes and new discoveries

*From the director's desk: Bert Boyer*

Collaboration, in its many phases, brings about change. Here at CANHR change represents growth and discovery, especially with our co-researchers and funding partners.

This year the National Institutes of Health moved our project from the now disbanded National Center for Research Resources to the National Institute of General Medical Sciences.

This means we say goodbye to Michael Sayre, our NCRP program official, and greet Yanping Liu, of NIGMS.

We thank Dr. Sayre for his support and guidance. We are enjoying our new relationship with Dr. Liu, which we think will be good for Alaska Native people in years to come.

In research, grants end and begin, which means we are always seeking ways to continue the work.

While we have not received official confirmation that our next NIH funding phase has been

awarded, we have been told our score on our application is highly favorable.

We hope we will continue to receive NIH funds for the next five years. This time the grant will be about \$5.6 million, which is half of what we received in Phase I and II. Anticipating this, CANHR investigators have been seeking money to continue this important work.

We've been successful. You'll read in this newsletter about The Qungasvik Projects, a state grant to complement our suicide intervention work; and the Fisheries to Schools research grant, where we anticipate bringing Alaska fish to school lunches.

In two other projects we are looking at ways to bridge a language gap between Yupiit and CANHR scientists concerning genetics, and how genetic polymorphisms might affect the blood thinner warfarin (Coumadin) in Alaska Native people.

Other CANHR investigators are seeking funding to further research on cancer, alcohol use, biomarkers in traditional foods, developing interventions to help people with stress, and understanding the balance of contaminants and nutrients in subsistence foods, among other things.

We've also changed CANHR's organization. Our four cores are now the Administrative Core; the Community Engagement and Clinical Support Core; the Experimental Design, Biostatistics and Data Services Core; and the Nutrition and Physical Activity Core. The changes reflect a better fit for the needs of CANHR scientists, collaborators and partners.

Change means we greet advisors, faculty and staff as they come and go, but we will never change our commitment to the betterment of Alaska Native health and to the people with whom we've built relationships over the years.

## CANHR gathers statistics, psychology, indigenous people, physical activity experts

Three President's Professors of Biomedical Research have joined CANHR. The program, where researchers from other institutions collaborate with CANHR researchers, has yielded \$24 million in grant funding since 2006, based on a \$732,000 institutional investment (to date) by the University of Alaska.



Art Blume is a psychology professor at Washington State University Vancouver. He has worked with several CANHR investigators preparing manuscripts and

proposals as his expertise in addictions research and community-based participatory research matches the interests and needs of our investigators.



Patrick J. Heagerty is a biostatistics professor at the University of Washington, and director of the UW Center for Biomedical Statistics. He has expertise in the statistical analysis of longitudinal studies, advanced regression methods, and design and analysis of observational studies, all of which are relevant to CANHR research. He is also a member of the Fred Hutchison Cancer

Research Center in Seattle, an institution with which several CANHR scientists collaborate.

Dr. Joseph Trimble is a Distinguished Professor of Psychology and Research Associate



Trimble

in the Center for Cross-Cultural Research at Western Washington University. In addition, he is an adjunct professor at Colorado State University's Tri-Ethnic Center for Prevention Research and a research associate with the National Center for American Indian and Alaska Native Mental Health at the University of Colorado Health Sciences

Center.

His research focuses on the role of culture and ethnicity in the mental health and substance abuse fields, with an emphasis on prevention and intervention among American Indian and Alaska Native populations.

Finally, Robert Coker will join CANHR as a tenure track associate professor in April 2013. He currently is an associate professor at the Geriatrics Center for Translational Research in Aging and Longevity, University of Arkansas for Medical Sciences.



Coker



*Jim Allen relaxing during a break in activities during data collection on one of his many projects in rural Alaska.  
Photo by Gunnar Ebbesson*

## Goodbye and best wishes to Jim Allen

Jim Allen has accepted the directorship of the Department of Biobehavioral Health and Populations Sciences at the University of Minnesota Medical School.

Allen feels his time at UAF and CANHR has been a privilege, first as a psychology professor and researcher and most recently as CANHR's associate director.

He's seen changes in community-based participatory research, a framework where research participants contribute to and advise a research project.

It was a foreign concept years ago, he said, but is how CANHR does research.

"One valuable memory I'll take with

me was starting a collaboration of research that truly was community-directed and community-owned," he said.

He was the principal investigator on the Elluam Tungiinun and Pathways to Adulthood projects, is a noted author, and has mentored many students. He is well-known for his work on the People Awakening Project, which documented strengths of Alaska Native people and their paths to sobriety.

He'll be coming back to work with CANHR, and make trips to rural communities.

"Jim has made a significant contribution toward the betterment of Alaska Native peoples' health and the research that goes with it," said Bert Boyer, CANHR director. "We wish him well."

## Researchers look to put Alaskan fish on school lunch menus

It takes more than swimming through oceans and rivers for Alaskan fish to land on a school lunch menu. The fish know how to get to Alaska, but a new research team will study how to lure them into Alaskan school lunchrooms.

CANHR nutrition scientist Andrea Bersamin and her colleagues are studying the best ways to connect fishermen and processors with K-12 schools to provide wild fish to Alaska's school children, provide opportunities for food systems and nutrition education, and support local businesses.

"The question is whether we can improve the nutrition and health of Alaskan kids, many of whom eat two meals per weekday at school, and meet the economic needs of local fish businesses at the same time," said Bersamin,

The Center, which is part of the UAF Institute of Arctic Biology, received a three-year, \$1.1 million grant from the U.S. Department of Agriculture for the Fisheries to Schools project. It will build on previous CANHR findings that traditional foods, such as fish, are rich sources of omega-3 fats and vitamin D and appear to have a protective influence on the health of the Yup'ik people who regularly eat them. The Fisheries to Schools study is in the Yukon Kuskokwim delta.

Many Alaskan schools use local fish in school meals, Bersamin said, but this is the first time the idea

will be subjected to scientific rigor. This CANHR study is based on USDA's Farm to School project, she said.

The Fisheries to Schools program has three major components: an economic feasibility study, curriculum and program development, and finally, an evaluation of the effectiveness of the program, Bersamin said.

The research grant includes money to purchase fish from fisherman and fish processors and provide it to school lunch programs. The type of fish and how it is prepared will depend on student and school preferences and availability.

"We will be doing a cost analysis to produce the product," said Quentin Fong, seafood marketing specialist with UAF's Alaska Sea Grant Marine Advisory Program and Fishery Industrial Technology Center in Kodiak. "This way those businesses may get an idea if there is opportunity out there to produce it and calculate the profit margin to see if we can move this product into the school system."

About one percent of commercially caught fish stays in Alaska. If this new program is successful, more fish could stay in the state, and children will eat better food, Fong said.

In addition to Bersamin and Fong, team members include UAF's Bret Luick, Betty Izumi from Portland State University and Pei Cathy Xu from California State University, Fresno.



## "Always keep busy."

"The food from the land and water is good for you."

"Respect your culture."

It turns out the elders were right all along, said Bert Boyer, CANHR director.

He's not surprised though. Much of the basis of CANHR's research into reducing health disparities among Alaska Native people is documenting what is right with the people, he said.

In the past years, CANHR researchers have found that keeping busy helps fight insulin resistance. Subsistence foods' nutritional benefits far outweigh contaminant concerns. Yup'ik people who mainly eat foods from the ocean high in polyunsaturated fatty acids have healthy cholesterol levels.

Here are some research highlights and photos from CANHR's first decade of work.



Scarlett Hopkins, director of the Community Engagement and Clinical Support Core, leads a tour through CANHR's clinical research space located at UAF's Kuskokwim Campus in Bethel. Photo by Diana Campbell



The last barge of the year rolls down the Kuskokwim River into the Port of Bethel in this October 2011 photo. The barge is carrying most of the building material for CANHR's clinical research facility which was constructed over the following winter. The clinic, located at UAF's Kuskokwim Campus, will open officially in the fall of 2012. A mirror site is nearly complete at UAF. Both construction projects were the result of a \$7.5 million National Center for Research Resources, National Institutes of Health grant. Photo by Diana Campbell

### NEQEM NALLUNAIKUTAA, THE FOODS MARKER PROJECT

DIANE O'BRIEN, PH.D.

Diet is very important in health and wellness, especially traditional Yup'ik diets.

We want to better understand the health effects of what people eat, but this is difficult because diet interviews take a lot of time and the information they provide can be imprecise.

The goal of this project was to see whether there are natural markers, or stable isotopes, in food that can be measured in blood, hair or nail samples.

If so, we want to see if these markers can help us better understand how foods affect health in Yup'ik people – especially traditional foods.

We have identified useful markers for intake of fish and marine mammals, soda and other sugars, and market meats in CANHR study blood samples.

Our work showed eating fish makes your body more sensitive to insulin, which controls blood sugar, reduces blood pressure and improves blood fats.

We have also measured our "sugar and pop" marker in blood samples from the CANHR study. We have found that drinking a lot of pop increases bad fats in the blood and blood sugar.

We are now looking for more ways to use the natural markers in other CANHR studies.

### STRIKING A BALANCE: NUTRIENTS AND CONTAMINANTS IN ALASKAN SUBSISTENCE FOODS

TODD O'HARA, PH.D

The goal of the project was to measure nutrient and contaminant levels in subsistence foods at different times in preparation: from freshly caught, then processed and onto the family table.

An outcome of testing a variety of fish, game and plants is that wild foods are excellent sources of selenium and polyunsaturated fatty acids. While organohalogenes were found in the tested foods, the levels were low on any government actionable scale. However, for mercury, the concentrations varied greatly, and depended on species, tissue and processing method. Thus, our advice, based on the diverse regulatory levels, was also varied.

Because of the complex nature of mercury in marine foods, O'Hara is seeking funding to study the interaction of contaminants, with a focus on mercury, and nutrients in Alaska Native pregnant women and their effects on birth weight; as well as the genetic predisposition of fish consumers to be accumulators of mercury, as an increased potential to accumulate may mean increased risk.



### YUP'IK PERCEPTIONS OF NUTRITION AND HEALTH:

#### CULTURAL PATHWAYS TO PREVENTION **ANDREA BERSAMIN, PH.D.**

Yup'ik foods are very important to the quality of traditional diets. There is concern, however, that youth are moving away from eating Yup'ik foods and eating mostly store-bought foods.

The goals of this project were to understand more about the foods Yup'ik youth eat and what influences their food choices. We found that sugar intake is very high. Yup'ik youth get about 20 teaspoons of sugar from sweetened beverages alone. We also found that youth eat less Yup'ik foods than elders.

However, in homes where parents eat traditional foods, the children do also. The findings led Bersamin to start the Fisheries to Schools research program to increase fish consumption by children (see pg. 3 story). She also plans to seek funds for a family-based program to enhance children's activity and nutrition, and a water promotion research program.



A young participant shows the blackfish trap he made for a Qungasvik Project activity. Photo by Marvin Kelly

*"The elders were right all along!"*



Robert Nick speaks about subsistence priorities during a Bethel meeting. Photo by Diana Campbell

### YUP'IK EXPERIENCES OF STRESS AND COPING

#### INNA RIVKIN, PH.D.

This project's goal was to better understand stress and coping in Yup'ik communities, so the information could be used to design culturally based stress-reduction interventions.

Researchers first listened to what people said caused stress. People discussed losing loved ones, suicide, the effects of alcohol and drugs, worry about children, money and work.

People also shared the things that gave them hope and helped them cope. They are spirituality and religion, family, elders, parenting, culture, being positive, talking to others, helping others, having support, being alone, enjoying nature, and subsistence activities.

Rivkin plans to seek funding for work with communities to develop and test an intervention to address stress, foster wellness, reconnect younger and older generations, build a sense of purpose, and prevent depressive symptoms and substance abuse.

### DIABETES AND OBESITY RESEARCH

#### BERT BOYER, PH.D.

This research project documents the wisdom of Yup'ik elders, who say eat traditional foods and always keep busy.

Over 1,400 Yupiit have participated in this study looking at risk and protective factors for heart disease and type 2 diabetes.

Based on blood and body composition analyses of 847 Yup'ik adults, most (92%) had very healthy levels of triglycerides. Healthy levels of total cholesterol were found in 35 percent of participants. Forty- two percent had optimal or near optimal levels of LDL-cholesterol, which causes arteries to clog. But 49 percent had healthy levels of HDL-cholesterol, which protects against heart disease.

While the prevalence of overweight and obesity is similar to the overall U.S., this study shows that diabetes prevalence and age of onset among Yup'ik participants is still much lower than the overall U.S. population.

Findings suggest that eating food from the ocean may be protective against diabetes. Keeping busy, such as harvesting and preparing subsistence foods, is protective from heart disease.



CANHR investigators, staff and Yup'ik leaders met in Bethel, May 2012, to discuss future research priorities at the Translational Workshop. Photo by Diana Campbell.



## New program to study alcohol interventions for Alaska Native college students

Monica Skewes, a CANHR investigator, is developing a research program to address disparities in substance use among Alaska Native college students.

Researchers have conducted many studies on college student substance use, but have not given a voice to Alaska Native students. Therefore, it is unclear how Alaska Native students would respond to existing treatment programs. The long term goal of this research is to identify effective interventions that can be adapted to be culturally acceptable and appropriate for Alaska Native people.

“Effective intervention will only be possible after we understand the unique experiences of Alaska Native college students from their perspective,” said Skewes.

She is now examining Alaska Native students' beliefs about alcohol use and different types of treatment programs.

To participate in the study, go to [www.uafstudy.com](http://www.uafstudy.com) and answer screening questions under the "Alaska Native and American Indian College Students' Attitudes Toward Alcohol Misuse Interventions" button. If eligible, a member of Skewes' research team will contact participants to schedule a data collection session.



*Olga Ulturgasheva, in gray T-shirt, a research fellow at University of Cambridge, sits with study participants in the Northern Russian Eveny community where she grew up. Photo courtesy of Olga Ulturgasheva*

## Study to look at Native researchers

CANHR investigator Stacy Rasmus is joining Olga Ulturgasheva, a research fellow at the University of Cambridge, in a study that explores their experiences as indigenous researchers in indigenous communities.

Both women work with Native youth in the Arctic.

"Our main concern is to come up with more effective and culturally responsive ways of working with indigenous youth," Ulturgasheva said. Furthermore the study will "expand the current debate on 'decolonization' and 'indigenization' of social research," she said.

The study could give the two Native researchers the ability to significantly contribute to anthropology, social and rural psychology and environmental health, said Rasmus, who is the project's principal investigator.

The \$300,000, two-year project is funded by the National Science Foundation.

## Prevention continued from pg. 1

new communities and to sustain and expand prevention project activities, said Stacy Rasmus, the project's principal investigator and an assistant research professor at UAF's Institute of Arctic Biology.

Oney and Marvin Kelly, from Emmonak, were hired as project training coordinators to help with the local development and implementation of the prevention training center. Billy Charles, also from Emmonak, is a co-investigator on the project.

It is based on the qasgiq, or the men's house, which was both a

place and a way for Yup'ik people to gather for educational, spiritual and entertainment purposes, said Charles. In the program's qasgiq, people discuss an issue and decide which traditional activities, such as ice safety, seal hunting or berry picking, to use to teach Yup'ik values that promote reasons for life.

"It's better than sitting and listening to a lecture," he said.

The Yukon-Kuskokwim Health Corporation received the funding from the State of Alaska and passed the funds through to UAF.



## Alaska Native cancer survivors bond together, share wisdom

After two years of grassroots work, CANHR investigator Ellen López, along with Fairbanks Native Association's Community Services Director, Freda Williams, are succeeding in establishing a cancer support program of research and services for Alaska Native cancer survivors and their loved ones.

The two believe that cancer survivors are the experts about their own experiences, and so should take the lead in informing programs focused on cancer prevention, early detection, diagnosis and treatment, and quality of life.

Survivors shared stories of their cancer experiences with López and her team. Several also participated in a Photovoice project where they were given cameras to take pictures that could "trigger" discussions about important

aspects of cancer survivorship.

Through their stories and accounts, survivors expressed their desire to come together with other survivors. In response, López and Williams are offering the "Hopeful Connections" support group. Funded through the Institute of Translational Health Sciences and Native People for Cancer Control, "Hopeful Connections" has held six meetings, with more planned.

The goals of the group are to provide the opportunity for survivors and others to share knowledge and support, enhance trust and understanding of cancer-related research, and raise awareness about the needs and strengths of Alaska Native cancer survivors.

While their work has been centered in the Fairbanks North Star Borough area, López and Williams plan to reach out to cancer survivors in rural Alaska.



*Donna Horace, a Photovoice participant, says that this photo represents her beading, listening to music, and watching the Food Channel. "I can still do what was almost taken from me," she said. Photo courtesy of Donna Horace*



**Smith**

## U.S./tribal relationships topic of CANHR workshop

Tribal relationships with the U.S. government have a long, sometimes twisting, path through American history.

In March 2012, CANHR investigators and staff spent the day in a workshop to hear from tribal leaders and others talk about tribal sovereignty in the Lower 48 and Alaska, the federal responsibility to tribes to provide healthcare and how that works in Alaska, the Alaska Native Claims Settlement Act, and current Alaska Native health concerns and priorities.

Speakers included tribal sovereignty expert Lisa Jaeger of Tanana Chiefs Conference; Miranda Wright, the director of UAF's Department of Alaska Native Studies and Rural

Development, who spoke about ANCSA; Paul Sherry, former CEO of Alaska Native Tribal Health Consortium, who talked about how healthcare is delivered to Alaskan tribes.

H. Sally Smith, chair of the Bristol Bay Native Health Corporation board of directors and member of the National Indian Health Board, was the keynote speaker. Part of her talk explained that healthcare to Alaska Native people and Native Americans is not a free service, but that indigenous people paid for it with loss of land, lives and culture. It is a promise from the U.S. government, she said.

Todd O'Hara, CANHR investigator, noted on that basis, healthcare for Native people should extend into the future. Others appreciated spending time with the speakers.

"At lunch we talked about historical issues and triumphs related to Alaska Native health care," said Kristine Niles, a nutrition research technician. "It was awesome to hear directly from people who lived through some of those historical land claims times."

The workshop was funded by the American Recovery and Reinvestment Act through the National Center for Research Resources, National Institutes of Health.



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If you have news for the next newsletter or want to find out more about CANHR, contact Diana Campbell at (907) 474-5221 or [dlcampbell@alaska.edu](mailto:dlcampbell@alaska.edu).



*On the way home from gathering greens in the Yukon Kuskokwim delta of Alaska. This was part of a Elluam Tunjiinun/Qungasvik Project activity. Photo by Stacy Rasmus*