



MSU receives \$10.7 million to address health disparities in rural Montana

December 5, 2014 -- By Evelyn Boswell, MSU News Service

BOZEMAN – Montana State University has received another major grant from the National Institutes of Health, this one targeting health disparities in rural Montana.

The \$10.7 million, five-year grant will allow MSU to establish a Center for Health Equity Research and research a variety of health issues faced by rural Montanans, said principal investigator Allen Harmsen, a professor in MSU's Department of Microbiology and Immunology.

Living 50 miles from town can make it harder to survive farm and ranch accidents, for example.

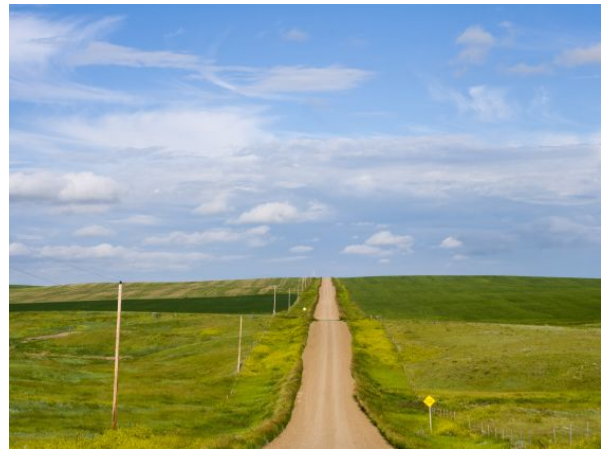
Crashing on a remote highway can mean long rides to a hospital. Harmsen said living in relative isolation also contributes to higher rates of diabetes, suicide, alcoholism and substance abuse.

"There's a lot of work to be done, and that's what we have to do," he said.

The new COBRE grant will fund four research projects aimed at Native American health issues, then other projects addressing the needs of the general rural population, Harmsen said. COBRE refers to the NIH's Institutional Development Award Centers of Biomedical Research Excellence.

Leading the four initial projects are Elizabeth Kinion, professor in MSU's College of Nursing; Elizabeth Rink, associate professor in MSU's College of Education, Health and Human Development; Vanessa Watts Simonds, assistant professor in the College of Education, Health and Human Development; and Monica Skewes, assistant professor in MSU's College of Letters and Science.

"The COBRE grant is an amazing opportunity to develop a program of research to address health disparities in rural Montana," Skewes said. "I feel very fortunate to be part of it. Allen (Harmsen)'s commitment to rural



MSU has received \$10.7 million from the National Institutes of Health to address health disparities in rural Montana. MSU photo by Kelly Gorham

and Native American health research is exceptional. It's what drew me to MSU in the first place."

Skewes, who recently moved to Montana from Alaska, noted that "Rural communities in general experience inequities in health care. There just aren't as many providers or services available, and it can be difficult to access those that are there. However, there are many strengths and protective factors in rural communities (people pulling together and helping each other out) that can do a lot to promote health and well-being."

Since Skewes is new to Montana, she is developing her project during the first year of the grant. She is in MSU's Department of Psychology, and her interests center on substance abuse and mental health.

"I did see similar issues regarding substance use and mental health disparities when I was working in Alaska," Skewes said. "However, I also saw some incredibly innovative community-led efforts and creative solutions to many of the problems. It's important to remember that even though there are significant struggles, there are also many successes and strengths. People are resilient, and nowhere is the resilience of the human spirit more evident than in rural communities."

The other initial COBRE projects are underway on the Fort Belknap, Fort Peck and Crow Indian reservations.

Kinion's project, for one, focuses on dental care on the Fort Belknap Indian Reservation. It began in response to community requests, and the community is involved in its oversight, said the professor of nursing. Serving on her research team are Erica McKeon-Hanson, faculty member at Aaniiih Nakoda College (ANC); Velva Doore, director of the Tribal Health Department; three tribal students attending ANC; one community member who will be trained as an oral health worker; and pediatric dentist Jane Gillette of Bozeman.

"It's really exciting because I have a passion about preventing early childhood caries (tooth decay) and oral health," Kinion said.

Doore, the tribal health director, said the Fort Belknap Indian Reservation had one dentist when she and Kinion met about six years ago and it was common then to pull children's teeth. The reservation now has two dentists, but preventative care is still a big need. She looked forward to addressing it with Kinion.

"We want children to have good healthy teeth," Doore said. "I feel, with educating parents and the community, that we will put a dent into children being referred to have their teeth pulled."

Rink, who is conducting the Fort Peck Indian Reservation project, said community members representing the Assiniboine and Sioux tribes are equal partners on her project. Loy Sprague is co-investigator, and Adriann Ricker is project director. Sprague teaches addiction studies at Fort Peck Community College, and Ricker is the college's health and wellness coordinator. Building on previous studies on the reservation, the team will investigate factors that could influence risk-taking behavior among adolescents.

Roosevelt County, where a portion of the Fort Peck Indian Reservation is located, is also experiencing health-related issues with the Bakken oil boom and an influx of drugs coming into the community, Ricker said. She sees the grant as a way to start conversations and form a plan to address those problems.

"I'm thrilled to be a part of this project," said Ricker, an Assiniboine and Sioux who started working with Rink in 2010.

Simonds, leader of the fourth initial project, is a faculty member in MSU's Department of Health and Human Development, a Crow Indian and daughter of John G. Watts who worked at MSU from 1985-2008. His last position was director of American Indian Research Opportunities.

Simonds' project extends an existing research partnership with the Apsaalooke (Crow) community and focuses on water quality issues, a primary community concern, through improving environmental health literacy on the Crow Indian Reservation through educational activities with Crow children. The children will learn what makes a healthy river, for example, and how the environment impacts human health. The project will also develop leadership skills so that children may transfer skills and knowledge through their social networks of peers and family. Simonds will work with Jason Cummins, the Crow Agency Elementary School principal and other partners from Little Big Horn College and the Crow Environmental Health Steering Committee.

"This project expands the longstanding work done by the Crow Environmental Health Steering Committee, which has a history of addressing local water-related environmental health issues through community-engaged research," Simonds said. "This project brings in new partners and will build on strengths in the Crow community.

"As a Crow tribal member, I am excited about this opportunity to work in partnership with Crow community members and to do research that benefits tribal members and is done in a respectful manner," Simonds said.

She added that "Environmental health is an area of substantial inequities, particularly for Native Americans. Low income communities often do not receive the same environmental protections that more affluent areas do. The complex federal, state and tribal laws and policies surrounding environmental health on reservations create barriers to accessing environmental health information. These barriers are compounded by the increased contact with contaminated soil and water some Native Americans may face due to subsistence diets, spiritual and cultural practices."

Harmsen said three additional researchers in MSU's College of Letters and Science are working on developmental projects in health disparities in the general rural population. Rebecca Brooker, assistant professor of psychology, is investigating maternal and child factors of childhood anxiety. Kaylin Greene, assistant professor of sociology, is studying alcohol use in rural Montana. Kelly Knight, assistant professor of sociology, is focused on victimization in rural Montana.

The new grant is the second COBRE grant MSU has received this year. The first was a \$5.4 million grant to enhance MSU's ability to conduct biomedical research. Led by Mark Quinn, professor in the Department of Microbiology and Immunology, it supports faculty members in the College of Agriculture and the College of Letters and Science who are trying to understand emerging diseases and diseases spread from animals to humans and developing therapies to fight them.

The two grants – like all COBRE grants -- are designed to enhance faculty and institutional research capabilities in states that historically have had low levels of NIH funding, Harmsen said. COBRE allows MSU to develop its research capacity within a research focus, whether it involves diseases transmitted between animals and humans (zoonotic diseases) or inequities in rural health.

COBRE grants can be renewed twice after the initial grant, creating the opportunity for projects to run 15 years and build on the success of previous phases, Harmsen said. Renewal isn't automatic, however. The researchers still have to go through a competitive process for each phase. Each of the three phases lasts five years.

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