

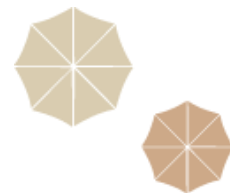
In The Next Issue

News of PRC Renewal

Proposed Research Thrust

Summer Institute Plans

Do you want to read about something specific or have any suggestions about the newsletter? Email Grazia Cunningham at grazia_cunningham@yahoo.com



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What's New at the Center?

PRC Grant Renewal

To date, the PRC has conducted exciting research in vision and hearing health among NW tribal populations, but more work needs to be done. In October 2008, we submitted our application for grant renewal. Here is a recap of our mission and core values:

The Center for Healthy Communities at Oregon Health & Science University is designed to address the health promotion and chronic disease prevention needs of regional tribal and other underserved communities through community-based participatory research, and through training, dissemination, and evaluation activities. The regional tribes, as well as our partner Native Hawaiian communities, clearly represent underserved groups with growing needs related to disease prevention and health promotion. Our Center's activities will begin in these special populations, but will grow to include other underserved populations in the region. Our innovative core research project is focused on disability prevention related to hearing loss—a new area for community-based prevention research.

Spring 2009

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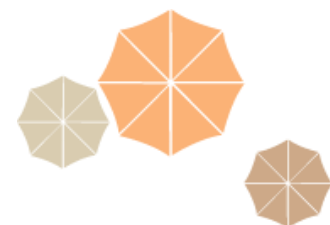


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The core project will focus on dissemination of a noise induced hearing loss program to reduce hearing loss in tribal and other communities. The goals of our center include: 1) develop sustainable collaborative partnerships with community-based, voluntary, and governmental organizations; 2) build research capacity for chronic disease prevention among all partners through training programs, mentoring, and provision of technical assistance; 3) conduct high quality, community-driven prevention research that will translate into policy or practice in the target communities; 4) establish our Center as a regional resource for public health research; 5) foster population health sciences and prevention sciences within OHSU as a major research agenda through offering seminars, lectures, and conferences focused on community health; and 6) reduce the disease burden due to specific chronic diseases that the communities have identified as priorities for prevention research.

AI/AN course added to OHSU MPH

Designed for MPH and health profession students, American Indian/Alaska Native Health (PHPM 571) will provide an overview of American Indian & Alaska Native health issues. Topics cover a broad array of issues important to AI/AN health, including both infectious and chronic disease conditions. It will emphasize epidemiologic methods, in addition to the sociologic and anthropologic information. Guest lecturers will be invited to conduct several of the sessions. Instructors: Thomas M. Becker, MD, PhD and William Lambert, PhD; Credits: 2; Prerequisite: PHPM 512 (Epidemiology I) or PHE 535 (Epidemiology Survey).



Maori Health Issues



Last month, I had the opportunity to meet with PRC partners at Papa Ola Lokahi in Honolulu. One of the highlights of that trip was a chance for me to attend a lecture on Maori health from one of my friends from New Zealand, Dr. Mason Durie. Dr. Durie is a prominent figure in New Zealand's Maori community, particularly in health-related issues. He has held numerous high positions in his university, and in the federal government related to Maori health issues. The infectious disease and chronic disease challenges among Maori are similar to those for Native Hawaiians and American Indians, and life expectancy at birth is much lower for Maori compared to whites in New Zealand.

One of Dr. Durie's major contributions relates to the development and implementation of health research training programs, specifically for Maori students. He summarized some of the many accomplishments of his Maori trainees, and highlighted some of the changes in health status that have occurred on both islands in New Zealand for Maori people.

Health for Maoris is a balance among spirituality, mental processes, behavioral choices, physical well-being, family and social well being. This holistic view appears to be held by most Maoris and influences interventions that may affect Maori health outcomes. I encourage readers to visit New Zealand to learn more about Maori culture and health.



Despite normal optic pressure, Native Americans had problems with their optic nerves. By examining optic nerves, Dr. Mansberger and his team found that 80% of those with glaucoma were never diagnosed prior to participating in the screening. Population specific treatments and diagnoses are necessary for adequate medical treatment, and this kind of information is necessary to successfully address the vision health needs of tribal members.

Steve is principal investigator on a number of grants funded by the National Eye Institute and the Center for Disease Control and Prevention. He has won numerous awards including "Best Doctors in America", Heed Fellowship, The Robert Watske Ophthalmology Instructor of the Year, and the American Glaucoma Society Clinician-Scientist award. He has authored over 100 journal articles, book chapters, and abstracts. He participates on the Editorial Boards of *Journal of Glaucoma* and *American Journal of Ophthalmology*, and is an invited reviewer for Archives of Ophthalmology, British Journal of Ophthalmology, Ophthalmology, Investigative Ophthalmology and Visual Science, Survey of Ophthalmology, as well as 4 other journals. Self-proclaimed 'best mediocre athlete,' Steve enjoys biking and competitive soccer. He lives in Portland with his wife and three young daughters.



Tina McClure – Sr. Research Assistant

Former newspaper reporter, Ms. McClure serves as the project coordinator for the Northwest Vision Impairment Prevention Project. With a degree in Psychology and a growing distaste for the sensationalism of journalism, McClure turned to health research as a career to better serve the community. At Devers, Tina is the point person for project operations, data management/analysis and has been instrumental in manuscript preparation and publication. She has authored several manuscripts and has presented two posters at the Association for Research in Vision and Ophthalmology annual meetings. In her spare time, Tina enjoys gardening, home renovation, reading and spending time with her partner and two children.

Ingrid Swanson – Research Assistant

Trained in Community Health with a focus on Epidemiology, Ingrid assists with the day-to-day operations of the Center. She has assisted in organizing vision screenings and has co-authored a poster which was presented at the 2007 ARVO meeting.

Upcoming Meetings and Educational Programs



Annual PRC Directors Meeting, 2009

February 24-27, 2009; National Harbor, MD
Dr. Lambert attended

American Epidemiology Conference, Seattle, WA.

Dr. Becker, Dr. Lambert, Kapuaolaokaliakea Gellert and Jodi Lapidus presenting

Community Based Cancer-Control: A seminar for American Indian and Alaska Native Community health advocates

March 9-13, 2009; Portland, Oregon
For more information, contact: Jessica Kennedy, blariesj@ohsu.edu, 503-494-1126

Summer Research Training Institute for American Indian and Alaska Native Health Professionals

June 15 – July 2, 2009; Portland, Oregon
For more information, email summerinstitute@npaih.org

Quarterly Lecture Series

Maintaining the connections through generations: Hearing health in American Indian communities

Sponsored by OHSU and the Northwest Portland Area Indian Health Board, this latest Quarterly Lecture Series took place on January 22, 2009 in OHSU's Founders Auditorium. 18 people attended to hear Billy Martin, professor of Otolaryngology Head & Neck Surgery and professor of Public Health & Preventive Medicine at OHSU, speak about his group's work with rural and urban American Indians and Alaska Natives in the Northwest. Through their work with tribal communities, Martin and his staff at the Oregon Hearing Research Center have begun to better understand the extent and impact of hearing loss in these communities, as well as initiated hearing loss and tinnitus prevention efforts, beginning with tribal youth, but engaging all generations.

Jim Roberts will speak on policy at the next Lecture from 2-3PM on April 16th, 2009.



Vision Health and Pacific Northwest AI/AN

Devers Ocular Epidemiology & Biostatistics Center (DOEBC) has new data to report. They have published their findings and presented data at the *Association for Research in Vision and Ophthalmology (ARVO) annual conference*, the most prestigious vision conference in the country. Following are brief summaries of their findings.



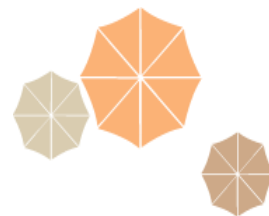
The Effect of Visual Impairment on Vision-Related Quality of Life in American Indians/Alaska Natives

How is vision loss defined?

To better understand the data, we need to define some terms. The most common clinical measurement of vision function is Visual acuity (VA). Simply, VA is acuteness or clearness of vision. Most ophthalmologists measure VA when they ask you to identify black letters on a white background (eye chart) at a set distance as sizes of the letters changes. Typically, a fraction such as 20/20 is used to describe a person's ability to identify small letters at a specified distance. The first number refers to the test distance between the person and the object. The second number refers to the distance that the average eye can see the letters on a certain line of the eye chart. An eye that measures 20/20 can read a certain size letter 20 feet away.

What is the best measure of vision-related quality of life among AI/AN?

In non-AI/AN populations, vision loss is measured by the National Eye Institute Visual Function Questionnaire (NEI-VFQ-25). But, does this tool accurately measure vision loss among AI/AN? To determine this, 414 Pacific Northwest AI/AN tribal members aged 40 and over were randomly selected to undergo visual field testing at local Tribal Health or community centers.



Up Close with Devers Ocular Epidemiology & Biostatistics Center Staff

Steve Mansberger, MD - Director of Ophthalmic Clinical Trials for the Devers Eye Institute

Dr. Mansberger is a Hoosier, growing up in Indiana. He began his work with the Pacific Northwest tribes while completing his Masters of Public Health at OHSU. Dr. Becker introduced him to research in Pacific Northwest tribal communities and also encouraged him to obtain his MPH. While working toward his MPH, Steve completed his internship at the Northwest Portland Area Indian Health Board under the supervision of Francine Romero (Pueblo Jimez). There, he learned about the specific health needs of local tribes and gaps in research pertaining to tribal people. In particular, Dr. Mansberger learned that “nothing was known about vision among Native populations.” It was this gap in knowledge that catapulted Steve into conducting his own vision-related research in this population. To date, Mansberger and his team have discovered interesting findings about vision health among the Pacific Northwest tribes. For example, unlike Caucasians where 50% of people exhibit normal tension glaucoma or increased fluid in the eyes which results in side vision loss, 100% of Native Americans exhibit glaucoma. Also, a very high rate of people shows signs of macular degeneration or central vision loss.

For example, unlike Caucasians where 50% of people exhibit normal tension glaucoma or increased fluid in the eyes which results in side vision loss, 100% of Native Americans exhibit glaucoma. Also, a very high rate of people shows signs of macular degeneration or central vision loss. Ultimately, this highlights the differences in vision health within AI/AN, and teaches practitioners to have population-specific treatments and diagnoses. One particularly telling example is how glaucoma has been diagnosed among native populations. According to Steve, most people were being given the standard ‘puff’ test to check for pressure in the eye. These folks were all passing this test and receiving a clean bill of health. But, this ‘standard-of-care’ test did not accurately diagnose glaucoma in Native people.





Is telemedicine as good as the real thing?

To test whether the patients could be accurately diagnosed with diabetic retinopathy via a remotely located eye care provider versus an in-office eye doctor, Devers' researchers randomly assigned 532 people to one of two groups: Camera or Provider. Each person was asked to see an eye care provider each year. Pictures of their retinas were taken of those in the Camera group at least once a year, and images of those in the Provider group were taken in years 3 & 4 of the study. These images were evaluated for diabetic retinopathy and other eye diseases. Electronic reports were then sent to the clinics to be included in their medical charts. Local eye care providers evaluated the eyes of those in the Provider group.

What they found

Remote access to an eye care provider increased the number of diabetic AI/AN who received eye exams. Researchers also found that remotely monitored eye exams were just as accurate and effective as in-office doctor exams. In this study, most diabetics did not have levels of diabetic retinopathy that required ophthalmic intervention. What does this mean? Simply, vision health costs might be lowered with the use of eye technicians consulting remotely with eye providers and more people may receive eye exams. This is very good news to people who may have never had an eye exam or ignored eye symptoms because it was not conveniently offered in their communities. For AI/AN living in rural areas, telemedicine provides an accurate and affordable alternative to increase access to vision care.

To be presented at ARVO, April 2009. T.M. McClure, I. Swanson, K. Wooten, T.M. Becker, S.L. Mansberger. Legacy Health System, Devers Eye Institute, Portland, OR; Ophthalmology, Hunter Health Clinic, Wichita, KS; Department of Public Health & Preventive Medicine, Oregon Health and Science University, Portland, OR.

What were the results?

Study participants completed the NEI-VFQ-25 and were given a detailed eye exam. Individuals with a visual acuity score of 20/40 or worse in their better seeing eye were impaired. Researchers found that 53 (12.5%) of the participants were visually impaired and that the average NEI-VFQ-25 score was significantly lower in those with visual impairment as compared to those without visual impairment. Researchers concluded that visual impairment is common in Northwest AI/AN and that the NEI-VFQ-25 was sensitive to differences in VA among tribes, suggesting it is a valid measure of vision-related quality of life in AI/AN.

Published in Ophthalmic Epidemiology and presented at Association for Research in Vision and Ophthalmology (ARVO) annual conference, Ft. Lauderdale, FL., April 2006.

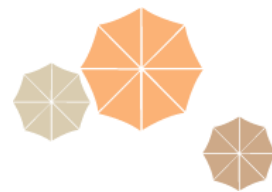


Changes in Vision-Related Quality of Life in AI/AN after Best-Correction

Researchers wanted to learn about the factors that predicted vision-related quality of life and what changes would occur in their vision quality of life if given free eyeglasses. A sample of 102 AI/AN tribal members aged 18 years or older was obtained through local vision screenings at Tribal Health or community centers and through tribal health optometry clinics. Visual impairment was defined as visual acuity of 20/40 or worse in the better-seeing eye. All participants completed the NEI-VFQ-25 and a detailed eye examination at the start and three months after the study. Individuals with visual impairment were given a prescription and voucher for a free pair of distance eyeglasses. Average NEI-VFQ-25 scores were compared between those with normal vision and those with visual impairment, as well as between those who received glasses and those who didn't.

What they found: Uncorrected or under-corrected visual impairment is common among Pacific Northwest AI/AN. Not surprisingly, those with visual impairment reported a lower vision quality of life. After receiving eyeglasses, individuals with visual impairment scored better on the NEI-VFQ25 than before, and even scored better than those with normal vision. Among this group, visual acuity or clearness of vision was an important factor in perceived vision-related quality of life. Age and depression were more predictive for those with normal vision. Ultimately, decreased visual acuity negatively impacts vision-related quality of life. With a simple intervention such as free eyeglasses, quality of life and vision can be greatly improved among AI/AN with visual impairment.

Presented at ARVO annual conference (poster), Ft. Lauderdale, FL., 2007

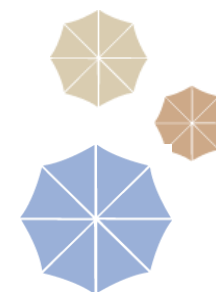


Telemedicine – The Future of Vision Health in AI/AN Populations?

Chances are if you ever had an eye exam, you saw an ophthalmologist, a doctor who specializes in eye disease and health. Receiving eye care may be challenging if you live in a rural community, however. You might not be able to see a doctor right away, rather on specific days when a doctor is visiting your area. It might be expensive to receive a routine eye exam or simple medical care if the doctor has to make a special visit. These are just some challenges facing rural AI/AN populations that impact whether a person will seek eye care. If the wait is too long or the price too high, individuals may simply ignore symptoms and fail to see an eye doctor until it is too late. What if there was a better way to get a routine eye exam? What if there was a cost-effective and accurate way to be examined *without* actually seeing an ophthalmologist? With advances in telemedicine and a few trained eye technicians, this may be possible in rural communities like yours.

What is Telemedicine?

It may sound futuristic, but telemedicine simply refers to the remote practice of medicine via telephone, Internet or other networks. Instead of seeing an eye doctor in her office, a trained eye care provider, located in a different town, would review pictures of your eyes via the Internet and consult with a local eye technician to diagnose and best treat you. This is a very promising method to provide necessary eye care to rural AI/AN where vision loss and certain eye diseases are common, but not always treated or not treated early due to geographic limitations.



Can Telemedicine be successfully used in rural AI/AN communities?

To find out if telemedicine could be an effective way to examine vision of rural-dwelling AI/AN and increase the number of people who get eye exams, researchers compared how well an eye technician armed with a camera feeding to a remote ophthalmologist could diagnose a common eye disease among AI/AN - diabetic retinopathy - as compared to an ophthalmologist actually examining a patient in the office. A complication of diabetes, diabetic retinopathy is one of the most common causes of vision loss and blindness among AI/AN. Frequently, this condition goes undetected until it is too late. Receiving an early diagnosis and treatment is important to maintaining vision and a high quality of life.