

News from The EpiCenter

Northwest Tribal Epidemiology Center - Northwest Portland Area Indian Health Board

SPRING 2004

Inside This Issue

.....

*Data on Child Safety
Seat Use*

*Useful Strategies of
Diabetes Programs*

*Address Your Data
Needs*

*Funding Opportunity
through NARCH 3*

*Fellowship
Opportunity*

Farewell Dr. Romero

*EpiCenter Project
Overviews*

A Report on the Behavioral Risk Factors of Northwest AI/AN

The Northwest Tribal Behavioral Risk Factor Surveillance System Project's aggregate final report is available online at www.npaihb.org. For more information regarding this report and the project, visit the website at http://www.npaihb.org/epi/brfss/webpage_brfss.htm. The following narrative is excerpted from the report.

Since 1984, the Behavioral Risk Factor Surveillance System (BRFSS) model has been used by the Centers for Disease Control and Prevention (CDC) to collect population-based behavioral risk factor data on chronic diseases including heart disease, diabetes, and cancer. The BRFSS questionnaire is used by the 50 states to conduct telephone interviews of their residents on an annual basis. AI/AN tend to be underrepresented in these surveys. In an effort to address this lack of reliable behavioral risk factor data on Northwest tribal communities, the Northwest Portland Area Indian Health Board (NPAIHB) conducted the Northwest Tribal BRFSS Project. Using a slightly modified questionnaire, the Northwest Tribal BRFSS Project conducted face-to-face interviews with more than 2,000 community members from seven Northwest tribes.

The Northwest Tribal BRFSS report of findings provides more detailed information about the behavioral risk factors of AI/AN people in the Pacific Northwest than is currently available in other publications. Northwest tribal health programs may find this information useful in quantifying, understanding, and intervening on the occurrence of chronic diseases within the region and their communities. Furthermore, this

report is intended to facilitate access to information that may be helpful in preparing grant proposals, developing intervention programs which are culturally acceptable in Indian communities, and identifying issues which may be worthy of attention in Northwest tribal communities.

The seven participating tribes were randomly selected from among all tribes in the Portland Area with at least 1,000 tribal members. Formal approvals were obtained from each of the participating tribes and from the Institutional Review Boards of IHS and CDC. To encourage community interest and to maximize participation rates, each participating tribe promoted the project extensively. The seven participating tribes are the Confederated Tribes of the Umatilla Indian Reservation, Klamath Tribes, Lummi Nation, Makah Tribe, Nez Perce Tribe, Nisqually Tribe, and Shoshone-Bannock Tribes.

NPAIHB provided financial support to each participating tribe to support the hire and training of a tribal project site coordinator and tribal interviewers. To promote the use of BRFSS data, the Northwest Tribal BRFSS Project provided training to each of the participating tribes on CDC's Data for Decision Making model, data management, SPSS data analysis and results

continued on page 6

Bringing Data to Life

The Western Tribal Diabetes Project hosted a NIKE fitness training and provided tools to help strengthen local fitness and nutrition programs

It cannot be emphasized enough: data is necessary to demonstrate the value of health programs, even fitness programs. Collecting health factor measurements, such as height, blood pressure, and cholesterol, can provide incentives for individuals and validate effective community program activities.

To train diabetes coordinators and others interested in implementing a fitness program in their community, the Western Tribal Diabetes Project (WTDP) held a NIKE sponsored fitness training on February 11-12 at the NIKE campus in Beaverton. The training focused on how to collect data to track the effects of a tribal fitness program and also gave participants ideas on different fitness activities. WTDP emphasized the importance of data collection and interpretation to



Working the steps of the NIKE campus soccer field determine the effectiveness of community-based fitness activities, follow trends, and monitor at risk individuals.

On day one of the training, certified fitness instructors from NIKE taught participants how to

continued on page 2



If you have questions, comments, or would like to be placed on the mailing list for News from The EpiCenter, contact Sayaka Kanade at (503) 228-4185 x 284 or email skanade@npaihb.org.

Got Data?

Collaborate with the Northwest Tribal Registry Project and Address Your Data Needs

The Northwest Tribal Registry Project is looking to collaborate with other public health programs to promote the use of more accurate AI/AN health status data.

When the Registry Project was originally developed, a key objective was to ensure that results from data linkage studies were meaningful, useful and available to other NPAIHB and tribal projects. While this has remained a priority, we have had limited success in translating linkage results into action. Thus, we have resolved to redefine our approach to promoting data utilization by increasing awareness of the benefits and uses of linked data, and designing our activities to meet current data needs. Future direction for the Registry Project includes increased advocacy for improved quality of and access to health-related data sets, collaborative analyses of the most complete AI/AN data available, and assisting partners to use improved health status data to design and manage programs at the national, regional, and tribal levels.

The Registry Project is receptive to a wide-range of data needs and is interested in discussing possibilities with health promotion, data surveillance, health research, and technical support projects. We are hoping to work directly with these programs to design activities that specifically address the data needs of each program.

In general, the Northwest Tribal Registry Project can assist projects with:

- Characterizing the true magnitude and distribution of health outcomes among AI/AN
- Prioritizing the use of public and personal health resources
- Shaping and designing new public health programs
- Better targeting existing public health programs
- Evaluating the impact of public health programs
- Justifying increased or redirected funding support for public health programs

If your project is interested in a collaboration, we would meet with you to identify how the Registry Project can best address your specific needs.

To date, the Northwest Tribal Registry Project has existed largely to demonstrate the effectiveness of record linkage methods as means to improve the quality of health-status data from AI/ANs and address some of the barriers to eliminating racial health disparities. By utilizing probabilistic record linkage software, we match the Northwest Tribal Registry (a demographic database of AI/ANs who have utilized an IHS or tribally-operated health clinic since the mid-1980's) with various public health databases, and analyze the resulting datasets to examine measures of morbidity and mortality burden, risk factors for specific diseases and causes of death, and the

magnitude of and risk factors for racial misclassification.

Past linkages include:

- Idaho, Oregon, and Washington death certificates
- Idaho, Oregon, and Washington cancer registries
- SEER Registry of Seattle/Puget Sound
- Oregon and Washington sexually transmitted disease (STD) surveillance systems
- Washington HIV/AIDS registry
- Oregon Medical Professional Review Organization
- Washington Comprehensive Hospital Abstract Reporting System
- Seattle Indian Health Board

Please contact the project for final reports of these linkages.

Due to increasing awareness of health-related disparities for AI/ANs and other minority groups, a major focus of the *Healthy People 2010* public health agenda is to eliminate racial and ethnic health disparities. An underlying assumption to this goal is that the health status of minority populations can be measured accurately, which according to many reports, may not be possible for the AI/AN population. Several studies have shown high rates of racial misclassification for AI/ANs in vital statistics and other health-related data sets, and as a result, the true burden of disease among AI/ANs in the Northwest and throughout the U.S. has often been underestimated. This is not only an issue affecting large-scale public health efforts like *Healthy People 2010*; smaller, community-based projects are also dependent on quality health-status data to design, monitor and evaluate programs.

We welcome interest from any program or organization working to improve the health status of Northwest AI/ANs. The Registry Project may serve as a valuable tool to support your efforts. To discuss possible collaborations, please contact Emily Puukka, MS, at 503-228-4185 x285 or email epuukka@npaihb.org.

Fitness continued

conduct fitness activities in tribal communities focusing on three basic areas: cardiovascular, strength and conditioning, and flexibility through yoga. Day two focused on nutrition, kid games that are inclusive and fun, and a brainstorming session for organizing an activity in local communities.

Several tools and templates were developed by WTDP staff to assist tribes in establishing fitness programs and collecting data to track change.

- A flow sheet illustration, "Fitness Program – Workflow for Evaluating your Program," that lays out the steps for setting up a training, working with your diabetes team, gathering baseline data, documenting the activities and collecting data at intervals over time.
- A PCC overlay to help capture and track measurements, such as weight, blood pressure, and

continued on page 5



NARCH Fellowship Opportunity

The Native American Research Center for Health (NARCH) is looking for AI/AN undergraduate, graduate, and post-doctoral students who are interested in a two year fellowship position at Oregon Health Sciences University or the University of Washington.

For information on the NARCH AI/AN Fellowship Program, please contact Luella Azule, NARCH Coordinator, at (503) 228-4185 x 275 or email lazule@npaihb.org. NARCH applications are also available on our website at www.npaihb.org/NTHRC/index.html under Training Program.

Funding Opportunity for Tribes and Tribal Organizations

The Northwest Tribal Health Research Center (NTHRC) at the EpiCenter is currently seeking proposals from tribes and tribal organizations for health-related research projects. The IHS in association with the National Institutes of Health (NIH) has recently announced a new funding cycle for the Native American Research Centers for Health (NARCH) grant, and the EpiCenter will be submitting an application for this funding.

The goals of the NARCH initiative are to train a cadre of AI/AN researchers and health professionals, to build partnerships between tribal communities and academic institutions, and to undertake research that directly addresses the health problems and disparities identified by tribal communities.

The scope of the projects that may be funded is broad and may include (but is not limited to) such areas as mental health and substance abuse, cardiovascular diseases and diabetes, accident and injury prevention, hearing and vision loss, environmental illness, and dental health. Pilot projects are welcome, as are larger projects that already have pilot data collected.

The grant will be submitted by June 18, 2004 and funding will be awarded in May 2005. Please contact any of the NTHRC staff with questions and proposal ideas. A short (2-3 page) document summarizing proposed research would be helpful.

The NTHRC was one of eight recipients nationally of the first NARCH award in 2000. Four projects were funded under this grant: Toddler Obesity and Tooth Decay Prevention Project (TOTS), Barriers to Use of Child Safety Seats in Northwest Indian Communities, Evidence Based Medicine to Improve Health Care, and Improving Health Research Skills for AI/AN. Each of these projects has been very successful and has performed valuable work in addressing health disparities faced by AI/AN communities in the Northwest.

Luella Azule, BS
Project Coordinator
503-228-4185 x275
lazule@npaihb.org

Joshua D. Jones, MD
Principal Investigator
503 416-3272
jjones@npaihb.org

Thomas Becker, MD, PhD
Project Director
503 494-1175
beckert@ohsu.edu

A Report on Child Safety Seat Use in Northwest AI/AN Communities

The Northwest Tribal Child Safety Seat Project's final report is available online at www.npaihb.org. For more information regarding this report and the project, visit the website at <http://www.npaihb.org/NTHRC/index.html>. The following narrative is excerpted from the report.

In an effort to determine the prevalence of appropriate use of child safety seats (including infant car seats, convertible seats, and booster seats) as well as reasons for misuse or non-use among AI/AN in Oregon, Idaho, and Washington, the Northwest Portland Area Indian Health Board (NPAIHB), conducted an observational study in six tribal communities. The purpose of Northwest Tribal Child Safety Seat Project's (CSS) final report is to provide information on restraint use in six northwest tribal communities. The findings will ultimately help tribal communities develop an under-

standing of how child safety seats are utilized in Indian country and provide information for implementing effective interventions to increase the appropriate child safety seat use, thereby reducing injuries due to motor vehicle accidents.

Motor vehicle injuries are a leading cause of morbidity and mortality among AI/AN children.^{1,2,3} The design and use of child safety seats are intended to reduce morbidity and mortality among infants and young children. The use of child safety seats has been shown to reduce the risk of injuries among children who are passengers in cars involved in motor vehicle crashes and reduce hospitalizations.⁴ Despite child safety seat laws present in all 50 states, studies have shown 51%-82% of infant car seats and 30% of booster seats are improperly used, including incorrect installation or incompatibility of the seat with the child's physical characteristics (height, weight, and age).⁵

Northwest Tribal Child Safety Seat Project randomly selected six tribes to participate in the study. Local community health staff members from each tribe, in conjunction with CSS staff, carried out the observation outside local businesses, targeting vehicles with children between the ages of birth to approximately eight years. A tribe's agreement to participate in the study was comprised of formal approval from the respective tribal health directors, health boards, and tribal councils or

Northwest Tribal Child Safety Seat Final Project Report

Organization of the Report (34 pages)

The full report is organized into two sections providing overall descriptive information and then restraint use information on drivers and children in individual sections. The body of the report contains a summary highlighting the count and percent of select findings and bar graphs and bullets depict the distribution of select variables. More detailed information is provided in the form of tables.

Citation for the Report: Romero FC, Aubertin M, Biery T, Clites M, Seth L, Hollinger T, Havens J, Lapidus J, & Smith N. Northwest Tribal Child Safety Seat Final Project Report. Portland, OR: Northwest Portland Area Indian Health Board, 2003.

Farewell Dr. Francine Romero

The EpiCenter bids a fond farewell to Francine Romero, PhD, MPH, Staff Epidemiologist. Since arriving at NPAIHB in 1999, she has served in numerous capacities including Principal Investigator for the Northwest Tribal Health Research Center (NTHRC), Northwest Tribal Behavioral Risk Factor Surveillance System (BRFSS) Project, Northwest Tribal Child Safety Seat Project, and the Northwest Tribal Elder Diet and Nutrition Study. Francine also served as Chair of the Portland Area Indian Health Service Institutional Review Board (IRB).

Throughout her time at NPAIHB, Francine was as a dedicated leader, a mentor to young researchers, and a trusted partner to Northwest tribes. Francine will be missed by us all, but we know her talents will continue to serve in improving the health of Indian people.

Since February, Francine has been working for the Aberdeen Area Tribal Chairmen's Health Board as the Director of the new Northern Plains Tribal Epidemiology Center (<http://www.aatchb.org/epi/index.htm>).

Francine is a member of Jemez Pueblo in New Mexico.



business councils. The project protocol and questionnaire were reviewed and approved by the Institutional Review Boards of the Indian Health Service and Oregon Health and Science University. The six participating tribes are the Confederated Tribes of Colville, Confederated Tribes of Grand Ronde, Klamath Tribes, Nez Perce Tribe, Shoshone-Bannock Tribes, and Spokane Tribe.

The findings are based on face-to-face interviews of 599 community members. Some limitations of this report are small numbers, bias, and response rate. The following are a few of the findings from the final report.

For all six tribes combined, 51.5% (51% of males, 52% of females) of drivers surveyed were wearing a seatbelt, while 48.5% were not.

Overall, 57.2% of those surveyed had all of the children age 8 years old or younger or less than 80 pounds using some kind of restraint. Thirty seven percent (36.6%) of vehicles had no children restrained. Overall, 29.3% of children were properly restrained, and 70.7% of children were either unrestrained or improperly restrained. Forty one percent (40.6%) of children surveyed were completely unrestrained in the vehicle. Men and women were equally likely to have the children properly restrained (29.5% of women and 28.7% of men).

Younger children were more likely to be properly restrained than older children. Over half (53.6%) of children less than 1 year old were properly restrained. Forty-four percent (43.6%) of children 1 to 4 years of age were properly restrained, and 14.4% of children 4 to 8 years of age were properly restrained. (Figures 4 & 5)

Children were 1.8 times more likely to be properly restrained if the driver of the vehicle was wearing a seatbelt. Overall, 41.3% of children were properly restrained if the driver was belted, while only 15.3% were properly restrained when the driver was not wearing a seat belt.

Figure 4. Percent of children properly and improperly restrained in vehicles by child's age, Northwest Tribal Child Safety Seat Project, 2003

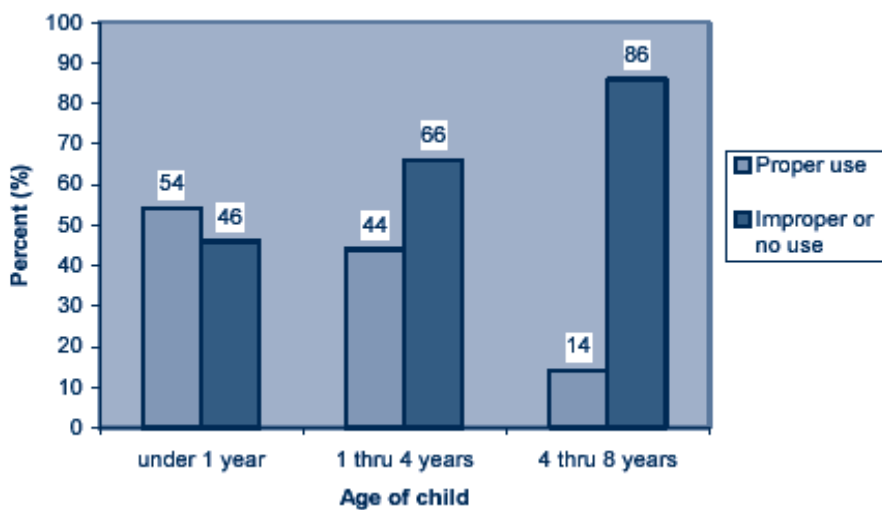
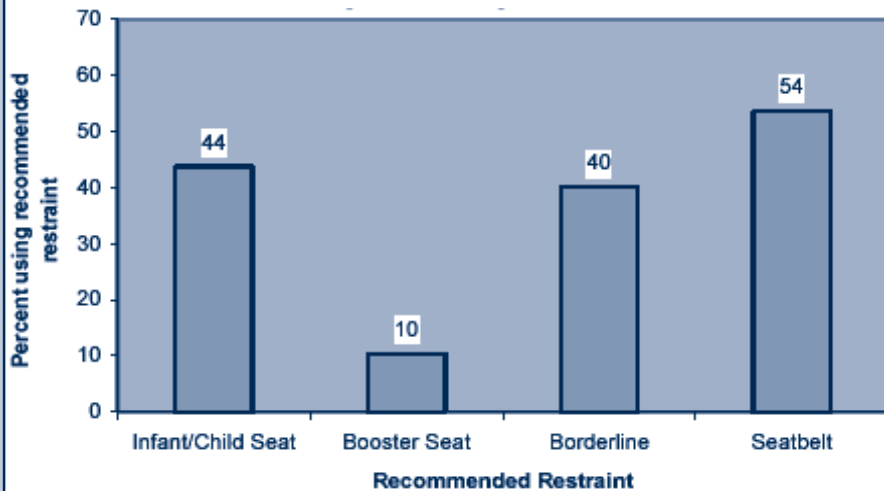


Figure 5. Percent of children properly restrained, by recommended restraint, Aggregate results, Northwest Tribal Child Safety Seat Project, 2003



¹ Centers for Disease Control and Prevention. Injury Mortality Among American Indian and Alaska Native Children and Youth—United States, 1989-1998. *Morbidity and Mortality Weekly Report* 2003;52(30):697-701.

² Indian Health Service. 2002 Regional Differences in Indian Health. U.S. Department of Health and Human Services, Indian Health Service, Office of Public Health, Rockville, MD.

³ Indian Health Service. 1997 Trends in Indian Health. U.S. Department of Health and Human Services, Indian Health Service, Office of Public Health, Rockville, MD, ISSN 1095-2896.

⁴ Zara S, Sleet D, Thompson R, Sosin D, Bolen J. Reviews of Evidence Regarding Interventions to Increase Use of Child Safety Seats. *Am J Prev Med* 2001;21(4S):31-47.

⁵ Ramsey A, Simpson E, Rivara FP. Booster seat use and reasons for nonuse. *Pediatrics*. 2000;106(2):1-5.

Successful Practices of Diabetes Programs

Useful strategies for tracking outside care referrals and data utilization

The model of the Western Tribal Diabetes Project (WTDP) is being tested nationwide through collaborations with the Great Lakes Intertribal Council (GLITC) and United South and Eastern Tribes (USET). The model centers around building local capacity by providing on-site technical assistance to diabetes coordinators on the Diabetes Management System (DMS). WTDP provides trainings and technical assistance in conducting needs assessments of tribal diabetes programs, implementing and managing the DMS, utilizing the DMS for case management, other clinic defined needs, and evaluating program effectiveness.

Outside care referrals and data utilization by participating tribes were introduced as challenges to implementing the WTDP model. To further investigate these issues, WTDP conducted a survey of tribes in the Northwest, USET and GLITC areas to identify successful practices for tracking outside care and use of diabetes data.

A good practice for tracking health care is to provide as much care as possible in-house. This eases the burden of tracking care outside of the clinic and also ensures that IHS Standards of Care are followed. Staff turnover, lack of staff time and lack of staff training continue to be challenges to successful tracking systems. These steps or systems were identified as critical to successful tracking of outside care referrals:

- Good rapport with outside providers
- Adequate staff time for tracking of outside patient care
- Obtaining and maintaining patient consent and confidentiality
- Meeting HIPAA requirements for patient information
- Maintaining a diabetes team that meets regularly to discuss issues such as tracking outside care

Those sites that successfully track and use the diabetes data are generating individual audits and the annual IHS Diabetes Audit routinely. Creating comprehensive systems for data tracking that include all patient care, with clinic wide buy-in appear to be the “best practice” approach to collecting and using patient data for managing the care of patients with diabetes. These steps or systems were identified as critical to diabetes data utilization:

- Adequate staff time for case management and using the diabetes data
- Utilization of RPMS or similar electronic medical records system that can track the care of patients with diabetes concurrent with the IHS Standards of Care
- Adequate training and knowledge of the DMS (or similar system)

- Consistent printing of the individual audit or similar report for each patient visit
- Maintaining clinic systems that document, code and enter patient care
- Maintaining a diabetes team that discusses best uses of the data, such as case management and program evaluation.

For more information of the WTDP model or a copy of the survey results, please contact Angela Mendez or Crystal Denney at 1-800-862-5497.

Fitness continued

blood sugar and cholesterol, to assess the fitness activities in achieving goals for the Indian Health Service diabetes standards of care.

- A PAR-Q template form for assessment of people with diabetes and a modified PAR-Q for other groups such as elders and youth.
- A model consent form for participants of the fitness program.
- A tri-fold pamphlet for tribal members participating in the fitness activity to self-track their progress, and share with providers.
- A flow sheet provided by the Native American Rehabilitation Association that outlines their process for bringing in patients, and encouraging them to participate in the walking club. The walking club currently operating at NARA has been successful in gaining participation and obtaining meaningful results.

The project also provided several resource articles and curricula for tribal participants including Physical Activity and Diabetes; Be Fit – Be Healthy; Sticking with Lifestyle changes: Increasing Physical Activity; Facilitating Treatment Adherence with Lifestyle Changes; and Balancing Your Life with Diabetes – Curriculum Outline and Ordering Information. NIKE generously provided incentive gifts throughout the two-day training, and provided a workbook that outlines activities individuals can use to start their own training at home.

Encouraged by the success of the NIKE event, WTDP is currently developing a *Proposed Standards of Care for Community Fitness Programs*. This workplan will provide guidelines and templates for collecting and assessing data in community-based fitness programs.

If your community would like assistance in implementing a fitness program, contact WTDP for these and other resources. Contact Rachel Plummer, WTDP Administrative Assistant, at 503-228-4185 x291 or email rplummer@npaihb.org.



Strength exercises with certified fitness trainers from NIKE.



Participants are brainstorming ideas for fitness activities to conduct in their tribal communities.

BRFSS continued

interpretation, measuring changes in behavior over time, Healthy People 2010, and data sharing agreements.

The results from the Northwest Tribal BRFSS Project are based on six of seven participating tribes and based on two difference participant sampling schemes. Three BRFSS tribes randomly sampled individuals from clinic service users using the Resource and Patient Management System (RPMS), and a total of 1107 individuals participated. Three BRFSS tribes randomly sampled individuals from tribal enrollment rosters, and a total of 1013 individuals participated. Some of the limitations of this report include small numbers, sample bias, and response rate.

For comparison purposes, state BRFSS data was computed. The state-based BRFSS data, acquired from CDC and combined for the years 1998-2001, include information for all races in the state of Washington, Oregon, and Idaho. In Idaho state, a total of 19,697 individuals of all races responded to the state BRFSS, 1998-2001, in Oregon state, a total of 9,908 individuals, and in Washington, a total of 15,003 individuals.

Following are excerpts from Northwest Tribal BRFSS Report on alcohol use, overweight and obesity, and diabetes. These sections were selected for this article because of current national attention to the disparity between the AI/AN population and the general population in these risk behaviors and health outcomes.

Alcohol Use (Figure 21)

American Indians have the highest rates of mortality related to alcohol in the United States and also have the highest rates of treatment for alcohol problems.^{1,2,3,4,5}

Acute drinking is defined as having five or more drinks on an occasion.

Topics covered in the Northwest Tribal BRFSS Report:

- demographics
- general health
- clinic services
- heart disease
- high blood pressure
- serum cholesterol
- fruits and vegetables
- vitamins and supplements
- water consumption
- alcohol use
- diabetes
- body weight
- physical activity
- lung cancer
- tobacco use
- colorectal cancer
- prostate cancer
- cervical cancer
- breast cancer
- arthritis
- asthma
- mental health
- assistance with personal care or routine needs
- dental visits

Northwest Tribal BRFSS Aggregate Final Project Report

Organization of the Report (157 pages)

The report is organized in five sections profiling behavioral risk factors for the seven participating tribes: (1) background on the tribes participating, (2) background on chronic diseases affecting AI/AN populations, (3) methods of the BRFSS Project, (4) BRFSS results, and (5) tables.

The body of the BRFSS results section includes a summary highlighting the count and percent of select behaviors and have bar graphs and bullets to depict the distribution of select variables, in some instances by age and sex.

For more detailed information, the tables in the appendices provide information on select variables by age, sex, marital status, education, and household income as percentage of the federal poverty level. The tables include 1998-2001 BRFSS data for the state of Washington, Oregon, and Idaho, and aggregated BRFSS data for tribes with the two types of sampling methods (tribal enrollment sampling and service user sampling).

Citation for the Report: Romero FC, Hasty F, Rose R, Charles K, Jimmicum C, Seth L, Jones T, Alvarez S, Keegan E, Becker T, Ramsey K, Smith N, King J, Romero MD, McDavid K. Northwest Tribal Behavioral Risk Factor Surveillance System (BRFSS) Project, Aggregate Final Project Report. Portland, OR: Northwest Portland Area Indian Health Board, 2003.

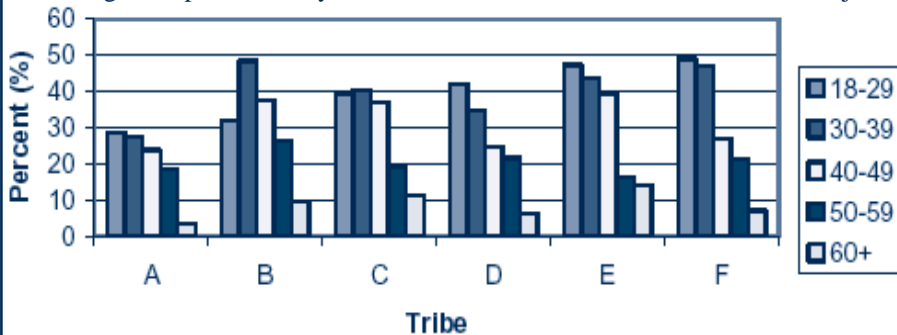
reported acute drinking among those who were not married (33.7%), were high school educated or less (29.3%), and had a household income below federal poverty level (34.1%).

Among tribes that selected BRFSS participants using tribal enrollment, 34.2% of respondents reported acute alcohol consumption in the past month. Among men and women, acute drinking was reported by 43.7% and 26.5% respectively. Respondents between the ages of 30 and 39 years of age were more likely to report acute drinking (45.2%). A higher frequency of individuals reported acute drinking among those who were not married (39.4%), were high school educated or less (35.6%), were employed (35.9%), and had a household income below federal poverty level (37.8%).

Among all race respondents to the Idaho state BRFSS, 1998-2001, 14.8% of respondents reported acute alcohol consumption in the past month. Among men and women, acute drinking was reported by 21.9% and 8.0% respectively. Idaho state respondents between the ages of 18 and 29 years of age were more likely to report acute drinking (26.8%). A higher frequency of individuals reported acute drinking among those who were not married (22.7%), were high school educated or less (16.0%), and were employed (17.8%).

Among all race respondents to the Oregon state BRFSS, 1998-2001, 4.9% of respondents reported acute alcohol consumption in the past month. Among men and women, acute drinking was reported by 7.2% and 2.7% respectively. Oregon state respondents between the ages of 18 and 29 years of age were more likely to report acute drinking (10.4%). A higher frequency of

Figure 21. Percent of respondents in various age categories who reported acute drinking in the past month by BRFSS tribe, 2001 Northwest Tribal BRFSS Project



Among tribes that selected BRFSS participants using RPMS, 27.3% of respondents reported acute alcohol consumption in the past month. Among men and women, acute drinking was reported by 37.1% and 21.4% respectively. Respondents between the ages of 18 and 29 years of age were more likely to report acute drinking (38.7%). A higher frequency of individuals

individuals reported acute drinking among those who were not married (6.6%), were high school educated or less (5.3%), and were employed (6.2%).

Among all race respondents to the Washington state BRFSS, 1998-2001, 4.8% of respondents reported acute alcohol consumption in the past month. Among men and women, acute drinking was reported by 7.1% and 2.5% respectively. Washington state respondents between the ages of 18 and 29 years of age were more likely to report acute drinking (9.1%). A higher frequency of individuals reported acute drinking among those who were not married (6.9%), were high school educated or less (5.1%), and were employed (5.8%).

Diabetes (Figure 25)

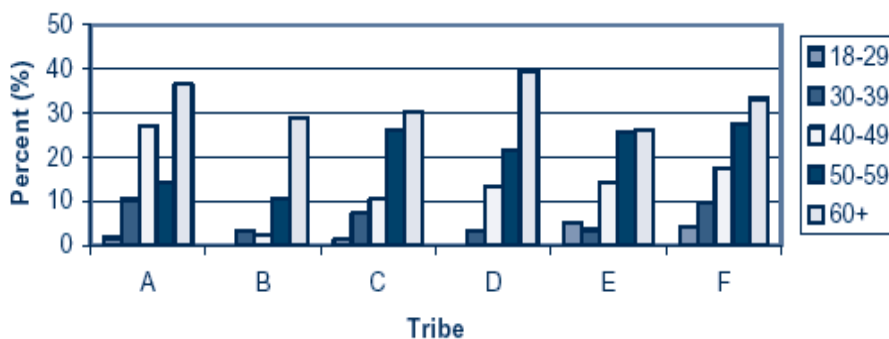
Among tribes that sampled using RPMS, 12.6% reported ever being diagnosed with diabetes. A similar proportion of men and women reported having diabetes, 12.9% and 12.4% respectively. The proportion of respondents who reported being diagnosed with diabetes was highest for respondents aged 60 years or older (31.5%). Respondents who reported being diagnosed with diabetes tended to be married (15.6%), postsecondary educated (14.0%), and unemployed (17.0%).

Among tribes that sampled using tribal enrollment, 11.2% reported ever being diagnosed with diabetes. Women were more likely than men to report ever being diagnosed with diabetes, 12.5% compared to 9.5%. The proportion of respondents who reported being diagnosed with diabetes was highest for respondents aged 60 years or older (31.5%). Respondents who reported being diagnosed with diabetes tended to be high school educated or less (11.7%) and unemployed (13.4%).

Among all race respondents to the Idaho state BRFSS, 1998-2001, 4.9% reported being diagnosed with diabetes. A similar proportion of men and women reported having diabetes, 4.8% and 4.9% respectively. The proportion of respondents who reported being diagnosed with diabetes tended to increase with age. For individuals aged 60 years or older, the frequency of those diagnosed with diabetes was 11.8%. Respondents who reported being diagnosed with diabetes tended to be high school educated or less (5.8%) and unemployed (8.8%).

Among all race respondents to the Oregon state BRFSS, 1998-2001, 5.4% reported ever being diagnosed with diabetes. A similar proportion of men and women reported having diabetes, 5.5% and 5.3% respectively. The proportion of respondents who reported being diagnosed with diabetes tended to increase with age. For individuals aged 60 years or older, 12.4% reported having a diabetes diagnosis. Respondents who reported being diagnosed with diabetes tended to be high school educated or less (6.5%) and unemployed (9.3%).

Figure 25. Percent of respondents in various age groups who reported being diagnosed with diabetes, by BRFSS tribe, 2001 Northwest Tribal BRFSS Project



Among all race respondents to the Washington state BRFSS, 1998-2001, 5.3% reported ever being diagnosed with diabetes. A similar proportion of men and women reported having diabetes, 5.3% and 5.4% respectively. The proportion of respondents who reported being diagnosed with diabetes tended to increase with age with 13.3% of individuals 60 years or older reportedly having diabetes. Respondents who reported being diagnosed with diabetes tended to be high school educated or less (6.2%) and unemployed (9.3%).

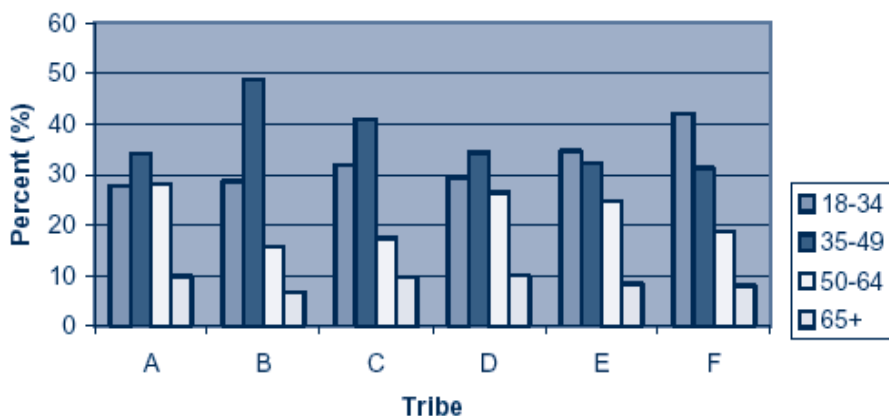
Overweight or Obesity (Figure 28)

Body Mass Index or BMI (kilograms/meters²), based on an individual's height and weight, is an indicator of overweight, obesity, and underweight in adults. An individual is overweight if his/her BMI is at least 25 and no greater than 29.9. An individual is obese if their BMI is 30 or higher. If the BMI is less than 18.5, the individual is considered underweight.

Among tribes that sampled using RPMS, 83.6% of respondents were overweight or obese based on BMI. Men were more likely than women to be overweight or obese, 88.1% compared to 80.8%. Overweight or obesity was more common among respondents aged 50-59 years, with upward of 90.4% of individuals in this age range being overweight or obese. Respondents who were overweight or obese tended to be unmarried

continued on back cover

Figure 28. Age distribution of overweight or obese respondents by BRFSS tribe, 2001 Northwest Tribal BRFSS Project



Projects of the Northwest Tribal Epidemiology Center

Joe Finkbonner, R.Ph.,
MHA
Acting Director
503-228-4185 x 277
jfinkbonner@npaihb.org

Sayaka Kanade
Technical Writer
503-228-4185 x284
skanade@npaihb.org

Chandra Wilson
Project Assistant
503-228-4185 x267
cwilson@npaihb.org

Tam Lutz, MPH, MHA
Project Director
(503) 228-4185
tlutz@npaihb.org

Shawn L. Jackson, BS
Project Specialist
503-228-4185 Ext. 288
sjackson@npaihb.org

Danelle Reed-
Inderbitzin, PhD
Principal Investigator

Katrina Ramsey
Project Coordinator
877-664-0603
kramsey@npaihb.org

The EpiCenter provides health-related research, surveillance, and training to improve the quality of life of Northwest AI/AN.

Following is an overview of projects under the Northwest Tribal Epidemiology Center, including the Northwest Tribal Health Research Center. Please contact staff of the individual project for more information.

Indian Community Health Profile Project

Overview: The overall purpose of the Indian Community Health Profile (ICHP) Project is to design, test, and distribute the Profile- a concise, comprehensive, and user-friendly set of indicators with which to assess community health. The Profile model allows tribal programs to identify, collect data for, and analyze a set of health status measures that they believe to be reflective of health in their community. The results will aid tribes in identifying their most pressing health issues and populations to inform planning and revising health programs, applying for funding, and conducting further investigation. The Profile was piloted in three tribal communities from 1999-2002, in which staff provided technical consultation and training for the implementation of the Profile. ICHPP is currently conducting Phase II of the project in which the primary locus of support shifted to tribal epidemiology centers or other organizations to “train-the-trainers” in using the Profile model. Two tribal sites are involved in Phase II. ICHPP also developed a toolkit that outlines in detail the process of implementing the Profile model, and which is currently being tested by the Phase II sites.

Current Activities: The two ICHPP Phase II sites are currently concluding their data collection and are beginning to conduct data analysis. Following the completion of Phase II, ICHPP will revise and distribute the ICHP Toolkit. No new funding has been awarded to ICHPP.

The Stop Chlamydia! Project

Overview: The primary goal of the Stop Chlamydia! Project is to lower Chlamydia rates through a data surveillance system on infections within Northwest AI/AN communities. Participating tribal clinics send in non-identifying information for each newly diagnosed case of Chlamydia including patient demographics, reason for medical visit, symptoms presented by the patient, and treatment and follow-up activities. The data is collected and analyzed in periodic reports provided to participating facilities. The project also provides Azithromycin, an effective, but expensive, treatment of Chlamydia to the patients and the partners of the participating clinics. The Stop Chlamydia! Project addresses the need for improved Chlamydia surveillance, treatment, and prevention efforts among AI/AN populations.

Current Activities: The Stop Chlamydia! Project is participating in a roundtable discussion at the 2004 National Sexually Transmitted Disease (STD) Prevention Conference, held in Philadelphia, PA March 8-11. The roundtable discussion will cover creative ways to work on STD prevention and control issues in the AI/AN population.

Northwest Native American Navigator Program

Overview: The Navigator Program is a pilot research project to develop and assess the efficacy of a system wherein nurses provide one-to-one assistance to cancer patients. Nurses, or Navigators, help patients overcome difficulties that keep them from accessing timely diagnoses and effective treatments including applying for insurance or other financial assistance, finding cancer information and understanding care providers, sorting out problems with misplaced reports and cancelled procedures, managing side effects and other medical conditions, finding transportation, remembering appointments and rescheduling missed appointments, meeting family needs, and negotiating emotional barriers. The EpiCenter provides research support to evaluate the program and helps identify resources for Navigators. Three sites are included in the pilot: Yakama Indian Health Center, Puyallup Tribal Health Authority, and Native American Rehabilitation Association (NARA). Funding for this pilot program, from the National Cancer Institute and the Indian Health Service, was initiated after the Yakama Nation hosted the President’s Cancer Panel in 2002.

Current Activities: The Navigator Program enrolled its first research participants in October, 2003, and continues to enroll patients as cases arise. Funding will continue at least through September, 2005.

Northwest Tribal Elder Diet and Nutrition Project

Overview: The overall goal of the Northwest Tribal Elder Diet and Nutrition Project is to develop and conduct a dietary survey to determine food sources of healthy nutrients in the diets of Northwest tribal elders who are over 50 years of age.

Current Activities: The survey was conducted in three tribal communities and a final report of results is currently being developed.

Deborah Gustafson,
PhD
Principal Investigator

Francine Romero, PhD,
MPH
Co-investigator

Northwest Tribal Dental Support Center

Overview: The Northwest Tribal Dental Support Center, formed in August 2000, is one of 7 dental support centers established in the nation through IHS special funds to address the declining public health infrastructure of the IHS dental program. NTDSC serves the 32 AI/AN dental clinics located in the Northwest, providing dental consulting services in the form of on-site program reviews and technical assistance by phone and email. Participation in these program reviews is strictly voluntary and at the request of the programs. Topics covered during site visits include clinical and community prevention strategies; patient flow, scheduling, and access to care; infection control practices; facility and staffing; new clinic design; accreditation; and public health concepts. NTDSC also conducts surveillance of its clinical and preventative services to measure progress toward achieving the oral health objectives of Healthy People 2010. Each year, NTDSC sponsors a Prevention Coordinators Conference for all clinics in the Portland Area.

Current Activities: NTDSC is currently in the fourth year of operation. The NTDSC is in discussion with Portland Area Dental Officer to establish a training curriculum on billing for dental services and to coordinate the training with other activities to maximize tribal participation. NTDSC is also working with the Portland Area IHS Sanitation and Facilities construction and negotiating with a subcontractor to provide site visits to tribes for on-site training and quality assurance of water systems.

Joe Finkbonner, R.Ph.,
MHA
Acting Director
503-228-4185 x 277
jfinkbonner@npaihb.org

Bonnie Bruerd, DrPH
Prevention Consultant

Jeff Hagen, DDS, MPA
Clinical Consultant

Kathy Phipps, DrPH
Epidemiology Consultant

Chandra Wilson
Project Assistant
503-228-4185 x267
cwilson@npaihb.org

Northwest Tribal Fetal Alcohol Syndrome Project

Overview: The Northwest Tribal Fetal Alcohol Syndrome (FAS) Project works with tribes to develop their own tribal task force teams. The task force teams develop long term action plans to address FAS in their communities, and identify methodologies, sustainable activities, and available resources. The Northwest Tribal FAS project provides technical assistance and training on topics such as effective educational strategies for children; cognitive tailoring of existing services; prenatal counseling; and chemical dependency for adolescents and adult populations who may have FAS.

Current Activities: Over the past three months the Northwest Tribal FAS project has recruited two new sites to participate in the project. Along with recruiting, technical assistance continues to be provided to the tribal task force teams. In addition, the project is focusing on identifying child bearing women who are at high risk of and or may be affected by FAS themselves.

Joe Finkbonner, R.Ph.,
MHA
Project Director
503-228-4185 x 277
jfinkbonner@npaihb.org

Suzie Kuerschner
Project Consultant

Carolyn Hartness
Project Consultant

Chandra Wilson
Project Assistant
503-228-4185 x267
cwilson@npaihb.org

Northwest Tribal Registry Project

Overview: The Northwest Tribal Registry Project was developed in January 1999 to improve the quality of health status data by providing a more accurate characterization of disease burden (including measures of morbidity and mortality) among the Northwest AI/AN population. By utilizing probabilistic record linkage methodology, the Tribal Registry (a demographic database of AI/ANs who have accessed an IHS or tribal clinic in the Northwest since the mid-1980s) is "linked" to a public health data set (usually managed by the state) to identify persons existing in both files. No identifying data are permanently exchanged, and strict measures are in place to ensure the complete confidentiality of records contained in the Tribal Registry. Through data analysis, the magnitude of and risk factors for racial misclassification, as well as specific diseases and causes of death, are examined. Racial misclassification of AI/ANs in public health data sets may underestimate disease burden and thus lead to inadequate allocation of funds for prevention efforts among Northwest AI/ANs, ineffective planning and implementation of programs, and lack of culturally appropriate interventions.

Current Activities: The Registry Project is currently conducting record linkages with the Idaho, Oregon and Washington state cancer registries to obtain AI/AN cancer data from 1996-2001. Upon completion of the linkages, data analysis will be conducted to estimate current AI/AN cancer incidence, as well as explore patterns in AI/AN cancer survival. Prior linkages have suggested that cancer among AI/ANs is a public health concern of greater magnitude than previously apparent. It is our hope that the unprecedented six years of Northwest AI/AN cancer data resulting from these linkages will be used to inform priority-setting and program management for cancer education, prevention, and control.

Paul Stehr-Green, DrPH,
MPH
Principal Investigator

Emily Puukka, MS
Project Director
503.228.4185 Ext. 285
epuukka@npaihb.org

Western Tribal Diabetes Project

Kerri Lopez
Director
(503) 228-4185 ext. 301
klopez@npaihb.org

Rachel Plummer
Administrative
Assistant
(503) 228-4185 ext. 291
rplummer@npaihb.org

Clarice Hudson
WTDP Special Projects
Assistant
(503) 228-4185 ext. 256
chudson@npaihb.org

Overview: The Western Tribal Diabetes Project (WTDP) provides data management assistance to tribes in, Oregon, Washington, Idaho, and California, through routine tribal site visits, regional trainings, and technical phone assistance. The WTDP aids northwest tribes in a variety of ways, such as: (1) building a diabetes register in order to provide complete and accurate information about patients with diabetes, (2) estimating the burden of disease and impact of diabetes in tribal communities, and (3) improving health outcomes by using electronic diabetes registers to make informed decisions about clinical diabetes care.

Current Activities: The WTDP is currently organizing the National Training in Tucson, AZ to be held April 8-9, 2004 and the Regional DMS Training in Portland, OR to be held March 18-19, 2004.

Angela Mendez
National Project Specialist
(503) 228-4185 ext. 316
amendez@npaihb.org

Crystal Gust
Northwest/National Regional Project Specialist
(503) 228-4185 ext. 293
cgust@npaihb.org

Crystal Denney
National Project Assistant
(503) 228-4185 ext. 269
cdenney@npaihb.org

Jen Olson
Northwest/National/California Regional Project
Specialist
(503) 228-4185 ext. 268
jolson@npaihb.org

Northwest Tribal Health Research Center

Joshua D. Jones, MD
Principal Investigator
503 416-3272
jjones@npaihb.org

Thomas Becker, MD,
PhD
Project Director

Luella Azule, BS
Project Coordinator
503-228-4185 x275
lazule@npaihb.org

The Northwest Tribal Health Research Center (NTHRC) was established to promote the partnership between American Indian and Alaska Native (AI/AN) tribes or tribally-based organizations and institutions that conduct intensive academic-level biomedical, behavioral and health services research to address health problems facing AI/AN communities. Four NTHRC projects were initially funded by the National Institutes of Health (NIH) under the Native American Research Centers for Health (NARCH) grant. These projects are: Toddler Obesity and Tooth Decay Prevention Project (TOTS), Barriers to Use of Child Safety Seats in Northwest Indian Communities, Evidence Based Medicine to Improve Health Care, and Improving Health Research Skills for AI/AN. Other current projects under the NTHRC include the Northwest Tribal Vision Project.

Toddler Obesity and Tooth Decay Prevention Project

Tam Lutz, MPH, MHA
Project Director
503.228.4185 Ext. 271
tlutz@npaihb.org

Julia Putman, BS
Project Assistant
jputman@npaihb.org

Njeri Karanja, PhD
Principal Investigator

Cheryl Ritenbaugh,
PhD
Co-Investigator

Gerardo Maupomé,
PhD
Co-Investigator

Mikel Aickin, PhD
Co-Investigator

Overview: The overall aim of the Toddler Obesity and Tooth Decay Project (TOTS) is to evaluate whether public health interventions at the community and individual family level can reduce childhood obesity and early childhood tooth decay by altering patterns of sugared beverage consumption in expectant mothers and their children, as well as promoting breastfeeding. TOTS uses formative data collected at each participating site to design both community and family interventions tailored to the specific population, targeting health behaviors around breastfeeding, drinking water, dental health, and sugared beverages. The project is comparing the prevalence of tooth decay and obesity in young children before and after interventions are implemented over two years to see if the interventions are effective. Community interventions include building public awareness, providing health education, and promoting water as an alternative to sugared beverages (like soda and punch). Family interventions are more intensive and include making a series of home visits to mothers and their families to promote behavior change and to link them to community health resources. Participating mothers and their newborn children are followed for two years, with height, weight, and dental measurements taken at 6, 12, 18 and 24 months. These measures are compared those from a group of similar children taken before the interventions are implemented.

Current Activities: Three tribal communities have nearly finished recruiting all the participants for the study. Many of the participating infants already turned six months of age and site coordinators, with the assistance of their dental and WIC partners, have begun to take height, weight and dental measurements. All three sites are just beginning their 13th month of community interventions, and family interventions are ongoing in two of the communities. The TOTS Project is currently recruiting a fourth site to serve as a comparison community (with no interventions implemented), and a number of tribes have indicated interest.

Evidence Based Medicine to Improve Health Care

Overview: Health care providers are increasingly using the most current scientific knowledge to provide the best possible care for patients. Known as evidence based medicine (EBM), this integration of current scientific with clinical care orients the practice of medicine toward diagnostic methods and treatments that have been proven effective in clinical trials. In order to practice EBM, health care providers must have convenient and reliable access to accurate and up to date information that can be easily accessed when and where health care is being provided, often via the Internet. The goal of Evidence Based Medicine to Improve Health Care is to provide training and support for a rural Indian health care facility to access EBM resources using a web interface developed at the University of Washington, and evaluate whether this is a feasible method of improving health care delivered to AI/AN patients.

Jennifer Hooek, MD
Principal Investigator

Current Activities: The investigator is working with the clinic providers at the Yakama Indian Health Center to facilitate and evaluate their use of EBM resources in the course of their clinical practice. A report summarizing the experience of this feasibility study will be made available as a resource for the IHS and Tribal Health programs in implementing information resources for health care providers to improve and standardize health care practices using EBM.

Barriers to Use of Child Safety Seats in Northwest Indian Communities

Overview: Although the use of child safety seats is known to reduce the risk of motor vehicle injuries, few published studies address the use of child safety seats in AI/AN communities. This project has completed a survey among six randomly selected tribes in Idaho, Oregon, and Washington to determine the prevalence of appropriate child safety seat use and to examine the most common self-reported reasons for their non-use or misuse. A complete report of the results of this survey is now available on the NPAIHB website (http://www.npaihb.org/NTHRC/css_ar_011904.pdf), and a journal article is in preparation. The survey found that usage rates overall of recommended child restraints was low, especially among children aged 4-8. These findings will hopefully help tribal communities develop and evaluate effective interventions to promote safety seat use in their communities.

Francine C. Romero,
PhD, MPH
Principal Investigator

Northwest Tribal Vision Project

Overview: The goal of the Northwest Tribal Vision Project is to identify the prevalence of eye disorders among older Northwest AI/ANs by conducting screenings at three Northwest tribes. A targeted screening program will be developed based on the prevalence of eye disease.

Steven L. Mansberger,
MD, MPH
Principal Investigator

Current Activities: The project completed data collection from a first round of screenings at three Northwest tribes and are currently in the process of data analysis. Based on the success of this project to date, there are plans to expand this project at these three sites and possibly other tribal sites.

Francine C. Romero,
PhD, MPH
Co-Principal
Investigator

Improving Health Research Skills for AI/AN

Overview: Carefully designed and implemented health research is necessary to provide information and solutions to reduce the health disparities between AI/AN and other groups. The overall goal of Improving Health Research Skills for AI/AN is to develop a cadre of highly trained AI/AN biomedical and health researchers who are sensitive to the culture and specific concerns of Northwest Indian communities. These researchers will bring the benefits of academic research to these communities to reduce health disparities.

Walter Hollow, MD
Principal Investigator

Thomas Becker, MD
Co-Principal Investigator

Current Activities: This project is currently supporting the training and professional development of three AI researchers who are focused on improving the health of Native communities. Each of these individuals is pursuing doctoral or post-doctoral training while undertaking valuable research projects working with Indian populations. This project is also currently recruiting three or four AI/AN pre-doctoral students as summer interns for 2004. As interns, these young professionals will partake in the 2004 Summer Research Institute sponsored by OHSU and NPAIHB, as well as undertake a health-oriented research project in a tribal community.

BRFSS continued

(82.1%), employed (85.5%), and have a household income >200% of federal poverty level (87.3%).

Among tribes that sampled using tribal enrollment, 80.6% of respondents were overweight or obese based on BMI. Men were more likely than women to be overweight or obese, 81.8% compared to 79.0%. Overweight or obesity was more common among respondents aged 30-39 years and 45-54 years, with upward of 87.1% of individuals in this age category being overweight or obese. Respondents who were overweight or obese tended to be married (88.9%), postsecondary educated (84.8%), employed (83.1%), and have a household income 151%-200% of federal poverty level (85.1%).

Among all race respondents to the Idaho state BRFSS, 1998-2001, 53.1% of respondents were overweight or obese based on BMI. Men were more likely than women to be overweight or obese, 63.1% compared to 43.6%. Overweight or obesity was more common among respondents aged 45-69 years, with upward of 60.8% of individuals in this age range being overweight or obese. Respondents who were overweight or obese tended to be married (56.9%) and employed (54.3%).

Among all race respondents to the Oregon state BRFSS, 1998-2001, 53.5% of respondents were overweight or obese based on BMI. Men were more

likely than women to be overweight or obese, 62.9% compared to 44.6%. Overweight or obesity was more common among respondents aged 50-69 years, with upward of 62.2% of individuals in this age range being overweight or obese. Respondents who were overweight or obese tended to be married (56.5%), high school educated or less (54.2%), and employed (54.0%).

Among all race respondents to the Washington state BRFSS, 1998-2001, 52.3% of respondents were overweight or obese based on BMI. Men were more likely than women to be overweight or obese, 63.3% compared to 41.7%. Overweight or obesity was more common among respondents aged 55-69 years, with upward of 61.9% of individuals in this age range being overweight or obese. Respondents who were overweight or obese tended to be married (56.3%), high school educated or less (55.9%), and employed (53.7%).

¹ Abott PJ. Traditional and western healing practices for alcoholism in American Indians and Alaska Natives. *Substance Use and Misuse* 33:2605-2646, 1988.

² Beauvais F. American Indians and alcohol. *Alcohol Health and Research World* 22:253-259, 1998.

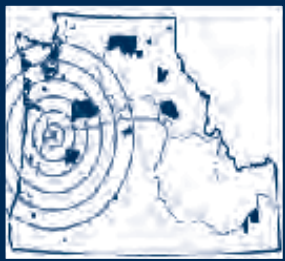
³ Grossman DC, Sugarman JR, Fox C, Moran J. Motor-vehicle crash-injury risk factors among American Indians. *Accident Analysis and Prevention* 29:313-319, 1997.

⁴ James WH, Hutchinson B, Moore DD, Smith AJ. Predictors of driving while intoxicated (DWI) among American Indians in the northwest. *Journal of Drug Education* 23:317-324, 1993.

⁵ Rhoades ER, Hammond J, Welty TK, Handler AO, Amler RW. The Indian burden of illness and future health interventions. *Public Health Reports* 102:361-368, 1987.

Northwest Tribal Epidemiology Center

**Northwest Portland Area
Indian Health Board
527 SW Hall Street, Suite 300
Portland, Oregon 97201**



**Phone: (503) 228-4185
Fax: (503) 228-8182
www.npaihb.org**