



STRONG HEART STUDY

Cardiovascular Disease in American Indians

NEWSLETTER

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STAFF TRAINING COMPLETED FOR THE SECOND EXAMINATION

From July 5-9, staff members from Arizona and Oklahoma joined those from Pine Ridge and Eagle Butte, South Dakota, to review previously used procedures, learn new procedures and tests, and practice all parts of the examination in an effort to standardize the methods used in all centers for the second examination of the Strong Heart Study. The Black Hills Training Center in Rapid City, South Dakota, again proved to be an ideal location for the week-long training session. Loretta Bad Heart Bull, Director of the Black Hills Training Center, and her staff won high praise from the SHS staff for providing excellent accommodations and training facilities as well as friendly service. This environment set the tone for a successful meeting.

The training session was a reunion for many of the staff members who had worked on the first examination of the Strong Heart Study and returned to continue this important work. New members of the staff, initially feeling a bit overwhelmed by the intensity of the training, soon learned that everyone was there to learn from each other and that they had much to offer as well as to learn. In addition to learning the procedures, staff

members provided input on final modifications to forms and procedures to allow the exam to be performed more smoothly and comfortably for the participant. Of particular value was the input on questionnaires related to Indian culture and values that was provided by Indian staff members from the communities being studied.

The week was filled with variety reflecting the complexity of the examination. Staff members learned to properly interview participants about what foods they had eaten in the previous 24 hours in order to complete the 24-hour dietary recall. They learned how to monitor breathing measurements using computer based equipment to measure how well the participant's lungs function. In another session, they learned the procedures for blood pressure measurement followed by collection and processing of blood samples. Staff members learned by doing. All staff members received PPD to test for exposure to TB, allowing others to practice administration of the test. Taking part in the examination components as both a provider and participant allowed the staff to better understand the process and the effort required of the participants.

COMMUNITY MEMBERS DESCRIBE HISTORY AND CULTURE TO SHS STAFF

SHS staff members were given a break during the week of training with a very interesting session on the history and culture of the Indians from each of the centers. Tom Bad Heart Bull spoke of the Sioux, describing the Lakota, Dakota, and Nakota as differing in the form of language spoken but similar in most other ways. He spoke of his family history and the importance of knowing the origin of your family in the Sioux culture. He pointed out the recurring numbers of four and seven in many aspects of Sioux culture. He concluded with his impressions of the concerns of community members in today's world.

Sonia Antone, from the Gila River Indian Community, described the Pima and Maricopa of

the Arizona Center. While they are different tribes, they have lived in harmony for many years. The Arizona Indians have a long history of farming and have struggled to maintain their ways with the loss of water and the harshness of the desert. The number of tribal members who speak the language is declining rapidly and may soon disappear. Traditional ceremonies such as those that are part of Sioux culture are not part of the lives of the Pima/Maricopa. Arizona Indians are known for the Pima cotton raised on the reservation as well as arts and crafts, especially their skill at basket weaving.

Linda Poolaw described the seven tribes of southwestern Oklahoma. She provided an

interesting overview of all seven, with special emphasis on the Delaware, since she is a member of that tribe. She described the greater complexity of the study population in Oklahoma with seven tribes residing in the same area but with different origins. Her talk ended with a fascinating slide show of the photographic history of the Indians in her area taken over a 50-year period by her father.

Many of the pictures are included in a show currently touring the United States as part of an exhibit sponsored by the Smithsonian Institution in Washington, D.C.

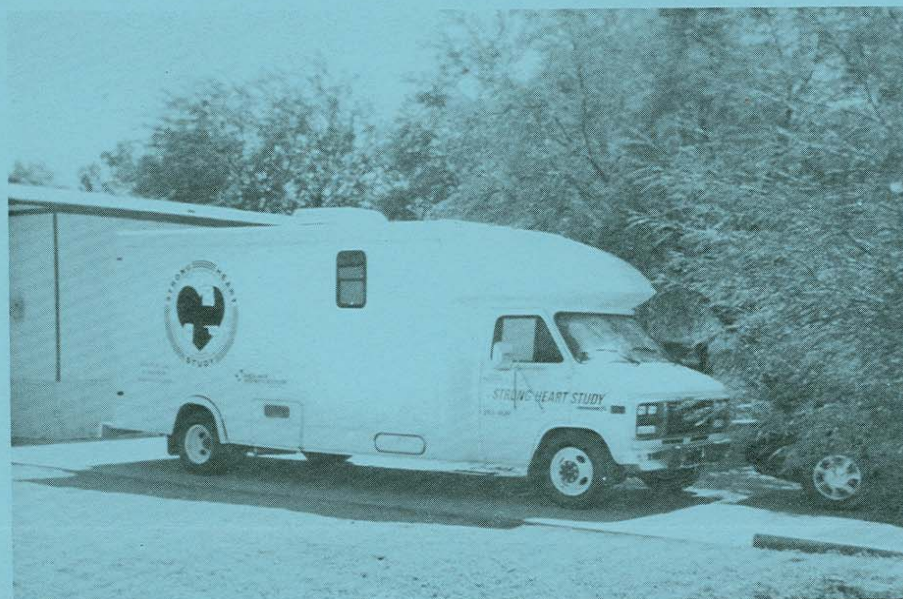
This component of the training session was especially interesting and valuable to staff members because it provided an appreciation of the unique characteristics of the different American Indians included in the Strong Heart Study.

SHS GOES MOBILE FOR THE SECOND EXAMINATION

One new aspect of the second examination of the SHS will be the addition of a mobile van. The van was purchased for the exam because it will allow the staff to provide better service to participants and reduce the total cost of the exam by allowing important equipment to be transported to different locations as it is needed. It will also provide exam space. In some cases, it may serve

as the only facility in which to perform the examination.

The SHS staff is extremely excited about this addition to the study because it will provide additional flexibility to better meet the needs of participants. We hope the Indian communities will recognize the SHS van as a welcome part of the effort to improve the health of all community members.



DIABETES COMPLICATIONS STUDY RESULTS

Type II or adult onset diabetes mellitus is a common chronic illness among older Native Americans. Some small studies have suggested that memory problems may occur as a consequence of this disease. If diabetes does produce memory problems, this may make it more difficult for diabetic patients to learn to care for themselves.

In this study, a group of persons with diabetes was compared to a nondiabetic group. Participants were recruited from among persons who had participated in Phase I of the Strong Heart Study on the Cheyenne River Sioux Reservation as of

June 1991. They were interviewed to collect information about memory function, current health status, and health history. Participants were also given standard tests that measure a variety of different aspects of memory function.

There were 80 persons in the diabetic group and 81 persons in the nondiabetic group, and all were between the ages of 45 and 76. Almost 40% of the diabetic group had been found to have diabetes by virtue of screening by the Strong Heart Study. This finding shows that many individuals do not know they have diabetes and that screening can be

useful for detecting the disease earlier. Some illnesses which may have caused memory problems were much more common in the diabetic group. These included high blood pressure, heart attack, and symptoms of depression. Chronic lung disease and alcoholism, each of which may also produce memory problems, were common in both groups.

Results from the tests of memory function showed that there may be some memory problems associated with diabetes but that diabetes

accounted for fewer problems with memory than had been expected. A very important finding, however, was that people who had high blood pressure or poorer control of their blood sugar, in addition to diabetes, were more likely to have some memory problems. Prevention of the complications of diabetes and maintenance of good blood sugar control will likely help to maintain optimal memory function. Adequate treatment of high blood pressure in diabetic patients is also an important factor in maintaining memory function.

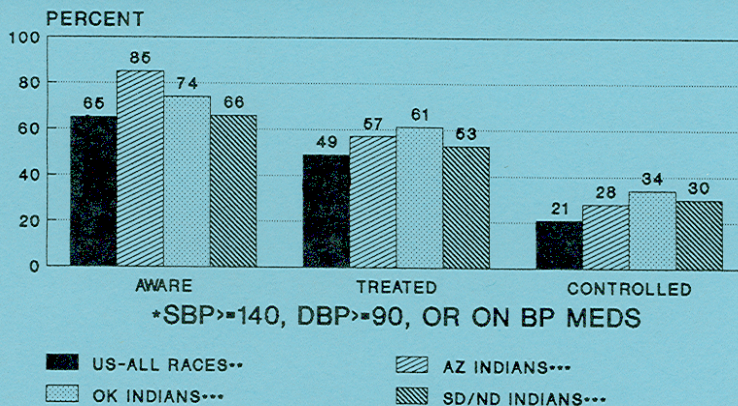
HYPERTENSION RATES, AWARENESS, TREATMENT, AND CONTROL

High blood pressure (hypertension) increases the chances of having a stroke or heart attack. Diagnosis, treatment, and control of hypertension significantly reduces the risk of having a heart attack or stroke. The percents of participants who had definite hypertension were significantly higher in Arizona and Oklahoma participants than in North and South Dakota participants. Over 80% of participants with definite hypertension were aware of being hypertensive. Over three-fourths of hypertensive patients were being treated. Over fifty percent of all definite hypertensive participants were adequately controlled. The proportion of hypertensive participants who were

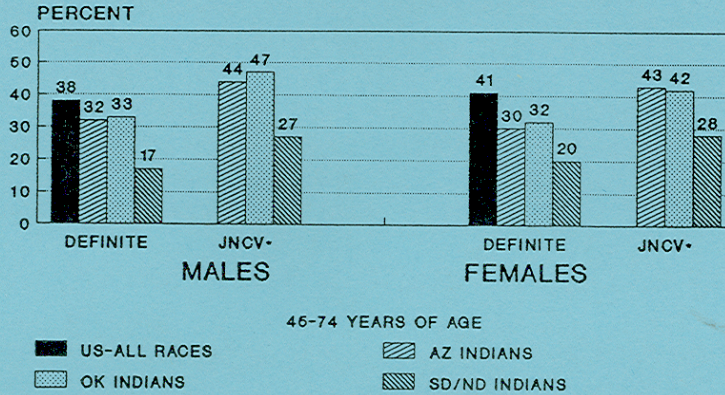
aware, treated, and controlled exceeded the national averages. These results suggest that the Indian Health Service is doing a good job in diagnosing, treating, and controlling hypertension. All Strong Heart Study participants whose blood pressures exceeded 140 mmHg systolic blood pressure or 90 mmHg diastolic blood pressure were referred to their medical care provider for follow-up.

In Phase II of the Strong Heart Study, blood pressures will be checked again; and any changes in the rates of hypertension, as well as the control and treatment, will be analyzed.

JNCV HYPERTENSION* AWARENESS, TREATMENT & CONTROL US 1988-91; AMERICAN INDIAN 1989-91



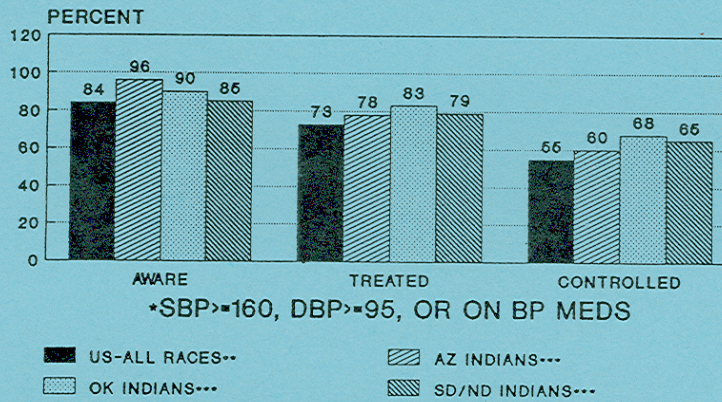
HYPERTENSION PREVALENCE NHANES II/STRONG HEART STUDIES US 1976-80; AMERICAN INDIAN 1989-91



USHTM

*COMPARABLE DATA FOR US NOT AVAILABLE

DEFINITE HYPERTENSION* AWARENESS, TREATMENT & CONTROL US 1988-91; AMERICAN INDIAN 1989-91



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NHANES III *STRONG HEART STUDY

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