News

Cardiovascular Disease in American Indians
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SHS Staff Members Seek Maximum Return Rate for Phase II

Exams for Phase II of the Strong Heart Study are scheduled to end by Nov. 1 for all field centers, where staff members are striving to surpass the most optimistic expectations for response rates from the participants that comprise the study cohort.

To date, exam rates are already good. The original samples of the three field centers were 1,500 for Arizona, 1,527 for Oklahoma and 1,529 for South Dakota. Due to deaths among the participants, the numbers available for the second examination are less than the original sample. The Arizona center has set the pace with exactly 1,202 exams completed to date. The Oklahoma and South Dakota centers are not far behind, with 1,156 and 1,151 exams, respectively.

While the numbers achieved so far already represent a tremendous effort, every additional participant that can be re-examined will make the results of the second examination even more informative for community planning and understanding, as well as for scientific analysis.

The question is no longer one of "Can 1,200 be exceeded?," but rather, "By how much can it be exceeded?"

Extra effort by the Strong Heart Study staff and communities is what is making such a goal possible. The Arizona center staff has been using its van to visit participants in nursing homes and remote locations when it is not possible for them to come into the clinic for their examinations.

The Oklahoma center staff has been holding Saturday clinics to make the examination schedule more convenient for participants. The South Dakota center has set up a clinic in Rapid City for the participants that have relocated to that area.

A particularly revealing action that illustrates the unique dedication of the Strong Heart Study staff toward a common goal of the best overall study possible for American Indians is the helping hand that is being offered by the Arizona center to the South Dakota center during the final month of the exam phase. South Dakota was at somewhat of a disadvantage because it could not procure mobile vans to conduct the second examination.

In addition, it had been using two echo machines which had to be returned last April, seven months before the end of the Phase II exams. In response, staff members accelerated the echo exams and found clinic space convenient to the participants to minimize the impact of those problems. Now the Arizona center is sending its van and nurse up to South Dakota for the last month of the examinations to complete as many echos as possible on participants whose exams could not include an echo due to the lack of equipment.

With the vans, it also may be possible for South Dakota to reach some of those participants who have had a difficult time coming into the clinics for their exams.

Extraordinary efforts lead to extraordinary results. Such efforts allowed each center to achieve its goal of 1,500 exams for the first examination period of the Strong Heart Study.

That same dedication will result in return rates that will exceed the most optimistic expectations and continue to justify the study's unique contribution to the health of American Indians.

These last few months no doubt will again demonstrate that dedication.

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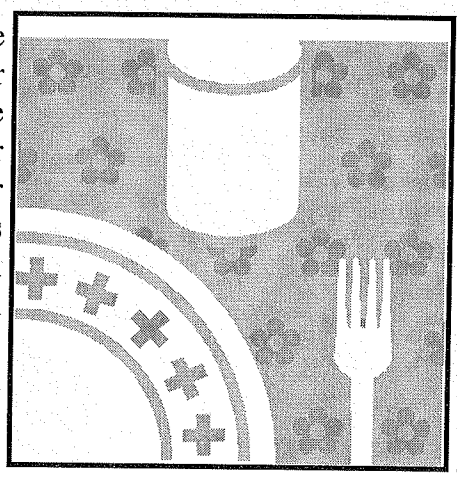
Strong Heart Study Examination Impacts Health Habits



From the planning stages of the Strong Heart Study, one of the major concerns of the Steering Committee has been to incorporate methods for assisting participants with their health needs into the project. This is being realized at all levels, from simple health education recommendations at the time of the examination, such as following a low-fat diet or beginning an exercise program of walking to health care policy changes, such as the recommended IHS policy for care of beginning kidney disease.

When the SHS staff provides health education to participants, it is hoped that they will be able to make some positive changes in their lives. Since the interval between our examinations is quite long (up to four years), we do not always know if the health information provided during the exam has any impact on the participant's daily habits.

It is always exciting to receive feedback from our participants after they have made some changes in their lives and experienced positive effects. We have been fortunate to have had such feedback at all three sites.

Recently, it was brought to the attention of the staff in Arizona that one of its participants went home after his exam and decided to make some significant changes in his life. The tribal dietitian at the hospital in Sacaton came to the SHS staff members and told them they should feel good about the influence of the health education they had given this man, as it made him realize he wanted to have a healthier future. She recommended that this man be contacted, and he was most happy to share his story.

This 64-year-old man came for his SHS exam in January of 1994. During his visit, his blood pressure was quite high, and the staff informed him of the consequences. When he asked what he could do about it, he was advised to see his health care giver, to lose some weight and start exercising. Thus, he went home and began to make some changes. He remembered his ancestors who were very active and lean and seemed to have less health problems, and he called upon this inner strength that had helped his people throughout many generations to guide him in making changes.

After visiting the dietitian, he made some big alterations in his eating patterns. He started eating small amounts of food at mealtimes and cut out snacks between meals. He learned how to read labels to watch the fat and salt content. He said that while all of this took some discipline, his wife was supportive, even following the new eating habit herself.

Besides changing his food consumption, he decided to start walking on a regular basis and he now enjoys walking to get the mail. He no longer walks with a cane, and in fact, one of his new activities he especially enjoys is dancing. He is even thinking about buying a bicycle to help increase his exercise.

So far, he has lost 60 pounds and has seen some health changes along with this loss.

His blood pressure has come down, he can go walking without getting out of breath and he can even climb stairs. The pain in his knees has disappeared, while the chronic pain in his back has vanished.

It is satisfying to hear of the improved lifestyle he is now enjoying. It is apparent that he has emerged from the study with a whole new outlook and attitude about both his life and his ability to have some control over his health. He said that he wants to go into his "old age" leaner and stronger, as his elders did.

This man has set an example that is having an influence on others in his community. He is a role model for others to make changes in their health habits and, on a broader scope, he is working with the tribal leaders, recommending that a walking path be included in the plans for the new community park. ♥

Childbearing History and Hormone Use Among Strong Heart Study Women

Cardiovascular disease (CVD) is an important cause of illness and death in women, just as it is in men. This fact was not really appreciated until relatively recently, and now there is an increased interest in conducting studies to understand factors related to risk of CVD in women.

As part of the information collected during Phase I of the Strong Heart Study (SHS), women were asked how many times they had been pregnant, how many live-born children they had given birth to, whether or not they had gone through menopause and whether they had taken female hormones. This information has been analyzed to see how it relates to known risk factors for heart disease.

Among women who participated in the SHS, the median number of pregnancies was 6 in both Arizona and the Dakotas, and 5 in Oklahoma, with an overall median of 5. This means that one-half of all SHS women have had more than five pregnancies. The median number of live births was also 5, indicating that SHS participants have much larger family sizes than other population groups.

Women in the SHS were 45 to 74 years of age at the time they were examined for Phase I. Among these women, 78 percent reported having already gone through menopause, with the average age at menopause reported as 47 years. This is a slightly younger age of menopause than has been reported from other groups of women. Of the women who had experienced menopause, 32 percent had had a surgical menopause. Oklahoma women reported having had surgery to remove their uterus about twice as often as Arizona or Dakota women.

Overall, 23 percent of SHS women said they had used female hormones (estrogen) at some time in their lives. Eleven percent said they were using estrogen at the time of the Phase I examination. Current estrogen use was most common (34 percent) among women who had had their uterus and ovaries surgically removed, since women are frequently given hormones after this kind of surgery.

The data collected as part of the Phase I interview were also used to see whether the number of children a woman had was related to her heart disease risk factors. As the number of live births increased, women's HDL cholesterol levels (the "good" cholesterol) were lower, but the amount of difference in HDL was very small. For example, compared to a woman with one child, a woman with six children would have a HDL cholesterol level only about 2 mg/dl lower.

The results of our analyses show that using female hormones was much more strongly related to CVD risk factors than was number of children. Women who were using estrogen at the time of the exam had lower LDL (the "bad" cholesterol), higher HDL, less high blood pressure and lower fibrinogen (a component of clotting). Overall, estrogen users had a more favorable CVD risk factor profile than women who were not using estrogen. This finding has been reported in many other studies.

Further analyses will be done to look at the frequencies of surgical menopause at the three SHS centers and how often estrogen replacement is prescribed. These results may be used to make recommendations regarding issues important to women's health. ♥

Does Snoring Keep You Awake?

Snoring is a common occurrence, especially as we grow older or gain weight. Someone snoring loudly in the same bedroom can keep others awake, but more seriously, snoring also might be a symptom of sleep apnea.

People with sleep apnea actually stop breathing more than 100 times every night, at an average of more than 20 times each hour. Each time a person stops breathing for a minute or more, his oxygen level falls, preventing restful sleep. These frequent arousals also keep the heart and blood vessels from getting the rest they need at night; normally, the heart rate and blood pressure are lower during sleep than during daytime activity.

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Snoring

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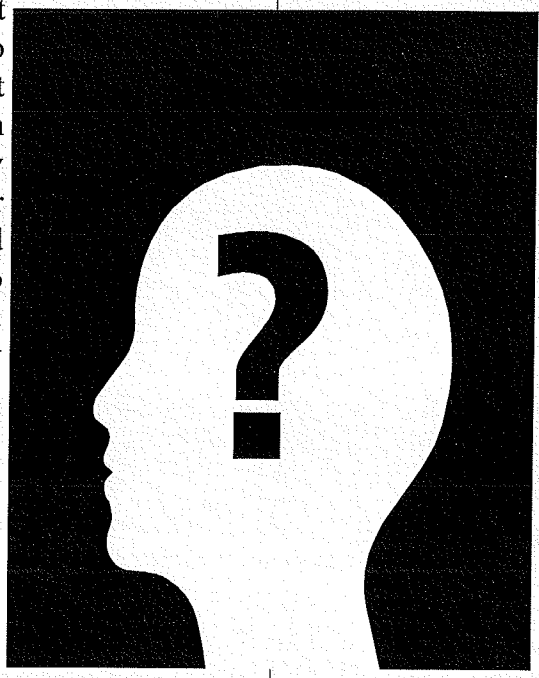
Over the next two years (1996 and 1997), Strong Heart Study participants will have the opportunity to learn whether or not they are affected by snoring, sleep apnea, insomnia and other sleep problems by joining the new Sleep Heart Health (SHH) study.

The first 600 Strong Heart Study participants who agree to have their sleep recorded for just one night will join more than 5,000 other SHH study participants from six other communities across the United States, from Sacramento to Minneapolis to New York City. The study will not involve any extra visits to the medical clinic, and participants will not need to have any of their blood drawn.



The sleep study report will tell participants exactly how many hours they slept, how many hours they spent dreaming (which occurs in the rapid eye movement, or REM, stage of sleep), whether or not they stopped breathing repeatedly during sleep (the sleep apneas which cause loud snoring) and if their oxygen level remained normal throughout the sleep period. Unfortunately, the report will not be able to reveal the content of the participants' dreams or what they said during sleep! Participants may request that a detailed report of their sleep quality be sent to their doctor.

Sleep studies usually are available only in large, university-related hospitals; the patient must spend a night in the sleep laboratory; and the cost is more than $1,000. Only during the last two years have portable, battery-powered sleep recorders become available. These small recorders, the size of a paperback book, now allow sleep studies to be done in a person's own home, where he or she sleeps most comfortably.

The SHH study will use the new CompuMedics mode portable sleep recorder, which allows complex sleep patterns to be recorded for up to 10 hours. Many of the Strong Heart Study staff members have already spent a night "getting acquainted" with this sleep recorder, and will be contacting people during the next year to recruit participants into this exciting new sleep study. ♥

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