



Strong Heart Study Newsletter

Investigating Cardiovascular Disease in American Indians
 Updates for Community Members and Strong Heart Study Participants
 Volume 33, Issue 1 Summer 2023

FINDINGS AND RESULTS FROM THE STRONG HEART STUDY (SHS)

Preliminary results from the C4R—SHS collaboration in studying COVID-19

The SHS is one of 14 studies that were part of the C4R study of COVID-19. All 14 studies are longitudinal. This means that similar to the SHS, they have health data on participants from before the COVID-19 pandemic, during the pandemic, and will continue to collect data after the pandemic. Those data help scientists to better understand what decreases or increases a person’s risk of developing severe COVID-19 or long-COVID.

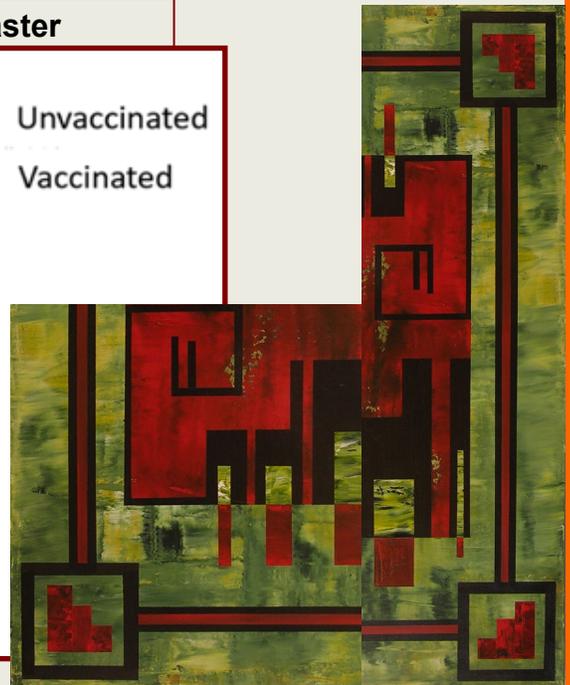
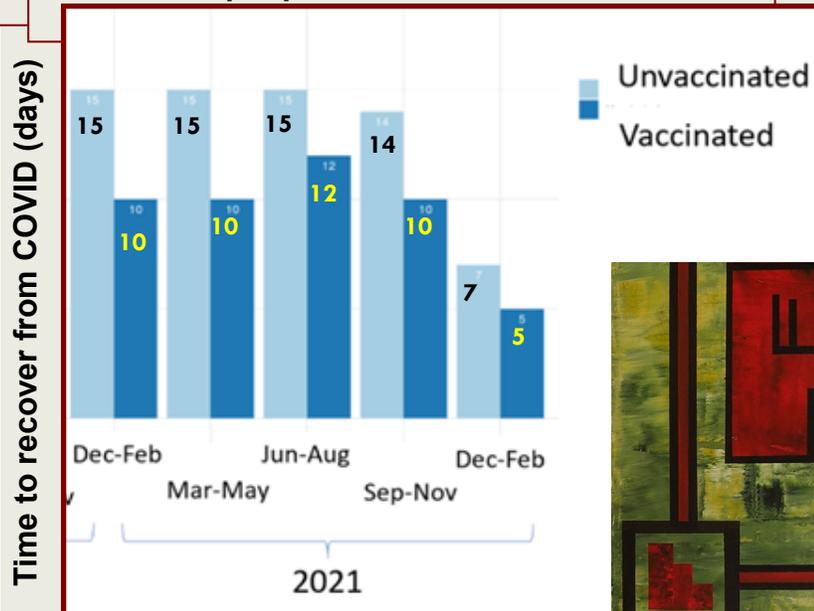


Time to recovery	Factors that impact COVID recovery
Longer recovery	Being critically ill with COVID
	Being hospitalized with COVID
	Being AI/AN
	Being a current smoker
Shorter recovery	Infected with omicron variant
	Being vaccinated
	Being male

Some factors that predict a longer or shorter recovery from COVID-19 are listed in the table (left). These preliminary results show that being American Indian or Alaska Native (AI/AN) puts an individual at a higher risk for having long-COVID. For this study, long COVID means having symptoms of COVID-19 that last for 90 days or more.

However, the graph below shows that there is good news. Being vaccinated can decrease the time it takes to recover from COVID-19. The C4R project is working hard to answer many more questions on COVID-19 that will be valuable for communities .

Vaccinated people tend to recover faster



Ronit Yarden, PhD, MHSA, Strong Heart Study Project Officer, National Heart, Lung, and Blood Institute (NHLBI)



Ronit Yarden, a doctor of philosophy (or called Ph.D.) with a master degree of Health Services Administration (MHSA) joined the NHLBI in 2022 and became **one of the two Strong Heart Study Project Officers**.

Before that, Dr. Yarden was **a faculty member at the Georgetown University** in Washington D.C. Research in her lab focused on her discovery of plant-based substances that can kill cancer cells. Dr. Yarden received a patent for this work, and she aimed to identify prevention methods as well as improved treatment options for breast cancer.

Dr. Yarden earned her undergraduate degree in biology and a master of science degree from the Tel Aviv University, Israel, in the study of the immune system and how it defends the body against diseases. She earned her PhD degree at Georgetown University for her study on chemical processes in living cells and tissues that cause the ad-

vancement of breast cancer. In her postdoctoral work at the National Human Genome Research Institute at NIH, Ronit focused on understanding the biology of inheritable breast cancer.

Dr. Yarden then relocated to Israel where her family is from to establish her own lab at the Sheba Medical Center affiliated with Tel-Aviv University. While at Sheba Medical Center, her research focused on genetic factors that modify the risk of breast and ovarian cancers for patients with breast cancer gene 1 and gene 2 mutations.

Ronit has four kids and she enjoys spending time with her family, reading, and traveling to Israel and other places.

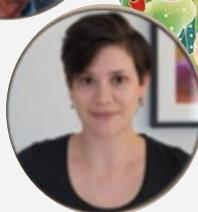


STRONG HEART STUDY COMMUNITY MEETING , June 8th, 2023

On June 8th, 2023, technology brought us together from Arizona, North Dakota, South Dakota, New York, Maryland, Washington D.C., Oklahoma, and southern California for a **Zoom Strong Heart Study (SHS) Community Meeting**.

Participants, community partners, investigators, and projects officers discussed how research serves American Indian communities.

The Meeting started with an opening prayer. Then **Mr. Richard Movescamp**, the 2021 Luce Indigenous Knowledge Fellow and a fifth-generation Lakota Healer, Tribal historian, and spiritual leader, talked about his experience and tribal history, **Dr. Allison Kupsco** from **Columbia University (Univ.)** presented new and emerging trends in research, **Mr. Kai Post**, **Tyler Bath** from the Univ. of California, San Diego , and **Dr. Lucila Ohno-Machado** from Yale Univ.



presented the newly developed **Strong Heart Community Dashboard** that will be made accessible to partnering tribal leaders or health administrators (details to be covered in the next SHS newsletter).

Ms. Cynthia West, the coordinator of the SHS Arizona Field Center (AZFC) announced that the second round of the Strongheart Tribal Approach to Research (STAR) Projects are open for application. A video titled "**My Name is Data**" recorded by AZFC team members and the drawing of several gift cards made us laugh and think. At the end, we learned from both community members and scientists. Many thanks to the organizer - AZFC team, presenters, and meeting participants. **Working together, we can improve heart health status in SHS communities.**

Future Health Professionals and Scientists

PUBLIC HEALTH

to a school of public health from 1935 to 1937. With its aid by William Schottelkopf, M.D., the need for a program of public health practice in Oklahoma State. The establishment of a school of Public Health is necessary for its organization. It was launched with Dr. Schottelkopf as its first director. The school began accepting students in 1937 and received full recognition in 1938.



Carson Willis and Sammie Smith (left), members of the Cherokee Nation, are among the 2023 summer interns at the Center for American Indian Health Research,

University of Oklahoma Health Sciences Center (OUHSC). Both Sammie and Carson are seniors at the Oklahoma State University (OSU).

Sammie participates in the Cancer Research Immersion Summer Program (CRISP) for Undergraduates at the Stephenson Cancer Center, OUHSC, and Carson is part of the OUHSC Native American Research Center for Health (NARCH) Summer Undergraduate Research Program.

Carson is mentored by Dr. Jessica Reese (right) to study the

association between Vitamin D and liver disease, and Sammie is mentored by Dr. Amanda Janitz (below left, Choctaw Nation of Oklahoma) to work on cancer research.

In addition, Carson and Sammie visit SHS field office to observe SHS7 exam and gain first-hand experience of conducting community health research. They also contribute greatly to the digital conversion of SHS morbidity and mortality surveillance charts of 30 years.

Sammie plans to become a physician assistant, and Carson is working hard toward her medical school admission.

We wish them the best in their pursuit of health care professional career and serving communities with their talents and skills.



Halana's Story and Thank You Note from Anadarko, Oklahoma



Hello, my name is Halana Jay, I am a research nurse for the Strong Heart Study at the Anadarko field office.

I am a citizen of the Apache Tribe of Oklahoma, I am also of Comanche descent. I was raised here in the Anadarko area at Ft. Cobb, OK. I have two children, ages 12 and 15, who are raised here and attend the Anadarko public schools.

I have been a Licensed Practical Nurse for 19 years, and the majority of that nursing career has been in long-term care, with direct patient care. The Strong Heart Study has given me the opportunity to continue this work in my local community here, continuing to provide patient care through research study.

Research study has proven to be beneficial to the health of Native Americans in our community, specifically with Diabetes and Cardiovascular (Heart) diseases.

I want to thank each and every Strong Heart member/participant for their continued dedication to the research projects of the Strong Heart Study. Without you, the community members, the Strong Heart Study would not be able to be such a success; and a success for the health and well being of all of our relatives in the future.





FINDINGS AND RESULTS: More Steps Per Day Could Lower the Risk of Premature Death

Walking is good for our health. Taking more steps per day has been shown to lower the risk of heart disease, diabetes, and some cancers. Doctors, nurses, and community health workers often ask patients to walk daily to improve health.

However, there is little guidance on how many steps we need to take per day to lower the risk of premature death.

In 2001-2003, SHS participants were asked to wear a step counter on their hip for one week, and to write down total number of steps they took each day in a personal log. This allowed researchers to calculate the average number of steps each participant took daily. Then, to determine who passed away, researchers used information from ongoing monitoring of disease and death occurrences among SHS participants.

Led by Dr. Amanda Fretts (left, Mi'kmaq Eel Ground First Nation, Principal Investigator of the Dakota SHS Field Center), a group of investigators found that taking more steps per day was associated with a lower risk of death.

In particular, study participants who took **at least 3,200 steps per day had a 28%-35% lower risk of death** when compared to participants who accumulated fewer steps per day. This is important information and adds to the growing body of evidence to support being physically active to stay healthy.

