



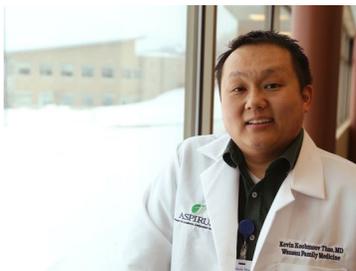
January 2017

SHOW Supports Health Research in the State

SHOW is currently working with multiple researchers across the state to add new research to the core program. SHOW helps public health practitioners and researchers by providing a number of valuable research and evaluation services. The team has worked on over 20 studies for outside researchers. Here are a few highlights:

Survey of the Health of the Wausau Area Hmong Population

Dr. Kevin Thao and Dr. Yang Sao Xiong, leaders of this study, are using SHOW as a model to design their own health-based survey of Hmong residents in the Wausau



area. Very little information on health of the Hmong community currently exists. Drs. Thao and Xiong have worked closely with the Moob Nyob Zoo / Hmong Living Well coalition, which was founded in 2014. The coalition has partnered with SHOW to design the Survey of the Health of the Wausau Area Hmong Population; a project that will help identify the health needs of the Hmong community in the Wausau area. The new survey is modeled on SHOW's core work, with an in-home survey including health interviews and physical measurements.

Metabolic Disease and Stress: Measuring Hair Cortisol

In a study with the UW School of Medicine and Public Health and the College of Letters and Science, researchers are starting to look at the role that

chronic stress may play in developing metabolic disease. Metabolic disease is characterized by obesity, high blood pressure, high blood sugar levels and abnormal cholesterol or triglyceride levels. When these occur together, the risk of chronic conditions, like heart disease, increases. SHOW is working with faculty in the Department of Population Health Sciences to test usefulness of hair samples for measuring evidence and effects of chronic stress.

Wisconsin Great Lakes Anglers Studies

Researchers have also teamed with the Wisconsin Department of Health Services (DHS) to better understand the health effects of eating fish from the Great Lakes. The work has included multiple past studies. SHOW has visited communities throughout the state to meet with people who catch and eat fish from target areas in the Great Lakes. The research includes health interviews, physical measurements (blood pressure, height and weight, etc.) and the collection of hair and blood samples. The data is studied for a variety of health measures, including levels of chemicals



in blood such as PCBs (polychlorinated biphenyls) and PBDEs (poly-brominated-diphenyl-ethers). The next study is scheduled to begin in 2017 and will focus on identifying high-risk individuals who consume fish from a target area in Milwaukee. SHOW will also be collecting data from Burmese residents who often fish from waters in high-risk areas of the city. It is unknown if eating fish from these areas increases exposure to environmental pollutants.

Survey Scope Expands

Children

As SHOW works through the ninth year of field work, many aspects of the project have expanded. In 2014, SHOW began surveying residents of all ages, including children. The project now has over 5,500 participants in the cohort who have graciously given their time.

New Measures of Physical Activity and Sleep

Participants also started wearing physical activity monitors for one week. People often have a hard time accurately reporting the amount of sleep and exercise they get on a daily basis. Therefore, it is best to measure it directly. SHOW started using activity monitors to measure both physical activity and sleep. While many studies have been using these monitors to get good measures on physical activity, sleep is a new and emerging area of research.

Human Microbiome

Dr. Nasia Safdar is leading a UW research team to investigate the diversity of our microbiota, the collection of bacteria — mostly healthy or non-harmful — that lives in and on our bodies. Every person's microbiome is unique. Dr. Safdar is studying what might cause risks of developing unhealthy multi-drug resistant bacteria. Her team is looking at bacteria in samples to see what may increase the risk of infection that cannot be easily treated by antibiotics. This is a growing public health issue and higher rates have been identified in upper midwest United States. Researchers in this new field of study have started to find links between the make-up of the microbiome and aspects of health and disease. Thank you to 2016 participants who are providing these important samples for this cutting edge research!

2017 Follow-up for some 2008-2013 Participants

In 2017 SHOW work will shift to revisiting some adults who participated between 2008-2013. The team is looking forward to reconnecting with individuals to document changes in their health that may have occurred in the last few years. If your contact information has changed, please provide updates to SHOW by email to info@show.wisc.edu or by phone, at (608) 890-3840 or toll-free at (888) 433-SHOW (7469).

Data Dissemination Portal

SHOW investigators recently developed an interactive website that allows individuals to easily explore a portion of SHOW data. The measures included are meant to attract new investigators, support public health planning and decision-making, and provide information about important trends in the health of state residents. Over 1,400 visitors have used the site as of August 2016.

SHOW's Biorepository - What Makes SHOW Unique

SHOW is unique because it goes beyond traditional health surveys that are based on telephone interviews by taking actual health measurements. This includes biosamples. SHOW is the only state-based health examination survey in the U.S. with this resource available for a general population. Several proposals have been made in the past year to use samples collected to investigate biological pathways for health and disease. Researchers are able to study important health information collected alongside results from tests on biological samples to make new health discoveries. The identity and confidentiality of all SHOW data, including biological samples, are strongly protected. Data and samples are labeled with confidential codes, and all names or identifiable information are removed before they are used in any research.



Prescription Medication Use in Wisconsin

A recent report from SHOW provided information on the overall use of prescription medications in Wisconsin. Researchers found rates of prescription medication use to be higher in Wisconsin than in some national surveys. SHOW also noted a higher rate of medication prescription and use among women than men, finding that 60% of women versus 50% of men were prescribed at least one medication. The top ten medications used by Wisconsin adults were prescribed for cardiovascular disorders, diabetes, hypothyroidism, gastric, and respiratory disorders.

The research team also found high rates of polypharmacy – the prescribing of five or more medications to an individual. Polypharmacy is known to sometimes cause problems because of complex medical interactions. Risks of polypharmacy may include unwanted side effects or could possibly impact effectiveness of medications. This, in turn, may impact quality of life, mobility and cognition. The study found that 14% of Wisconsin residents were taking at least five prescription medications and that more than 25% of persons 60-74 years of age used five or more prescription medications in the past month. Obese people were five times more likely to be prescribed five or more drugs than their normal-weight counterparts and 22% of

African American persons were prescribed at least five medications—nearly twice as many as among Caucasians (13%). Prescription and medication use was also found to be higher among former smokers and lower income residents of the state.

The researchers advised that use of prescription medication should be carefully monitored, especially in cases where multiple medications are prescribed. Polypharmacy is a growing public health concern, especially among elderly individuals.

Researchers recommend routine monitoring of medications prescribed and used in these and other potentially vulnerable populations.



Cancer Screening Rates Associated with Neighborhood Environment

Health screenings are important tools for finding cancer early and for improving the chances of survival for those with cancer. SHOW recently collaborated with Medical College of Wisconsin researchers to examine whether reported neighborhood characteristics may shed light on differences in cancer screening behaviors. The team studied screening behavior amongst women 50 years of age or older from SHOW surveys between 2008-2012. Researchers looked at how these participants felt about living in their neighborhoods and how often they participated in breast cancer and colorectal cancer screenings.

Investigators found that how women feel about their neighborhoods may have important influences on cancer screening behaviors. Women who said that their neighborhood was not safe from crime and/or was not free of garbage were less likely to have a colorectal cancer screening. Similarly, women who said that their neighborhood environment made them feel

“stressed-out” were less likely to have had regular breast cancer screenings or mammograms.

Other investigations from the Medical College of Wisconsin have shown that cancer survival rates differ for some populations—for example, disparities are seen by race, social and economic status. A report released by the U.S. Centers for Disease Control in 2012 showed that for every 100 cases of breast cancer diagnosed, African American women had 9 more deaths than Caucasian women. Others have suggested that persons with lower socioeconomic status may have fewer resources and support for practicing good screening behaviors. Researchers suggest that more work is needed to understand how the qualities of neighborhoods might impact health, how to address these problems, and how to help improve cancer survival and health equity in Wisconsin.



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