

Researchers measure health effects of Chicago's waterways

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Researchers at the University of Illinois at Chicago School of Public Health are conducting a study to determine the health effects associated with recreational activities such as boating, canoeing, kayaking and fishing on Chicago's waterways.

The Chicago Health, Environmental Exposure, and Recreation Study, or CHEERS, is funded by the Metropolitan [Water](#) Reclamation District of Greater Chicago.

The project aims to determine the rate of illness for [people](#) who participate in [water activities](#) other than swimming and establish water quality standards for people who enjoy activities on the waterway.

Local and federal regulations have been developed to protect people who swim at beaches, but water quality standards do not exist to protect people who row, paddle, boat or fish. This is the first study in the U.S. to evaluate health and environmental factors associated with recreation on water.

The researchers are enrolling people who participate in activities on Chicago area waterways and will follow them over time to see if they get sick, according to Dr. Samuel Dorevitch, research assistant professor of environmental and occupational health sciences at UIC and principal investigator of the study.

"We also have a comparison group of people who are outdoors on the

same days at about the same places doing recreational activity that doesn't involve water," Dorevitch said. By comparing the two, the researchers hope to uncover any short-term [health effects](#) of [water recreation](#), such as gastrointestinal infections, skin infections, or eye, ear or respiratory conditions.

Participants will be surveyed before and after activities on the water. The amount of water swallowed, inhaled, or splashed on skin will also be measured in some people. Two of the novel ways for measuring water exposure were developed at UIC.

Aerosol samplers will be used to measure the amount of water that people may be inhaling during water sports. Sponges clipped to the shirts of subjects will show how much water the skin is exposed to, Dorevitch said. Amounts of water ingested during recreational activity will be measured at several local swimming pools.

Study participants will then receive phone calls over three weeks following exposure to see if they have developed any symptoms or infections.

A unique aspect of the study is that the researchers will measure the actual pathogens in the water that cause disease, Dorevitch said. Most prior research has looked at indicators of sewage pollution in the water, like E. coli bacteria.

"It's not usually E. coli that makes people sick," Dorevitch said. "But the presence of E. coli in the water indicates that there may be sewage contamination."

The new study, he said, will measure not only E. coli, but also such pathogens as giardia, cryptosporidium and norovirus "that actually do make people sick."

Source: University of Illinois at Chicago ([news](#) : [web](#))

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