Wayne State University researcher’s program targets safer river fishing, anglers’ health

DETROIT — While Michigan environmental programs are slowly reducing toxins in lakes and rivers, human consumption of contaminated fish continues. A Wayne State University researcher believes the issue needs more attention in order to reduce human health risks.

Donna Kashian, Ph.D., assistant professor of biological sciences in the College of Liberal Arts and Sciences (CLAS), said the problem is especially significant in distressed urban environments, where efforts to change behaviors often confront deep-seated cultural preferences and people's own interpretation of risk.

To meet those challenges, she and fellow WSU researchers Andrea Sankar, professor of anthropology, CLAS, and Mark Luborsky, director of aging and health disparities research at the Institute of Gerontology and professor of anthropology and gerontology, have undertaken what they call “Improving Community Awareness for Detroit River Fish Consumption Advisories.” This health intervention program is supported by a $99,600 grant from the Fred A. and Barbara M. Erb Family Foundation. The program has funded the hiring of River Walkers, partners from the local community who explain to anglers and others the importance of choosing less-contaminated fish.

Detroit River fish have been shown to be contaminated with polychlorinated biphenyls (PCBs), dioxin and mercury, but Kashian said a high percentage of the
first two chemicals can be removed by cutting off the fat before eating the fish. Mercury is stored in the meat, she said, and cannot be removed from the filet.

Many local anglers learned to fish from their parents, relatives and friends, Kashian said, and while some are at least partially aware of that information, it still is news to others. Compounding the issue is the fact that many river anglers often share their catches with neighbors, friends or relatives.

The Michigan Department of Community Health (MDCH) has used River Walker intervention successfully along the Saginaw and Tittabawassee rivers. For more than 40 years, MDCH officials have been overseeing the Michigan Fish Advisory program; since 2009 they have been working with WSU researchers to provide fish advisory education and outreach in the Detroit area with funding from small federal grants. The use of community members has been well documented by the U.S. Centers for Disease Control and Prevention as particularly successful in changing risk behaviors related to chronic illnesses and infectious diseases.

Based on that success, Kashian hopes the project will provide direct health benefits to some 5,000 Detroit River anglers and their families over the next two years. An advisory group has identified popular fishing spots where River Walkers will talk to anglers and provide information on eating safe fish. They will visit two to three fishing sites per day over 16 weeks to discuss types of fish caught and eaten, as well as tell anglers about fish advisories and how to prepare fish safely.

River Walkers will participate in community events such as Detroit Metro Youth Day, where information will be provided to Detroit’s young people and their families.

Kashian’s team also will determine the effectiveness of direct communication of health information compared to sign-posted health advisories to better
understand the strengths and weaknesses of each approach. They will use the results of their evaluation to develop effective methods of achieving behavior change related to eating contaminated fish.

“Our message is, ‘Enjoy fishing on the river. It’s a great sport, but choose fish that are safer to eat,’” Kashian said.

She is particularly excited about another portion of the study in which interviewers will get to know a small group of anglers to learn more about their fishing habits and observe firsthand their fish distribution network and preparation techniques.

“Our objective is to provide anglers with information they need to make informed, health-protective choices about eating fish,” Kashian said. “Our vision is to use these insights to guide behavior changes that promote healthier Detroit residents.

“This will help protect the health of urban anglers who depend upon local fish as a food source. We’re just trying to give them information to help them choose fish that are healthier to eat.”

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