

Swimming Safer:

Sharing knowledge, data, and resources

Over the course of a summer, reports of drownings along the shores of the Chicago area and northwest Indiana are not uncommon. As of the end of August, the Great Lakes Surf Rescue Project reported 44 drownings in Lake Michigan.

Through a variety of approaches, Illinois-Indiana Sea Grant (IISG) has focused on increasing and sharing information and resources that help promote water safety in the southern Lake Michigan region.

Breaking down barriers to learning to swim

AS A PEDIATRIC EMERGENCY PHYSICIAN at the Lurie Children's Hospital of Chicago, Michelle Macy has provided care for kids who were drowning victims, experiences that have influenced her work as a scientist. They were a key factor in her decision to focus on identifying ways to prevent drownings in the Chicago area.

With funding from IISG, Macy and her team gathered information about the swimming habits and water safety knowledge of Chicago families and she helped explore and implement a pilot swimming lesson program for Black boys and girls in Evanston, Illinois.

Through this mixed methods project, Macy has collected data through surveys and focus groups. In a 2022 survey of over 1,100 parents throughout Chicago, she examined when and where families are most likely to swim in Lake Michigan, gathered insight into parents' awareness of safety features at Chicago beaches, including lifeguards, water condition flags, and life rings, and explored barriers to swimming lessons for children.

In the survey, 61% of parents reported that they swim at Lake Michigan beaches with their children. Most families reported swimming in the lake when a lifeguard is likely to be on duty. And with regards to safety features, lifeguards were more commonly noticed by parents than safety equipment, such as a rescue board or boat.

"One of the most interesting findings to me in those results was a lack of differences by race and ethnicity," said Macy. "On the other hand, we saw persistent disparities in terms of Black and Hispanic/Latine parents not having kids enrolled in swimming lessons. Some of the barriers that they were facing differed from what we saw with the White parents."



Altogether, parents reported that 74% of children did not engage in swimming lessons in the past year, but this was true for 85% of Black parents and 82% of Latine parents compared to 64% among White parents.

“We had some expected findings around Black and Latine parents in that they didn’t have a place to go for their child to take swimming lessons, but one of the unique findings was that Black and Latine parents were more likely to report they didn’t feel comfortable with swimming themselves as a reason why their kids hadn’t been in lessons,” said Macy.

White parents were more likely to report that they didn’t have their child in lessons in the past year because their child had already learned how to swim.

These results were published in the journal *Pediatrics* in 2024.

Macy was curious about ways that this gap might be bridged, and to that end she found an opportunity to support and assess a new swimming program to teach Black youth to swim in Evanston, a suburb just north of the city, where Camp Kuumba had just opened in 2021.

Camp Kuumba is a summer program for Black boys and girls that provides opportunities to participate in sports, arts, reading, STEM, and more. With a pool on the premises, the camp soon started a swimming program. The focus was on playing water polo, but the goal was for the kids to learn swimming survival skills along the way.

However, Macy and the swimming instructors learned that the kids did not come to this program with enough foundational skills to be able to take on learning survival skills right away. Over time though, they have been able to see progress with these young swimmers, especially when families enrolled their children in the swimming program in 2022 and 2023.

Between 2022 and 2023, the number of participants grew to 65 Black boys and 10 Black girls. Of the rising 3rd and 4th graders who completed the three weeks of swim lessons, 71% of the boys and 30% of the girls learned 16 fundamental swimming skills that would help them to survive a drowning situation. Among the kids who participated in 2024’s smaller swim program, 44% of boys and 78% of girls learned all 16 skills.

Some Kuumba campers have





Leslie Dorworth, aquatic ecology specialist, engages with the public about water safety at the Indiana Dunes National Park Visitor Center and at other venues and events in the region.

gone on to participate in Evanston's aquatics camp and several others joined local swim and water polo teams.

These measures, plus discussions and surveys of participating kids and their parents, are contributing to an evaluation of the swimming program. Macy is also assessing what aspects might be useful for adoption by the Chicago Park District.

For youth in this age group, the introduction of water polo could be a key component to success. "It's more fun and engaging to chase a ball rather than hold onto the side of the pool and kick your legs," she said. "That works for three-year-olds, but for an 8- or 9-year-old, they feel silly about these kinds of activities."

Macy described another aspect of the program's positive results. "When we talk about the need to build up swimming skills in diverse populations, I hear stories of families who have lost someone a generation or two ago, and I also hear stories around the lack of opportunity and the lack of exposure. This program brings these kids together in a space where they feel safe and in the company of other kids who look like them."

Connecting with northwest Indiana beach goers

Over in northwest Indiana, IISG's Leslie Dorworth is on the case to promote swimming safety, working in strategic partnerships, developing and sharing information products, and talking one-on-one with residents, including parents and their children.

She works with the Indiana Dunes National Park Service to help maintain the park's visitor center as a source of

water safety information with presentations, posters, and brochures. IISG has also developed a four-part Have Fun, Be Safe video series that encourages safe recreation in Lake Michigan, explaining the risks of dangerous waves and currents for swimmers and sharing ways to survive if you find yourself in dangerously cold water.

Along with other Great Lakes Sea Grant programs, IISG is a member of the Great Lakes Water Safety Consortium. Through the consortium, safety messaging has become uniform. "The message 'Stay Dry when Waves are High,' for example, is used in Illinois and Indiana and also all around the Great Lakes," said Dorworth, who co-leads the consortium's education and training committee.

Dorworth was instrumental in the idea for the consortium's annual water safety poster contest that provides a way for youth to express their creativity while sharing water safety tips with each other. The 2024 contest expanded to include videos as well as posters.

During the summer seasons, you can often find Dorworth at outdoor events talking directly to families, sometimes with assistance in Spanish translation. During the school year, she frequently shares water safety information at school family nights.

"I like to help clear up misconceptions, for example, that you can fight your way out of a rip current. My main message to anyone who finds themselves in a rip current is to not panic. Don't panic! Flip on your back, float, and follow along with the current. It will eventually lose strength and then, if you are able, swim to the side and make your way to the beach or allow the wave to carry you back to the beach," she said.

"It's especially important to talk to kids and their parents. I feel like that's where I can have the most impact," she said.



Providing real-time water conditions data

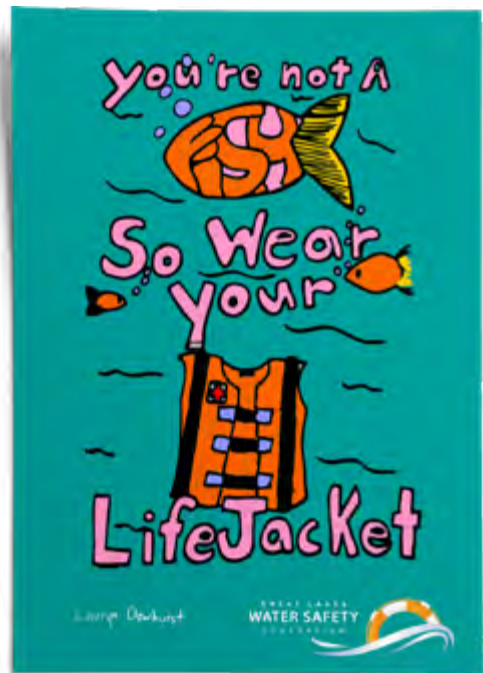
The most popular pages on the IISG website are those that display the latest data from the program's three buoys in southern Lake Michigan waters. The buoys are a treasure trove of data for scientists, but also are a critical resource for the National Weather Service (NWS) as well as for recreationists who can check conditions in real time.

The buoys are located in the nearshore waters of Michigan City, Indiana and in Illinois, off the shores of Wilmette and Chicago's Navy Pier. Navy Pier sits in the largest system of harbors and boats in the country—the Chicago Park District has accommodations for 6,000 boats.

In both states, NWS uses on-the-water buoy data to verify forecasting models, especially with regards to wave height and wind speed and to predict the likelihood of dangerous currents. The buoys help inform Surf Zone Forecasts and play a direct role in Nearshore Marine Forecasts.

“Buoys are the only source of wave period data, which eliminates guesswork related to on-going conditions,” said Megan Dodson, Northern Indiana NWS meteorologist “We also use buoy data after a drowning to document the specific conditions when it happened. As a result, beach hazard statements for Michigan City now occur at a lower benchmark than before because at that beach, dangerous currents occur in lower wave heights.”

<https://www.lakemichigansafety.org>



Artwork by Lauryn Dewhurst, courtesy of the Great Lakes Water Safety Consortium