

Flu viruses move fast— so do public health officials preparing for pandemic

In August 2009, two months before the first shipment of H1N1 vaccine was to arrive in North Carolina, officials with the N.C. Division of Public Health already were planning how to distribute it.

They wanted to determine what people knew about the vaccine and how many were planning to get immunized. And they needed to know fast.

They found help at the N.C. Center for Public Health Preparedness at UNC Gillings School of Global Public Health's N.C. Institute for Public Health. Jennifer Horney, PhD, research assistant professor of epidemiology and deputy director at the center, partnered with UNC public health school alumnus Aaron Fleischauer, PhD, a commander with the U.S. Public Health Service stationed at the N.C. Department of Health and Human Services in Raleigh, to launch a rapid research project.

"For any preparedness effort, we want to understand how the community perceives the public health crisis so we can respond better," Fleischauer says.

In this case, telephone interviews weren't sufficient. Twenty percent of people in the U.S. have replaced land lines with cell phones, and one of the groups at highest risk for the H1N1 virus—people aged 18 to 25 years—are among those most likely to be missed by a traditional phone survey. The team decided to conduct in-person interviews, choosing a



two-stage random sample that employed the use of parcel maps and geographic information systems.

"Interviewers use a hand-held computer with a GPS navigational tool that gives them a map and printed directions that send them to a random point. Then they go to the house that's nearest that point and conduct an interview," Horney explains.

A team of 20—including state personnel, UNC faculty members and student volunteers—conducted 207 interviews with people aged 18 to 92 from two North Carolina counties, Orange and Alamance. The population-based sampling method yielded interviews that would be representative of all the people who live in those counties, Horney says.

The study showed that, at least in these counties, people may not have been receiving the state's communications about H1N1, which were mostly online. Only a third of the people in the study said they typically found news and information on the Internet, while 83 percent depended upon television.

"It was a big surprise to us that most people (in these counties) were still getting news from television, and even printed newspapers, which were the second most common source



Dr. Jennifer Horney

of information," Horney says. Also, most people in the survey were unaware that the vaccine would be given in two doses, which was the plan at the time of the survey.

These findings helped the state create better and more targeted messages.

"Once we learned there were pieces of information that the community wasn't getting, we made special efforts to get it to them," Fleischauer says.

The study also showed a greater-than-expected potential demand for the vaccine, with 63 percent of respondents saying they planned to get vaccinated. The one previous study regarding H1N1 perceptions—a national Internet survey from Rand Corporation—had showed that only 50 percent of people planned to do so. If time and funds are available, Horney aims to follow up in spring 2010, to find out what percentage of North Carolinians got vaccinated. ■

—Angela Spivey

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