

Researchers track public reaction to flu outbreak

May 27 2009, By Rebecca Cole

As two Stanford University researchers described their experience watching public reactions in the initial days of the H1N1 flu outbreak, it sounded like one of those nature films in which tiny fish dart back and forth in perfect unison -- thousands of individuals behaving as if they were one body.

But what the researchers were watching was in cyberspace, and they were tracking thousands of Twitter-posts pouring into an Internet site in response to shifting developments on the [flu](#).

With every twist and turn of the flu reports, the mass of Twitters swung in near perfect unison, the researchers noticed, even though the individual Twitterers had no contact with each other outside the Web site.

It was a rare window on the public's psyche as it reacted to the explosion of information -- and uncertainty -- on a potentially dangerous outbreak of disease.

The researchers, James Holland Jones, an associate professor of anthropology, and Marcel Salathe, a biologist, devised an online survey to gauge people's anxiety about the H1N1 [flu epidemic](#) in real time.

Posted during the early reporting of the news, the survey generated about 8,000 responses in a matter of days, but promptly dropped off as doomsday predictions did not come to pass -- a development that worries

Jones.

"[Swine flu](#) is still out there and will be back next [flu season](#)," he said. "We've dodged the pandemic for now, but I think it's a very open question whether we have really dodged it. You certainly won't hear that on the 24-hour news channels."

As charted by Jones and Salathe, the shifting reactions over H1N1 suggest that as the country becomes more wired, a threat that is perceived as imminent can be amplified in the echo chamber of instant information and lightning-quick social networks.

But like those schools of fish that change direction in a flash, then instantly shift course again, people today may move from indifference to anxiety and back to indifference in the blink of an eye.

After flu cases in Mexico soared at the end of April, U.S. government officials took to the airwaves, declaring a public health emergency as the World Health Organization raised the global threat level to 5 -- the second-most severe.

The course that U.S. government officials charted was shadowed by the lingering memory of Hurricane Katrina, when Bush administration officials were faulted for reacting slowly and ineffectively.

In the early days of the [flu outbreak](#), when little was known about the virus or how it was transmitted, people's reactions were immediate. Travel to Mexico fell dramatically, pork-belly futures collapsed to their lowest allowed levels at the Chicago Mercantile Exchange, and face masks flew off the shelves. Mexico City literally shut down, closing gyms, restaurants, movie theaters and other non-essential businesses, costing the already teetering economy \$2.2 billion in 10 days, according to the nation's finance secretary.

But as the number of deaths in Mexico attributed to the disease plateaued at just under 60 and as widespread U.S. fatalities failed to materialize, the media backed off -- causing public interest to flag and some experts to fear that the full-throated early warnings may have made it harder to get the public's attention in the future.

"We've cried wolf one too many times here," said Michael Osterholm, director of the Center for Infectious Disease Research and Policy at the University of Minnesota. "I actually think this situation has set us back. It really is two strikes and now we're almost out," he said, referring to initial panic and then loss of interest in recent pandemics such as SARS and avian flu.

More than four in 10 people followed news about the H1N1 outbreak very closely, according to a Pew Research Center survey. Even in a week filled with news of President Barack Obama's first 100 days in office and Chrysler filing for bankruptcy, attention to news of swine flu was so great, Pew found, that it became one of the top stories of the year to date.

As a critical part of how health and government officials communicate this type of event, Osterholm said, the media has to be included. "We need to take a step back and see what we can learn from it, how we should do it in the future," he said. "But it's not a blame game."

Initial public reaction to the H1N1 flu was way out of proportion to the magnitude of the disease, said Richard Thaler, professor of behavioral science and economics at the University of Chicago and co-author, with Obama adviser Cass Sunstein, of the book "Nudge."

The country is a bit on edge, Thaler said, and people on edge are less likely to react in a rational way. The Internet "is bad enough," but now that "people are out there tweeting," the "velocity of rumor and gossip"

has increased exponentially," he said.

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