

Swine flu: Scientists edgy about what to do next, even as fears of epidemic subside

World on guard if strain turns deadly like 1918 virus

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Even as schools reopen and fears of a flu outbreak subside, doctors and influenza experts say their continued vigilance over the swine flu virus' next steps will include a close watch on other regions of the world and possible mutations in the genetic ingredients of the strain.

The hope, experts said, is to obtain early warning in case this latest H1N1 strain drifts from mere seasonal annoyance to more closely resembling the one that caused a deadly 1918 flu pandemic that killed at least 50 million people.

Detection of worrisome signs as the virus spreads across the Southern Hemisphere in the coming months will be critical in deciding whether to expedite a costly vaccine in order to be ready for a potential encore in the fall.

"We could see the current strain fizzle out and never come back again," said Dr. Richard Besser, acting director of the Centers for Disease Control and Prevention, at a Wednesday news briefing in Atlanta. "We could see the current strain come back as it currently is or see it mutate and change and come back in a more severe form."

The flu strain that struck the world in 1918 and 1919 did not initially show its deadly hand, arising first in the summer of 1918 and showing a modest mortality rate of five deaths per thousand people infected. But after a two month dormant period, the flu returned with a vengeance in the fall of 1918, killing more than two people out of a hundred at its peak.

Scientists still do not know what caused the 1918 flu strain to be so unusually dangerous, but early genetic tests show that the recent H1N1 strain does not share many of the traits thought to have made it so nasty. At least one gene scientists believe contributed to the 1918 strain's virulence -- the ability to cause severe symptoms and death -- is not present in the new strain, said Peter Palese, professor and chairman of microbiology at Mt. Sinai Medical Center in New York and an expert on the 1918 strain.

"The 1918 virus was really a sort of unique virus in the sense that it was much more virulent," Palese said. "In the present circulating swine flu virus, there is clearly a difference."

But the precedent of viruses disappearing and returning in a more dangerous state, and the potential for viruses to rapidly mutate as they spread from person to person or animal to person still have experts on edge about a strain that remains mysterious. Scientists are confident that U.S. flu numbers will soon level off and drop as the flu season draws to a close. In the meantime, the number of U.S. cases climbed to nearly 900 on Thursday, while the number of confirmed cases in Illinois also rose, to 258 from 225 the day before. Of those, 122 are in Chicago, according to the state Department of Public Health.

Once the number of cases levels off, the attention of public health bodies like the World Health Organization and the CDC will turn to the Southern Hemisphere, where the flu season is just beginning.

"If the virus is really going to cause a large pandemic, we should see pandemics in the Southern Hemisphere coming pretty soon," said Ira Longini, professor of biostatistics at the University of Washington and a flu epidemiologist. Previous world flu epidemics in 1968-69 and 1957-58 showed a pattern of jumping across the equator and back in late spring and late fall, Longini said.

Scientific advances will allow researchers to track any changes in the virus' genes and the severity of the symptoms it causes as it infects people in the coming months. But scientists continue to find it difficult to anticipate what those changes might look like, and remain at the

mercy of the virus' unpredictable evolution.

"We've studied influenza really intensively for decades, and we still don't know a lot about it," said Ian York, a virologist at Michigan State University. "There's a saying I've heard: The stupidest virus is smarter than the smartest virologist."

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