

Preparing for Swine Flu's Return

New Wave Expected After Virus Flourished in Southern Hemisphere

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Monday, August 10, 2009

As the first influenza pandemic in 41 years has spread during the Southern Hemisphere's winter over the past few months, the United States and other northern countries have been racing to prepare for a second wave of swine flu virus.

At the same time, international health authorities have become increasingly alarmed about the new virus's arrival in the poorest, least-prepared parts of the world.

While flu viruses are notoriously capricious, making any firm predictions impossible, a new round could hit the Northern Hemisphere within weeks and lead to major disruptions in schools, workplaces and hospitals, according to U.S. and international health officials.

"The virus is still around and ready to explode," said William Schaffner, an influenza expert at the Vanderbilt University School of Medicine who advises federal health officials. "We're potentially looking at a very big mess."

President Obama arrived in Mexico on Sunday for a two-day summit that will include discussions on swine flu, along with Mexico's drug wars, border security, immigration reform and economic recovery.

"Everyone recognizes that H1N1 is going to be a challenge for all of us, and there are people who are going to be getting sick in the fall and die," said John O. Brennan, the U.S. deputy national security adviser for counterterrorism and homeland security. "The strategy and the effort on the part of the governments is to make sure we . . . collaborate to minimize the impact."

Since emerging last spring in Mexico, the virus, known as H1N1, has spread to at least 168 countries, causing more than 162,000 confirmed cases and playing a role in at least 1,154 deaths, including 436 in the United States.

Scientists have been closely monitoring the flu's spread for clues to how much of a threat it might pose this fall. So far, no signs have emerged that the virus has mutated into a more dangerous form. Most people who become infected seem to experience relatively mild illness.

Still, the virus has caused major outbreaks involving a disproportionate number of younger people in Australia, New Zealand, Argentina and other countries, prompting schools to close, causing theaters to shut down, and straining some emergency rooms and intensive care units, sometimes forcing doctors to postpone other care, such as elective surgeries.

Swine flu has also begun to spread in South Africa, where at least two deaths have been reported; the national laboratory, meanwhile, was overwhelmed last week with samples that needed testing. In India, a 14-year-old girl became the first person to die from the disease in that densely populated nation.

In Britain, meanwhile, where anxiety was increasing because of high-profile cases including "Harry Potter" films actor Rupert Grint, health officials were trying to determine the cause of a sharp rise in reported cases in recent weeks.

"This is something that we could see here soon," said Arnold S. Monto, a University of Michigan infectious-disease expert who advises the World Health Organization, the U.S. Centers for Disease Control and Prevention, and other federal health agencies. He noted that some emergency rooms were overwhelmed by last spring's outbreak in New York City. "We have to be worried about our ability to handle a surge of severe cases."

Concern about a second wave has prompted a flurry of activity by federal, state and local officials, including intensifying flu virus monitoring and making plans to distribute vaccine and antiviral drugs and other treatments if necessary.

"There's a lot of moving parts to this," said Joseph S. Bresee, who heads the CDC's influenza epidemiology and prevention branch. "Hopefully we won't have a panic, but instead we'll have the appropriate level of concern and response."

The Obama administration has been updating recommendations for when to close schools, what parents should do if their children get sick, how doctors

should care for patients and how businesses should respond to large-scale absences. Officials are hoping to navigate a fine line, urging precautions to minimize spread, serious illness and deaths while avoiding undue alarm and misinformation.

"The last time we had anything similar to this was prior to the Internet," said one senior official who spoke on the condition of anonymity last week during one of a series of background briefings for reporters.

A Gathering Storm

The virus could cause nothing more than a typical flu season for the Northern Hemisphere this winter. But many experts suspect the second wave could be more severe than an average flu season, which hospitalizes an estimated 200,000 Americans and contributes to 36,000 deaths. Because the virus is new, most people are not immune to it.

"This epidemic will transmit faster than usual, because the population is more susceptible," said Marc Lipsitch, a professor of epidemiology at the Harvard School of Public Health who has been helping the CDC project the severity of the upcoming wave. "It's fair to say there will be tens of millions of illnesses and hundreds of thousands of hospitalizations, and tens of thousands of deaths. That's not atypical. It just depends on how many tens of thousands."

Perhaps more important, in every country where the virus has spread, it has continued to affect children and young adults much more commonly than typical flu viruses.

"In a pandemic where a greater fraction of illness and deaths occur in kids and young adults, that will be clearly noticeable to the public. There will be a sense that this is a greater severity of illness even if fewer people die overall," the CDC's Bresee said.

Most of those who have developed serious illness and died have had other health problems. But those include many common conditions, such as diabetes, asthma and obesity. Pregnant women appear to be especially at risk. And the virus can cause severe illness and death in otherwise healthy people in perhaps a third of cases.

The virus continued to simmer in the United States over the summer, causing more than 80 outbreaks in camps in more than 40 states. Officials estimate that more than 1 million Americans have been infected.

The number of cases could increase rapidly as soon as schools begin to reopen in the next few weeks and could accelerate further as cooler, drier temperatures return, possibly peaking in October.

That is much earlier than the usual flu season, and it could create confusion. People could start becoming sick with the swine flu before a vaccine is widely available and nonetheless be urged to get the regular seasonal flu vaccine, which will be available first. Because different groups are being given priority for the different vaccines, officials are concerned it could be difficult to make sure the right people get the vaccine at the right time to provide optimal protection. The elderly are a top priority for the seasonal vaccine, but not for the swine flu vaccine.

The first batches of swine flu vaccine are not expected to become available until mid-October, assuming studies indicate it is safe and effective. And officials have yet to answer many key questions, including how many doses will be needed. If it is two, as many suspect, it could take at least five weeks after the first shot before vaccinated people are fully protected.

Southern Hemisphere

In the Southern Hemisphere, which experiences winter during the Northern Hemisphere's summer, the swine flu virus caused a more intense and somewhat earlier flu season in some places. In Argentina, which was hit particularly hard, school breaks were extended and the economy suffered as people avoided restaurants, clubs and other public places.

"There was panic and I felt it, too," said Cristina Malaga, a maid in Buenos Aires who stayed home for a week in July out of fear. "I was scared. It is three buses to get to work and there were many people on those buses who are coughing."

At the Gutiérrez Children's Hospital, officials set up a trailer with specially outfitted examination rooms to help deal with the influx of sick people.

"The system did not collapse, because we prepared special units for outpatients and for inpatients," said Eduardo López, who heads the hospital's medical department.

Paula Morey, a housewife who lives in an affluent neighborhood in Buenos Aires, said she and friends stopped sharing the national tea, which is served in a communal gourd. Now, she said, they bring their own gourd. Morey also began cleaning her 4-year-old daughter's hands constantly and carrying a tube of disinfectant to dab on the moment she touches anything like a doorknob.

"She had to learn to take care of herself," Morey said.

Greater Concerns

The appearance of the virus in countries such as South Africa and India is raising concern that the pandemic could be devastating if it begins to sicken large numbers of people in places with fewer resources.

"These are countries with vulnerable populations and fragile health-care systems," said Nikki Shindo, acting head of the WHO's influenza program.

Indian doctors and health officials were scrambling last week to prepare for a sharp increase in cases. Despite well-run clinics for the wealthy, many of India's government health services are overcrowded, understaffed, chaotic and antiquated.

"If we start investigating every case of H1N1 virus, I think the government facility will not be able to cope with the rush," said Dharam Prakash, the Indian Medical Association's secretary general.

In Kenya, white-coated health workers have been passing out questionnaires at the Nairobi airport and putting up glossy posters about the virus on the walls of downtown cafes. False alarms about the virus have spawned a sense of panic in some places. When a health clinic in a Nairobi mall recently suspected a patient of being infected, word leaked out and soon shoppers were sending out text messages across the city warning people to stay away. The clinic was shut down for a day.

Northern Hemisphere

In Britain, chief medical officer Liam Donaldson said there were several possible explanations for that country's recent increase in cases, including London's role as an international transport hub. In an effort to relieve intense pressure on doctors, the government recently launched the National Pandemic Flu Service, a phone and Internet hotline that allows patients to diagnose themselves and prescribe their own drugs.

"It's changing the way people are responding," said Alan Hay, who directs the WHO's World Influenza Centre in London.

Meanwhile, health officials in Virginia, Maryland, the District and other localities said they have been preparing all summer for the swine flu's return, including making plans to set up special clinics to treat and vaccinate patients if necessary.

"We're doing a tremendous amount of contingency planning," said Frances Phillips, Maryland's deputy secretary for public health.

Although strains of the virus have emerged that are resistant to Tamiflu, one of two antiviral drugs effective in treating it, scientists say both drugs generally appear to continue to be effective. The U.S. government shipped 11 million doses of the drugs to states to add to the 23 million they already had on hand and bought an additional 13 million doses to replenish its supplies.

"There's only so much that can be done to get ready. Flu, like a hurricane, is a force of nature. You can't stop it. You can't make it less severe than it would be otherwise," said Eric Toner of the University of Pittsburgh's Center for Biosecurity. "All you can do is try to be prepared to deal with the consequences."

The last flu pandemic, the 1968-69 Hong Kong flu, was the mildest of the 20th century, contributing to perhaps 1 million deaths worldwide, including about 34,000 in the United States. After emerging, many flu viruses continue to circulate for years, while others disappear or combine with other viruses.

Correspondents Juan Forero in Buenos Aires, Emily Wax in Mumbai and Stephanie McCrummen in Nairobi; special correspondent Karla Adam in London; and staff writer Cheryl W. Thompson in Guadalajara, Mexico, contributed to this report.