

Are We in for a Repeat of the Killer Flu Pandemic of 1918?

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(PhysOrg.com) -- In 1918, the Spanish flu raced around the globe, ending the lives of an estimated 40 million people in less than a year. Epidemiologists believe one in four Americans became infected during that pandemic with 750,000 dying.

Fears are mounting that the H1N1 flu, which appeared in the spring of this year, will turn as virulent and deadly and mimic the course of the Spanish flu that initially struck in mild waves in the spring and summer of 1917 only to turn lethal in the fall and early winter of 1918.

It's understandable why so many people are fearful of H1N1 flu, which is also known as [swine flu](#), said Dr. Jorge Parada, associate professor of medicine, [infectious diseases](#), Loyola University Chicago Stritch School of Medicine, Maywood. The virus usually infects pigs and has rapidly spread around the world.

"The hysteria is primarily driven by two things: It's new and the data we have are not well established," said Parada, who is also medical director of the infection control program at Loyola University Health System in Maywood. "Another component of the fear is based on who is being most infected by H1N1 -- young people -- and the unexpected deaths among those young and otherwise healthy people."

Though there is some cause for concern about H1N1 flu, particularly during this time of the year with the regular seasonal [flu season](#) looming, there is little reason for panic, Parada said. Dramatic differences exist in

medical knowledge and technology, epidemiology and clinical care between 1918 and today.

"Back then it was not quite as clear how diseases like the flu were transmitted and what could be done to decrease transmission," said Parada, who is also medical director of the infection control program at Loyola University Health System in Maywood.

In 1918, in the few cities where organized measures were instituted to limit infectious disease outbreaks, the spread of the Spanish flu was much lower, Parada said. Measures we take now include the frequent washing of hands, covering the nose and mouth after sneezing, avoiding touching the eyes, nose and mouth and using disinfectants on frequently touched surfaces where germs can linger.

"In most places that wasn't done. There was very little effort to block transmission and those people paid the price," Parada said.

Significantly, the Spanish flu [pandemic](#) occurred before the advent of antibiotics, which are effective in treating secondary infections caused by the flu, Parada said. A great many of the deaths that occurred during the 1918 pandemic were the results of secondary bacterial infections called post-influenza pneumonia.

"It was the pre-antibiotic age. If you had post-influenza pneumonia, the likelihood of doing poorly and dying were much higher," Parada said.

"We're in the antibiotic age now and we do a much better job of treating and preventing post-influenza pneumonia."

In addition, in 1918 those infected with the [Spanish flu](#) didn't have access to the advanced care and technology standard in intensive care units across the country, Parada said. Without the aid of ventilators, for instance, victims of the 1918 pandemic who progressed to respiratory

failure invariably died.

"They didn't have ventilators so they died," Parada said. "Instead of respiratory failure being a death sentence as it was in 1918, we can get you over the hump until you respond to treatment and are taken off the ventilator."

Also, unlike 1918, there are two prescription drug that are effective against the H1N1 flu strain -- Tamiflu (an oral medication) and Relenza (an inhaled medication). Millions of doses of both medications have been stockpiled by the federal and state governments for emergency use.

"The earlier treatment is started, the more effective it is," Parada said. "If treatment is started after 72 hours of symptoms, it has very limited effect. It has a greater effect if it's started after 48 hours and an even better effect if it's started within 24 hours of symptoms."

Better still, Tamiflu and Relenza can both be used to prevent infections, Parada said. This is called prophylaxis treatment.

"We try to limit the use of prophylaxis to special circumstances, especially in cases of persons weakened by cancer, transplant or HIV. The treatments can nip influenza infections in the bud," Parada said. "These treatments are also used to treat health care workers who inadvertently become infected on the job. We can't have all our workers getting sick, missing work or worse yet, coming to work ill and infecting our patients."

However, the best treatment for the flu is prevention, Parada emphasized.

"I am a strong supporter of everyone receiving the yearly season [flu](#) shot, and once the H1N1 vaccine becomes available, I recommend that all

high-risk patients get that vaccine as well,” Parada said.

Those patients include pregnant women, household contacts and caregivers for children younger than 6 months, healthcare and emergency medical services personnel, people from ages 6 months through 24 , people ages 25 through 64 years who have health conditions associated with higher risk of medical complications from influenza.

Provided by Loyola University Health System ([news](#) : [web](#))

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