

Swine, Pandemic and Seasonal Flu: What's the Same, What's Different?

In late March and early April 2009, cases of human infection with swine influenza A (H1N1) viruses were first reported in Mexico and the United States. Individual cases have been report internationally, as well. An updated case count of confirmed swine flu infections in the United States is kept at <http://www.cdc.gov/swineflu/investigation.htm>

We all know about seasonal influenza, or flu—that “bug” that brings aches, pains, coughing, and fever to millions of people around the world every winter. But with all the news today talking about a new outbreak of swine flu, there is understandable confusion. What is swine flu? What is pandemic flu? How is pandemic flu different from seasonal flu? What's the difference between a pandemic and an epidemic?

This Frequently Asked Questions overview is intended to help you understand the differences and similarities among the different types of flu.

Frequently Asked Questions

Q. What is flu?

A. Flu is a contagious infection caused by a virus. It usually affects the respiratory system, including the nose, throat, and lungs. Most people recover from seasonal flu—the kind that comes every year—within two weeks. However, some people develop more serious, life-threatening complications such as pneumonia.

Q. How does flu spread?

A. Flu generally spreads when an infected person coughs or sneezes, sending infectious droplets of moisture into the air for others to breathe. A person also can catch the flu by touching a surface where those droplets have fallen—for example, a public telephone or a doorknob—or by shaking hands with others who carry the infected droplets on their hands.

Q. What's the difference between an epidemic and a pandemic?

A. An epidemic takes place when an infection spreads quickly at one time within a population or area, what appears to have occurred in the outbreak in Mexico for example. A pandemic is when outbreaks (as opposed to individual cases in many country) spread all over the world, infects far greater numbers of people, and could take a much longer time to run its course—perhaps months, or even years.

Q. How do seasonal flu, swine flu, and pandemic flu compare with one another?

A. Seasonal flu follows predictable patterns; it comes every year, usually in winter. Seasonal flu symptoms can range from mild to severe, and in some cases they cause death. In fact, every year, about 36,000 people in the U.S. die from flu-related complications.

Swine flu A (H1N1) is a dangerous virus with the potential to become a pandemic. It is a respiratory disease of pigs caused by type A influenza viruses that causes regular outbreaks

in pigs. People do not normally get swine flu, but human infections can and do happen. Swine flu viruses have been reported to spread from person-to-person, but in the past, this transmission was limited and not sustained beyond three people. A swine flu outbreak in Fort Dix, New Jersey occurred in 1976 that caused more than 200 cases with serious illness in several people and one death.

However, scientists have worried that the virus may change and mutate, become highly contagious, and spread easily from person to person. This in fact seems to be the case with this new swine flu. We don't know enough yet about the current situation as to whether it will become a pandemic. What we do know is that we need to be prepared.

SEASONAL VS. PANDEMIC FLU		
US average	SEASONAL ²	PANDEMIC (estimate for future medium-level outbreak) ³
Percentage of people in US contracting flu every year	5% to 20% of US population	15%-35% of US population (estimated projection)
Number of hospitalizations from flu-related complications in 2004-5 flu season	200,000	734,000 (estimated projection)
Average number of deaths from flu-related complications in US each year	36,000	89,000-207,000 (estimated projection)

Q. Why are we so concerned now about swine flu?

A. Our health care system is generally able to handle seasonal flu, and current vaccines are effective in controlling it. Most adults build up some immunity against seasonal flu over the years, lowering their risk for serious flu-related problems. Swine flu, on the other hand, has come from a new strain of virus. Even people who have received seasonal flu vaccines have no immunity against this new virus.

If more widespread swine flu outbreaks occur in the U.S. we will be faced with a huge surge in the numbers of infected patients needing care, health care facilities could have difficulty meeting patient needs. Most facilities would experience staff shortages, and most would lack space for isolating large numbers of infected patients.

Whether or not this becomes a pandemic - which has happened only three times in the past century—the situation will become far more serious. Experts predict that a new pandemic flu outbreak could infect millions of people around the world and kill a large percentage of those infected. The Centers for Disease Control and Prevention (CDC) estimates that even a “medium-level” pandemic could cause 89,000 to 207,000 deaths in the U.S.¹

¹ Centers for Disease Control and Prevention. *Pandemic Flu: Key Facts*. Updated 10/17/2005. <http://www.cdc.gov/flu/pandemic/keyfacts.htm>

² Centers for Disease Control and Prevention. *Influenza Q&A: The Disease*. Updated 9/22/2004. <http://www.cdc.gov/flu/about/qa/disease.htm>

³ Centers for Disease Control and Prevention: Key Facts about Pandemic Influenza. Updated 10/17/2005. <http://www.cdc.gov/flu/pandemic/keyfacts.htm>

Q. Can swine flu be prevented?

A. Seasonal flu can be prevented by annual flu vaccinations. That is because scientists usually have a good idea of the type of flu expected each year and can prepare vaccines to protect against it. We do not yet have a vaccine against swine flu and it will likely take many months to prepare one. Antivirals can also be used to prevent flu, but at this time they are only being used to treat patients after they have developed symptoms. This is why the leading way to prevent swine flu at this time is through good infection control. Please refer to the SEIU factsheet, *Infection Control to Prevent the Spread of Swine Flu in Health Care Settings*, available at www.seiu.org.

Q. How do treatments for each type of flu differ?

A. Our healthcare system manages seasonal flu with programs to vaccinate the population against flu and with a number of antiviral medications for those who get the flu. With swine flu, two of the four antiviral medications currently used for treating seasonal flu appear to be effective if administered within 48 hours of symptoms.

Q. Who is most at risk for serious complications from flu?

A. For seasonal flu, the people most at risk are:

- Young children who have not yet built up any immunity to flu;
- Older people whose immune systems may have weakened over time; and
- People with various diseases and conditions such as diabetes, cancer, HIV, or those who have had organ transplants or chemotherapy treatments—or any health condition that weakens the immune system.

For swine flu, early reports indicate that healthy individuals may be at the most risk. We are still learning why, however this is similar to the situation from the 1918 pandemic. Of course, health care workers and first responders who are not properly protected with training and personal protective equipment such as respirators are at special risk due to exposure to large numbers of infected patients.

Q. How can I learn more about protecting myself, my patients, and my co-workers from flu and other infections?

A. Infection control is the best way to protect yourself, your coworkers, and your patients from flu and other infections.

- For details about infection control, see SEIU's FAQ, "*Using Infection Control to Prevent the Spread of flu in Health Care Settings.*" Available at www.seiu.org.
- For additional information about flu and infection prevention, visit the CDC website: www.cdc.gov/swineflu/