



# Pandemic Influenza

## What is pandemic influenza?

Influenza (“the flu”) is caused by a virus that primarily affects the nose, throat, airways, and lungs. Influenza viruses are divided into two types, A and B. Both influenza types typically circulate in the United States during late fall and winter. Each type of influenza virus has many different strains, which tend to change from year to year. Pandemic influenza is a widespread outbreak of disease which would affect a large number of people worldwide caused by a new influenza A virus. Since people have not been infected with the new influenza A virus before, most or all people will not have any natural protection or immunity against the new pandemic influenza A virus.

## How is pandemic influenza different from a regular influenza season?

Every year influenza A viruses undergo small seasonal changes called genetic drifts. Whenever an influenza A virus undergoes a major change, called genetic shift, a new influenza A virus is created that may cause more severe illness than the seasonal influenza A virus. Most people will have little or no natural resistance to the new influenza A virus.

## How often do pandemics of influenza occur?

Pandemics of influenza have occurred naturally throughout history. There were three pandemics of influenza in the 20th century. Prior to the 2009 influenza A (H1N1) pandemic, the last occurred from 1968-69. The most severe pandemic on record occurred from 1918-19 which may have killed up to 50 million people worldwide.

## Why is pandemic influenza so serious?

Since most people would not have immunity to the new influenza A virus, large numbers of people around the world are likely to be infected and many people are likely to develop severe disease. A pandemic of influenza would likely spread throughout the world and may affect as much as 25% to 30% of the United States population.

## Would vaccinations be available during a pandemic of influenza?

Depending on the new influenza A virus that causes the pandemic, it is estimated that it would take at least six months to develop vaccine once the virus is identified. Also, it will take time for manufacturers to produce adequate quantities of vaccine.

## What impact might a pandemic of influenza have?

The number of people affected during the pandemic and the severity of their symptoms would determine the impact. Additionally, a pandemic depends on the severity of the virus and how fast it spreads from one population to another. For example, the pandemic could stay isolated in one group of people or it could spread across the world. Depending on the severity of all these factors, there could be an interruption of normal operations of local municipalities and the health care system.

## When is a pandemic of influenza expected to occur?

Unfortunately, it is not possible to predict exactly when a pandemic of influenza will occur or how severe the pandemic may be.

## What was the cause of the 2009 influenza pandemic?

An influenza A virus had a major genetic change that made a new influenza virus containing swine, bird, and human components called the 2009 influenza A (H1N1) virus. The 2009 influenza A (H1N1) virus passed readily from person to person spreading across many countries throughout the world. The 2009 influenza A (H1N1) virus is now seen on a seasonal basis and is included in the yearly vaccine.

## What is the Oklahoma State Department of Health (OSDH) doing to prepare for a pandemic of influenza?

- The OSDH has formed a Pandemic Influenza Committee which developed a plan to address public health response to a pandemic. It serves as a resource for public health preparedness at the state, regional and local level to help maximize and distribute available resources. The plan undergoes an annual review and revision. More information on the plan may be found on the pandemic influenza web page of the OSDH website.
- The OSDH monitors influenza activity working with many community partners. The OSDH works with a group of sentinel physicians and laboratories regionally distributed throughout the state to record influenza activity and spread. During influenza season, the OSDH publishes weekly reports on its website.
- The OSDH Public Health Laboratory (PHL) receives specimens from physicians throughout the state to test for influenza and other respiratory viruses.
- When outbreaks of respiratory viruses occur in schools, nursing homes or other institutional settings, they are reported to the local county health department. Specimens are collected and submitted to the PHL for viral testing.