

# PANDEMIC INFLUENZA AND YOU: A PRIMER

**Seasonal influenza** is a highly contagious respiratory illness that occurs annually. Each year, on average, 200,000 Americans are hospitalized and 36,000 die from influenza or a flu complication like pneumonia. Most of the people seriously affected by seasonal influenza are the very old and the very young.

**Pandemic influenza** is different than seasonal influenza. It occurs when a new influenza virus surfaces – one that people have no immunity against. Because people have no immunity – and there is no vaccine against this new strain – more people across the world can get sick or die from the new strain.

There were three influenza pandemics during the 20th century. The “Spanish” flu pandemic of 1918-19 was the most notorious; more than 20 to 40 million people died worldwide. In the United States, more than 500,000 people died. Most of these deaths occurred in healthy young adults.

Influenza viruses constantly change; they have the ability to mutate in two different ways. Small mutations occur almost every year; that’s why there is a new flu vaccine every year.

Large mutations occur less often. Large mutations result in a new influenza virus to which the human population has no protection. These large mutations are almost always followed by an influenza pandemic.

**Avian influenza (bird flu) viruses** can be a source of new influenza viruses. Humans cannot catch bird flu easily; however, the recent bird flu outbreak which started in Asia has shown that this does happen. Most of the known cases occurred from very close exposure to sick birds. In many cases, the infected people were literally living with chickens.

The greatest fear is that a person infected with the seasonal flu could become infected with the avian flu, and the two viruses could combine into a new virus that can easily spread person-to-person. So far, that hasn’t happened. But the possibility of that happening is why the entire world health community is focused on the avian or bird flu.

Based on observations from previous pandemics, it has been estimated that the economic losses in the United States associated with the next pandemic could be in the billions of dollars. The impact of an influenza pandemic on the health care system could be devastating. In the United States, approximately 90 million people could become ill, and 45 million could seek outpatient care. The number of hospitalizations and deaths will vary depending on how deadly the pandemic flu strain is: a moderate pandemic could result in more than 800,000 hospitalizations and 200,000 deaths. A severe pandemic could result in 10 times as many hospitalizations and deaths. The potential for high levels of sickness and death, as well as the significant disruption to society, make planning for the next influenza pandemic imperative.

The purpose of planning for pandemic influenza is to:

- Reduce sickness
- Reduce death
- Reduce social disruption

#### Selected Resources

1. The North Carolina Pandemic Influenza Preparedness and Response Plan can be found at [www.ncpublichealth.com](http://www.ncpublichealth.com)
2. International preparedness efforts as well as situation updates on human infections with avian influenza can be found at the World Health Organization website [www.who.int](http://www.who.int)

Information on influenza, including avian influenza for health care providers and the public can be found at the U.S. Department of Health and Human Services website [www.pandemicflu.gov](http://www.pandemicflu.gov).



**State of North Carolina**  
**Department of Health and Human Services**  
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[www.ncdhhs.gov](http://www.ncdhhs.gov)

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