

Pandemics: “Bird Flu” and Typical Influenza

Avian influenza or “bird flu” has recently garnered worldwide media attention. Avian influenza is caused by the H5N1 strain of the Influenza A virus. The H5N1 influenza virus was first detected in 1997 in Hong Kong, where it infected 18 people causing 6 deaths. While the virus has yet to show the ability to transmit efficiently between humans it has infected birds in 16 countries and is responsible for the deaths of approximately 200 million birds across Asia and Europe. There have been over 100 people infected with the virus in four different countries, which has resulted in more than 60 deaths.

Currently, close contact with infected poultry has been the primary source for human infection. There is concern over the widespread nature of the virus and the possibility of mutations that would enable transmission from human to human. While genetic studies have confirmed that the influenza A virus H5N1 mutates rapidly, it is impossible to know if this virus will cause a human pandemic.

Pandemics occur when a new influenza virus is discovered that infects and may be transmitted easily between humans, causing serious illness. Pandemics are an outbreak of disease occurring over a wide geographical area and affecting an exceptionally high proportion of the population. In the last century pandemics occurred in 1918, 1957 and 1968, and were responsible for the deaths of over 43 million people worldwide. The deaths from the 1918 pandemic alone totaled 40 million.

Each year in the United States there are approximately 36,000 deaths and more than 200,000 hospitalizations due to typical influenza, which amounted to an annual medical care cost in excess of \$10 billion. Symptoms of typical influenza include: fever, cough, sore throat, muscle aches, general malaise, and upper respiratory infections. Avian influenza “bird flu” symptoms include typical influenza symptoms plus: eye infections, pneumonia, severe respiratory complications, and life threatening complications.

One person infected with influenza can transmit the virus to tens or hundreds of others. Therefore individual action could be the most important factor of pandemic preparedness and response. The critical role of individuals in controlling a pandemic is paramount and should be utilized in the prevention or transmission of any infection, including the typical influenza. Preventative measures recommended by the Homeland Security Council include being prepared to follow public health guidance that may include limitation of attendance at public gatherings and maintaining necessary supplies

at home as recommended by authorities, to support essential needs of the household for several days, if necessary.

Getting vaccinated annually in the Fall, is the single best prevention against getting the typical flu. Good health habits are also important such as frequent hand washing. You should wash your hands

- Before, during and after food preparation;
- Before and after you eat;
- After handling animals, or animal waste; and
- Frequently when someone in your home is sick

Other good health habits to follow are:

- Cover your mouth and nose with a tissue when coughing or sneezing;
- Avoid touching your eyes, nose, and mouth;
- Get plenty of sleep;
- Be physically active;
- Manage your stress;
- Drink plenty of fluids;
- Eat nutritious foods
- Stay home when you are sick; and
- Check with health care providers as needed

According to the Centers for Disease Control and Prevention, the correct way to wash your hands is:

1. Wet your hands and apply liquid soap or bar soap

2. Rub your hands vigorously for 10-15 seconds, scrubbing all areas

3. Rinse well and dry your hands

The threat of a new influenza virus pandemic as with any other potential natural disaster requires a proactive stance that focuses on pandemic preparedness. For communication centers this means:

- Reviewing staffing patterns;
- Designing contingency plans to incorporate high volume of absenteeism during a pandemic;
- Developing or reviewing mutual-aid agreements for staffing which allows for the transfer of employees between agencies;
- Establishing alternate plans with all technical support providers for continuity of service;
- Reviewing protocols with your agency's medical director to decide if protocols need to be developed or altered to address a pandemic;
- Reviewing telephone communication techniques to address caller's concerns and questions;

- Ensuring provisions or local resources for adequate staff housing and hygiene facilities, as non-essential travel may be limited during the crisis; and
- Maintaining adequate supplies of personal protective equipment, including masks, gloves, disinfectants, and hand sanitizers, etc.

Whether the “bird flu” will be responsible for this century’s first human pandemic remains to be seen however, history suggests there will be future pandemics and preparedness, as always, is our best defense.

By: Sandy Campbell, APCO Institute Curriculum Writer

Sources:

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Quiz

CDE Article – Pandemics: “Bird Flu” and Typical Influenza

Name: _____ Date: _____

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1. Close contact with poultry is the primary source for bird flu infection.
 - a. True
 - b. False

2. Frequent hand washing is a good health habit.
 - a. True
 - b. False

3. Pandemics are an outbreak of disease occurring over a small geographical area.
 - a. True
 - b. False

4. Bird flu was first detected in 1997 in Hong Kong.
 - a. True
 - b. False

5. In the last century there have been 4 recorded pandemics.
 - a. True
 - b. False

6. One person infected with influenza can infect hundreds of others.
 - a. True
 - b. False

7. Bird flu symptoms include typical influenza symptoms plus additional symptoms.
 - a. True
 - b. False

8. Getting vaccinated annually is the single best prevention against getting the typical flu.
 - a. True
 - b. False

9. Communication centers need to take a proactive stance that focuses on pandemic preparedness.
 - a. True
 - b. False

10. It is highly unlikely communication center staffing will be affected by a pandemic.
 - a. True
 - b. False