

Influenza 101

- Influenza is a virus – There are 3 Types A, B, C
-2 Type A's and 1 Type B in annual vaccine

- **Terms to know and understand**

Seasonal Influenza (“common” influenza)

- A **respiratory** illness that can be transmitted person to person.
- Most people have some immunity, and a vaccine is available.

Avian Influenza (“bird flu”)

- Influenza viruses occur naturally among wild birds.
- There is no human immunity and no vaccine is available.
- H5N1 is deadly to domestic fowl and can be transmitted from birds to humans.

Pandemic Influenza

- A virulent human influenza that causes a **global** outbreak of serious illness.
- There is little or no natural immunity, so the disease can spread easily from person to person.

-Currently, there is no pandemic influenza.

- Influenza pandemics have previously occurred:
 - 1918 - Spanish Flu (H1N1)
 - 1957 - Asian Flu (H2N2)
 - 1968 - Hong Kong Flu (H3N2)
- Antivirals are available for treatment of Influenza
 - Not all antivirals are effective in treating human H5N1 influenza

- **Resources**

CDC home page for influenza

<http://www.cdc.gov/flu>

<http://www.cdc.gov/flu/weekly/fluactivity.htm>

U.S. web site for pandemic flu & U.S. Pandemic Flu Plan and Preparedness Planning

<http://www.pandemicflu.gov/>

W.H.O. home page for influenza (including avian influenza)

<http://www.who.int/csr/disease/influenza/en/>

MMWR Recommendations and Reports, November 11, 2005 / Vol. 54 / No. RR--13

<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5413a1.htm>

Public Health Guidance for Community-Level Preparedness and Response to Severe Acute respiratory Syndrome (SARS), Version 2.3; July 20 2004

<http://www.cdc.gov/ncidod/sars/guidance>

Biosafety in Microbiological and Biomedical Laboratories (BMBL), 5th ed

<http://www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm>

Avian Flu Education – A Short Quiz

1. The current avian flu virus first appeared in:
 - a. East Asia
 - b. South Asia
 - c. Middle East
2. Avian flu is most commonly spread by:
 - a. Humans
 - b. Pigs
 - c. Birds
3. True or False: There is now a bird flu vaccine available for humans.
4. True or False: People are safe from the pandemic if they don't touch or go near any birds.
5. True or False: No matter what type of influenza you have, any of the antivirals available will be able to treat your illness.
6. True or False: The U.S. government will be ready to help victims of any pandemic.
7. True or False: If you are young and healthy, there is little for you to worry about as far as contracting a pandemic illness.
8. True or False: During a pandemic, there may be shortages of food, medicine, and other products.
9. Which strain of flu is responsible for more deaths in the United States?
 - a. Hong Kong flu pandemic
 - b. Avian flu
 - c. Typical flu outbreak 20 years ago
 - d. Seasonal flu outbreak expected this year
10. When was the last major flu pandemic?
 - a. 1900
 - b. 1918
 - c. 1950
 - d. 1968

Avian Flu education – a short quiz answers

1. **A) East Asia.** The first cases were in the Republic of Korea and Vietnam. Most of the outbreaks have been in East and Southeast Asia, though further outbreaks have been reported recently in Russia, Mongolia, Kazakhstan, Turkey, Croatia, Romania and Ukraine.
2. **C) Birds.** Avian flu is passed from bird to bird, though it occasionally transmits to pigs. In very rare cases, the virus, which can be transmitted from wild to domestic birds, has been known to infect people who have come into direct contact with contaminated poultry or their waste.
3. **False.** Until the bird flu mutates into a virus that can be transmitted from person to person, no one can be sure if any vaccines being developed will work against the virus. Even if the vaccine works, they take a long time to manufacture so it is unlikely that enough vaccine would exist when a pandemic occurred.
4. **False.** A pandemic will occur if and when the bird flu strain mutates so infected humans can infect other humans. At that time, people who have never gone near birds will be at risk. Right now, birds infected with the bird flu virus can infect humans who come in contact with them.
5. **False.** Tamiflu and Ralenza at this time are known to be effective against Influenza A and B. Amantadine and Rimantadine are only effective against Influenza A, although H5N1 strains are resistant.
6. **False.** Individuals, families, and communities will be on their own. The government has advised individuals of the danger, saying "... thousands of communities could be countering influenza simultaneously with little or no assistance from adjacent communities, the state, or the federal government. Preparedness planning for pandemic influenza response must take the prospect into account." *Source:* <http://hhs.gov/pandemicflu/plan/part1.html#1>
7. **False.** In the flu of 1918, the virus affected young people more so than older people. The flu of 1918 also originated from a bird flu virus.
8. **True.** If the pandemic strikes, experts believe there will be shortages of food, medicine, and other products, because individuals who provide us with such items may be sick, disrupting the process. There also will be other social disruptions.
9. **D) Seasonal flu outbreak expected this year.** The CDC estimates that there might be 36,000 fatalities from the flu this year, mostly in the elderly. This is more than the "Hong Kong flu" pandemic caused in the United States in 1968.
10. **D) 1968.** The "Hong Kong flu", a virus that still circulates today, originated in Hong Kong and eventually spread to the United States, killing 34,000 Americans.