

# Influenza

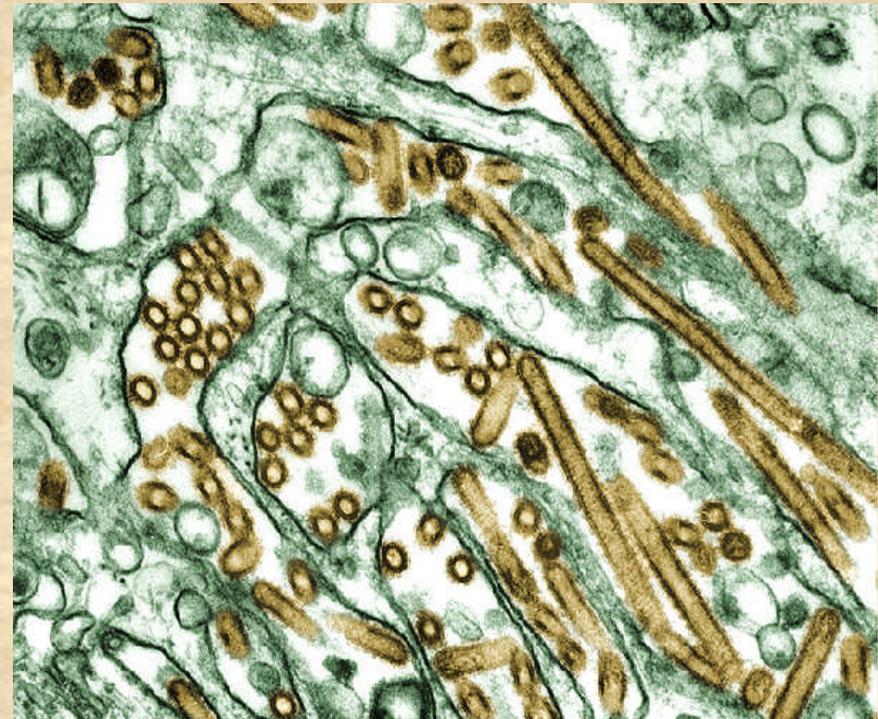
- ❖ **Epidemiology**
- ❖ **Treatment and control**
- ❖ **“Sniffles and Sneezes”**
- ❖ **Mortality**
- ❖ **Spanish flu**
- ❖ **Asian flu**
- ❖ **Hong Kong flu**
- ❖ **The Swine flu scare**

## Epidemiology – The Flu Virus

**Influenza is commonly called “the flu.”**

**The most deadly flu pandemics have all been varieties of avian flu. In humans, avian flu viruses cause similar symptoms to other types of flu, including:**

-  **Fever**
-  **Cough**
-  **Sore throat**
-  **Muscle aches**
-  **Conjunctivitis**
-  **Breathing problems**
-  **Pneumonia**



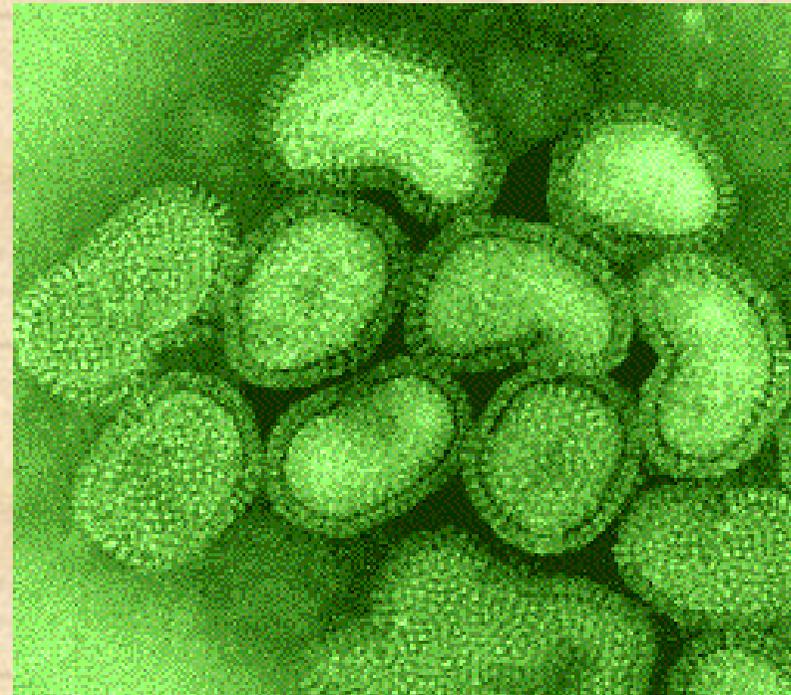
**H5N1 (gold)**

**In severe cases these symptoms can lead to death.**

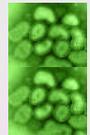
## Treatment and Control

The avian influenza subtypes that have been confirmed in humans are:

- H1N1 (Spanish flu)
- H2N2 (Asian flu)
- H3N2 (Hong Kong flu)
- As well as H5N1, H7N7, H9N2, H7N2, H7N3, and H10N7, which have not YET turned pandemic.



Influenza Virus



**There is no cure for influenza.**

**Vaccines are developed for the strains of flu virus most likely to infect the public.**



**Because flu virus is constantly mutating, it is not possible to make a lifelong vaccine.**



**A flu vaccine is effective for about one year.**

# **"Sniffles and Sneezes"**



## Spanish Flu

The Spanish flu, or “La Grippe,” was a pandemic that affected the entire world from 1918-1919.

It was an H1N1 avian-type virus.

More people died from influenza than in WWI.

In only four months, 20 million people died worldwide.

Estimates range from 50 to 100 million total deaths.

This figure equals between 2.5 and 5% of the people on earth at that time.



Spanish flu hospital, 1918



**Emergency hospital for flu victims, 1918**



**Spanish flu infected 28% of all Americans.**



**Over 675,000 Americans died in two years.**



**The flu was most deadly for people ages 20 to 40.**

# PUBLIC NOTICE

In view of the severity of the present

## Epidemic of Influenza

and in order that all efforts may be concentrated on the stamping out of the disease, the local Board of Health, after consultation with Kingston Medical Society and the Mayor, has enacted that after Oct. 16th, and until further notice,

1. Theatres and Moving Picture Houses shall be closed and remain closed
2. Churches and Chapels of all denominations shall be closed and remain closed on Sundays.
3. All Schools, Public or Private, including Sunday Schools, shall close and remain closed.
4. Hospitals shall be closed to visitors.
5. No public shall be admitted to courts except those essential to the prosecution of the cases called.
6. The Board advises the public most strongly not to crowd into street cars and to avoid as much as possible any crowded train or an assembly of any kind.

Provisions have been made by the Kingston Medical Society whereby all cases applying for assistance will receive the same either by registered practitioners or by final year medical students acting under instructions. Therefore every case of illness should send in a call to a physician.

A. R. B. WILLIAMSON,  
Medical Health Officer.

# Asian Flu

 The Asian flu pandemic originated in 1957 in China.

 It spread worldwide.

 Asian flu was an avian flu, H2N2.

 Worldwide mortality estimates range from one to four million deaths.



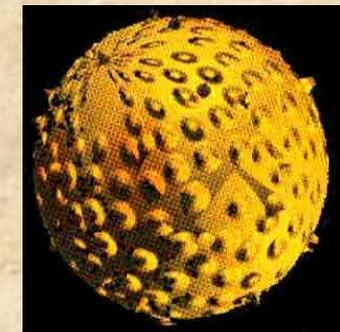
 The virus spread to the United States during the summer of 1957.

 It quickly spread through classrooms when children returned from vacation.

 Most deaths occurred between September 1957 and March 1958.

 The elderly had the highest rates of death.

 70,000 Americans died of Asian flu.



H2N2

## Hong Kong Flu

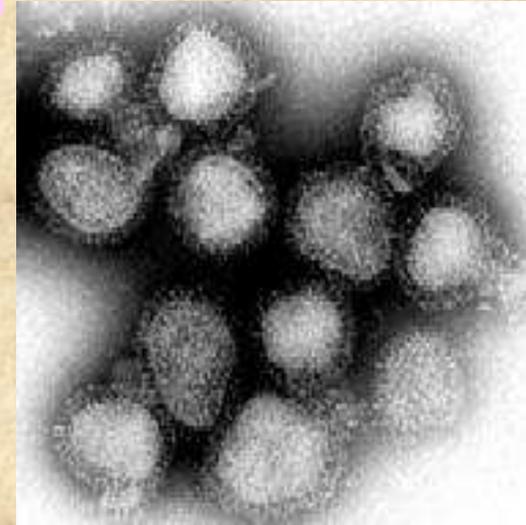
The 1968 Hong Kong flu pandemic was an avian flu type, H3N2.

 The Hong Kong flu killed up to 750,000 people and infected approximately 40% of the world's population.

 Again, most deaths occurred among the elderly.

 It resulted in about 34,000 deaths in the United States.

 A vaccine for this flu became available around January 1969.



The Hong Kong flu virus.



Hong Kong

## The Swine Flu Scare

**Pigs are susceptible to human influenza and can act as a “reservoir” in maintaining old human flu viruses.**

- **Spanish flu was found in pigs until the 1930s.**
- **Hong Kong flu can still be found in pigs to this day.**



**Swine flu broke out on February 5, 1976, at Fort Dix, New Jersey.**



**Within 24 hours, 19-year-old Private David Lewis was dead.**



**Four other soldiers were hospitalized.**



**The CDC, the National Institute of Health (NIH), and other public health organizations urged then-President Gerald Ford to start a massive vaccination program to stop a potential swine flu epidemic.**

**There were many problems with the vaccination program including:**

- **Difficulty in communicating with the public.**
- **Breakdown in negotiations with drug companies.**
- **Only about 24% of all Americans were vaccinated against the flu.**



**President Ford, Donald Fredrickson of NIH, and Henrietta Fredrickson.**

-  **The Fort Dix outbreak turned out to be a false alarm.**
-  **Only Private Lewis died of the flu.**
-  **The President, the CDC, and health officials were accused of overreacting.**

**These 11 slides are excerpted from our Black Death and other Pandemics presentation.**

**The 242 slide presentation begins with epidemics in the ancient world, origins of the Black Death, economic and social effects, plagues after the Black Death and a brief background of the science of plagues and mass epidemics.**

**Please visit the following page to view sample slides:**

**[http://multimedialearning.org/presentations/209\\_BlackDeath.php3](http://multimedialearning.org/presentations/209_BlackDeath.php3)**