Pandemic Influenza (Flu)

What is pandemic flu?
A pandemic is a worldwide outbreak of disease. A pandemic can start when three conditions have been met:
1. A new influenza virus subtype emerges
2. The virus infects humans, causing serious illness
3. The virus spreads easily and continues to infect humans

Because people will not have been infected with a similar virus in the past, their bodies will have no natural immunity. Those who survive infection with this new strain of influenza will have antibodies to prevent future serious infection and illness.

There is no flu virus currently circulating, including the bird flu; that has efficient and sustained human-to-human transmission.

Pandemics are naturally occurring and three pandemics have occurred during the past century. Each caused worldwide illness and death.

How is pandemic flu different from the regular annual flu season?
A pandemic flu outbreak would be much more serious than a typical flu season. Flu viruses change slightly each year, which is why the flu vaccine is updated annually.

A pandemic flu virus has undergone such a dramatic change that current flu vaccines will offer no protection and the human immune system will have no natural immunity. Once a pandemic flu virus appears, it takes at least six months to develop a vaccine that precisely matches the composition of the new virus.

Is a vaccine being developed to prevent pandemic flu?
There is currently no vaccine to protect against pandemic flu.

Scientists have to collect, identify and study a pandemic virus before they can create a vaccine that is an exact match. In the meantime, scientists are studying the current bird flu virus in Asia for clues on future vaccine development.

Are there other methods to prevent a pandemic flu?
Antiviral medications may offer some protection against pandemic flu. However, flu viruses can become resistant to these drugs. The exact effectiveness of antiviral medications will not be fully known until a pandemic virus is circulating.

Good hand hygiene and cough etiquette help protect against infection from all forms of flu.

When will the next pandemic flu occur?
Influenza pandemics occur naturally, and are impossible to accurately predict. However, scientists are monitoring the current bird flu outbreak in Asia and Eastern Europe for changes in the virus that would allow it to spread quickly among people.

When were the last pandemic flu outbreaks?
History suggests that influenza pandemics have probably happened during at least the last four centuries.

During the 20th century, three pandemics occurred:
**Spanish Flu:** The 1918 Spanish flu caused an estimated 40 to 50 million deaths worldwide and killed a half-million people in the United States. Nearly half of those who died were young, healthy adults.

The Spanish flu still circulates today. However, because people have built immunity to this virus, it is no longer the cause of a pandemic.

**Asian Flu:** The Asian flu of 1957 killed an estimated 2 million people worldwide, causing 70,000 deaths in the United States. The Asian flu was first identified in China, as a combination of existing human and bird flu viruses.

The two viruses exchanged surfaced proteins to form a flu virus that no human had ever encountered before, so the population lacked any natural immunity.

**Hong Kong Flu:** The 1968 Hong Kong flu was caused by another recombination of human and bird flu viruses. The virus killed nearly one million people worldwide, and caused about 34,000 deaths in the United States. This virus was first detected in Hong Kong in early 1968 and spread to the United States later that year.

**What is being done to prepare for a pandemic flu outbreak in Clark County?**

The Southern Nevada Health District has a plan for responding to widespread outbreaks including an influenza pandemic.

The health district completes training and planning activities that test our ability to respond to outbreaks and provide mass vaccinations or medications to the public through various exercises and real-world events.