City of Grand Island

Tuesday, December 13, 2005
Study Session

Item -1

Pandemic Flu Presentation by the Health Department

Teresa Anderson, Executive Director and Ryan King, Assistant Executive Director from the Central District Health Department will present information on Pandemic Flu. There will be a question and answer period after the presentation.

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FACT SHEET

NEBRASKA HEALTH AND HUMAN SERVICES SYSTEM

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Sources: Centers for Disease Control and Prevention, 10/05
Seattle and King County Public Health Department, 8/05

Pandemic Flu
Frequently Asked Questions

1. What is pandemic flu?
Pandemic flu is a worldwide outbreak of disease caused by a new flu virus. Past flu pandemics have led to high levels of illness, death, social disruption, and economic loss.

2. How do pandemic flu viruses "emerge?"
The appearance of a new flu virus is the first step toward a pandemic, but the new virus must also spread easily from person to person to cause a pandemic.

3. How common are flu pandemics?
During the 20th century, the emergence of new flu viruses caused three pandemics, all of which spread around the world within one year of being detected.

- **1918-19, "Spanish flu,"** caused the highest number of flu deaths: more than 500,000 people died in the United States, and up to 50 million people may have died worldwide. Many people died within the first few days after infection, and others died of complications later. Nearly half of those who died were young, healthy adults. These flu viruses still circulate today after being introduced again into the human population in the 1970s.
- **1957-58, "Asian flu,"** caused about 70,000 deaths in the United States. First identified in China in late February 1957, the Asian flu spread to the United States by June 1957.
- **1968-69, "Hong Kong flu,"** 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. These flu viruses still circulate today.

Viruses containing a combination of genes from a human flu virus and a bird flu virus caused both the 1957-58 and 1968-69 pandemics. The 1918-19 pandemic virus appears to be of bird origin.

4. Are there vaccines to prevent a pandemic?
A vaccine probably would not be available in the early stages of a pandemic. When a new vaccine against a flu virus is being developed, scientists around the world work together to select the virus strain that will offer the best protection against that virus, and then manufacturers use the selected strain to develop a vaccine. Once a potential pandemic strain of flu virus is identified, it takes several months before a vaccine will be widely available. If a pandemic occurs, it is expected that the U.S. government will work with many partner groups to make recommendations to guide the early use of vaccine.

5. Are there antiviral medications to prevent and treat pandemic flu?
Four different influenza antiviral medications (amantadine, rimantadine, oseltamivir, and zanamivir) are approved by the U.S. Food and Drug Administration for the treatment and/or prevention of flu. All four work against the flu. However, sometimes flu viruses can become resistant to one or more of these drugs, and thus the drugs may not always work. For example,

the flu viruses identified in people in Asia in 2004 and 2005 have been resistant to amantadine and rimantadine. Monitoring of bird viruses for resistance to antiviral medications is continuing.

6. Why does the current bird flu outbreak in Southeast Asia pose a risk for becoming a pandemic flu outbreak in humans?

New human flu viruses arise from bird flu viruses that then change to a form that can infect humans and spread readily from person to person. The current bird flu outbreak in Asia is caused by a type of flu virus called "H5N1." The H5N1 outbreak among domestic chickens and ducks in Asia is widespread and uncontrolled. Human infections and deaths due to the H5N1 virus have occurred, although the virus has at this time not developed the ability to pass easily from person to person and cause outbreaks in humans.

7. How is a pandemic different from regular flu season?

A pandemic flu is a new flu virus that would be a much more serious and contagious than viruses seen during a typical flu season. People would have little or no immunity to this new flu virus. Also, vaccine for seasonal flu is prepared each season against new variations of the seasonal flu. It may take many months after a pandemic flu appears before vaccine is widely available.

8. How is pandemic flu different from bird flu?

Bird flu refers to a large group of different flu viruses that primarily affect birds. On rare occasions, these bird viruses can infect other species, including pigs and humans. A pandemic flu happens when a new virus emerges that has not previously circulated in humans. For this reason, bird flu (H5N1) is a strain with pandemic potential, since it might ultimately adapt into a strain that is contagious among humans.

9. How can we prepare for the next pandemic?

Many experts believe it is only a matter of time until the next flu pandemic occurs. The severity of the next pandemic is unpredictable, but modeling studies suggest that its effect in the United States could be severe.

Stay informed. The Centers for Disease Control and Prevention (CDC) web site provides regularly updated information about pandemic flu and bird flu:

- www.cdc.gov

The official U.S. government website on pandemic flu can be found at:

- www.pandemicflu.gov

Or visit the Nebraska Health and Human Services System website:

- www.hhss.ne.gov

Stop germs from spreading.

- Cover your mouth and nose with tissue when coughing and sneezing
- Wash your hands often
- Stay home when you're sick

Things to know.

- The pandemic will last much longer than most other emergency events and may include "waves" of flu activity separated by months (in 20th century pandemics, a second wave of flu activity occurred three to 12 months after the first wave).
- The numbers of healthcare workers and first responders available to work could be reduced; they will be at high risk of illness through exposure in the community and in healthcare settings, and some may have to miss work to care for sick family members.

- Resources could be limited because a flu pandemic could be widespread.
- The CDC and the World Health Organization (WHO) have large surveillance programs in place to monitor and detect flu activity around the world, including the emergence of possible pandemic strains of the flu virus.

Because of these differences and the expected size of a flu pandemic, it's important to have completed planning and preparedness activities to be able to respond promptly and adequately. For this reason, the U.S. Department of Health and Human Services (HHS) supports pandemic flu activities in the areas of surveillance ("detection"), vaccine development and production, antiviral stockpiling, research, and public health preparedness.

A Summary of 2004 Pandemic Flu data can be found at: http://www.cdc.gov/flu/avian/gen-info/pandemics.htm

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CDC Emergency Preparedness and Response: www.bt.cdc.gov
The CDC protects people's health and safety by preventing and controlling diseases and injuries; enhances health decisions by providing credible information on critical health issues; and promotes healthy living through strong partnerships with local, national, and international organizations.