Swine Flu
April 24, 2009
Adapted from CDC

What is Swine Influenza?
Swine Influenza (swine flu) is a respiratory disease of pigs caused by type A influenza virus that regularly causes outbreaks of influenza in pigs. Swine flu viruses cause high levels of illness and low death rates in pigs. Swine influenza viruses may circulate among swine throughout the year, but most outbreaks occur during the late fall and winter months similar to outbreaks in humans. The classical swine flu virus (an influenza type A H1N1 virus) was first isolated from a pig in 1930.

Can humans catch swine flu?
Swine flu viruses do not normally infect humans. However, sporadic human infections with swine flu have occurred. Most commonly, these cases occur in persons with direct exposure to pigs (e.g. workers in the swine industry or children near pigs at a fair). In addition, there have been documented cases of one person spreading swine flu to others. For example, an outbreak of apparent swine flu infection in pigs in Wisconsin in 1988 resulted in multiple human infections, and, although no community outbreak resulted, there was antibody evidence of virus transmission from the patient to health care workers who had close contact with the patient.

How common is swine flu infection in humans?
In the past, CDC received reports of approximately one human swine influenza virus infection every one to two years in the U.S.

Have there been any cases of swine flu reported in Virginia?
No. All recent cases in the United States have been confirmed in California and Texas.

What is Virginia doing?
The Virginia Department of Health routinely monitors influenza like activity (ILI). In light of current findings, we are asking health care providers to be alert to symptoms of swine flu virus and are requesting ongoing testing of ILI by sentinel physicians. VDH has asked health districts to assist local clinicians in testing of any individuals meeting the CDC's case definition.

What are the symptoms of swine flu in humans?
The symptoms of swine flu in people are similar to the symptoms of regular human seasonal influenza and include fever, lethargy, lack of appetite and coughing. Some people with swine flu also have reported runny nose, sore throat, nausea, vomiting and diarrhea.

Can people catch swine flu from eating pork?
No. Swine influenza viruses are not transmitted by food. You can not get swine influenza from eating pork or pork products. Eating properly handled and cooked pork and pork products is safe. Cooking pork to an internal temperature of 160°F kills the swine flu virus as it does other bacteria and viruses.

How does swine flu spread?
Influenza viruses can be directly transmitted from pigs to people and from people to pigs. Human infection with flu viruses from pigs are most likely to occur when people are in close proximity to infected pigs, such as in pig barns and livestock exhibits housing

pigs at fairs. Human-to-human transmission of swine flu can also occur. This is thought to occur in the same way as seasonal flu occurs in people, which is mainly person-to-person transmission through coughing or sneezing of people infected with the influenza virus. People may become infected by touching something with flu viruses on it and then touching their mouth or nose.

What do we know about human-to-human spread of swine flu?
In September 1988, a previously healthy 32-year-old pregnant woman was hospitalized for pneumonia and died 8 days later. A swine H1N1 flu virus was detected. Four days before getting sick, the patient visited a county fair swine exhibition where there was widespread influenza-like illness among the swine.
In follow-up studies, 76% of swine exhibitors tested had antibody evidence of swine flu infection but no serious illnesses were detected among this group. Additional studies suggest that one to three health care personnel who had contact with the patient developed mild influenza-like illnesses with antibody evidence of swine flu infection.

How can human infections with swine influenza be diagnosed?
To diagnose swine influenza A infection, a respiratory specimen would generally need to be collected within the first 4 to 5 days of illness (when an infected person is most likely to be shedding virus). However, some persons, especially children, may shed virus for 10 days or longer. Identification as a swine flu influenza A virus requires sending the specimen to CDC for laboratory testing.

What medications are available to treat swine flu infections in humans?
Four different antiviral drugs are licensed for use in the US for the treatment of influenza: amantadine, rimantadine, oseltamivir and zanamivir. While most swine influenza viruses have been susceptible to all four drugs, the most recent seven swine influenza viruses isolated from humans are resistant to amantadine and rimantadine. At this time, CDC recommends the use of oseltamivir or zanamivir for the treatment and/or prevention of infection with swine influenza viruses. More information on treatment recommendations can be found at www.cdc.gov/flu/swine/recommendations.htm.

What other examples of swine flu outbreaks are there?
Probably the most well known is an outbreak of swine flu among soldiers in Fort Dix, New Jersey in 1976. The virus caused disease with x-ray evidence of pneumonia in at least 4 soldiers and 1 death; all of these patients had previously been healthy. The virus was transmitted to close contacts in a basic training environment, with limited transmission outside the basic training group. The virus is thought to have circulated for a month and disappeared. The source of the virus, the exact time of its introduction into Fort Dix, and factors limiting its spread and duration are unknown. The Fort Dix outbreak may have been caused by introduction of an animal virus into a stressed human population in close contact in crowded facilities during the winter. The swine influenza A virus collected from a Fort Dix soldier was named A/New Jersey/76 (Hsw1N1).

Is the H1N1 swine flu virus the same as human H1N1 viruses?
No. The swine H1N1 flu viruses are antigenically very different from human H1N1 viruses and, therefore, vaccines for human seasonal flu would not provide protection from H1N1 swine flu viruses.

Why is the CDC investigating swine flu virus now?
From December 2005 through February 2009, a total of 12 human infections with swine

influenza were reported from 10 states in the United States. Since March 2009, a number of confirmed human cases of a new strain of swine influenza A (H1N1) virus infection in California and Texas have been identified. An investigation into these cases is ongoing.

Are the cases of swine flu in the U.S. connected to the cases in Mexico?
The virus identified in Mexico appears to be the same one identified in U.S. cases. The CDC is supporting the Mexican government's investigation and more information is needed to determine how the cases may be related.

Has anyone in the United States died from this strain of swine flu virus?
These patients in the U.S. had a self-limited influenza-like illness; one patient with underlying autoimmune disease was hospitalized. **All of the patients have fully recovered.**

What can people do to prevent being infected by the swine flu virus?
CDC has determined that this virus is contagious and is spreading from human to human. However, at this time, they have not determined how easily the virus spreads between people. As with any infectious disease, CDC is recommending precautionary measures for people residing in the areas where the virus has been identified.

- Cover your nose and mouth with a tissue when you cough or sneeze. Throw the tissue in the trash after you use it.
- Wash your hands often with soap and water, especially after you cough or sneeze. Alcohol-based hands cleaners are also effective.
- Try to avoid close contact with sick people.
- If you get sick, CDC recommends that you stay home from work or school and limit contact with others to keep from infecting them.
- Avoid touching your eyes, nose or mouth. Germs spread that way.

There is no vaccine available at this time, so it is important for people living in the areas where swine flu has been identified to take steps to prevent spreading the virus to others. If people are ill, they should attempt to stay at home and limit contact with others. Healthy residents living in these areas should take everyday preventive actions.

People who live in these areas who develop an illness with fever and respiratory symptoms, such as cough and runny nose, and possibly other symptoms, such as body aches, nausea, or vomiting or diarrhea, should contact their health care provider. **Please DO NOT just show up at the emergency department, your local physician, health department, or health care provider without first calling. This call will allow you to be instructed on the safest way to protect yourself and others.**

Guidelines and advice for the public may change as the CDC learns more about this virus.
CDC has activated a hotline to answer public concerns: 800-CDC-INFO
Updates on this investigation are available at
http://cdc.gov/flu/swine/index.htm