# H1N1 INFLUENZA Frequently-Asked Questions

#### **Characteristics of H1N1**

### What is novel H1N1 (swine flu)?

Novel H1N1 (referred to as "swine flu" early on) is a new influenza virus causing illness in people. This new virus was first detected in people in the United States in April 2009. This virus is spreading from person-to-person, probably in much the same way that regular seasonal influenza viruses spread.

### Why is novel H1N1 virus sometimes called "swine flu"?

This virus was originally referred to as "swine flu" because laboratory testing showed that many of the genes in this new virus were very similar to influenza viruses that normally occur in pigs in North America. But further study has shown that this new virus is very different from what normally circulates in North American pigs. It has two genes from flu viruses that normally circulate in pigs in Europe and Asia and avian genes and human genes. Scientists call this a "quadruple reassortant" virus.

### What are the signs and symptoms of this virus in people?

The symptoms of 2009 H1N1 flu virus in people include fever, cough, sore throat, runny or stuffy nose, body aches, headache, chills and fatigue. Some people may have vomiting and diarrhea. People may be infected with the flu, including 2009 H1N1 and have respiratory symptoms without a fever. Severe illnesses and death has occurred as a result of illness associated with this virus.

#### How severe is illness associated with 2009 H1N1 flu virus?

Illness with the new H1N1 virus has ranged from mild to severe. While most people who have been sick have recovered without needing medical treatment, hospitalizations and deaths from infection with this virus have occurred.

In seasonal flu, certain people are at "high risk" of serious complications. This includes people 65 years and older, children younger than five years old, pregnant women, and people of any age with certain chronic medical conditions. About 70 percent of people who have been hospitalized with this 2009 H1N1 virus have had one or more medical conditions previously recognized as placing people at "high risk" of serious seasonal flu-related complications. This includes pregnancy, diabetes, heart disease, asthma and kidney disease.

One thing that appears to be different from seasonal influenza is that adults older than 64 years do not yet appear to be at increased risk of 2009 H1N1-related complications thus far. CDC laboratory studies have shown that no children and very few adults younger than 60 years old have existing antibody to 2009 H1N1 flu virus; however, about one-third of adults older than 60 may have antibodies against this virus. It is unknown how much, if any, protection may be afforded against 2009 H1N1 flu by any existing antibody.

### How does novel H1N1 flu compare to seasonal flu in terms of its severity and infection rates?

With seasonal flu, we know that seasons vary in terms of timing, duration and severity. Seasonal influenza can cause mild to severe illness, and at times can lead to death. Each year, in the United States, on average 36,000 people die from flu-related complications and more than 200,000 people are hospitalized from flu-related causes. Of those hospitalized, 20,000 are children younger than 5 years old. More than 90 percent of deaths and about 60 percent of hospitalizations occur in people older than 65.

When the 2009 H1N1 outbreak was first detected in mid-April 2009, CDC began working with states to collect, compile and analyze information regarding the 2009 H1N1 flu outbreak, including the numbers of confirmed and probable cases and the ages of these people. The information analyzed by CDC supports the conclusion that 2009 H1N1 flu has caused greater disease burden in people younger than 25 years of age than older people. At this time, there are few cases and few deaths reported in people older than 64 years old, which is unusual when compared with seasonal flu. However, pregnancy and other previously recognized high-risk medical conditions from seasonal influenza appear to be associated with increased risk of complications from this 2009 H1N1. These underlying conditions include asthma, diabetes, suppressed immune systems, heart disease, kidney disease, neurocognitive and neuromuscular disorders and pregnancy.

### How does novel H1N1 virus spread?

Spread of novel H1N1 virus is thought to be in the same way that seasonal flu spreads. Flu viruses are spread mainly from person-to-person through coughing or sneezing by people with influenza. Sometimes people may become infected by touching something with flu viruses on it and then touching their mouth or nose.

## How long can influenza virus remain viable on objects (such as books and doorknobs)?

Studies have shown that influenza virus can survive on environmental surfaces and can infect a person for 2 to 8 hours after being deposited on the surface.

### How long can an infected person spread this virus to others?

People infected with seasonal and 2009 H1N1 flu shed virus and may be able to infect others from 1 day before getting sick to 5 to 7 days after. This can be longer in some people, especially children and people with weakened immune systems and in people infected with the new H1N1 virus.

### **Exposures Not Thought to Spread Novel H1N1 Flu**

#### Can I get infected with novel H1N1 virus from eating or preparing pork?

No. Novel H1N1 viruses are not spread by food. You cannot get infected with novel H1N1 virus from eating pork or pork products. Eating properly handled and cooked pork products is safe.

#### Is there a risk from drinking water?

Tap water that has been treated by conventional disinfection processes does not likely pose a risk for transmission of influenza viruses. Current drinking water treatment regulations provide a high degree of protection from viruses. No research has been completed on the susceptibility of novel H1N1 flu virus to conventional drinking water treatment processes. However, recent studies have demonstrated that free chlorine levels typically used in drinking water treatment are adequate to inactivate highly pathogenic H5N1 avian influenza. It is likely that other influenza viruses such as novel H1N1 would also be similarly inactivated by chlorination. To date, there have been no documented human cases of influenza caused by exposure to influenza-contaminated drinking water.

# Can novel H1N1 flu virus be spread through water in swimming pools, spas, water parks, interactive fountains, and other treated recreational water venues?

Influenza viruses infect the human upper respiratory tract. There has never been a documented case of influenza virus infection associated with water exposure. Recreational water that has been treated at CDC recommended disinfectant levels does not likely pose a risk for

transmission of influenza viruses. No research has been completed on the susceptibility of novel H1N1 influenza virus to chlorine and other disinfectants used in swimming pools, spas, water parks, interactive fountains, and other treated recreational venues. However, recent studies have demonstrated that free chlorine levels recommended by CDC (1–3 parts per million [ppm or mg/L] for pools and 2–5 ppm for spas) are adequate to disinfect avian influenza A (H5N1) virus. It is likely that other influenza viruses such as novel H1N1 virus would also be similarly disinfected by chlorine.

### Can novel H1N1 influenza virus be spread at recreational water venues outside of the water?

Yes, recreational water venues are no different than any other group setting. The spread of this novel H1N1 flu is thought to be happening in the same way that seasonal flu spreads. Flu viruses are spread mainly from person to person through coughing or sneezing of people with influenza. Sometimes people may become infected by touching something with flu viruses on it and then touching their mouth or nose.