

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES

H1N1 Virus Briefing: Status of the Outbreak, How it Spreads & How You Can Help

The World Health Organization investigation at this point:

The H1N1 virus, also known as swine flu, first emerged in Mexico last March and has been causing illness in people worldwide. As of August 23, 2009, the World Health Organization reported over 209,438 laboratory-confirmed cases of H1N1 with 2,185 deaths. But countries are no longer required to test and report individual cases. This means the actual number of H1N1 cases is probably much higher. For an update, visit: http://www.who.int/csr/don/2009_08_28/en/index.html.

Missouri saw its first H1N1 case in April. Since then, the state has reported hundreds of confirmed cases and one death. The number of Missouri cases changes weekly. For an update, visit: http://www.dhss.mo.gov/BT_Response/H1N1Flu.html.

In Missouri, as well as worldwide, the illness associated with this new virus continues to be similar to the seasonal flu. Most people who have become ill have recovered without requiring medical treatment. However, the virus has been shown to be particularly aggressive in some segments of the population not usually affected by the regular flu. These groups include pregnant women, school-age children, and those with underlying chronic health conditions, such as obesity or asthma.

The federal government declared a public health emergency in response to the growing number of H1N1 flu cases. However, Janet Napolitano, secretary of the Department of Homeland Security, described the situation as more of a “declaration of public health emergency preparedness.”

What is the H1N1 flu virus and how is it transmitted?

The H1N1 virus is a recently detected illness in humans. Persons with H1N1 have symptoms similar to those caused by seasonal flu. This virus has been referred to as swine flu because laboratory testing showed that many of the genes in this new virus were very similar to flu viruses that normally occur in pigs. However, further study has shown that it is very different from the virus that normally circulates in pigs. It has two genes from flu viruses that normally circulate in pigs, but it also has genes from flu viruses that normally circulate in birds and other genes from flu that normally afflicts humans. Scientists call this a “quadruple reassortant” virus.

The current H1N1 flu outbreak is serious. In late March and early April 2009, cases of human H1N1 infection were first reported in Southern California and near San Antonio, Texas. For comparison, only 12 human cases of swine flu were detected in the U.S. from December 2005 to February 2009, with no deaths occurring. The last swine flu outbreak in the U.S. was in 1976.

Swine flu viruses are not spread by food. You cannot get swine flu from eating pork or pork products. Eating properly handled and cooked pork products is safe.

The symptoms of the H1N1 flu in people are similar to the symptoms of regular, seasonal human flu. They

include fever, cough, sore throat, body aches, headache, chills and fatigue. Some people, especially children, have reported diarrhea and vomiting.

Swine flu in humans can vary from mild to severe and may aggravate underlying chronic medical conditions. In the past, complications from swine flu have included pneumonia and difficulty breathing.

The Centers for Disease Control and Prevention recently changed its guidance on the length of time a person should stay home after the onset of H1N1. CDC is now recommending people with influenza-like illness remain at home until at least 24 hours after they are free of 100-degree fever without the use of medication. This recommendation is a change from the previous recommendation that ill persons stay home for seven days after illness onset or until 24 hours after the resolution of symptoms, whichever was longer.

Is there a vaccine or medication available to treat the H1N1 flu?

A vaccine against the new H1N1 flu is being produced and is expected to be available in mid-October. People who are at high risk of severe H1N1 illness, such as pregnant women, the young, and those with underlying health conditions like heart and lung disease, will receive the new vaccine first. As younger age groups become vaccinated and additional supplies of vaccine become available, programs and providers should offer H1N1 vaccine to people 65 and older.

Until then, two antiviral drugs, Relenza® and Tamiflu®, appear to be effective in treating symptoms of this strain of the H1N1 virus. Antiviral drugs may make the illness milder and help an ill person feel better faster. These drugs may also prevent serious flu complications. Antiviral drugs work best if started within two days of the patient becoming ill. There are ample supplies of these drugs already on the market, in the state-owned inventory and as part of federal supplies known as the Strategic National Stockpile.

It should be noted that Relenza® and Tamiflu® are prescription medications designed for treating a person who already has the flu virus. They are not vaccines and are not effective in preventing illness. People should not ask their health care providers for prescriptions for these medications “just in case,” nor try to purchase them by other means.

Missouri’s flu season ended in May, but flu cases have continued to crop up throughout the summer. Last year’s flu vaccine was effective against the seasonal flu, but is not expected to be effective against the new H1N1 virus.

What are current and future responses by the Department of Health and Senior Services?

On Friday, April 24, the state health department issued a Health Advisory to Missouri’s medical community and to public health departments. The Health Advisory asked hospital intensive care units to collect influenza specimens from patients with flu-like illness, confirmed influenza, bacterial pneumonia, or lower respiratory illness with fever. The department also asked our existing network of key health care providers to collect specimens from outpatients suffering from those conditions. The department is monitoring our disease surveillance system, which includes a network of hospital emergency rooms.

The World Health Organization has declared this outbreak a worldwide influenza pandemic. The declaration was based on the spread of the virus throughout the world, not on the severity of the illness. The Missouri Department of Health and Senior Services has prepared for such a pandemic with its Missouri Pandemic Influenza Response plan. Additional activities include enhanced surveillance for the H1N1 virus by requiring immediate, detailed reporting of all diagnosed or suspected cases; conducting more frequent analysis of surveillance data; and activating additional surveillance providers.

The State Public Health Laboratory in Jefferson City is a state-of-the-art facility that handles many kinds of infectious agents. It performs the test necessary to confirm the presence of the H1N1 virus.

What are the current federal government activities?

The federal government is mounting an aggressive response to this outbreak. The CDC's goals during this public health emergency are to reduce transmission and illness severity and to provide information to assist health care providers, public health officials and the public in addressing the challenges posed by this newly identified influenza virus. To achieve those goals, CDC continues to update guidance continuously.

As part of the decision to declare a public health emergency, the federal government has released medical supplies from the Strategic National Stockpile. Distribution of antiviral drugs, personal protective equipment, and respiratory protection devices has been made to all 50 states and U.S. territories. The supplies should provide ample medications and other resources if they are needed in Missouri. In addition, significant private supplies of antiviral medication exist in Missouri.

What is the Missouri Department of Health and Senior Services doing to contain the H1N1 flu in Missouri?

In response to the confirmed cases of swine flu in Missouri, the department oversaw the distribution of medical supplies and antiviral medications to every county in the state.

The department is aggressively tracking the spread of the virus and is working with local public health agencies and the medical community to limit the public's contact with infected patients. The State Public Health Laboratory has tested hundreds of specimens from patients throughout Missouri who were identified as possibly being exposed to the virus.

In addition, the department is working to ensure that all swine flu patients receive appropriate treatment and know ways to keep from passing the H1N1 virus on to others. The department also has published information for specific populations to help them avoid the flu and to help them handle the flu if they contract it.

The department's flu Web site, http://www.dhss.mo.gov/BT_Response/H1N1Flu.html, has specific advice for child care centers, employers, nursing homes, schools, pregnant women, restaurant workers and customers and stroke patients. The department also provides advice, information and leadership to local public health agencies and to the medical community on ways to deal with the H1N1 outbreak and works closely with the news media to disseminate information about the virus.