

## Health Advisory:

### Swine Flu Enhanced Surveillance

April 24, 2009

This document will be updated as new information becomes available. The current version can always be viewed at <http://www.dhss.mo.gov>

The Missouri Department of Health & Senior Services (DHSS) is now using 4 types of documents to provide important information to medical and public health professionals, and to other interested persons:

**Health Alerts** convey information of the highest level of importance which warrants immediate action or attention from Missouri health providers, emergency responders, public health agencies, and/or the public.

**Health Advisories** provide important information for a specific incident or situation, including that impacting neighboring states; may not require immediate action.

**Health Guidances** contain comprehensive information pertaining to a particular disease or condition, and include recommendations, guidelines, etc. endorsed by DHSS.

**Health Updates** provide new or updated information on an incident or situation; can also provide information to update a previously sent Health Alert, Health Advisory, or Health Guidance; unlikely to require immediate action.

Health Advisory  
April 24, 2009

**FROM: MARGARET T. DONNELLY  
DIRECTOR**

**SUBJECT: Swine Flu Enhanced Surveillance**

The Missouri Department of Health and Senior Services (DHSS) is alerting medical providers of 8 cases of swine influenza infection in humans that have been confirmed at this time. Six cases of these cases were detected in the state of California and two cases were detected in Texas. Each of these individuals was infected with a swine influenza A (H1N1) virus, which is unrelated to any H1N1 virus previously seen in North America.

There appears to be human-to-human spread of these viruses – U.S. investigators have not discovered direct exposure to pigs in any of the eight cases. These viruses also have been linked to a swine influenza illness now circulating in Mexico. A World Health Organization spokesperson reports the Mexican outbreak is focused in the Mexico City area and in San Luis Potosi in central Mexico. Symptoms reported in Mexico are a sudden onset of fever higher than 102.2°F, severe head and body ache, eye irritation, and runny nose.

Due to the evolving situation, DHSS is using this Health Alert to keep Missouri health care providers informed. DHSS will use the Health Alert Network to issue updated CDC guidelines as they become available.

Because of concerns regarding human-to-human transmission of swine flu, enhanced statewide human influenza surveillance is being implemented to identify additional cases that may be occurring. Until otherwise notified, DHSS asks that influenza specimens be collected from patients in intensive care units (hospital ICUs) with influenza-like illness, suspect or confirmed influenza, bacterial pneumonia, or febrile lower respiratory illness. As resources permit, DHSS urges that the existing network of Missouri influenza sentinel surveillance providers collect specimens from outpatients who meet the definition for influenza-like illness, suspect or confirmed influenza, bacterial pneumonia, or febrile lower respiratory illness.

Because the virus is not currently believed to be highly pathogenic, specimen collection protocols are the same as for seasonal influenza. Clinicians should obtain a nasopharyngeal swab for influenza testing and place it in a refrigerator (not a freezer). The specimen should be sent to the Missouri State Public Health Laboratory for testing. Attachment 1 of this Health Advisory contains detailed instructions for obtaining and submitting seasonal influenza specimens (and for the current surveillance of swine influenza in humans).

Human-to-human spread of swine flu viruses has been documented in the past; however, it has not previously been documented beyond third generation transmission. It seems likely that transmission is ongoing beyond three contacts, but that has not been determined for certain at this time.

The viruses in the first two patients are resistant (not sensitive) to amantadine and rimantadine, two antiviral medications approved to prevent and treat influenza in the U.S. The viruses are susceptible (sensitive) to the influenza antiviral medications, oseltamivir and zanamivir.

Office of the Director  
912 Wildwood  
P.O. Box 570

Jefferson City, MO 65102  
Telephone: (800) 392-0272

Fax: (573) 751-6041

Web site: <http://www.dhss.mo.gov>

The CDC Morbidity and Mortality Report announcing the two initial cases reports that in the past, they have received reports of approximately one human swine influenza virus infection every one to two years in the United States. However, during December 2005--January 2009, 12 cases of human infection with swine influenza were reported; five of these 12 cases occurred in patients who had direct exposure to pigs, six in patients reported being near pigs, and the exposure in one case was unknown.

Local health department officials will be notified by the DHSS Bureau of Communicable Disease Control and Prevention in the event laboratory results indicate that case and contact investigations are necessary. Local and state public health authorities will work to determine the source of any swine influenza virus found, including the extent of community illness and the need for timely control measures.

Questions should be directed to the local public health agency or to DHSS's Bureau of Communicable Disease Control and Prevention at 573/751-6113, or 866-628-9891.

## Attachment 1

### Missouri State Public Health Laboratory COLLECTION AND SUBMISSION OF SEASONAL INFLUENZA SPECIMENS

Upon receipt of the virus shipping containers, place freeze pillows in freezer and keep frozen until specimens are packaged. Store TPB in a refrigerator (4-8°C) until ready to use.

#### **COLLECTION OF SPECIMEN**

Swab: Use only the supplied Dacron / flocked swab or equivalent. Collect appropriate specimen for Influenza testing. Do not use wood shafted or cotton swabs for specimen collection. Break off swab tip into a vial of transport medium (TPB). Securely fasten the screw cap on the specimen tube. Keep the specimen cold (4-8°C), pending shipment.

Tryptose Phosphate Broth (TPB) is the virus transport media to be used for Influenza testing and is supplied by the Department of Health. Commercially available viral (not bacterial) transport medium may also be used.

NOTE: After a swab is used, place it into the vial of transport medium and break off the swab tip low enough to allow the cap of the media tube to be tightly secured. If the swab is too long for the cap to fit tightly, the media will leak out and we will not be able to test the specimen. **MAKE SURE ALL SPECIMENS ARE LABELED WITH THE PATIENT'S NAME. ANY SPECIMENS RECEIVED WITHOUT PATIENT NAMES WILL BE DISCARDED WITHOUT TESTING.**

#### **Temporary Storage of Specimens for Virus Culture**

Specimens should be shipped to the State Laboratory as soon as possible. In order to ensure accuracy, relevance, and validity of testing and reports, specimens that are not received within 7 days of collection will not be tested unless the specimen has been kept at -70° C and shipped on dry ice. During temporary storage, remember that freezing and thawing can be detrimental to virus survival. It is best to keep specimens at refrigerator temperature during temporary storage. At warmer temperatures virus survival is diminished.

#### **PACKING FOR SHIPMENT OF SPECIMENS FOR VIRUS CULTURE**

Place refrigerant pillows in Styrofoam box. Pillows must be frozen when box is packed for shipment to maintain specimens at proper temperature. Place specimens in safety container provided in Styrofoam container with freezer pillows. Close lid on Styrofoam box and place completed form on top of Styrofoam box. Place Styrofoam box inside cardboard box and tape shut. **DO NOT USE ICE MADE WITH WATER WHEN SHIPPING SPECIMENS FOR TESTING.**

#### **Shipment of Specimens for Virus Culture Testing**

Determine method of shipment (mail or courier) that will get specimens to the Laboratory in the shortest length of time. If possible, select the method of shipment so that the specimens will not arrive in Jefferson City on Saturday, Sunday, or a holiday. **DO NOT SHIP CLINICAL SPECIMENS BY UPS. PLEASE USE THESE KITS FOR SEASONAL INFLUENZA SURVEILLANCE SPECIMENS ONLY.**

Missouri State Public Health Laboratory  
101 North Chestnut Street, Jefferson City, MO 65101  
Phone# 573-751-3334  
Fax # 573-526-2754

Revised: January 14, 2009