

Interim Influenza Surveillance, Reporting and Testing Guidance for Laboratories

Michigan Department of Community Health

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This interim guidance outlines Michigan Department of Community Health (MDCH) recommendations on influenza surveillance, reporting and testing for laboratories in light of recent variant H3N2 (H3N2v) influenza cases associated with swine exposure in Michigan and neighboring states. These recommendations will assist in characterizing the current H3N2v outbreak and virus transmissibility.

Future updates may be issued if influenza virus severity, activity, or transmission changes. Please feel free to call the MDCH Bureau of Laboratories at (517) 335-8063 or the MDCH Division of Communicable Disease at (517) 335-8165 with any questions.

H3N2v Background

- In 2011, a new swine influenza A (H3N2v) virus was detected that had acquired the M gene from the influenza A(H1N1)pdm09 (2009 H1N1) virus. It is possible that the 2009 H1N1 virus M gene may make H3N2 viruses in swine more transmissible to humans and possibly among humans.
- According to USDA swine influenza surveillance, this virus has been detected in swine in a number of U.S. states and may be circulating widely in U.S. swine at this time.
- During 2011, 12 human cases of infection with H3N2v influenza viruses were reported in 5 states. From July 2012 through August 10, 2012, 153 new human cases have also been reported in association with direct and indirect exposure to swine at county fairs. Cases have occurred in Michigan and neighboring states.
- Limited human-to-human transmission of this virus occurred during 2011. No sustained (ongoing) community transmission of H3N2v virus has been observed at this time.
- Most cases have occurred in children; children may lack cross-protective immunity to the H3N2v virus. Clinical symptoms are usually mild and are consistent with seasonal flu symptoms. As with seasonal flu, those at higher risk for flu-related complications may develop more serious illness.
- The most national current information, including case counts updated every Friday, can be found on the CDC's website <http://www.cdc.gov/flu/swineflu/influenza-variant-viruses-h3n2v.htm>.
- Michigan influenza activity continues to be summarized in the MI FluFocus weekly report (available online at www.michigan.gov/flu).

Testing

- Current seasonal influenza circulation in Michigan is very sporadic. Therefore, patients with an influenza-like illness (fever >100°F plus a cough and/or a sore throat) should be questioned about recent exposure to swine or attendance at county or state fairs.
- Collection of respiratory specimens, preferably nasopharyngeal swabs, has always been encouraged for influenza-like illness patients of any patient type (e.g., outpatients, hospitalizations, deaths) during times of low influenza circulation. Due to the recent H3N2v situation, there is extra emphasis on influenza testing for patients in the following priority areas:
 - Those reporting direct or indirect swine exposure or attendance at a county fair
 - Children <18 years of age
 - Unusual or severe presentations of influenza-like illness
 - Outbreaks of influenza-like illness, especially among children

- Commercially available rapid influenza diagnostic tests (RIDTs) **may not** detect H3N2v virus in respiratory specimens. In addition, a positive test result for influenza A cannot confirm H3N2v virus infection because these tests cannot distinguish between influenza A virus subtypes (does not differentiate between human influenza A viruses and H3N2v virus).
- PCR testing available at private, clinical and hospital labs will most likely detect the presence of influenza A virus infection, but may not differentiate an H3N2v infection.
- In Michigan, PCR testing that can diagnose H3N2v infection (the CDC Flu rRT-PCR Dx Panel) is currently only available at the MDCH Bureau of Laboratories. **Specimens from suspect H3N2v cases should be submitted directly to MDCH.**
- During times of low influenza surveillance, confirmatory testing at MDCH should be sought for influenza-positive specimens by any testing method or negative specimens from patients with a high clinical index of suspicion for influenza.
- Information on how to collect and submit specimens to the MDCH Bureau of Laboratories, including the required Test Requisition form, can be found at the following website:
http://www.michigan.gov/mdch/0,1607,7-132-2945_5103-213906--,00.html.
 - Click on the “MDCH Test Request Form” link for the required Test Requisition form
 - See the “Specimen Collection and Shipping” section for the following information:
 - How to build your own influenza specimen collection kit
 - What respiratory specimens are approved for MDCH influenza testing
 - How to collect, package and ship specimens to MDCH

Reporting Recommendations

- **Weekly counts of influenza-like illness:** Please continue reporting these counts to your infection preventionist or local health department as previously established.
- **Suspect variant H3N2 (H3N2v) influenza cases:** Please report these cases to your local health department.
- **Additional cases of public health interest (pediatric influenza-associated deaths, severe, unusual presentations of influenza, facility outbreaks, suspect avian or novel strain influenza cases):** Please report these cases to your local health department. Suspect avian or novel influenza cases should be reported immediately.