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Influenza Testing and Surveillance



Flu Vaccine: For Everyone, Every Year

Influenza Testing & Surveillance Bureau of Laboratories

Novel Influenza A (H1N1) 2009

For the fall 2009 Influenza Season, the MDCH Bureau of Laboratories is **NOT** performing diagnostic testing for 2009 novel influenza A, H1. We will be testing only for public health case investigations (**ICU hospitalizations, severely ill pregnant women, patients with unusual and severe presentations, deaths**) and for **congregate setting outbreak/cluster investigations** along with **surveillance testing** through the Michigan Sentinel Physician and Sentinel Laboratory Programs. See the MDCH [2009-2010 Influenza Testing Algorithm](#) for details.

For the most current updates, see the latest MIFluFocus report dated [September 17, 2009](#). For the latest information on the outbreak, see the MDCH [Novel Influenza H1](#) page or the [Lab's Novel Influenza page](#).

Eleven Michigan novel influenza A (H1N1) specimens have been antigenically characterized by CDC as A/California/07/2009-like (H1N1)v. This strain is the variant reference virus selected by WHO as a potential candidate for the novel influenza A (H1N1) vaccine.

Eight Michigan novel influenza A (H1N1) specimens have been evaluated by CDC for resistance to the adamantane class of antiviral medications. All were resistant. Six of the specimens was evaluated for resistance to oseltamivir and zanamivir; all were sensitive to these antivirals.

Seasonal Influenza A (H1N1) Oseltamivir Resistance Update

Thirty nine influenza seasonal A/H1N1 viruses from the MDCH Bureau of Laboratories have been tested for antiviral resistance at CDC for the 2008-2009 season. All 39 viruses were resistant to oseltamivir and sensitive to zanamivir, amantadine and rimantadine. These viruses

were collected in the SE(15), SW(13), C(3), and N(8) Influenza Surveillance Regions. Four influenza A/H3N2 isolates, collected in the C(2) and N(2) Regions, have been tested for antiviral resistance. These viruses were resistant to the adamantanes (amantadine and rimantadine) and sensitive to oseltamivir and zanamivir. Nineteen influenza B isolates, collected in the SE(8), SW(2), C(1) and N(5) Regions have been tested for antiviral resistance; these viruses were sensitive to oseltamivir and zanamivir (the adamantanes are not effective against B viruses). Antiviral resistance testing takes several weeks to complete, and thus cannot be used to guide treatment of individual patients.

Routine Seasonal Influenza Resources

- [2007-2008 Influenza Season Summary](#)
- [2006-2007 Influenza Season Report](#)
- [Weekly Influenza Surveillance Report](#)
- [Specimen Collection Guidelines for Influenza-Associated Deaths in Children.](#)
- [Michigan Department of Community Health specimen submission information.](#)
- [Michigan Department of Community Health specimen collection information.](#)
- [Sign up now to receive your test results from MDCH via fax instead of U.S. Mail.](#)
- [CDC Influenza Activity Level Descriptions](#)
- [Michigan Main Influenza Page](#)

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Novel and Avian Influenza

- www.michigan.gov/flu- A State of Michigan web site dedicated to influenza (flu).
- www.michigan.gov/prepare- A State of Michigan web site dedicated to emergency preparedness.
- www.pandemicflu.gov- The National Influenza Preparedness web site.
- [Laboratory Biosafety Guidelines](#)- These biosafety guidelines have been developed for Michigan laboratories handling and processing specimens associated with influenza.
- [MDCH 2009-2010 Guidelines for Clinicians on Influenza Testing \(8/14/09\)](#)
- [CDC Guidelines for Follow-up of Contacts of Persons with Suspected Avian Influenza \(H5N1\).](#) - updated 11/25/2008
- [CDC Guidelines for Lab Testing of Persons with Suspected Avian Influenza \(H5N1\).](#) - updated 11/25/2008
- **The MDCH lab has the capacity to perform Universal Influenza A, Swine A and Swine H1 PCR as a part of our Novel Influenza response. [Specific information on this testing.](#)** - updated 7/27/2009
- To expedite receipt of laboratory results, we urge all submitters to register for fax transmittal of reports. Fax agencies receive their reports the day testing is completed. This is especially important for those submitting specimens for H5 PCR testing. Non-fax agencies receive reports via the U.S. Post Office. This method will delay your report by several days. [Registration information.](#)

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2008-2009 Influenza Season Report

Influenza Surveillance Report - Note: this report comes out on Thursday each week.Report for [September 17, 2009](#)**National influenza surveillance summary information for the current week is available at:**

[CDC Novel Influenza A \(H1N1\) page](#)
[CDC Weekly Influenza Surveillance page.](#)
[The CDC Influenza page.](#)
[The World Health Organization](#)

MDCH Laboratory Data

There are medical provider sites from a variety of geographic locations throughout Michigan enrolled in the sentinel surveillance program. These providers represent private practice for adult and pediatric patients, as well as urgent and emergency care facilities, nursing homes and university health services. Michigan is now conducting routine influenza surveillance year round. Thus, MDCH requests submission of two to three specimens for influenza A and B viral culture four times during the year: early influenza season, when influenza virus is beginning to circulate; middle season, during the peak of influenza activity; late season, as influenza activity diminishes; and in the summer months. Participation in this program is voluntary. The data shown here are the results obtained by the MDCH Viral Isolation Unit from specimens submitted by participating sentinel surveillance sites. The influenza season runs from October 1 through September 30 each year.

To locate your Health Region, see the county listing at the end of this page.

Data as of September 3, 2009.

For the latest information on the S-OIV outbreak, see the MDCH [Novel Influenza H1](#) page or the [Lab's Novel Influenza page](#).

Health Region	Inf. B	A/H1N1 or A/H1	A/H3N2 or A/H3	Adeno	Para 2	Para 3	RSV
Southeast	24	63	5	1	0	2	4
Southwest	45	43	3	0	0	0	2
Central	14	25	1	0	0	0	3
Northern	36	57	3	0	0	1	2

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2009-2010 Northern Hemisphere Influenza Vaccine Components

A/Brisbane/59/2007 (H1N1) - like virus
A/Brisbane/10/2007 (H3N2) - like virus
B/Brisbane/60/2008 - like virus

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Past Influenza Season Data

[Summary of 2007/2008 Influenza Season report.](#)
[Summary of 2006/2007 Influenza Season report.](#)
[Summary of 2005/2006 Influenza Season report.](#)

- [Influenza season report for the 2007-2008 season.](#)
- [Influenza season report for the 2006-2007 season.](#)
- [Influenza season report for the 2005-2006 season.](#)
- [Influenza season report for the 2004-2005 season.](#)
- [Influenza season report for the 2003-2004 season.](#)
- [Influenza season report for the 2002-2003 season.](#)

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[Listings of Counties and Their Respective Health Regions](#)

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