



# *MI Flu Focus*

## Influenza Surveillance Updates

### Bureaus of Epidemiology and Laboratories



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### ***Influenza Surveillance Report for the Week Ending August 6, 2016***

#### ***Human Infections with Influenza A (H3N2) Variant (H3N2v) Virus***

As of August 19, 2016, the Michigan Department of Health and Human Services has identified eight human cases of variant influenza A/H3N2 (H3N2v). All of these cases have had documented exposure to swine at either the Muskegon, Ingham or Cass county fairs where pigs also tested positive for H3N2 swine influenza. Michigan healthcare providers should be vigilant for additional suspect human cases of variant influenza that may occur throughout the rest of the fair season. Many fairs are still to be held in all areas of Michigan through the end of September.

Clinical characteristics of an H3N2v infection are similar to symptoms of uncomplicated seasonal influenza, including fever, cough, pharyngitis, rhinorrhea, myalgia, and headache. Vomiting, diarrhea and conjunctivitis have also been reported in some pediatric cases. Milder illness is possible, including lack of fever. Duration of illness in most cases is approximately 5 days, but may be a week or more. As with seasonal flu, those at higher risk for flu-related complications may develop more serious illness. Oseltamivir (Tamiflu) may be effective in treating variant influenza infections, especially if given early.

To promptly report suspect cases and arrange testing, contact your local health department immediately (or contact MDHHS at 517-335-8165 or after hours at 517-335-9030).

#### ***5<sup>th</sup> Annual MDHHS/MSU Pediatric and Adult Influenza Webinar***

MDHHS and MSU are hosting the 5<sup>th</sup> annual Pediatric and Adult Influenza Webinar: 2016-2017 Flu Season webinar to kick off the upcoming flu season on Wednesday, August 24, 2016 from 12:00-1:00 PM (ET). We will be presenting all the information that influenza vaccination providers will need to get ready for the upcoming flu season.

Registration is open until Aug 23rd and is available at: <http://events.anr.msu.edu/immunization/>.

There is 1.0 CME credit available for physicians and nurses, and 1.0 PCE credit available for pharmacists.

If you have any questions about the 2016-17 Flu Kick-Off Webinar, please contact Connie Demars at [demars@anr.msu.edu](mailto:demars@anr.msu.edu).

#### **Michigan Disease Surveillance System**

MDSS influenza data indicated that compared to levels from the previous week, aggregate reports were similar, while individual reports had increased. Aggregate reports had decreased compared to levels seen during the same time period last year, while individual reports had increased.

#### **Emergency Department Surveillance**

Compared to levels from the week prior, emergency department visits from constitutional and respiratory complaints were similar. Levels of constitutional complaints were slightly higher than those recorded during the same time period last year, while respiratory complaints were similar.

- 10 constitutional alert (2N, 5C, 3SW)
- 2 respiratory alerts (1N, 1C)

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### Hospital Surveillance

The CDC Influenza Hospitalization Surveillance Project provides population-based rates of hospitalization due to severe influenza illness through active surveillance and chart review of lab-confirmed cases from Oct. 1, 2015 until Apr. 30, 2016, for Clinton, Eaton, Genesee, and Ingham counties. During the surveillance period, there were 75 pediatric (39.3 per 100,000 population) and 217 adult (31.6 per 100,000 population) hospitalizations reported within the catchment area. Note: The catchment period for the IHSP has ended for the 2015-2016 influenza season.

The MDHHS Influenza Sentinel Hospital Network monitors influenza hospitalizations reported voluntarily by hospitals statewide. During the summer months, hospitalizations are reported on a case-by-case basis. Results for the 2015-16 flu season are listed in the table below. Additional hospitals are welcome to join; please contact Seth Eckel at [eckels1@michigan.gov](mailto:eckels1@michigan.gov).

Age Group	New Flu Hospitalizations Reported	Total 2015-16 Flu Hospitalizations Reported to Date
0-4 years	0	40 (22N, 1C, 8SW, 9SE)
5-17 years	0	28 (13N, 1C, 4SW, 10SE)
18-49 years	0	166 (30N, 3C, 34SW, 99SE)
50-64 years	0	225 (30N, 9C, 40SW, 146SE)
65 years & older	0	262 (30N, 9C, 43SW, 180SE)
<b>Total</b>	<b>0</b>	<b>721 (125N, 23C, 129SW, 444SE)</b>

### Influenza-associated Pediatric Mortality

No new influenza-associated pediatric deaths were reported to MDHHS. One influenza-associated pediatric death (SE) has been reported to MDHHS for the 2015-16 season.

### Laboratory Surveillance

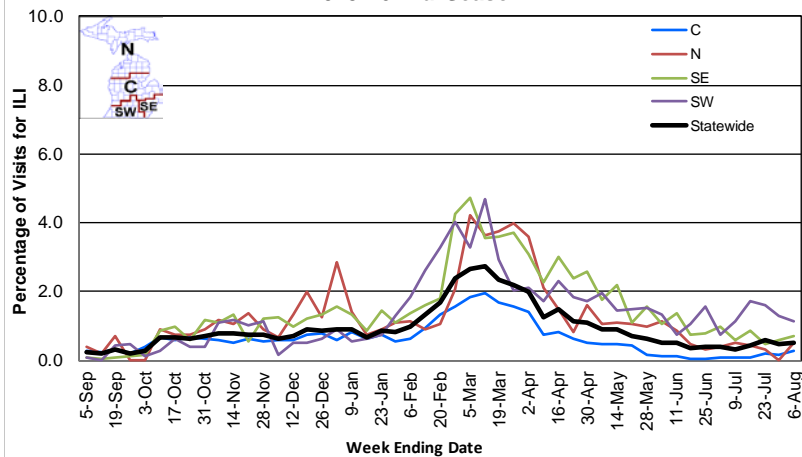
MDHHS Bureau of Laboratories reported no new positive influenza results. A total of 381 positive influenza results have been reported for the 2015-16 season. Influenza results for the 2015-16 season are in the table below.

Respiratory Virus	# Positive Respiratory Virus Results by Region				Total	# Specimens Antigenically Characterized	# Tested for Antiviral Resistance
	C	N	SE	SW			# Resistant / Total # Tested
2009 A/H1N1pdm	62	23	72	113	270	22* (21 A/California/07/2009-like (H1N1)pdm09**)	2 / 96
Influenza A/H3	17	7	12	17	53	8* (6 A/Switzerland/9715293/2013-like <sup>†</sup> ) 2 A/H3N2-variant	0 / 20
Influenza B	8	6	17	24	55	43 (18 B/Yamagata lineage [5 B/Phuket/3073/2013-like <sup>††</sup> ], 21 B/Victoria lineage [3 B/Brisbane/60/2008-like])	
A / unsubtypeable				5	5		
LAIV recovery				1	1		
RSV			2		2		
Adenovirus	2		1		3		
Parainfluenza type 1			1		1		

\*Specimens antigenically characterized by CDC; \*\*A/California/07/2009-like (H1N1)pdm09 is the H1N1 component of the 2015-16 Northern Hemisphere flu vaccines; <sup>†</sup>A/Switzerland/9715293/2013-like (H3N2) is the H3N2 component of the 2015-16 Northern Hemisphere flu vaccines; <sup>††</sup>B/Phuket/3073/2013-like virus is the B/Yamagata component of the 2015-16 Northern Hemisphere trivalent and quadrivalent flu vaccines.

In addition, 9 sentinel clinical labs (2SE, 2SW, 5C) reported influenza results. One lab (C) reported sporadic influenza A activity. No labs reported influenza B activity. Two labs (SW, C) reported ongoing low Parainfluenza activity. No labs reported RSV activity. Two labs (SW, C) reported sporadic Adenovirus activity. One lab (C) reported sporadic hMPV activity. Testing volumes overall remain low or very low.

**Percentage of Visits for Influenza-like Illness (ILI) Reported by Sentinel Providers, Statewide and Regions 2015-16 Flu Season**



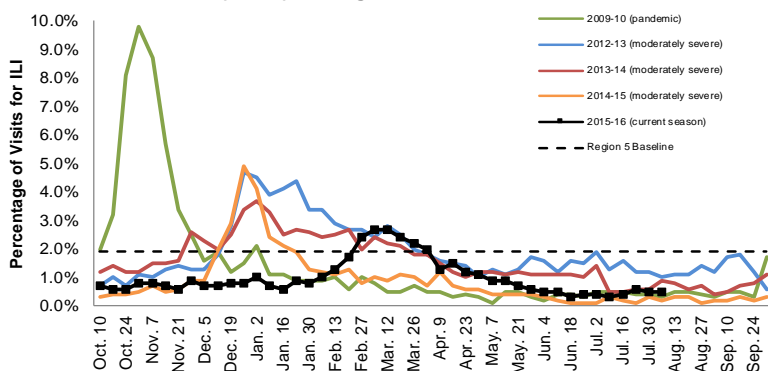
**Sentinel Provider Surveillance**

The proportion of visits due to influenza-like illness (ILI) remained at 0.5% overall, which is below the regional baseline of 1.9%. A total of 40 patient visits due to ILI were reported out of 7,588 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (24 total):

- C (5)
- N (4)
- SE (12)
- SW (3)

**Percentage of Visits for Influenza-like Illness (ILI) Reported by the US Outpatient Influenza-like Illness Surveillance Network (ILINet): Michigan, Select Seasons**



**Become a Sentinel Provider!**

As part of pandemic influenza surveillance, CDC and MDHHS highly encourage year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Jalyn Ingalls ([IngallsJ@michigan.gov](mailto:IngallsJ@michigan.gov)) for more information.

**National:** In the United States, 0.6% of outpatient visits were due to influenza-like illness, which is below the national baseline of 2.1%. No new influenza-associated pediatric deaths were reported, for a total of 85 pediatric deaths for the 2015-16 flu season. Additional information is in the weekly FluView reports available at: [www.cdc.gov/flu/weekly/](http://www.cdc.gov/flu/weekly/).

**NOTE:** Influenza surveillance in the U.S. will continue through the summer months with condensed reports available in the FluView; the full publication resumes on October 16, 2015. [FluView interactive](#) will be updated over the summer months.

**International:** In the Northern Hemisphere, influenza activity was low with influenza A/H3N2 and B predominating in different regions. In the Southern Hemisphere, influenza activity varied in countries of temperate South America and increased steadily in the last few weeks in South Africa, but remained low overall in most of Oceania. More information is available at: [www.who.int/influenza/surveillance\\_monitoring/updates/latest\\_update\\_GIP\\_surveillance/en/](http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/).

**Influenza Congregate Settings Outbreaks**

There were no new respiratory facility outbreaks reported. There have been a total of 34 respiratory facility outbreaks reported to MDHHS for the 2015-16 season. Respiratory facility outbreaks are listed in the table below by facility type and surveillance region.

Facility Type	C	N	SE	SW	Total
K-12 School	1	2		4	7
Long-term Care / Assisted Living Facility	8	2	5	8	23
Healthcare Facility		2	1		3
Daycare				1	1
Correctional Facility		1			1
<b>Total</b>	<b>9</b>	<b>7</b>	<b>6</b>	<b>13</b>	<b>34</b>