



# MI Flu Focus

## Influenza Surveillance Updates

### Bureaus of Epidemiology and Laboratories



Editor: Stefanie Cole, RN, MPH   ColeS4@michigan.gov   February 3, 2016   Vol. 13; No. 3

### Influenza Surveillance Report for the Week Ending January 23, 2016

**MI's Influenza Activity Level:**  
Local

**Updates of Interest:**

- CDC issued a [health advisory](#) on Feb. 1 regarding severe influenza illness, mostly due to H1N1 in recent weeks, urges rapid antiviral treatment.

#### Michigan Disease Surveillance System

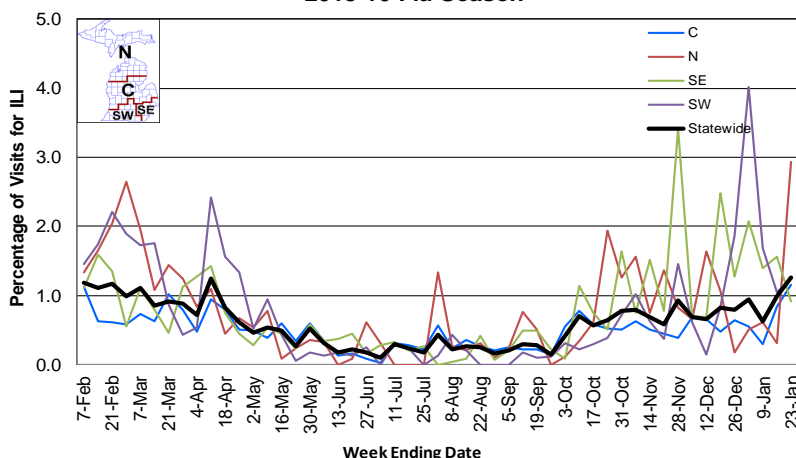
MDSS influenza data indicated that compared to levels from the previous week, aggregate reports had decreased while individual reports had increased. Aggregate and individual reports were both lower than levels seen during the same time period last year.

#### 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 lower than those recorded during the same time period last year, while respiratory complaints had increased.

- 7 constitutional alerts (2SW, 4C, 1N)
- 9 respiratory alerts (3SW, 6C)
- Last MIFF report: 5 constitutional alerts (2SE, 3C), 3 respiratory alerts (C)

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



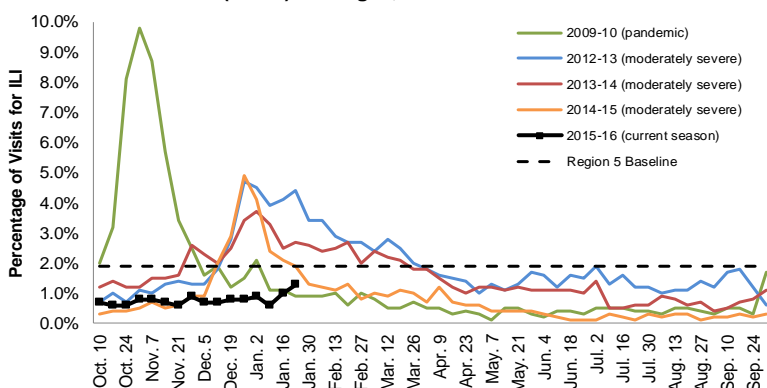
#### Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) increased to 1.3% overall; this is below the regional baseline (1.9%). A total of 177 patient visits due to ILI were reported out of 14,032 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (31 total):

- C (12)
- N (4)
- SE (9)
- SW (6)

**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 Stefanie Cole ([ColeS4@michigan.gov](mailto:ColeS4@michigan.gov)) for more information.

#### Table of Contents:

Michigan Surveillance.....1-3  
National Surveillance.....3  
International Surveillance....3  
FluBytes .....4

### 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 beginning on Oct. 1, 2015, for Clinton, Eaton, Genesee, and Ingham counties. Since Oct. 1, there have been 3 pediatric (1.6 per 100,000 population) and 5 adult (0.7 per 100,000 population) hospitalizations reported within the catchment area.

The MDHHS Influenza Sentinel Hospital Network monitors influenza hospitalizations reported voluntarily by hospitals statewide, and 12 hospitals (N, C, & SE) reported. 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	3 (SE)
5-17 years	0	0
18-49 years	4 (SE)	15 (1N, 1C, 13SE)
50-64 years	0	4 (SE)
65 years & older	2 (SE)	12 (11SE, 1SW)
<b>Total</b>	<b>6 (SE)</b>	<b>34 (1N, 1C, 31SE, 1SW)</b>

### Laboratory Surveillance

MDHHS Bureau of Laboratories reported 14 new positive influenza results: 13 2009 A/H1N1pdm and 1 influenza B. A total of 75 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	6	2	39	7	54	10* (10 A/California/07/2009-like (H1N1)pdm09**)	1 / 43
Influenza A/H3	5		8	3	16	2* (2 A/Switzerland/9715293/2013-like†)	0 / 6
Influenza B	1		2		3	2 (2 B/Yamagata lineage)	
A / unsubtypeable				2	2		
RSV			2		2		

\*Specimens antigenically characterized by CDC; \*\*A/California/07/2009-like (H1N1)pdm09 is the H1N1 component of the 2015-16 Northern Hemisphere flu vaccines; †A/Switzerland/9715293/2013-like (H3N2) is the H3N2 component of the 2015-16 Northern Hemisphere flu vaccines.

In addition, 13 sentinel clinical labs (4SE,2SW,6C,1N) reported influenza results. Seven labs (SE,SW,C) reported influenza A activity with most sites still at low levels except for continued upward trending in the SE region. Three labs (SE) reported sporadic influenza B activity. Four labs (SE,SW,C) reported low or slightly increased Parainfluenza activity. Eleven labs (SE,SW,C,N) reported low to moderate RSV activity with further gradual increases at several sites. Six labs (SE,SW,C) reported low or slightly elevated but steady Adenovirus activity. Six labs (SE,SW,C) reported low or slightly increased hMPV activity. Most testing volumes remain in the moderate to upper-moderate range.

### Influenza Congregate Settings Outbreaks

There were 2 new respiratory facility outbreaks reported. There have been a total of 5 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		1	2
Long-term Care / Assisted Living Facility	2				2
Healthcare Facility			1		1
<b>Total</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>5</b>

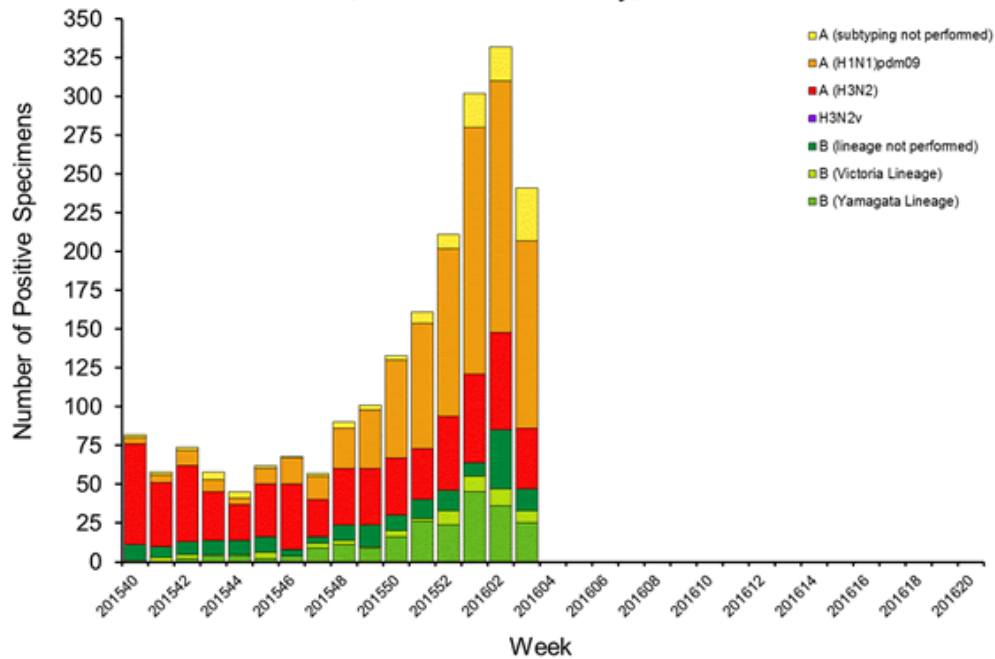
### Influenza-associated Pediatric Mortality

No influenza-associated pediatric deaths have been reported to MDHHS for the 2015-16 season.

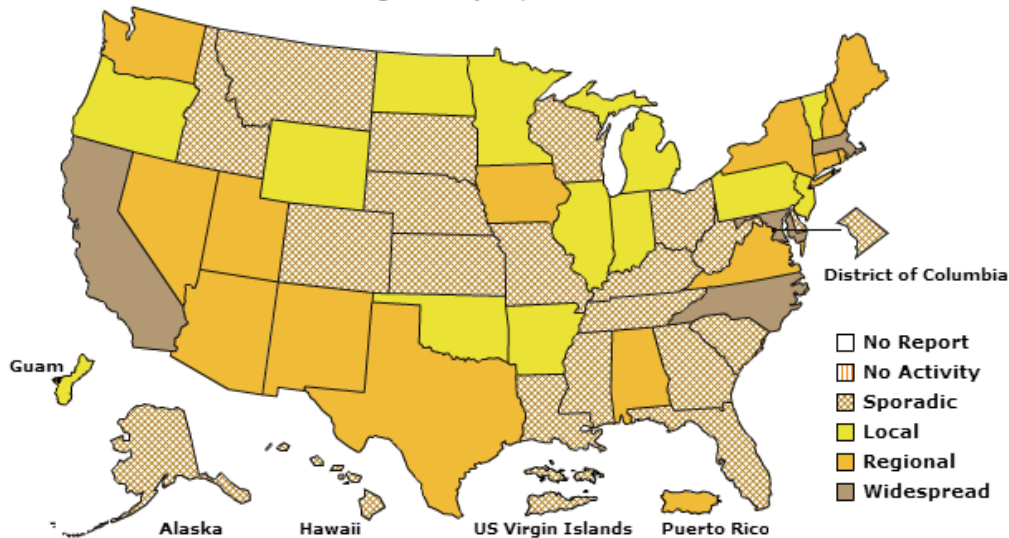
**National:** In the United States, flu activity increased slightly with 2.2% of outpatient visits due to influenza-like illness, which was above the national baseline of 2.1%. Six of 10 regions reported ILI at or above region-specific baselines. No new influenza-associated pediatric deaths were reported, for a total of 7 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/).

**International:** High levels of flu activity were reported from some countries in Western Asia. Increasing flu activity was reported in northern America, northern and eastern Europe, and northern/temperate Asia. Most detected flu viruses were influenza A(H1N1)pdm09. 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 Positive Tests Reported to CDC by U.S. Public Health Laboratories, National Summary, 2015-2016 Season



A Weekly Influenza Surveillance Report Prepared by the Influenza Division  
Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists\*  
Week Ending January 23, 2016- Week 3





## U.S. SEASONAL INFLUENZA NEWS

- CDC HAN: [Flu season begins: severe influenza illness reported](#) (Feb. 1)
- [Operations normal at Indiana prison after flu outbreak](#)
- [Influenza activity beginning to pick up in Wyoming](#)
- [Tennessee Department of Health warns residents to get flu shot](#)
- [Flu spikes in New York late in season](#)

## AVIAN INFLUENZA NEWS IN NORTH AMERICA

- [Avian influenza having little effect on Indiana poultry production](#)

## AVIAN INFLUENZA INTERNATIONAL NEWS

- [CHP closely monitors two additional human cases of avian influenza A\(H7N9\) in Mainland](#)
- [Avian influenza erodes 21 farms, 70,000 birds culled in Plateau, Nigeria](#)

## MI IMMUNIZATION TIMELY TIPS NEWSLETTER

The January issue of the Michigan Immunization Timely Tips (MITT) newsletter has been [posted](#). This issue contains news on the CDC Childhood Immunization Champion Award, interpreting foreign immunization records, Hepatitis B reporting requirements, and more!

## OTHER IMMUNIZATION NEWS

- [The Emily Stillman Foundation](#) has posted a new meningitis B [public service announcement](#)
- CDC has published the 2016 [childhood](#) and [adult](#) immunization schedules
- [Nominate](#) an individual or organization for the National Adult and Influenza Immunization Summit 2016 Immunization Excellence Awards by February 15
- The February 24 ACIP meeting [draft agenda](#) has been posted
- WHO meets Feb. 22-25 to determine strains for 2016-17 Northern Hemisphere flu vaccines
- This year, [National Infant Immunization Week](#) is April 16-23, [let CDC know](#) your NIIW activities

## FLU WEBSITES

[www.michigan.gov/flu](http://www.michigan.gov/flu)  
[www.cdc.gov/flu](http://www.cdc.gov/flu)  
[www.flu.gov](http://www.flu.gov)  
<http://vaccine.healthmap.org/>

## INFLUENZA-RELATED JOURNAL ARTICLES

- *American Journal of Health Economics*: [Success is something to sneeze at: influenza mortality in cities that participate in the Super Bowl](#)
  - Estimated having a local team in the Super Bowl associated with 18% increase in flu deaths for the population over 65 years
  - Results more pronounced in years where dominant flu strain was more virulent, when Super Bowl occurred closer to peak of flu season
  - Found no impacts on flu mortality in hosting cities
- *Eurosurveillance*: [Differential age susceptibility to influenza B/Victoria lineage viruses in the 2015 Australian influenza season](#)
  - 2015 season saw unusual predominance of influenza B, distinctive switch from B/Yamagata/16/88 to B/Victoria/2/87
  - B/Victoria infected younger population than B/Yamagata
- *Emerging Infectious Diseases*: [Nosocomial co-transmission of avian influenza A\(H7N9\) and A\(H1N1\)pdm09 viruses between 2 patients with hematologic disorders](#)
  - Findings strongly suggest limited nosocomial co-transmission of H7N9 and pH1N1 viruses from 1 immune compromised patient to another
- [Flu vaccine shows promise for reducing risk of influenza-associated atrial fibrillation](#)
- [Effectiveness of influenza vaccine for pregnant women may differ by trimester](#)
  - Results suggest greatest response to vaccination during first trimester
- [Pandemic influenza A\(H1N1\) virus infection increases apoptosis and HIV-1 replication in HIV-1 infected Jurkat cells](#)

## OTHER INFLUENZA-RELATED NEWS

- [GSK announces US regulatory submission seeking expanded indication for FluLaval® Quadrivalent vaccine for infants 6+ months](#)
- [After a few December cases, H3N2 dog flu is a minor concern in Austin](#)
- CDC: [145.8 million doses of flu vaccine distributed in U.S.](#)

Archived editions of FluBytes are available [here](#) and MI FluFocus archives are [here](#).

For questions or to be added to the distribution list, please contact Stefanie Cole at [ColeS4@michigan.gov](mailto:ColeS4@michigan.gov).

### MDHHS Contributors

Bureau of Epidemiology – S. Bidol, MPH, S. Cole, RN, MPH, S. Eckel, MPH  
Bureau of Labs – B. Robeson, MT, V. Vavricka, MS