



# MI Flu Focus

## Influenza Surveillance Updates

### Bureaus of Epidemiology and Laboratories



Editor: Stefanie Cole, RN, MPH   ColeS4@michigan.gov   November 12, 2015   Vol. 12; No. 35

### Influenza Surveillance Report for the Week Ending October 31, 2015

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

**Updates of Interest:**

- Nationally, more than [123 million doses](#) of flu vaccine have been distributed so far during the 2015-16 flu season.

#### Michigan Disease Surveillance System

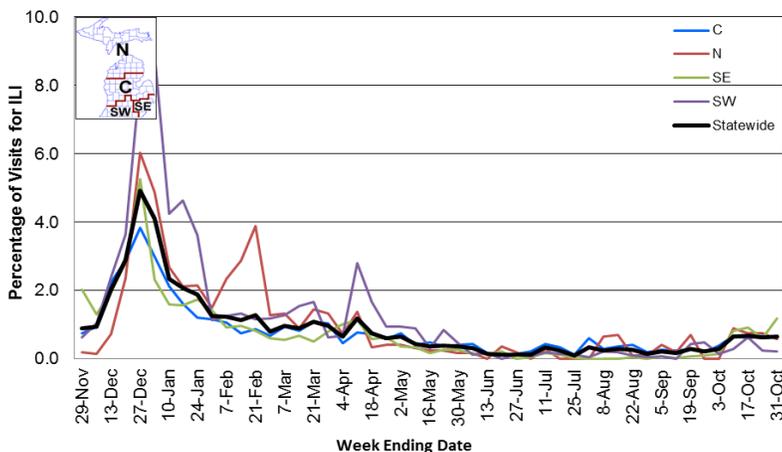
MDSS influenza data indicated that compared to levels from the previous week, aggregate and individual reports had both decreased. Aggregate and individual reports were both lower than levels seen during the same time period last year.

#### Emergency Department Surveillance

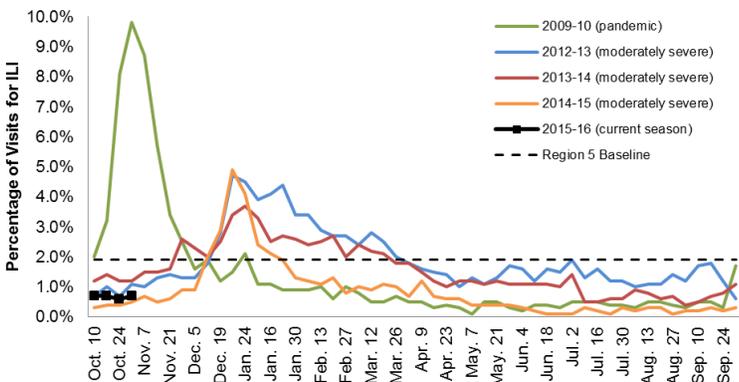
Compared to levels from the week prior, emergency department visits from constitutional complaints were similar, while respiratory complaints had decreased. Levels of constitutional and respiratory complaints were both lower than those recorded during the same time period last year.

- 8 constitutional alerts (2SE, 3SW, 2C, 1N)
- 5 respiratory alerts (2SW, 3C)

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



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



#### Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) increased to 0.7% overall; this is below the regional baseline (1.9%). A total of 163 patient visits due to ILI were reported out of 24,639 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (66 total):

- C (41)
- N (7)
- SE (10)
- SW (8)

#### 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.....1-2  
National Surveillance.....3  
International Surveillance....3  
FluBytes .....3

### 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 has been 1 adult hospitalization 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 & SW) 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	0
5-17 years	0	0
18-49 years	0	0
50-64 years	0	1 (SE)
65 years & older	0	1 (SE)
<b>Total</b>	<b>0</b>	<b>2 (SE)</b>

### Laboratory Surveillance

MDHHS Bureau of Laboratories reported 2 new positive influenza results: 1 A/H3 and 1 2009 A/H1N1pdm. A total of 10 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	1		2		3	1* (1 A/California/07/2009-like (H1N1)pdm09**)	
Influenza A/H3			5	2	7		

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

In addition, 11 sentinel clinical labs (3SE,2SW,6C) reported influenza results. Two labs (SE) reported sporadic influenza A activity. No labs reported influenza B activity. Three labs (SE,SW,C) reported sporadic or low Parainfluenza activity. Two labs (SE) reported sporadic RSV activity. Four labs (SE,SW,C) reported sporadic Adenovirus activity. One lab (SE) reported sporadic hMPV activity. Most testing volumes remain near the moderate range.

### Influenza Congregate Settings Outbreaks

There were no new respiratory facility outbreaks reported. There has been a total of 1 respiratory facility outbreak 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	0	0	0	1	1
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</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 was low with 1.4% of outpatient visits due to influenza-like illness, which is below the national baseline of 2.1%. No influenza-associated pediatric deaths have been reported 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:** Globally, influenza activity generally decreased or remained low in both hemispheres, with only a few countries reporting elevated respiratory illness levels. In Cuba, high numbers of severe acute respiratory infections associated with influenza A(H1N1)pdm09 and RSV continue to be reported. Iran reported increased flu detections, mostly due to influenza A(H3N2). 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/).

# FluBytes



## 2015-16 SEASONAL FLU ACTIVITY

- [US flu levels still low, with few global hot spots](#)
- [California confirms first flu death \(adult\) of the season](#)
- [California reports first infant flu death of the season](#)

## INFLUENZA-RELATED JOURNAL ARTICLES

- [Influenza and pertussis vaccination among pregnant women and their infants' close contacts: reported practices and attitudes](#)
  - 61% of mothers reported they and at least 1 close contact received flu vaccine, 67% reported this for Tdap
  - Factors associated with cocooning included OB recommendation, high perceived benefits, low perceived barriers, and perceived susceptibility to disease
- [Topical imiquimod before intradermal trivalent influenza vaccine for protection against heterologous non-vaccine and antigenically drifted viruses: a single-center, double-blind, randomized, controlled phase 2b/3 trial](#)
  - Topical application of imiquimod skin cream before intradermal trivalent flu vaccination significantly improved immunogenicity against the vaccine strains in healthy young adults and increased immunogenicity against the non-vaccine strains
- [Emergence of hemagglutinin mutations during the course of influenza infection](#)
- *Virology*: [Experimental infection of peridomestic mammals with emergent H7N9 \(A/Anhui/1/2013\) influenza A virus: implications for biosecurity and wet markets](#)
  - Striped skunks exhibited highest burden of disease followed by raccoons and cottontail rabbits

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

## UPCOMING FLU VACCINE WEBINAR: NOV. 18

The Vaccine Education Center at the Children's Hospital of Philadelphia is presenting a webinar on November 18 from 12-1 PM (ET) titled, "Influenza Vaccines: Making Sense of All the Choices." Free continuing education credits (CME, CEU, and CPE) will be available. [Registration](#) is required.

## AVIAN INFLUENZA INTERNATIONAL NEWS

- [China H7N9 case total for the season rises to 4](#)
- [China: two additional H7N9 avian influenza cases reported in Zhejiang](#)
- *PLoS ONE*: [Detection and genetic characteristics of H9N2 avian influenza viruses from live poultry markets in Hunan Province, China](#)

## AVIAN INFLUENZA NEWS IN NORTH AMERICA

- [Poultry exhibit ban lifted in West Virginia, but producers warned to stay alert](#)
- [USDA declares Iowa quarantine free of avian influenza](#)
- Any reports of sick or dead birds should be forwarded immediately to the proper agency:
  - For domestic poultry, contact MDARD:
    - M-F 8AM-5PM, 1-800-292-3939
    - After hours/weekends, 517-373-0440
  - For wildlife (die-off of waterfowl, gulls, or shorebirds), contact DNR:
    - M-F 8AM-5PM, 517-336-5030
    - After hours/weekends, 1-800-292-7800

## OTHER INFLUENZA-RELATED NEWS

- CDC: [123.7 million doses of flu vaccine distributed in U.S.](#)
- [CSL: Flu vaccine unit created by Novartis merger now called Seqirus](#)
- [Sanofi Pasteur shares universal influenza vaccine research](#)

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