



# MI Flu Focus

## Influenza Surveillance Updates

### Bureaus of Epidemiology and Laboratories



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### Influenza Surveillance Report for the Week Ending December 19, 2015

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

**Updates of Interest:**

- [Forecast models](#) released by the CDC predict the peak of flu activity this flu season will take place in February.

#### Michigan Disease Surveillance System

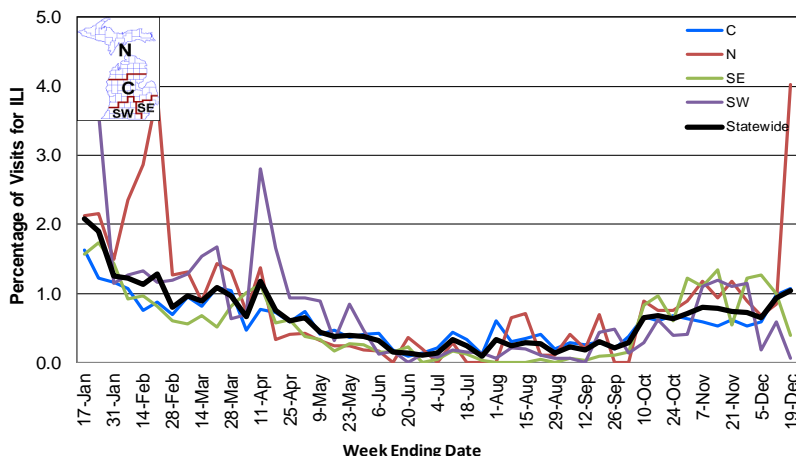
MDSS influenza data indicated that compared to levels from the previous week, aggregate reports have decreased while individual reports were similar. Both aggregate and individual reports were lower than levels seen during the same time period last year.

#### Emergency Department Surveillance

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

- 8 constitutional alerts (1SE, 4C, 2N, 1 Statewide)
- 5 respiratory alerts (1SE, 1SW, 2C, 1N)
- Last MIFF report: 6 constitutional alerts (1SE, 1SW, 3C, 1N), 8 respiratory alerts (2SW, 5C, 1N)

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



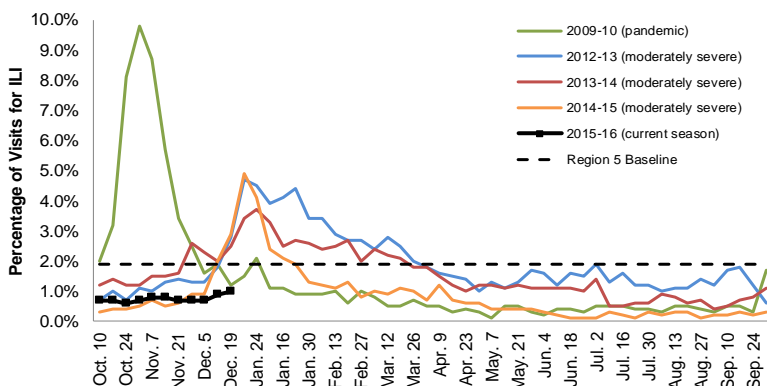
#### Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) increased to 1.0% overall; this is below the regional baseline (1.9%). A total of 126 patient visits due to ILI were reported out of 12,110 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (28 total):

- C (14)
- N (4)
- SE (6)
- SW (4)

**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.

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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 beginning on Oct. 1, 2015, for Clinton, Eaton, Genesee, and Ingham counties. Since Oct. 1, there have been 3 pediatric and 2 adult hospitalizations reported within the catchment area.

The MDHHS Influenza Sentinel Hospital Network monitors influenza hospitalizations reported voluntarily by hospitals statewide, and 14 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	1 (SE)	1 (SE)
5-17 years	0	0
18-49 years	2 (1N, 1SE)	4 (1N, 3SE)
50-64 years	0	1 (SE)
65 years & older	1 (SW)	2 (1SE, 1SW)
<b>Total</b>	<b>4 (1N, 2SE, 1SW)</b>	<b>8 (1N, 6SE, 1SW)</b>

### Laboratory Surveillance

MDHHS Bureau of Laboratories reported 10 new positive influenza results: 8 2009 A/H1N1pdm, 1 A/H3, and 1 influenza A unable to be subtyped. A total of 36 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		17	2	20	2* (2 A/California/07/2009-like (H1N1)pdm09**)	1 / 2
Influenza A/H3	3		8	3	14	2* (2 A/Switzerland/9715293/2013-like†)	
Influenza B			1		1		
A / unsubtypeable				1	1		
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. Four labs (SE,C) reported sporadic or low influenza A activity. One lab (SE) reported sporadic influenza B activity. Four labs (SE,SW,C) reported low or increasing Parainfluenza activity. Ten labs (SE,SW,C) reported low or moderately increasing RSV activity. Five labs (SE,SW,C) reported low or increasing Adenovirus activity. Three labs (SE,SW) reported sporadic hMPV activity. Most testing volumes were in the low to moderate range.

### Influenza Congregate Settings Outbreaks

There were no new respiratory facility outbreaks reported. There have been a total of 2 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	0	0	0	1	1
Long-term Care / Assisted Living Facility	1	0	0	0	1
<b>Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</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 the first week this flu season above the national baseline of 2.1%. Four of 10 regions reported ILI at or above region-specific baselines. One influenza-associated pediatric death was reported, for a total of 4 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:** Globally, influenza activity generally remained low in both hemispheres. 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



## AVIAN INFLUENZA NEWS IN NORTH AMERICA

- [Michigan Agriculture officials lift poultry exhibition ban after evaluating bird flu spread](#)
- [Bird show ban lifted in Ohio](#)
- [How to protect backyard chickens from avian flu](#)
- 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

## AVIAN INFLUENZA INTERNATIONAL NEWS

- [H5N6 avian influenza case reported in Shenzhen, China](#)
- [CHP closely monitors a human fatal case of avian influenza A\(H7N9\) in Guangdong Province](#)
- [Ghana confirms 5 H5N1 outbreaks affecting 27,000 poultry](#)
- [Updated Outbreak Assessment: Avian influenza of high pathogenicity \(H5N1, H5N2, and H5N9\) in poultry in France](#)
- [Over 10,000 chickens in Taiwan culled due to avian flu](#)
- *Virology:* [Poultry vaccination directed evolution of H9N2 low pathogenicity avian influenza viruses in Korea](#)
  - Implementation of vaccine since 2007 dramatically reduced the diversity of virus

## 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

- [Prevalence, genetics, and transmissibility in ferrets of Eurasian avian-like H1N1 swine influenza viruses](#)
  - Researchers found that after long-term evolution in pigs, Eurasian avian-like H1N1 swine influenza viruses have obtained the traits to cause a human flu pandemic
- [Influenza vaccine is protective against laboratory-confirmed influenza in obese children](#)
  - Obese children with PCR-confirmed flu suffered from more cough and missed more school days than their non-obese peers
- [Harvard Medical School, Children's Hospital investigate effects of initial influenza infection](#)
- [Hemagglutinin gene clade 3C.2a influenza A\(H3N2\) viruses, Alachua County, Florida, 2014-15](#)
- [Cold, dry air is associated with influenza and pneumonia mortality in Auckland, New Zealand](#)
- [Prevalence of gastrointestinal symptoms in patients with influenza, clinical significance, and pathophysiology of human influenza viruses in fecal samples: what do we know?](#)
- *Vaccine:* [The confounded effects of age and exposure history in response to influenza vaccination](#)

## OTHER INFLUENZA-RELATED NEWS

- [February predicted as peak of flu season](#)
- CDC: [143.3 million doses of flu vaccine distributed in U.S.](#)
- [Slowly growing US flu activity rises above key baseline](#)
- [First flu deaths of season reported in Las Vegas](#)

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).

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