



# MI Flu Focus

## Influenza Surveillance Updates

### Bureaus of Epidemiology and Laboratories



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### Influenza Surveillance Report for the Week Ending October 1, 2016

**Updates of Interest:**

This is the last MI FluFocus that reports data for the 2015-2016. Surveillance for the 2016-2017 season started on October 2<sup>nd</sup>. Data for that time period will be displayed in next week's report.

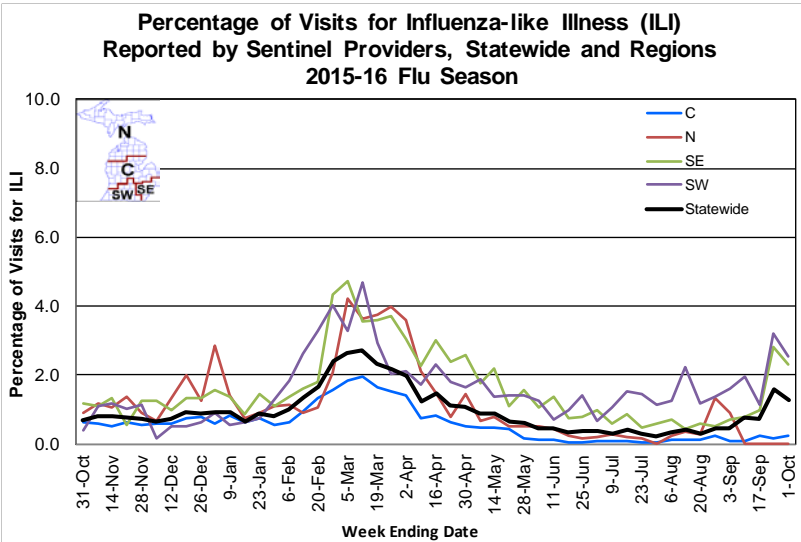
**Michigan Disease Surveillance System**

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

**Emergency Department Surveillance**

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

- 2 constitutional alert (C)
- 6 respiratory alerts (1N, 4C, 1SW)

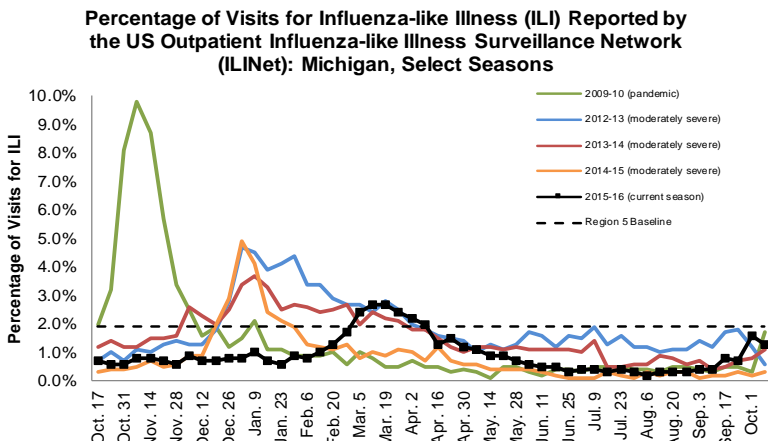


**Sentinel Provider Surveillance**

The proportion of visits due to influenza-like illness (ILI) increased to 1.3% overall, which is below the regional baseline of 1.9%. A total of 116 patient visits due to ILI were reported out of 9,003 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (30 total):

- C (10)
- N (2)
- SE (13)
- SW (5)



**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 Jalyng Ingalls ([IngallsJ@michigan.gov](mailto:IngallsJ@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 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 surveillance period for the IHSP starts on October 1<sup>st</sup>, 2016 for the 2016-2017 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>

## Laboratory Surveillance

MDHHS Bureau of Laboratories reported two new positive influenza results, both identified as influenza A/H3. A total of 406 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	73	113	271	23* (21 A/California/07/2009-like (H1N1)pdm09**)	2 / 96
Influenza A/H3	17	7	23	28	75	8* (6 A/Switzerland/9715293/2013-like <sup>†</sup> ) 12 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, 10 sentinel clinical labs (2SE, 2SW, 6C) reported influenza results. Two labs (SE) reported sporadic influenza A activity. No labs reported influenza B activity. Three labs (SE, C) reported ongoing low Parainfluenza activity. Two labs (SE, C) reported sporadic RSV activity. Two labs (C) reported sporadic or low Adenovirus activity. No labs reported hMPV activity. Testing volumes overall remain low but several sites are showing upward trends.

### Influenza Congregate Settings Outbreaks

There was one new respiratory facility outbreaks reported. There have been a total of 36 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	9	24
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>14</b>	<b>36</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.

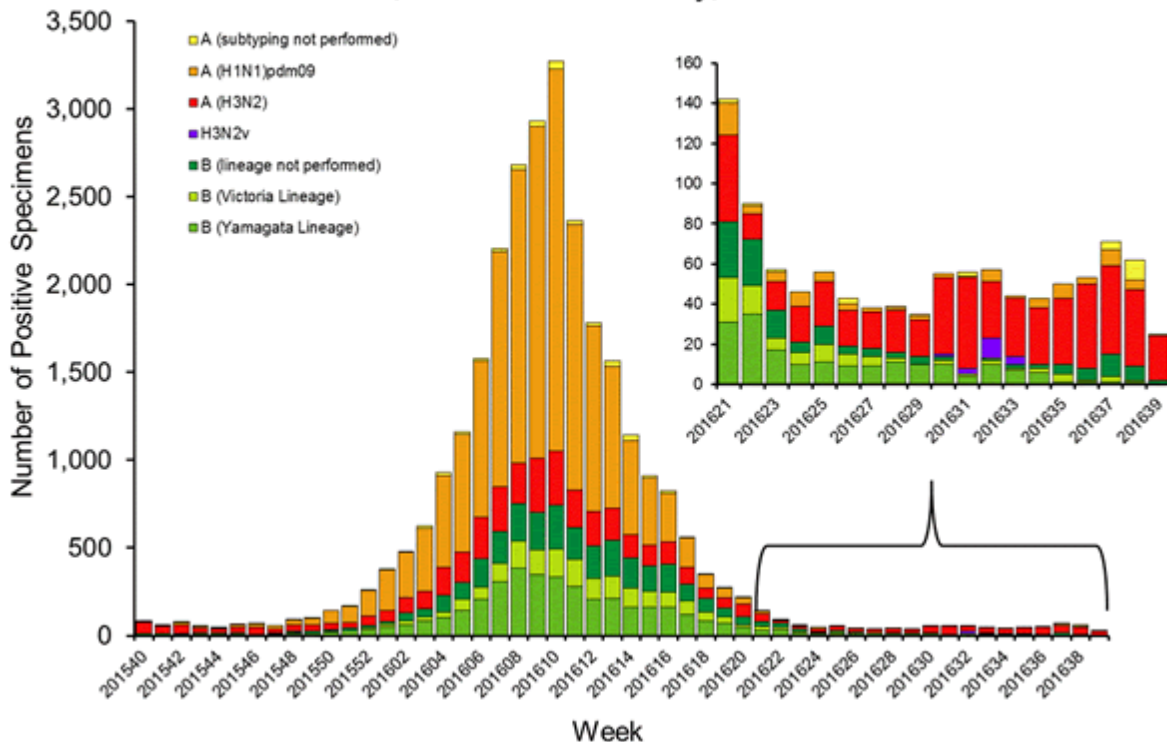
**National:** In the United States, 1.3% of outpatient visits were due to influenza-like illness, which is below the national baseline of 2.1%. No new influenza-associated pediatric deaths were reported, for a total of 85 pediatric deaths for the 2015-16 flu season. Additional information is in the weekly 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 at on the FluView website (link above); the full FluView resumes on October 16, 2015. [FluView interactive](#) will be updated over the summer months.

**International:** Influenza activity varied in countries of temperate South America, is ongoing in South Africa and increased steadily in the last few weeks in Oceania. Influenza activity in the temperate zone of the northern hemisphere was at inter-seasonal levels. 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





## CDC RELEASES 2015-16 SEASON INFLUENZA VACCINATION COVERAGE ESTIMATES

The CDC has released their 2015-16 influenza season vaccination coverage estimates. Nationally, there were no increases in adult coverage in any state. Here a couple of highlights from Michigan's data:

- Overall coverage dropped 2% to 42.2%
- Now ranked 42<sup>nd</sup> in coverage (10<sup>th</sup> worst)
- Adults 65+ coverage dropped 6.7%, down to 59.5%
- Only two age groups increased in coverage, 6 months to four years of age, and children aged 5 to 12 years old
- Coverage among children aged 5 to 12 years old increased by 7%, the second highest increase nationally in this age group

## UPDATED INFLUENZA VACCINE COMPOSITION FOR 2017 SOUTHERN HEMISPHERE INFLUENZA SEASON

The World Health Organization has made their recommendation for the 2017 Southern Hemisphere Influenza Vaccine. It is recommended that the vaccine include:

- A/Michigan/45/2015 (H1N1)pdm09-like virus
- A/Hong Kong/4801/2014 (H3N2)-like virus
- B/Brisbane/60/2008-like virus

Quadrivalent vaccine will also include:

- B/Phuket/3073/2013-like virus

This is the first year that the A/California/7/2009 (H1N1)pdm09-like virus has not been in the recommended flu vaccine composition since the 2009 pandemic.

## INFLUENZA PREVENTION IN ADULTS AGE 65 YEARS AND OLDER WEBINAR RECORDING

If you missed last week's webinar on influenza prevention in adults aged 65 years and older, you can view the recording of the [webinar here](#). This webinar provides information on vaccination in adults, and the importance of the flu vaccine, as well as ways to reach out to adults aged 65 years and older to improve flu vaccination rates among this age group.

## INFLUENZA-RELATED JOURNAL ARTICLES

- [Complementary and alternative medicine and influenza vaccine uptake in US children](#)
  - Children who have ever used CAM are vulnerable to lower annual uptake of influenza vaccination
- [Image restoration and analysis of influenza virions binding to membrane receptors reveal adhesion-strengthening kinetics](#)
- [Complete protection against influenza virus H1N1 strain A/PR/8/34 challenge in mice immunized with non-adjuvanted novirhabdovirus vaccines](#)
  - Study validates that for rVHSV, rIHNV is also an efficient antigen-presenting platform
- [Influenza pandemics and tuberculosis mortality in 1889 and 1918: Analysis of historical data from Switzerland](#)
  - Yearly PTB mortality rates increased during both influenza pandemics

## OTHER INFLUENZA-RELATED NEWS

- [Pharmacists are Underestimated as Immunizers in Pandemic Planning, Study Says](#)
- [Healthcare Provider Attitudes Toward Seasonal Influenza Vaccine Policies](#)
- [A Quarter of Millennials Avoid the Flu Vaccine Because of the Cost](#)
- [As AZ Works to Assess FluMist Efficacy Woes, CDC Worries Flu Vaccination Rates Could Slip](#)

## AVIAN INFLUENZA INTERNATIONAL NEWS

- [Highly Pathogenic H5N2 Found in Alaska](#)
- [Indiana Officials Discuss Lessons Learned from Avian Flu](#)
- [Egypt Reports 10 Human H5N1 Avian Influenza Cases in First Nine Months of 2016](#)

## 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/>

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 Seth Eckel at [eckels1@michigan.gov](mailto:eckels1@michigan.gov).

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