



MI Flu Focus

Influenza Surveillance Updates

Bureaus of Epidemiology and Laboratories



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Influenza Surveillance Report for the Week Ending September 3, 2016

Updates of Interest:

The American Academy of Pediatrics (AAP) released their [recommendations](#) for the prevention and control of influenza in children for the 2016-17 flu season.

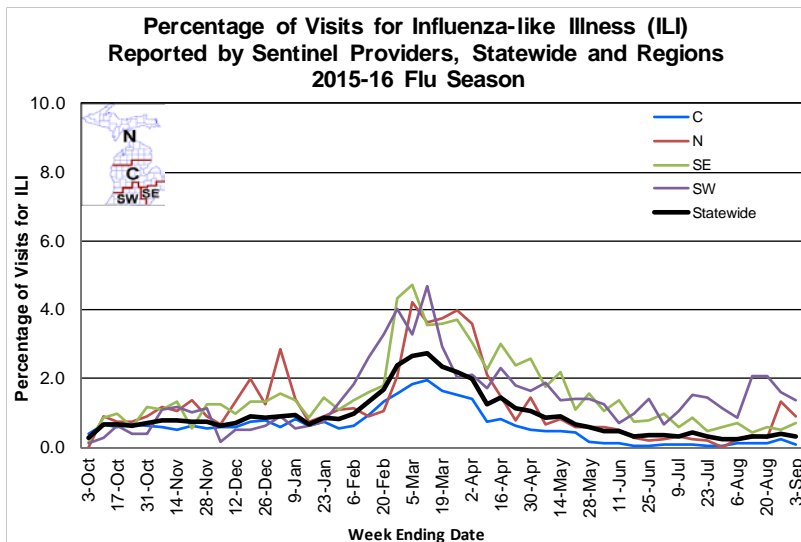
Michigan Disease Surveillance System

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

Emergency Department Surveillance

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

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



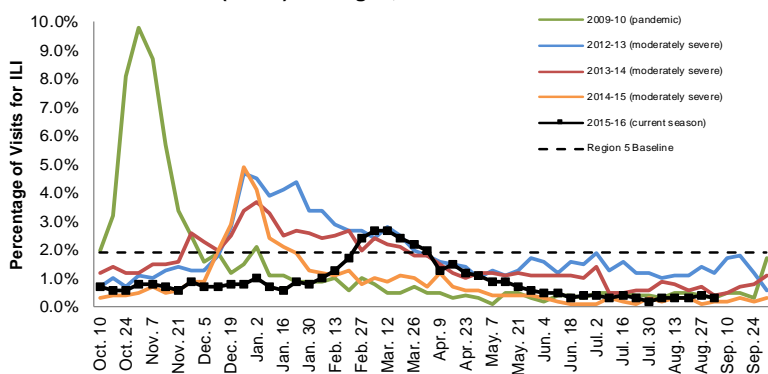
Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) decreased to 0.3% overall, which is below the regional baseline of 1.9%. A total of 40 patient visits due to ILI were reported out of 11,955 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (50 total):

- C (31)
- N (2)
- SE (14)
- 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 Jalyng Ingalls (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 1st, 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.

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)
Total	0	721 (125N, 23C, 129SW, 444SE)

Laboratory Surveillance

MDHHS Bureau of Laboratories reported two new positive influenza results, with both being influenza A/H3. A total of 399 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	23* (21 A/California/07/2009-like (H1N1)pdm09**)	2 / 96
Influenza A/H3	17	7	17	28	69	8* (6 A/Switzerland/9715293/2013-like [†]) 12 A/H3N2-variant	0 / 20
Influenza B	8	6	17	24	55	43 (18 B/Yamagata lineage [5 B/Phuket/3073/2013-like ^{††}], 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; [†]A/Switzerland/9715293/2013-like (H3N2) is the H3N2 component of the 2015-16 Northern Hemisphere flu vaccines; ^{††}B/Phuket/3073/2013-like virus is the B/Yamagata component of the 2015-16 Northern Hemisphere trivalent and quadrivalent flu vaccines.

In addition, 11 sentinel clinical labs (3SE, 2SW, 6C) reported influenza results. One lab (SE) reported sporadic influenza A activity. No labs reported influenza B activity. Three labs (SW, C) reported ongoing low Parainfluenza activity. No labs reported RSV activity. Two labs (SE, C) reported sporadic or low Adenovirus activity. No labs reported hMPV activity. Testing volumes overall remain low or very low.

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
Total	9	7	6	13	34

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, 1.1% 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/.

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.

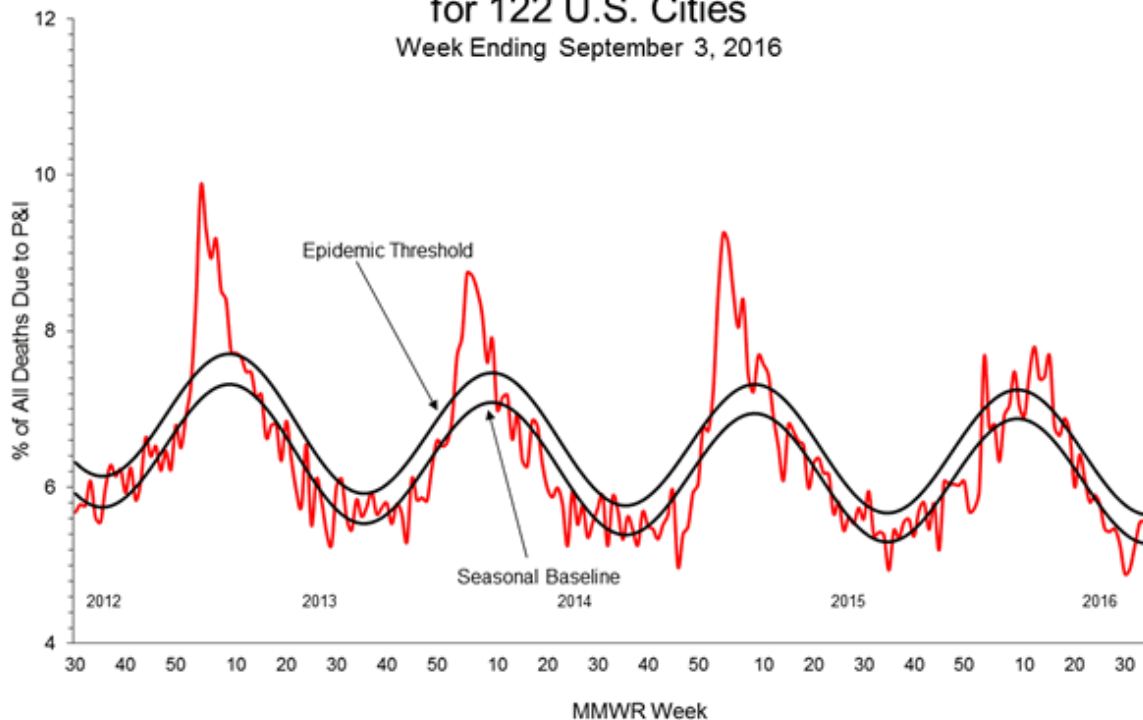
International: Influenza activity varied in countries of temperate South America and increased steadily in the last few weeks in South Africa and Oceania. Influenza activity in the temperate zone of the northern hemisphere was at inter-seasonal levels. More information is available at:

www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/.

Pneumonia and Influenza Mortality

for 122 U.S. Cities

Week Ending September 3, 2016





VACCINE EDUCATION WEBINAR: FLUMIST: WHAT WENT WRONG?

The Vaccine Education Center, in sponsorship with the American Academy of Pediatrics, is hosting a webinar as a part of the Current Issues in Vaccines webinar series with the topic "FluMist: What Went Wrong?" Dr. Paul Offit, physician at The Children's Hospital of Philadelphia, will be discussing the updated recommendations and provide science-based resources to people seeking additional information. The webinar will be on Wednesday, September 21st from 12:00 to 1:00pm ET. You can register for the webinar [here](#).

AMERICAN ACADEMY OF PEDIATRICS FLU RECOMMENDATIONS FOR 2016-17

The American Academy of Pediatrics (AAP) released their [recommendations](#) for the prevention and control of influenza in children for the 2016-17 flu season. AAP recommends that children aged 6 months and older be immunized against influenza every year. However, similar to the Advisory Committee on Immunization Practices, AAP does not recommend use of the nasal spray flu vaccine for the upcoming flu season.

NEW FLU PRODUCTS FOR THE 2016-17 FLU SEASON

- FludTM (aIIV3), which contains MF59, a type of adjuvant, is licensed for use in people aged 65 years and older.
- Flucelvax[®] (cIIIV4) is a quadrivalent flu shot made with virus grown in cell culture is licensed for use in people aged 4 years and older.

FLU WEBSITES

www.michigan.gov/flu
www.cdc.gov/flu
www.flu.gov
<http://vaccine.healthmap.org/>

INFLUENZA-RELATED JOURNAL ARTICLES

- [Effects of annual influenza vaccination on mortality in patients with heart failure](#)
 - The flu vaccine was associated with a decreased risk of death during the flu season
- [Uptake of the influenza vaccination in pregnancy](#)
 - 35.3% of women in study did not know the flu vaccine was recommended in pregnancy
- [Effectiveness of the influenza vaccine in preventing admission to hospital and death in people with type 2 diabetes](#)
 - Flu vaccination was associated with significantly lower admission rates for stroke, heart failure, and pneumonia or influenza
- [Isolation of H5N6, H7N9, and H9N2 avian influenza A viruses from air sampled at live poultry markets in China, 2014- and 2015](#)
 - The use of de-feathering devices increased the quantity of virus-laden airborne particles while market closure reduced the amount of such particles

AVIAN INFLUENZA INTERNATIONAL NEWS

- [India Declares Itself Free from Avian Influenza \(H5N1\)](#)

OTHER INFLUENZA-RELATED NEWS

- [A Flu Shot is the Best Defense This Year](#)
- [EpiVax to Advance Development of Vaccine Against Stealth Flu Virus with New Funding](#)
- [Top Vaccination Errors- and How to Avoid Them](#)
- [NIH Funds Influenza Research at USD Sanford School of Medicine and Sioux Falls Firm](#)
- [Antibody Discovery Could Help Create Improved Flu Vaccines](#)
- [Trial of High-dose Flu Vaccine Aims to Better Protect Heart Failure Patients](#)

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.

MDHHS Contributors

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