



MI Flu Focus

Influenza Surveillance Updates

Bureaus of Epidemiology and Laboratories



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Influenza Surveillance Report for the Week Ending February 27, 2016

MI's Influenza
Activity Level:
Widespread

Updates of Interest:

FDA's Vaccines and Related Biological Products Advisory Committee unanimously [voted to adopt](#) World Health Organization's recommendations for 2016-17 flu vaccines.

Michigan Disease Surveillance System

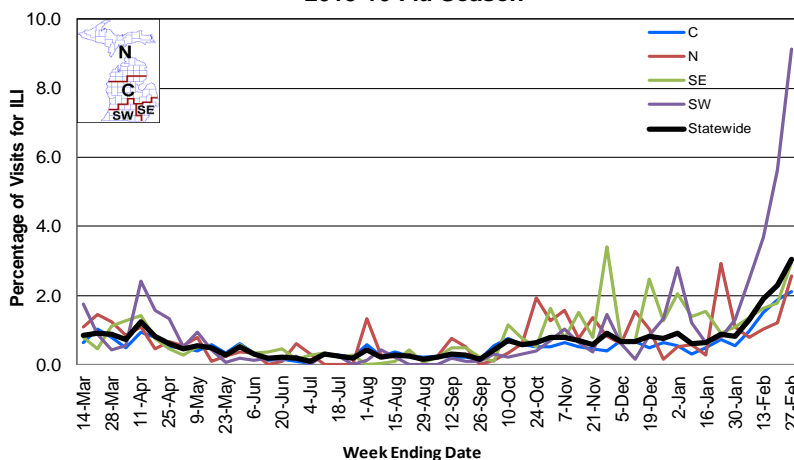
MDSS influenza data indicated that compared to levels from the previous week, aggregate reports had decreased, while individual reports had increased. Aggregate reports were lower than levels seen during the same time period last year, while individual reports were higher.

Emergency Department Surveillance

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

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

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



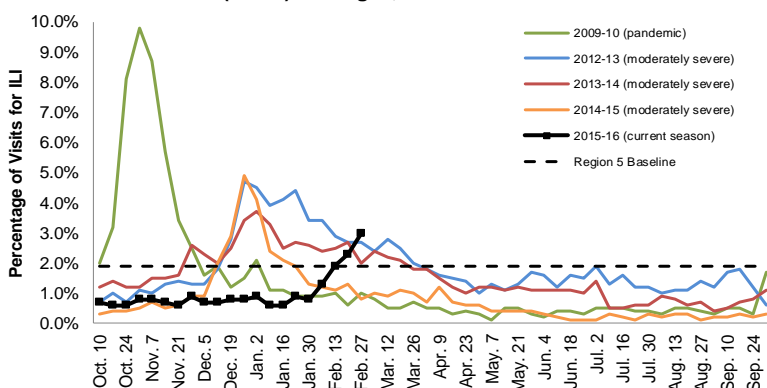
Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) increased to 3.0% overall; this is above the regional baseline (1.9%). A total of 335 patient visits due to ILI were reported out of 10,998 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (33 total):

- C (15)
- N (3)
- 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) 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 13 pediatric (6.8 per 100,000 population) and 38 adult (5.5 per 100,000 population) hospitalizations reported within the catchment area. Note: Some hospitalizations are ruled out after they are reported so the cumulative totals may change from week to week.

The MDHHS Influenza Sentinel Hospital Network monitors influenza hospitalizations reported voluntarily by hospitals statewide, and 16 hospitals (C, N, 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.

Age Group	New Flu Hospitalizations Reported	Total 2015-16 Flu Hospitalizations Reported to Date
0-4 years	10 (5N, 3SE, 2SW)	18 (5N, 7SE, 6SW)
5-17 years	4 (1N, 3SE)	7 (3N, 4SE)
18-49 years	19 (10SE, 9SW)	65 (3N, 1C, 47SE, 14SW)
50-64 years	30 (2N, 1C, 16SE, 11SW)	73 (5N, 1C, 46SE, 21SW)
65 years & older	35 (2N, 2C, 24SE, 7SW)	87 (3N, 2C, 63SE, 19SW)
Total	98 (10N, 3C, 56SE, 29SW)	250 (19N, 4C, 167SE, 60SW)

Laboratory Surveillance

MDHHS Bureau of Laboratories reported 1 parainfluenza type 1 and 32 new positive influenza results: 27 2009 A/H1N1pdm, 2 influenza B, 2 influenza A/H3, and 1 unsubtypeable influenza A. A total of 178 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	29	13	57	41	140	13* (13 A/California/07/2009-like (H1N1)pdm09**)	1 / 43
Influenza A/H3	7	1	9	7	24	4* (4 A/Switzerland/9715293/2013-like [†])	0 / 6
Influenza B	2	2	5	2	11	10 (8 B/Yamagata lineage [2 B/Phuket/3073/2013-like ^{††}], 2 B/Victoria lineage)	
A / unsubtypeable				3	3		
LAIV recovery				1	1		
RSV			2		2		
Adenovirus	1				1		
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, 14 sentinel clinical labs (4SE,2SW,7C,1N) reported influenza results. Thirteen labs (SE,SW,C,N) reported influenza A activity with all regions showing brisk increases, and especially marked increases continuing in the SE region. Seven labs (SE,SW,C,N) reported influenza B activity with most sites showing low levels except for moderate levels in the SE region. Three labs (SE,C) reported sporadic to low Parainfluenza activity. Thirteen labs (SE,SW,C,N) reported low to upper moderate RSV activity, mostly at steady or slightly decreasing levels. Five labs (SE,SW,C) reported low to mildly elevated Adenovirus activity. Five labs (SE,SW,C) reported low to moderately elevated hMPV activity. All testing volumes showed further increases with most sites in the high range and several sites in the very high range.

Influenza Congregate Settings Outbreaks

There were 5 new respiratory facility outbreaks (4 influenza A, 1 no testing done) reported. There have been a total of 16 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		3	4
Long-term Care / Assisted Living Facility	5		4	1	10
Healthcare Facility			1		1
Daycare				1	1
Total	5	1	5	5	16

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.

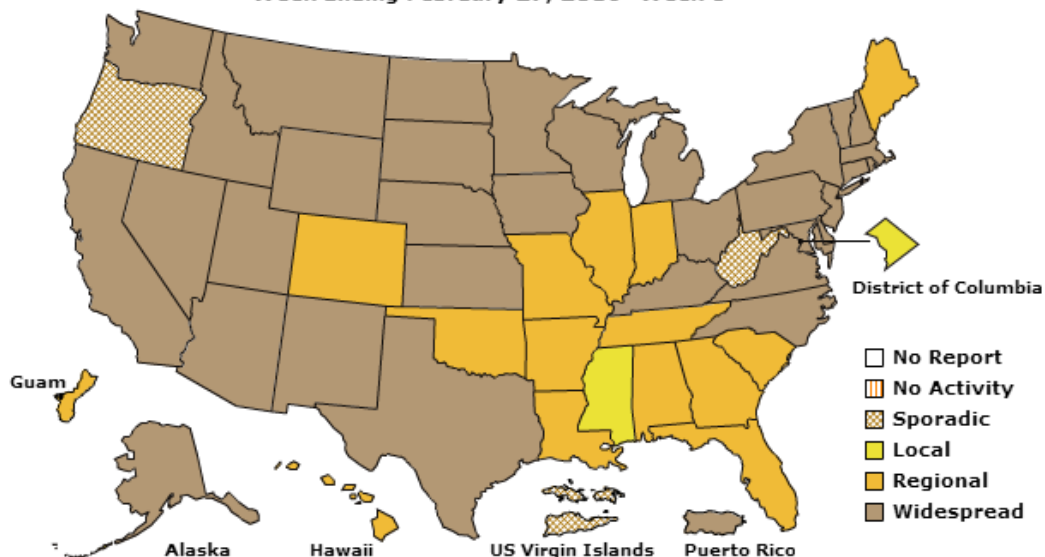
National: In the United States, flu activity remained elevated with 3.2% of outpatient visits due to influenza-like illness, which was above the national baseline of 2.1%. Nine of 10 regions reported ILI at or above region-specific baselines. Four new influenza-associated pediatric deaths were reported, for a total of 18 pediatric deaths for the 2015-16 flu season. Additional information is in the weekly FluView reports available at: www.cdc.gov/flu/weekly/.

International: In the Northern Hemisphere, high levels of flu activity continued with A(H1N1)pdm09 predominating and an increase in the proportion of flu B viruses detected. Flu activity was generally low in the Southern Hemisphere and in tropical countries. In North America, A(H1N1)pdm09 predominated in Canada and the U.S., while A(H3N2) predominated in Mexico. More information is available at:

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

A Weekly Influenza Surveillance Report Prepared by the Influenza Division Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists*

Week Ending February 27, 2016- Week 8



FluBytes



U.S. SEASONAL INFLUENZA NEWS

- MI: [Chippewa County sees increase in flu illnesses, hospital restricts visitors](#)
- [Health officials report widespread influenza in Wyoming](#)
- [Flu activity now widespread in Minnesota](#)
- [Hospitals implement new visitor restrictions caused by flu cases in Chicago](#)
- [Doctors see spike in Northeast Florida flu cases](#)
- [Indiana sees uptick in flu statistics](#)
- [Indiana posted 19 flu-related deaths since October 2015](#)
- [Flu deaths increase in Oklahoma](#)
- [New Mexico prison sees increase in flu cases](#)
- [Delaware prison reports influenza outbreak](#)

AVIAN INFLUENZA INTERNATIONAL NEWS

- [Egypt reports 1st human H5N1 avian influenza infection of 2016](#)
- [Suspected avian flu outbreak in Norwegian turkeys](#)
- [Avian flu battles continue in Taiwan and Nigeria](#)
- [Avian flu outbreaks reported in Mexico, Taiwan, and Nigeria](#)
- [More H5N1 found in Vietnam](#)

2015-16 FLU VACCINE EFFECTIVENESS

The Advisory Committee on Immunization Practices (ACIP) met on Feb. 24 to discuss influenza. CDC presented interim flu vaccine effectiveness (VE) estimates for 2015-16. A summary can be found [here](#). CDC also issued a [press release](#) regarding the VE estimates.

Overall, the 2015-16 flu vaccines were found to be **59%** effective at reducing the risk of having to go to the doctor because of flu. VE against H1N1 was **51%**, VE against all flu B viruses was **76%**, and VE against B/Yamagata viruses was **79%**. Because of low numbers of flu cases through the early part of this season, there were not enough data to estimate VE by age group, by vaccine, or against H3N2 or B/Victoria viruses.

ACIP also voted to amend the flu vaccine recommendations for egg-allergic patients for 2016-2017.

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

IAC FLU DOCUMENT UPDATES

The Immunization Action Coalition (IAC) has updated some of its handouts, including [Influenza Q&A](#), [Pneumococcus Q&A](#), and the [Screening Checklist for Contraindications to Live Attenuated Intranasal Influenza Vaccination](#). For more resources, visit www.immunize.org.

INFLUENZA-RELATED JOURNAL ARTICLES

- [State laws boost flu vaccine rates in health care workers, according to new research led by University of Pittsburgh School of Medicine](#)
- [Who benefits most from influenza vaccination policy: a study among the elderly in Beijing, China](#)
 - Poor elderly who live in rural areas with high education benefit most from the free flu vaccination policy
- [Are school absences correlated with influenza surveillance data in England? Results from Decipher My Data - a research project conducted through scientific engagement with schools](#)
 - Study provides evidence for using routine school illness absence prevalence as tool for influenza surveillance
- [A "building block" approach to the new influenza A virus entry inhibitors with reduced cellular toxicities](#)

OTHER INFLUENZA-RELATED NEWS

- [FDA advisers pick 2016-2017 influenza vaccine strains](#)
- [APHIS issue epidemiology report for avian influenza affected poultry in Indiana](#)
 - [Epidemiologic and other analyses of Indiana HPAI/LPAI-affected poultry flocks: March 4, 2016 report](#)
- Hawaii: [Vaccination mandate eyed; State Senate bill would require health care workers to get annual flu vaccine](#)
- [Manitoba Health says H1N1 influenza cases on the rise in the province](#)
- [South Dakota State University student earns scholarship for influenza D research](#)
- CDC: [146.4 million doses of flu vaccine distributed in U.S.](#)

FLU WEBSITES

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

For questions or to be added to the distribution list, please contact Stefanie Cole at ColeS4@michigan.gov.

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