



MI Flu Focus

Influenza Surveillance Updates Bureaus of Epidemiology and Laboratories



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Influenza Surveillance Report for the Week Ending November 5, 2016

MI's Influenza Activity Level:
Sporadic

Updates of Interest: [Medimmune researchers](#) say that the reduced replicative fitness of A/California and A/Bolivia (H1N1)pdm09 LAIV strains is most likely the cause of reduced vaccine effectiveness of LAIV during the 15-16 season.

Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) decreased to 1.1% overall, which is at the regional baseline of 1.9%. A total of 116 patient visits due to ILI were reported out of 10,859 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (32 total):

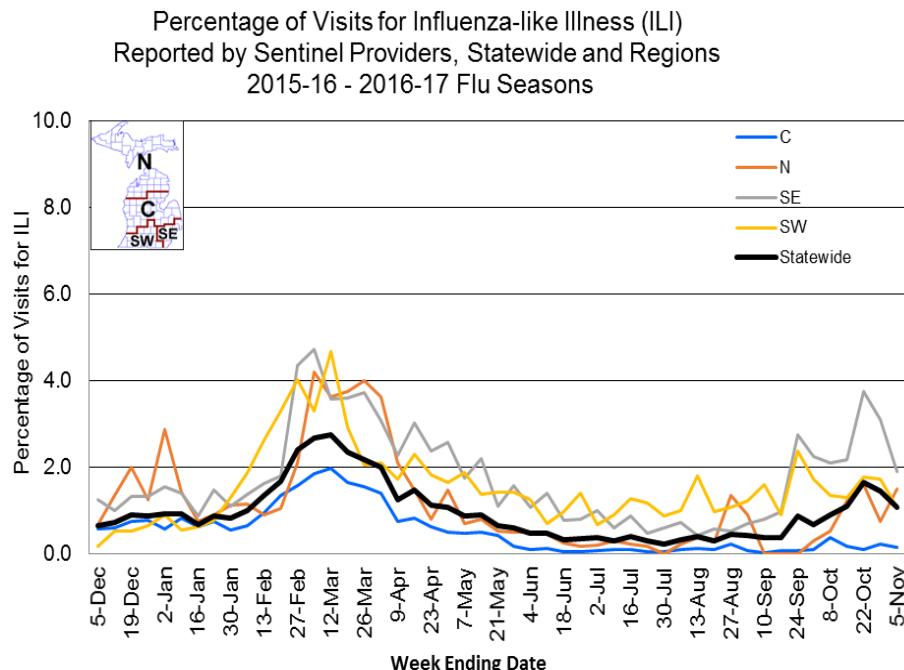
- C (12)
- N (2)
- SE (13)
- SW (5)

National Surveillance: In the United States, 1.3% of outpatient visits were due to influenza-like illness, which is below the national baseline of 2.2%.

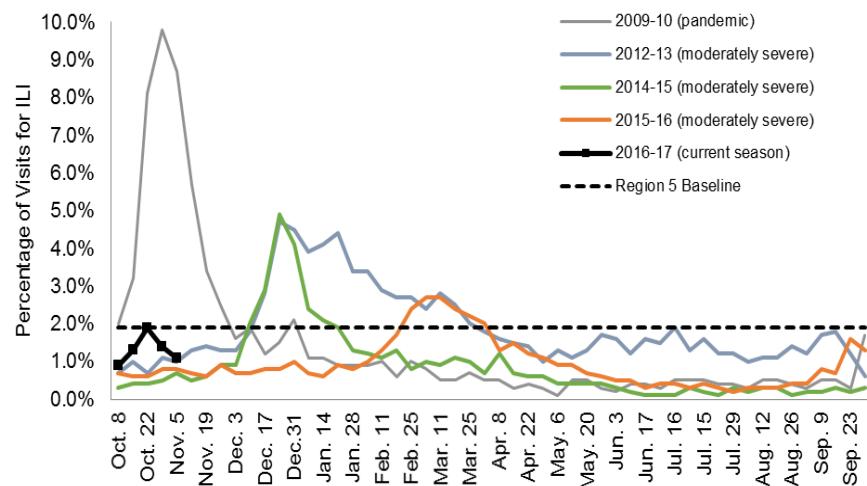
Become a Sentinel Provider!

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 Jalyn Ingalls (IngallsJ@michigan.gov) for more information.

Additional information is in the weekly FluView reports available at:
www.cdc.gov/flu/weekly.



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



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, 2016 until Apr. 30, 2017, for Clinton, Eaton, Genesee, and Ingham counties. There were **no** new influenza-related hospitalizations reported in the catchment area, with a total of one (adult) reported for the 2016-2017 season. Note: Cumulative totals may change from week to week as cases are reviewed to determine if they meet the case definition.

The MDHHS Influenza Sentinel Hospital Network monitors influenza-related admissions reported voluntarily by hospitals statewide, with 9 facilities (N, SE) reporting during this time period. Results for the 2016-17 flu season are listed in the table below. Additional hospitals are encouraged to join; please contact Seth Eckel at eckels1@michigan.gov.

Age Group	New Flu Hospitalizations Reported	Total 2016-17 Flu Hospitalizations Reported to Date
0-4 years	0	0
5-17 years	0	0
18-49 years	0	0
50-64 years	0	0
65 years & older	2 (1N, 1SE)	5 (2N, 3SE)
Total	2 (1N, 1SE)	5 (2N, 3SE)

Influenza-associated Pediatric Mortality

No new influenza-associated pediatric deaths were reported to MDHHS. In Michigan, there have been no influenza-associated pediatric deaths reported for the 2016-17 season. Nationally, no influenza-associated pediatric deaths have been reported thus far for the 2016-17 flu season.

Laboratory Surveillance

MDHHS Bureau of Laboratories reported 1 new positive influenza result, an influenza A/H3 from the southeast surveillance region. A total of 18 positive influenza results have been reported for the 2016-17 season. Influenza results for the 2016-17 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							
Influenza A/H3	4	0	10	3	17		0 / 8
Influenza B			1		1		
A / unsubtypeable							
LAIv recovery							

In addition, 10 sentinel clinical labs (2SE, 2SW, 6C) reported influenza testing results. Two labs (SE) reported sporadic influenza A activity. No labs reported influenza B activity. Four labs (C, SE, SW) reported low or slightly elevated Parainfluenza activity. Five labs (C, SE, SW) reported sporadic or low RSV activity. Two labs (SE, C) reported sporadic or low Adenovirus activity. No labs reported hMPV activity. Testing volumes continue to slowly trend upwards with some sites nearing moderate levels.

Congregate Setting Outbreaks of Viral Respiratory Illness

There were no new respiratory facility outbreaks reported to MDHHS during this time period. Respiratory facility outbreaks for the 2016-2017 season are listed in the table below.

Facility Type	C	N	SE	SW	Total
K-12 School					
Long-term Care / Assisted Living Facility				1	1
Healthcare Facility					
Daycare					
Correctional Facility					
Total				1	1

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.

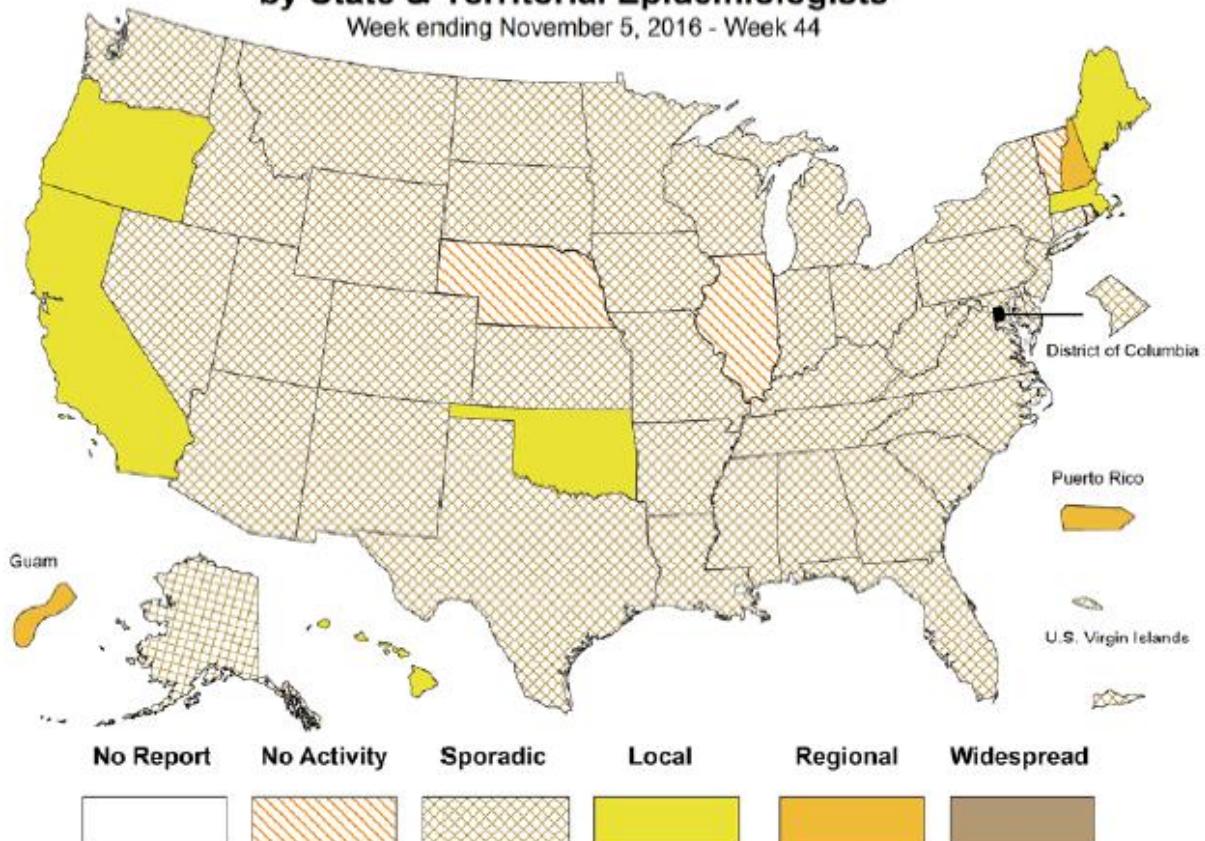
Emergency Department Surveillance

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

- 3 constitutional alerts (2C, 1SW)
- 8 respiratory alerts (2N, 5C, 1SE)
- Last MIFF report: 15 constitutional alerts (6N, 8C, 1SW), 6 respiratory alerts (2N, 2C, 2SW)

Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists*

Week ending November 5, 2016 - Week 44





FLUMIST UPDATE FROM MEDIMMUNE

Following the ACIP recommendation that LAIV not be used during the 2016-17 flu season, Medimmune researchers have been investigating what was behind the decreased FluMist effectiveness in the 2015-16 season. In a [letter](#) submitted to *Eurosurveillance*, Medimmune researchers say that based on evidence, the reduced replicative fitness of the A/California and A/Bolivia (H1N1)pdm09 LAIV strains is most likely the cause. They are continuing to research all potential hypotheses, and are working to ensure that the vaccine effectiveness of LAIV is improved for future seasons.

NATIONAL INFLUENZA VACCINATION WEEK

There are only a couple of weeks before National Influenza Vaccination Week! NIVW 2016 will be observed December 4-10. Don't wait to prepare activities to spread awareness about the importance of the flu vaccine! CDC has provided [resources](#) for you to use as you prepare including print materials, web tools, key messages, and a media toolkit!

HEALTH INDUSTRY DISTRIBUTORS ASSOCIATION: 2016 FLU MARKET BRIEF

HIDA's 2016 Influenza Vaccine Production and Distribution Market brief provides new insights into the flu products supply chain and key information from the sixth annual HIDA Flu Products Survey of distributors conducted in May 2016. Read the full [report here](#).

CALIFORNIA IMMUNIZATION COALITION EDUCATION HOUR: PROVIDING STRONG AND REASSURING RECOMMENDATIONS FOR PRENATAL VACCINATIONS

The California Immunization Coalition (CIC) is hosting an education hour on November 16 from 12:00-1:00pm PT to discuss immunization recommendations for pregnant women, including best practices to improve pertussis and influenza vaccination rates among pregnant women in a practice. Please [register here](#).



INFLUENZA-RELATED JOURNAL ARTICLES

- [Measuring populations to improve vaccination coverage](#)
- [Global environment drivers of influenza](#)
 - Absolute humidity, and to a lesser extent temperature, drive influenza outbreaks
 - U-shaped relationship between absolute humidity and influenza
- [Inhaled Laninamivir octanoate as prophylaxis for influenza in children](#)
 - 11% of subjects developed clinical influenza in the laninamivir octanoate group
 - 19% of subjects developed clinical influenza in placebo group
- [Using the 4 pillars™ practice transformation program to increase adult influenza vaccination and reduce missed opportunities in a randomized cluster trial](#)

OTHER INFLUENZA-RELATED NEWS

- [2016 Influenza vaccine production & distribution market brief – Research and markets](#)
- [Study finds long-expired Tamiflu still potent](#)
 - Found Tamiflu that expired 4 years ago still contained sufficient levels of the active ingredient
- [Full article](#) in the American Journal of Infection Control

AVIAN INFLUENZA INTERNATIONAL NEWS

- [Three national report avian flu in wild birds, poultry](#)
- [Low pathogenic avian influenza confirmed on southern Ontario duck farm](#)
- [Second H5N1 outbreak in Nigeria in 1 month](#)

FLU WEBSITES

- www.michigan.gov/flu
www.cdc.gov/flu
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 Jalyn Ingalls at ingallsj@michigan.gov.

MDHHS Contributors

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