



MI Flu Focus

Influenza Surveillance Updates

Bureaus of Epidemiology and Laboratories



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December 19, 2016

Vol. 14; No. 10

Influenza Surveillance Report for the Week Ending December 10, 2016

MI's Influenza Activity Level:
Local

Updates of Interest:

The World Health Organization has published an Influenza Update based on data up to November 27, 2016. The full [Influenza Update](#) is available to read online.

Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) increased to 1.6% overall, which is below the regional baseline of 1.9%. A total of 142 patient visits due to ILI were reported out of 8,771 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (29 total):

- C (9)
- N (1)
- SE (15)
- SW (4)

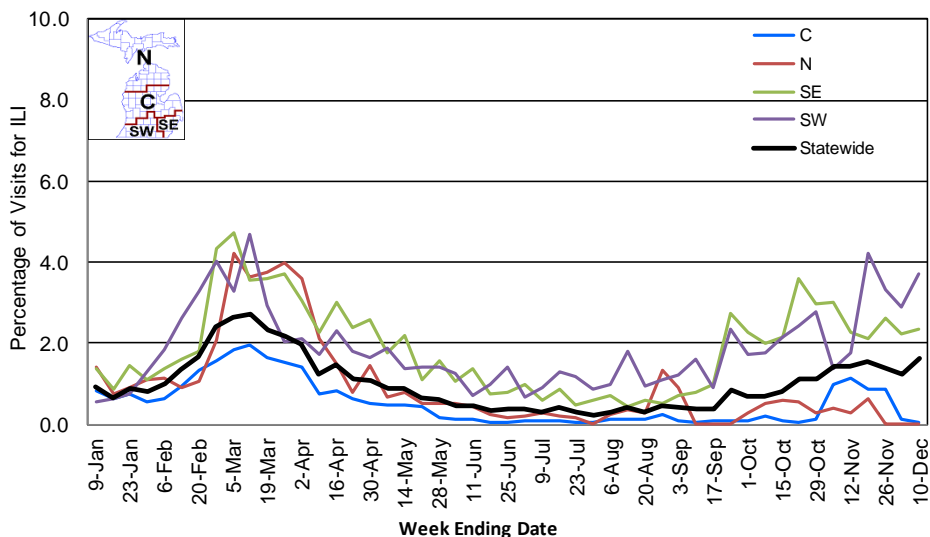
National Surveillance: In the United States, 1.9% of outpatient visits were due to influenza-like illness, which is below the national baseline of 2.2%.

Become a Sentinel Provider!

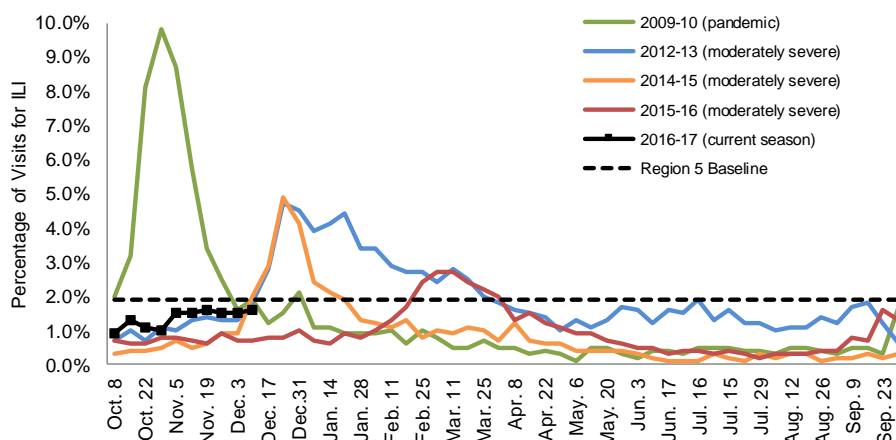
As part of pandemic influenza surveillance, CDC and MDHHS highly encourage year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Jalyn Ingalls (IngallsJ@michigan.gov) for more information.

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 Sentinel Providers, Statewide and Regions 2015-16 - 2016-17 Flu Seasons



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. Since Oct. 1, there have been **1 pediatric and 7 adult** influenza-related hospitalizations reported in the catchment area 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 8 facilities (N, C, SE, SW) 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	1 (N)
5-17 years	0	0
18-49 years	0	1 (SE)
50-64 years	3 (N)	4 (N)
65 years & older	1 (SE)	9 (2N, 7SE)
Total	4 (3N, 1SE)	15 (7N, 8SE)

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 6 new positive influenza results (4 A/H3, 2 flu B) during this time period. A total of 38 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	8	2	20	3	33		0 / 8
Influenza B			3	2	5	1 (B/PHUKET/3073/2013-LIKE)	
A / unsubtypeable							
LAIV recovery							

In addition, 11 sentinel clinical labs (2SE, 2SW, 6C, 1N) reported influenza testing results. Six labs (SE, SW, C) reported influenza A activity, with all regions showing sporadic levels except for the SE region where initial increases are now being seen. Two labs (SW) reported sporadic influenza B activity. Five labs (C, SE, SW) reported low or slightly elevated Parainfluenza activity. Six labs (SE, SW, C) reported low or further increasing RSV activity. Three labs (SE, SW, C) reported sporadic or low Adenovirus activity. One lab (SE) reported sporadic hMPV activity. Testing volumes remain generally steady or gradually increasing, with most at low to 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	2	3
Healthcare Facility					
Daycare					
Correctional Facility					
Total			1	2	3

Michigan Disease Surveillance System

MDSS influenza data indicated that compared to levels from the previous week, aggregate reports 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.

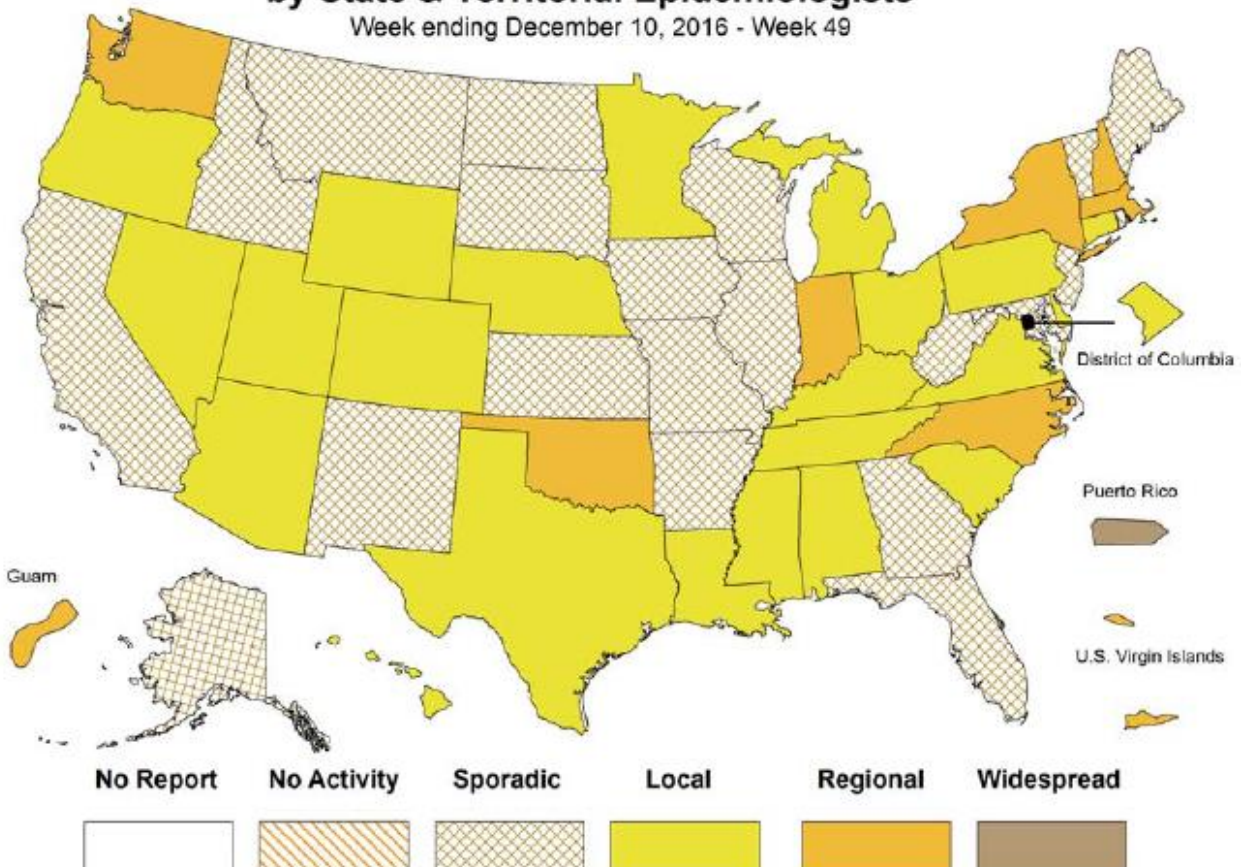
Emergency Department Surveillance

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

- 7 constitutional alerts (5C, 1SE, 1SW)
- 1 respiratory alerts (C)
- Last MIFF report: 10 constitutional alerts (3N, 7C), 12 respiratory alerts (2N, 6C, 4SW)

Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists*

Week ending December 10, 2016 - Week 49





NATIONAL INFLUENZA VACCINATION WEEK

In observance of NIVW last week, CDC released a couple of important [flu updates](#):

Early season 2016-17 flu vaccination coverage estimates data

- Estimated 39.8% of people aged 6 months and older reported being vaccinated
- Estimated 46.6% of pregnant women have received their flu vaccine
- Estimated 68.5% of healthcare providers have received their flu vaccine

2015-16 estimates of flu burden and the burden averted by flu vaccination:

- Estimated that flu vaccination prevented 5.1 million influenza illnesses, 2.5 million influenza-associated medical visits, and 71,000 influenza-associated hospitalizations
- If flu vaccinations were 5% higher, another 500,000 illnesses and 6,000 flu hospitalizations could have been prevented

APPLY FOR IAC'S INFLUENZA VACCINATION HONOR ROLE

This honor role recognizes healthcare settings that have implemented mandatory flu vaccination policies for healthcare personnel (HCP). To read position statements supporting mandatory HCP vaccination from leading healthcare organizations and professional medical societies, or to apply, visit www.immunize.org/honor-roll/influenza-mandates.

NEW FLU ACTIVITY FORECASTS AVAILABLE FOR 2016-17 SEASON

CDC has announced that weekly flu forecasts are available on the [FluSight 2016-17](#) website. This website compiles flu forecasting models provided by twenty-one different research teams. The goal is to improve the science and usability of influenza forecasts by coordinating seasonal influenza prediction challenges.

FLU WEBSITES

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

UPDATE! NEW EDUCATIONAL MATERIALS PROMOTING FLU VACCINATION

The Chuukese, Ilokano, and Marshallese Michigan Flu VIS's are now available on the MDHHS website, which contain information about the Michigan Care Improvement Registry.

- Influenza VIS now available in:
 - [Chuukese](#)
 - [Ilokano](#)
 - [Marshallese](#)

INFLUENZA-RELATED JOURNAL ARTICLES

- [WHO Global Flu Update](#)
- [Universal or specific? A modeling-based comparison of broad-spectrum influenza vaccines against conventional, strain-matched vaccines](#)
 - Present new mathematical model capturing both transmission dynamics and antigenic evolution
 - Found universal vaccines could dampen population-level transmission over several seasons
- [Influenza virus targets class I MHC-educated NK cells for immunoevasion](#)

OTHER INFLUENZA-RELATED NEWS

- [Birth year predicts bird flu risk](#)
- [Alvogen launches the first generic equivalent to Tamiflu® capsules in the United States](#)
- [Flu vaccination rates rise for pregnant women but still fall short](#)

AVIAN INFLUENZA INTERNATIONAL NEWS

- [Spread of avian flu noted in China, Korea, and Europe](#)
- [Health department, Animal Care Centers of NYC report cases of rare influenza virus among cats at ACC's Manhattan facility](#)
- MMWR Report: [Assessing change in avian influenza A\(H7N9\) virus infections during the fourth epidemic – China, September 2015- August 2016](#)
- [H5N8 avian flu continues to spread in Hungary](#)

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.

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