



MI Flu Focus

Influenza Surveillance Updates Bureaus of Epidemiology and Laboratories



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December 27, 2016

Vol. 14; No. 11

Influenza Surveillance Report for the Week Ending December 17, 2016

**MI's Influenza
Activity Level:**
Local

Updates of Interest:

There have been more than 100 confirmed cases of H7N2 among cats in New York shelters. To read more, see FluBytes on page 4.

Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) increased to 2.2% overall, which is above the regional baseline of 1.9%. A total of 181 patient visits due to ILI were reported out of 8,206 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (32 total):

- C (7)
- N (2)
- SE (16)
- SW (7)

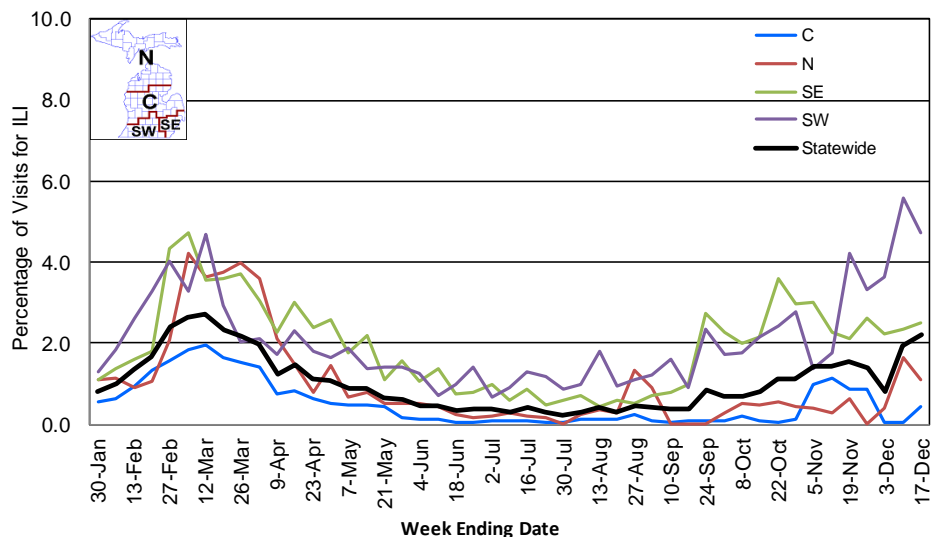
National Surveillance: In the United States, 2.3% of outpatient visits were due to influenza-like illness, which is above the national baseline of 2.2%.

Become a Sentinel Provider!

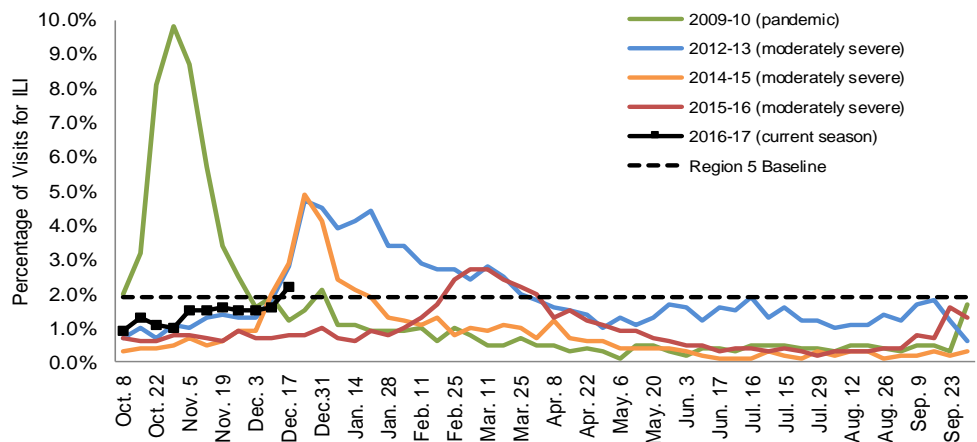
As part of pandemic influenza surveillance, CDC and MDHHS highly encourage year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Jalyn Ingalls (IngallsJ@michigan.gov) for more information.

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 8 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 13 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	1 (SW)
18-49 years	0	2 (1SE, 1SW)
50-64 years	3 (N)	4 (N)
65 years & older	1 (SE)	13 (6N, 7SE)
Total	4 (3N, 1SE)	21 (11N, 8SE, 2SW)

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 15 new positive influenza results (13 A/H3, 2 flu B) during this time period. A total of 53 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	27	9	46		0 / 8
Influenza B			3	4	7	1 (B/PHUKET/3073/2013-LIKE)	
A / unsubtypeable							
LAIV recovery							

In addition, 10 sentinel clinical labs (2SE, 2SW, 5C, 1N) reported influenza testing results. Four labs (SE, SW, C) reported influenza A activity, with all regions showing sporadic or low levels except for the SE region where early increases continue. No labs reported influenza B activity. Four labs (C, SE, SW) reported low or slightly elevated Parainfluenza activity. Six labs (SE, SW, C) reported low or slightly elevated RSV activity. One lab (SE) reported slightly increasing Adenovirus activity. Three labs (SE, SW) 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 and individual reports had both increased. Aggregate reports were lower than levels seen during the same time period last year, while individual reports were higher.

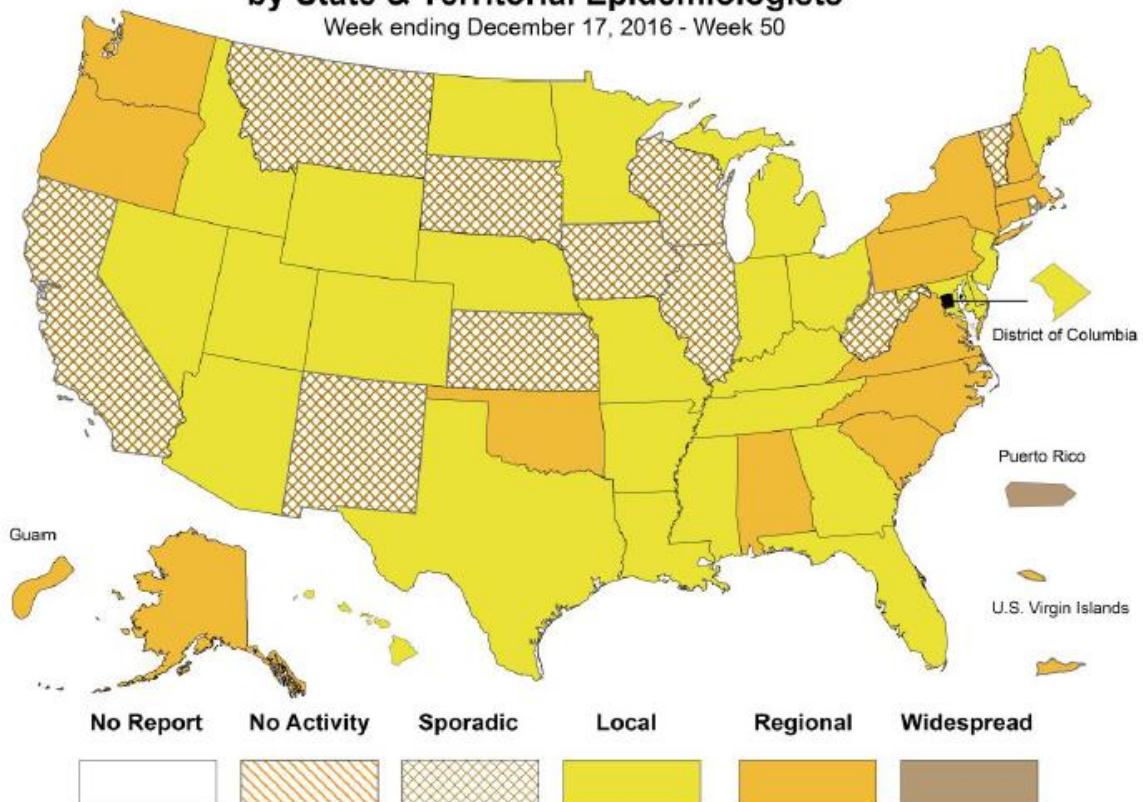
Emergency Department Surveillance

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

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

Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists*

Week ending December 17, 2016 - Week 50





H7N2 INFLUENZA IN SHELTER CATS IN NEW YORK

There have been more than 100 confirmed cases of H7N2 among cats in NYC animal shelters. Once the virus was discovered, adoption was suspended and a quarantine location was appointed. So far, cats are the only animal species that has tested positive for H7N2.

One person, a veterinarian who was involved in obtaining respiratory specimens from sick cats, has been found with a presumptive diagnosis of the virus. The illness was short-lived, and has been resolved. To read more about this outbreak, please see the New York City Health Department [press release](#).

AAP FLU PREVENTION COURSE FOR EARLY EDUCATION AND CHILD CARE PROVIDERS

The American Academy of Pediatrics has a free online [course](#) that was created to educate on influenza policies and strategies that help keep children healthy. This course is specifically designed for staff who work in early education or are child care providers.

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/>

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

INFLUENZA-RELATED JOURNAL ARTICLES

- [Potential cost-effectiveness of an influenza vaccination program offering microneedle patch for vaccine delivery in children](#)
- [Do antibody responses to the influenza vaccine persist year-round in the elderly? A systematic review and meta-analysis](#)
- [Influenza like illness among medical residents anticipates influenza diffusion in general population: Data from a national survey among Italian medical residents](#)

OTHER INFLUENZA-RELATED NEWS

- [Universal influenza vaccine would mitigate seasonal and pandemic influenza](#)
- [Scientists show how drug binds with 'hidden pocket' on flu virus](#)
- ["An intellectual journey thru influenza and food systems": Big farms make big flu reviewed in Lancet Infectious Diseases](#)

AVIAN INFLUENZA INTERNATIONAL NEWS

- [Human infection with avian influenza A\(H7N9\) virus - China](#)
- [Biosecurity measures stepped up for birds](#)
- [Japan, UK and Serbia poultry banned in Hong Kong due to bird flu](#)
- [China reports six human cases of H7N9 avian influenza](#)

SEASONAL INFLUENZA POSTERS AVAILABLE

The Alliance for Immunization in Michigan has seasonal flu posters that are available to help educate about the importance of flu vaccine. To access this poster and others, see the AIM Toolkit [website](#).



For questions or to be added to the distribution list, please contact Jalyn Ingalls at ingallsj@michigan.gov.

MDHHS Contributors

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