



# MI Flu Focus

## Influenza Surveillance Updates

### Bureaus of Epidemiology and Laboratories



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### Influenza Surveillance Report for the Week Ending April 1, 2017

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

**Updates of Interest:** Three influenza-associated pediatric deaths were reported to MDHHS for the week ending April 1, 2017. These are the first influenza-associated pediatric deaths reported for the 2016-17 season.

#### Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) decreased to 1.9% overall, which is at the regional baseline of 1.9%. A total of 187 patient visits due to ILI were reported out of 9,669 office visits. Please note: These rates may change as additional reports are received.

#### Number of Reports by Region

(30 total):

- C (13)
- N (3)
- SE (11)
- SW (3)

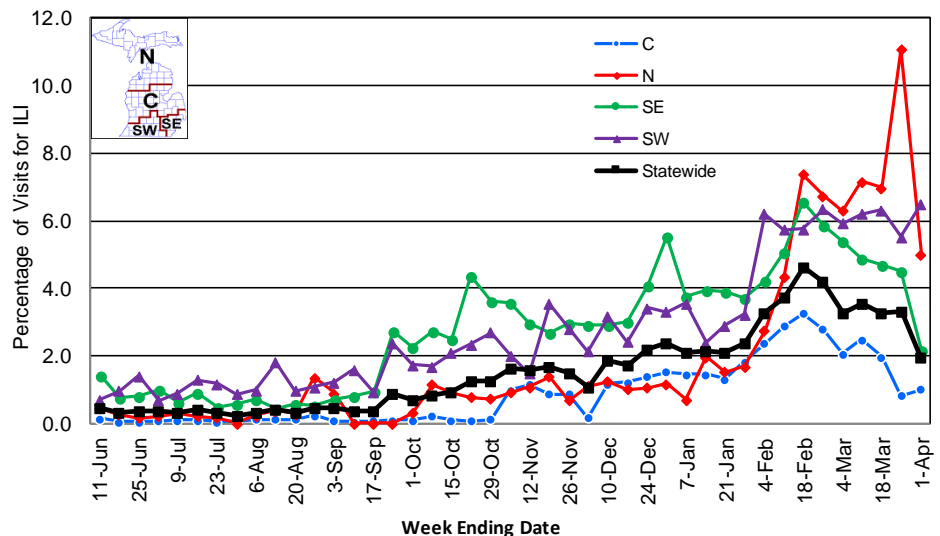
**National Surveillance:** In the United States, 2.9% of outpatient visits were due to influenza-like illness, which is above the national baseline of 2.2%.

#### Become a Sentinel Provider!

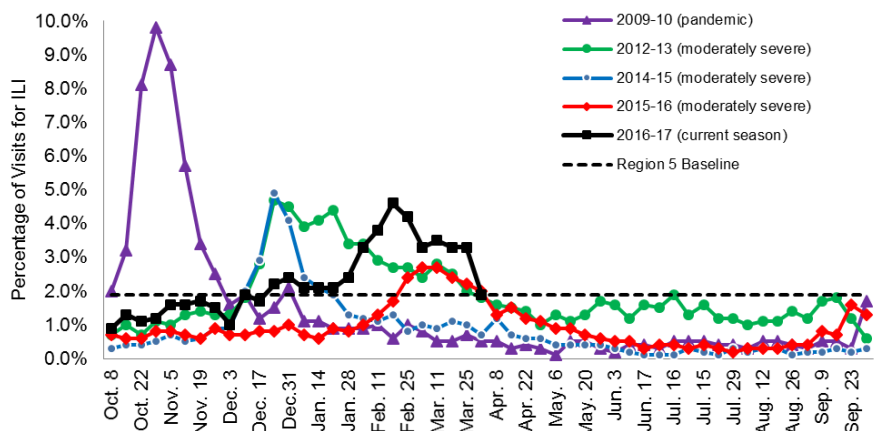
As part of pandemic influenza surveillance, CDC and MDHHS highly encourage year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Jalyn Ingalls ([IngallsJ@michigan.gov](mailto:IngallsJ@michigan.gov)) for more information.

Additional information is in the weekly FluView reports available at: [www.cdc.gov/flu/weekly](http://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-related 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 **62 pediatric and 519 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 11 facilities (N, 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](mailto:eckels1@michigan.gov).

Age Group	New Flu Hospitalizations Reported	Total 2016-17 Flu Hospitalizations Reported to Date
0-4 years	2 (N)	37 (22N, 1C, 7SE, 7SW)
5-17 years	0	48 (30N, 1C, 9SE, 8SW)
18-49 years	4 (2N, 2SE)	116 (38N, 1C, 64SE, 13SW)
50-64 years	29 (9N, 16SE, 4SW)	185 (44N, 1C, 113SE, 27SW)
65 years & older	63 (10N, 46SE, 7SW)	635 (124N, 5C, 434SE, 72SW)
<b>Total</b>	<b>98 (23N, 64SE, 11SW)</b>	<b>1021 (258N, 9C, 627SE, 127SW)</b>

## Influenza-associated Pediatric Mortality

Three (3) influenza-associated pediatric deaths were reported to MDHHS for the week ending April 1, 2017. These are the first influenza-associated pediatric deaths reported for the 2016-17 season. Nationally, 68 influenza-associated pediatric deaths have been reported thus far for the 2016-17 flu season.

## Laboratory Surveillance

MDHHS Bureau of Laboratories reported 20 new positive influenza results (12 A/H3, 1 A/H1 and 7 flu B) during this time period. A total of 538 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	1	1	1	2	5	1 (A/CALIFORNIA/07/2009-LIKE (H1N1)pdm09)	
Influenza A/H3	111	26	110	161	408	5 (A/HONG KONG/4801/2014-LIKE)	0 / 95
Influenza B	43	9	41	32	125	4 (B/PHUKET/3073/2013-LIKE) 6 (B/BRISBANE/60/2008-LIKE)	
A / unsubtypeable							
LAIV recovery							

In addition, 11 sentinel clinical labs (2SE, 2SW, 6C, 1N) reported influenza testing results. All eleven labs reported continued influenza A activity with most now at slightly decreasing or stable levels. All labs (SE, SE, C, N) reported ongoing influenza B activity with the majority now showing a stable trend, but one site (SE) showed a small uptick. Eight labs (SE, SW, C) are showing predominant influenza B activity while the remainder are showing co-dominant activity. Four labs (SE, SW, C) reported low Parainfluenza activity. Nine labs (SE, SW, C, N) reported RSV activity, with most remaining at slightly elevated but stable levels. Five labs (SE, SW, C, N) reported low Adenovirus activity. Five labs (SE, SW, C, N) reported low to moderate hMPV activity. Overall testing volumes remain high with most sites now resuming a downward trend but a few sites showed slight increases.

### Congregate Setting Outbreaks of Viral Respiratory Illness

There were 8 new respiratory facility outbreaks (3C, 3SE, 2SW) reported to MDHHS during this time period, 7 of which were confirmed influenza. Respiratory facility outbreaks for the 2016-2017 season are listed in the table below.

Facility Type	C	N	SE	SW	Total
K-12 School	3	4		3	10
Long-term Care / Assisted Living Facility	26		22	35	83
Healthcare Facility	3		4	1	8
Daycare			1	2	3
Homeless Shelter			1		1
<b>Total</b>	<b>32</b>	<b>4</b>	<b>28</b>	<b>41</b>	<b>105</b>

### Michigan Disease Surveillance System

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

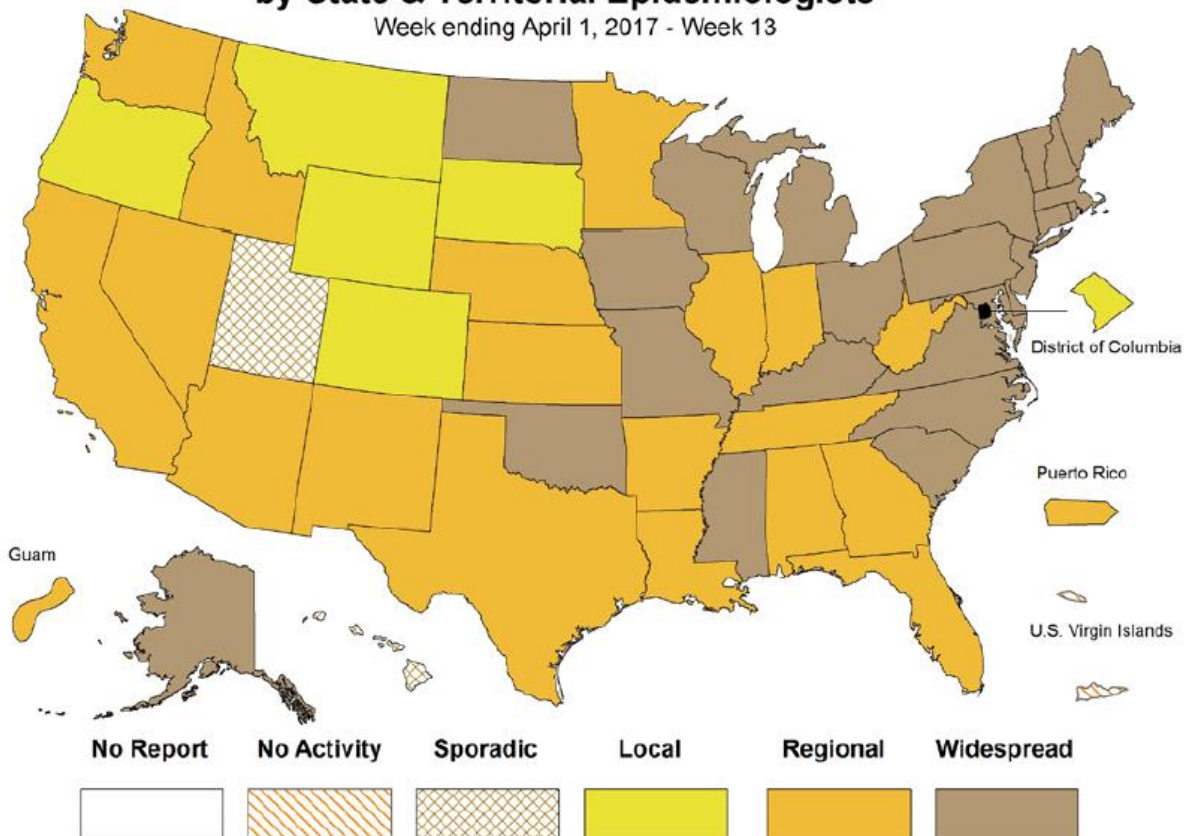
### Emergency Department Surveillance

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

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

### Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists\*

Week ending April 1, 2017 - Week 13





## LESSONS FROM THE FIELD WEBINAR – NIVDP

The National Influenza Vaccination Disparities Partnership is hosting a webinar titled, “Lessons from the Field: Immunization Leaders Sharing Strategies to Protect Underserved Populations.” The webinar is scheduled for Thursday, April 20 from 2:00-3:00pm ET. This webinar is free, but you must [register](#) in order to participate.

## MDHHS ANNOUNCES THE 2017 ANNUAL IMMUNIZATION CONFERENCE DATES

The Michigan Department of Health and Human Services has finalized the 2017 Fall Immunization Regional Conferences Schedule! Please mark the appropriate date on your calendar and be looking for more information about registration in the upcoming months!

October 10 – Marquette  
October 12 – Gaylord  
October 17 – Lansing  
October 18 – Flint  
October 20 – Kalamazoo  
November 14 – Grand Rapids  
November 16 – Dearborn  
November 17 – Troy

## VACCINATE ADULTS APRIL ISSUE FROM THE IMMUNIZATION ACTION COALITION

The [April issue of Vaccinate Adults](#) is now available online. The issue highlights IAC’s updated “Summary of Recommendations for Adult Immunization, the 2017 U.S. immunization schedule for adults, and the new edition of *The Vaccine Handbook: A Practical Guide for Clinicians* and its newly updated app for IOS.

This issue also provides updated “Ask the Expert” questions and answers. There is one question about influenza:

Q: *I have a patient who is now 12 weeks pregnant. In September 2016, she received quadrivalent inactivated influenza vaccination (before she was pregnant). Should we give her another dose of 2016-17 influenza vaccine since she was not pregnant at the time of her first dose?*

A: To find out the answer to the question, please see page 1 of the [April Issue!](#)

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

## INFLUENZA-RELATED JOURNAL ARTICLES

- [Dose sparing and lack of dose response relationship with an influenza vaccine in adult and elderly patients – A randomized, double-blind clinical trial](#)
- [Avian and human influenza virus compatible sialic acid receptors in little brown bats](#)
- [Influenza susceptibility higher among patients with asthma](#)
- [Health authorities urged to prepare for increased flu pandemic risk](#)
- [Influenza A H5N1 and H7N9 in China: A spatial risk analysis](#)
- [Influenza vaccine effectiveness against pediatric deaths: 2010-2014](#)
  - Vaccination status was determined for 291 deaths; 75 (26%) received vaccine before illness onset
  - Flu vaccine reduces risk of flu-associated death by 51% among children with high-risk conditions, and 65% among children without high-risk conditions

## OTHER INFLUENZA-RELATED NEWS

- [A look into the paradigm shift in vaccine production](#)
- [Flublok Quadrivalent influenza vaccine adds a 9 month shelf life to its list of benefits](#)
- [Researchers detect protein that increases effectiveness of vaccines](#)
- [New influenza strains found in birds could lead to deadly pandemic on the scale of Spanish Flu](#)
- [Influenza B now the dominant strain as flu activity declines](#)
- [Avian influenza threat appears over in Tennessee](#)
- [State influenza deaths nearly doubled compared to last year: 34 have died from flu this season in New Hampshire](#)

## AVIAN INFLUENZA INTERNATIONAL NEWS

- [CHP notified of human cases of avian influenza A\(H7N9\) in Mainland](#)
- [Effect of serial pig passages on the adaptation of an avian H9N2 influenza virus swine](#)

## FLU WEBSITES

[www.michigan.gov/flu](http://www.michigan.gov/flu)  
[www.cdc.gov/flu](http://www.cdc.gov/flu)  
[www.flu.gov](http://www.flu.gov)  
<http://vaccine.healthmap.org/>

For questions or to be added to the distribution list, please contact Jalyn Ingalls at [ingallsj@michigan.gov](mailto:ingallsj@michigan.gov).

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