



# MI Flu Focus

## Influenza Surveillance Updates

### Bureaus of Epidemiology and Laboratories



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March 20, 2017

Vol. 14; No. 23

### Influenza Surveillance Report for the Week Ending March 11, 2017

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

**Updates of Interest:** The USDA has confirmed the [second case](#) of highly pathogenic avian influenza among chicken in Tennessee. It is the same strain that was previously confirmed in Tennessee, a H7N9 strain of North American wild bird lineage.

#### Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) increased to 3.8% overall, which is above the regional baseline of 1.9%. A total of 448 patient visits due to ILI were reported out of 11,793 office visits. Please note: These rates may change as additional reports are received.

#### Number of Reports by Region

(35 total):

- C (11)
- N (3)
- SE (15)
- SW (6)

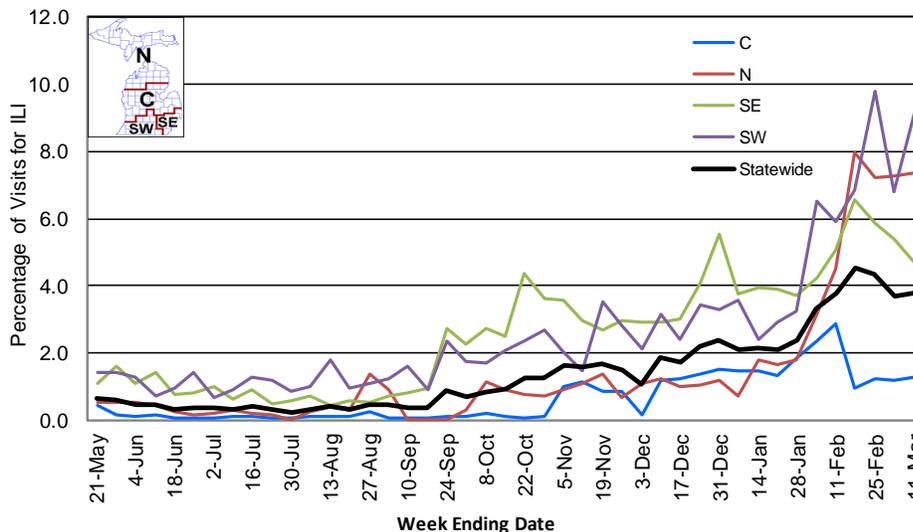
**National Surveillance:** In the United States, 3.7% of outpatient visits were due to influenza-like illness, which is above the national baseline of 2.2%.

#### Become a Sentinel Provider!

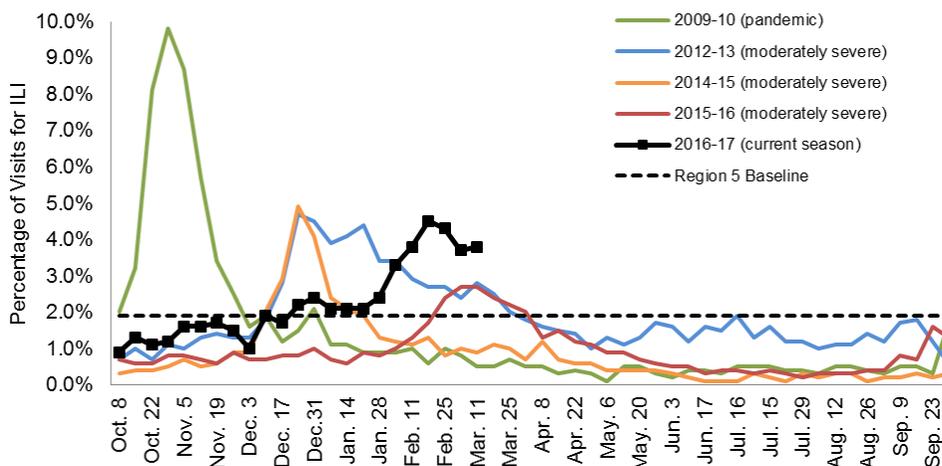
As part of pandemic influenza surveillance, CDC and MDHHS highly encourage year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Jalyn Ingalls ([IngallsJ@michigan.gov](mailto:IngallsJ@michigan.gov)) for more information.

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 **47 pediatric and 346 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 12 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](mailto:eckels1@michigan.gov).

| Age Group        | New Flu Hospitalizations Reported | Total 2016-17 Flu Hospitalizations Reported to Date |
|------------------|-----------------------------------|---|
| 0-4 years        | 5 (3N, 1C, 1SE)                   | 27 (13N, 1C, 6SE, 7SW)                              |
| 5-17 years       | 5 (4N, 1SE)                       | 31 (17N, 1C, 6SE, 7SW)                              |
| 18-49 years      | 12 (5N, 1C, 4SE, 2SW)             | 86 (22N, 1C, 51SE, 12SW)                            |
| 50-64 years      | 13 (3N, 7SE, 3SW)                 | 125 (24N, 80SE, 21SW)                               |
| 65 years & older | 57 (12N, 2C, 36SE, 7SW)           | 455 (78N, 4C, 318SE, 55SW)                          |
| <b>Total</b>     | <b>92 (27N, 4C, 49SE, 12SW)</b>   | <b>724 (154N, 7C, 461SE, 102SW)</b>                 |

## 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, 53 influenza-associated pediatric deaths have been reported thus far for the 2016-17 flu season.

## Laboratory Surveillance

MDHHS Bureau of Laboratories reported 52 new positive influenza results (35 A/H3, 1 A/H1 and 16 flu B) during this time period. A total of 470 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   | 1   | 4     | 1 (A/CALIFORNIA/07/2009-LIKE (H1N1)pdm09)                  |                                   |
| Influenza A/H3    | 88   | 26 | 108 | 143 | 365   | 5 (A/HONG KONG/4801/2014-LIKE)                             | 0 / 95                            |
| Influenza B       | 29   | 3  | 40  | 29  | 101   | 4 (B/PHUKET/3073/2013-LIKE)<br>6 (B/BRISBANE/60/2008-LIKE) |                                   |
| A / unsubtypeable |  |    |     |     |       |  |                                   |
| LAIV recovery     |  |    |     |     |       |  |                                   |

In addition, 9 sentinel clinical labs (2SE, 1SW, 6C, 0N) reported influenza testing results. All nine labs reported continued influenza A activity but with nearly all sites showing stable levels or a gradually declining trend. All nine labs reported ongoing influenza B activity with most now at moderate but stable levels; one lab (C) showed further increases. Sites in the SW and C regions continue to show predominant or co-dominant influenza B activity. Three labs (SE, C) reported low Parainfluenza activity. Eight eleven labs (SE, SW, C) reported further declining or low RSV activity. Four labs (SE, SW, C) reported low Adenovirus activity. Three labs (SE, C) reported low to moderate hMPV activity, with one site (SE) showing increases. Testing volumes remain high but have generally stabilized or are showing a decreasing pattern.

### Congregate Setting Outbreaks of Viral Respiratory Illness

There were 10 new respiratory facility outbreaks (6C, 3SE, 1SW) 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                               | 2         | 3        |           | 2         | 7         |
| Long-term Care / Assisted Living Facility | 24        |          | 18        | 28        | 70        |
| Healthcare Facility                       | 1         |          | 1         | 1         | 3         |
| Daycare                                   |           |          | 1         | 2         | 3         |
| Homeless Shelter                          |           |          | 1         |           | 1         |
| <b>Total</b>                              | <b>27</b> | <b>3</b> | <b>21</b> | <b>33</b> | <b>84</b> |

### Michigan Disease Surveillance System

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

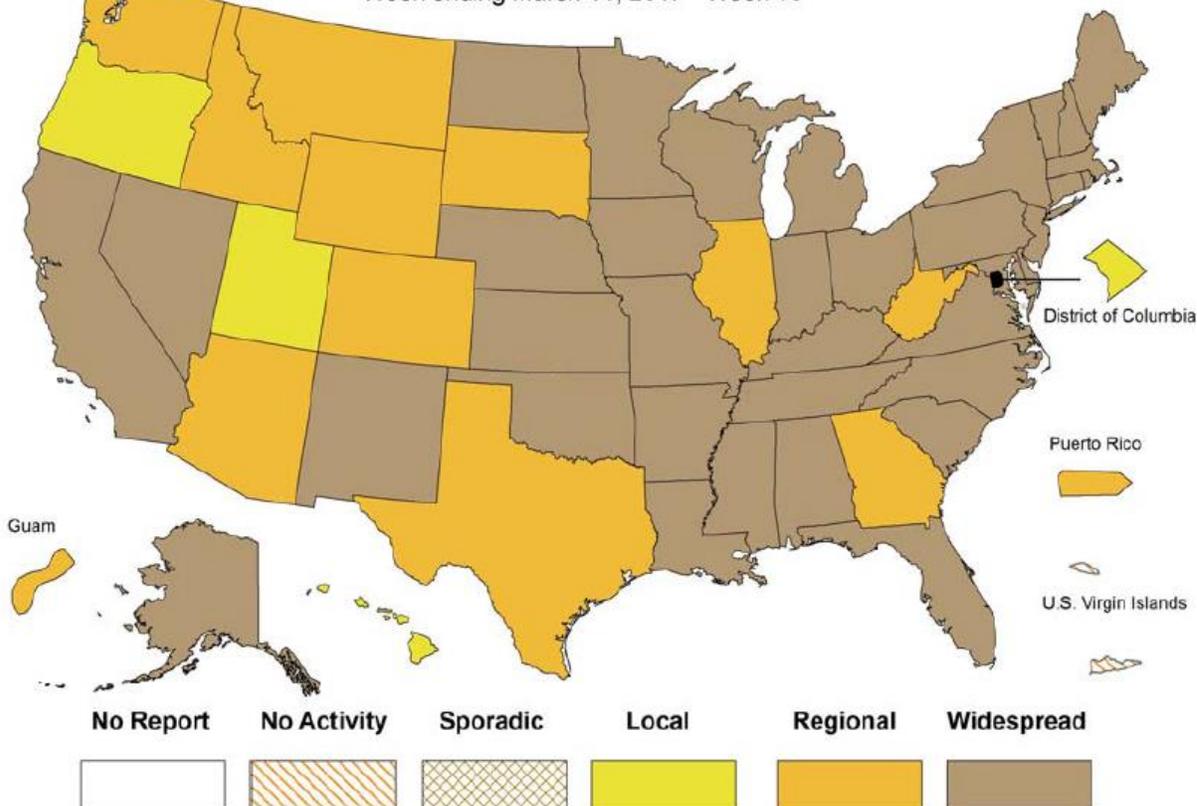
### Emergency Department Surveillance

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

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

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

Week ending March 11, 2017 - Week 10





## MDHHS AND THE FRANNY STRONG FOUNDATION LAUNCH IVACCINATE CAMPAIGN

The Michigan Department of Health and Human Services has partnered with the Franny Strong Foundation to create [I Vaccinate](#), a multi-media campaign designed to provide information and tools based on medical science and research to help Michigan parents protect their kids against vaccine preventable diseases. The website, [www.ivaccinate.org](http://www.ivaccinate.org), provides parents with information about vaccine safety, effectiveness, and protecting children in a community through vaccination. Other campaign media include TV, radio, print, outdoor and [digital ads](#).



## RECOMMENDED COMPOSITION FOR THE 2017-2018 SEASONAL INFLUENZA VACCINE

The World Health Organization (WHO) has announced the [recommended composition](#) of influenza virus vaccines for use in the 2017-2018 northern hemisphere influenza season. It is recommended that trivalent vaccines for use in the 2017-2018 northern hemisphere influenza season contain the following:

- A/Michigan/45/2015 (H1N1)pdm09-like virus
- A/Hong Kong/4801/2014 (H3N2)-like virus
- B/Brisbane/60/2008-like virus

It is recommended that quadrivalent vaccines containing two influenza B viruses contain the above three viruses as well as an additional B virus: B/Phuket/3073/2013-like virus. The FDA has voted to back this [recommendation](#).

## INFLUENZA-RELATED JOURNAL ARTICLES

- [Does influenza drive absolute humidity?](#)
- [Reassortment of influenza A viruses in wild birds in Alaska before H5 Clade 2.3.4.4 outbreaks](#)

## OTHER INFLUENZA-RELATED NEWS

- [High-path H7N9 confirmed on second Tennessee farm](#)
- [USDA confirms second case of highly pathogenic avian influenza in a commercial flock in Lincoln County, Tennessee](#)
- [Update on north Alabama avian influenza investigation](#)
- [GSK announces US regulatory submission seeking expanded indication for Fluarix Quadrivalent \(influenza vaccine\) for infant 6 months and older](#)
- [Influenza vaccine is underused in children with heart disease](#)
- ['Constant surveillance' needed to tackle resurgent outbreak of avian influenza – UN Agency](#)
- [Pandemic flu: Vaccines effective in prevention depending on age](#)
- [Blacks perceive greater risk with influenza vaccine than whites](#)
- [Parental concerns reduce uptake of child flu vaccine](#)

## AVIAN INFLUENZA INTERNATIONAL NEWS

- [Detailing recent H7N9 cases, WHO notes 3 clusters](#)
- [Perceived risk of avian influenza and urbanization in Northern Vietnam](#)
- [Avian influenza update: China, Alabama and Tennessee](#)
- [Reinforcing control efforts amid outbreak of avian influenza in China](#)
- [Human infection with avian influenza A\(H7N9\) virus – China \(WHO\)](#)

## 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/>

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](mailto:ingallsj@michigan.gov).

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