



MI Flu Focus

Influenza Surveillance Updates

Bureaus of Epidemiology and Laboratories



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Influenza Surveillance Report for the Week Ending March 25, 2017

MI's Influenza Activity Level:
Widespread

Updates of Interest: A study published in [Pediatrics](#) found that the flu vaccine reduces the risk of flu-associated death by 51% among children with high-risk conditions, and by 65% among children without a high-risk condition.

Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) increased to 3.4% overall, which is above the regional baseline of 1.9%. A total of 391 patient visits due to ILI were reported out of 11,580 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region

(32 total):

- C (10)
- N (2)
- SE (15)
- SW (5)

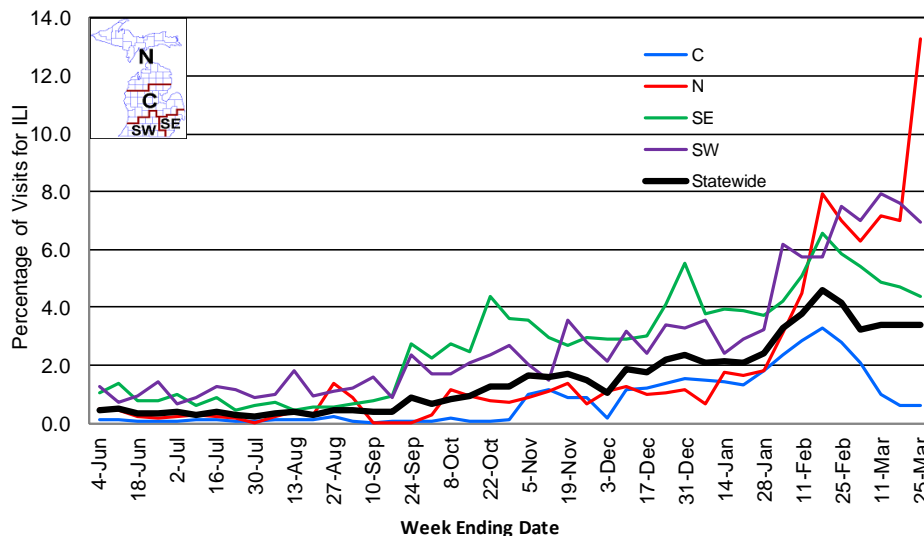
National Surveillance: In the United States, 3.2% of outpatient visits were due to influenza-like illness, which is above the national baseline of 2.2%.

Become a Sentinel Provider!

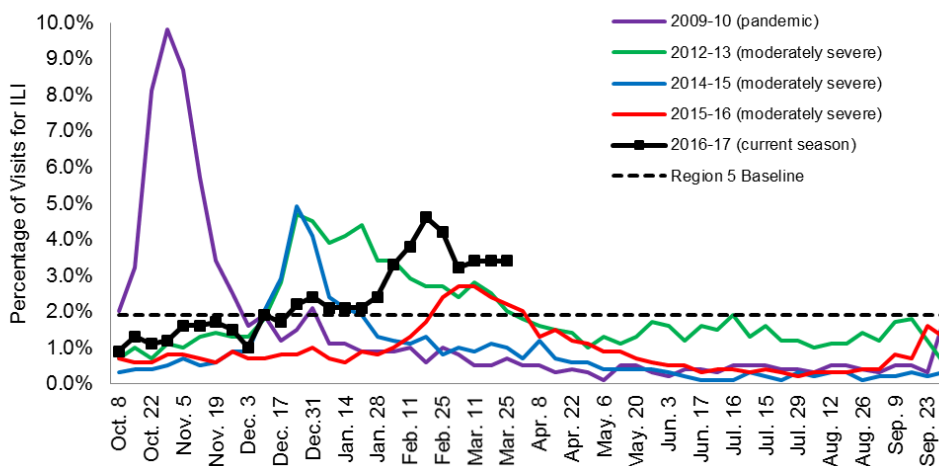
As part of pandemic influenza surveillance, CDC and MDHHS highly encourage year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Jalyn Ingalls (IngallsJ@michigan.gov) for more information.

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-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 **60 pediatric and 474 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.

| Age Group | New Flu Hospitalizations Reported | Total 2016-17 Flu Hospitalizations Reported to Date |
|------------------|-----------------------------------|---|
| 0-4 years | 4 (N) | 35 (20N, 1C, 7SE, 7SW) |
| 5-17 years | 10 (8N, 2SE) | 48 (30N, 1C, 9SE, 8SW) |
| 18-49 years | 16 (7N, 9SE) | 112 (36N, 1C, 62SE, 13SW) |
| 50-64 years | 19 (6N, 1C, 10SE, 2SW) | 156 (35N, 1C, 97SE, 23SW) |
| 65 years & older | 67 (21N, 38SE, 8SW) | 572 (114N, 5C, 388SE, 65SW) |
| Total | 116 (46N, 1C, 59SE, 10SW) | 923 (235N, 9C, 563SE, 116SW) |

Influenza-associated Pediatric Mortality

No new influenza-associated pediatric deaths were reported to MDHHS for the week ending March 25, 2017. In Michigan, there have been no influenza-associated pediatric deaths reported for the 2016-17 season. Nationally, 61 influenza-associated pediatric deaths have been reported thus far for the 2016-17 flu season.

Laboratory Surveillance

MDHHS Bureau of Laboratories reported 13 new positive influenza results (12 A/H3 and 1 flu B) during this time period. A total of 518 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 | 103 | 26 | 110 | 157 | 396 | 5 (A/HONG KONG/4801/2014-LIKE) | 0 / 95 |
| Influenza B | 36 | 9 | 41 | 32 | 118 | 4 (B/PHUKET/3073/2013-LIKE) 6 (B/BRISBANE/60/2008-LIKE) | |
| A / unsubtypeable | | | | | | | |
| LAIV recovery | | | | | | | |

In addition, 9 sentinel clinical labs (2SE, 1SW, 5C, 1N) reported influenza testing results. All nine labs reported continued influenza A activity with levels ranging from slightly decreasing or stable, to slightly increasing. All labs (SE, SE, C, N) reported ongoing influenza B activity with the majority now showing a slightly upward trend. All sites except the N region are showing predominant or co-dominant influenza B activity. Three labs (SE, C) reported low Parainfluenza activity. Seven labs (SE, SW, C, N) reported RSV activity, with most remaining at slightly elevated but stable levels. Three labs (SE, C) reported low Adenovirus activity. Four labs (SE, C, N) reported low to moderate hMPV activity. Overall testing volumes remain high with several sites trending slightly upward instead of maintaining the prior observed downward trend.

Congregate Setting Outbreaks of Viral Respiratory Illness

There were 4 new respiratory facility outbreaks (2C, 1SE, 1SW) reported to MDHHS during this time period, all 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 | | 2 | 9 |
| Long-term Care / Assisted Living Facility | 25 | | 20 | 34 | 79 |
| Healthcare Facility | 1 | | 3 | 1 | 5 |
| Daycare | | | 1 | 2 | 3 |
| Homeless Shelter | | | 1 | | 1 |
| Total | 29 | 4 | 25 | 39 | 97 |

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.

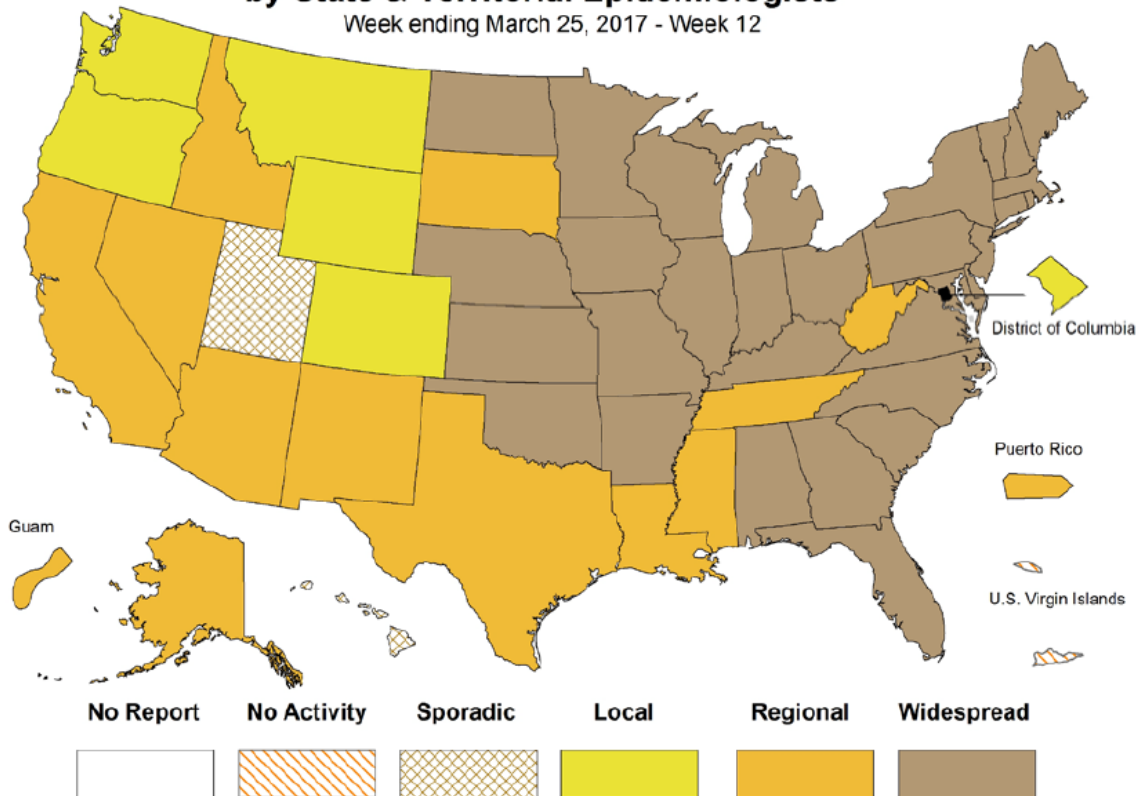
Emergency Department Surveillance

Compared to levels from the week prior, emergency department visits from constitutional 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.

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

Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists*

Week ending March 25, 2017 - Week 12





MDHHS REPORTS FIRST TWO PEDIATRIC FLU DEATHS FOR THE 2016-2017 FLU SEASON

The Michigan Department of Health and Human Services has reported the first [two pediatric influenza deaths](#) for the 2016-2017 influenza season (they will be officially reported in CDC's FluView for the week ending April 1). The reported deaths involve one child from northern Michigan and one child from western Michigan. Nationally there have been 61 pediatric deaths reported to date.

It is not too late to get vaccinated against the flu this season! Influenza claims the lives of children every year across the United States, which is why it is important to continue to vaccinate against the flu. The 2016-2017 flu vaccine is a good match to the flu viruses that are circulating nationally and in Michigan.

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

MDHHS LAUNCHES I VACCINATE 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, 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](#).

AVIAN INFLUENZA INTERNATIONAL NEWS

- [WHO adds details about two recent H5N1 cases in Egypt](#)
- [China: 17 additional H7N9 avian flu cases reported](#)

INFLUENZA-RELATED JOURNAL ARTICLES

- [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 by 65% among children without high-risk conditions
- [Disease severity determines health-seeking behavior amongst individuals with influenza-like illness in an internet-based cohort](#)
- [Neuraminidase inhibitors during pregnancy and risk of adverse neonatal outcomes and congenital malformations: Population based European register study](#)
- [Repeated vaccination does not appear to impact on influenza vaccine effectiveness against hospitalisation with confirmed influenza](#)
- [Comparative effectiveness of high-dose versus standard-dose influenza vaccines among US Medicare beneficiaries in preventing postinfluenza deaths during 2012-2013 and 2013-2014](#)
- [Moving the needle on nursing staff influenza vaccination in long-term care: Results of an evidence-based intervention](#)
- [Sampling and detection of airborne influenza virus towards point-of-care applications](#)

OTHER INFLUENZA-RELATED NEWS

- [Confirmed H7, presumptive low pathogenic avian influenza in a commercial flock in Georgia](#)
- [A little nudge may provide a big boost to flu vaccination rates](#)
- [Influenza B cases continue to rise in the United States](#)
- [The real threat to national security: Deadly disease](#)
- [Gaps in immunization measurement](#)
- [Ohio takes measures to prevent avian influenza outbreak](#)

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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