



MI Flu Focus

Influenza Surveillance Updates

Bureaus of Epidemiology and Laboratories



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Influenza Surveillance Report for the Week Ending May 21, 2016

MI's Influenza
Activity Level:
Local

Updates of Interest:

With activity for the 2015-2016 influenza season winding down, MI Flu Focus will now be published on a bi-weekly basis.

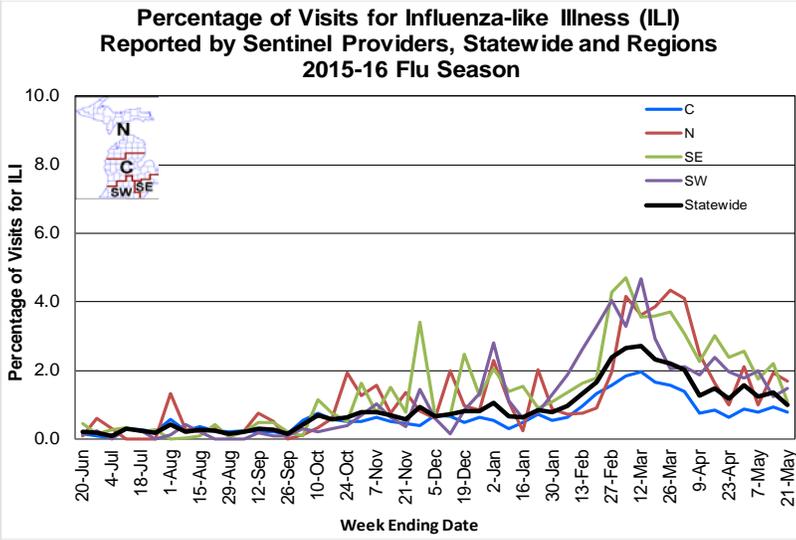
Michigan Disease Surveillance System

MDSS influenza data indicated that compared to levels from the previous week, aggregate and individual reports had decreased. Aggregate reports were 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 similar to those recorded during the same time period last year.

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

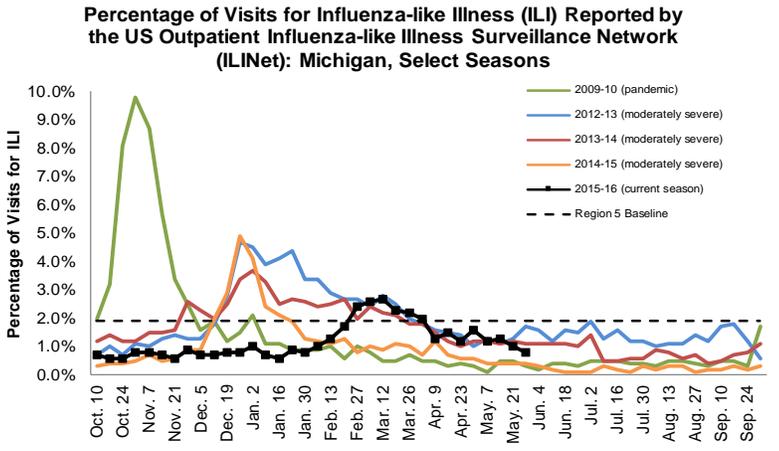


Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) decreased to 1.0% overall, which is below the regional baseline of 1.9%. A total of 133 patient visits due to ILI were reported out of 13,392 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (37 total):

- C (14)
- N (3)
- SE (15)
- SW (5)



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 Stefanie Cole (ColeS4@michigan.gov) for more information.

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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, 2015 until Apr. 30, 2016, for Clinton, Eaton, Genesee, and Ingham counties. During the surveillance period, there were 75 pediatric (39.3 per 100,000 population) and 217 adult (31.6 per 100,000 population) hospitalizations reported within the catchment area. Note: The catchment period for the IHSP has ended for the 2015-2016 influenza season.

The MDHHS Influenza Sentinel Hospital Network monitors influenza hospitalizations reported voluntarily by hospitals statewide, and 10 hospitals (N, C, SE, & SW) reported. Results for the 2015-16 flu season are listed in the table below. Additional hospitals are welcome to join; please contact Seth Eckel at eckels1@michigan.gov.

| Age Group | New Flu Hospitalizations Reported | Total 2015-16 Flu Hospitalizations Reported to Date |
|------------------|-----------------------------------|---|
| 0-4 years | 0 | 40 (22N, 1C, 8SW, 9SE) |
| 5-17 years | 0 | 28 (13N, 1C, 4SW, 10SE) |
| 18-49 years | 3 (2SW, 1SE) | 166 (30N, 3C, 34SW, 99SE) |
| 50-64 years | 0 | 225 (30N, 9C, 40SW, 146SE) |
| 65 years & older | 2 (1SW, 1SE) | 262 (30N, 9C, 43SW, 180SE) |
| Total | 5 (3SW, 2SE) | 721 (125N, 23C, 129SW, 444SE) |

Laboratory Surveillance

MDHHS Bureau of Laboratories reported 8 new positive influenza results: Six 2009 A/H1N1pdm and 2 A/H3. A total of 378 positive influenza results have been reported for the 2015-16 season. Influenza results for the 2015-16 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 | 62 | 23 | 72 | 113 | 270 | 21* (21 A/California/07/2009-like (H1N1)pdm09**) | 2 / 96 |
| Influenza A/H3 | 15 | 7 | 12 | 16 | 50 | 8* (6 A/Switzerland/9715293/2013-like [†]) | 0 / 20 |
| Influenza B | 8 | 6 | 17 | 22 | 53 | 43 (18 B/Yamagata lineage [5 B/Phuket/3073/2013-like ^{††}], 21 B/Victoria lineage [3 B/Brisbane/60/2008-like]) | |
| A / unsubtypeable | | | | 5 | 5 | | |
| LAIV recovery | | | | 1 | 1 | | |
| RSV | | | 2 | | 2 | | |
| Adenovirus | 2 | | 1 | | 3 | | |
| Parainfluenza type 1 | | | 1 | | 1 | | |

*Specimens antigenically characterized by CDC; **A/California/07/2009-like (H1N1)pdm09 is the H1N1 component of the 2015-16 Northern Hemisphere flu vaccines; [†]A/Switzerland/9715293/2013-like (H3N2) is the H3N2 component of the 2015-16 Northern Hemisphere flu vaccines; ^{††}B/Phuket/3073/2013-like virus is the B/Yamagata component of the 2015-16 Northern Hemisphere trivalent and quadrivalent flu vaccines.

In addition, 10 sentinel clinical labs (2SE, 2SW, 6C) reported influenza results. Four labs (SE, C) reported influenza A positives at generally steady levels, with all sites continuing in the low range. Seven labs (SE, SW, C) reported influenza B activity with several sites still showing small upticks. Three labs (SE, SW, C) reported low or sporadic Parainfluenza activity. Four labs (SE, C) reported sporadic RSV activity. Two labs (SE, C) reported low or sporadic Adenovirus activity. Three labs (SE, SW, C) reported low hMPV activity. Most testing volumes are in the moderate or low range, with several sites continuing to trend down.

Influenza Congregate Settings Outbreaks

There were no new respiratory facility outbreaks reported. There have been a total of 33 respiratory facility outbreaks reported to MDHHS for the 2015-16 season. Respiratory facility outbreaks are listed in the table below by facility type and surveillance region.

| Facility Type | C | N | SE | SW | Total |
|---|----------|----------|----------|-----------|-----------|
| K-12 School | 1 | 2 | | 4 | 7 |
| Long-term Care / Assisted Living Facility | 8 | 1 | 5 | 8 | 22 |
| Healthcare Facility | | 1 | 1 | | 2 |
| Daycare | | | | 1 | 1 |
| Correctional Facility | | 1 | | | 1 |
| Total | 9 | 5 | 6 | 13 | 33 |

Influenza-associated Pediatric Mortality

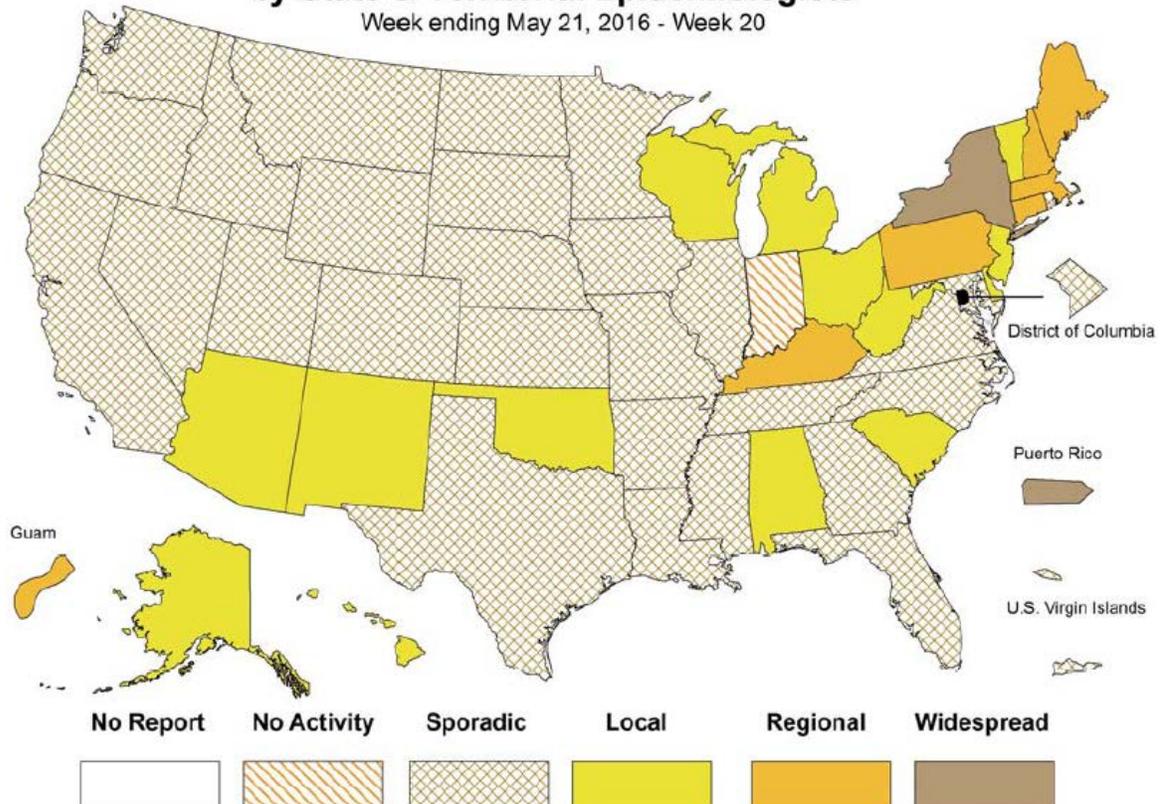
No new influenza-associated pediatric deaths were reported to MDHHS. One influenza-associated pediatric death (SE) has been reported to MDHHS for the 2015-16 season.

National: In the United States, flu activity decreased to 1.3% of outpatient visits due to influenza-like illness, which is below the national baseline of 2.1%. All 10 regions reported ILI below their region-specific baselines. Two new influenza-associated pediatric deaths was reported, for a total of 70 pediatric deaths for the 2015-16 flu season. Additional information is in the weekly FluView reports available at: www.cdc.gov/flu/weekly/.

International: In the Northern Hemisphere, influenza activity continued to decrease, with influenza B detections predominating. In the Southern Hemisphere, influenza activity has started to increase slightly. More information is available at: www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/.

Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists*

Week ending May 21, 2016 - Week 20





UPCOMING ACIP MEETING, JUNE 22-23

The next [meeting](#) of the Advisory Committee on Immunization Practices (ACIP) is June 22-23. A draft agenda has been [posted](#). The influenza discussion is currently scheduled for Wednesday, June 22nd at 2:00 PM. A summary of the proposed vaccination recommendations for the 2016-2017 flu season is scheduled to be presented. Instructions to watch the live webcast can be found [here](#).

MAY ISSUE OF NEEDLE TIPS ONLINE

The [May issue](#) of *Needle Tips*, the Immunization Action Coalition's newsletter, is now available online. This issue contains templates for immunization standing orders, Ask the Experts questions, news from CDC and FDA, and more!

INFLUENZA-RELATED JOURNAL ARTICLES

- [Influenza and Other Respiratory Viruses: The frequency of influenza and bacterial co-infection: a systematic review and meta-analysis](#)
 - Co-infection rates ranged from 2% to 65%
 - Most common co-infecting species were *Streptococcus pneumoniae* and *Staphylococcus aureus*
- [Racial/ethnic disparities in influenza vaccination of chronically ill US adults: the mediating roles of perceived discrimination in health care](#)
 - Respondents reporting perceived discrimination in health care had half the uptake as those without discrimination (32% vs. 60%)
 - Factors found to be associated with higher probability of vaccination: having a college degree, nonsmoking status, trusting the information provided by one's doctor
- [Effectiveness of seasonal trivalent influenza vaccination against hospital-attended acute respiratory infections in pregnant women: a retrospective cohort study](#)
 - Antenatal vaccination associated with significantly fewer hospitalizations for respiratory disease
- [Flu vaccine associated with fewer hospitalizations in patients with heart failure](#)
- [The composition of immune cells serves as a predictor of adaptive immunity in a cohort of 50- to 74-year-old adults](#)

AVIAN INFLUENZA INTERNATIONAL NEWS

- [China reports human H5N6 case in Hunan province; Cameroon reports H5N1 outbreak in poultry](#)
- [CHP notified of additional human case of avian influenza A\(H7N9\) in Guangdong](#)
- [Virology: Limited transmission of emergent H7N9 influenza A virus in a simulated live animal market: do chickens pose the principal transmission threat?](#)
 - Domestic chickens infected with H7N9 do not readily transmit virus to other chickens, but successfully transmit virus to quail in close proximity
- [Epidemiological and virological differences in human-clustered and sporadic infections with avian influenza A\(H7N9\)](#)
 - Sporadic cases tended to involve younger patients with fewer underlying medical conditions
- [China reports human H7N9 case; Egypt finds H9 infection in toddler](#)
- [Global epidemiology of avian influenza A\(H5N1\) infection in humans, 1997-2015: a systematic review of individual case data](#)
- [Another H7N7 outbreak reported in Italy](#)
- [Fatal influenza A\(H5N1\) virus infection in zoo-housed tigers in Yunnan province, China](#)
- CDC Infographic: [How infected backyard poultry could spread bird flu to people](#)

OTHER INFLUENZA-RELATED NEWS

- [Seqirus receives FDA approval for Flucelvax Quadrivalent™ for people 4 years of age and older](#)
- [CDC collaborative study: improved global capacity for influenza surveillance](#)
- MI: [Health care influenza immunizations a success](#)
- [Indiana lifts avian activities ban](#)
- [Pennsylvania lifts ban on live poultry shows](#)

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 Seth Eckel at eckels1@michigan.gov.

MDHHS Contributors

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