



MI Flu Focus

Influenza Surveillance Updates

Bureaus of Epidemiology and Laboratories



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February 21, 2017

Vol. 14; No. 19

Influenza Surveillance Report for the Week Ending February 11, 2017

MI's Influenza Activity Level:
Widespread

Updates of Interest: CDC released interim estimates of 2016-2017 seasonal influenza vaccine effectiveness. They report that vaccine effectiveness was 48% for influenza A and B strains. For more information, see FluBytes on page 4.

Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) decreased to 3.4% overall, which is above the regional baseline of 1.9%. A total of 441 patient visits due to ILI were reported out of 12,900 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (38 total):

- C (12)
- N (3)
- SE (17)
- SW (6)

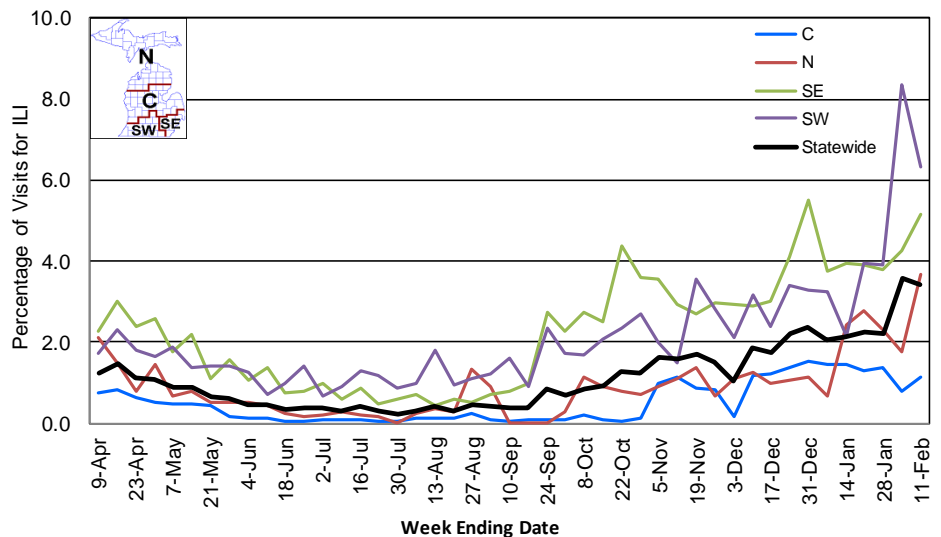
National Surveillance: In the United States, 5.2% of outpatient visits were due to influenza-like illness, which is above the national baseline of 2.2%.

Become a Sentinel Provider!

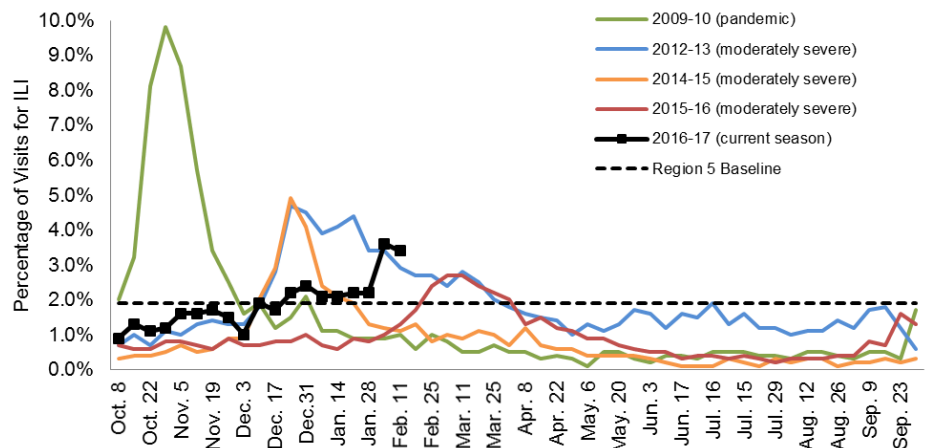
As part of pandemic influenza surveillance, CDC and MDHHS highly encourage year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Jalyn Ingalls (IngallsJ@michigan.gov) for more information.

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 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 **17 pediatric and 118 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, 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	3 (1N, 2SW)	9 (2N, 2SE, 5SW)
5-17 years	1 (SW)	11 (2N, 1C, 4SE, 4SW)
18-49 years	2 (1N, 1SE)	30 (3N, 21SE, 6SW)
50-64 years	11 (1N, 7SE, 3SW)	43 (7N, 30SE, 6SW)
65 years & older	53 (4N, 42SE, 7SW)	185 (29N, 2C, 131SE, 23SW)
Total	70 (7N, 50SE, 13SW)	278 (43N, 3C, 188SE, 44SW)

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

Laboratory Surveillance

MDHHS Bureau of Laboratories reported 53 new positive influenza results (39 A/H3 and 14 flu B) during this time period. A total of 285 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		2		
Influenza A/H3	56	13	93	67	229	4 (A/HONG KONG/4801/2014-LIKE)	0 / 8
Influenza B	5	1	29	19	54	3 (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 (SE, SW, C, N) reported influenza A activity with nearly all sites showing a continued upward trend and several reporting notable increases. Eight labs (SE, SW, C) reported influenza B activity with nearly all sites showing an upward trend and several sites (SW, C) showing substantial increases. One site (C) showed notably predominant influenza B activity. Three labs (C, SE, SW) reported low or slightly increased Parainfluenza activity. Ten labs (SE, SW, C, N) reported RSV activity with most sites showing modestly elevated but steady levels. Five labs (SE, SW, C, N) reported sporadic or low Adenovirus activity. Four labs (SE, SW, C) reported low or somewhat elevated hMPV activity. Testing volumes are showing strong increases, with many sites now in the high range.

Congregate Setting Outbreaks of Viral Respiratory Illness

There were 7 new respiratory facility outbreaks (4SE, 3SW) reported to MDHHS during this time period, five of which were confirmed influenza A. 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	2		8	14	24
Healthcare Facility					
Daycare				1	1
Homeless Shelter			1		1
Total	2		9	15	26

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 had both increased. Levels of constitutional and respiratory complaints were both higher than those recorded during the same time period last year.

- 10 constitutional alerts (1N, 4C, 5SW)
- 2 respiratory alerts (1N, 1C)
- Last MIFF report: 12 constitutional alerts (3N, 6C, 3SW), 3 respiratory alerts (2N, 1C)

Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists*

Week ending February 11, 2017 - Week 6





INTERIM ESTIMATES OF 2016-2017 SEASONAL INFLUENZA VACCINE EFFECTIVENESS

The Centers for Disease Control and Prevention released the interim estimates of 2016-2017 seasonal influenza vaccine effectiveness data last Thursday. They report that the vaccine has been 48% effective against influenza A and B viruses. Effectiveness against the predominant influenza A (H3N2) viruses was 43% while effectiveness against influenza B viruses was 73%. The CDC also provided effectiveness data broken down by age group for influenza A and B viruses:

- 6 months-8 years: 53%
- 9-17 years: 32%
- 18-49 years: 19%
- 50-64 years: 58%
- 65 years and older: 46%

To read more information about the interim estimates for influenza vaccine effectiveness, please read the [MMWR](#).

2017 IMMUNIZATION SCHEDULES AVAILABLE

The 2017 recommended immunization schedules have been released. The schedules are revised and approved annually by the Advisory Committee on Immunization Practices (ACIP) and the Centers for Disease Control and Prevention (CDC). The [childhood and adolescent birth through 18 years immunization schedule](#) and [the adult immunization schedule](#) are available online. Please read through the MMWRs for the [Recommended Immunization Schedule for Children and Adolescents Aged 18 Years or Younger](#) and the [Recommended Immunization Schedule for Adults Aged 19 Years or Older](#). Remember to always review the footnotes. For more information, please see [Immunization Schedules](#) webpage on CDC's website.

GEARING UP FOR NATIONAL INFANT IMMUNIZATION WEEK WEBINAR

The VICNetwork is hosting a webinar titled, "Gearing Up for National Infant Immunization Week." National Infant Immunization Awareness week is the annual observance that highlights the importance of protecting infants from vaccine-preventable diseases and celebrates the achievements of immunization programs and partners in promoting healthy communities. The webinar is scheduled for Tuesday, February 28 from 2:00-3:00pm ET. You must register before the [webinar](#).

INFLUENZA-RELATED JOURNAL ARTICLES

- [Successive annual influenza vaccination induces a recurrent oligoclonotypic memory response in circulating T follicular helper cells](#)
- [Distinct susceptibility and applicability of MDCK derivatives for influenza virus research](#)
- [Modelling the impact of co-circulating low pathogenic avian influenza viruses on epidemics of highly pathogenic avian influenza in poultry](#)
- [Scientists explore the surfaces of influenza viruses](#)

OTHER INFLUENZA-RELATED NEWS

- [Vast majority of Americans say benefits of childhood vaccines outweigh risks](#)
- [Current flu season Washington's deadliest since 2010, officials say](#)
- [Death of teen athlete a reminder that flu can kill anyone](#)
- [Flu widespread in 46 states; 9 more kids' deaths reported](#)
- [Robert De Niro, Robert F. Kennedy Jr. offer \\$100G for proof vaccines are safe](#)
- [Idaho flu-related deaths increase, officials encourage flu shots](#)
- [Nanotools to monitor influenza virus](#)
- [47 flu-related deaths reported so far in Idaho's most severe influenza season in 17 years](#)
- [Thimerosal: Everything you need to know about this vaccine preservative](#)

AVIAN INFLUENZA INTERNATIONAL NEWS

- [Some China cities close poultry markets amid bird flu fears](#)
- [H7N9 infections continue to climb in China](#)
- [H7N9 analyses hint at genetic mutations, drug resistance](#)
- [Vietnam reports H5N6 and H5N1 outbreaks as Europe battles more H5N8](#)
- [H7N9 avian influenza: Vaccine trials approved, Hong Kong letter to providers](#)

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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