



MI Flu Focus

Influenza Surveillance Updates

Bureaus of Epidemiology and Laboratories



Editor: Seth Eckel, MPH

EckelS1@michigan.gov

September 28, 2016

Vol. 13; No. 28

Influenza Surveillance Report for the Week Ending September 17, 2016

Updates of Interest:

Most surveillance systems for the 2016-2017 influenza season will start at the beginning of October. As such, MI Flu Focus will return to a weekly publication when the data for that time period is covered.

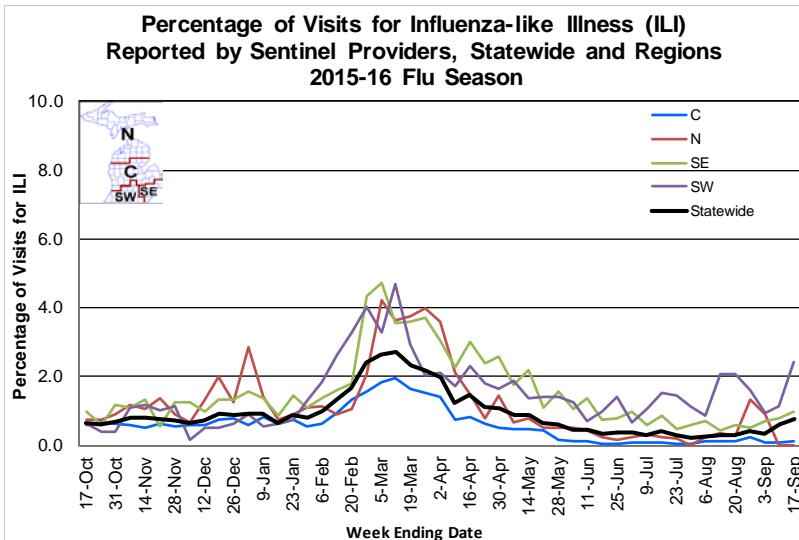
Michigan Disease Surveillance System

MDSS influenza data indicated that compared to levels from the previous week, aggregate and individual reports had both 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 complaints were similar, while respiratory complaints had increased. Levels of constitutional complaints were similar to those recorded during the same time period last year, while respiratory complaints had decreased.

- 5 constitutional alert (1N, 2C, 2SW)
- 9 respiratory alerts (7C, 1SE, 1SW)



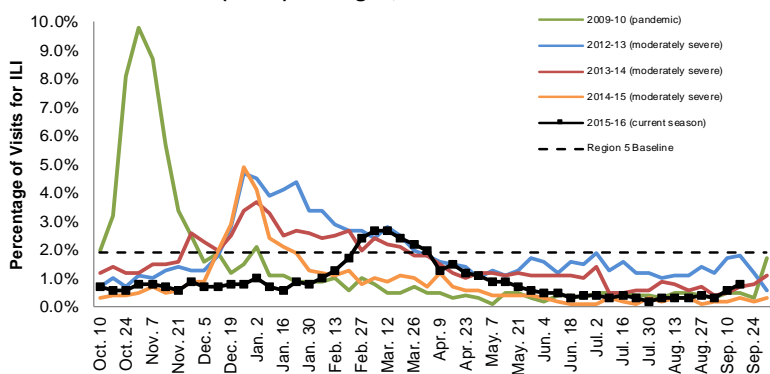
Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) increased to 0.8% overall, which is below the regional baseline of 1.9%. A total of 55 patient visits due to ILI were reported out of 7,238 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (23 total):

- C (6)
- N (0)
- SE (13)
- SW (4)

Percentage of Visits for Influenza-like Illness (ILI) Reported by the US Outpatient Influenza-like Illness Surveillance Network (ILINet): Michigan, Select Seasons



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 Jalyng Ingalls (IngallsJ@michigan.gov) for more information.

Table of Contents:

Michigan Surveillance.....1-3
 National Surveillance.....3
 International Surveillance....3
 FluBytes4

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 surveillance period for the IHSP starts on October 1st, 2016 for the 2016-2017 influenza season.

The MDHHS Influenza Sentinel Hospital Network monitors influenza hospitalizations reported voluntarily by hospitals statewide. During the summer months, hospitalizations are reported on a case-by-case basis. 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	0	166 (30N, 3C, 34SW, 99SE)
50-64 years	0	225 (30N, 9C, 40SW, 146SE)
65 years & older	0	262 (30N, 9C, 43SW, 180SE)
Total	0	721 (125N, 23C, 129SW, 444SE)

Laboratory Surveillance

MDHHS Bureau of Laboratories reported three new positive influenza results (two A/H3 and one 2009 A/H1). A total of 402 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	73	113	271	23* (21 A/California/07/2009-like (H1N1)pdm09**)	2 / 96
Influenza A/H3	17	7	19	28	71	8* (6 A/Switzerland/9715293/2013-like [†]) 12 A/H3N2-variant	0 / 20
Influenza B	8	6	17	24	55	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 (3SE, 2SW, 5C) reported influenza results. Two labs (SE) reported sporadic influenza A activity. One lab (C) reported sporadic influenza B activity. Two labs (SE, SW) reported ongoing low Parainfluenza activity. One lab (SE) reported sporadic RSV activity. Three labs (SE, SW, C) reported sporadic or low Adenovirus activity. No labs reported hMPV activity. Testing volumes overall remain low but several sites are showing small increases.

Influenza Congregate Settings Outbreaks

There were no new respiratory facility outbreaks reported. There have been a total of 34 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	2	5	8	23
Healthcare Facility		2	1		3
Daycare				1	1
Correctional Facility		1			1
Total	9	7	6	13	34

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.

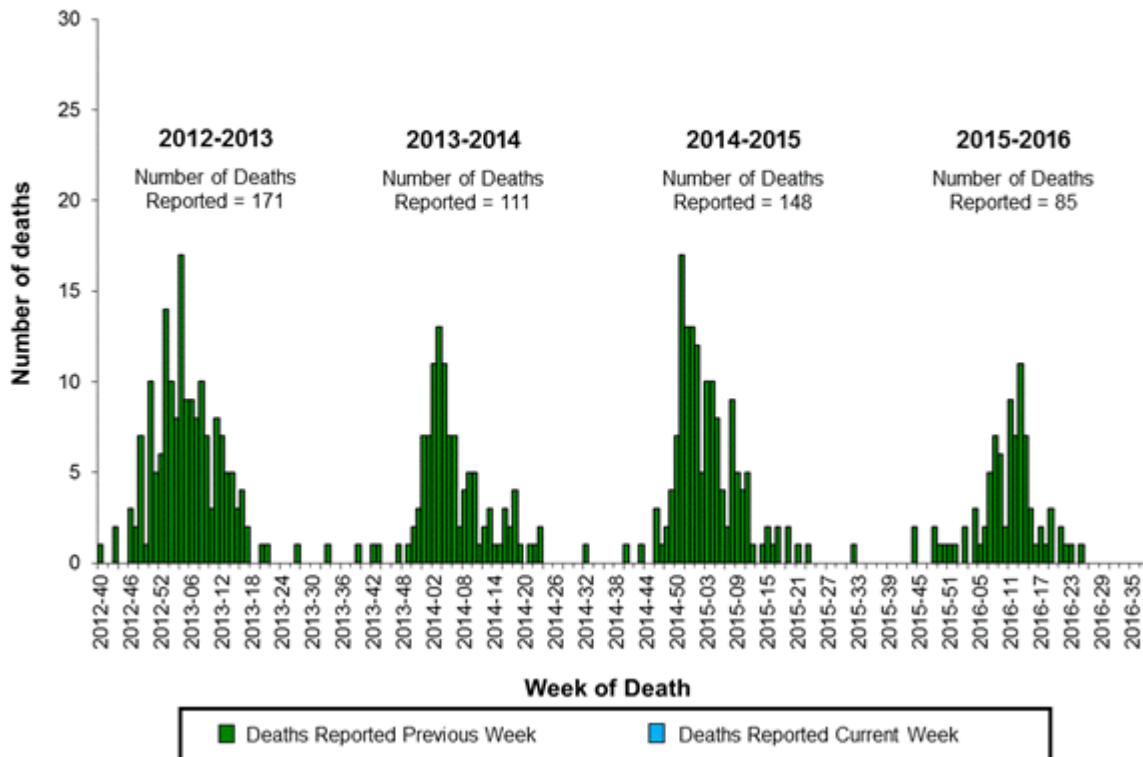
National: In the United States, 1.3% of outpatient visits were due to influenza-like illness, which is below the national baseline of 2.1%. No new influenza-associated pediatric deaths were reported, for a total of 85 pediatric deaths for the 2015-16 flu season. Additional information is in the weekly FluView reports available at: www.cdc.gov/flu/weekly/.

NOTE: Influenza surveillance in the U.S. will continue through the summer months with condensed reports available at on the FluView website (link above); the full FluView resumes on October 16, 2015. [FluView interactive](#) will be updated over the summer months.

International: Influenza activity varied in countries of temperate South America, is ongoing in South Africa and increased steadily in the last few weeks in Oceania. Influenza activity in the temperate zone of the northern hemisphere was at inter-seasonal levels. More information is available at:

www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/.

Number of Influenza-Associated Pediatric Deaths by Week of Death: 2012-2013 season to present





NAPCP ADOPTS IMMUNIZATION POSITION

The Naturopathic Academy of Primary Care Physicians has approved an immunization position paper in support of the ACIP schedule. According to their [position statement](#), naturopathic physicians should recommend, provide, or refer for appropriate immunizations according to CDC's childhood immunization or catch-up schedules.

UPDATED INFLUENZA VACCINE PRODUCTS LIST FOR THE 2016-17 FLU SEASON

The Immunization Action Coalition has updated [their Influenza Vaccine Products for the 2016-17 Influenza Season](#) chart. This chart reflects all vaccine products, including Flucelvax® (cclIV4) and Fluad™ (IIV3), and also a new product, Afluria® (IIV4) licensed for people aged 18 years and older. The Michigan version of this updated chart will be available soon. It can be found at www.michigan.gov/flu -> Current Flu Season Vaccination Materials for Health Care Professionals.

NFID WEBINAR: INFLUENZA PREVENTION IN US ADULTS AGED 65 YEARS AND OLDER

The National Foundation for Infectious Diseases (NFID) is hosting a webinar titled "Influenza Prevention in US Adults Aged 65 Years and Older" on October 5th from 12:00-1:00pm ET. The webinar will focus on the impact of flu on adults aged 65 years and older, discuss how immunosenescence responds to vaccination, compare vaccine options, and identify barriers to vaccination. [Register here](#). Also, the CDC has released a video of Dr. Lisa Grohskopf discussing the recommendations for the 2016-17 flu season that can be viewed [here](#).

OTHER INFLUENZA-RELATED NEWS

- [Anti-Vaxxer Mom Changes Her Mind After Her Three Kids Fall Ill](#)
- [Spike in Texas A&M Students with Flu-like Symptoms](#)

FLU WEBSITES

www.michigan.gov/flu
www.cdc.gov/flu
www.flu.gov
<http://vaccine.healthmap.org/>

INFLUENZA-RELATED JOURNAL ARTICLES

- [Respiratory viruses and influenza-like illness: Epidemiology and outcomes in children aged 6 months to 10 years in a multi-country population sample](#)
 - Out of 6, 266 children:
 - 41.5%: Rhinovirus
 - 15.8%: Influenza
 - 9.8%: Adenovirus
- [Risk for congenital malformation with H1N1 influenza vaccine: A cohort study with sibling analysis](#)
 - Offspring exposed to H1N1 vaccine prenatally were compared to siblings who was not exposed to vaccine prenatally
 - 4.97% of exposed offspring born with congenital malformation
 - 4.78% of unexposed offspring born with congenital malformation
 - No statistically significant risk differences
- [Maternally-derived antibodies do not prevent transmission of swine influenza A virus between pigs](#)
- [Progesterone-based therapy protects against influenza by promoting lung repair and recovery in females](#)
 - Administration of progesterone to female mice depleted of progesterone confers protection against both lethal and sub-lethal influenza
- [The occupational risk of influenza A \(H1N1\) infection among healthcare personnel during the 2009 pandemic: A systematic review and meta-analysis of observational studies](#)
 - Significantly increased odds for influenza A (H1N1) infection for HCP compared to controls

AVIAN INFLUENZA INTERNATIONAL NEWS

- [New Poultry Testing Lab in Willmar Prepares Industry for Next Avian Influenza Event](#)
- [Protein Sciences and Avanzcare Announce Licensing of Influenza Vaccines for the MENA Region](#)

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

Bureau of Epidemiology – S. Bidol, MPH, J. Ingalls, MA, S. Eckel, MPH
Bureau of Labs – B. Robeson, MT, V. Vavricka, MS