



MI Flu Focus

Influenza Surveillance Updates Bureaus of Epidemiology and Laboratories, and Division of Immunization/Bureau of Family Health Services



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August 1, 2017

Vol. 14; No. 37

Summer Edition: Influenza Surveillance Report for the Week Ending July 22, 2017

2017 Summer Surveillance System Reports

Updates of Interest: The summer fair season usually brings an increase in the number of interactions between people and pigs, which can lead to human cases of H3N2v or other variant flu viruses. Clinicians are reminded to ask patients being evaluated for influenza-like illness if they have had any exposure to swine, such as attendance at county fairs or livestock exhibits. Please immediately contact your local health department to report any suspected cases of variant or novel influenza. For more information about H3N2v, see page 3.

Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) decreased to 0.4% overall, which is below the regional baseline of 1.9%. A total of 24 patient visits due to ILI were reported out of 5,509 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region

(23 total):

- C (7)
- N (2)
- SE (11)
- SW (3)

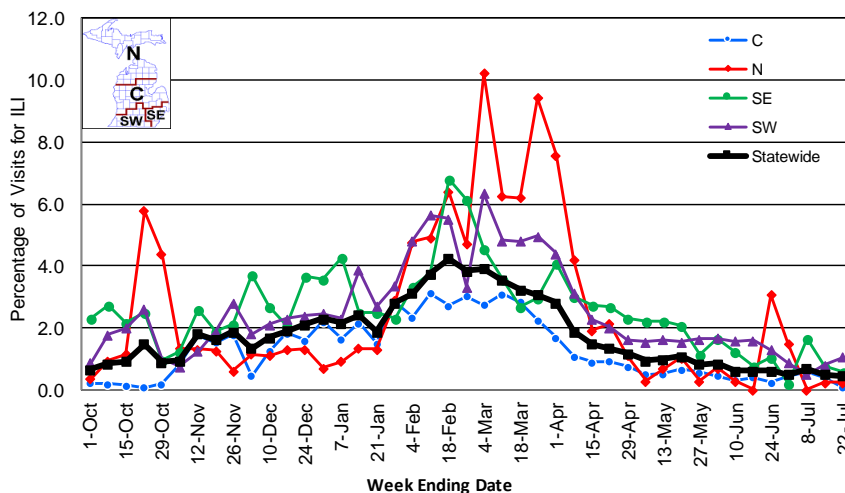
National Surveillance: In the United States, 0.8% of outpatient visits were due to influenza-like illness, which is below the national baseline of 2.2%.

Become a Sentinel Provider!

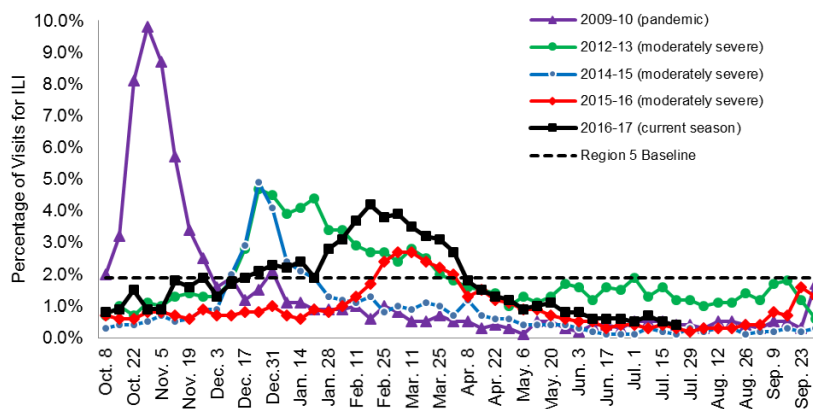
As part of pandemic influenza surveillance, CDC and MDHHS highly encourage year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Jalyn Ingalls (IngallsJ@michigan.gov) for more information.

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 2016-17 Flu Season



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



Laboratory Surveillance

MDHHS Bureau of Laboratories reported 4 new positive influenza results (1 A/H1 and 3 flu A/H3) during this time period. A total of 664 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	5	3	10	2 (A/CALIFORNIA/07/2009-LIKE (H1N1)pdm09)	
Influenza A/H3	120	26	122	184	452	12 (A/HONG KONG/4801/2014-LIKE)	0 / 95
Influenza B	66	11	49	76	202	8 (B/PHUKET/3073/2013-LIKE) 9 (B/BRISBANE/60/2008-LIKE)	
A / unsubtypeable							

In addition, 10 sentinel clinical labs (2SE, 2SW, 6C, 0N) reported influenza testing results. Two labs (SE, C) reported sporadic influenza A activity. One lab (SE) reported sporadic influenza B activity. Three (3) labs (SE, SW, C) reported sporadic to low Parainfluenza activity. Two labs (SE, C) reported sporadic RSV activity. Two labs (SE, SW) reported sporadic to low Adenovirus activity. No labs reported hMPV activity. Overall testing volumes remain in the low to very low range.

Congregate Setting Outbreaks of Viral Respiratory Illness

There were no new respiratory facility outbreaks reported to MDHHS during this time period. 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	5		3	11
Long-term Care / Assisted Living Facility	31	1	28	43	103
Healthcare Facility	3		4	1	8
Daycare			1	2	3
Homeless Shelter			1		1
Total	37	6	34	49	126

2016-2017 Flu Season Surveillance Systems Summary Report

Hospital Surveillance

The Influenza Hospitalization Surveillance Project (IHSP) surveillance has concluded for the 2016-2017 flu season. During this season, 635 flu-related hospitalizations were reported for the catchment area (Eaton, Clinton, Ingham and Genesee). This is the highest single season total since IHSP surveillance was initiated after the influenza pandemic of 2009.

The MDHHS Influenza Sentinel Hospital Network monitors influenza-related admissions reported voluntarily by hospitals statewide. Surveillance peaked for the 2016-2017 season during the week ending February 25, with 156 flu-related hospitalizations reported by 12 facilities across the state. Additional hospitals are encouraged to join for the 2017-2018 season; please contact Seth Eckel at eckels1@michigan.gov.

Influenza-associated Pediatric Mortality

No new pediatric deaths were reported to MDHHS for the week ending July 22, 2017. A total of 5 influenza-associated pediatric deaths in Michigan have been reported thus far for the 2016-17 season. Four of the children tested positive for Influenza B, and one tested positive for Influenza A/H3. Nationally, 103 influenza-associated pediatric deaths have been reported thus far for the 2016-17 flu season.

Michigan Disease Surveillance System

MDSS influenza data is comprised of both aggregate and individual reports. For the 2016-2017 season, aggregate counts peaked during Week 9 with 7,339 reports. Individual reports peaked during Week 9 with 2,790 cases having been reported to the MDSS.

Emergency Department Surveillance

In monitoring chief complaint data for the 2016-2017 flu season, constitutional complaints peaked during Week 8 with 14 county level and 1 statewide alert being issued. Respiratory complaints peaked during Week 6, with 7 county level alerts having been issued.

Novel Influenza A Viruses

Due to cases of human H3N2v recently being reported in a nearby state, MDHHS has added a section to MIFF to share the most recent updates regarding H3N2v activity in the United States. As of July 22, 2017, there have been no H3N2v cases reported to MDHHS. Nationally, there have been 12 cases reported in 2017.

Variant (Swine) Influenza Guidance for Healthcare & Public Health Providers

As Michigan fairs are now underway, clinicians are reminded to ask patients being evaluated for influenza-like illness if they have had any exposure to swine, such as attendance at county fairs or livestock exhibits. MDHHS recommends that providers with a suspect patients for variant influenza follow these guidelines:

1. Clinicians treating patients with an influenza-like illness (fever $\geq 100^{\circ}\text{F}$ plus a cough and or/a sore throat) should ask about recent exposure to swine or attendance at fairs.
2. Collection of upper respiratory specimens for any influenza-like illness is strongly advised.
3. Respiratory specimens should be collected as soon as possible after illness onset and submitted to MDHHS.
4. For more information on how to collect and submit specimens to the MDHHS Bureau of Laboratories, including the required test requisition form, refer to:

http://www.michigan.gov/mdhhs/0,5885,7-339-71551_2945_5103-213906--,00.html.

5. Early initiation of antiviral treatment (oseltamivir) is most effective in treating variant influenza infection.
6. Infection control should follow standard contact and droplet precautions for ill persons.
7. For more details, see [Variant \(Swine\) Influenza Guidance for Healthcare and Public Health Providers](#) (MDHHS Guidance).

To report suspect cases and arrange testing, contact your local health department immediately or contact MDHHS at 517-335-8165 or after hours at 517-335-9030.



Current H3N2v Activity in the United States

Eleven people with exposure to pigs at an Ohio county fair have tested positive for an influenza virus that normally infects pigs and not people. Ten of the 11 persons were children younger than 18 years of age, and one person was an adult aged 50-64 years. No persons were hospitalized and have fully recovered from their illness. These most recent human infections are being publicly reported in this week's [FluView report](#) (Week 29: July 16-22, 2017).

States reporting H3N2v Cases	Cases in 2015	Cases in 2016	Cases in 2017
Michigan	1	12	
Minnesota	1		
New Jersey	1		
Ohio		6	11
Texas			1

Table 1. Case Counts of Detected Human Infections with H3N2v
<https://www.cdc.gov/flu/swineflu/h3n2v-case-count.htm>

CDC Recommendations

CDC has long-standing [guidance](#) for people attending agricultural fairs or other settings where swine might be present, including a recommendation that people who are at high risk of serious flu complications avoid pigs and swine barns. For more information about H3N2v, visit: <https://www.cdc.gov/flu/swineflu/h3n2v-basics.htm>. Similarly, a [Morbidity and Mortality Week Report](#) was issued in October 2016 detailing the outbreak of influenza A(H3N2) variant virus infections among persons in Michigan and Ohio.

FluBytes

SAVE THE DATE FOR THE 6TH ANNUAL PEDIATRIC AND ADULT INFLUENZA WEBINAR: 2017-2018 FLU SEASON

MDHHS and MSU-E are hosting the 6th annual Pediatric and Adult Influenza Webinar: 2017-2018 Flu Season on August 30, 2017 from 12:00-1:00pm (ET). We will be sharing everything providers need to know to get ready for the upcoming flu season, including vaccine recommendations, antiviral education, and ways to improve influenza vaccination rates. There is 1.0 CME credit available for physicians and nurses, and 1.0 PCE credit available for pharmacists. **Registration (<http://events.anr.msu.edu/immunization>) opens on August 7.** Registration will remain open through August 29, or until we reach capacity. Please mark your calendars for this important event!

BEST PRACTICES TO IMPROVE MATERNAL VACCINATION: ACOG WEBINAR

The American College of Obstetricians and Gynecologists (ACOG) is hosting a webinar on maternal vaccinations on Monday, August 7 from 12:00-1:00pm ET. The webinar will emphasize the importance of maternal immunizations, provide an update on the current recommendations, and discuss practical tips and share resources for providers. The webinar is free, but you must [register](#) in advance.

VICNETWORK WEBINAR: COMMUNICATION STRATEGIES AND RECOMMENDATIONS FOR THE UPCOMING 2017-18 FLU SEASON

The VICNetwork is hosting a webinar on August 30, 2017 from 2:00-3:00pm (ET) titled, "Communication Strategies and Recommendations for the Upcoming 2017-18 Flu Season." Speakers will provide important information you will want to know about flu vaccine, and updates on the communication plans by the Centers for Disease Control and Prevention. The webinar is free, but you must [register](#) in advance.

AVIAN INFLUENZA INTERNATIONAL NEWS

- [CHP notified of human case of avian influenza A\(H7N9\) in Jiangsu](#)
- [China program to vaccinate poultry against bird flu will be nationwide](#)

FLU WEBSITES

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

INFLUENZA-RELATED JOURNAL ARTICLES

- [Comparative effectiveness of high-dose versus standard-dose influenza vaccination on numbers of US nursing home residents admitted to hospital: A cluster-randomised trial \(Abstract\)](#)
 - [Press release](#): Rate of hospitalization was significantly lower in the group that received high-dose flu vaccine
- [The importance of frailty in the assessment of influenza vaccine effectiveness against influenza-related hospitalization in elderly people](#)
 - Vaccine effectiveness among older adults decreased as frailty increased
- [The process by which perceived autonomy support predicts motivation, intention, and behavior for seasonal influenza prevention in Hong Kong older adults](#)
- [Cost-effectiveness of molecular point-of-care testing for influenza viruses in elderly patients at ambulatory care setting](#)
- [Socialization, indifference, and convenience: Exploring the uptake of influenza vaccine among medical students and early career doctors](#)
 - Demonstrated indifference suggests few are strongly opposed to flu vaccination
- [Live-attenuated influenza vaccine effectiveness in children from 2009 to 2015-2016: A systematic review and meta-analysis](#)
 - Findings confirm that effectiveness of LAIV against A(H1N1)pdm09 strains has been lower than IIV
- [Survey of distribution of seasonal influenza vaccine doses in 201 countries \(2004-2015\): The 2003 World Health Assembly resolution on seasonal influenza vaccination coverage and the 2009 pandemic have had very little impact on improving influenza control and pandemic preparedness \(Abstract\)](#)

OTHER INFLUENZA-RELATED NEWS

- [Clinton County Health District: 11 human cases of H3N2 flu virus confirmed](#)
- [Deadly dog flu remains a risk for NC animals despite no more deaths, vet group says](#)
- [H3N2 dominant strain as flu levels rise in Southern Hemisphere](#)
- [Influenza vaccine linked to less hospitalizations among elderly](#)

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.

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