



MI Flu Focus

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



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Summer Edition: Influenza Surveillance Report for the Week Ending August 19, 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 0.1% overall, which is below the regional baseline of 1.9%. A total of 5 patient visits due to ILI were reported out of 3,904 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region

(19 total):

- C (7)
- N (2)
- SE (6)
- SW (4)

National Surveillance: In the United States, 0.7% of outpatient visits were due to influenza-like illness, which is below the national baseline of 2.2%.

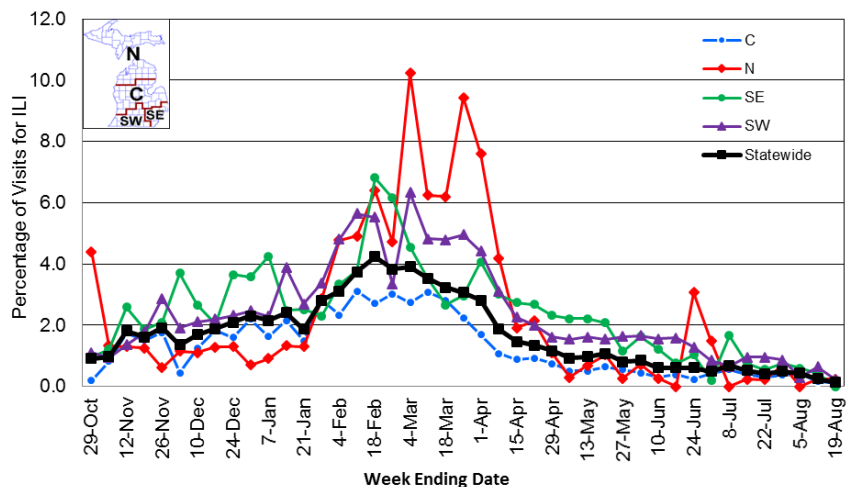
Become a Sentinel Provider!

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.

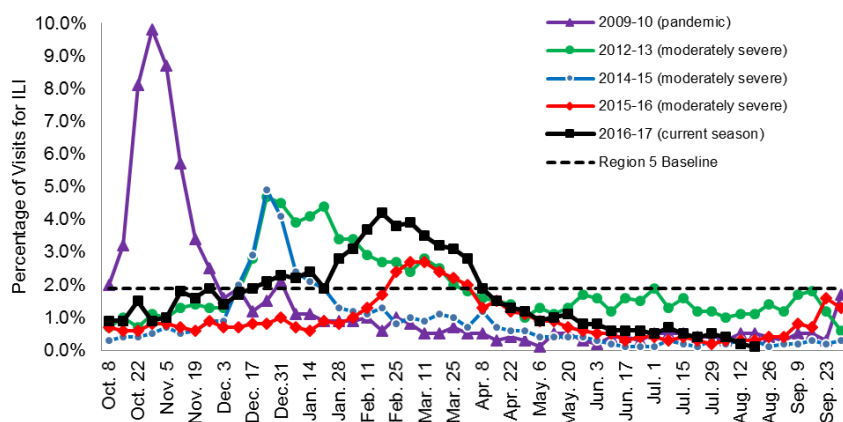
Additional information is in the weekly FluView reports available at:

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 two new positive influenza results (A/H3) during this time period. A total of 666 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	122	26	122	184	454	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, 8 sentinel clinical labs (1SE, 2SW, 4C, 1N) reported influenza testing results. No labs reported influenza A or influenza B activity. Two (2) labs (SW, C) reported sporadic Parainfluenza activity. No labs reported RSV activity. One lab (SW) reported 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 was one new respiratory facility outbreak (C) 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	32	1	29	43	105
Healthcare Facility	3		4	1	8
Daycare			1	2	3
Homeless Shelter			1		1
Total	38	6	35	49	128

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 August 19, 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, 104 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 and other variant influenza viruses recently being reported in nearby states, MDHHS has added a section to MIFF to share the most recent updates regarding H3N2v activity in the United States. As of week ending August 19, there have been no H3N2v cases reported to MDHHS for 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 Variant Influenza Activity in the United States

Three additional human infections with novel influenza A viruses were detected during the week ending August 12, 2017. All three patients (North Dakota [1], Ohio [1], and Pennsylvania [1]) were infected with variant viruses. Two of the infections have been characterized as influenza A(H3N2) variant viruses; the third infection has been characterized as A(H3) variant. These most recent human infections were publicly reported in the August 12 [FluView report](#) (Week 32: July 6- August 12, 2017).

States reporting H3N2v Cases	Cases in 2015	Cases in 2016	Cases in 2017
Michigan	1	12	
Minnesota	1		
New Jersey	1		
North Dakota			1
Ohio		6	15
Pennsylvania			1
Texas			1
Total	3	18	18

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.



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 presenting everything you 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>) is now open.** Registration will remain open through tomorrow, August 29, or until we reach capacity. Please register now for this important event!

NFID WEBINAR: THE ROLE OF HEALTHCARE PROFESSIONALS IN PROTECTING OLDER ADULTS AGAINST INFLUENZA

NFID is hosting a webinar titled, *The Role of Healthcare Professionals in Protecting Older Adults Against Influenza* on September 6 at 12:00pm (ET). The discussion will focus on the critical role healthcare professionals play in protecting adults aged 65 years and older against influenza. The webinar is free, but advanced [registration](#) is required.

NAIIS WHITE PAPER: LOWERING THE BURDEN OF ADULT DISEASE, ONE SHOT AT A TIME

The National Adult and Influenza Immunization Summit sponsored a [white paper](#) that was published in Becker's Hospital Review, *Lowering the Burden of Adult Disease, One Shot at a Time*. This paper examines barriers hospitals and health systems face when trying to increase adult immunizations.

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.

2017-2018 FLU RECOMMENDATIONS HAVE BEEN PUBLISHED

CDC's Advisory Committee on Immunization Practices (ACIP) published the [recommendations for influenza vaccination](#) for the 2017-18 season in Morbidity and Mortality Weekly Report (MMWR) on August 25, 2017. This report updates the 2016 recommendations regarding the use of flu vaccines for the prevention and control of seasonal flu. A [summary](#) of the recommendations is available on the CDC's website.

INFLUENZA-RELATED JOURNAL ARTICLES

- [Influenza A\(H3N2\) Virus in Swine at Agricultural Fairs and Transmission to Humans, Michigan and Ohio, USA, 2016](#)
- [Influenza vaccination rates in children decline when the live attenuated influenza vaccine is not recommended](#)
- [The impact of repeated vaccination on influenza vaccine effectiveness: A systematic review and meta-analysis](#)
 - Found no overall evidence that prior season vaccination negatively impacts current season VE
- [Getting the flu: 5 key facts about influenza virus evolution](#)

OTHER INFLUENZA-RELATED NEWS

- [CDC reports 3 more fair-linked variant flu cases](#)
- [New findings support decision not to use FluMist vaccine](#)
- [Nine genes may predict immune response to influenza vaccine](#)
- [Influenza is confirmed in one south Georgia school system](#)

AVIAN INFLUENZA INTERNATIONAL NEWS

- [CHP notified of human cases of avian influenza A\(H7N9\) in Xinjiang](#)
- [H5N6 confirmed in Philippines avian flu outbreak](#)
- [Philippine troops to help cull thousands of fowl in bird flu battle](#)

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.

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