



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 July 8, 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, go to www.cdc.gov/flu/swineflu.

Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) increased to 0.4% overall, which is below the regional baseline of 1.9%. A total of 10 patient visits due to ILI were reported out of 2,849 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region

(16 total):

- C (3)
- N (2)
- SE (7)
- SW (4)

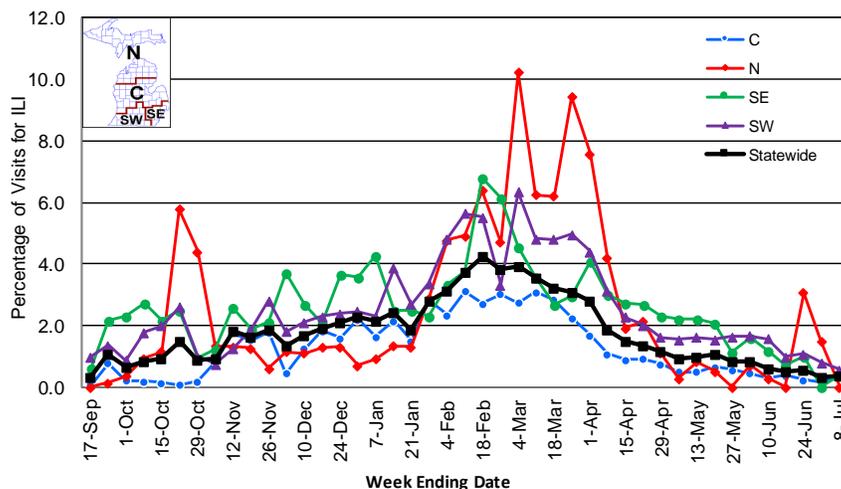
National Surveillance: In the United States, 0.8% of outpatient visits were due to influenza-like illness, which is below the national baseline of 2.2%.

Become a Sentinel Provider!

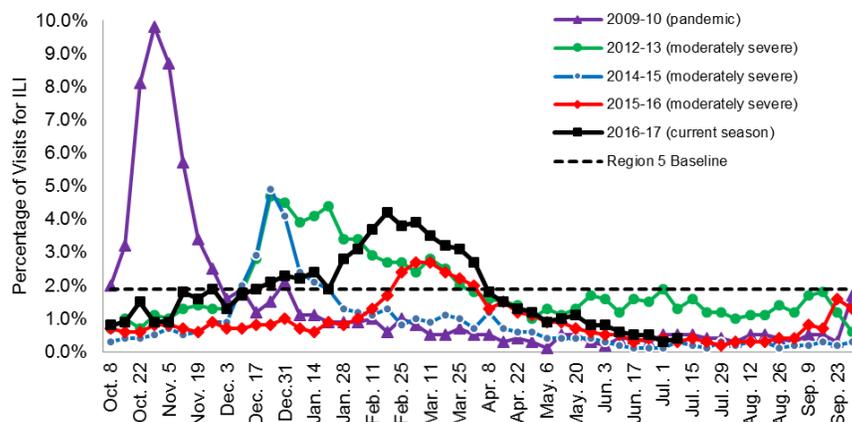
As part of pandemic influenza surveillance, CDC and MDHHS highly encourage year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Jalyn Ingalls (IngallsJ@michigan.gov) for more information.

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 2 new positive influenza results (1 A/H1 and 1 flu B) during this time period. A total of 660 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	4	3	9	2 (A/CALIFORNIA/07/2009-LIKE (H1N1)pdm09)	
Influenza A/H3	118	26	121	184	449	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)	
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In addition, 9 sentinel clinical labs (1SE, 2SW, 5C, 1N) reported influenza testing results. No labs reported influenza A activity or influenza B activity. Two (2) labs (SW, C) reported sporadic Parainfluenza activity. No labs reported RSV activity. Two labs (SW, C) 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 (Flu B in N) 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 8, 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, 101 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.

FluBytes

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, discuss practical tips, and share resources for providers. The webinar is free, but you must [register](#) in advance.

PREPAREDNESS CHECKLIST FOR PEDIATRIC PRACTICES – AMERICAN ACADEMY OF PEDIATRICS

The American Academy of Pediatrics (AAP) completed a [study](#) in May 2017 that found only 7% of child care center directors had taken actions to prepare their centers for a pandemic influenza outbreak. As a result of this study, the AAP created a [preparedness checklist](#) for pediatric practices to use as a guide to prepare their office for a disaster. This document lists 13 specific steps that can be taken to improve office preparedness. Please share this document widely with child care centers, and encourage them to make preparedness plans.

OTHER INFLUENZA-RELATED NEWS

- [Making prevention the priority – how to boost adult immunization rates](#)
- [Connecticut's Protein Sciences being sold to French drugmaker for \\$650M](#)
- [Report finds many adults aged 65 years and over are unvaccinated against several infectious diseases](#)
- [Highly contagious dog flu outbreak reaches Louisville Metro Animal Services](#)

AVIAN INFLUENZA INTERNATIONAL NEWS

- [CHP investigates three cases of severe pediatric influenza A infection](#)
- [China's weekly H7N9 case totals stay in single digits](#)

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](#).

INFLUENZA-RELATED JOURNAL ARTICLES

- [Factors determining the uptake of influenza vaccination among children with chronic conditions](#)
 - A study in Hong Kong found that parents of children with chronic diseases lack awareness of the risks of influenza
- [Epidemiology of human infections with highly pathogenic avian influenza A \(H7N9\) virus in Guangdong, 2016 to 2017](#)
- [The safety, immunogenicity, and acceptability of inactivated influenza vaccine delivered by microneedle patch \(TIV-MNP 2015\): A randomized, partly blind, placebo-controlled, phase 1 trial](#)
- [Effectiveness of influenza vaccines in asthma: A systematic review and meta-analysis](#)
 - Influenza vaccine effectiveness in people with asthma was 45%
 - Influenza vaccine prevented 59-78% of asthma attacks leading to emergency visits and/or hospitalizations
- [First trimester influenza vaccination and risks for major structural birth defects in offspring](#)
 - First trimester maternal IIV vaccination was not associated with an increased risk for major structural birth defects
- [Attitudes of consumers and live-poultry workers to central slaughtering in controlling H7N9: A cross-sectional study](#)
- [Influenza-like illness incidence is not reduced by influenza vaccination in a cohort of older adults, despite effectively reducing laboratory-confirmed influenza virus infections](#)
 - Vaccination reduced the number of influenza virus infections, but not the overall ILI incidence – other pathogens filled the gap
- [Evaluating the importance of policy amenable factors in explaining influenza vaccination: A cross-sectional multinational study](#)
- [Modelling the emergence of influenza drug resistance: The roles of surface proteins, the immune response and antiviral mechanisms](#)
 - Examines three factors and their effect on the emergence of drug-resistant mutants: antiviral mechanism, the immune response, and surface proteins

For questions or to be added to the distribution list, please contact Jalyn Ingalls at ingallsj@michigan.gov.

MDHHS Contributors

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