



MI Flu Focus

Influenza Surveillance Updates

Bureaus of Epidemiology and Laboratories



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Influenza Surveillance Report for the Week Ending May 27, 2017

MI's Influenza Activity Level:

Updates of Interest:

MI Flu Focus will now be sent on a bi-weekly schedule throughout the summer months (June-September). The next edition of MIFF will be distributed on June 19.

Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) increased to 0.7% overall, which is below the regional baseline of 1.9%. A total of 43 patient visits due to ILI were reported out of 5,843 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 (9)
- SW (5)

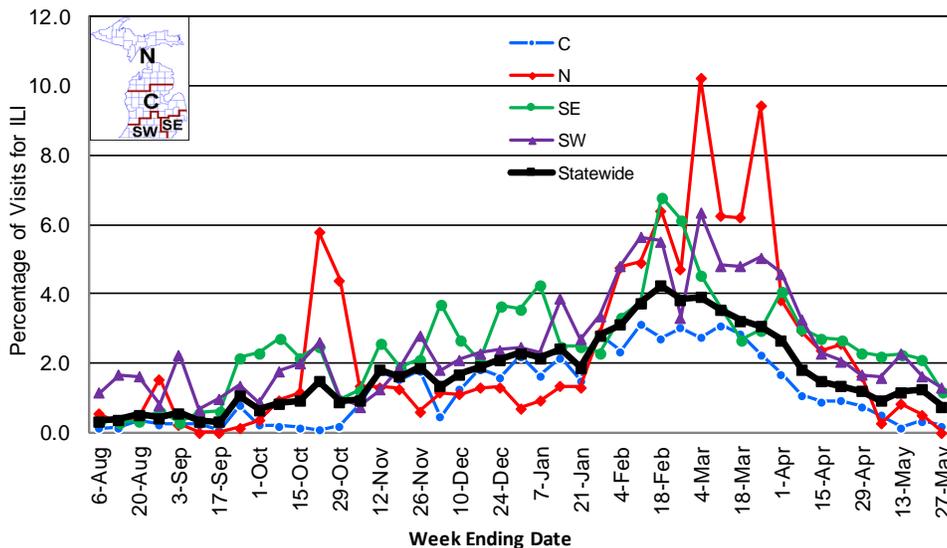
National Surveillance: In the United States, 1.2% of outpatient visits were due to influenza-like illness, which is below the national baseline of 2.2%.

Become a Sentinel Provider!

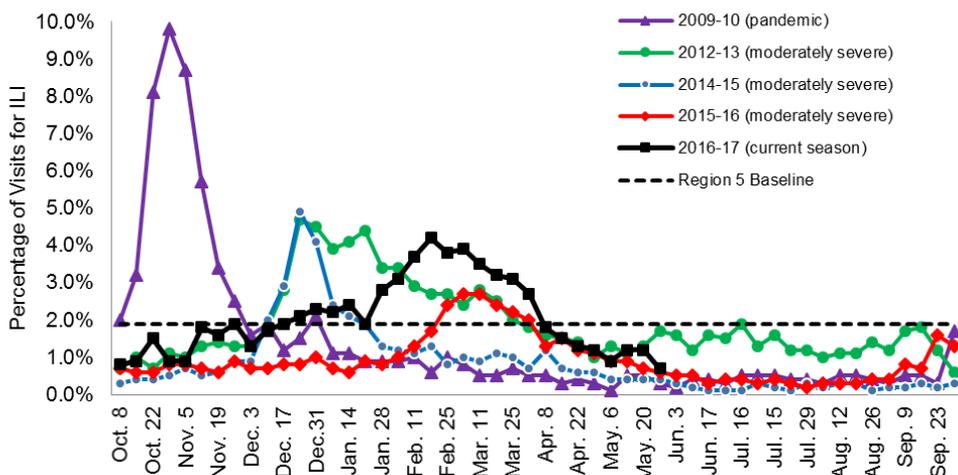
As part of pandemic influenza surveillance, CDC and MDHHS highly encourage year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Jalyn Ingalls (IngallsJ@michigan.gov) for more information.

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 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-related 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. During the surveillance period, there were **66 pediatric and 570 adult** influenza-related hospitalizations reported in the catchment area for the 2016-2017 season.

The MDHHS Influenza Sentinel Hospital Network monitors influenza-related admissions reported voluntarily by hospitals statewide, with **no** facilities 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	0	39 (23N, 1C, 8SE, 7SW)
5-17 years	0	52 (33N, 1C, 10SE, 8SW)
18-49 years	0	129 (40N, 1C, 74SE, 14SW)
50-64 years	0	218 (53N, 1C, 135SE, 29SW)
65 years & older	0	729 (147N, 10C, 495SE, 77SW)
Total	0	1167 (296N, 14C, 722SE, 135SW)

Influenza-associated Pediatric Mortality

No new pediatric deaths were reported to MDHHS for the week ending May 27, 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, 98 influenza-associated pediatric deaths have been reported thus far for the 2016-17 flu season.

Laboratory Surveillance

MDHHS Bureau of Laboratories reported 4 new positive influenza results (all flu B) during this time period. A total of 653 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	1	3	6	2 (A/CALIFORNIA/07/2009-LIKE (H1N1)pdm09)	
Influenza A/H3	118	26	119	181	444	11 (A/HONG KONG/4801/2014-LIKE)	0 / 95
Influenza B	66	11	48	78	203	4 (B/PHUKET/3073/2013-LIKE) 9 (B/BRISBANE/60/2008-LIKE)	
A / unsubtypeable							
LAIV recovery							

In addition, 10 sentinel clinical labs (2SE, 2SW, 5C, 1N) reported influenza testing results. Two (2) labs (SE, C) reported sporadic influenza A activity. Three (3) labs (SE, SW) reported low or sporadic influenza B activity. Five (5) labs (SE, SW, C, N) reported low Parainfluenza activity. Two (2) labs (SE) reported sporadic RSV activity. Three labs (SE, SW, C) reported low Adenovirus activity. Three (3) labs (SE, SW, C) reported low hMPV activity. Overall testing volumes continue to drop further with most sites at or near the low range.

Congregate Setting Outbreaks of Viral Respiratory Illness

There were 2 new respiratory facility outbreaks (SW) 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	4		3	10
Long-term Care / Assisted Living Facility	30	1	26	45	102
Healthcare Facility	3		4	1	8
Daycare			1	2	3
Homeless Shelter			1		1
Total	36	5	32	51	124

Michigan Disease Surveillance System

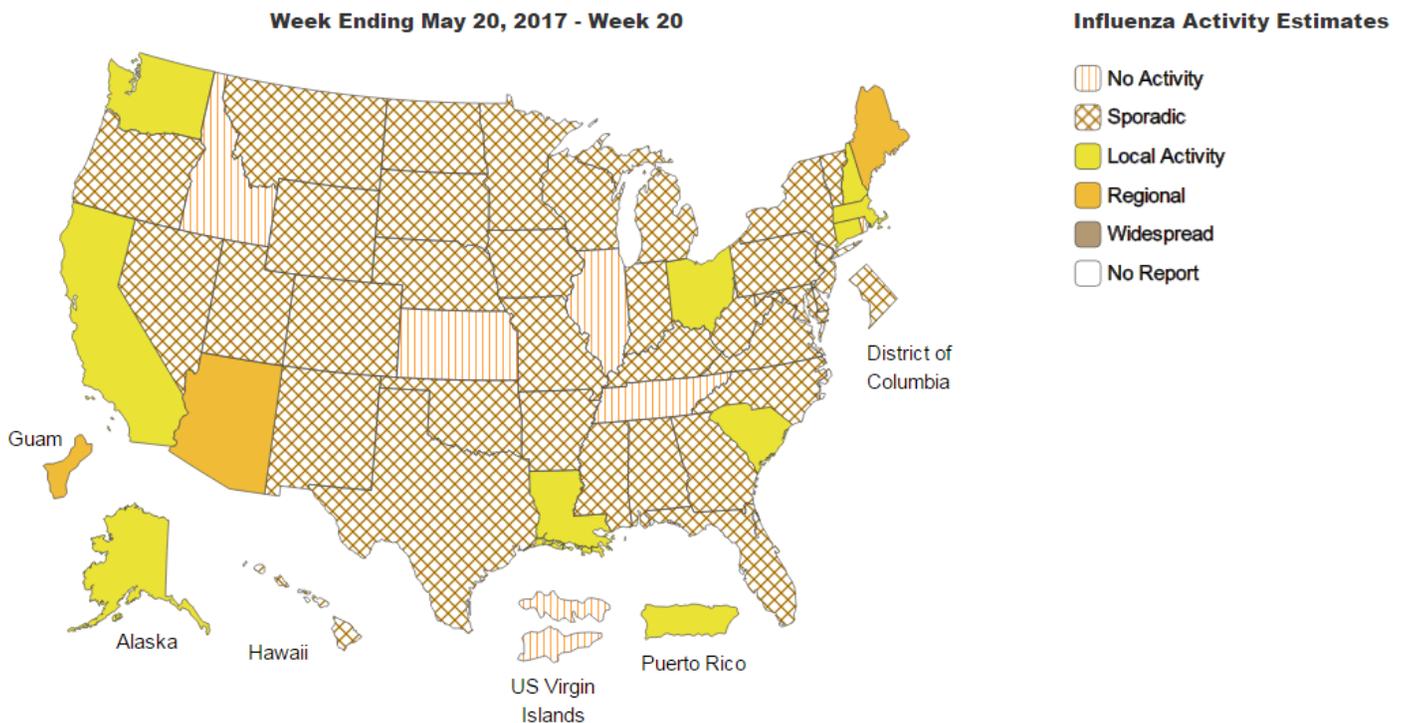
MDSS influenza data indicated that compared to levels from the previous week, aggregate and individual reports had both decreased. Aggregate and individual reports were both lower than levels seen during the same time period last year.

Emergency Department Surveillance

Compared to levels from the week prior, emergency department visits from constitutional complaints were similar, while those from respiratory complaints had decreased. Levels of constitutional complaints were similar to those recorded during the same time period last year, while respiratory complaints were higher.

- 6 constitutional alerts (2C, 4SW)
- 2 respiratory alert (1C, 1SW)

Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists**



**This map is only published through the end of May (week 20). It will not be included in future summer editions of MIFF.



ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES – JUNE 21 & 22 MEETING

The Advisory Committee on Immunization Practices (ACIP) meets three times each year to review scientific data and vote on vaccine recommendations. The next ACIP meeting is scheduled for Wednesday, June 21, and Thursday, June 22, and is available for viewing via webcast. The draft [agenda](#) is available online, as well as [webcast](#) information.

NATIONAL VACCINE ADVISORY COMMITTEE – JUNE 6, 2017 MEETING

The National Vaccine Advisory Committee (NVAC) will meet on June 6, 2017. The meeting will include updates on immunization information systems, vaccine confidence, financial and system barriers to vaccine administration, and adult immunization. The meeting is open to the public, and available via webcast. The [agenda](#) and [webcast](#) information are available online.

INFLUENTIAL NEWLETTER: MAY 2017 SPECIAL ISSUE

The National Influenza Vaccination Disparities Partnership (NIVDP) has published a May 2017 special edition of the [InFLUential Newsletter](#). The newsletter focuses on case studies of organizations who are using innovative strategies to get people vaccinated against the flu.

AVIAN INFLUENZA INTERNATIONAL NEWS

- [CDC Update – H7N9 in China](#)
- [CHP notified of human cases of avian influenza A\(H7N9\) in Mainland – Two deaths recorded from May 12 to 17](#)
- [Duck farming resumes in France with end of bird flu crisis](#)
- [CHP investigates case of severe pediatric influenza A infection](#)

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

- [Use of a digital health application for influenza surveillance in China](#)
- [Efficacy of maternal influenza vaccination against all-cause lower respiratory tract infection hospitalizations in young infants: Results from a randomized controlled trial](#)
 - Incidence of acute lower respiratory tract infection (ALRI) hospitalizations was lower in infants born to mothers who were vaccinated (19 cases) compared to mothers who were unvaccinated (33 cases)
 - Influenza vaccination during pregnancy decreased all-cause ALRI hospitalizations during the first 3 months of life
- [Synergistic effects of influenza and 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine \(MPTP\) can be eliminated by the use of influenza therapeutics: Experimental evidence for the multi-hit hypothesis](#)
 - Summary provided by Outbreak News Today: [H1N1 influenza may increase risk of developing Parkinson's disease](#)
 - Certain strain of influenza virus predisposes mice to pathologies that mimic Parkinson's disease
- [A comprehensive retrospective study of the seroprevalence of H9N2 avian influenza viruses in occupationally exposed populations in China](#)
 - Longer exposure to poultry may contribute to higher seroprevalence in elderly populations
- [Epidemiological and economic impact of pandemic influenza in Chicago: Priorities for vaccine interventions](#)

OTHER INFLUENZA-RELATED NEWS

- [Can the influenza vaccine be the key to reducing antibiotic resistance?](#)
- [St. Jude scientists find new way to fight flu](#)
- [A lightning-fast flu virus detector](#)
- [College students get 'F' for flu vaccinations – and that can be an issue](#)
- [After Ebola and Zika, most countries still not prepared for a pandemic](#)
- [Year-round flu vaccination may prevent hospitalization of pregnant women](#)
- [Had the flu or pneumonia? Watch out for your heart](#)
- [Florida reports 1st 'dog flu' cases](#)

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

MDHHS Contributors

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