



# MI Flu Focus

## Influenza Surveillance Updates Bureaus of Epidemiology and Laboratories

Michigan Department  
of Community Health



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**MI's Current Influenza  
Activity Level:**  
Regional

**Updates of Interest:**  
WHO has recommended 2 new strains for the 2015-16 Northern Hemisphere flu vaccines, see their recommendation [here](#).

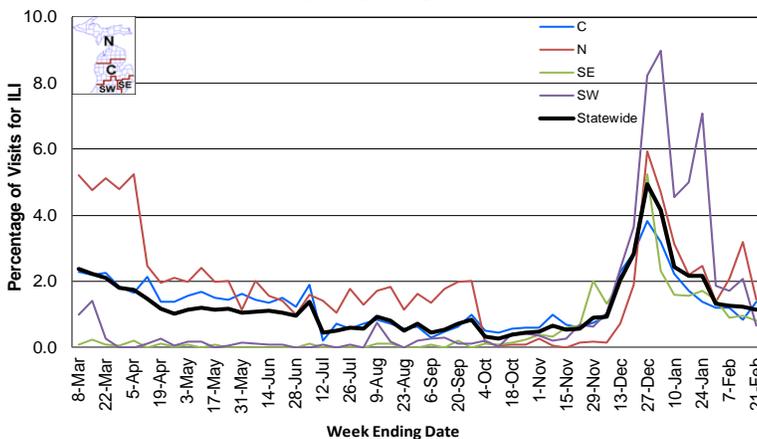
### Influenza Surveillance Report for the Week Ending February 21, 2015

#### Acute Non-Mumps Parotitis

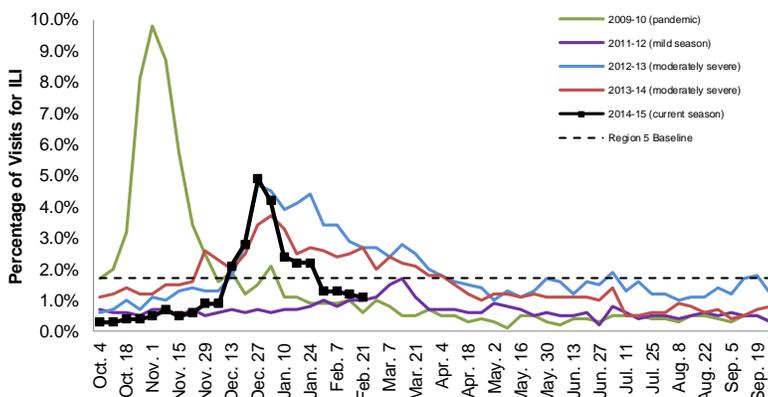
Acute parotitis, inflammation of the parotid gland, is a common manifestation of mumps viral infection and a rare complication of influenza. Since December 2014, the Centers for Disease Control and Prevention (CDC) has received reports of non-mumps parotitis cases in persons with laboratory-confirmed influenza from multiple states, including Michigan.

MDCH, in collaboration with CDC, is participating in a multistate investigation of parotitis cases in the absence of mumps infection. The objectives of the current investigation are to describe the clinical and epidemiologic features of non-mumps parotitis and to identify potential risk factors for developing influenza-associated parotitis in particular. The findings will be used to inform prevention and control recommendations in Michigan and in response to the broader multistate investigation.

**Percentage of Visits for Influenza-like Illness (ILI)  
Reported by Sentinel Providers, Statewide and Regions  
2014-15 Flu Season**



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



#### Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) decreased to 1.1% overall; this is below the regional baseline (1.7%). A total of 100 patient visits due to ILI were reported out of 8,838 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (31 total):

- C (12)
- N (3)
- SE (12)
- SW (4)

#### Become a Sentinel Provider!

As part of pandemic influenza surveillance, CDC and MDCH highly encourage year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Stefanie DeVita at [devitas1@michigan.gov](mailto:devitas1@michigan.gov) for more information.

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## Michigan Disease Surveillance System

MDSS influenza data indicated that compared to levels from the previous week, individual reports and aggregate reports decreased. Individual reports are higher than levels seen during the same time period last year while aggregate reports are lower compared to the previous year.

## Emergency Department Surveillance

Compared to levels from the week prior, emergency department visits from constitutional and respiratory complaints increased. Levels of both constitutional and respiratory complaints were higher than levels compared to the same time period last year.

- 1 constitutional alert (1C)
- 2 respiratory alerts (2C)

## 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, starting on October 1, 2014, for Clinton, Eaton, Genesee, and Ingham counties. There were 10 influenza-related hospitalizations reported (accumulated total since Oct. 1: 70 children, 292 adults).

Based on these counts, there have been 36.2 pediatric influenza hospitalizations per 100,000 population and 42.6 adult influenza hospitalizations per 100,000 population within the catchment area.

The MDCH Influenza Sentinel Hospital Network monitors influenza hospitalizations reported voluntarily by hospitals statewide, and 12 hospitals (N,C,SE,SW) reported. Results are listed in the table below. **Additional hospitals are welcome to join; please contact Seth Eckel at [eckels1@michigan.gov](mailto:eckels1@michigan.gov).**

Age Group	New Flu Hospitalizations Reported	Total 2014-15 Flu Hospitalizations to Date
0-4 years	1 (C)	27 (19C, 4SE, 4SW)
5-17 years	0	25 (24C, 1SE)
18-49 years	0	55 (1N, 10C, 42SE, 2SW)
50-64 years	4 (SE)	91 (10C, 71SE, 10SW)
65 years & older	10 (1N, 1C, 4SE, 4SW)	431 (7N, 17C, 361SE, 46SW)
<b>Total</b>	<b>15 (1N, 2C, 8SE, 4SW)</b>	<b>629 (8N, 80C, 479SE, 62SW)</b>

## Laboratory Surveillance

MDCH Bureau of Laboratories reported 6 new positive influenza results: 5 A/H3 and 1 influenza B. A total of 486 positive influenza results have been reported for the 2014-15 season. Influenza results for the 2014-15 season are reported 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		
Influenza A/H3	110	33	96	215	454	12* (3 A/Texas/50/2012-like**, 9 A/Switzerland/9715293/2013-like)	0 / 104
Influenza B	4	5	16	4	29	27 (26 B/Yamagata lineage, 1 inconclusive)	
Influenza A, unsubtypeable	1			1	2		

\*Specimens antigenically characterized by CDC; \*\*A/Texas/50/2012 (H3N2) virus is the H3N2 component of the 2014-15 Northern Hemisphere flu vaccine. A/Switzerland/9715293/2013-like is an antigenic variant of the current vaccine virus.

In addition, 12 sentinel clinical labs (3SE,2SW,6C,1N) reported influenza results. Nine labs (SE,SW,C,N) reported influenza A activity with all sites showing gradually lowered or steady levels. Seven labs (SE,SW,C) reported low or slightly elevated influenza B activity. Four labs (SE,SW,C) reported low or slightly elevated Parainfluenza activity. All 12 labs (SE,SW,C,N) reported ongoing or further increasing RSV activity, with the highest levels continuing in the SE region. Five labs (SE,SW,C) reported low or slightly elevated Adenovirus activity. Four labs (SE,SW,C) reported ongoing or slightly increasing hMPV activity. Most testing volumes continue to drop further or remain steady, but half of the sites remain in the high range.

### Influenza Congregate Settings Outbreaks

There were no new respiratory facility outbreaks. There have been a total of 133 respiratory facility outbreaks reported to MDCH for the 2014-15 season. Respiratory facility outbreaks are listed in the table below by facility type and surveillance region.

Facility Type	C	N	SE	SW	Total
Adult Care Facility		1	2		3
Long-Term Care / Assisted Living Facility	26	9	28	32	95
K-12 School	1		1		2
Daycare				1	1
Unknown / Investigation Pending	16		4	9	29
Healthcare Facility				3	3
<b>Total</b>	<b>43</b>	<b>10</b>	<b>35</b>	<b>45</b>	<b>133</b>

### Influenza-associated Pediatric Mortality

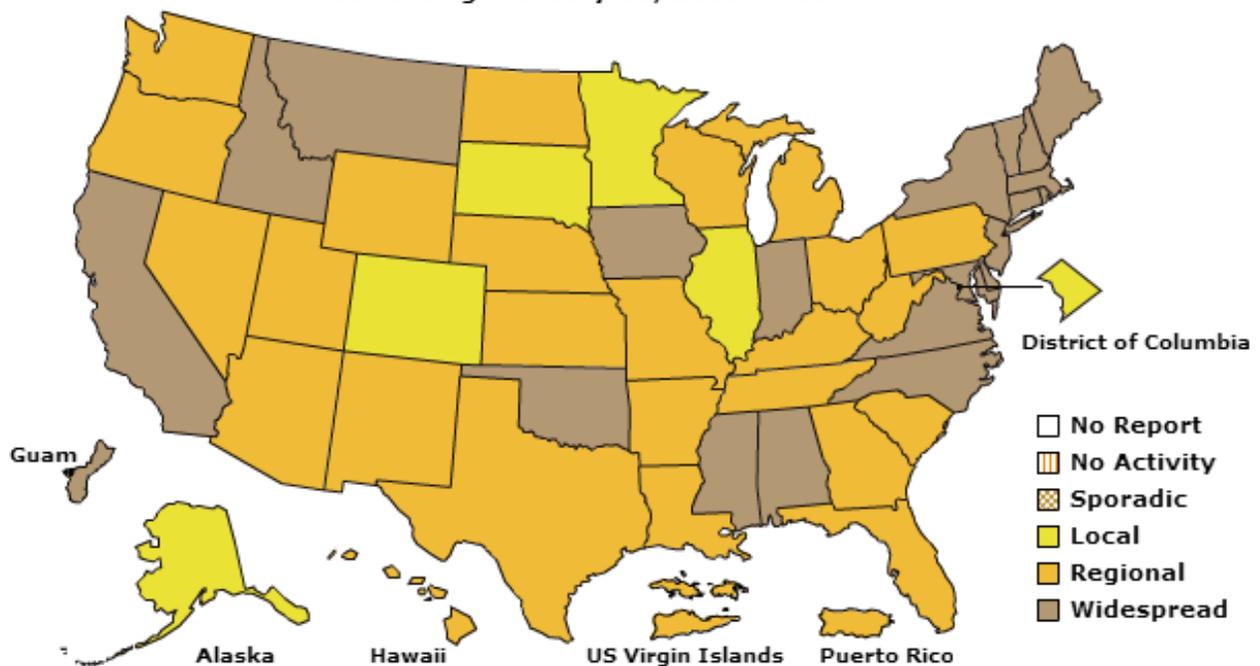
No new influenza-associated pediatric deaths were reported to MDCH. One influenza-associated pediatric death (1SE) has been reported to MDCH for the 2014-15 season.

**National:** Influenza activity continued to decrease but remained elevated in the United States, with 3.0% of outpatient visits due to influenza-like illness. Six influenza-associated pediatric deaths were reported, bringing the 2014-15 total to 92. Additional information is in the weekly FluView reports available online at: [www.cdc.gov/flu/weekly/](http://www.cdc.gov/flu/weekly/).

**International:** Influenza activity remained high in the Northern Hemisphere with influenza A(H3N2) viruses predominating. Some countries reported an increase in influenza A(H1N1)pdm09 activity. Antigenic characterization of most recent A(H3N2) viruses thus far indicated differences from the A(H3N2) virus used in the influenza vaccines for the Northern Hemisphere 2014-2015. Summary information is available online at [www.who.int/influenza/surveillance\\_monitoring/updates/latest\\_update\\_GIP\\_surveillance/en/](http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/).

### A Weekly Influenza Surveillance Report Prepared by the Influenza Division Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists\*

Week Ending February 21, 2015- Week 7





## ACIP MEETING FEBRUARY 2015

The Advisory Committee on Immunization Practices (ACIP) met last week and voted on flu vaccine recommendations for 2015-16. No change was made to the [universal vaccination recommendation](#) for all persons aged 6 months and older. ACIP [voted to remove](#) the preferential recommendation for live attenuated influenza vaccine (LAIV) in healthy children 2-8 years. The vote was to revise the wording as such:

*“For healthy children aged 2 through 8 years who have no contraindications or precautions, either LAIV or IIV is an appropriate option. No preference is expressed for LAIV or IIV for any person aged 2 through 49 years for whom either vaccine is appropriate. An age-appropriate formulation of vaccine should be used.”*

The CDC Director will need to approve the proposed recommendations before they can go into effect and be published in *MMWR*.

Updated flu vaccine effectiveness estimates for the 2014-15 season were also presented at ACIP. See CDC’s statement on the updated estimates [here](#).

## WHO RECOMMENDATION FOR 2015-16

The World Health Organization (WHO) has released its [recommendation](#) for flu strains to be included in the 2015-16 Northern Hemisphere flu vaccines. They recommended:

- an A/California/7/2009 (H1N1)pdm09-like virus;
- an A/Switzerland/9715293/2013 (H3N2)-like virus;
- a B/Phuket/3073/2013-like virus;
- a B/Brisbane/60/2008-like virus [in quadrivalent vaccines only].

The A/Switzerland and B/Phuket strains would be changes from the 2014-15 vaccines. The Food and Drug Administration is [meeting](#) on March 4 to discuss WHO’s recommendation.

## FLU WEBSITES

[www.michigan.gov/flu](http://www.michigan.gov/flu)

[www.cdc.gov/flu](http://www.cdc.gov/flu)

[www.flu.gov](http://www.flu.gov)

<http://vaccine.healthmap.org/>

## AVIAN INFLUENZA A(H5N1)

- [WHO experts to visit Cairo mid-March to curb H5N1](#)
- [Highly pathogenic H5N1 infection among workers at live bird markets, Bangladesh, 2009-2010](#)
  - 2% of workers seropositive at baseline

## AVIAN INFLUENZA A(H7N9)

- Global H7N9 case count at [623 cases](#)

## OTHER AVIAN INFLUENZA NEWS

- CDC: [Avian flu update, H5 viruses detected among U.S. domestic and wild birds](#)
  - CDC says human risk from H5 outbreaks in birds is low
- [Avian influenza H9N2 seroprevalence among pig population and pig farm staff in Shandong, China](#)
  - 4.9% of pigs and 2.1% of farm workers were seropositive by hemagglutination inhibition assay
  - No H9N2 cases were detected
- [WHO warns about influenza co-circulation, bird outbreaks](#)
- WHO: [Warning signals from the volatile world of influenza viruses](#)
- [Hungarian farm culls 100,000 ducks after H5N8 bird flu detected](#)

## INFLUENZA-RELATED JOURNAL ARTICLES

- [Studies from Spain, Scotland support flu vaccine effectiveness](#)
- Henry Ford Health System: [Study: advocacy, race affect flu vaccination rates](#)
- [Influenza among afebrile and vaccinated healthcare workers](#)
  - Nearly half of HCWs with flu were afebrile prior to their diagnosis
- [Use of influenza antiviral medications among outpatients at high risk for flu-associated complications during 2013-14](#)
  - Only 15% of high-risk patients were prescribed flu antivirals

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 Stefanie DeVita at [devitas1@michigan.gov](mailto:devitas1@michigan.gov).

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