



# MI Flu Focus

Influenza Surveillance Updates  
Bureaus of Epidemiology and Laboratories



Editor: Susan Peters, DVM    PetersS1@michigan.gov  
Surveillance and Infectious Disease Epidemiology

October 18, 2012  
Vol. 9; No. 41

## Current Influenza Activity Levels:

- **Michigan:** Sporadic activity
- **National:** During week 40 (September 30-October 6, 2012), influenza activity was low in the United States

## Updates of Interest

- **International:** Nepal reports an H5N1 outbreak in poultry

## Table of Contents

Influenza Surveillance Reports	
Michigan.....	1-3
National.....	3
International.....	4
Novel Influenza and Other News	
WHO Pandemic Phase.....	4
Avian Influenza Surveillance.....	5
Avian Influenza H5N1 in Humans.....	5

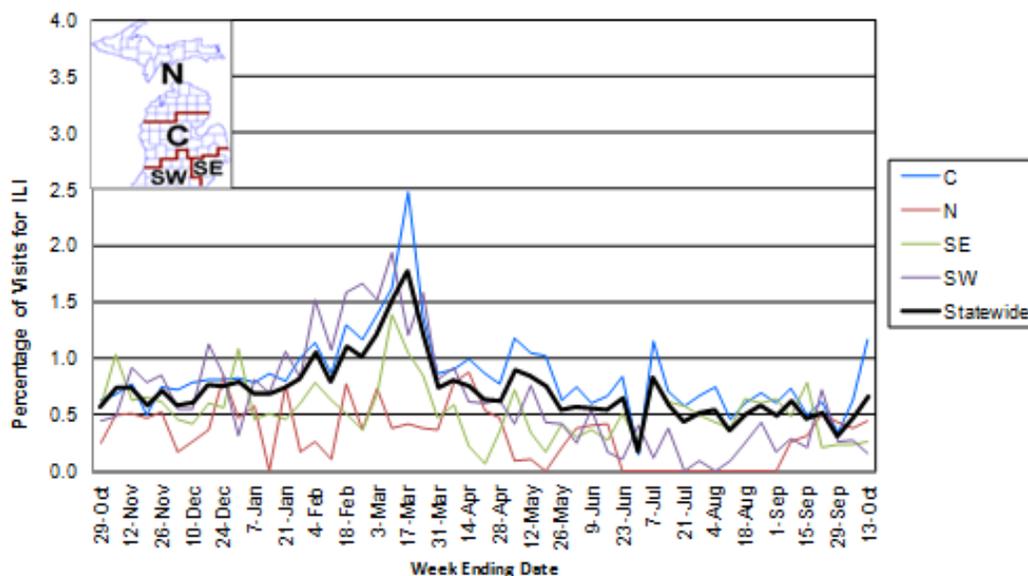
## Influenza Surveillance Reports

**Michigan Disease Surveillance System (as of October 18):** MDSS data for the week ending October 13<sup>th</sup> indicated that compared to levels from the previous week, aggregate reports remained steady, while individual reports remained steady at sporadic levels. Individual and aggregate reports are similar to levels seen during the same time period last year.

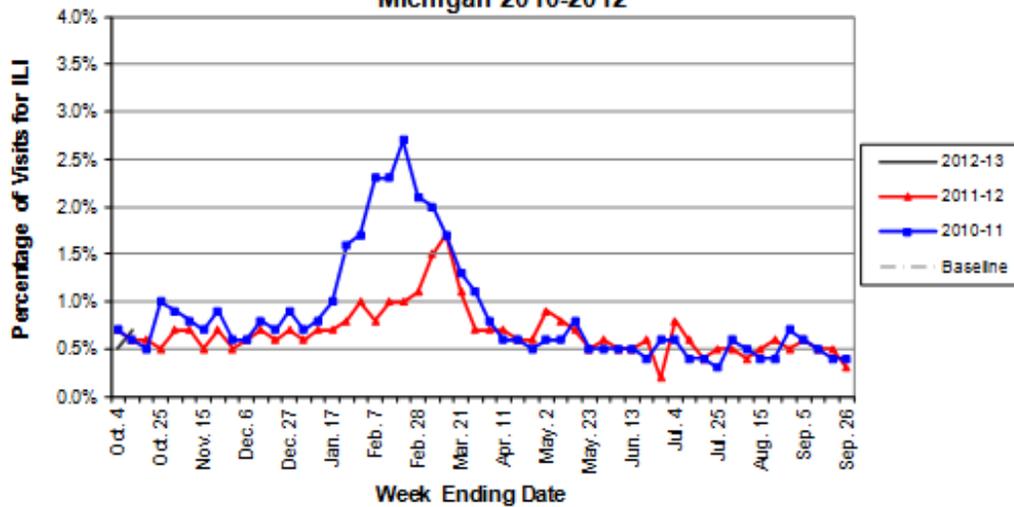
**Emergency Department Surveillance (as of October 18):** Compared to levels from the week prior, emergency department visits from both constitutional and respiratory complaints remained steady. Constitutional complaints are lower than levels reported during the same time period last year, while respiratory complaints are similar. In the past week, there were three constitutional alerts in the SW(2) and C(1) Influenza Surveillance Regions and nine respiratory alerts in the SW(3), C(3) and N(3) Regions.

**Sentinel Provider Surveillance (as of October 18):** During the week ending October 13, 2012, the proportion of visits due to influenza-like illness (ILI) slightly increased to 0.7% overall; this is below the regional baseline of (1.5%). A total of 64 patient visits due to ILI were reported out of 9,743 office visits. Data were provided by thirty-four sentinel sites from the following regions: C (15), N (7), SE (9) and SW (3). ILI activity increased in two surveillance regions: Central (1.2%) and Southeast (0.3%); remained the same in one region: North (0.4%); and decreased in the remaining region Southwest (0.3%). Please Note: these rates may change as additional reports are received.

**Percentage of Visits for Influenza-like Illness (ILI)  
Reported by Sentinel Providers, Statewide and Regions  
2011-2012 and 2012-13 Flu Seasons**



**Percentage of Visits for Influenza-like Illness (ILI) Reported by the US Outpatient Influenza-like Illness Surveillance Network (ILINet): Michigan 2010-2012**



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 Cristi Carlton at 517-335-9104 or CarltonC2@michigan.gov for more information.

**Hospital Surveillance (as of October 13):** The Influenza Hospitalization Surveillance Project provides population-based rates of severe influenza illness through active surveillance and chart review of lab-confirmed cases, starting on October 1, 2012, in the Clinton, Eaton, Genesee, and Ingham counties. As of October 13<sup>th</sup> there have been no lab-confirmed influenza hospitalizations within the catchment area.

The MDCH Influenza Sentinel Hospital Network monitors influenza hospitalizations reported voluntarily by hospitals statewide. 3 hospitals (SE, SW) reported for the week ending October 13, 2012. Results are listed in the table below.

Age Group	Hospitalizations Reported During Current Week	Total Hospitalizations 2012-13 Season
0-4 years	0	0
5-17 years	0	0
18-49 years	0	0
50-64 years	0	0
≥65 years	0	0
<b>Total</b>	<b>0</b>	<b>0</b>

**Laboratory Surveillance (as of October 13):** During October 7-13, 1 influenza A(H3) result was reported by MDCH BOL. For the 2012-13 season (starting September 30, 2012), MDCH has identified 12 influenza results:

- Influenza A(H3): 2 (2SE)
- Influenza A(H1N1)pdm09: 1 (1SE)
- Influenza B: 9 (3SE, 1SW, 5C)
- Parainfluenza: 1 (1N)

9 sentinel labs (SE, SW, C, N) reported for the week ending October 13, 2012. 2 labs (SW) reported sporadic parainfluenza. One lab (C) reported sporadic RSV activity. No labs reported influenza A, influenza B, or HMPV activity. Testing volumes remain at low levels for most sites.

**Michigan Influenza Antigenic Characterization (as of October 18):** For the 2012-13 season, 8 Michigan influenza B specimens have been characterized at MDCH BOL. 7 specimens are B/Wisconsin/01/2010-like, matching the B component of the 2012-13 influenza vaccine. 1 influenza B specimen was characterized as B/Brisbane/60/2008-like, which is not included in the 2012-13 vaccine.

**Michigan Influenza Antiviral Resistance Data (as of October 18):** For the 2012-13 season, no influenza isolates have been tested for antiviral resistance.

CDC has made recommendations regarding the use of antivirals for treatment and prophylaxis of influenza, which are available at <http://www.cdc.gov/flu/professionals/antivirals/index.htm>.

**Influenza-associated Pediatric Mortality (as of October 18):** No pediatric influenza-associated influenza mortalities have been reported to MDCH for the 2012-13 season.

CDC requires reporting of flu-associated pediatric deaths (<18 yrs), including pediatric deaths due to an influenza-like illness with lab confirmation of influenza or any unexplained pediatric death with evidence of an infectious process. Contact MDCH immediately for proper specimen collection. The MDCH protocol is at [www.michigan.gov/documents/mdch/ME\\_pediatric\\_influenza\\_guidance\\_v2\\_214270\\_7.pdf](http://www.michigan.gov/documents/mdch/ME_pediatric_influenza_guidance_v2_214270_7.pdf).

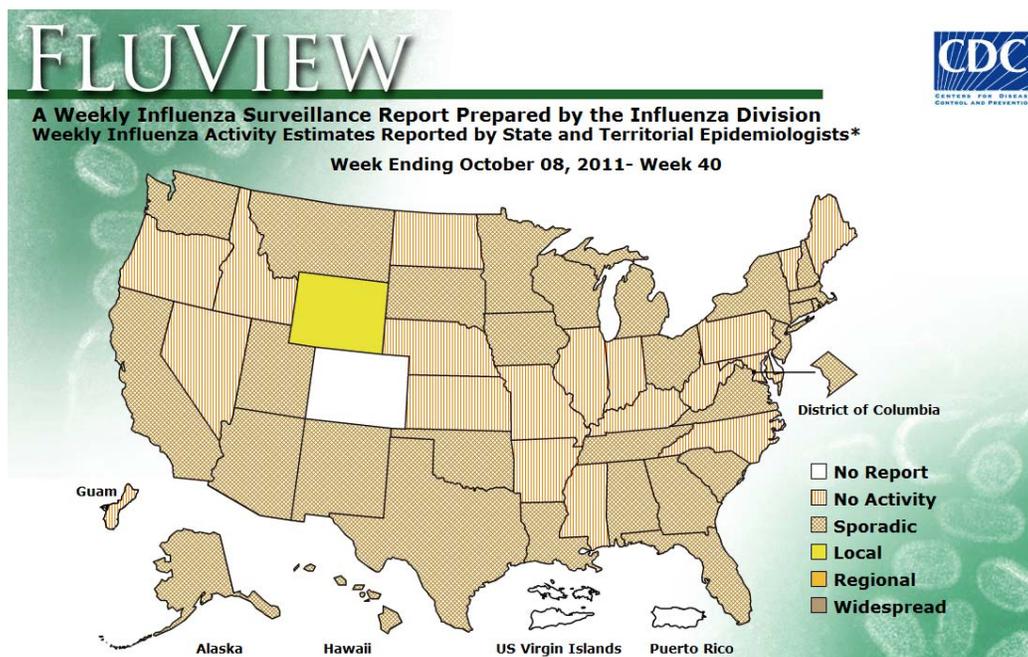
**Influenza Congregate Settings Outbreaks (as of October 18):** No new respiratory outbreaks were reported to MDCH during the past week. 1 respiratory outbreak (1C) has been reported to MDCH during the 2012-13 season; testing results are listed below.

- Influenza B: 1 (1C)

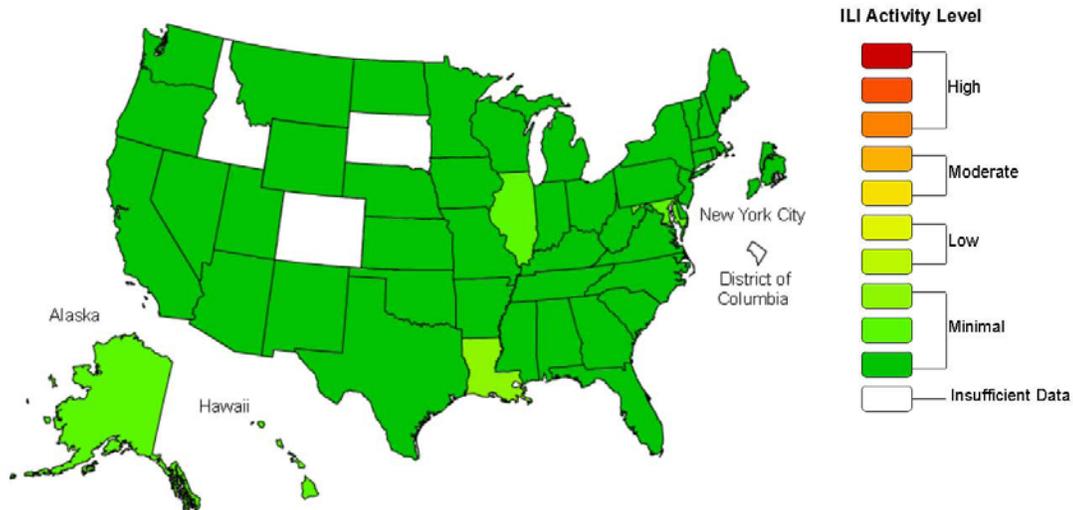
**National (CDC [edited], October 12):** During week 40 (September 30-October 6, 2012), influenza activity was low in the United States. Of 2,870 specimens tested and reported by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories during week 40, 75 (2.6%) were positive for influenza. The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold. No influenza-associated pediatric deaths were reported. The proportion of outpatient visits for influenza-like illness (ILI) was 1.2%, which is below the national baseline of 2.2%. All 10 regions reported ILI below region-specific baseline levels. Forty-seven states and New York City experienced minimal ILI activity and the District of Columbia and three states had insufficient data. The geographic spread of influenza in one state (Wyoming) was reported as local; the District of Columbia and 29 states reported sporadic activity; Guam and 18 states reported no influenza activity, and Puerto Rico, the U.S. Virgin Islands, and two states did not report.

WHO and NREVSS collaborating laboratories located in all 50 states and Washington D.C. report to CDC the number of respiratory specimens tested for influenza and the number positive by influenza virus type and influenza A subtype. The results of tests performed during the current week are summarized below.

	<b>Week 40</b>
<b>No. of specimens tested</b>	2,870
<b>No. of positive specimens (%)</b>	75 (2.6%)
<b>Positive specimens by type/subtype</b>	
<b>Influenza A</b>	39 (52.0%)
<b>2009 H1N1</b>	3 (7.7%)
<b>Subtyping not performed</b>	9 (23.1%)
<b>H3</b>	27 (69.2%)
<b>Influenza B</b>	36 (48.0%)



**Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet  
2012-13 Influenza Season Week 40 ending Oct 06, 2012**



This map uses the proportion of outpatient visits to healthcare providers for influenza-like illness to measure the ILI activity level within a state. Therefore, outbreaks occurring in a single city could cause the state to display high activity levels. Data collected in ILINet may disproportionately represent certain populations within a state, and therefore, may not accurately depict the full picture of influenza activity for the whole state. Data displayed on this map are based on data collected in ILINet, whereas the State and Territorial flu activity map are based on reports from state and territorial epidemiologists.

The complete FluView report is available online at <http://www.cdc.gov/flu/weekly/fluactivity.htm>.

**International (WHO [edited], October 12):** Seasonal influenza transmission has not been picked up yet in the northern temperate zone. In the tropical areas most countries are reporting low or decreasing trends of influenza detections. The exceptions are Costa Rica in the Americas and India; Nepal, Lao PDR and Thailand in Asia. In Sub-Saharan Africa, Cameroon has reported an increase in influenza detections. The influenza season seem to come to an end in the temperate countries of the southern hemisphere.

The entire WHO report is available online at [www.who.int/influenza/surveillance\\_monitoring/updates/latest\\_update\\_GIP\\_surveillance/en/index.html](http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/index.html).

MDCH reported SPORADIC INFLUENZA ACTIVITY to CDC for the week ending October 13, 2012. For additional flu vaccination and education information, the MDCH *FluBytes* newsletter is available at [http://www.michigan.gov/mdch/0,1607,7-132-2940\\_2955\\_22779\\_40563-125027--,00.html](http://www.michigan.gov/mdch/0,1607,7-132-2940_2955_22779_40563-125027--,00.html).

### ***Novel Influenza Activity and Other News***

**WHO Pandemic Phase:** Post-pandemic – Influenza disease activity has returned to levels normally seen for seasonal influenza. It is expected that the pandemic virus will behave as a seasonal influenza A virus. It is important to maintain surveillance and update pandemic preparedness/response plans accordingly.

**H3N2v Influenza Update:** Since August 15, MDCH has reported 6 confirmed human cases of variant influenza A (H3N2) (H3N2v). Michigan cases have come from Clinton(1), Ingham(1), Shiawassee(2) and Washtenaw(2) counties. Cases have had mild illness and have had either direct or indirect swine exposure at county fairs in Michigan or Ohio. Updated Michigan case counts of confirmed H3N2v infections will be posted every Friday on the MDCH Influenza Website: [www.michigan.gov/flu](http://www.michigan.gov/flu). In addition, 306 human cases of H3N2v have been reported in association with swine exposure since July 2012 in 9 other states. The Michigan Department of Community Health issued updated guidance for healthcare providers, laboratories and local health departments on August 14 on the MDCH Influenza Website. Current information on this situation and updated case counts can be found on the CDC H3N2v website at [www.cdc.gov/flu/swineflu/influenza-variant-viruses-h3n2v.htm](http://www.cdc.gov/flu/swineflu/influenza-variant-viruses-h3n2v.htm). Please call the MDCH Division of Communicable Disease at (517) 335-8165 with any questions.

**International, Poultry (OIE [edited], October 14):** Highly pathogenic avian influenza H5N1; Nepal  
 Outbreak: Sanepa-2, Sanchal, Lalitpur, BAGMATI  
 Date of start of the outbreak: 27/08/2012; Outbreak status: Resolved; Epidemiological unit: Farm  
 Species: Birds; Susceptible: 2500; Cases: 2500; Deaths: 2500  
 Affected population: A commercial layer farm rearing dual purpose breed of different age groups.

**Michigan Wild Bird Surveillance (USDA, as of October 18):** For the 2012 season (April 1, 2012-March 31, 2013), highly pathogenic avian influenza H5N1 has not been recovered from the 68 samples tested nationwide. For more information, visit <http://www.nwhc.usgs.gov/ai/>. To learn about avian influenza surveillance in wild birds or to report dead waterfowl, go to the Emerging Disease website at <http://www.michigan.gov/emergingdiseases>.

**International Poultry and Wild Bird Surveillance (OIE):** Reports of avian influenza activity, including summary graphs of avian influenza H5N1 outbreaks in poultry, can be found at the following website: [http://www.oie.int/download/AVIAN%20INFLUENZA/A\\_Al-Asia.htm](http://www.oie.int/download/AVIAN%20INFLUENZA/A_Al-Asia.htm).

For questions or to be added to the distribution list, please contact Susan Peters at [peterss1@michigan.gov](mailto:peterss1@michigan.gov)

**Contributors**

**MDCH Bureau of Epidemiology – S. Bidol, MPH; C. Carlton, MPH; R. Sharangpani, MD, MPH**  
**MDCH Bureau of Laboratories – A. Muyombwe, PhD; V. Vavricka, MS**

**Table. H5N1 Influenza in Humans – As of August 10, 2012.** [http://www.who.int/influenza/human\\_animal\\_interface/EN\\_GIP\\_20120810CumulativeNumberH5N1cases.pdf](http://www.who.int/influenza/human_animal_interface/EN_GIP_20120810CumulativeNumberH5N1cases.pdf). Downloaded 8/13/2012. Cumulative lab-confirmed cases reported to WHO. Total cases include deaths.

Country	2003-2005		2006		2007		2008		2009		2010		2011		2012		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Azerbaijan	0	0	8	5	0	0	0	0	0	0	0	0	0	0	0	0	8	5
Bangladesh	0	0	0	0	0	0	1	0	0	0	0	0	2	0	3	0	6	0
Cambodia	4	4	2	2	1	1	1	0	1	0	1	1	8	8	3	3	21	19
China	9	6	13	8	5	3	4	4	7	4	2	1	1	1	2	1	43	28
Djibouti	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Egypt	0	0	18	10	25	9	8	4	39	4	29	13	39	15	10	5	168	60
Indonesia	20	13	55	45	42	37	24	20	21	19	9	7	12	10	8	8	191	159
Iraq	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	3	2
Lao PDR	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	2	2
Myanmar	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Nigeria	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
Pakistan	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	3	1
Thailand	22	14	3	3	0	0	0	0	0	0	0	0	0	0	0	0	25	17
Turkey	0	0	12	4	0	0	0	0	0	0	0	0	0	0	0	0	12	4
Vietnam	93	42	0	0	8	5	6	5	5	5	7	2	0	0	4	2	123	61
Total	148	79	115	79	88	59	44	33	73	32	48	24	62	34	30	19	608	359