



# Iowa Influenza Surveillance Network (IISN)

## Influenza-like Illness (ILI) and Other Respiratory Viruses

### Weekly Activity Report

For the week ending December 22, 2012, Week 51

### Quick Stats for this reporting week

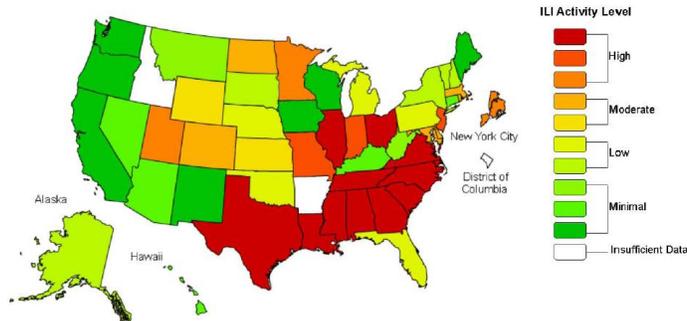
Iowa activity level <sup>1</sup>	Widespread
Percent of outpatient visits for ILI <sup>2</sup>	1.4 % (baseline 2.1%)
Percent of influenza rapid test positive	21% (159/758)
Percent of RSV rapid tests positive	17.9% (26/145)
Percent school absence due to illness	3.7% (baseline 2.8%)
Number of schools with ≥10% absence due to illness	15
Influenza-associated hospitalizations*	68/7231 inpatients surveyed
Influenza-associated pediatric mortality**	0

\* Hospitalizations due to influenza are voluntarily reported through a weekly survey of Iowa sentinel hospitals

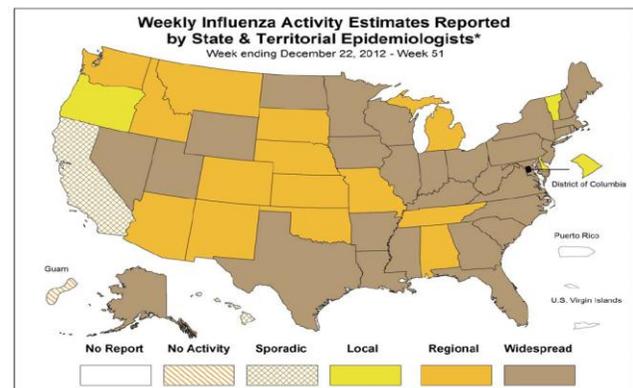
\*\*CDC asks states to report any pediatric death (<18 years old) associated with influenza

Note: All data in this report are provisional and may change as additional reports are received

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet  
2012-13 Influenza Season Week 51 ending Dec 22, 2012



\*This map uses the proportion of outpatient visits to health care providers for influenza-like illness to measure the ILI activity level within a state. It does not, however, measure the extent of geographic spread of flu within a state.



\*This map indicates geographic spread & does not measure the severity of influenza activity.

### Iowa statewide activity summary

The influenza activity in Iowa remains widespread. For this reporting week, the State Hygienic Laboratory (SHL) confirmed a total of 51 cases of seasonal influenza, including 17 influenza A (H3), 29 influenza A (subtyping pending), and five influenza B. The proportion of outpatient visits due to influenza-like illness (ILI) was 1.4% and below the regional baseline of 2.1 percent. The number of influenza-associated hospitalizations reported from sentinel hospitals increased to 68. There were 15 schools reported 10 percent or greater absenteeism due to illness for this reporting period. Note that influenza data may be incomplete due to holidays. In addition, 53 cases of RSV, three cases of parainfluenza 2 and one case of parainfluenza 3 were detected during this reporting week. Thus far this season, the other respiratory viruses that have been identified include adenovirus, rhinovirus, parainfluenza 2-3, RSV, and human metapneumovirus (hMPV).

### National activity summary - [www.cdc.gov](http://www.cdc.gov)

**Synopsis:** During week 51 (December 16-22), influenza activity increased in the U.S.

- **Viral Surveillance:** Of 6,234 specimens tested and reported by U.S. World Health Organization and National Respiratory and Enteric Virus Surveillance System collaborating laboratories in week 51, 1,846 (29.6 percent) were positive for influenza.

<sup>1</sup> **No Activity:** No laboratory-confirmed cases of influenza and no reported increase in the number of cases of influenza-like illness (ILI<sup>2</sup>).

**Sporadic:** Isolated laboratory-confirmed influenza cases or a single influenza outbreak has been reported, but there is no increase in cases of ILI<sup>2</sup>.

**Local:** Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in a single region of the state.

**Regional:** Outbreaks of influenza or increases in ILI and recent laboratory-confirmed influenza in at least two but less than half the regions of the state.

**Widespread:** Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in at least half the regions of the state.

<sup>2</sup> ILI: Influenza-like Illness is defined as a fever of ≥100° F as well as cough and/or sore throat.

- **Pneumonia and Influenza Mortality:** The proportion of deaths attributed to pneumonia and influenza was below the epidemic threshold.
- **Influenza-Associated Pediatric Deaths:** Eight influenza-associated pediatric deaths were reported. Three were associated with influenza B viruses, 3 were associated with influenza A (H3) viruses, and 2 were associated with influenza A viruses for which the subtype was not determined.
- **Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 4.2 percent; above the national baseline of 2.2 percent. Nine of 10 regions reported ILI above region-specific baseline levels. New York City and 16 states experienced high ILI activity; eight states experienced moderate ILI activity; 10 states experienced low ILI activity; 14 states experienced minimal ILI activity, and the District of Columbia and two states had insufficient data.
- **Geographic Spread of Influenza:** Thirty-one states reported widespread geographic influenza activity; 14 states reported regional activity; the District of Columbia and three states reported local activity; two states reported sporadic activity; Guam reported no influenza activity, and Puerto Rico and the U.S. Virgin Islands did not report.

**International activity summary - [www.who.int](http://www.who.int)**

Many countries in the temperate regions of the northern hemisphere are now reporting elevated detections of influenza, particularly in north America. Influenza activity was still low in Europe, with co-circulating of both influenza A and B viruses. However increased influenza-like illnesses were reported in more countries than previous weeks. There was low, but increasing influenza activity in northern Africa and the Eastern Mediterranean regions, and sporadic detections in eastern Asia. Influenza in central America, the Caribbean and tropical south America continued to decline, with low levels of circulation of mainly influenza A(H3N2) and some influenza B viruses, except for Cuba and Peru, where influenza A(H1N1)pdm09 was predominant. Influenza activity in Sub-Saharan Africa declined to low levels, with mainly influenza B, except in Ghana, where influenza A(H1N1)pdm09 was reported. Influenza in most South East Asian countries was declining, except in Sri Lanka and Viet Nam. Influenza activity in the temperate countries of the southern hemisphere continued at inter-seasonal levels.

**Laboratory surveillance program – influenza and other respiratory viruses**

The State Hygienic Laboratory (SHL) is the primary lab for influenza testing and reporting in Iowa. SHL reports the number of tests performed and the type and strain of positive tests to the influenza surveillance network several times every week. In addition, SHL surveys clinical and reference labs for the number of rapid-antigen tests performed and number positive weekly. This report also includes the positive non-influenza virus tests reported from SHL, the Dunes Medical Laboratories at Mercy Medical Center in Sioux City, and Iowa Methodist Medical Center in Des Moines.

**Specimens tested by the State Hygienic Laboratory**

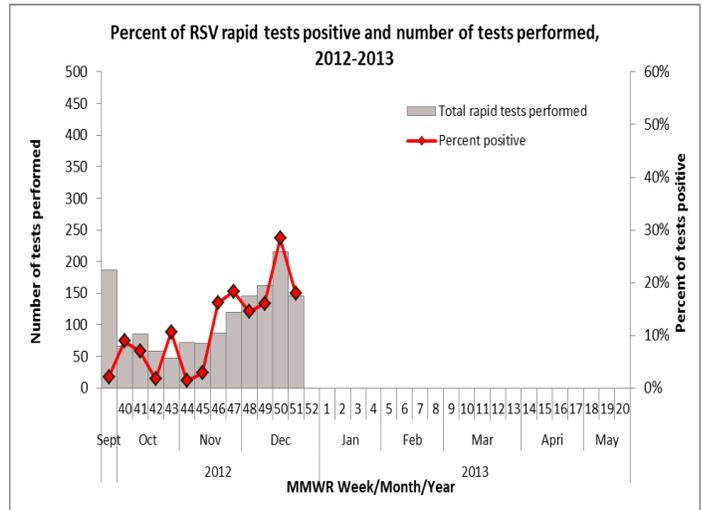
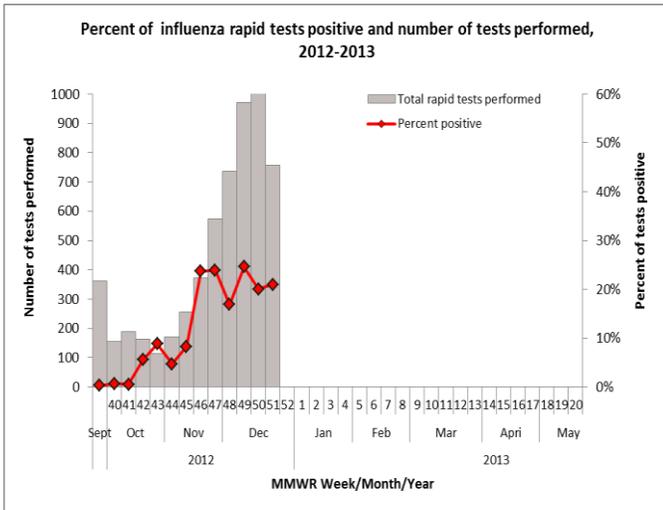
Table 1. Influenza viruses isolated		
	<i>Current week</i>	<i>Cumulative since 9/2/12</i>
<b>Flu A</b>	46 (59%)	624 (49%)
A (2009 H1N1)	0 (0%)	2 (<1%)
A (H3)	17 (22%)	708 (45%)
A (H3N2) variant	0 (0%)	1 (<1%)
Subtyping not reported	29 (37%)	59 (4%)
<b>Flu B</b>	5 (6%)	95 (6%)
<b>Equivocal</b>	0 (0%)	0 (0%)
<b>Indeterminate</b>	0 (0%)	5 (<1%)
<b>Negative</b>	28 (35%)	707 (45%)
<b>Total</b>	79	1576

Table 2. Influenza viruses by age group 9/2/12 to present week					
<i>Age group</i>	<i>Flu A (2009 H1N1)</i>	<i>Flu A (H3)</i>	<i>Flu A (H3N2) Variant</i>	<i>Flu A (no typing)</i>	<i>Flu B</i>
<b>0-4</b>	1 (50%)	105 (15%)	* (*%)	4 (7%)	24 (25%)
<b>5-17</b>	1 (50%)	195 (28%)	* (*%)	11 (19%)	39 (41%)
<b>18-24</b>	0 (0%)	60 (8%)	0 (0%)	6 (10%)	5 (5%)
<b>25-49</b>	0 (0%)	151 (21%)	0 (0%)	14 (24%)	13 (14%)
<b>50-64</b>	0 (0%)	63 (9%)	0 (0%)	10 (17%)	7 (7%)
<b>&gt;64</b>	0 (0%)	134 (19%)	0 (0%)	14 (24%)	7 (7%)
<b>Total</b>	2	708	1	59	95

\* Counts of three or less of reportable diseases are suppressed to protect confidentiality.  
Note that counts may not add up to the total due to missing age information

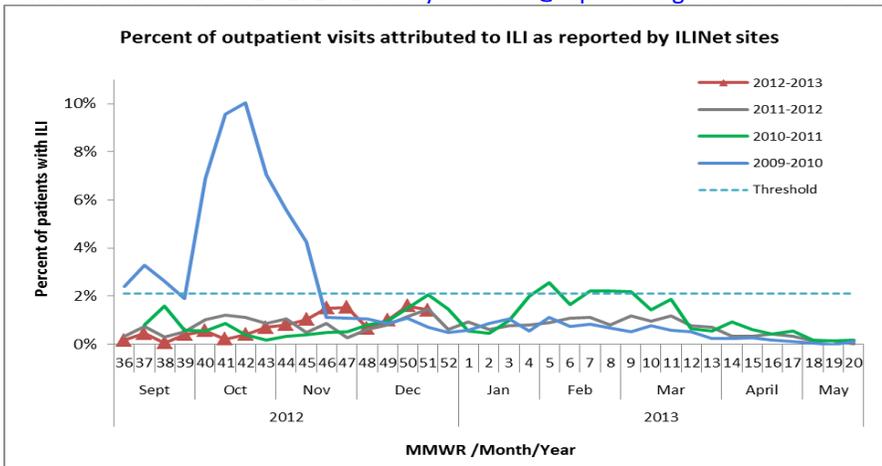
**Table 3. Number of positive results for non-influenza respiratory virus isolated by the State Hygienic Laboratory, Mercy Dunes in Sioux City, and Iowa Methodist Medical Center**

	<i>Current week</i>	<i>Cumulative since 9/2/12</i>
<b>Adenovirus</b>	0	7
<b>Parainfluenza Virus Type 1</b>	0	0
<b>Parainfluenza Virus Type 2</b>	3	16
<b>Parainfluenza Virus Type 3</b>	1	34
<b>Rhinovirus</b>	0	36
<b>Respiratory syncytial virus (RSV)</b>	53	196
<b>human metapneumovirus (hMPV)</b>	0	1



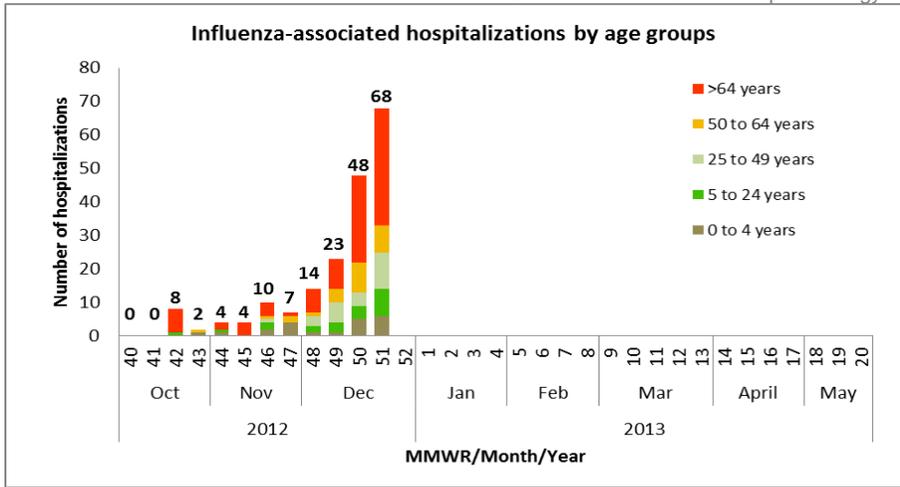
**Outpatient health care provider surveillance program (ILINet)**

Outpatient health care providers who participate in the ILINet (a national influenza surveillance program) report the number of patients seen with influenza-like illness and the total number of patient visits each week. This system is a key part of Iowa’s influenza surveillance. Any Iowa health care providers, who are interested in joining this important surveillance program, please contact Yumei Sun at 515-281-7134 or [yumei.sun@idph.iowa.gov](mailto:yumei.sun@idph.iowa.gov) for more information.



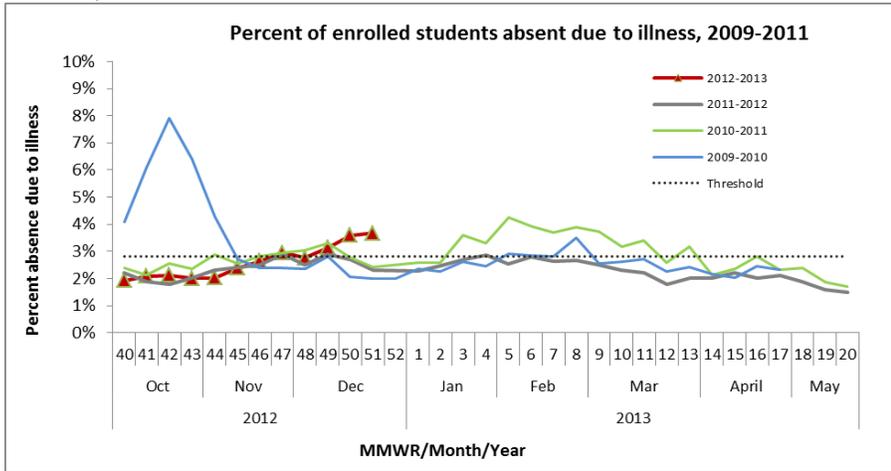
**Influenza-associated hospitalizations**

Twenty-one sentinel hospitals that participate in IISN voluntarily track and report the number of influenza-associated hospitalizations and the total number of inpatients each week.



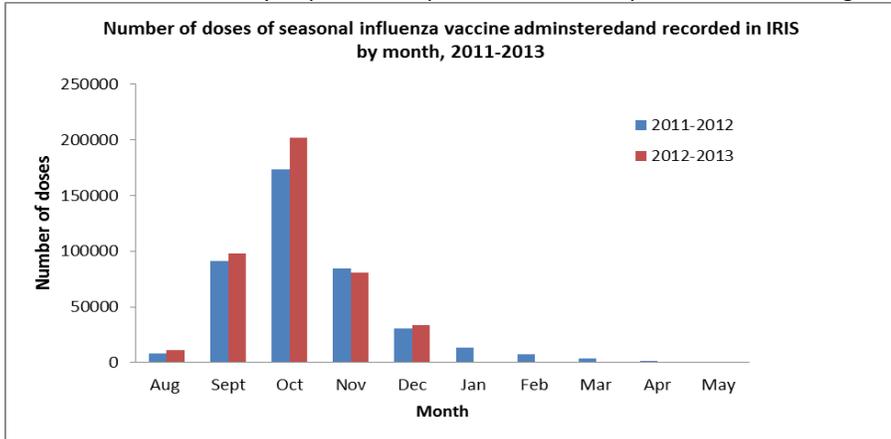
### School surveillance program

Approximately 80 schools participating in IISN voluntarily track and report absence due to all illness (including non-influenza illnesses) and the total enrollment each week.



### Seasonal influenza vaccination

Seasonal influenza vaccination in Iowa is based on doses reported to the Iowa Immunization Registry Information System<sup>3</sup> (IRIS). IRIS is a confidential, computerized, population-based system that tracks immunizations for children, adolescents and adults who are seen in a variety of public and private healthcare provider sites throughout the state.



Note: The data for the 2012-2013 season is only up to 12/28/12 and there is a lag between the vaccine administration date and the date reported to the IRIS. Therefore, the current season's data will be adjusted as additional data is received.

<sup>3</sup> For information on the immunization data, contact Kim Tichy, IRIS coordinator, at 515-281-4288 or [Kimberly.Tichy@idph.iowa.gov](mailto:Kimberly.Tichy@idph.iowa.gov)

**Regional activity** (Data from sentinel surveillance system surveillance sites, except all schools with  $\geq 10\%$  absence due to illness must report.)

Region 1 (Central)	
Influenza-associated hospitalizations	30/4564
Percent of influenza rapid test positive	35.5% (11/31)
Percent of RSV rapid tests positive	7.1% (1/14)
Schools with $\geq 10\%$ absence due to illness	4

Region 2 (North Central)	
Influenza-associated hospitalizations	20/507
Percent of influenza rapid test positive	N/A
Percent of RSV rapid tests positive	N/A
Schools with $\geq 10\%$ absence due to illness	0

Region 3 (Northwest)	
Influenza-associated hospitalizations	0/110
Percent of influenza rapid test positive	16.0% (13/81)
Percent of RSV rapid tests positive	9.1% (1/11)
Schools with $\geq 10\%$ absence due to illness	4

Region 4 (Southwest)	
Influenza-associated hospitalizations	0/31
Percent of influenza rapid test positive	24.2% (23/95)
Percent of RSV rapid tests positive	10.0% (1/10)
Schools with $\geq 10\%$ absence due to illness	0

Region 5 (Southeast)	
Influenza-associated hospitalizations	N/A
Percent of influenza rapid test positive	35.1% (39/111)
Percent of RSV rapid tests positive	35.3% (6/17)
Schools with $\geq 10\%$ absence due to illness	2

N/A: not available

Region 6 (East Central)	
Influenza-associated hospitalizations	18/2019
Percent of influenza rapid test positive	16.6% (73/440)
Percent of RSV rapid tests positive	18.3% (17/93)
Schools with $\geq 10\%$ absence due to illness	5

Iowa map with regions and in red the number of schools that have  $\geq 10\%$  absence due to illness

