



Iowa Influenza Surveillance Network (IISN)

Influenza-like Illness (ILI) and Other Respiratory Viruses **Weekly Activity Report**

For the week ending January 26, 2013, Week 4



Quick Stats for this reporting week

lowa activity level ¹	Widespread
Percent of outpatient visits for ILI ²	3.5 % (baseline 2.1%)
Percent of influenza rapid test positive	18.8% (411/2187)
Percent of RSV rapid tests positive	42.9% (216/504)
Percent school absence due to illness	3.7%
Number of schools with ≥10% absence due to illness	34
Influenza-associated hospitalizations*	58/6657 inpatients surveyed
Influenza-associated pediatric mortality**	0

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

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



*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



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

Iowa statewide activity summary

Influenza activity in Iowa still remains high and widespread. Of thirty-one Iowa viral isolates tested this influenza season; none showed resistance to either Oseltamivir or Zanamivir. For this reporting week, the State Hygienic Laboratory (SHL) confirmed a total of 65 cases of seasonal influenza, including 42 influenza A (H3), 13 influenza A (subtyping pending), and 10 influenza B. The proportion of outpatient visits due to influenza-like illness (ILI) increased slightly to 3.5 percent and well above the regional baseline of 2.1 percent. The number of influenza-associated hospitalizations reported from sentinel hospitals continues to decrease; but is still much higher than a typical influenza season. A total of 749 hospitalizations have been reported this season. The number of schools that reported 10 percent or greater absenteeism due to illness increased to 34, the highest this season. In addition, 22 cases of respiratory syncytial virus (RSV), two cases of adenovirus, and one case of parainfluenza 2 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

Synopsis: During week 4 (January 20-26), influenza activity remained elevated in the United States, but decreased in some areas.

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

¹ No Activity: No laboratory-confirmed cases of influenza and no reported increase in the number of cases of influenza-like illness (ILI²). Sporadic: Isolated laboratory-confirmed influenza cases or a single influenza outbreak has been reported, but there is no increase in cases of ILI². 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.

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

- Viral Surveillance: Of 10,581 specimens tested and reported by collaborating laboratories, 2,701 (25.5 percent) were positive for influenza.
- **Pneumonia and Influenza Mortality**: The proportion of deaths attributed to pneumonia and influenza was above the epidemic threshold.
- Influenza-Associated Pediatric Deaths: Eight pediatric deaths were reported.
- Influenza-Associated Hospitalizations: A cumulative rate for the season of 25.9 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported. Of all hospitalizations, more than 50 percent were among adults 65 years and older.
- Outpatient Illness Surveillance: The proportion of outpatient visits for influenza-like illness (ILI) was 4.2 percent; this is above the national baseline of 2.2 percent. All 10 regions reported ILI above region-specific baseline levels. Twenty-four states and New York City experienced high ILI activity; the District of Columbia and 13 states experienced moderate activity; 4 states experienced low activity; and 9 states experienced minimal activity.
- **Geographic Spread of Influenza**: Forty-two states reported widespread geographic influenza activity; 7 states reported regional activity; the District of Columbia and one state reported local activity; Guam reported sporadic influenza activity, and Puerto Rico and the U.S. Virgin Islands did not report.

International activity summary - www.who.int

Influenza activity in North America remained high with some indications that activity might have peaked in areas. Some but not all indicators of severity in the United States of America and Canada have been slightly higher than in previous recent seasons. The onset of the season was earlier than usual and coincided with circulation of other respiratory viruses. Influenza A (H3N2) predominates in North America with A (H1N1) pdm09 being uncommon. Many countries in Europe and temperate Asia are reporting increasing influenza activity with A (H1N1) pdm09 being relatively more prominent in Europe than in North America. Some countries in the Eastern Mediterranean and the North Africa have reported declining detections of influenza positive samples. Influenza A (H1N1) pdm09 is predominant in the region. In tropical Asia, the influenza activity is similar to previous weeks, with persistent low-level circulation. Influenza activity in sub-Saharan Africa has declined in most countries. In the Caribbean, Central America and tropical South America, influenza activity decreased to low levels, except for Bolivia, where there is increasing circulation of influenza A (H3N2). Influenza in countries of the southern hemisphere is currently at interseasonal 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

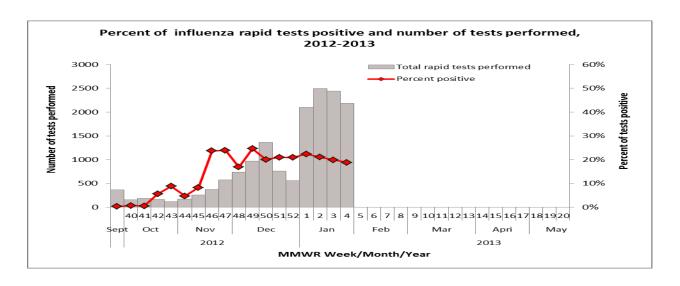
Table 1. Influenza viruses isolated		
	Current week	Cumulative since 9/2/12
Flu A	55 (33%)	1467 (49%)
A (2009 H1N1)	0 (0%)	8 (<1%)
A (H3)	42 (25%)	1352 (44%)
A (H3N2) variant	0 (0%)	1 (<1%)
Subtyping not reported	13 (8%)	106 (3%)
Flu B	10 (6%)	172 (6%)
Equivocal	0 (0%)	0 (0%)
Indeterminate	1 (<1%)	16 (<1%)
Negative	103 (61%)	1451 (45%)
Total	169	3106

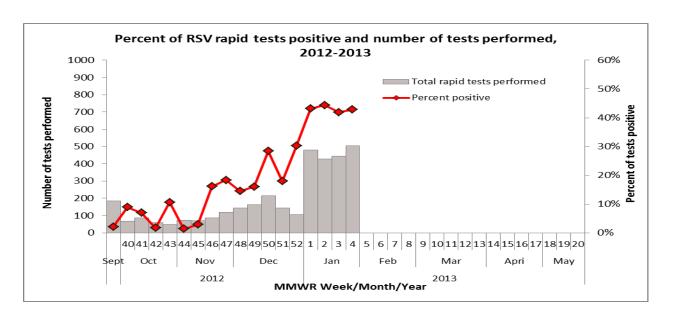
Table 2. Influenza viruses by age group 9/2/12 to present week					
Age group	Flu A (2009 H1N1)	Flu A (H3)	Flu A (H3N2) Variant	Flu A (no typing)	Flu B
0-4	2 (25%)	169 (13%)	* (*%)	10 (9%)	36 (21%)
5-17	1 (13%)	264 (20%)	* (*%)	10 (9%)	69 (40%)
18-24	0 (0%)	101 (7%)	0 (0%)	7 (7%)	8 (5%)
25-49	4 (50%)	253 (19%)	0 (0%)	12 (11%)	27 (16%)
50-64	1 (13%)	148 (11%)	0 (0%)	19 (18%)	13 (8%)
>64	0 (0%)	415 (31%)	0 (0%)	48 (45%)	19 (11%)
Total	8	1352	1	106	172

^{*} Counts of three or less are sometimes 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

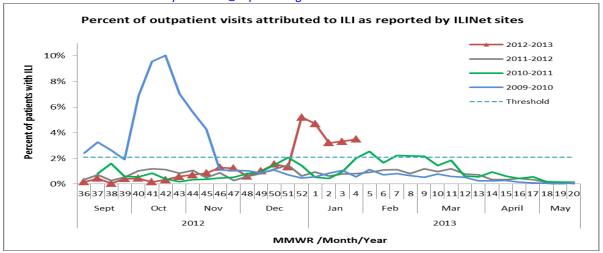
	Current week	Cumulative since 9/2/12
Adenovirus	2	15
Parainfluenza Virus Type 1	0	1
Parainfluenza Virus Type 2	1	22
Parainfluenza Virus Type 3	0	36
Rhinovirus	0	45
Respiratory syncytial virus (RSV)	22	396
human metapneumovirus (hMPV)	0	1





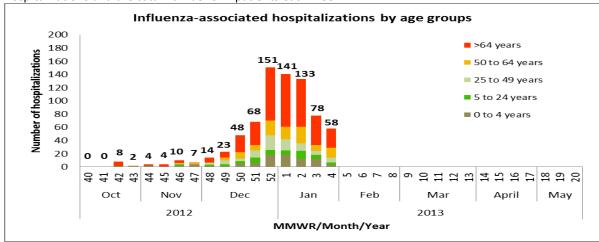
Outpatient health care provider surveillance program (ILINet)

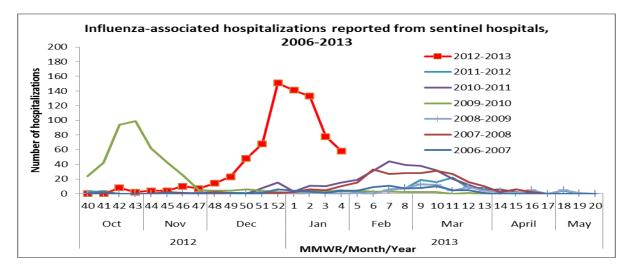
Outpatient health care providers who participate in the ILINet (a national influenza surveillance program) report the number of patients seen with influenza-like illness and the total number of patient visits each week. This system is a key part of lowa's influenza surveillance. Iowa health care providers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



<u>Influenza-associated hospitalizations</u>

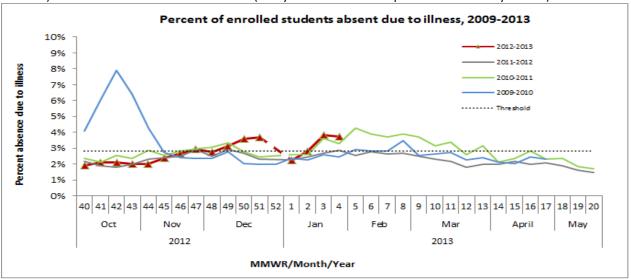
Twenty-one sentinel hospitals that participate in IISN voluntarily track and report the number of influenza-associated hospitalizations and the total number of inpatients each week.





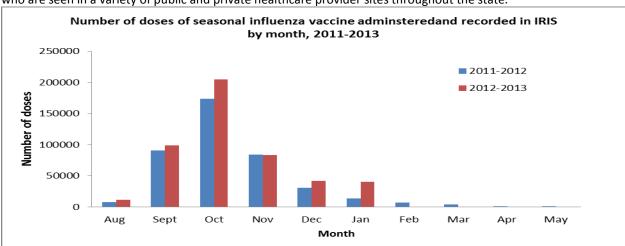
School surveillance program

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. (Many schools were not open over the holiday weeks.)



Seasonal influenza vaccination

Seasonal influenza vaccination in Iowa is based on doses reported to the Iowa Immunization Registry Information System³ (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 1/31/2013 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.

³ For information on the immunization data, contact Kim Tichy, IRIS coordinator, at 515-281-4288 or Kimberly.Tichy@idph.iowa.gov

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

Region 1 (Central) Influenza-associated hospitalizations 29/4130 Percent of influenza rapid test positive 19.4% (71/366) Percent of RSV rapid tests positive 44.7% (51/114) Schools with ≥10% absence due to illness 4

Region 2 (North Central)	
Influenza-associated hospitalizations	6/95
Percent of influenza rapid test positive	19.0% (30/158)
Percent of RSV rapid tests positive	53.3% (32/60)
Schools with ≥10% absence due to illness	3

Region 3 (Northwest)	
Influenza-associated hospitalizations	3/125
Percent of influenza rapid test positive	22.6% (115/508)
Percent of RSV rapid tests positive	22.0% (13/59)
Schools with ≥10% absence due to illness	2

Region 4 (Southwest)	
Influenza-associated hospitalizations	1/20
Percent of influenza rapid test positive	25.3% (70/277)
Percent of RSV rapid tests positive	41.4% (24/58)
Schools with ≥10% absence due to illness	10

Region 5 (Southeast)	
Influenza-associated hospitalizations	0/35
Percent of influenza rapid test positive	23.8% (30/126)
Percent of RSV rapid tests positive	54.8% (17/31)
Schools with ≥10% absence due to illness	4

Region 6 (East Central)		
Influenza-associated hospitalizations	19/2252	
Percent of influenza rapid test positive	12.6%(95/752)	
Percent of RSV rapid tests positive	43.4% (79/182)	
Schools with ≥10% absence due to illness	11	

lowa map with regions and in red the number of schools that have ≥10% absence due to illness.

