



Iowa Influenza Surveillance Network (IISN)

Influenza-like Illness (ILI) and Other Respiratory Viruses

Weekly Activity Report

For the week ending January 12, 2013, Week 2

Quick Stats for this reporting week

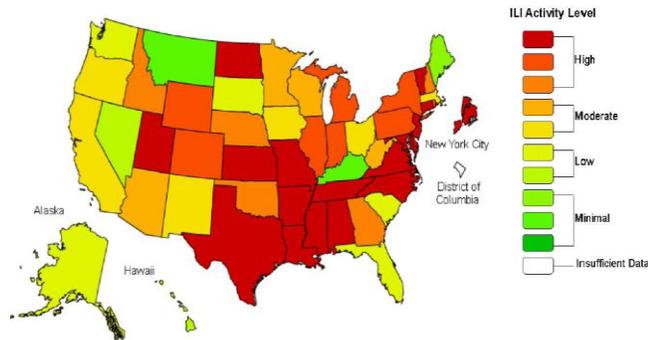
Iowa activity level ¹	Widespread
Percent of outpatient visits for ILI ²	3.6 % (baseline 2.1%)
Percent of influenza rapid test positive	21.1% (526/2497)
Percent of RSV rapid tests positive	44.4% (190/428)
Percent school absence due to illness	2.8%
Number of schools with ≥10% absence due to illness	5
Influenza-associated hospitalizations*	133/7398 inpatients surveyed
Influenza-associated pediatric mortality**	0

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

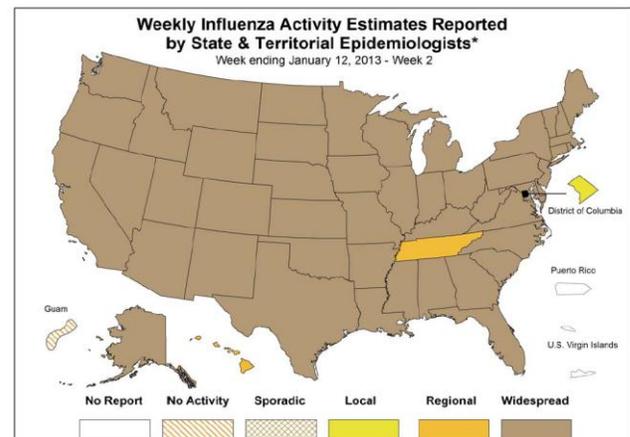
**CDC asks states to report any pediatric death (<18 years old) associated with influenza

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 2 ending Jan 12, 2013



*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

Influenza activity in Iowa remains high and widespread. For this reporting week, the State Hygienic Laboratory (SHL) confirmed a total of 120 cases of seasonal influenza, including 91 influenza A (H3), 21 influenza A (subtyping pending), and eight influenza B. The proportion of outpatient visits due to influenza-like illness (ILI) decreased from the previous week, but is well above the regional baseline of 2.1 percent. The number of influenza-associated hospitalizations reported from sentinel hospitals also decreased slightly to 133; but is still three times higher than a typical influenza season. A total of 613 hospitalizations have been reported this season. Two influenza outbreaks were reported from long term care facilities. The number of schools that reported 10 percent or greater absenteeism due to flu-like symptoms increased from the previous report; five schools during this reporting period and 16 schools have reported thus far this week but will fall into the next reporting period. In addition, 38 cases of respiratory syncytial virus (RSV) 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).

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.

National activity summary - www.cdc.gov

Synopsis: During week 2 (January 6-12), influenza activity remained elevated in the United States, but decreased in some areas.

- **Viral Surveillance:** Of 12,360 specimens tested and reported by collaborating laboratories, 3,638 (29.4 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:** Nine influenza-associated pediatric deaths were reported.
- **Influenza-Associated Hospitalizations:** A cumulative rate for the season of 18.8 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported. Among all cases, 49.6 percent were in adults 65 years and older.
- **Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 4.6 percent; this is above the national baseline of 2.2 percent. All 10 regions reported ILI above region-specific baseline levels. Thirty states and New York City experienced high ILI activity; 10 states experienced moderate activity; seven states experienced low activity; three states experienced minimal activity, and the District of Columbia had insufficient data.
- **Geographic Spread of Influenza:** Forty-eight states reported widespread geographic influenza activity; two states reported regional activity; the District of Columbia reported local activity; Guam reported no influenza activity, and Puerto Rico and the U.S. Virgin Islands did not report.

International activity summary - www.who.int

Reporting of influenza activity has been irregular in the past two weeks due to the holiday season in many countries. As a result, overall virus detections reported have dropped off, although in most countries in the northern temperate regions, influenza activity appears to have continued rising. Many countries of North America, Europe, North Africa, eastern Mediterranean and temperate Asia have reported increasing influenza activity over the past weeks. North China has started its influenza season. In tropical Asia, influenza activity was similar to previous weeks, with persistent low-level circulation. Influenza activity in sub-Saharan Africa has declined in most countries, with the exception of the Democratic Republic of Congo and Ghana. 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 activity in countries of the southern hemisphere is currently at inter-seasonal levels. Several unconfirmed media stories have reported a number of deaths related to infection with influenza A (H1N1) pdm09 in different parts of the world. As with other seasonal influenza viruses, it is expected that some deaths would occur with infection, in particular now when influenza season starts in Northern Hemisphere. These reports at times refer to this A (H1N1) pdm09 virus as “swine flu”, causing some confusion with other viruses that recently reported in the United States. A (H1N1) pdm09 virus has been circulating in humans for more than 3 years and now is a seasonal human influenza virus.

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.

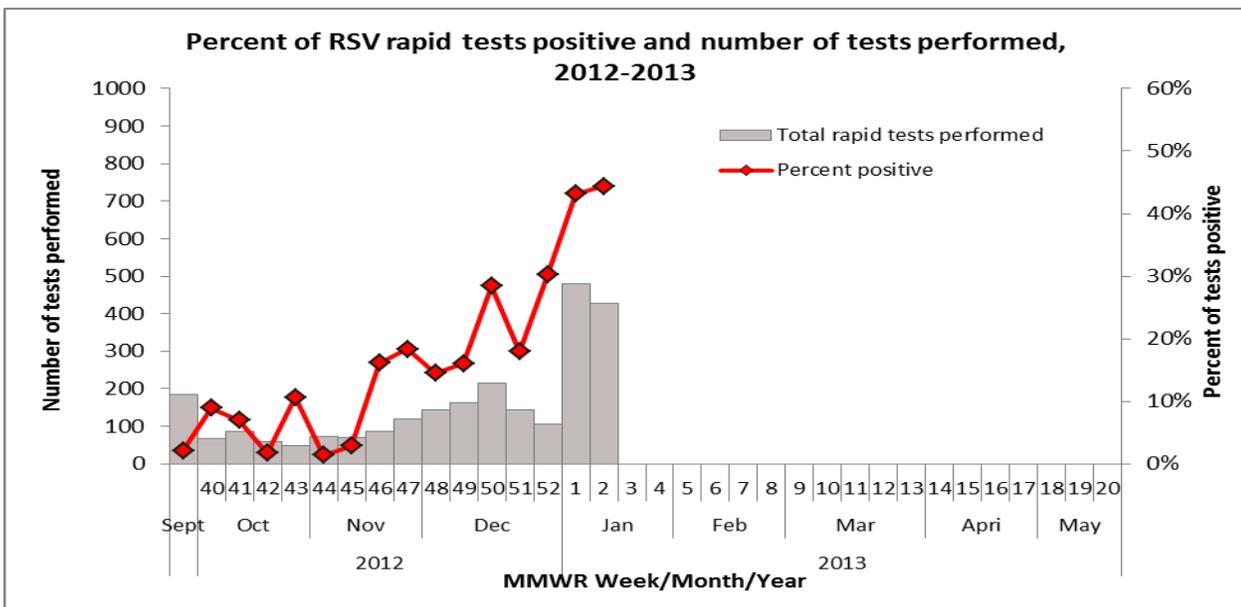
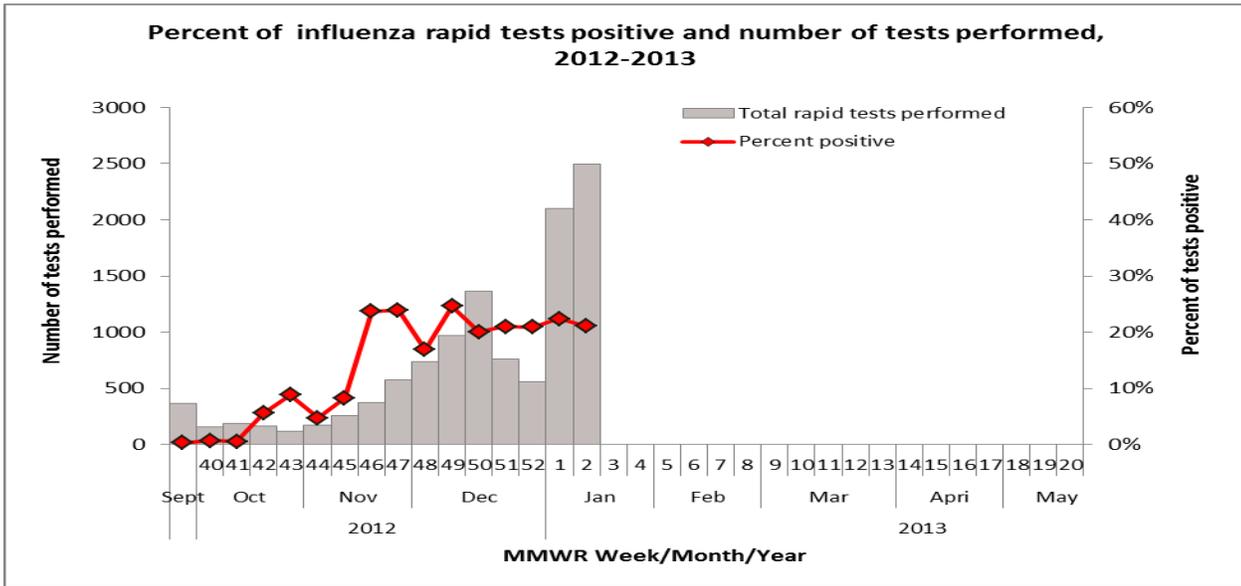
Specimens tested by the State Hygienic Laboratory

	Current week	Cumulative since 9/2/12
Flu A	112 (47%)	1293 (49%)
A (2009 H1N1)	0 (0%)	5 (<1%)
A (H3)	91 (40%)	1227 (47%)
A (H3N2) variant	0 (0%)	1 (<1%)
Subtyping not reported	21 (9%)	60 (2%)
Flu B	8 (4%)	150 (6%)
Equivocal	0 (0%)	0 (0%)
Indeterminate	0 (0%)	12 (<1%)
Negative	108 (47%)	1156 (44%)
Total	228	2611

Age group	Flu A (2009 H1N1)	Flu A (H3)	Flu A (H3N2) Variant	Flu A (no typing)	Flu B
0-4	2 (40%)	161 (13%)	* (*%)	5 (8%)	33 (22%)
5-17	1 (20%)	241 (20%)	* (*%)	7 (12%)	58 (39%)
18-24	0 (0%)	88 (7%)	0 (0%)	4 (7%)	8 (5%)
25-49	2 (40%)	235 (19%)	0 (0%)	7 (12%)	26 (17%)
50-64	0 (0%)	136 (11%)	0 (0%)	14 (23%)	12 (8%)
>64	0 (0%)	365 (30%)	0 (0%)	23 (38%)	13 (9%)
Total	5	1226	1	60	150

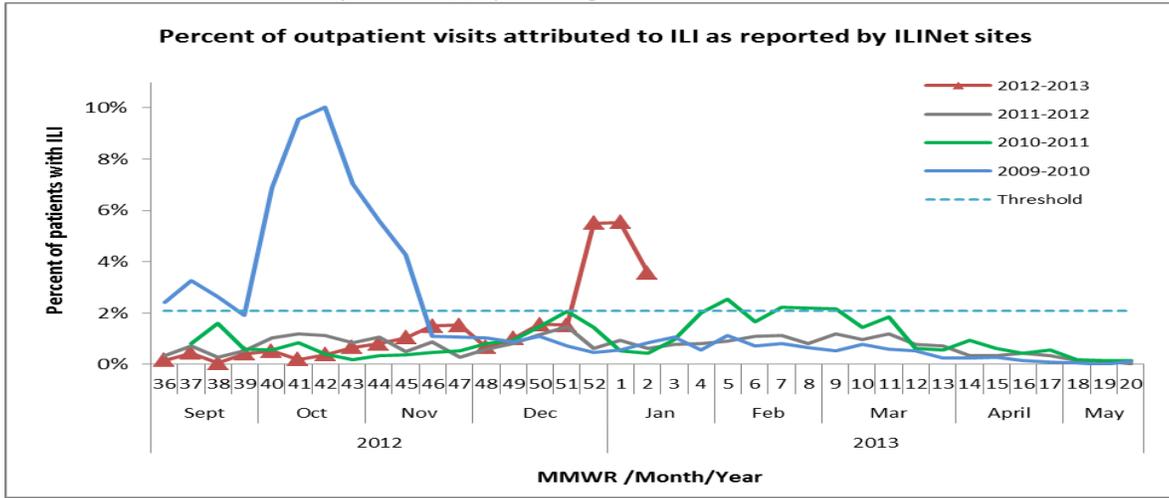
* Counts of three or less are sometimes suppressed to protect confidentiality. Note that counts may not add up to the total due to missing age information

	<i>Current week</i>	<i>Cumulative since 9/2/12</i>
<i>Adenovirus</i>	0	14
<i>Parainfluenza Virus Type 1</i>	0	1
<i>Parainfluenza Virus Type 2</i>	1	21
<i>Parainfluenza Virus Type 3</i>	0	36
<i>Rhinovirus</i>	0	45
<i>Respiratory syncytial virus (RSV)</i>	38	330
<i>human metapneumovirus (hMPV)</i>	0	1



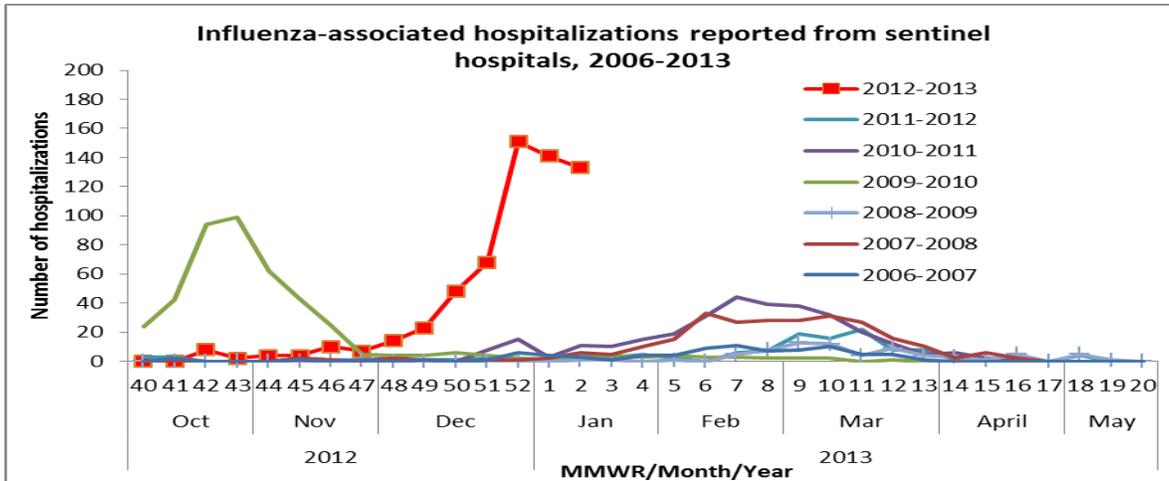
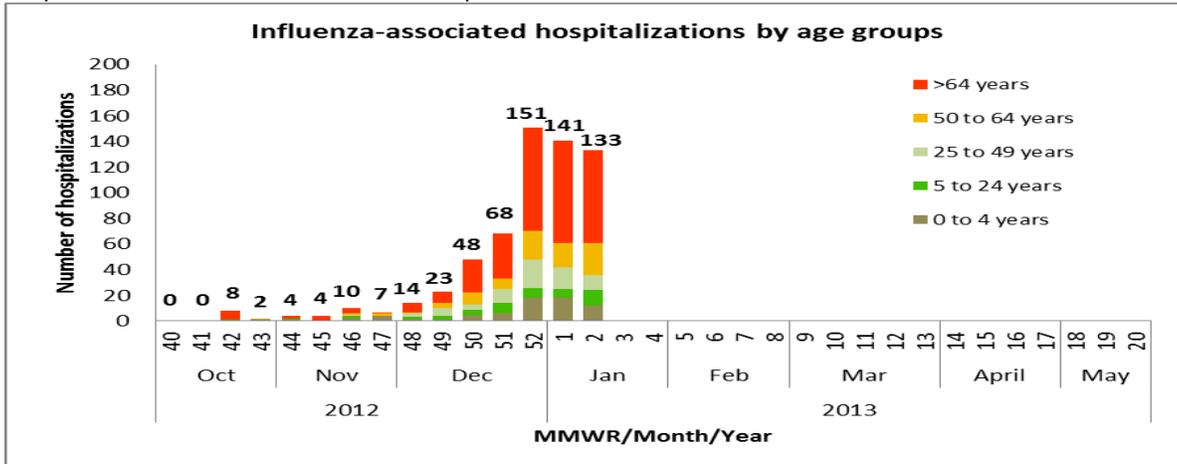
Outpatient health care provider surveillance program (ILINet)

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. 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.



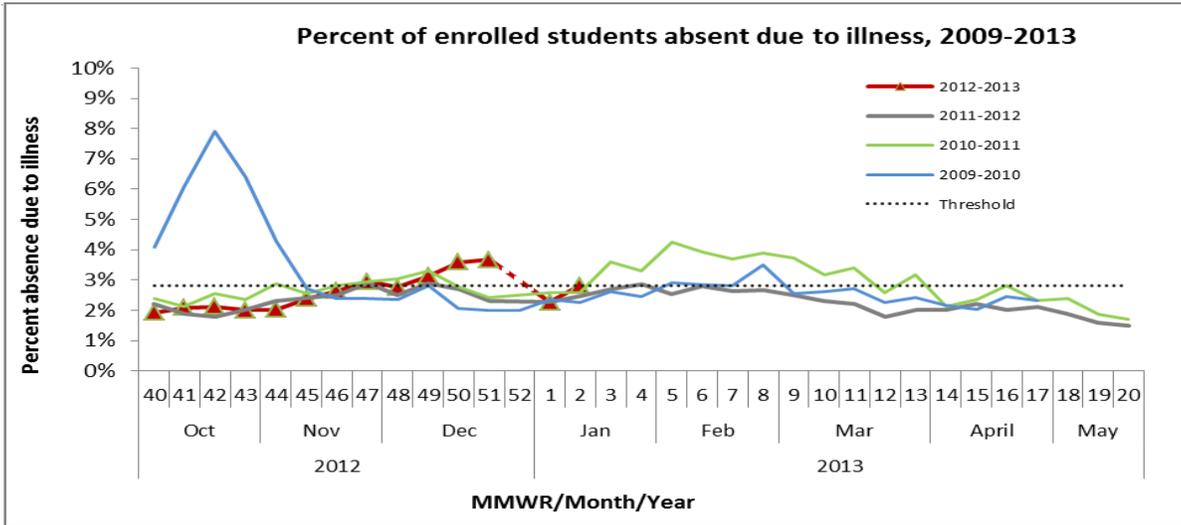
Influenza-associated hospitalizations

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.



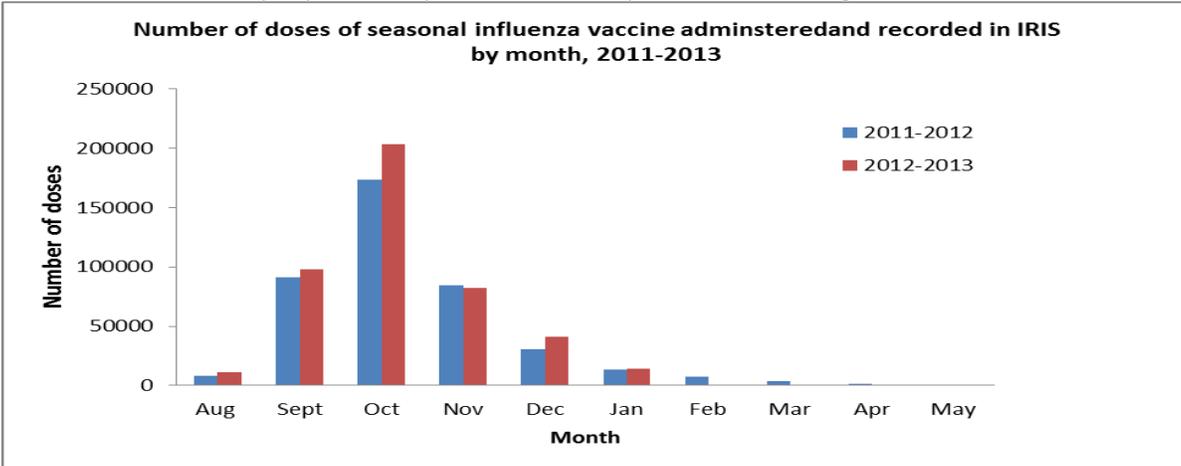
School surveillance program

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. (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 1/17/2013 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 $\geq 10\%$ absence due to illness must report.)

Region 1 (Central)	
Influenza-associated hospitalizations	68/4590
Percent of influenza rapid test positive	26.7% (127/476)
Percent of RSV rapid tests positive	57.1% (68/119)
Schools with $\geq 10\%$ absence due to illness	0

Region 2 (North Central)	
Influenza-associated hospitalizations	35/508
Percent of influenza rapid test positive	20.3% (29/143)
Percent of RSV rapid tests positive	36.0% (9/25)
Schools with $\geq 10\%$ absence due to illness	0

Region 3 (Northwest)	
Influenza-associated hospitalizations	3/130
Percent of influenza rapid test positive	23.3% (143/613)
Percent of RSV rapid tests positive	31.0% (18/58)
Schools with $\geq 10\%$ absence due to illness	0

Region 4 (Southwest)	
Influenza-associated hospitalizations	2/37
Percent of influenza rapid test positive	25.1% (43/171)
Percent of RSV rapid tests positive	63.0% (17/27)
Schools with $\geq 10\%$ absence due to illness	2

Region 5 (Southeast)	
Influenza-associated hospitalizations	N/A
Percent of influenza rapid test positive	14.5% (29/200)
Percent of RSV rapid tests positive	45.7% (16/35)
Schools with $\geq 10\%$ absence due to illness	0

Region 6 (East Central)	
Influenza-associated hospitalizations	25/2133
Percent of influenza rapid test positive	17.3% (155/894)
Percent of RSV rapid tests positive	37.8% (62/164)
Schools with $\geq 10\%$ absence due to illness	3

N/A: not available

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

