



# Iowa Influenza Surveillance Network (IISN)

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

### Weekly Activity Report

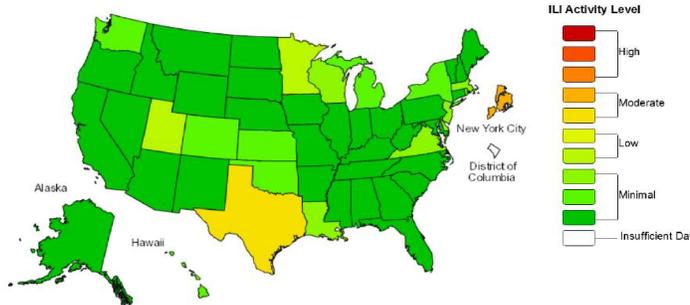
For the week ending March 22, 2014, Week 12

#### Quick Stats for this reporting week

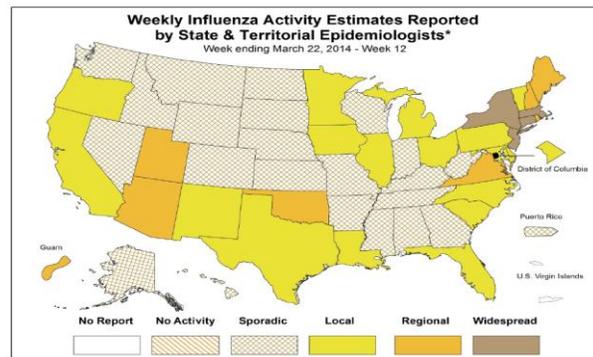
Iowa activity level <sup>1</sup>	local
Percent of outpatient visits for ILI <sup>2</sup>	0.3 % (baseline 1.8%)
Percent of influenza rapid test positive	4.6% (29/633)
Percent of RSV rapid tests positive	26.5% (90/340)
Percent school absence due to illness*	2.2%
Number of schools with ≥10% absence due to illness	0
Influenza-associated hospitalizations**	7/5,836 inpatients surveyed
Influenza-associated pediatric mortality***	0

\*Percent school absence due to illness are reported through a weekly survey of Iowa sentinel schools  
 \*\*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  
2013-14 Influenza Season Week 12 ending Mar 22, 2014



\*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 local. For this reporting period, the State Hygienic Laboratory (SHL) confirmed one case of influenza A subtype pending. So far this season, a total of 639 cases of influenza have been confirmed with the 2009 H1N1 virus predominating. The proportion of outpatient visits due to influenza-like illness (ILI) was 0.25 percent and remains below the regional baseline. There were seven influenza-associated hospitalizations reported from sentinel hospitals, bringing the total number of influenza-associated hospitalizations to 456. No school reported 10 percent or greater absenteeism due to illness (many schools were not open due to spring break). In addition, five cases of adenovirus, two cases of parainfluenza 3, 17 cases of rhinovirus/enterovirus, 16 cases of respiratory syncytial virus (RSV), and 16 cases of human metapneumovirus were reported to IDPH this reporting week.

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

**Synopsis:** During week 12 (March 16-22, 2014), influenza activity continued to decrease in the United States.

- **Viral Surveillance:** Of 4,977 specimens tested and reported during week 12 by U.S. World Health Organization and National Respiratory and Enteric Virus Surveillance System collaborating laboratories, 571 (11.5 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:** Four influenza-associated pediatric deaths were reported.
- **Influenza-associated Hospitalizations:** A season-cumulative rate of 31.1 laboratory confirmed influenza-associated hospitalizations per 100,000 population was reported.
- **Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 1.6 percent, which is below the national baseline of 2.0 percent. Four of 10 regions reported ILI at or above region-specific baseline levels. One state and New York City experienced moderate ILI activity; two states experienced low ILI activity; 47 states experienced minimal ILI activity, and the District of Columbia had insufficient data.
- **Geographic Spread of Influenza:** The geographic spread of influenza in four states was reported as widespread; Guam and seven states reported regional influenza activity; the District of Columbia and 17 states reported local influenza activity; Puerto Rico and 22 states reported sporadic influenza activity, and the U.S. Virgin Islands did not report.

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

Globally overall influenza activity continued declining, although an increase in influenza B activity was observed in parts of the world with less intensity compared to the earlier influenza A activity. In North America, influenza activity continued its decreasing trend, with indicators suggesting the influenza season is coming to a close, despite that a small increase in detections of influenza B was noted in the region. In Europe, influenza activity was variable among countries. In general activity increased in the eastern regions but decreased in the southwestern and northern regions. Influenza A(H1N1)pdm09 and A(H3N2) continued circulating with variable predominance among countries. In Eastern Asia, overall activity declined with a slight increase of influenza B activity observed. In China, influenza activity remained stable after a decrease late February. Influenza activity in Mongolia remained elevated. In Tropical Asia, influenza activity largely continued to decline, except Thailand where sustained elevated activity of influenza A(H1N1)pdm09 and an increased proportion of influenza B were reported. In Northern Africa and Western Asia, influenza activity decreased overall, however the proportion of influenza B positive samples has begun to increase. Based on FluNet reporting (as of 20 March 2014, 13:20 UTC), during weeks 9 to 10 (23 February 2014 to 8 March 2014), National Influenza Centres and other national influenza laboratories from 96 countries, areas or territories reported data. The WHO GISRS laboratories tested more than 74,758 specimens. 13,548 were positive for influenza viruses, of which 10,289 (75.9 percent) were typed as influenza A and 3,259 (24.1 percent) as influenza B. Of the sub-typed influenza A viruses, 4,470 (65 percent) were influenza A(H1N1)pdm09 and 2,410 (35 percent) were influenza A(H3N2). Of the characterized B viruses, 222 (87.4 percent) belonged to the B-Yamagata lineage and 32 (12.6 percent) to the B-Victoria lineage.

### 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 day. 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 9/1/13
<b>Flu A</b>	1 (5%)	630 (48%)
A (2009 H1N1)	0 (0%)	579 (44%)
A (H3)	0 (0%)	20 (2%)
A (H3N2) variant	0 (0%)	1 (<1%)
Subtype pending	1 (5%)	30 (2%)
<b>Flu B</b>	0 (0%)	9 (1%)
<b>Equivocal</b>	0 (0%)	5 (<1%)
<b>Indeterminate</b>	1 (5%)	7 (<1%)
<b>Negative</b>	17 (90%)	658 (50%)
<b>Total</b>	19	1,309

Note that only cases of Iowa residents are included.

Age group	Flu A (2009 H1N1)	Flu A (H3)	Flu A (H3N2) Variant	Flu A (subtype pending)	Flu B
<b>0-4</b>	86 (15%)	5 (25%)	* (0%)	4 (13%)	2 (22%)
<b>5-17</b>	74 (13%)	1 (5%)	* (0%)	2 (7%)	4 (44%)
<b>18-24</b>	83 (14%)	3 (15%)	0 (0%)	5 (17%)	0 (0%)
<b>25-49</b>	174 (30%)	3 (15%)	0 (0%)	6 (20%)	3 (33%)
<b>50-64</b>	91 (16%)	2 (10%)	0 (0%)	6 (20%)	0 (0%)
<b>&gt;64</b>	71 (12%)	6 (30%)	0 (0%)	7 (23%)	0 (0%)
<b>Total</b>	579	20	1	30	9

\* 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

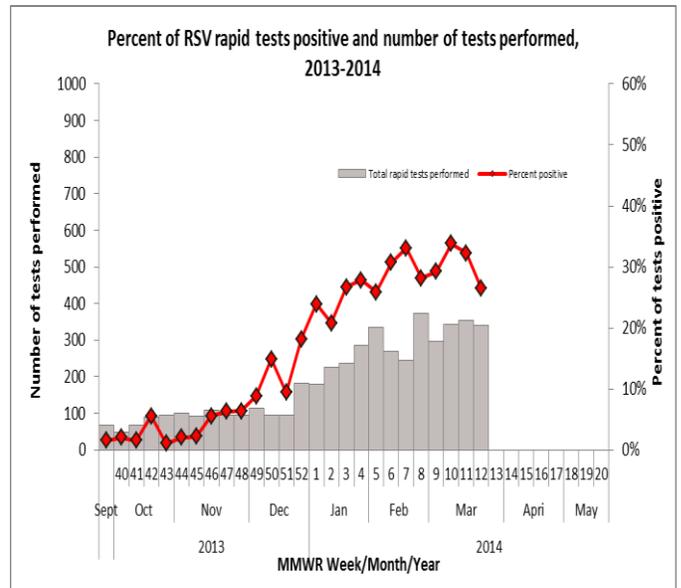
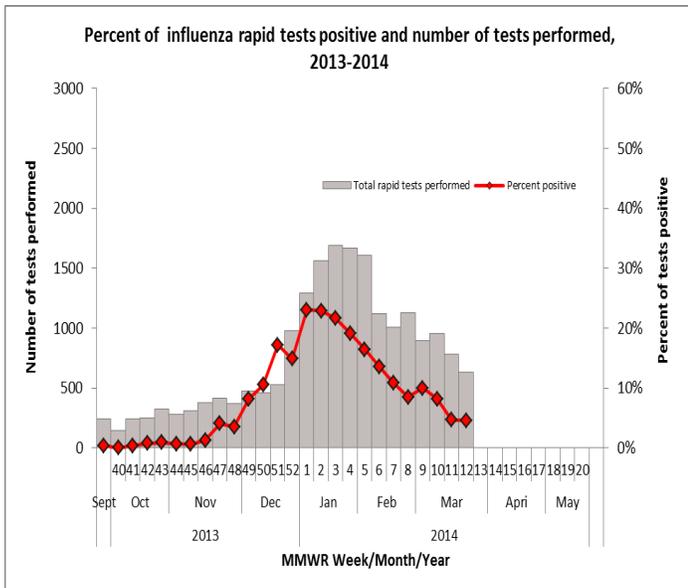
**Table 3. Number of positive results for non-influenza respiratory virus isolated by Mercy Dunes in Sioux City and Iowa Methodist Medical Center**

	<i>Current week</i>	<i>Cumulative since 9/1/13</i>
<i>Adenovirus</i>	5	137
<i>Parainfluenza Virus Type 1</i>	0	43
<i>Parainfluenza Virus Type 2</i>	0	1
<i>Parainfluenza Virus Type 3</i>	2	19
<i>Parainfluenza Virus Type 4</i>	0	19
<i>Rhinovirus/Enterovirus</i>	17	438
<i>Respiratory syncytial virus (RSV)</i>	16	322
<i>human metapneumovirus (hMPV)</i>	16	63

**Table 4. Percent of influenza rapid tests positive and number of tests performed by region for the present week**

Region *	Influenza					RSV		
	Tested	Flu A	Flu B	Both	% Positive	Tested	Positive	% Positive
Region 1	80	4	1	0	6.3%	32	9	28.1%
Region 2	33	3	0	0	9.1%	7	2	28.6%
Region 3	73	0	1	0	1.4%	83	28	33.7%
Region 4	62	0	1	0	1.6%	37	8	21.6%
Region 5	51	3	0	0	5.9%	55	17	30.9%
Region 6	334	12	4	0	4.8%	126	26	20.6%

\*Region 1- Boone, Calhoun, Carroll, Dallas, Greene, Grundy, Hamilton, Hardin, Jasper, Marshall, Polk, Poweshiek, Story, Tama, Warren, Webster; Region 2- Allamakee, Bremer, Butler, Cerro Gordo, Chickasaw, Emmet, Fayette, Floyd, Franklin, Hancock, Howard, Humboldt, Kossuth, Mitchell, Winnebago, Winneshiek, Worth, Wright; Region 3- Buena Vista, Cherokee, Clay, Crawford, Dickinson, Ida, Lyon, Monona, O'Brien, Osceola, Palo Alto, Plymouth, Pocahontas, Sac, Sioux, Woodbury; Region 4- Adair, Adams, Audubon, Cass, Clarke, Decatur, Fremont, Guthrie, Harrison, Madison, Mills, Montgomery, Page, Pottawattamie, Ringgold, Shelby, Taylor, Union; Region 5- Appanoose, Davis, Des Moines, Henry, Jefferson, Keokuk, Lee, Louisa, Lucas, Mahaska, Marion, Monroe, Muscatine, Van Buren, Wapello, Washington, Wayne; Region 6- Benton, Black Hawk, Buchanan, Cedar, Clayton, Clinton, Delaware, Dubuque, Iowa, Jackson, Johnson, Jones, Linn, Scott.



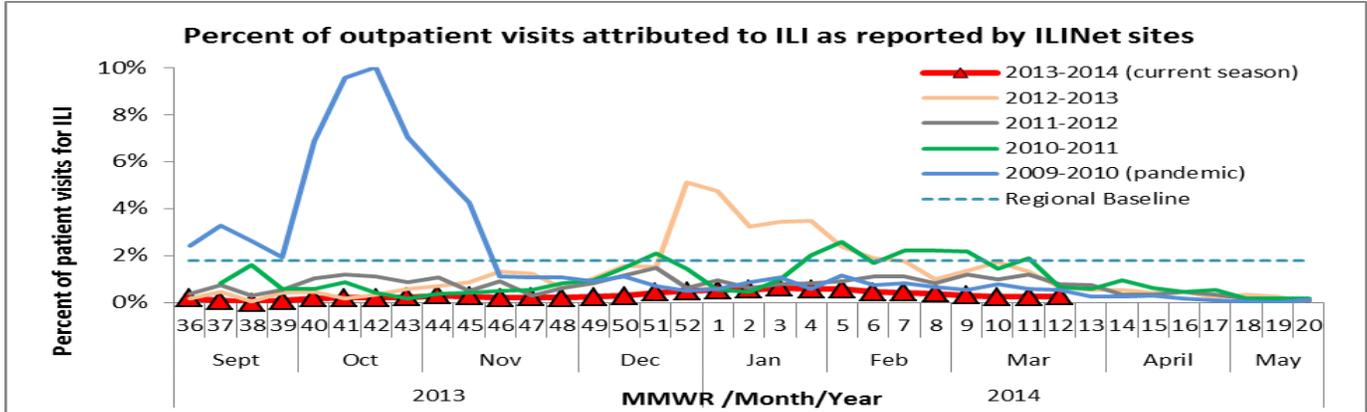
### Outpatient health care provider surveillance program (ILINet)

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](mailto:yumei.sun@idph.iowa.gov) for more information.

**Table 4. Outpatient visits for influenza-like illness (ILI) in the past three weeks\***

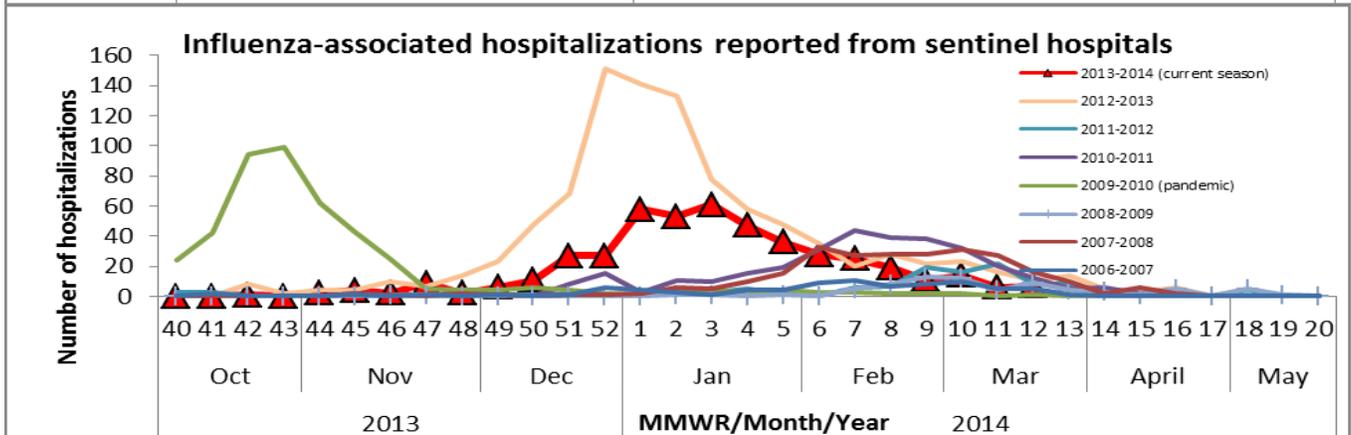
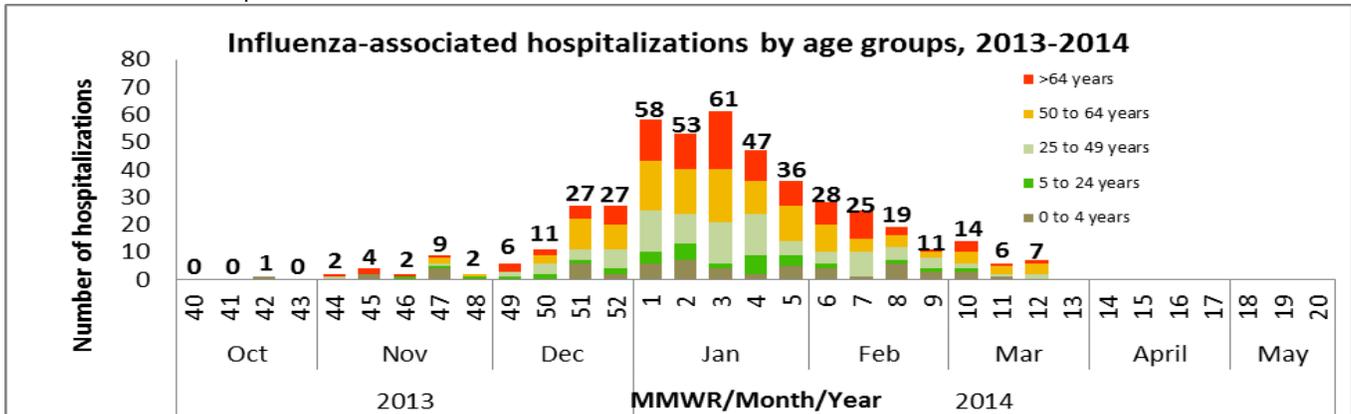
Week	% ILI	Total ILI	Age 0-4	Age 5-24	Age 25-49	Age 50-64	Age > 64
Week 10, ending Mar 08, 2014	0.24	79	24	32	12	4	7
Week 11, ending Mar 15, 2014	0.24	77	19	36	14	6	2
Week 12, ending Mar 22, 2014	0.25	73	30	23	12	6	2

\*ILI counts are provisional and may change as additional reports are received



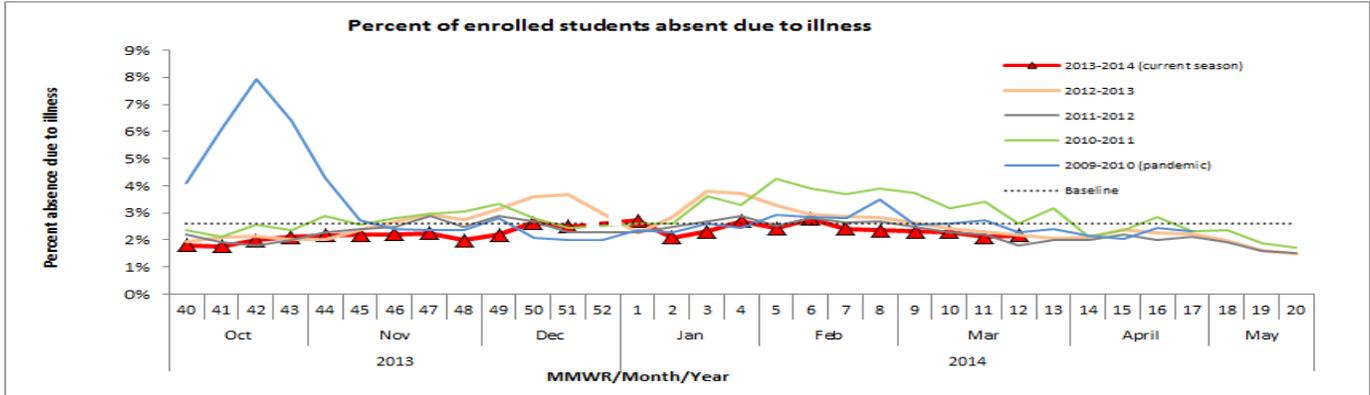
### Influenza-associated hospitalizations

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



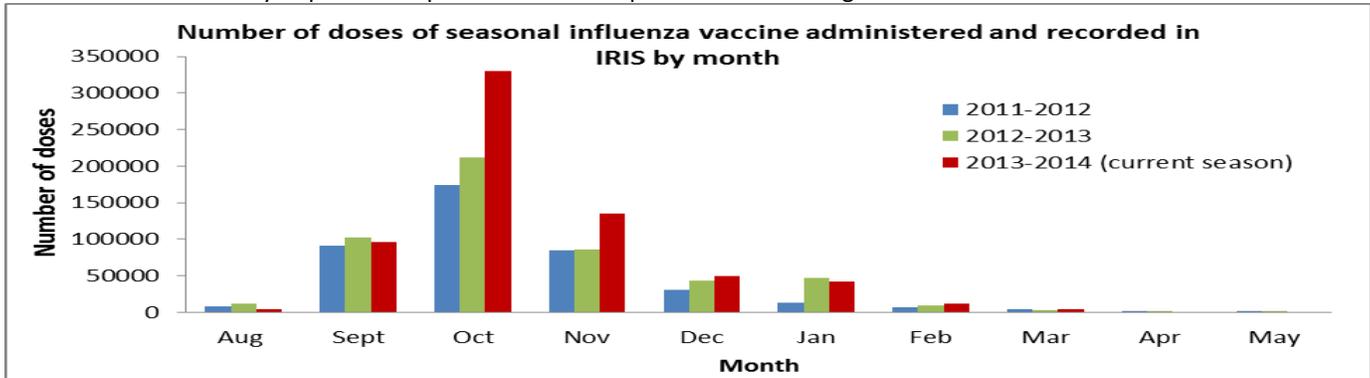
### School surveillance program

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



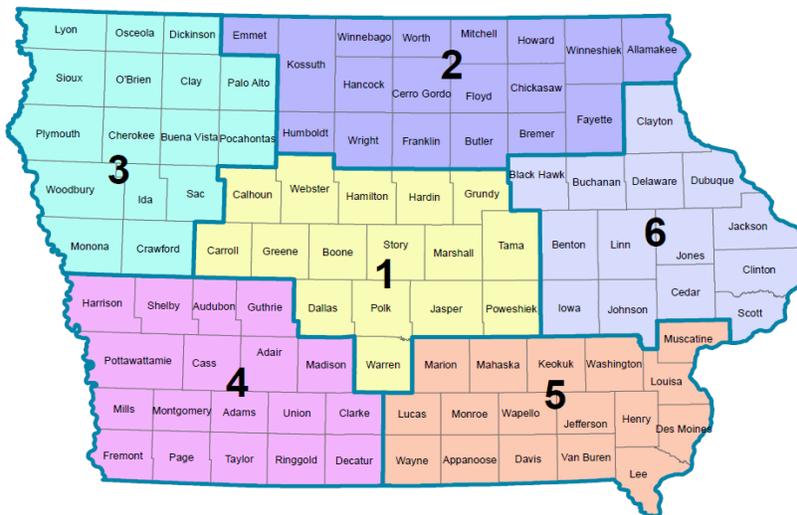
### Seasonal influenza vaccination

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 2013-2014 season is only up to the current week 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.

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



<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)