



# Iowa Influenza Surveillance Network (IISN)

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

### Weekly Activity Report

For the week ending April 20, 2013, Week 16

#### Quick Stats for this reporting week

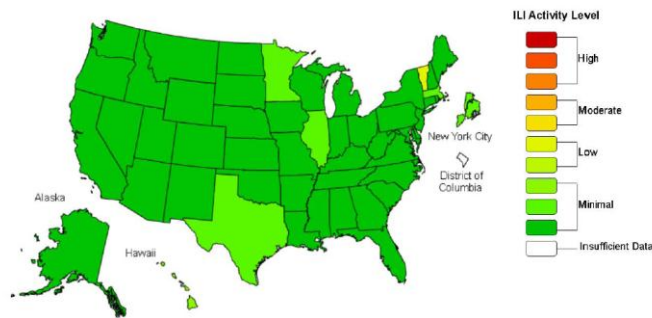
Iowa activity level <sup>1</sup>	Sporadic
Percent of outpatient visits for ILI <sup>2</sup>	0.5 % (baseline 2.1%)
Percent of influenza rapid test positive	5.1% (10/195)
Percent of RSV rapid tests positive	2.2% (2/91)
Percent school absence due to illness	2.3%
Number of schools with ≥10% absence due to illness	0
Influenza-associated hospitalizations*	6/5,433 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

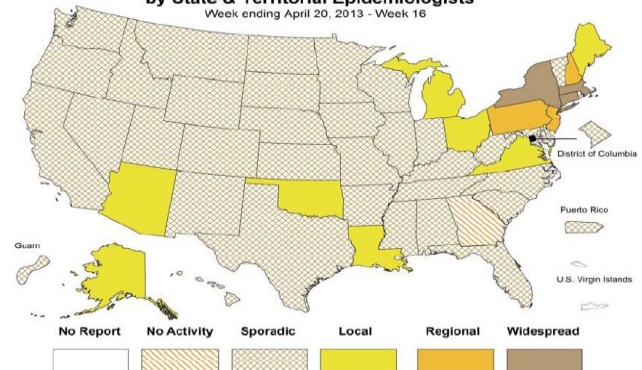
Note: All data in this report are provisional and may change as additional reports are received

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet  
2012-13 Influenza Season Week 16 ending Apr 20, 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.

Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists\*  
Week ending April 20, 2013 - Week 16



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

#### Iowa statewide activity summary

Influenza activity in Iowa remains sporadic. For this reporting week, there were no laboratory confirmed cases of seasonal influenza. The proportion of outpatient visits due to influenza-like illness (ILI) was 0.5 percent, which is below the regional baseline of 2.1 percent. There were six influenza-associated hospitalizations reported from sentinel hospitals for this reporting period. A total of 980 hospitalizations have been reported this season. In addition this week, seven cases of rhinovirus/enterovirus, two cases of respiratory syncytial virus (RSV), and one case of human metapneumovirus and parainfluenza 3, respectively, were reported. Thus far this season, other respiratory viruses that have been identified include adenovirus, rhinovirus/enterovirus, parainfluenza 1-3, RSV, and human metapneumovirus (hMPV).

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

**Synopsis:** During week 16 (April 14-20, 2013), influenza activity decreased in the United States.

- **Viral Surveillance:** Of 3,384 specimens tested and reported by collaborating laboratories, 250 (7.4 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:** Five pediatric deaths were reported.
- **Influenza-Associated Hospitalizations:** A cumulative rate for the season of 43.9 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported. Of reported hospitalizations, 50 percent were among adults 65 years and older.
- **Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 1.1 percent. This is below the national baseline of 2.2 percent. All 10 regions reported ILI below region-specific baseline levels. One state experienced low activity; 49 states and New York City experienced minimal activity, and the District of Columbia had insufficient data.
- **Geographic Spread of Influenza:** Three states reported widespread influenza activity; three states reported regional influenza activity; eight states reported local influenza activity; the District of Columbia, Guam, Puerto Rico, and 35 states reported sporadic influenza activity; one state reported no influenza activity, and the U.S. Virgin Islands did not report.

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

Influenza activity across the northern temperate regions have continued to decline to near inter-seasonal levels in much of North America, Europe, and northern Asia though low level persistent transmission was still noted in many countries. The persistence of transmission in the northern hemisphere temperate regions has been associated with increasing numbers of influenza type B virus appearing late in the season in a number of countries of North America and Europe. Prior to this, influenza A (H3N2) was the most commonly detected virus in North America, A (H1N1) pdm09 in Europe, and both in varying proportions in different countries of northern Asia. Low levels of influenza activity continued to be reported across the tropical regions of the world and activity in countries of the southern hemisphere remained at inter-seasonal levels. Nearly all influenza A viruses characterized this season have been antigenically related to those contained in the current trivalent vaccine. Among the B viruses characterized, those that were of the Yamagata lineage were antigenically related to the viruses recommended for the trivalent vaccine but a sizable number of B viruses were also of the Victoria lineage. Only very low numbers of oseltamivir and zanamivir resistant viruses have been detected. In China, new cases of H7N9 have been reported with over 100 cases to date, including 22 deaths. A summary review of the Northern Hemisphere influenza season will be published in the World Epidemiological Report on 31 May 2013.

### 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
<b>Flu A</b>	0 (0%)	1,608 (37%)
A (2009 H1N1)	0 (0%)	15 (<1%)
A (H3)	0 (0%)	1,507 (34%)
A (H3N2) variant	0 (0%)	1 (<1%)
Subtyping not reported	0 (0%)	85 (2%)
<b>Flu B</b>	0 (0%)	367 (8%)
<b>Equivocal</b>	0 (0%)	27 (<1%)
<b>Indeterminate</b>	1 (5%)	26 (<1%)
<b>Negative</b>	19 (95%)	2,397 (54%)
<b>Total</b>	20	4,425

Age group	Flu A (2009 H1N1)	Flu A (H3)	Flu A (H3N2) Variant	Flu A (no typing)	Flu B
<b>0-4</b>	5 (33%)	184 (12%)	* (*%)	7 (8%)	72 (20%)
<b>5-17</b>	3 (20%)	280 (19%)	* (*%)	5 (6%)	131 (36%)
<b>18-24</b>	0 (0%)	114 (8%)	0 (0%)	6 (7%)	32 (9%)
<b>25-49</b>	4 (27%)	269 (18%)	0 (0%)	7 (8%)	55 (15%)
<b>50-64</b>	1 (7%)	169 (11%)	0 (0%)	16 (19%)	27 (7%)
<b>&gt;64</b>	2 (13%)	487 (32%)	0 (0%)	44 (52%)	50 (14%)
<b>Total</b>	15	1,507	1	85	367

\* 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

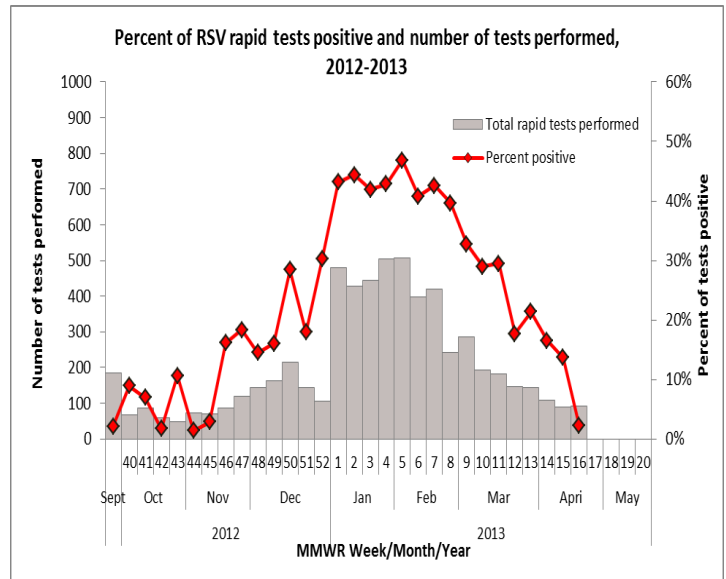
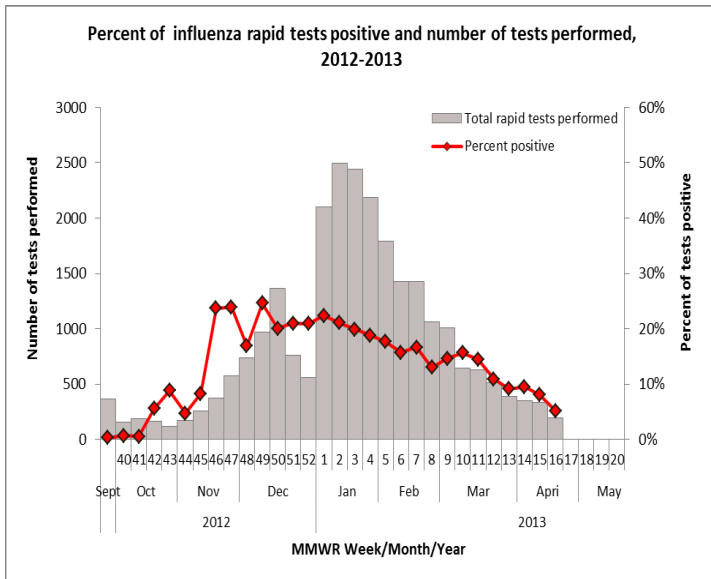
**Table 3. Number of positive results for non-influenza respiratory virus isolated by the State Hygienic Laboratory, Mercy Dunes in Sioux City, and Iowa Methodist Medical Center**

	<i>Current week</i>	<i>Cumulative since 9/2/12</i>
<i>Adenovirus</i>	0	32
<i>Parainfluenza Virus Type 1</i>	0	3
<i>Parainfluenza Virus Type 2</i>	0	30
<i>Parainfluenza Virus Type 3</i>	1	50
<i>Rhinovirus/Enterovirus</i>	7	171
<i>Respiratory syncytial virus (RSV)</i>	2	576
<i>human metapneumovirus (hMPV)</i>	1	39

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

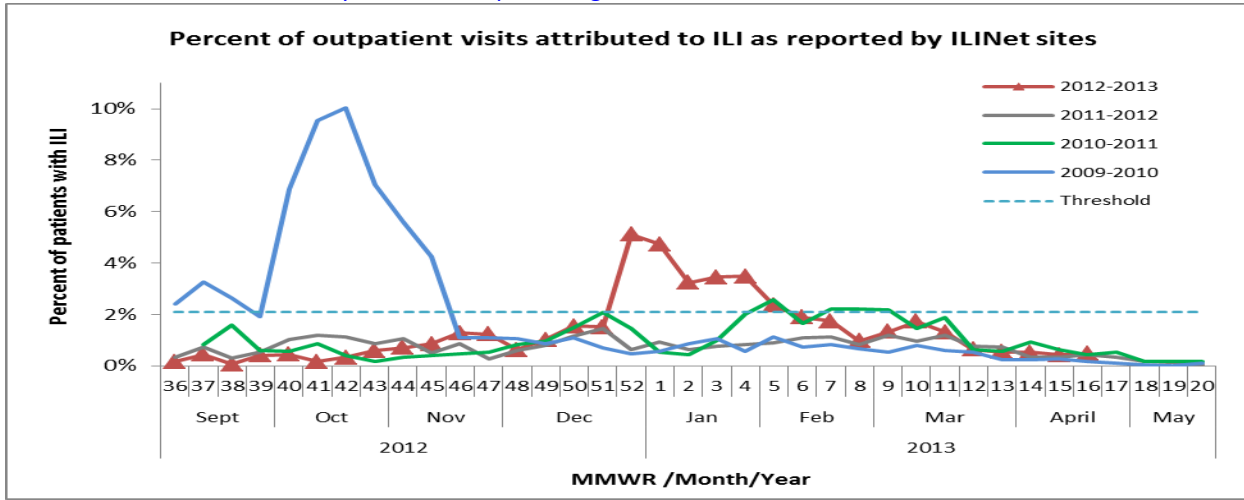
Region *	Influenza					RSV		
	<i>Tested</i>	<i>Flu A</i>	<i>Flu B</i>	<i>Both</i>	<i>% Positive</i>	<i>Tested</i>	<i>Positive</i>	<i>% Positive</i>
<b>Region 1</b>	24	0	1	0	4.2%	13	0	0.0%
<b>Region 2</b>	2	0	0	0	0.0%	2	0	0.0%
<b>Region 3</b>	1	0	0	0	0.0%	1	0	0.0%
<b>Region 4</b>	14	0	1	0	7.1%	7	0	0.0%
<b>Region 5</b>	33	2	0	0	6.1%	10	0	0.0%
<b>Region 6</b>	121	2	4	0	5.0%	58	2	3.4%

\*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.



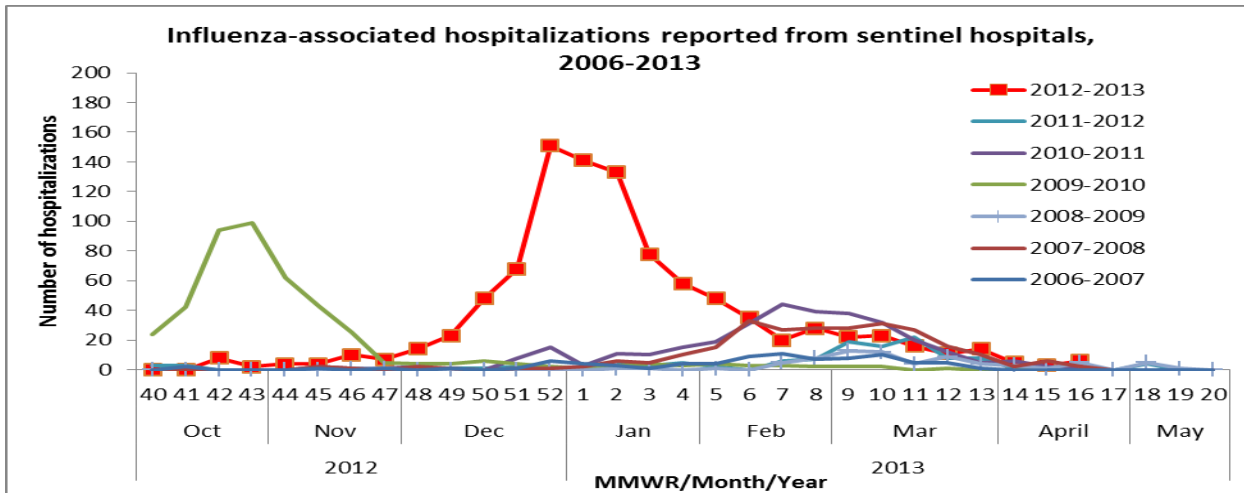
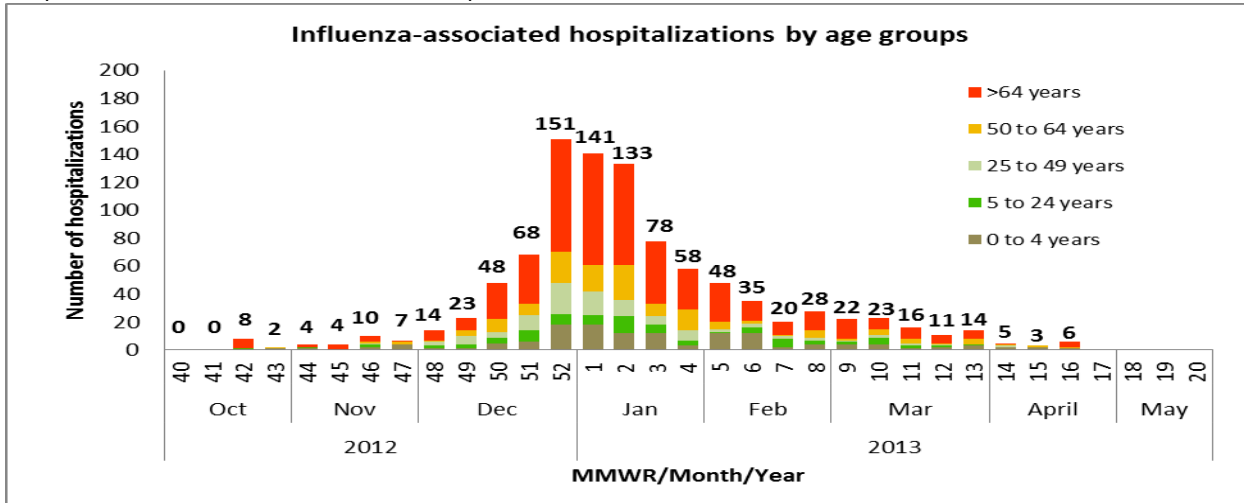
**Outpatient health care provider surveillance program (ILINet)**

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.



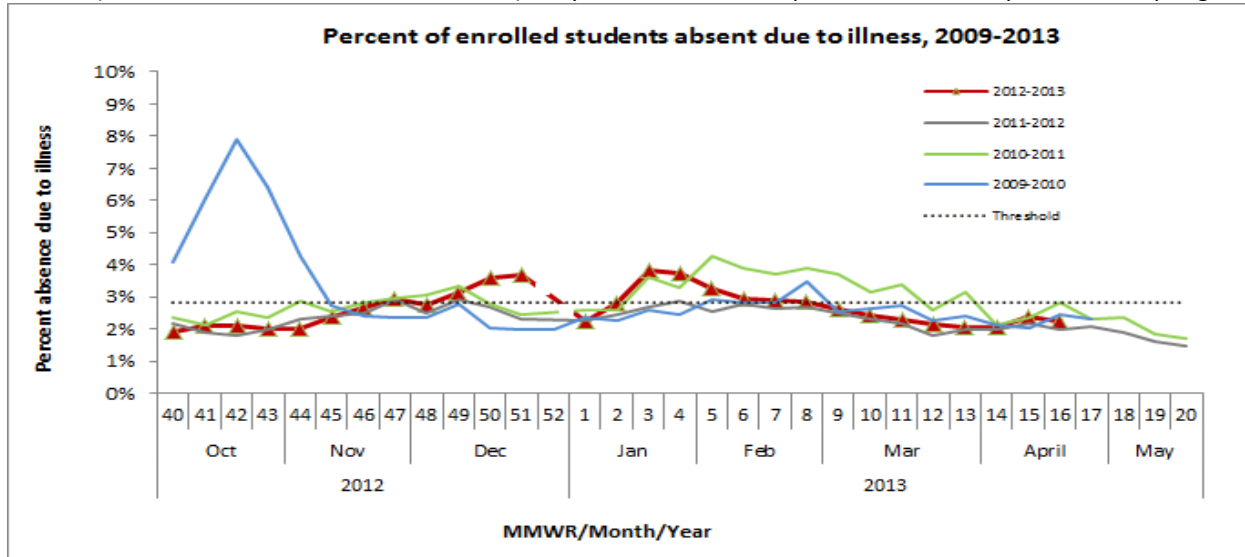
**Influenza-associated hospitalizations**

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.



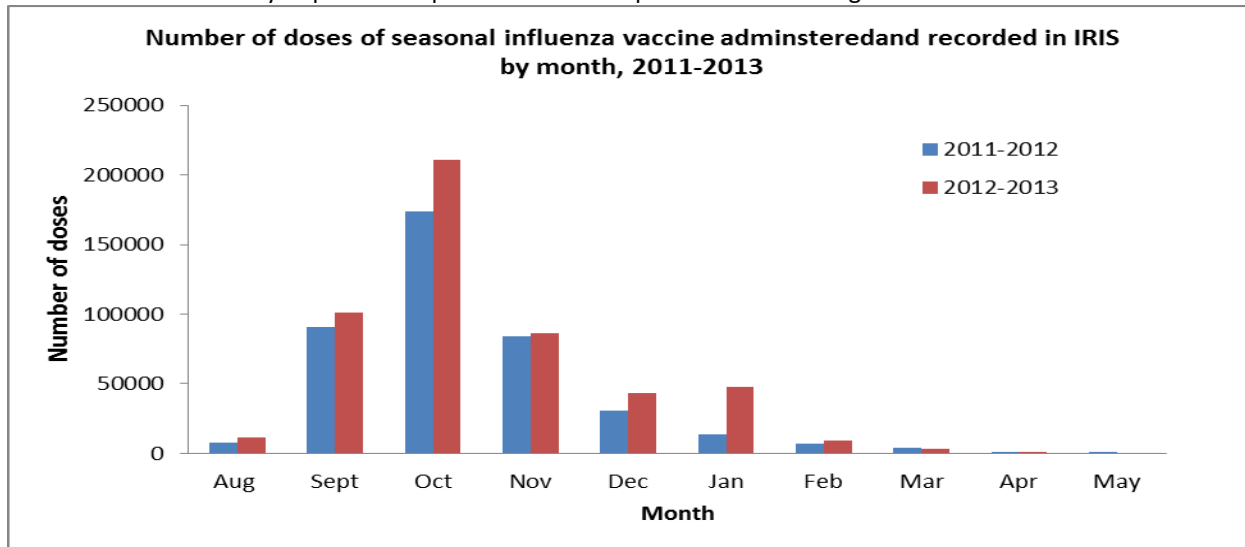
**School surveillance program**

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 and spring break.)



**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 4/25/2013 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.

<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)