



Iowa Influenza Surveillance Network (IISN)

Influenza-like Illness (ILI) and Other Respiratory Viruses

Weekly Activity Report

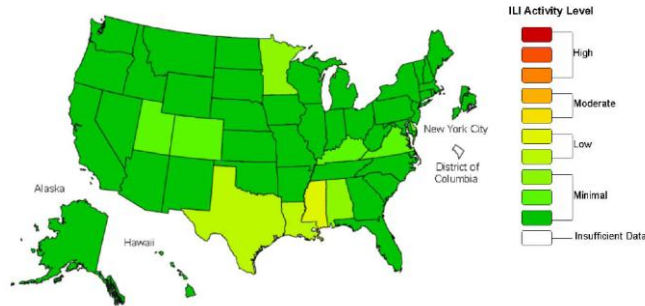
For the week ending October 26, 2013, Week 43

Quick Stats for this reporting week

| Iowa activity level ¹ | Sporadic |
|--|-----------------------------|
| Percent of outpatient visits for ILI ² | 0.2 % (baseline 1.8%) |
| Percent of influenza rapid test positive | 0.9% (3/322) |
| Percent of RSV rapid tests positive | 1.1% (1/95) |
| Percent school absence due to illness* | 2.1% |
| Number of schools with ≥10% absence due to illness | 0 |
| Influenza-associated hospitalizations** | 0/5,185 inpatients surveyed |
| Influenza-associated pediatric mortality*** | 0 |

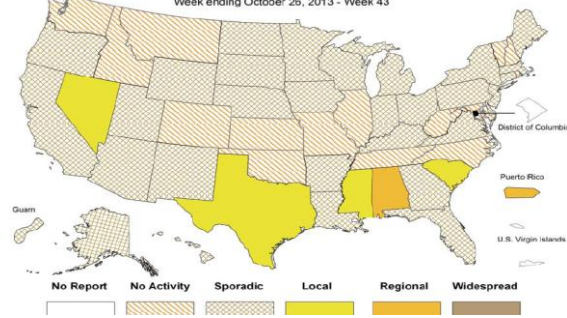
*Percent school absence due to illness are reported through a weekly survey of Iowa sentinel schools
 **Hospitalizations due to influenza are voluntarily reported through a weekly survey of Iowa sentinel hospitals
 ***CDC asks states to report any pediatric death (<18 years old) associated with influenza
 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 43 ending Oct 26, 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 October 26, 2013 - Week 43



*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 period, the State Hygienic Laboratory (SHL) confirmed one case of seasonal influenza A (2009 H1N1) in a non-Iowa resident. There was also one case of influenza B confirmed, but it will fall into the next reporting period. The proportion of outpatient visits due to influenza-like illness (ILI) was 0.21 percent which is well below the regional baseline. There was no case of influenza-associated hospitalization reported from sentinel hospitals. One school reported 10 percent or greater absenteeism due to illness, but will fall into the next reporting period. In addition, two cases of adenovirus, three cases of parainfluenza virus type 1, one case of parainfluenza virus type 4, and 20 cases of rhinovirus/enterovirus were reported to IDPH.

National activity summary - www.cdc.gov

Synopsis: During week 43 (October 20-26, 2013), influenza activity remained low in the United States.

- **Viral Surveillance:** Of 3,241 specimens tested and reported by U.S. World Health Organization and National Respiratory and Enteric Virus Surveillance System collaborating laboratories during week 43, 145 (4.5 percent) were positive for influenza.
- **Pneumonia and Influenza Mortality:** The proportion of deaths attributed to pneumonia and influenza was below the epidemic threshold.

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.

- **Influenza-associated Pediatric Deaths:** No influenza-associated pediatric deaths were reported.
- **Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 1.2 percent, below the national baseline of 2.0 percent. All 10 regions reported ILI below region-specific baseline levels. Three states experienced low ILI activity, 47 states and New York City experienced minimal ILI activity and the District of Columbia had insufficient data.
- **Geographic Spread of Influenza:** The geographic spread of influenza in Puerto Rico and one state was reported as regional; four states reported local influenza activity; Guam and 30 states reported sporadic influenza activity; 15 states reported no influenza activity, and the District of Columbia and the U.S. Virgin Islands did not report.

International activity summary - www.who.int

Although in many European countries influenza-like illness activity started to increase, influenza detections in the northern hemisphere temperate zones remained low. In the regions of tropical Asia influenza activity was variable from country to country. In Hong Kong Special Administrative Region, China, influenza detections decreased, while in the south of China an increase in influenza detections was seen. In South East Asia, influenza detections decreased in Thailand, but increased in Viet Nam. In this area, co-circulation of influenza A (H3N2) and influenza B virus was reported. In the Caribbean region of Central America and tropical South America countries, reported cases of influenza A infection remained at low levels among most Caribbean islands and Central American countries. Respiratory syncytial virus (RSV) continued to predominate, but the RSV activity largely remained within expected seasonal levels. Influenza activity peaked in the temperate countries of South America and in South Africa in late June. Temperate South American countries reported co-circulation of influenza B and A (H3N2) in most countries, and while RSV activity continued to predominate, it showed an overall decreasing trend. In Australia and New Zealand, numbers of influenza viruses detected and rates of influenza-like illness decreased. Co-circulation of influenza A (H1N1) pdm09, A (H3N2) and B viruses was reported in both countries.

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 9/1/13 |
|----------------------|--------------|-------------------------|
| Flu A | 0 (0%) | 3 (3%) |
| A (2009 H1N1) | 0 (0%) | 2 (2%) |
| A (H3) | 0 (0%) | 0 (0%) |
| A (H3N2) variant | 0 (0%) | 1 (1%) |
| Subtype pending | 0 (0%) | 0 (0%) |
| Flu B | 0 (0%) | 1 (1%) |
| Equivocal | 0 (0%) | 0 (0%) |
| Indeterminate | 0 (0%) | 0 (0%) |
| Negative | 28 (97%) | 104 (96%) |
| Total | 28 | 108 |

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 |
|---------------|-------------------|------------|----------------------|-------------------------|----------|
| 0-4 | 1 (50%) | 0 (0%) | * (0%) | 0 (0%) | 0 (0%) |
| 5-17 | 0 (0%) | 0 (0%) | * (0%) | 0 (0%) | 1 (100%) |
| 18-24 | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) |
| 25-49 | 1 (50%) | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) |
| 50-64 | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) |
| >64 | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) |
| Total | 2 | 0 | 1 | 0 | 1 |

* 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

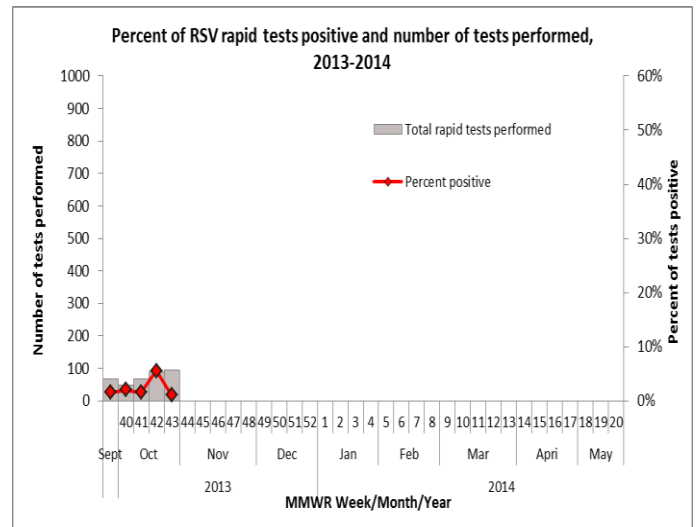
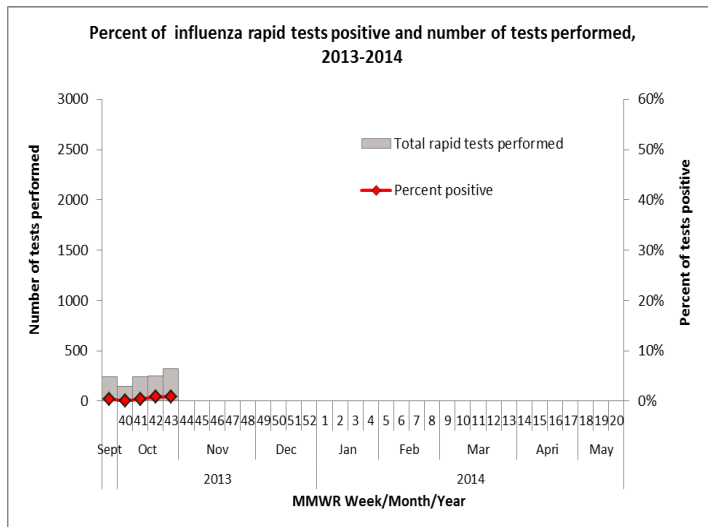
Table 3. Number of positive results for non-influenza respiratory virus isolated by Mercy Dunes in Sioux City and Iowa Methodist Medical Center

| | <i>Current week</i> | <i>Cumulative since 9/1/13</i> |
|--|---------------------|--------------------------------|
| <i>Adenovirus</i> | 2 | 10 |
| <i>Parainfluenza Virus Type 1</i> | 3 | 16 |
| <i>Parainfluenza Virus Type 2</i> | 0 | 0 |
| <i>Parainfluenza Virus Type 3</i> | 0 | 3 |
| <i>Parainfluenza Virus Type 4</i> | 1 | 7 |
| <i>Rhinovirus/Enterovirus</i> | 20 | 102 |
| <i>Respiratory syncytial virus (RSV)</i> | 0 | 0 |
| <i>human metapneumovirus (hMPV)</i> | 0 | 0 |

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 | 49 | 0 | 0 | 0 | 0.0% | 18 | 1 | 5.6% |
| Region 2 | 5 | 0 | 0 | 0 | 0.0% | 2 | 0 | 0.0% |
| Region 3 | 53 | 0 | 0 | 0 | 0.0% | 13 | 0 | 0.0% |
| Region 4 | 18 | 0 | 0 | 0 | 0.0% | 9 | 0 | 0.0% |
| Region 5 | 31 | 0 | 0 | 0 | 0.0% | 10 | 0 | 0.0% |
| Region 6 | 166 | 1 | 2 | 0 | 1.8% | 43 | 0 | 0.0% |

*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.



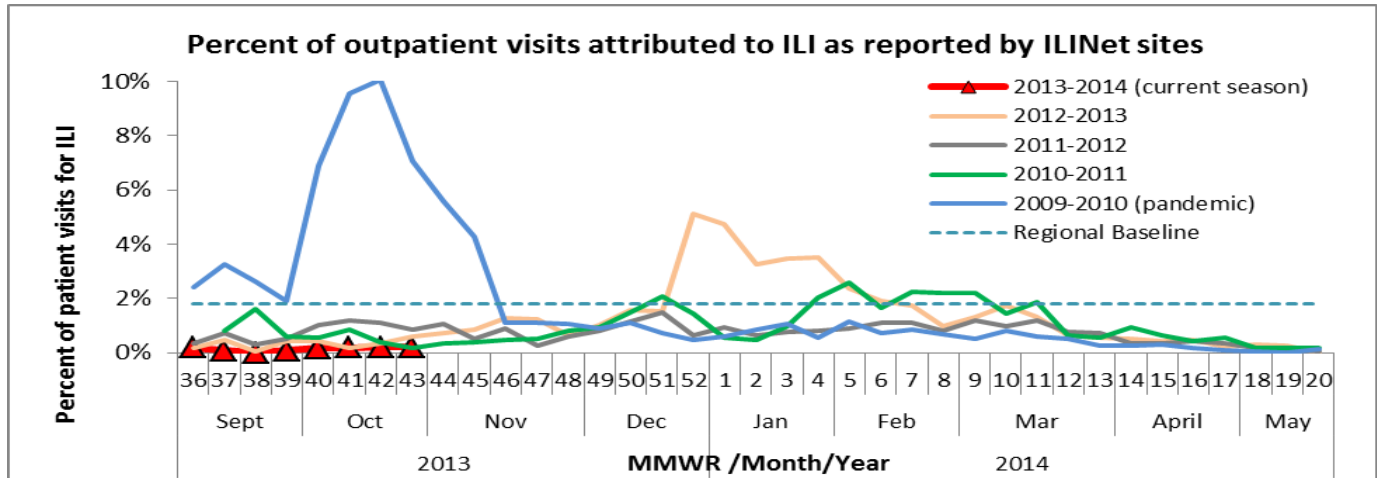
Outpatient health care provider surveillance program (ILINet)

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 for more information.

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

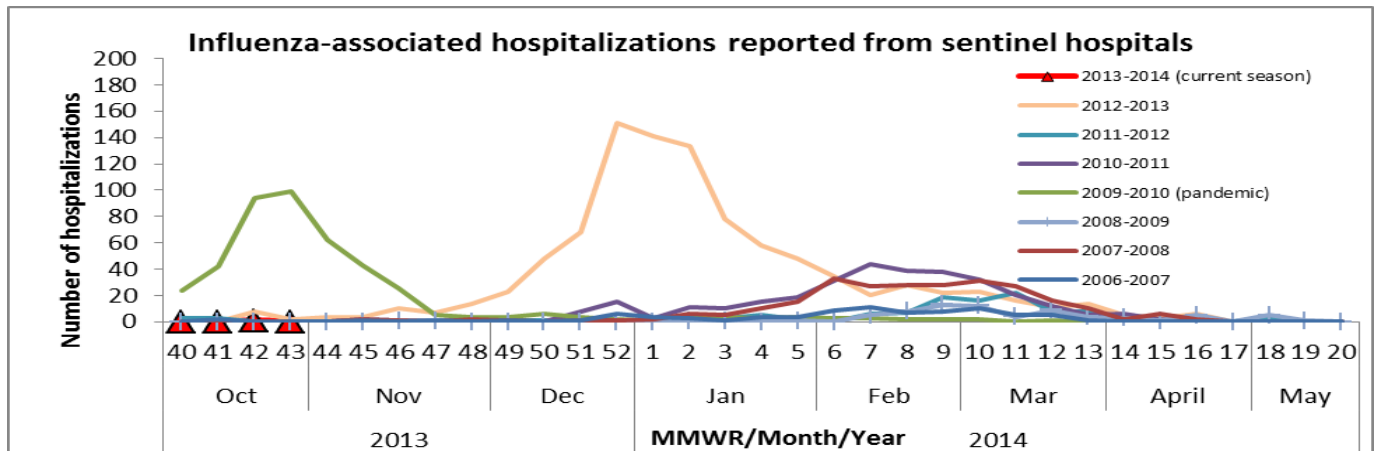
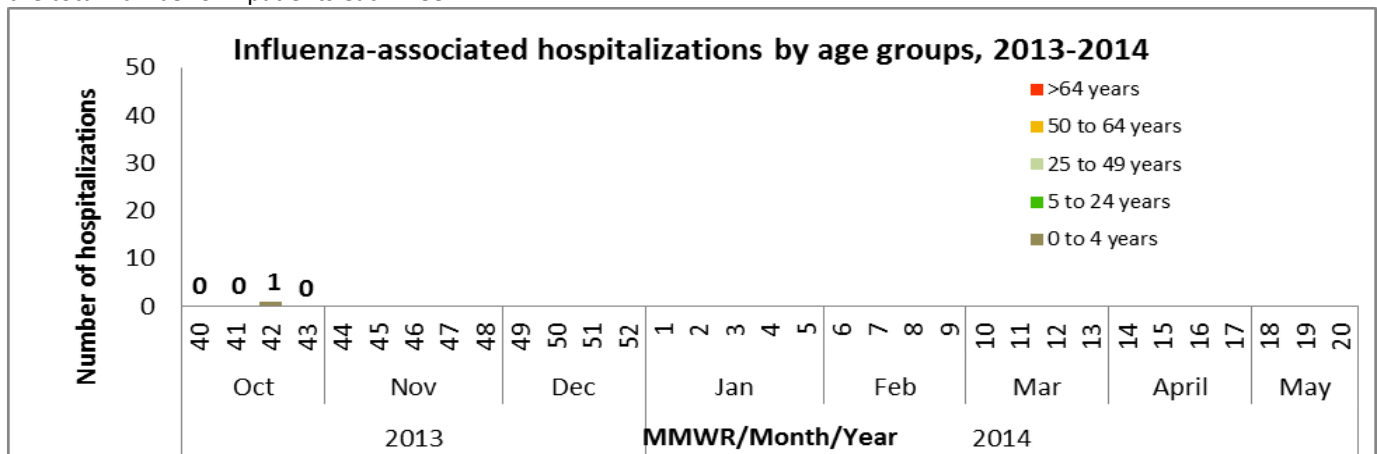
| Week | % ILI | Total ILI | Age 0-4 | Age 5-24 | Age 25-49 | Age 50-64 | Age > 64 |
|-------------------------------|-------|-----------|---------|----------|-----------|-----------|----------|
| Week 41, ending Oct. 12, 2013 | 0.19 | 71 | 26 | 32 | 7 | 1 | 5 |
| Week 42, ending Oct. 19, 2013 | 0.20 | 77 | 23 | 39 | 8 | 4 | 3 |
| Week 43, ending Oct. 26, 2013 | 0.21 | 83 | 21 | 34 | 15 | 11 | 2 |

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



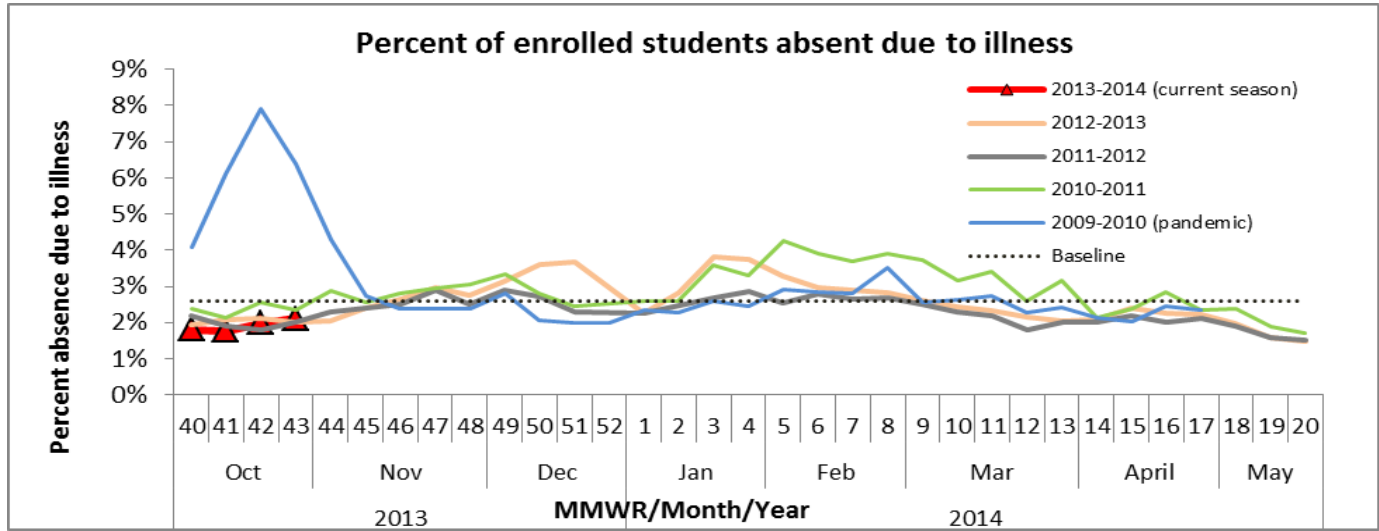
Influenza-associated hospitalizations

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



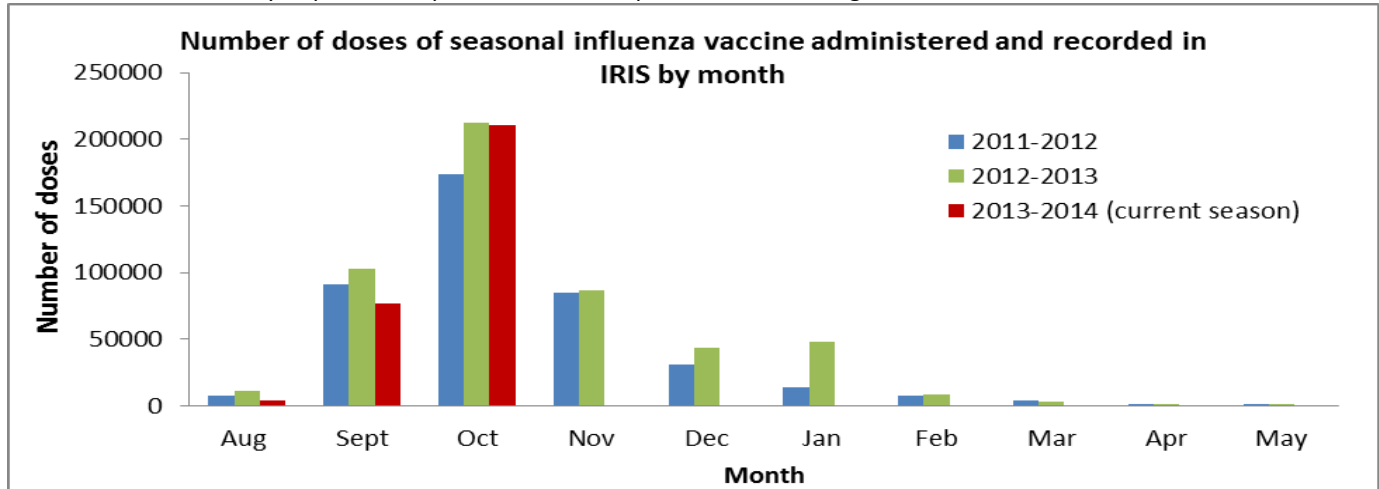
School surveillance program

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 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 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.

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