



Iowa Influenza Surveillance Network (IISN)

Influenza-like Illness (ILI) and Other Respiratory Viruses

Weekly Activity Report

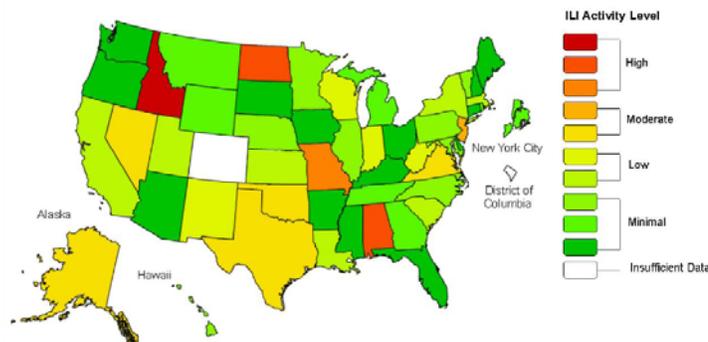
For the week ending March 12, 2011, Week 10

Quick Stats for this reporting week

| | |
|---|--------------------------------|
| Iowa activity level ¹ | Widespread |
| Percent of outpatient visits for ILI ² | 1.4% (threshold 2.1%) |
| Percent of influenza rapid test positive | 18.8% (290/1539) |
| Percent of RSV rapid tests positive | 31.9% (166/521) |
| Percent school absence due to illness | 3.2% |
| Number of schools with ≥10% absence due to illness | 8 |
| Influenza-associated hospitalizations ^{**} | 32 of 6343 inpatients surveyed |

**** Hospitalizations due to influenza are voluntarily reported through a weekly survey of 21 Iowa hospitals.**

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILInet
2010-11 Influenza Season Week 10 ending Mar 12, 2011



Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists*
Week ending March 12, 2011 - Week 10



Interactive web tool available at: <http://gis.cdc.gov/grasp/fluview/main.html>

*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 appears to be in decline, but remains widespread. In this reporting week, the State Hygienic Laboratory again isolated three different strains of influenza in Iowans - influenza A (H3N2), 2009 H1N1, and influenza B. All three strains are well matched with this year's influenza vaccine.

The proportion of visits due to influenza-like illness (ILI) has decreased to 1.4%, which is below the baseline of 2.1%. There were 32 new influenza-associated hospitalizations reported from sentinel hospitals this reporting week. Most of these new hospitalizations are occurring in people younger than 25 years of age. The percentage of influenza rapid tests that tested positive has decreased slightly from last week while the percentage of RSV tests that tested positive has increased slightly. Other respiratory viruses have also been identified in Iowa, including respiratory syncytial virus (RSV), parainfluenza 1, parainfluenza 2, parainfluenza 3, adenovirus, and rhinovirus. The percent of school absence and the number of schools with ≥10% absence due to illness have decreased from past week.

National activity summary - www.cdc.gov

Synopsis: During week 10 (March 6-12, 2011), influenza activity in the United States decreased.

¹ ***No Activity:** No laboratory-confirmed cases of influenza and no reported increase in the number of cases of influenza-like illness (ILI²).

Sporadic: Small numbers of 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.

- Of the 6,384 specimens tested by the U.S. World Health Organization and the National Respiratory and Enteric Virus Surveillance System collaborating laboratories and reported to CDC/Influenza Division, 1,346 (21.1%) were positive for influenza.
- The proportion of deaths attributed to pneumonia and influenza was at or above the epidemic threshold for the seventh consecutive week.
- Eleven influenza-associated pediatric deaths were reported, bringing the season total to 71. Four of these deaths were associated with an influenza B virus, three were associated with 2009 influenza A (H1N1) viruses, two were associated with influenza A (H3N2) viruses, and two were associated with an influenza A virus for which the subtype was not determined.
- The proportion of outpatient visits for influenza-like illness (ILI) was 3.0%, which is above the national baseline of 2.5%. Eight of the 10 regions (Regions 1, 2, 4, 5, 7, 8, 9 and 10) reported ILI at or above region-specific baseline levels. Four states experienced high ILI activity; six states experienced moderate ILI activity; 11 states experienced low ILI activity; 28 states and New York City experienced minimal ILI activity, and the District of Columbia and one state had insufficient data.
- The geographic spread of influenza in 31 states was reported as widespread; 15 states reported regional influenza activity; the District of Columbia and three states reported local influenza activity; Puerto Rico, the U.S. Virgin Islands and one state reported sporadic influenza activity, and Guam reported no influenza activity.

International activity summary - www.who.int

Overall, the northern hemisphere’s influenza season appears to be peaking or in decline in most areas, though with continuing active circulation particularly in North America and Eastern Europe. Influenza A(H3N2) comprises the largest proportion of influenza detections in North America. Although influenza A(H1N1)2009 has been the most commonly detected virus in Europe and northern Asia influenza type B has been increasing in Europe and is now the more common virus seen in many countries. The large majority of the viruses characterized are closely related to the vaccine strains included in the current seasonal vaccines. A small number of influenza type B of the Yamagata lineage are reported in North America and Europe, making up about 5 to 7% of B viruses detected

Laboratory surveillance program - Influenza and Other Respiratory Viruses

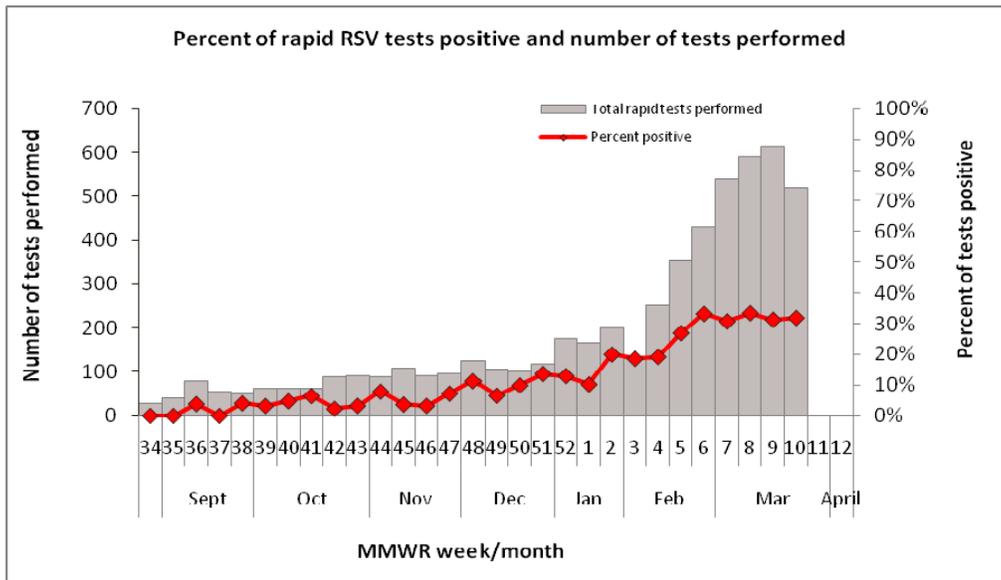
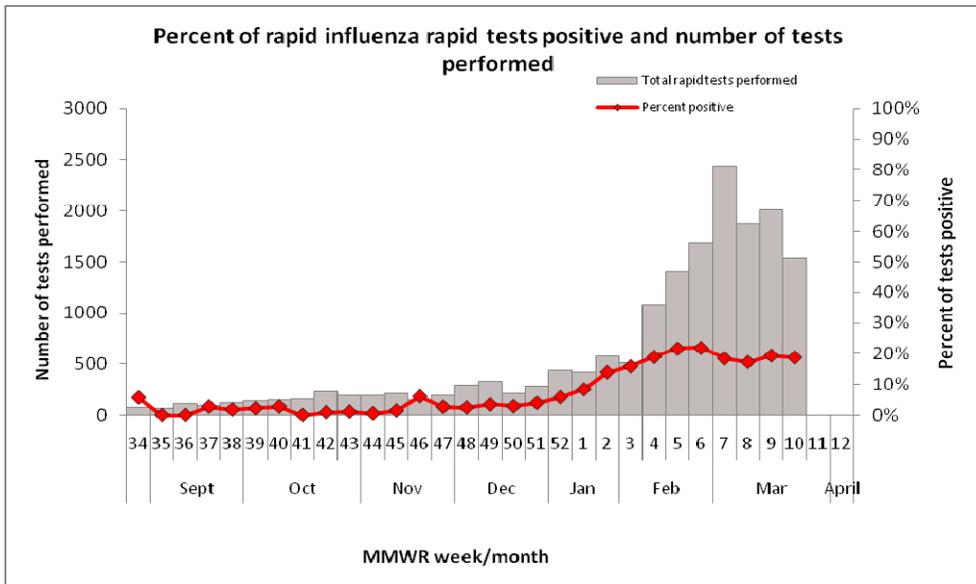
The State Hygienic Laboratory (SHL) is the primary lab testing and reporting influenza tests in Iowa. SHL reports the number of tests performed and the type and strain of positive tests to the influenza surveillance network several times every week. In addition, SHL surveys clinical and reference labs for the number of rapid-antigen tests performed and number positive weekly. This report also includes the positive virus cultures tests reported from the Dunes Medical Laboratories at Mercy Medical Center-Sioux City. The Mercy Medical Center-Sioux City reports the number of virus cultures performed, the number of virus cultures positive and negative, as well as the number of viral types every week.

Specimens tested by the State Hygienic Laboratory and Mercy Dunes in Sioux City

| Influenza viruses isolated 9/1/10 to present week | | | Influenza viruses by age group 9/1/10 to present week | | | | |
|---|---------------------|-------------------|---|--------------------------|-------------------|-----------------------------|--------------|
| | <i>Current week</i> | <i>Cumulative</i> | <i>Age group</i> | <i>Flu A (2009 H1N1)</i> | <i>Flu A (H3)</i> | <i>Flu A (no subtyping)</i> | <i>Flu B</i> |
| Flu A | 23 (39%) | 654 (23%) | 0-4 | 38 (14%) | 56 (17%) | 6 (13%) | 59 (17%) |
| Flu A (2009 H1N1) | 2 (3%) | 277 (10%) | 5-17 | 54 (20%) | 59 (18%) | 8 (17%) | 156 (46%) |
| Flu A (H3) | 11 (19%) | 330 (12%) | 18-24 | 88 (32%) | 22 (7%) | 5 (11%) | 50 (15%) |
| Subtyping not reported | 0 (0%) | 47 (2%) | 25-49 | 65 (23%) | 61 (19%) | 12 (25%) | 44 (13%) |
| Flu B | 10 (17%) | 339 (12%) | 50-64 | 28 (10%) | 30 (9%) | 6 (13%) | 12 (4%) |
| Indeterminate/Equivocal | 3 (5%) | 67 (2%) | >64 | 4 (1%) | 102 (31%) | 10 (21%) | 18 (5%) |
| Negative | 33 (56%) | 1805 (63%) | Total | 277 | 330 | 47 | 339 |
| Total | 59 | 2865 | | | | | |

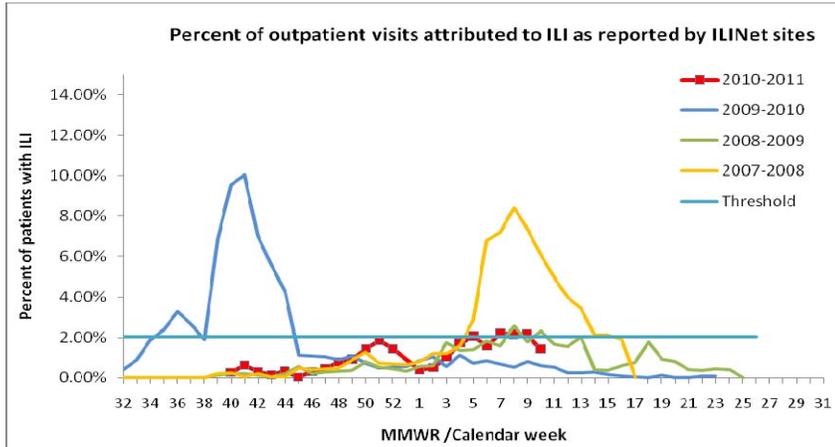
Number of positive results for non-influenza respiratory virus isolated since 9/1/10

| | <i>Current week</i> | <i>Cumulative</i> |
|--|---------------------|-------------------|
| Adenovirus Isolated | 4 | 64 |
| Enteroviruses (presumptive) | 0 | 4 |
| <i>Coxsackievirus A9 Isolated</i> | 0 | 2 |
| <i>Coxsackievirus B4 Isolated</i> | 0 | 1 |
| <i>Echovirus 9 Isolated</i> | 0 | 2 |
| Parainfluenza Virus Type 1 Isolated | 0 | 3 |
| Parainfluenza Virus Type 2 Isolated | 0 | 18 |
| Parainfluenza Virus Type 3 Isolated | 0 | 18 |
| Rhinovirus Isolated | 0 | 13 |
| Respiratory syncytial virus (RSV) | 5 | 21 |



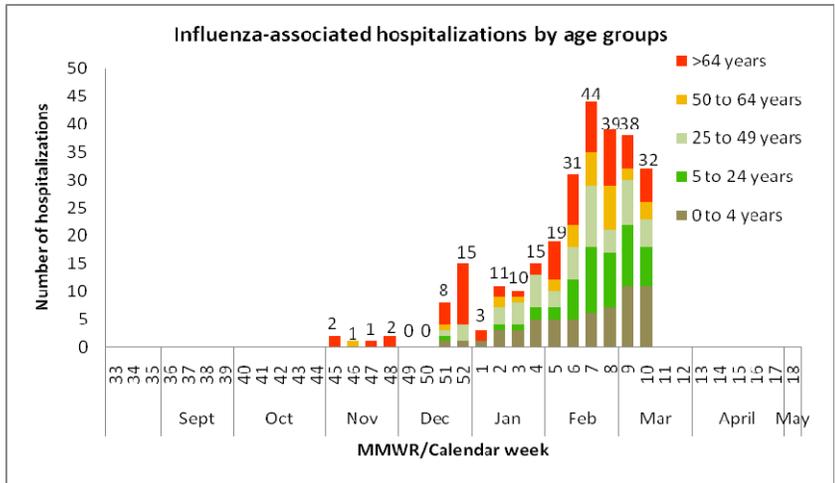
Outpatient health care provider surveillance program (ILINet)

There are approximately 10 outpatient health care provider surveillance sites surveying patient populations for ILI each week. These sites report the number of patients seen with influenza-like illness and the total number of patient visits each week.



Influenza-associated hospitalizations

Twenty-one Iowa hospitals participate in the IISN. These hospitals track and report the number of influenza-associated hospitalizations (diagnosed clinically or based on laboratory results) and the total number of inpatients.



School surveillance program

Forty-two Iowa schools participate in the IISN system for tracking and reporting absence due to all illness (including non-influenza illnesses). They also track total enrollment, and log the number of days school was in session each week.

