



Iowa Influenza Surveillance Network (IISN)

Influenza-like Illness (ILI) and Other Respiratory Viruses

Weekly Activity Report

For the week ending December 18, 2010, Week 50

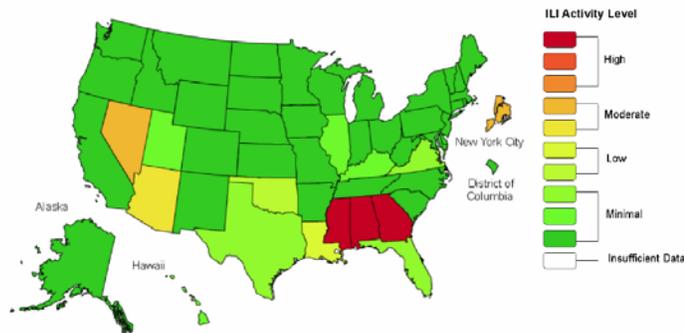
Quick Stats for this reporting week

| | |
|--|-------------------------------|
| Iowa activity level¹ | Sporadic |
| Percent of outpatient visits for ILI ² | 1.0% (threshold 2.1%) |
| Percent of influenza rapid test positive* | 2.8% |
| Percent of RSV rapid tests positive* | 9.3% |
| Percent school absence due to illness | 2.8% |
| Number of schools with ≥10% absence due to illness | 5 |
| Influenza-associated hospitalizations** | 0 of 6613 inpatients surveyed |

* Percent is based on three-week moving average

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

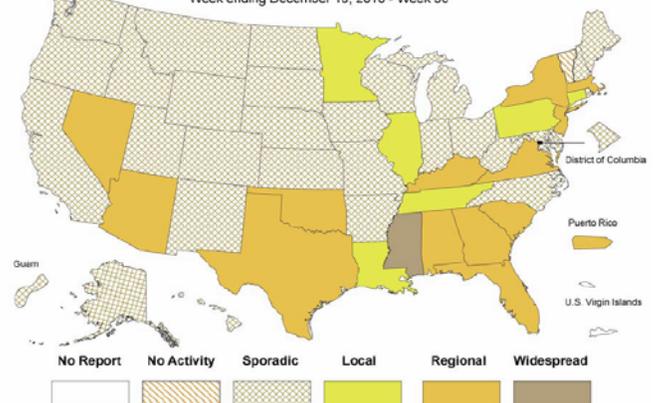
Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILInet
2010-11 Influenza Season Week 50 ending Dec 18, 2010



Interactive web tool available at: <http://gis.cdc.gov/qasmp/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.

Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists*
Week ending December 18, 2010 - Week 50



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

Iowa Statewide Activity Summary

Influenza activity is increasing in Iowa. Five new cases of influenza A and two new cases of influenza B were identified this reporting week. As of the reporting week, the State Hygienic Laboratory (SHL) identified three strains of influenza. They are influenza A (H3N2), 2009 H1N1, and influenza B, occurring in Iowa. All three strains are covered by this year's influenza vaccine.

The proportion of outpatient visits for influenza-like illness (ILI) was 1.0%, which is higher than the previous week, but below the threshold of 2.1%. The percent of RSV rapid tests positive has increased over the last three weeks. Other respiratory viruses recently identified in Iowa include respiratory syncytial virus (RSV), parainfluenza 1, parainfluenza 2, parainfluenza 3, adenovirus, and rhinovirus. Five schools reported >10% absence due to illness, but these reports include all illness types such as gastroenteritis.

National Activity Summary - www.cdc.gov

Synopsis: During week 50 (December 12-18, 2010), influenza activity in the United States increased.

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 4,733 specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories and reported to CDC/Influenza Division, 744 (15.7%) were positive for influenza.
- The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold.
- No influenza-associated pediatric deaths were reported.
- The proportion of outpatient visits for influenza-like illness (ILI) was 2.1%, which is below the national baseline of 2.5%. One of the 10 regions (Region 4) reported ILI above region specific baseline levels; three states (Alabama, Georgia, and Mississippi) experienced high ILI activity, New York City and two states experienced moderate ILI activity, two states experienced low ILI activity, and the District of Columbia and 43 states experienced minimal ILI activity.
- The geographic spread of influenza in one state (Mississippi) was reported as widespread. Puerto Rico and 13 states reported regional activity. Six states reported local activity. The District of Columbia, Guam, and 29 states reported sporadic activity. One state reported no influenza activity, and the U.S. Virgin Islands did not report.

International Activity Summary - www.who.int

Since the last update, increasing influenza activity has been observed across parts of Europe, most notably in the United Kingdom, indicating the start of wintertime influenza epidemics in several countries. Influenza activity is also increasing in other temperate regions of the Northern Hemisphere, including East Asia and North America where there is evidence of the beginnings of the local winter influenza season. Worldwide, influenza A (H3N2), B, and H1N1 (2009) viruses are co-circulating with significant regional heterogeneity in the predominant circulating influenza viruses.

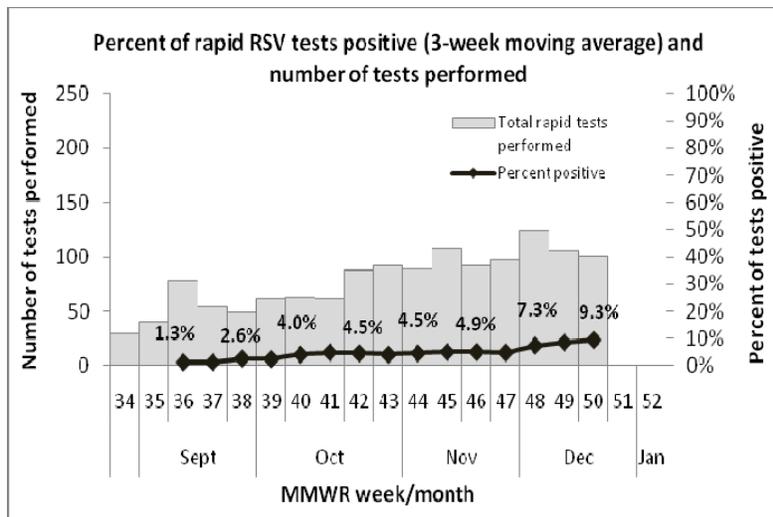
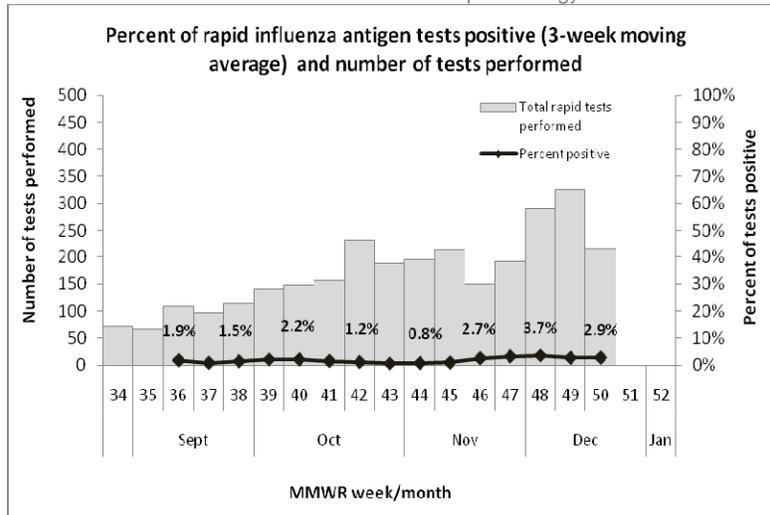
Laboratory surveillance program - Influenza and Other Respiratory Viruses

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. Starting from this reporting week, this report also includes the virus cultures tests positive 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

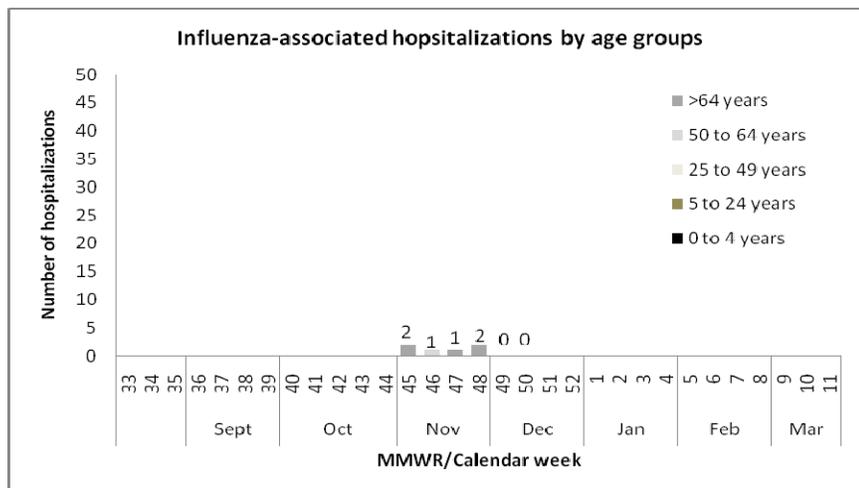
| Influenza viruses isolated 9/1/10 to present week | | |
|---|---------------------|-------------------|
| | <i>Current week</i> | <i>Cumulative</i> |
| Flu A | 5 | 13 |
| Flu A (2009 H1N1) | 0 | 1 |
| Flu A (H3) | 0 | 3 |
| Subtyping not reported | 5 | 9 |
| Flu B | 2 | 7 |
| Indeterminate/Equivocal | 0 | 19 |
| Negative | 30 | 817 |
| Total | 37 | 856 |

| Number of positive results for non-influenza respiratory virus isolated since 9/1/10 | | |
|--|---------------------|-------------------|
| | <i>Current week</i> | <i>Cumulative</i> |
| Adenovirus Isolated | 2 | 20 |
| 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 | 1 | 1 |
| Parainfluenza Virus Type 2 Isolated | 0 | 14 |
| Parainfluenza Virus Type 3 Isolated | 1 | 6 |
| Rhinovirus Isolated | 0 | 13 |
| Respiratory syncytial virus (RSV) | 0 | 1 |



Influenza-associated hospitalizations

Twenty-one Iowa hospitals participate in the IISN. They track and report the number of influenza-associated hospitalizations. In the graph below, “Number of hospitalizations” relates to those that are considered influenza-associated with laboratory confirmation (rapid antigen results included) of influenza infection. They also include influenza illness diagnosed by a health care provider.



School surveillance program

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

