



Iowa Influenza Surveillance Network (IISN)

Influenza-like Illness (ILI) and Other Respiratory Viruses

Weekly Activity Report

For the week ending February 18, 2012, Week 7

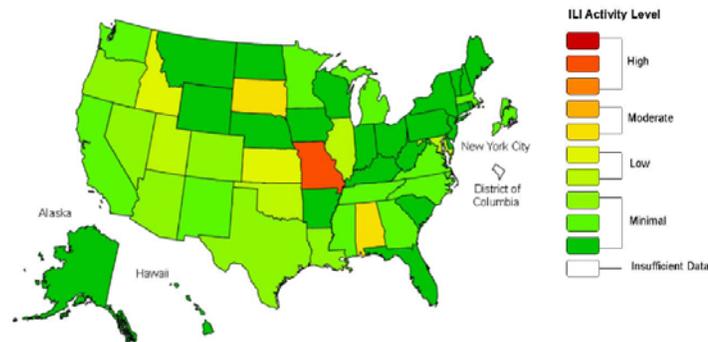
Quick Stats for this reporting week

Iowa activity level ¹	Regional
Percent of outpatient visits for ILI ²	0.8% (baseline 2.3%)
Percent of influenza rapid test positive	8.2% (43/526)
Percent of RSV rapid tests positive	33.0% (100/303)
Percent school absence due to illness	2.7%
Number of schools with ≥10% absence due to illness	2
Influenza-associated hospitalizations*	6/1588 inpatients surveyed
Influenza-associated pediatric mortality**	0

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

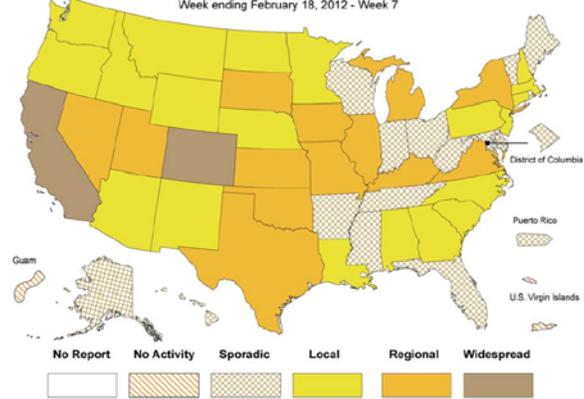
**CDC asks states to report any pediatric death (<18 years old) associated with influenza

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet
2011-12 Influenza Season Week 7 ending Feb 18, 2012



*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 February 18, 2012 - Week 7



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

Iowa statewide activity summary

Influenza activity in Iowa remains regional with increases in activity in the northwest and central east regions of the state. In this reporting week, the State Hygienic Laboratory confirmed 37 seasonal influenza cases including 31 influenza A (H3) and four influenza A (2009 H1N1). Subtyping is pending on two specimens that tested positive for influenza A. The proportion of outpatient visits due to influenza-like illness (ILI) increased slightly to 0.8 percent, which is below the regional baseline of 2.3 percent. The percent of both influenza and respiratory syncytial virus (RSV) rapid tests that tested positive increased from the previous week. There were six influenza-associated hospitalizations reported from sentinel hospitals for this reporting period. Two schools (one in Buchanan County and one in Appanoose County) reported 10 percent or greater absenteeism. There were also 17 cases of RSV and one human metapneumovirus detected in this reporting week. For the season, other respiratory viruses identified include rhinovirus, adenovirus, parainfluenza 1-2, RSV, and human metapneumovirus (hMPV).

National activity summary - www.cdc.gov

Synopsis: During week 7 (February 12-18, 2012), influenza activity in the United States increased slightly, but remained relatively low.

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.

- **U.S. Virologic Surveillance:** Of the 4,269 specimens tested by the U.S. World Health Organization and National Respiratory and Enteric Virus Surveillance System collaborating laboratories and reported to CDC/Influenza Division, 614 (14.4 percent) were positive for influenza.
- **Pneumonia and Influenza (P&I) Mortality Surveillance:** The proportion of deaths attributed to P&I was below the epidemic threshold.
- **Influenza-associated Pediatric Mortality:** No influenza-associated pediatric deaths were reported.
- **Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 1.9 percent, which is below the national baseline of 2.4 percent. Regions 5 and 7 reported ILI at or above region-specific baseline levels. One state experienced high ILI activity; 2 states experienced moderate ILI activity; 6 states experienced low ILI activity; New York City and 41 states experienced minimal ILI activity, and the District of Columbia had insufficient data.
- **Geographic Spread of Influenza:** Two states reported widespread geographic activity; 13 states reported regional influenza activity; 20 states reported local activity; the District of Columbia, Puerto Rico, and 15 states reported sporadic activity, and Guam and the U.S. Virgin Islands reported no influenza activity.

International activity summary - www.who.int

Influenza activity in the temperate regions of the northern hemisphere remains low overall. It has continued to increase in the United States and Canada, though overall activity is low. Some countries of Western Europe, North Africa, and northern China appear to have reached peak transmission but activity continues to increase in Eastern Europe. The levels of both mild and severe disease have been relatively low compared to previous years in most areas reporting. Countries in the tropical zone reported low levels of influenza activity with the exception of a few countries in the Americas and parts of southern Asia. The most commonly detected virus type or subtype throughout the northern hemisphere temperate zone has been influenza A (H3N2) with the exception of Mexico, where influenza A (H1N1) pdm09 is the predominant subtype circulating, and China and the surrounding countries which are reporting a predominance of influenza type B. Notable differences have been reported in the distribution of viruses in severe cases and between age groups. In Canada, influenza A (H1N1) pdm09 accounted for 27 percent of all influenza A viruses that have been subtyped in <5 year olds, but only 5 percent of subtyped influenza A viruses in cases over the age of 65 years. In Europe, influenza A (H1N1) pdm09 was disproportionately found in cases admitted to hospital for severe acute respiratory infection compared to outpatient cases of influenza-like illness (13-20 percent vs. ~1.5 percent respectively). Nearly all influenza A viruses detected were antigenically related to the viruses contained in the current northern hemisphere trivalent vaccine. Oseltamivir resistance continues to be observed at very low levels and has not increased notably over levels reported in previous seasons.

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 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

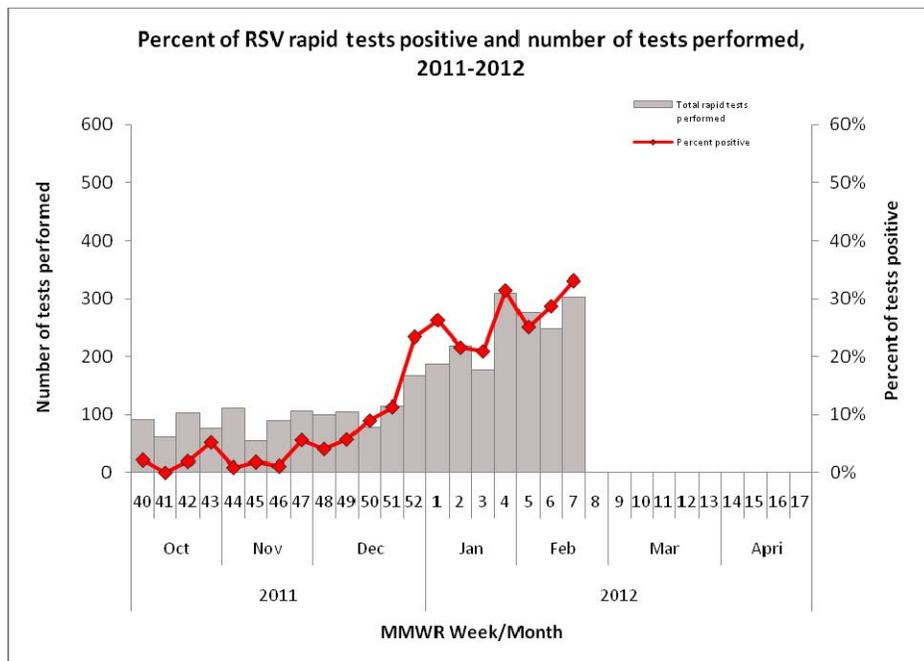
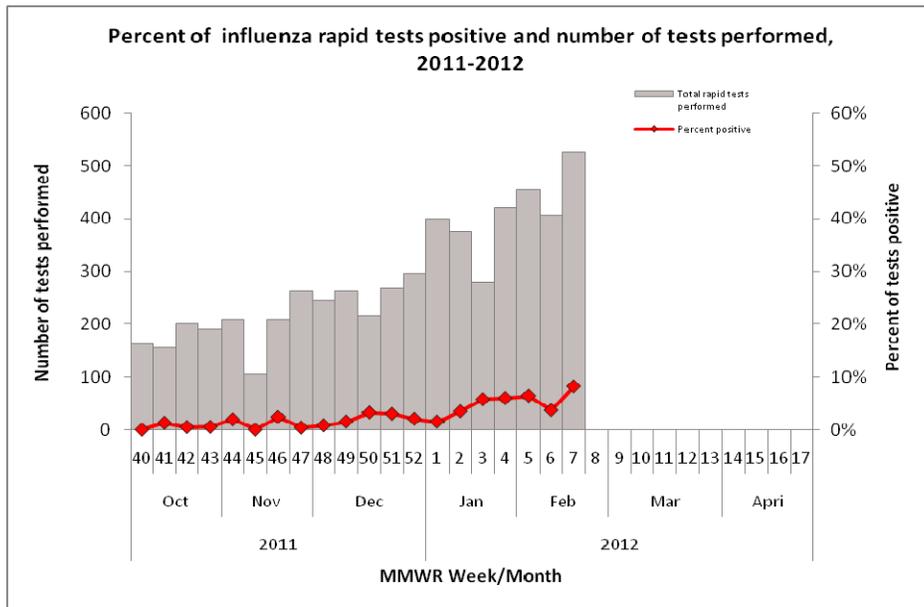
	<i>Current week</i>	<i>Cumulative</i>
Flu A	37 (49%)	158 (23%)
Flu A (2009 H1N1)	4 (5%)	10 (2%)
Flu A (H3)	31 (41%)	143 (21%)
Novel A (H3N2)	0 (0%)	3 (<1%)
Subtyping not reported	2 (3%)	2 (<1%)
Flu B	0 (0%)	6 (1%)
Equivocal	0 (0%)	0 (0%)
Indeterminate	0 (0%)	6 (1%)
Negative	39 (51%)	508 (75%)
Total	76	678

<i>Age group</i>	<i>Flu A (2009 H1N1)</i>	<i>Flu A (H3)</i>	<i>Novel A (H3N2)</i>	<i>Flu A (no typing)</i>	<i>Flu B</i>
0-4	2 (20%)	28 (20%)	* (*%)	0 (0%)	1 (17%)
5-17	3 (30%)	42 (30%)	* (*%)	0 (0%)	0 (0%)
18-24	1 (10%)	11 (8%)	0 (0%)	0 (0%)	1 (17%)
25-49	4 (40%)	33 (23%)	0 (0%)	0 (0%)	1 (17%)
50-64	0 (0%)	16 (11%)	0 (0%)	1 (50%)	3 (50%)
>64	0 (0%)	12 (8%)	0 (0%)	1 (50%)	0 (0%)
Total	10	143	3	2	6

* Counts of three or less of reportable diseases are suppressed to protect confidentiality. Note that counts may not add up to the total due to missing age information

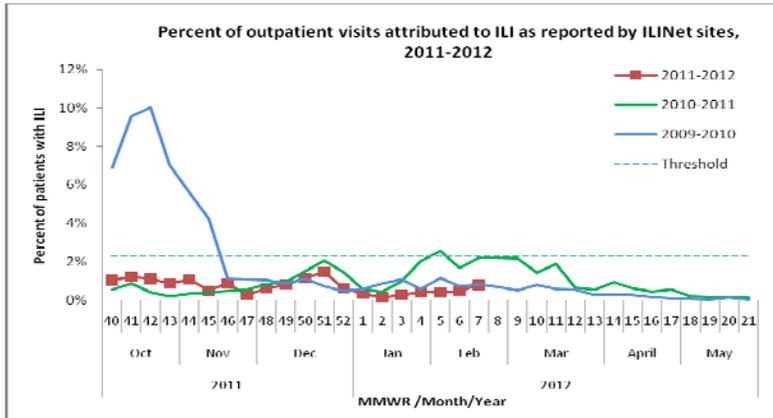
Table 3. Number of positive results for non-influenza respiratory virus isolated since 10/2/11 by the State Hygienic Laboratory, Mercy Dunes in Sioux City, and Iowa Methodist Medical Center

	<i>Current week</i>	<i>Cumulative</i>
<i>Adenovirus</i>	0	20
<i>Parainfluenza Virus Type 1</i>	0	28
<i>Parainfluenza Virus Type 2</i>	0	8
<i>Parainfluenza Virus Type 3</i>	0	0
<i>Rhinovirus</i>	0	35
<i>Respiratory syncytial virus (RSV)</i>	17	72
<i>human metapneumovirus (hMPV)</i>	1	11



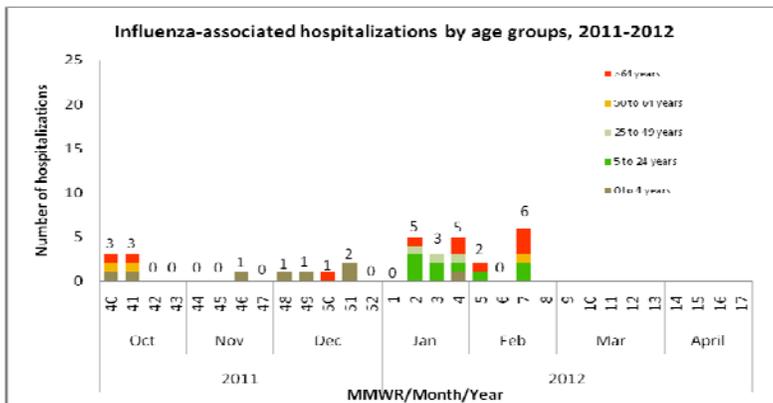
Outpatient health care provider surveillance program (ILINet)

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.



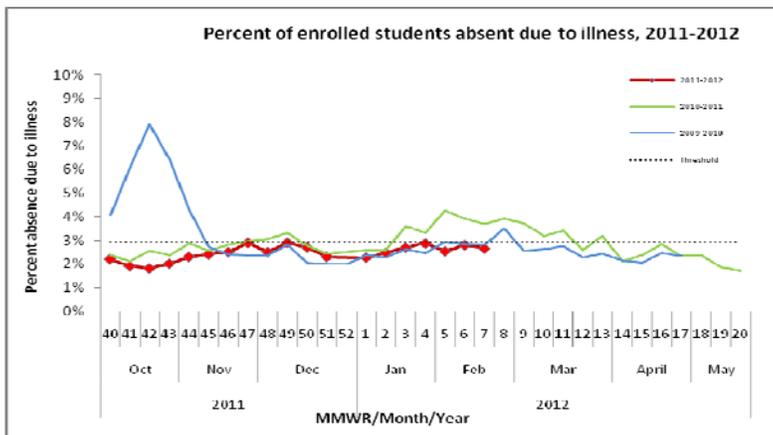
Influenza-associated hospitalizations

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

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



Regional activity

Region 1 (Central)	
Percent of outpatient visits for ILI*	0.6%
Percent of influenza rapid test positive	10.4% (8/77)
Percent of RSV rapid tests positive	49.2% (29/59)
Schools with ≥10% absence due to illness	0

Region 2 (North Central)	
Percent of outpatient visits for ILI*	0.2%
Percent of influenza rapid test positive	0.0% (0/17)
Percent of RSV rapid tests positive	37.5% (9/24)
Schools with ≥10% absence due to illness	0

Region 3 (Northwest)	
Percent of outpatient visits for ILI*	5.8%
Percent of influenza rapid test positive	18.6% (21/113)
Percent of RSV rapid tests positive	35.0% (28/80)
Schools with ≥10% absence due to illness	0

Region 4 (Southwest)	
Percent of outpatient visits for ILI*	0.0%
Percent of influenza rapid test positive	13.6% (11/81)
Percent of RSV rapid tests positive	20.8% (5/24)
Schools with ≥10% absence due to illness	0

Region 5 (Southeast)	
Percent of outpatient visits for ILI*	0.2%
Percent of influenza rapid test positive	0.0% (0/25)
Percent of RSV rapid tests positive	25.0% (4/16)
Schools with ≥10% absence due to illness	1

Region 6 (East Central)	
Percent of outpatient visits for ILI*	1.1%
Percent of influenza rapid test positive	1.4% (3/213)
Percent of RSV rapid tests positive	25.0% (25/100)
Schools with ≥10% absence due to illness	1

* ILI data are voluntarily reported from the outpatient health care providers that participate in the ILINet. Some regions may have one or two clinics reporting for the week.

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

