



Iowa Influenza Surveillance Network (IISN)

Influenza-like Illness (ILI) and Other Respiratory Viruses

Weekly Activity Report

For the week ending March 3, 2012, Week 9

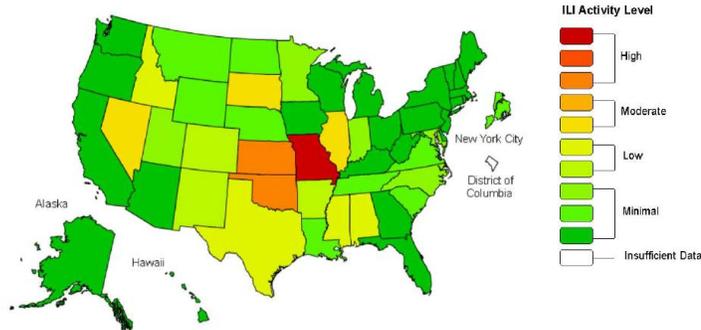
Quick Stats for this reporting week

Iowa activity level ¹	Regional
Percent of outpatient visits for ILI ²	0.7% (baseline 2.3%)
Percent of influenza rapid test positive	13.2% (95/718)
Percent of RSV rapid tests positive	34.1% (124/364)
Percent school absence due to illness	2.5%
Number of schools with ≥10% absence due to illness	1
Influenza-associated hospitalizations*	19/6812 inpatients surveyed
Influenza-associated pediatric mortality**	0

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

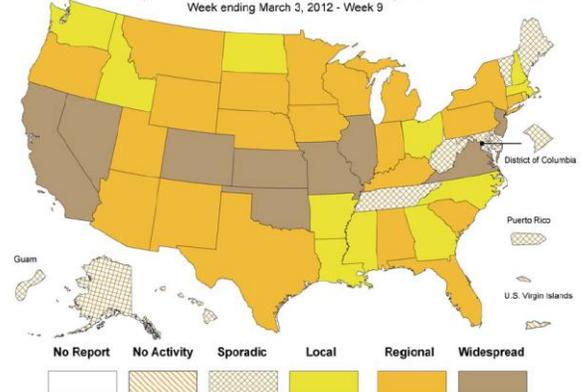
**CDC asks states to report any pediatric death (<18 years old) associated with influenza

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet
2011-12 Influenza Season Week 9 ending Mar 03, 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 March 3, 2012 - Week 9



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

Iowa statewide activity summary

Influenza activity in Iowa is increasing. In this reporting week, the State Hygienic Laboratory (SHL) confirmed 143 seasonal influenza cases, including 78 influenza A (H3), 59 influenza A (subtype pending), five influenza A (2009 H1N1), and one influenza B. The proportion of outpatient visits due to influenza-like illness (ILI) was 0.7 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 19 influenza-associated hospitalizations reported from sentinel hospitals for this reporting period. Most of these hospitalizations occurred in people under 25 and over 65 years of age. One school in Linn County reported 10 percent or greater absenteeism due to illness. There were also nine cases of RSV and one adenovirus 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 9 (February 26 – March 3, 2012), influenza activity is elevated in some areas in the United States, but influenza-like illness remains relatively low nationally.

- **U.S. Virologic Surveillance:** Of the 4,776 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, 1,019 (21.3 percent) were positive for influenza.

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.

- **Pneumonia and Influenza (P&I) Mortality Surveillance:** The proportion of deaths attributed to P&I was below the epidemic threshold.
- **Influenza-associated Pediatric Mortality:** One influenza-associated pediatric death was reported and was associated with a seasonal influenza A (H3) virus.
- **Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 2.0 percent, which is below the national baseline of 2.4 percent. Regions 5 and 7 reported ILI above region-specific baseline levels. Three states experienced high ILI activity; three states experienced moderate ILI activity; seven states experienced low ILI activity; New York City and 37 states experienced minimal ILI activity, and the District of Columbia had insufficient data.
- **Geographic Spread of Influenza:** Nine states reported widespread geographic activity; 21 states reported regional influenza activity; 12 states reported local activity; the District of Columbia, Guam, Puerto Rico, and eight states reported sporadic activity, 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 is low but increasing in North America and most of Europe. A few countries of southern Europe appear to have now peaked along with the countries of northern Africa and the Middle East. Countries in the tropical zone reported low levels of influenza activity. Influenza activity in the temperate countries of the southern hemisphere is at inter-seasonal levels. The most commonly detected virus type or subtype throughout the northern hemisphere temperate zone has been influenza A (H3N2). Mexico is the exception, where influenza A (H1N1) pdm09 is the predominant subtype circulating and China and the surrounding countries where influenza type B is predominant. Influenza type B has been increasing in recent weeks in Canada as well. Oseltamivir resistance has not increased notably over levels reported in previous seasons. While most of the viruses characterized early this season were antigenically related viruses in the current trivalent vaccine, the vaccine strain selection committee in a meeting held on 20 - 24 February noted that there is evidence of increasing antigenic and genetic drift in circulating influenza A (H3N2) recently and that the proportion of type B viruses that are from the Yamagata lineage of type B has been increasing relative to the Victoria lineage. The committee therefore recommended a change in the composition of the next northern hemisphere vaccine formulation to include an A/Victoria/361/2011 (H3N2)-like virus and a B/Wisconsin/1/2010-like virus of the Yamagata lineage, and continuing the inclusion of an A/California/7/2009 (H1N1)pdm09-like virus.

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

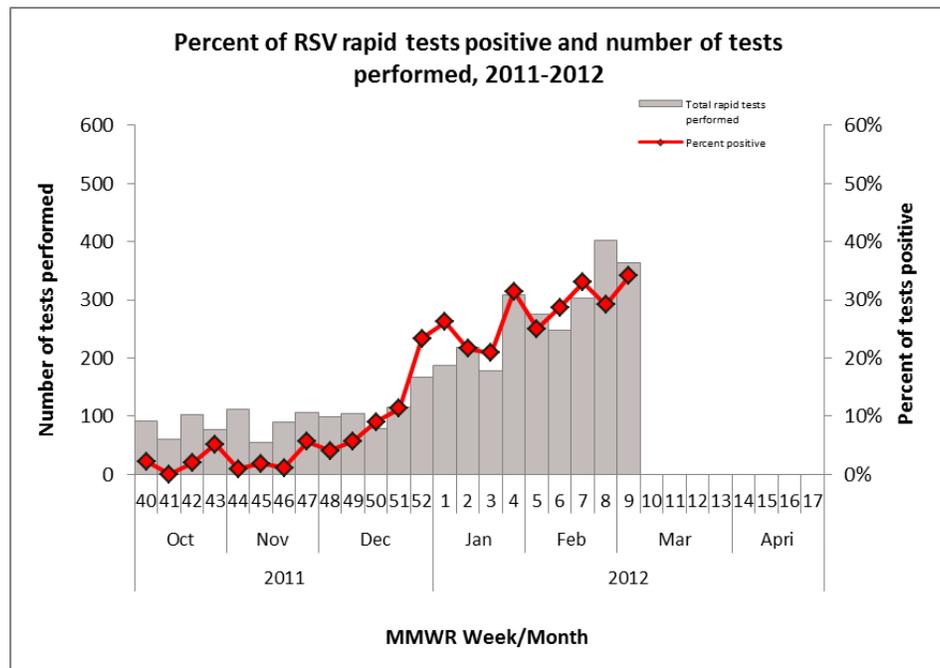
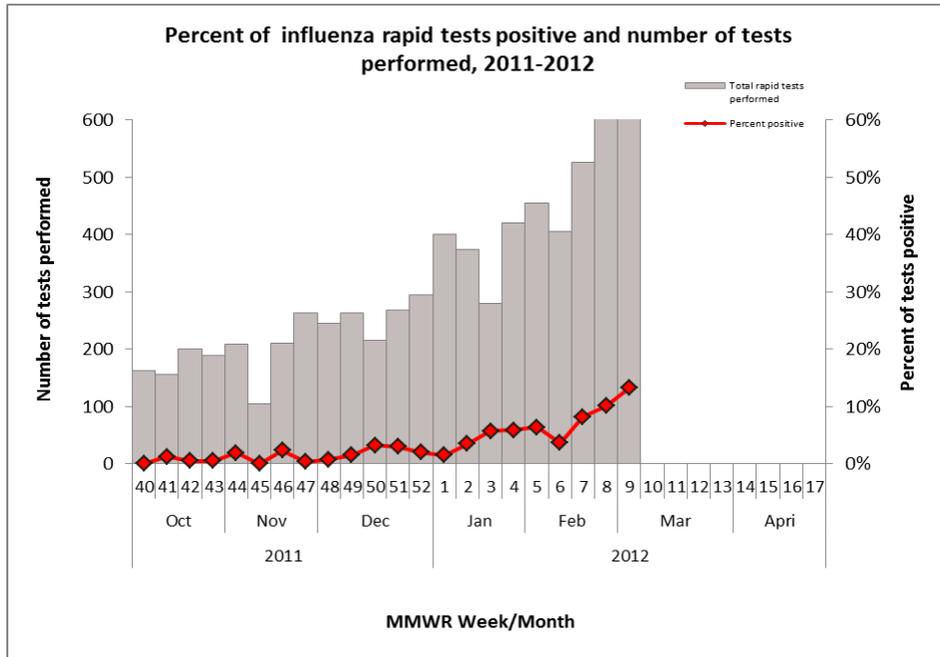
	<i>Current week</i>	<i>Cumulative</i>
Flu A	142 (72%)	358 (35%)
Flu A (2009 H1N1)	5 (2%)	21 (2%)
Flu A (H3)	78 (39%)	264 (26%)
Novel A (H3N2)	0 (0%)	3 (<1%)
Subtyping not reported	59 (30%)	70 (7%)
Flu B	1 (<1%)	7 (1%)
Equivocal	1 (<1%)	1 (<1%)
Indeterminate	0 (0%)	6 (<1%)
Negative	55 (28%)	651 (64%)
Total	199	1023

<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	3 (14%)	61 (23%)	* (*%)	17 (24%)	2 (29%)
5-17	7 (33%)	75 (28%)	* (*%)	13 (18%)	0 (0%)
18-24	3 (14%)	21 (8%)	0 (0%)	4 (6%)	1 (14%)
25-49	8 (38%)	57 (22%)	0 (0%)	15 (21%)	1 (14%)
50-64	0 (0%)	28 (11%)	0 (0%)	10 (14%)	3 (43%)
>64	0 (0%)	21 (8%)	0 (0%)	11 (16%)	0 (0%)
Total	21	264	3	70	7

* 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

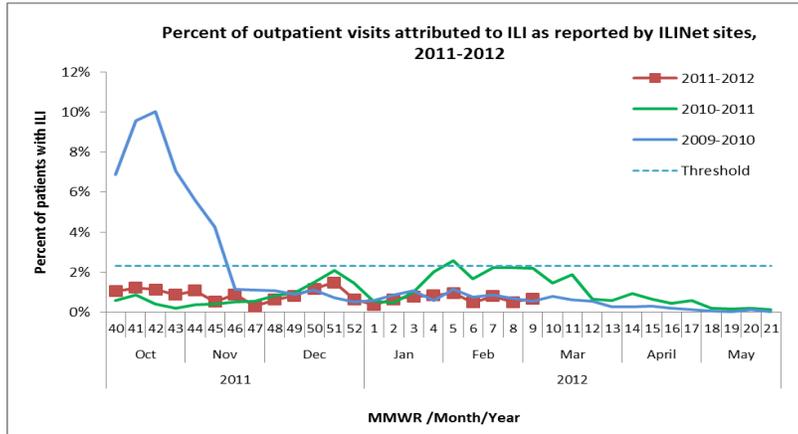
Table 3. Number of positive results for non-influenza respiratory virus isolated since 10/2/11 by the State Hygienic Laboratory, Mercy Dunes in Sioux City, and Iowa Methodist Medical Center

	<i>Current week</i>	<i>Cumulative</i>
<i>Adenovirus</i>	1	23
<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>	9	100
<i>human metapneumovirus (hMPV)</i>	0	11



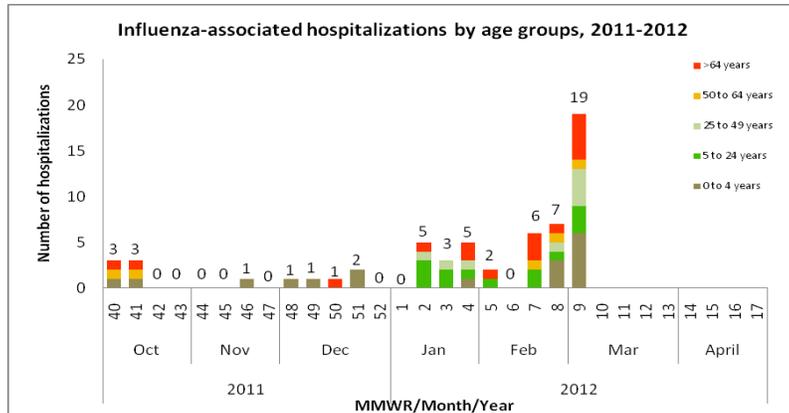
Outpatient health care provider surveillance program (ILINet)

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.



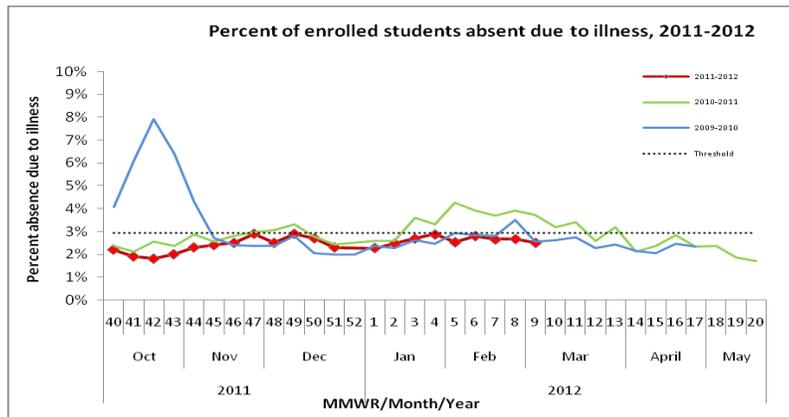
Influenza-associated hospitalizations

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*	0.3%
Percent of influenza rapid test positive	12.0% (14/117)
Percent of RSV rapid tests positive	23.5% (12/51)
Schools with ≥10% absence due to illness	0

Region 2 (North Central)	
Percent of outpatient visits for ILI*	1.1%
Percent of influenza rapid test positive	5.6% (1/18)
Percent of RSV rapid tests positive	42.9% (15/35)
Schools with ≥10% absence due to illness	0

Region 3 (Northwest)	
Percent of outpatient visits for ILI*	5.7%
Percent of influenza rapid test positive	24.7% (40/162)
Percent of RSV rapid tests positive	27.5% (14/51)
Schools with ≥10% absence due to illness	0

Region 4 (Southwest)	
Percent of outpatient visits for ILI*	1.9%
Percent of influenza rapid test positive	18.7% (14/75)
Percent of RSV rapid tests positive	22.7% (5/22)
Schools with ≥10% absence due to illness	0

Region 5 (Southeast)	
Percent of outpatient visits for ILI*	0.0%
Percent of influenza rapid test positive	12.9% (9/70)
Percent of RSV rapid tests positive	35.9% (14/39)
Schools with ≥10% absence due to illness	0

Region 6 (East Central)	
Percent of outpatient visits for ILI*	0.8%
Percent of influenza rapid test positive	6.2% (17/276)
Percent of RSV rapid tests positive	38.6% (64/166)
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

