



Iowa Influenza Surveillance Network (IISN)

Influenza-like Illness (ILI) and Other Respiratory Viruses

Weekly Activity Report

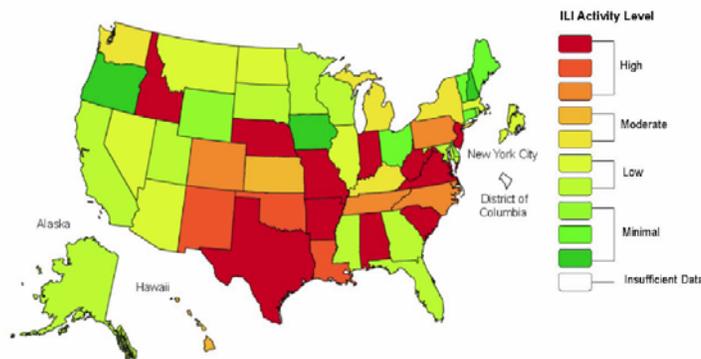
For the week ending February 26, 2011, Week 8

Quick Stats for this reporting week

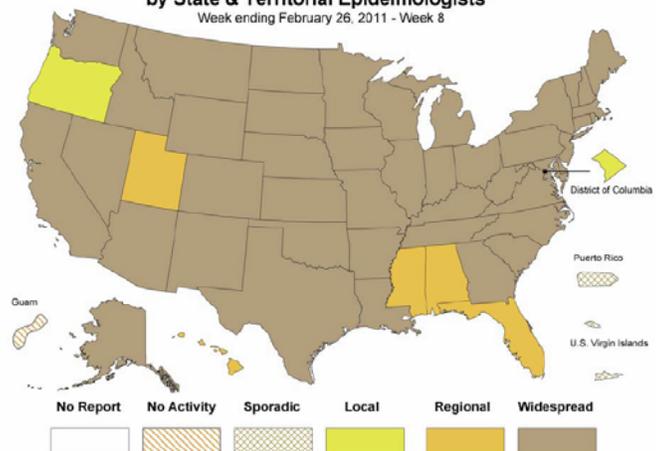
Iowa activity level ¹	Widespread
Percent of outpatient visits for ILI ²	2.2% (threshold 2.1%)
Percent of influenza rapid test positive	17.5% (325/1872)
Percent of RSV rapid tests positive	33.4% (197/590)
Percent school absence due to illness	3.9%
Number of schools with ≥10% absence due to illness	30
Influenza-associated hospitalizations ^{**}	39 of 6258 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 8 ending Feb 26, 2011



Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists*
Week ending February 26, 2011 - Week 8



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 remains high and widespread. In this reporting week, the State Hygienic Laboratory (SHL) 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) was 2.2%, which is above the baseline of 2.1%. There were 39 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 and older than 64 years of age. The percent of influenza rapid tests that tested positive has decreased from previous several weeks while the percent of the RSV tests positive has increased slightly. Other respiratory viruses have been identified in Iowa include respiratory syncytial virus (RSV), parainfluenza 1, parainfluenza 2, parainfluenza 3, adenovirus, and rhinovirus.

National activity summary - www.cdc.gov

Synopsis: During week 8 (February 20-26, 2011), influenza activity in the United States remained elevated.

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 7,543 specimens tested by the U.S. World Health Organization and National Respiratory and the Enteric Virus Surveillance System collaborating laboratories and reported to CDC/Influenza Division, 2,106 (27.9%) were positive for influenza.
- The proportion of deaths attributed to pneumonia and influenza (P&I) was at the epidemic threshold.
- Fourteen influenza-associated pediatric deaths were reported bringing the season total to 55. Four of these deaths were associated with an influenza B virus, four were associated with a 2009 influenza A (H1N1) virus, two were associated with an influenza A (H3) virus, and four 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 4.0%, which is above the national baseline of 2.5%. All 10 regions reported ILI above region-specific baseline levels. Eighteen states experienced high ILI activity; six states experienced moderate ILI activity; New York City and 16 states experienced low ILI activity; 10 states experienced minimal ILI activity, and the District of Columbia had insufficient data.
- The geographic spread of influenza in 44 states was reported as widespread; five states reported regional influenza activity; the District of Columbia and one state reported local influenza activity; Puerto Rico and the U.S. Virgin Islands reported sporadic influenza activity, and Guam reported no influenza activity.

International activity summary - www.who.int

Influenza activity is increasing in parts of North America coincident with increasing numbers of detections of influenza A(H1N1)2009 and influenza type B, though the dominant virus in North America is still currently influenza A(H3N2). Rates of pneumonia and influenza mortality in the United States of America (USA) have remained above the epidemic threshold for the past two to three weeks. Transmission of influenza appears to have peaked in much of Western Europe, though case counts of severe and fatal cases continue to accumulate. The appearance of severe cases in Europe is similar to the 2009-2010 season; the highest number have been in the age group from 15-64 years, 60-70% have a pre-existing medical condition associated with increased risk of severe influenza, and most have not been vaccinated. Transmission in tropical zones of the world is sporadic (the Americas) or low (tropical Asia). Countries in the southern temperate zone have little influenza activity; however Australia continues to have transmission of influenza A at low-levels. The majority of the viruses characterized from North America and Europe are closely related to the vaccine viruses for the current seasonal vaccines, though small numbers of influenza type B of the Yamagata lineage are reported in both regions.

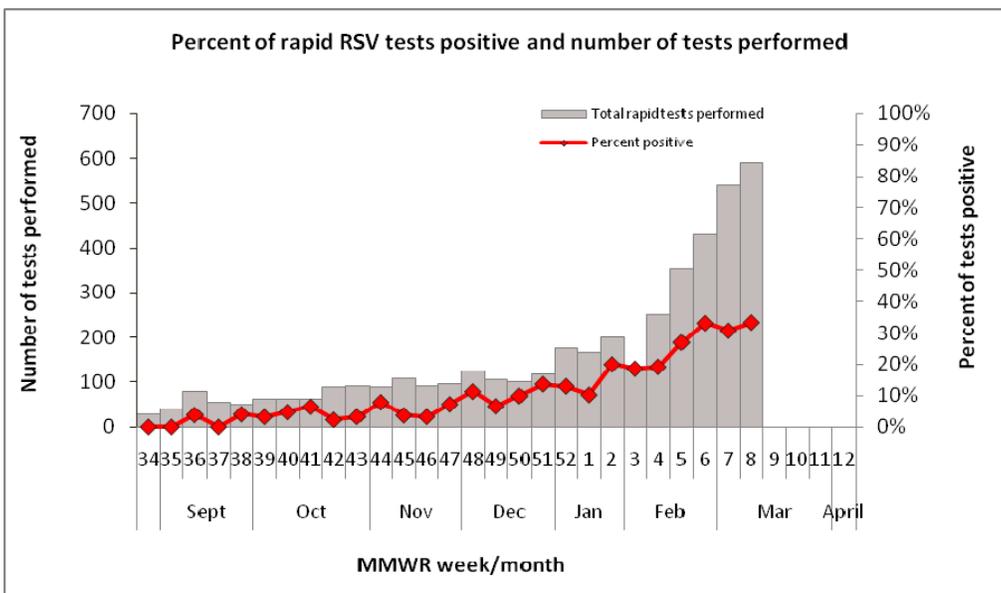
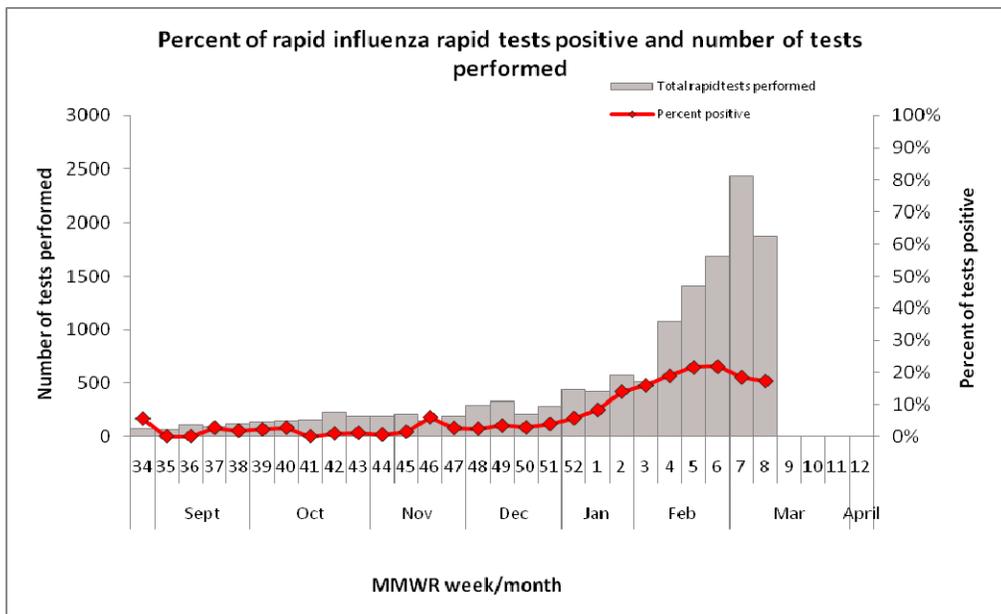
Laboratory surveillance program - Influenza and Other Respiratory Viruses

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

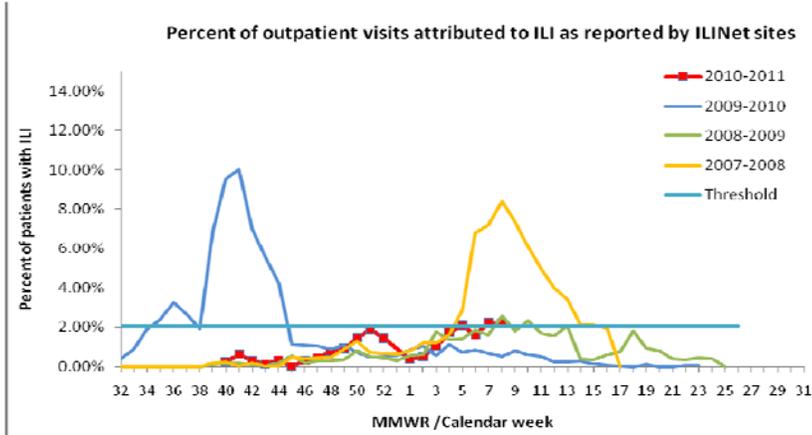
Influenza viruses isolated 9/1/10 to present week			Influenza viruses by age group 9/1/10 to present week				
	<i>Current week</i>	<i>Cumulative</i>	<i>Age group</i>	<i>Flu A (2009 H1N1)</i>	<i>Flu A (H3)</i>	<i>Flu A (no subtyping)</i>	<i>Flu B</i>
Flu A	40 (31%)	588 (23%)	0-4	36 (14%)	50 (18%)	6 (13%)	53 (18%)
Flu A (2009 H1N1)	10 (7%)	259 (10%)	5-17	49 (19%)	52 (18%)	8 (17%)	138 (47%)
Flu A (H3)	27 (18%)	282 (11%)	18-24	87 (34%)	18 (6%)	5 (11%)	40 (14%)
Subtyping not reported	3 (2%)	47 (2%)	25-49	59 (23%)	52 (18%)	12 (26%)	35 (12%)
Flu B	21 (14%)	293 (11%)	50-64	24 (9%)	24 (9%)	6 (13%)	10 (3%)
Indeterminate/Equivocal	1 (<1%)	52 (2%)	>64	4 (2%)	86 (31%)	10 (21%)	17 (6%)
Negative	88 (59%)	1680 (64%)	Total	259	282	47	293
Total	150	2613					

Number of positive results for non-influenza respiratory virus isolated since 9/1/10		
	Current week	Cumulative
Adenovirus Isolated	1	33
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	3
Parainfluenza Virus Type 2 Isolated	0	17
Parainfluenza Virus Type 3 Isolated	0	12
Rhinovirus Isolated	0	13
Respiratory syncytial virus (RSV)	0	10



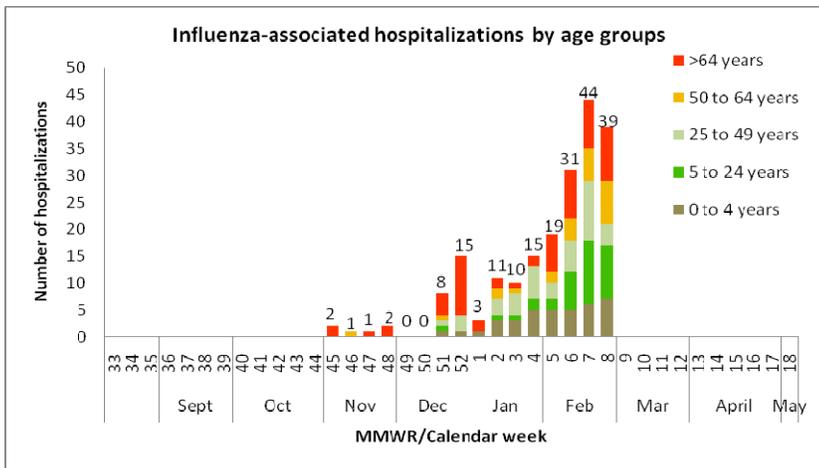
Outpatient health care provider surveillance program (ILINet)

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.



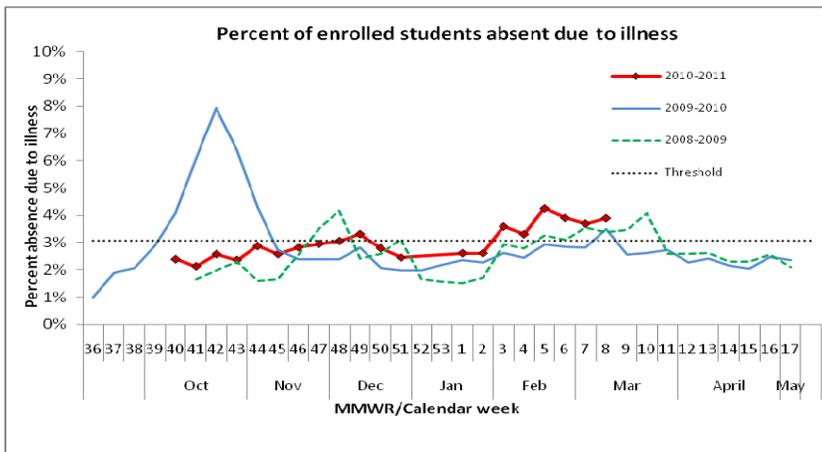
Influenza-associated hospitalizations

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.



Regional activity

Region 1 (Central)	
Percent of influenza rapid test positive	14.8% (46/310)
Percent of RSV rapid tests positive	36.8% (35/95)
Schools with ≥10% absence due to illness	6

Region 2 (North Central)	
Percent of influenza rapid test positive	31.6% (18/57)
Percent of RSV rapid tests positive	52.0% (13/25)
Schools with ≥10% absence due to illness	0

Region 3 (Northwest)	
Percent of influenza rapid test positive	17.9% (35/196)
Percent of RSV rapid tests positive	19.7% (12/61)
Schools with ≥10% absence due to illness	2

Region 4 (Southwest)	
Percent of influenza rapid test positive	16.4% (30/183)
Percent of RSV rapid tests positive	22.0% (9/41)
Schools with ≥10% absence due to illness	4

Region 5 (Southeast)	
Percent of influenza rapid test positive	17.1% (29/170)
Percent of RSV rapid tests positive	33.4% (N/S)
Schools with ≥10% absence due to illness	14

Region 6 (East Central)	
Percent of influenza rapid test positive	17.5% (167/596)
Percent of RSV rapid tests positive	33.5% (94/281)
Schools with ≥10% absence due to illness	4

N/S: too few labs reported RSV results, therefore the percentage for the state is assumed for this region.

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

