



Iowa Influenza Surveillance Network (IISN)

Influenza-like Illness (ILI) and Other Respiratory Viruses

Weekly Activity Report

For the week ending January 15, 2011, Week 2

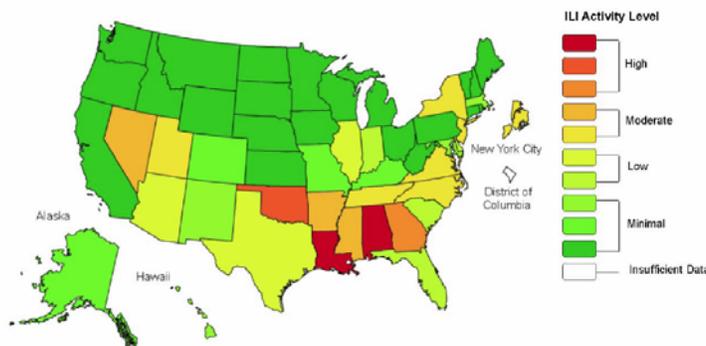
Quick Stats for this reporting week

Iowa activity level¹	Local
Percent of outpatient visits for ILI ²	0.3% (threshold 2.1%)
Percent of influenza rapid test positive*	9.4%
Percent of RSV rapid tests positive*	14.4%
Percent school absence due to illness	2.6%
Number of schools with ≥10% absence due to illness	5
Influenza-associated hospitalizations**	11 of 6249 inpatients surveyed

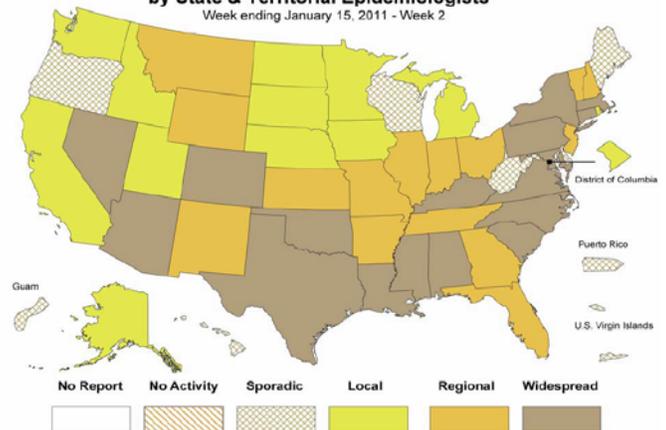
* Percent is based on three-week moving average

** 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 2 ending Jan 15, 2011



Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists*
Week ending January 15, 2011 - Week 2



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 continues to increase in Iowa. Thirty-six new cases of influenza A and eleven new cases of influenza B were identified this reporting week from the sentinel system. 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.

There were eleven new cases of influenza-associated hospitalizations in this reporting week from sentinel hospitals. These new cases occurred in all the age groups. The percent of influenza and RSV rapid tests that tested positive has increased over the last several weeks. High level of activity is occurring in southeast and east-central regions. Other respiratory viruses recently 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 2 (January 9-15, 2011), 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 4,983 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, 1,288 (25.9%) were positive for influenza.
- The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold.
- Two influenza-associated pediatric deaths were reported. One of these deaths was associated with an influenza A (H3) virus and one was associated with an influenza A virus for which the subtype was not determined.
- The proportion of outpatient visits for influenza-like illness (ILI) was 2.9%, which is above the national baseline of 2.5%. Three of the 10 regions (Regions 2, 4, and 5) reported ILI above region-specific baseline levels. Four states experienced high ILI activity, New York City and nine states experienced moderate ILI activity, seven states experienced low ILI activity, 30 states experienced minimal ILI activity, and data were insufficient from the District of Columbia.
- The geographic spread of influenza in 17 states was reported as widespread; 15 states reported regional influenza activity; the District of Columbia and 12 states reported local influenza activity, and Guam, Puerto Rico, the U.S. Virgin Islands, and six states reported sporadic influenza activity.

International activity summary - www.who.int

North America is continuing to report increases in influenza activity primarily related to influenza A (H3N2) with lower numbers of influenza type B. In the United Kingdom, severe and fatal cases are increased compared to 2 weeks ago, associated predominantly with influenza A (H1N1) 2009 and less commonly with influenza type B. Currently, 25% of intensive care beds in the U.K. are occupied by influenza patients. Notably, the Chief Medical Officer has issued an alert to clinicians warning of increasing rates of bacterial infections often associated with influenza (*S. pneumoniae*, Group A streptococcus, and meningococcus), though the association with the current influenza circulation is still under investigation. Severe disease associated with H1N1 (2009) and to a lesser extent influenza type B is also being increasingly reported on the European continent and areas of the Middle East. Tropical areas of the world and the temperate countries of the Southern Hemisphere are currently reporting very little influenza circulation.

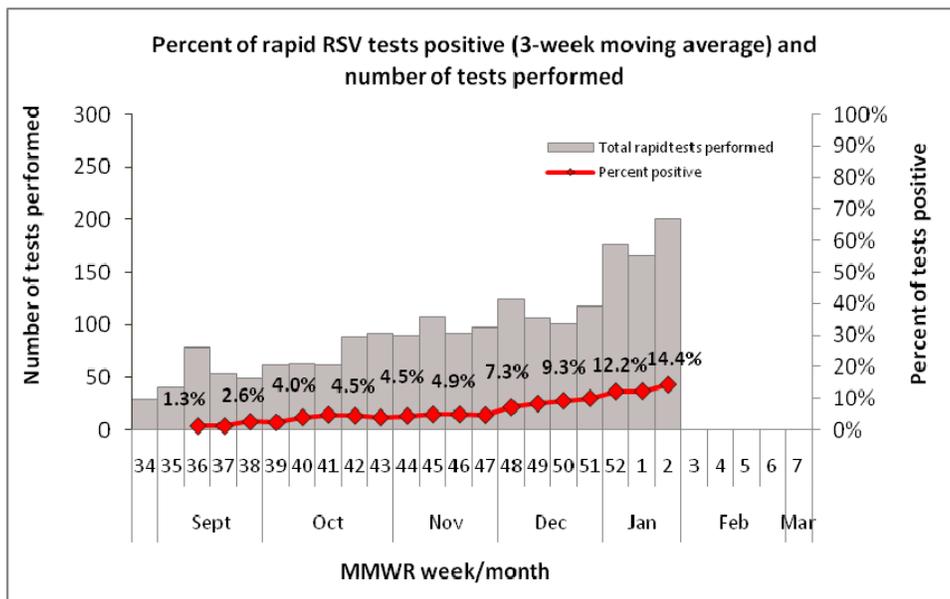
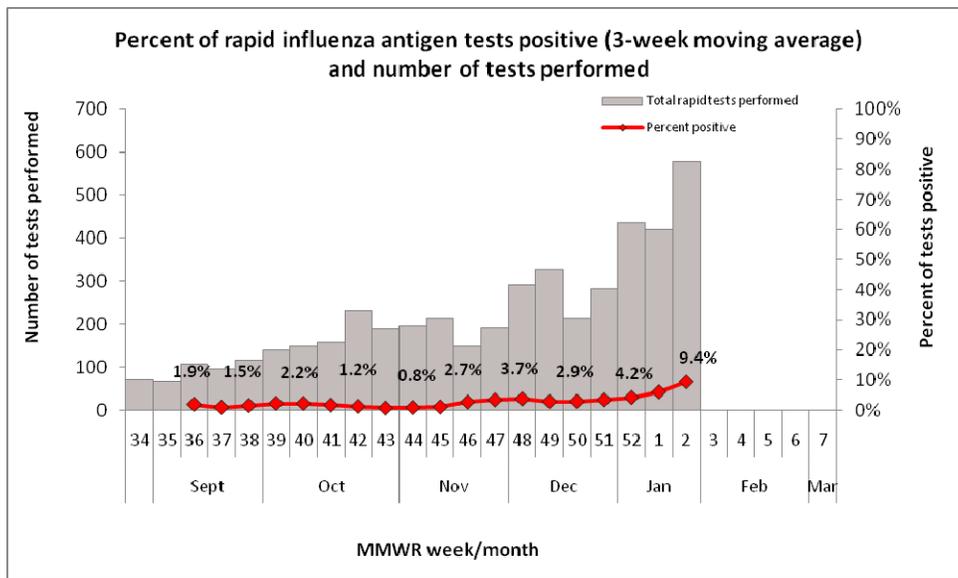
Laboratory surveillance program - Influenza and Other Respiratory Viruses

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

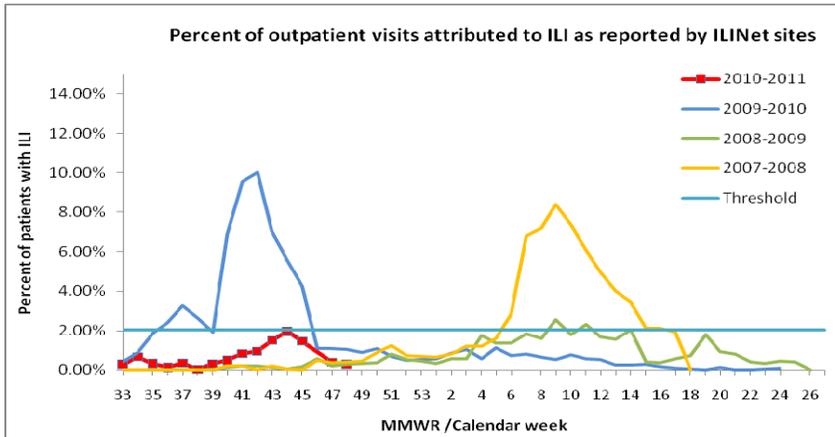
Influenza viruses isolated 9/1/10 to present week			Influenza viruses by age group 9/1/10 to present week				
	<i>Current week</i>	<i>Cumulative</i>	<i>Age group</i>	<i>Flu A (2009 H1N1)</i>	<i>Flu A (H3)</i>	<i>Flu A (no subtyping)</i>	<i>Flu B</i>
Flu A	36 (36%)	130 (10%)	0-4	3 (7%)	22 (25%)	0 (0%)	10 (24%)
Flu A (2009 H1N1)	24 (24%)	41 (3%)	5-17	16 (39%)	13 (15%)	0 (0%)	19 (46%)
Flu A (H3)	12 (12%)	89 (7%)	18-24	12 (29%)	8 (9%)	0 (0%)	4 (10%)
Subtyping not reported	0 (0%)	1 (<1%)	25-49	8 (20%)	16 (18%)	1 (100%)	5 (12%)
Flu B	11 (11%)	41 (3%)	50-64	2 (5%)	5 (6%)	0 (0%)	1 (2%)
Indeterminate/Equivocal	1 (1%)	25 (2%)	>64	0 (0%)	25 (28%)	0(0%)	2 (5%)
Negative	52 (52%)	1082 (85%)	Total	41	89	1	41
Total	100	1279					

Number of positive results for non-influenza respiratory virus isolated since 9/1/10		
	Current week	Cumulative
Adenovirus Isolated	0	23
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	2
Parainfluenza Virus Type 2 Isolated	1	16
Parainfluenza Virus Type 3 Isolated	1	10
Rhinovirus Isolated	0	13
Respiratory syncytial virus (RSV)	0	2



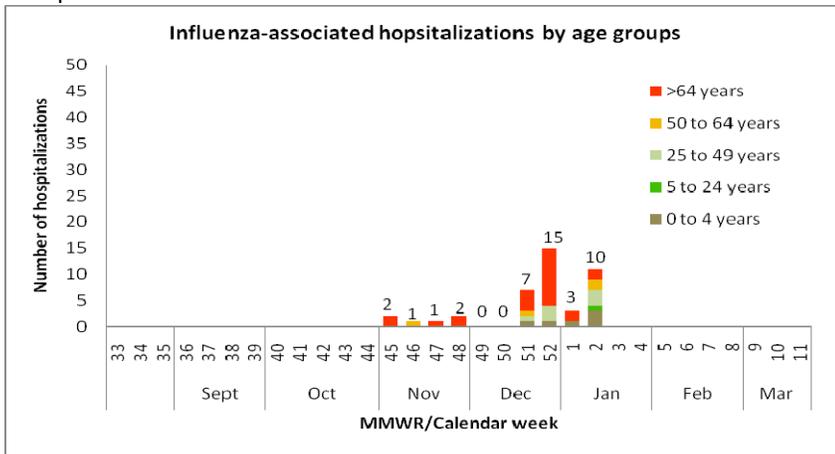
Outpatient health care provider surveillance program (ILINet)

There are approximately 9 outpatient health care provider surveillance sites surveying patient populations for ILI each week.



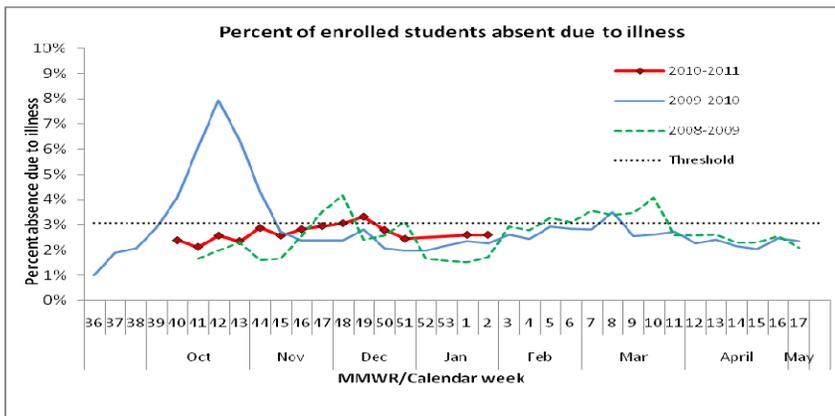
Influenza-associated hospitalizations

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.



Regional activity

Region 1 (Central)	
Influenza rapid antigen	21.8% (22/101)
RSV % positive	14.4% (N/S)
Schools with ≥10% absence due to illness	0

Region 2 (North Central)	
Influenza rapid antigen	9.1% (1/11)
RSV % positive	14.4% (N/S)
Schools with ≥10% absence due to illness	0

Region 3 (Northwest)	
Influenza rapid antigen	17.9% (22/123)
RSV % positive	5.3% (1/19)
Schools with ≥10% absence due to illness	0

Region 4 (Southwest)	
Influenza rapid antigen	8.0% (4/50)
RSV % positive	15.0% (3/20)
Schools with ≥10% absence due to illness	0

Region 5 (Southeast)	
Influenza rapid antigen	11.1%(5/45)
RSV % positive	27.3% (9/33)
Schools with ≥10% absence due to illness	2

Region 6 (East Central)	
Influenza rapid antigen	10.9% (27/248)
RSV % positive	23.3% (24/103)
Schools with ≥10% absence due to illness	3

N/S: too few labs reported RSV results and 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

