



Iowa Influenza Surveillance Network (IISN)

Influenza-like Illness (ILI) and Other Respiratory Viruses

Weekly Activity Report

For the week ending March 19, 2011, Week 11

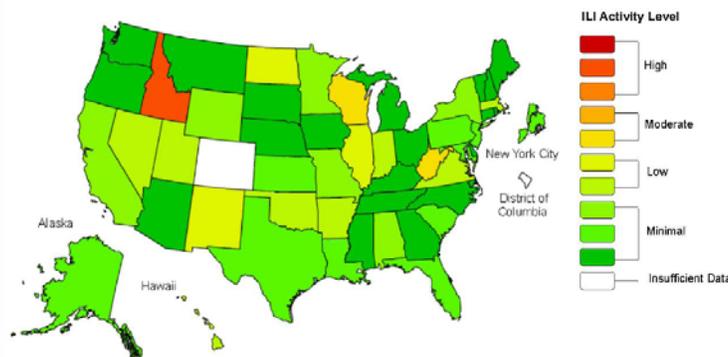
Quick Stats for this reporting week

Iowa activity level ¹	Widespread
Percent of outpatient visits for ILI ²	1.9% (threshold 2.1%)
Percent of influenza rapid test positive	17.0% (232/1368)
Percent of RSV rapid tests positive	37.8% (225/596)
Percent school absence due to illness*	3.4%
Number of schools with ≥10% absence due to illness*	6
Influenza-associated hospitalizations**	20 of 5318 inpatients surveyed

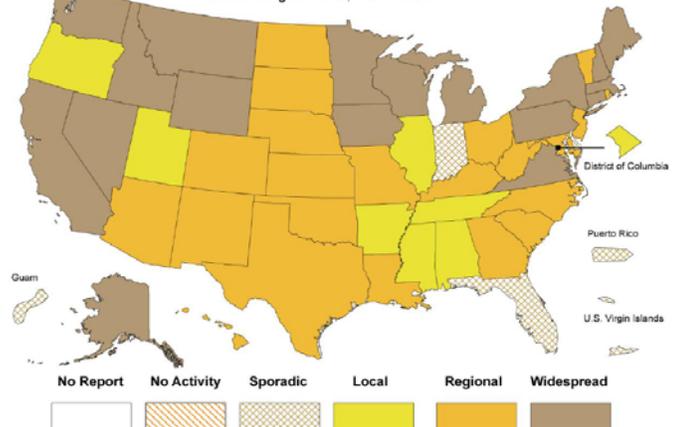
** Hospitalizations due to influenza are voluntarily reported through a weekly survey of 21 Iowa hospitals.

* Reporting may not be robust because many schools had school breaks

Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILINet
2010-11 Influenza Season Week 11 ending Mar 19, 2011



Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists*
Week ending March 19, 2011 - Week 11



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 has decreased, but remains widespread. In this reporting week, the State Hygienic Laboratory 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) has decreased to 1.9%, which is below the baseline of 2.1%. There were 20 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. The percentage of influenza rapid tests that tested positive has decreased from last week while the percentage of RSV tests that tested positive has increased. Other respiratory viruses have also been identified in Iowa, including respiratory syncytial virus (RSV), parainfluenza 1, parainfluenza 2, parainfluenza 3, adenovirus, and rhinovirus.

National activity summary - www.cdc.gov

Synopsis: During week 11 (March 13-19, 2011), influenza activity in the United States decreased.

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 6,144 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, 1,158 (18.9%) were positive for influenza.
- The proportion of deaths attributed to pneumonia and influenza was at or above the epidemic threshold for the eighth consecutive week.
- Six influenza-associated pediatric deaths were reported bringing the season total to 77. Two of these deaths were associated with influenza B viruses, two were associated with influenza A (H3N2) viruses, one was associated with 2009 influenza A (H1N1) 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 at the national baseline of 2.5%. Six of the 10 regions (Regions 1, 2, 5, 7, 8, and 10) reported ILI at or above region-specific baseline levels. One state experienced high ILI activity; two states experienced moderate ILI activity; 11 states experienced low ILI activity; 35 states and New York City experienced minimal ILI activity, and the District of Columbia and one state had insufficient data.
- The geographic spread of influenza in 18 states was reported as widespread; 22 states reported regional influenza activity; the District of Columbia and seven states reported local influenza activity; Guam, Puerto Rico, the U.S. Virgin Islands and three states reported sporadic influenza activity.

International activity summary - www.who.int

Influenza activity in most areas of the northern hemisphere temperate regions appears to have peaked and is declining. Although the level of pneumonia and influenza mortality in the United States of America (USA) is above the epidemic threshold and many states still are reporting on widespread activity, most indicators on influenza activity in North America are indicating decreasing influenza activity. As activity in the Americas declines, influenza A(H1N1)2009 has increased proportionately and now accounts for 38% of all virus detections. In Europe the peak has been passed in most countries and all countries now report medium or low influenza activity. Cases of Severe Acute Respiratory Infections in Europe are decreasing but still above baseline in some parts of Eastern Europe. Influenza viruses in Europe continue to be primarily influenza A(H1N1)2009, about 70% of all viruses characterized, and influenza type B, making up about 28% of all viruses. Data from parts of Northern Africa show that there is ongoing community transmission of both influenza A(H1N1)2009 and influenza type B in Tunisia and Algeria. The large majority of the viruses characterized are closely related to the vaccine strains included in the current seasonal vaccines. Viruses which have been characterized antigenically continue to be largely related to the lineages found in the current trivalent seasonal vaccine except for a small number of influenza B viruses of the Yamagata lineage.

Laboratory surveillance program - Influenza and Other Respiratory Viruses

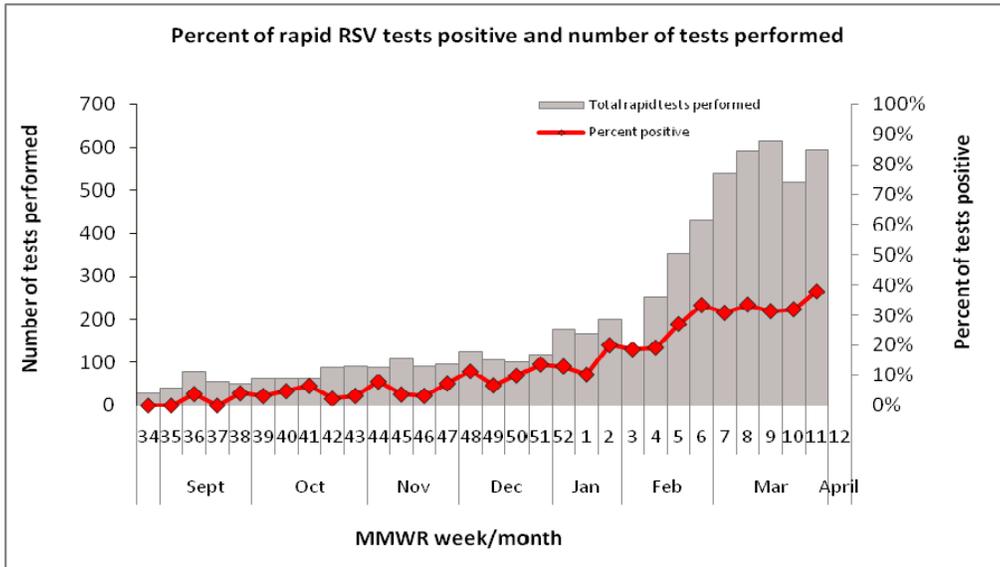
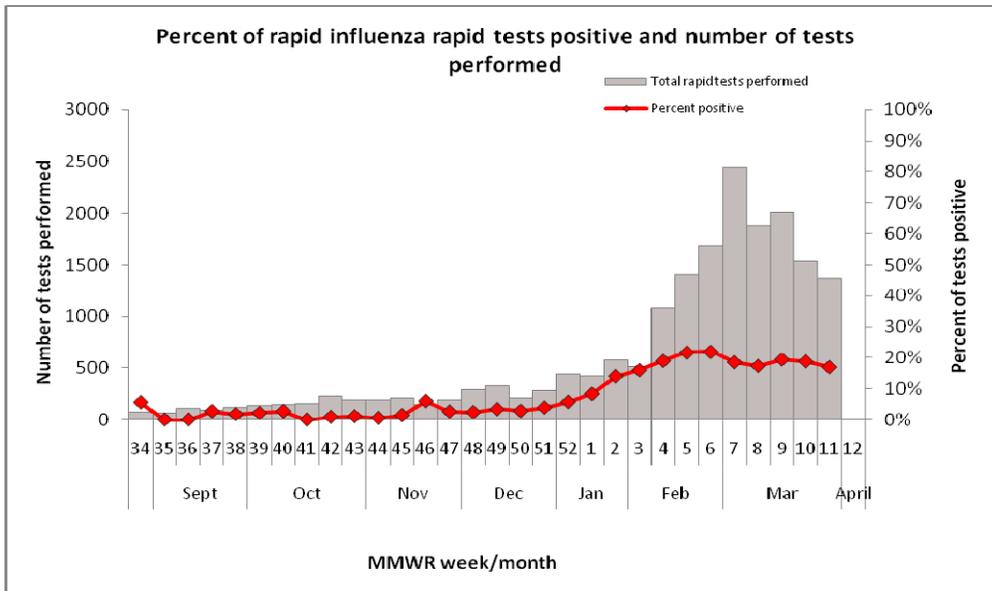
The State Hygienic Laboratory (SHL) is the primary lab testing and reporting influenza tests in Iowa. SHL reports the number of tests performed and the type and strain of positive tests to the influenza surveillance network several times every week. In addition, SHL surveys clinical and reference labs 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				
	Current week	Cumulative	Age group	Flu A (2009 H1N1)	Flu A (H3)	Flu A (no subtyping)	Flu B
Flu A	19 (23%)	679 (23%)	0-4	40 (14%)	57 (16%)	7 (14%)	61 (17%)
Flu A (2009 H1N1)	6 (7%)	286 (10%)	5-17	54 (19%)	59 (17%)	8 (16%)	162 (46%)
Flu A (H3)	11 (14%)	343 (11%)	18-24	88 (31%)	23 (7%)	5 (10%)	55 (15%)
Subtyping not reported	2 (2%)	50 (2%)	25-49	71 (25%)	64 (19%)	12 (24%)	45 (13%)
Flu B	7 (9%)	355 (12%)	50-64	29 (10%)	31 (9%)	6 (12%)	12 (3%)
Indeterminate/Equivocal	2 (2%)	70 (2%)	>64	4 (1%)	109 (32%)	12 (24%)	20 (6%)
Negative	54 (66%)	1892 (63%)	Total	286	343	50	355
Total	82	2998					

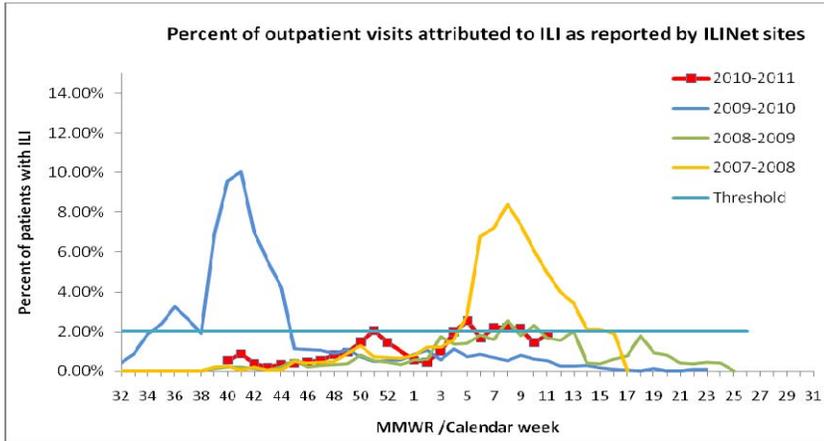
Number of positive results for non-influenza respiratory virus isolated since 9/1/10

	<i>Current week</i>	<i>Cumulative</i>
Adenovirus Isolated	5	69
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	3
Parainfluenza Virus Type 2 Isolated	0	18
Parainfluenza Virus Type 3 Isolated	3	23
Rhinovirus Isolated	0	13
Respiratory syncytial virus (RSV)	2	23



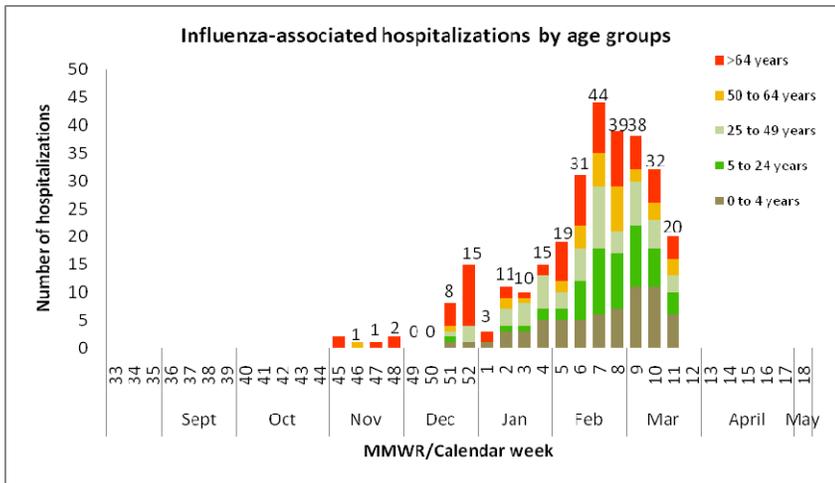
Outpatient health care provider surveillance program (ILINet)

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.



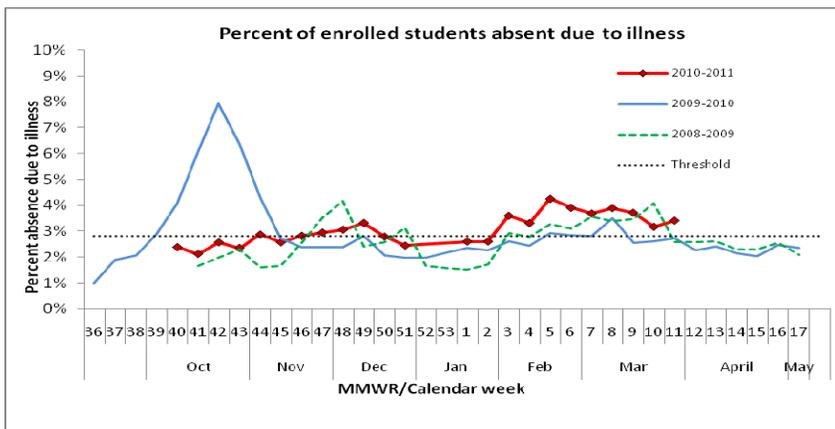
Influenza-associated hospitalizations

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	17.8% (33/185)
Percent of RSV rapid tests positive	37.8% (N/S)
Schools with ≥10% absence due to illness	0

Region 2 (North Central)	
Percent of influenza rapid test positive	20.0% (9/45)
Percent of RSV rapid tests positive	43.8% (7/16)
Schools with ≥10% absence due to illness	1

Region 3 (Northwest)	
Percent of influenza rapid test positive	18.6% (47/253)
Percent of RSV rapid tests positive	28% (21/75)
Schools with ≥10% absence due to illness	2

Region 4 (Southwest)	
Percent of influenza rapid test positive	9.0% (8/89)
Percent of RSV rapid tests positive	34.1% (15/44)
Schools with ≥10% absence due to illness	1

Region 5 (Southeast)	
Percent of influenza rapid test positive	21.5% (35/163)
Percent of RSV rapid tests positive	37.8% (N/S)
Schools with ≥10% absence due to illness	1

Region 6 (East Central)	
Percent of influenza rapid test positive	15.8% (100/633)
Percent of RSV rapid tests positive	39.6% (107/270)
Schools with ≥10% absence due to illness	1

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

