

Division of Acute Disease Prevention and Emergency Response
Center for Acute Disease Epidemiology

Iowa Influenza Surveillance Network (IISN)

Influenza and Other Respiratory Virus Weekly Activity Report

For the week ending March 28, 2009 Week 12



Influenza Quick Stats:

Iowa activity level:	Local¹
Lab-confirmed cases:	16
Sentinel % ILI ²	1.68% (threshold 2.1%)
Hospitalizations:	9
School % absence:	2.38% (threshold 3.06%)
School days $\geq 10\%$ absence:	2



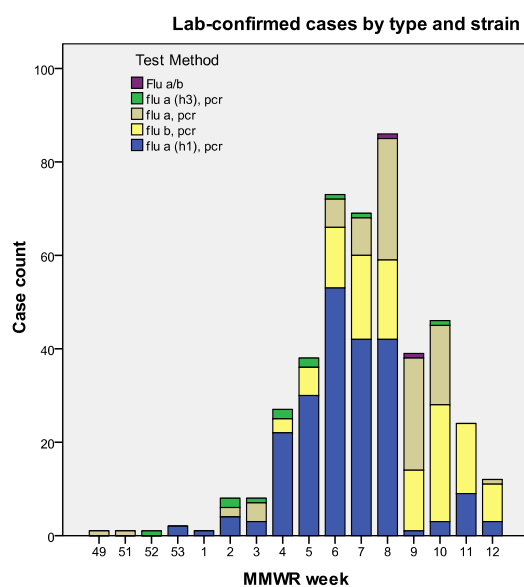
lowa activity summary: This week UHL confirmed 5 A/H1 and 11 B specimens. Influenza B is exceeding influenza A at this point in the season. Hospitalizations have risen with the majority of influenza-associated hospitalizations affecting the 5 to 24 year old age category. School absence have decreased however, there were two school days reported this week as having $>10\%$ absence with common symptoms being flu-like.

National activity summary: Widespread influenza activity was reported by 24 states. Regional influenza activity was reported by 19 states. Local influenza activity was reported by six states. Sporadic activity was reported by the District of Columbia and one state.

National virologic surveillance: WHO and NREVSS collaborating laboratories located in all 50 states and Washington D.C. report to CDC the number of respiratory specimens tested for influenza each week. The results of tests performed during the current week and cumulative totals for the season are 69% influenza A and 31% influenza B. Since week 2 (the week ending January 17, 2009), when influenza activity increased nationally, influenza A (H1) viruses have predominated during the season overall. However, the relative proportion of influenza B viruses is increasing nationally and regionally.

Antiviral resistance: Since October 1, 2008, 554 influenza A (H1N1), 86 influenza A (H3N2), and 258 influenza B viruses have been tested for resistance to the neuraminidase inhibitors (oseltamivir and zanamivir). Five hundred fifty-four influenza A (H1N1) and 86 influenza A (H3N2) viruses have been tested for resistance to the adamantanes (amantadine and rimantadine). Influenza A (H1N1) viruses from 42 states have been tested for antiviral resistance to oseltamivir so far this season. To date, all influenza A (H3N2) viruses tested are resistant to the adamantanes and all oseltamivir-resistant influenza A (H1N1) viruses tested are sensitive to the adamantanes. Nationally, influenza A (H1N1) viruses have predominated during the season overall. While influenza activity continued to decrease nationally, the relative proportion of influenza B viruses is increasing. CDC issued interim recommendations for the use of influenza antiviral medications in the setting of oseltamivir resistance among circulating influenza A (H1N1) viruses on December 19, 2008. These interim recommendations are available at <http://www2a.cdc.gov/HAN/ArchiveSys/ViewMsgV.asp?AlertNum=00279>.

Laboratory-confirmed cases: (excludes rapid test positives; only weeks with cases are included in the table; includes several labs)



		Flu a/b	flu a (h1)	flu a (h3)	flu a	flu b	Total
MMWR_wk	1	0	1	0	0	0	1
	2	0	4	2	2	0	8
	3	0	3	1	4	0	8
	4	0	22	2	0	3	27
	5	0	30	2	0	6	38
	6	0	53	1	6	13	73
	7	0	42	1	8	18	69
	8	1	42	0	26	17	86
	9	1	1	0	24	13	40
	10	0	3	1	17	25	46
	11	0	9	0	0	15	24
	12	0	3	0	1	8	12
	49	0	0	0	1	0	1
	51	0	0	0	1	0	1
52	0	0	1	0	0	1	
53	0	2	0	0	0	2	
Total	2	215	11	90	118	437	

¹ **No Activity:** No laboratory-confirmed cases of influenza and no reported increase in the number of cases of influenza-like illness (ILI).

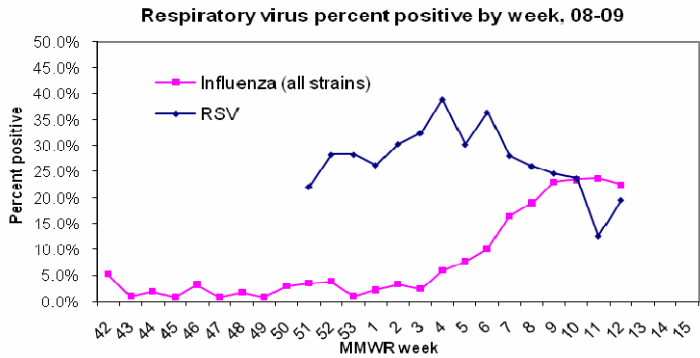
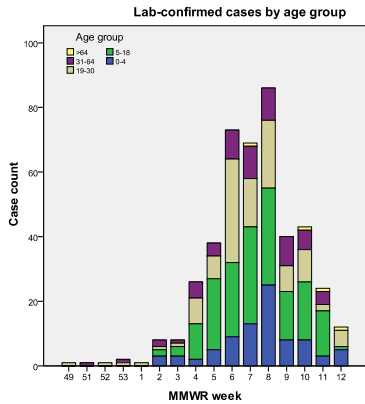
Sporadic: Small numbers of laboratory-confirmed influenza cases or a single influenza outbreak has been reported, but there is no increase in cases of ILI.

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 Influenza-like illness is defined as fever $\geq 100^{\circ}\text{F}$ and cough and/or sore throat.



Influenza and Other Respiratory Viral Laboratory Data:

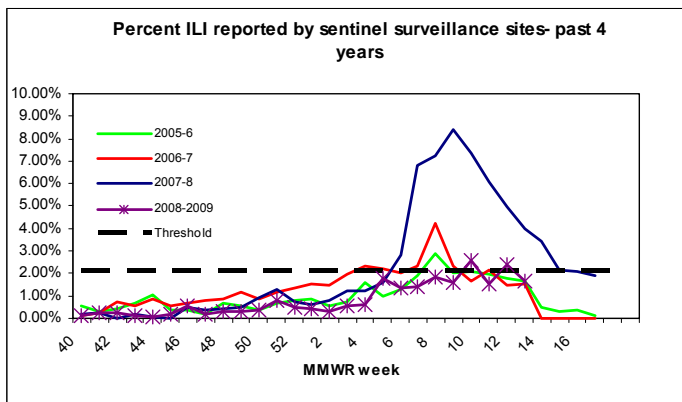
Laboratory-confirmed cases are primarily reported by the University Hygienic Laboratory (UHL only). UHL also determines the type and strain (AH1, AH3). Influenza is not a required reportable disease. Laboratory data is used to confirm the presence of influenza and the types and strains circulating, not determine the exact number of cases in Iowa.

Region	INFLUENZA					RSV*		
	Tested	Flu A	Flu B	Both	% Positive	Tested	Positive	% Positive
Region 1- Boone, Calhoun, Carroll, Dallas, Greene, Grundy, Hamilton, Hardin, Jasper, Marshall, Polk, Poweshiek, Story, Tama, Warren, Webster	119	4	5	0	7.6%	41	10	24.4%
Region 2- Allamakee, Bremer, Butler, Cerro Gordo, Chickasaw, Emmet, Fayette, Floyd, Franklin, Hancock, Howard, Humboldt, Kossuth, Mitchell, Winnebago, Winneshiek, Worth, Wright	44	2	1	0	6.8%	13	3	23.1%
Region 3- Buena Vista, Cherokee, Clay, Crawford, Dickinson, Ida, Lyon, Monona, O'Brien, Osceola, Palo Alto, Plymouth, Pocahontas, Sac, Sioux, Woodbury	285	37	23	1	21.4%	55	12	21.8%
Region 4- Adair, Adams, Audubon, Cass, Clarke, Decatur, Fremont, Guthrie, Harrison, Madison, Mills, Montgomery, Page, Pottawattamie, Ringgold, Shelby, Taylor, Union	58	1	4	2	12.1%	13	4	30.8%
Region 5- Appanoose, Davis, Des Moines, Henry, Jefferson, Keokuk, Lee, Louisa, Lucas, Mahaska, Marion, Monroe, Muscatine, Van Buren, Wapello, Washington, Wayne	48	3	1	0	8.3%	34	8	23.5%
Region 6- Benton, Black Hawk, Buchanan, Cedar, Clayton, Clinton, Delaware, Dubuque, Iowa, Jackson, Johnson, Jones, Linn, Scott	971	72	165	23	26.8%	135	20	14.8%
TOTAL	1525	119	199	26	22.6%	291	57	19.6%

*The CDC epidemic threshold for RSV is ~10% of all test results reported as positive. Additional RSV trends may be viewed at <http://www.cdc.gov/surveillance/nrevss/rsv/state.html>.

Outpatient Health Care Provider Influenza Surveillance (Sentinel Surveillance):

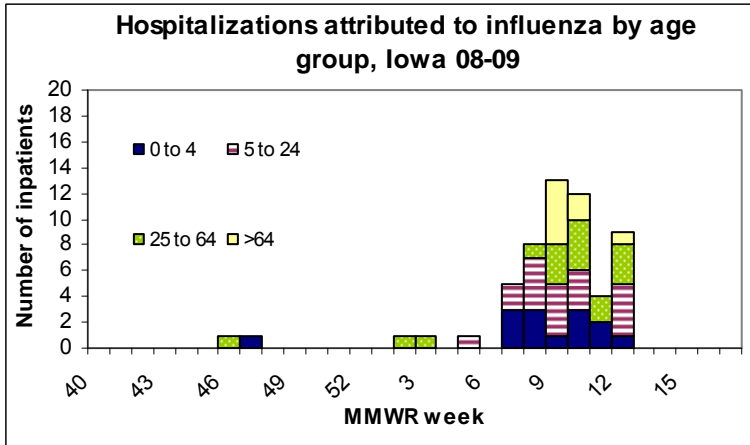
There are 18 sentinel surveillance sites throughout Iowa surveying patient populations for influenza-like illness (ILI).



# sites reporting	7
Age 0-4	14
Age 5-24	11
Age 25-64	16
Age over 64	5
Total ILI	46
Total patients	2,729
% ILI	1.68%

Hospital and Long-term Care Facility Influenza Surveillance:

There are 29 hospitals participating in influenza surveillance. Hospitals track the total number of patients hospitalized weekly with influenza and/or pneumonia who also have a positive influenza laboratory result. The total number of patients surveyed this week was 5,381.



There were no cases of influenza reported in long-term care facilities.

School Illness Surveillance:

There are approximately 50 school sites reporting into the IISN. All sites track the average number of students enrolled and the number absent due to illness weekly. One school reported two days of absence greater than 10%.

Number of sites reporting	26
Total students surveyed	13,572
Total absences due to illness	1,688
Average percent absence due to illness	2.57%
Median percent absence due to illness	2.38%
2007-2008 percent absence due to illness same week	2.00%

