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

Iowa Influenza Surveillance Network (IISN)

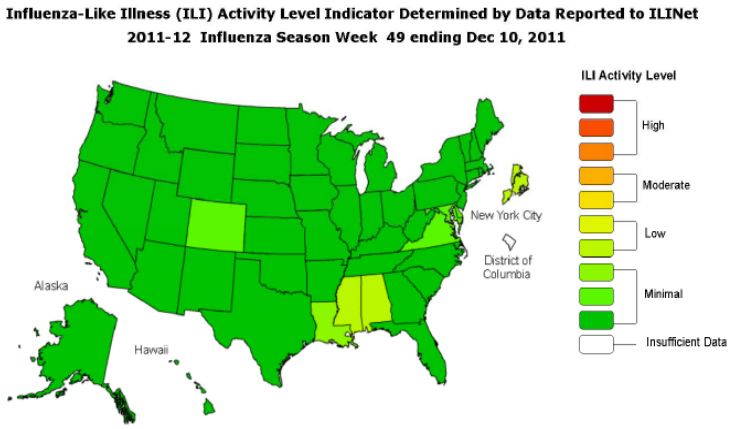
Influenza-like Illness (ILI) and Other Respiratory Viruses
Weekly Activity Report
For the week ending December 17, 2011, Week 50

Quick Stats for this reporting week

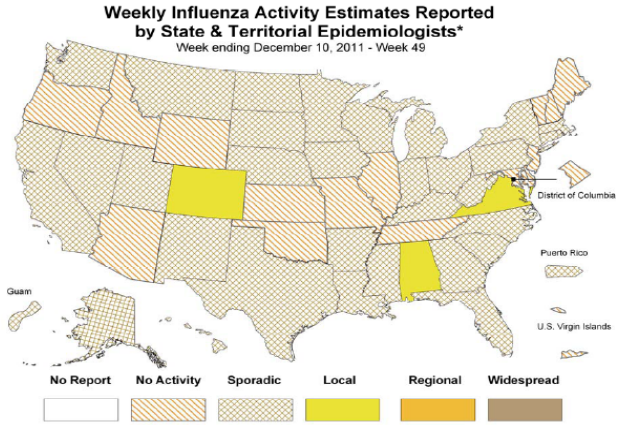
Iowa activity level[1]	**Sporadic**
Percent of outpatient visits for ILI[2]	1.5% (baseline 2.3%)
Percent of influenza rapid test positive	3.2% (7/216)
Percent of RSV rapid tests positive	9.0% (7/78)
Percent school absence due to illness	2.7%
Number of schools with ≥10% absence due to illness	2
Influenza-associated hospitalizations*	1/1403 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*

Note: National activity summary and maps are not available for Week 50 ending December 17



*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 remains sporadic in Iowa. There were two new laboratory confirmed cases identified in this reporting week (both are seasonal influenza A (H3) viruses). The proportion of outpatient visits due to influenza-like illness (ILI) increased to 1.5 percent, which is below the regional baseline of 2.3 percent. The percent of influenza and respiratory syncytial virus (RSV) rapid tests that tested positive also increased from previous weeks. There was one influenza-associated hospitalization reported from sentinel hospitals for this reporting period. Two schools in Region 1 reported 10 percent or greater absenteeism due to illness. There were five cases of other respiratory viruses (three parainfluenza 1-2, two RSV) 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 49 (December 4-10, 2011), influenza activity remained low in the United States.

- **U.S. Virologic Surveillance**: Of the 2,480 specimens tested by U.S. World Health Organization and National Respiratory and Enteric Virus Surveillance System collaborating laboratories and reported to CDC/Influenza Division, 48 (1.9 percent) were positive for influenza.

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[1] ***No Activity:** No laboratory-confirmed cases of influenza and no reported increase in the number of cases of influenza-like illness (ILI[2]).
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[2].
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**: No influenza-associated pediatric deaths were reported.
- **Outpatient Illness Surveillance**: The proportion of outpatient visits for influenza-like illness (ILI) was 1.2 percent, which is below the national baseline of 2.4 percent. All 10 regions reported ILI below region-specific baseline levels. Two states and New York City experienced low ILI activity, forty-eight states experienced minimal ILI activity, and the District of Columbia had insufficient data.
- **Geographic Spread of Influenza**: The geographic spread of influenza in three states was reported as local; Guam, Puerto Rico, and 32 states reported sporadic activity, and the District of Columbia, the U.S. Virgin Islands, and 15 states reported no influenza activity.

International activity summary - www.who.int

Influenza activity in the temperate regions of the northern hemisphere remains at low levels, with sporadic activity reported in Canada, the United States of America, and some European countries. Countries in the tropical zone mostly reported low influenza activity except Costa Rica, primarily influenza A (H3N2), and Cameroon, which is experiencing transmission of A (H3N2) following on recent peaks of A (H1N2) pdm09 and type B. Influenza activity in the temperate countries of the southern hemisphere is at inter-seasonal levels.

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 and the Dunes Medical Laboratories at Mercy Medical Center-Sioux City.

Specimens tested by the State Hygienic Laboratory

Table 1. Influenza viruses isolated 10/2/11 to present week

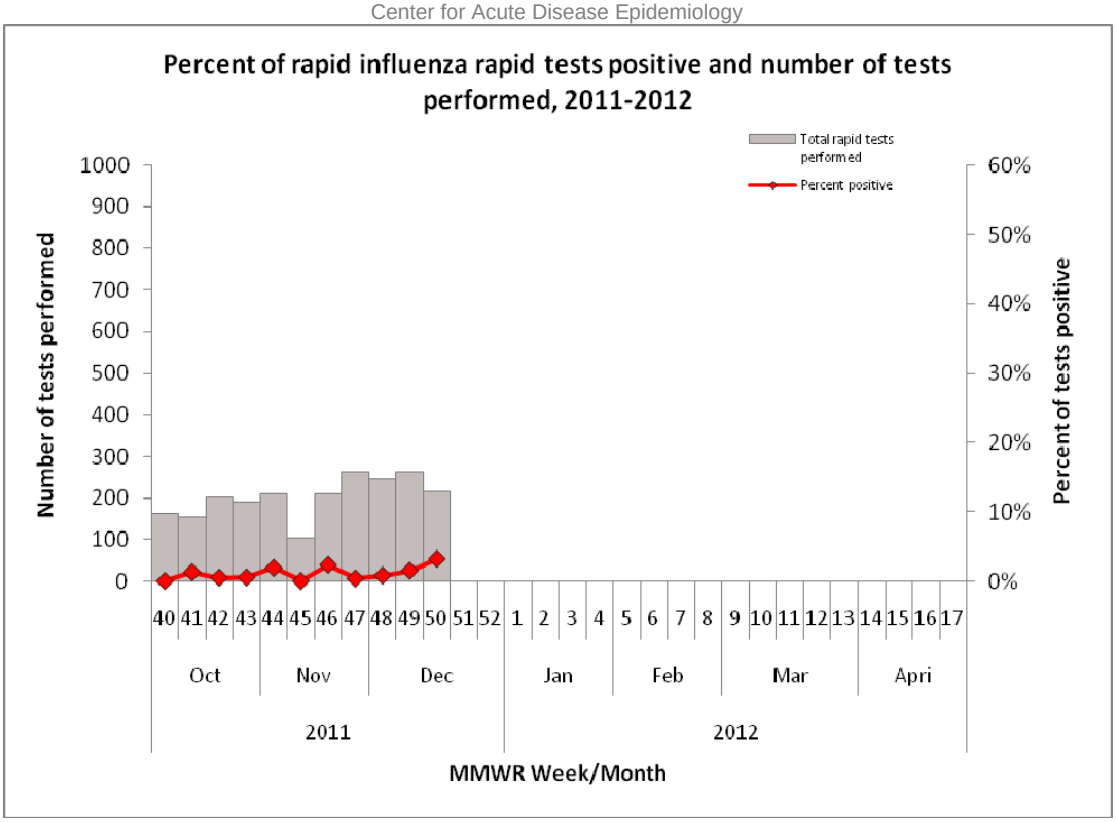
	Current week	*Cumulative*
Flu A	2 (8%)	14 (5%)
Flu A (2009 H1N1)	0 (0%)	0 (0%)
Flu A (H3)	2 (8%)	11 (4%)
Novel A (H3N2)	0 (0%)	3 (1%)
Flu B	0 (0%)	0 (0%)
Equivocal	0 (0%)	0 (0%)
Indeterminate	0 (0%)	6 (2%)
Negative	24 (92%)	262 (93%)
Total	26	282

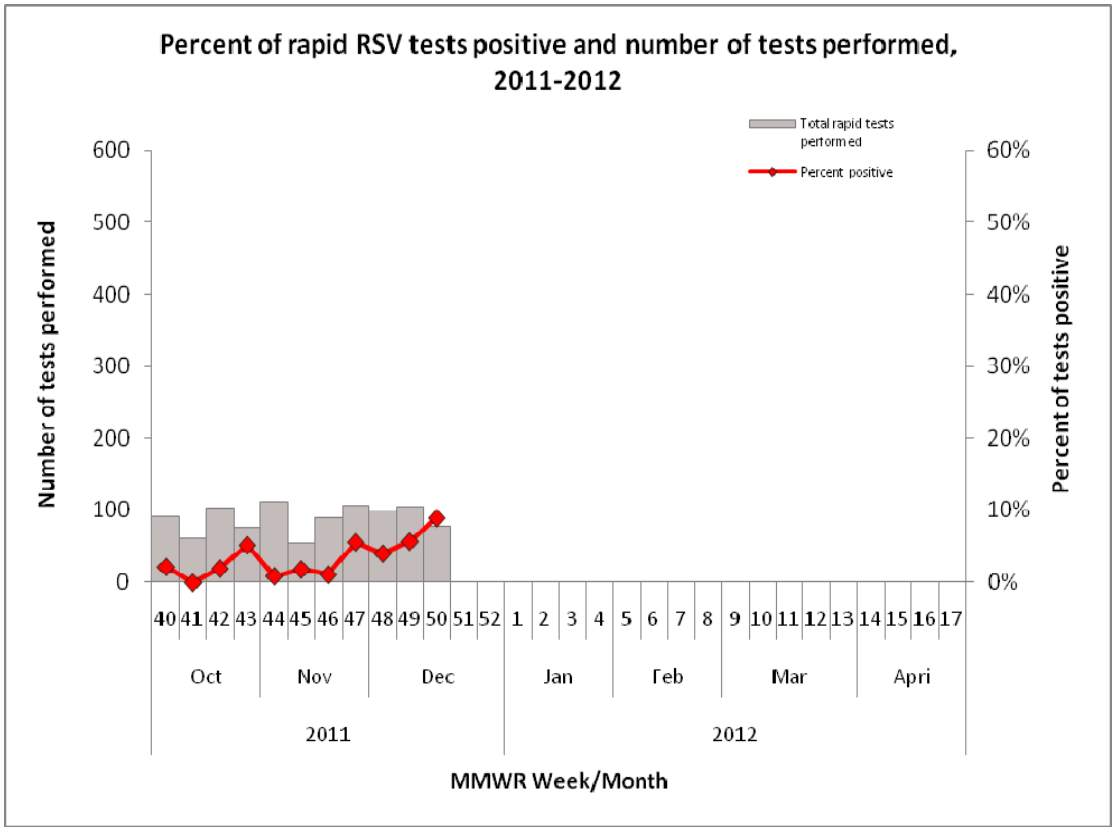
Table 2. Influenza viruses by age group 10/2/11 to present week

Age group	*Flu A (2009 H1N1)*	*Flu A (H3)*	*Novel A (H3N2)*	*Flu B*
0-4	0 (0%)	6 (67%)	* (*%)	0 (0%)
5-17	0 (0%)	1 (9%)	* (*%)	0 (0%)
18-24	0 (0%)	0 (0%)	0 (0%)	0 (0%)
25-49	0 (0%)	2 (18%)	0 (0%)	0 (0%)
50-64	0 (0%)	1 (9%)	0 (0%)	0 (0%)
>64	0 (0%)	1 (9%)	0 (0%)	0 (0%)
Total	0	11	3	0

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

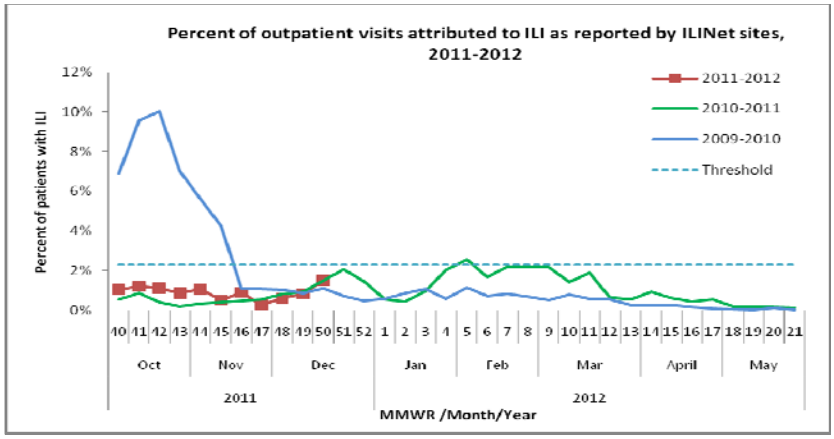
	Current week	*Cumulative*
Adenovirus	0	14
Parainfluenza Virus Type 1	2	19
Parainfluenza Virus Type 2	1	7
Parainfluenza Virus Type 3	0	0
Rhinovirus	0	19
Respiratory syncytial virus (RSV)	2	5
human metapneumovirus (hMPV)	0	3


Percent of rapid influenza rapid tests positive and number of tests performed, 2011-2012
Total rapid tests performed
Percent positive
Number of tests performed
Percent of tests positive
1000
900
800
700
600
500
400
300
200
100
0
60%
50%
40%
30%
20%
10%
0%
40 41 42 43 44 45 46 47 48 49 50 51 52 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
Oct
Nov
Dec
Jan
Feb
Mar
Apri
2011
2012
MMWR Week/Month


Percent of rapid RSV tests positive and number of tests performed, 2011-2012
Total rapid tests performed
Percent positive
Number of tests performed
Percent of tests positive
600
500
400
300
200
100
0
60%
50%
40%
30%
20%
10%
0%
40 41 42 43 44 45 46 47 48 49 50 51 52 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
Oct
Nov
Dec
Jan
Feb
Mar
Apri
2011
2012
MMWR Week/Month

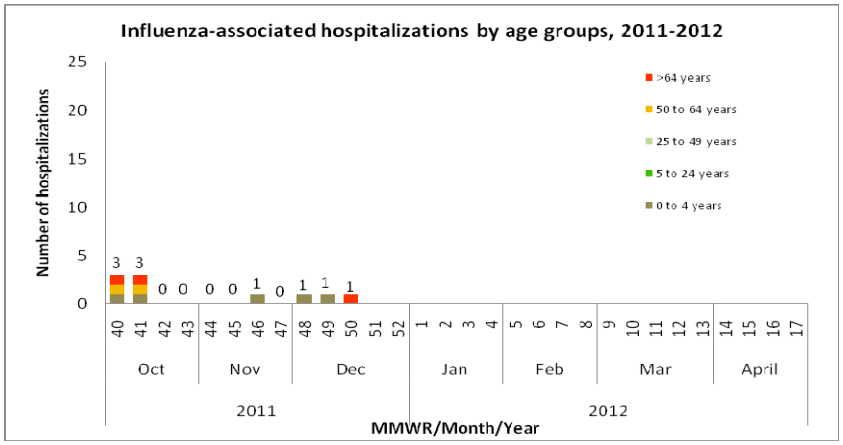
Outpatient health care provider surveillance program (ILINet)

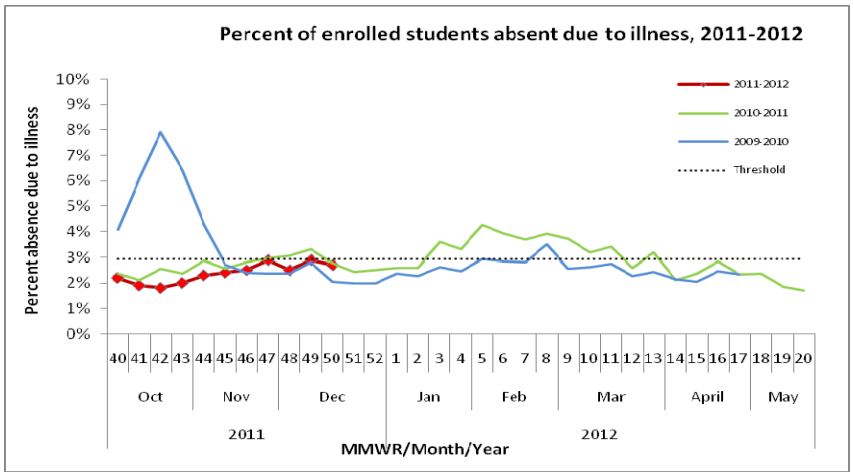
Outpatient health care providers who participate in the ILINet (a national influenza surveillance program) report the number of patients seen with influenza-like illness and the total number of patient visits each week.



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.