



Iowa Influenza Surveillance Network (IISN)

Influenza-like Illness (ILI) and Other Respiratory Viruses

Weekly Activity Report

For the week ending January 1, 2011, Week 52

Quick Stats for this reporting week

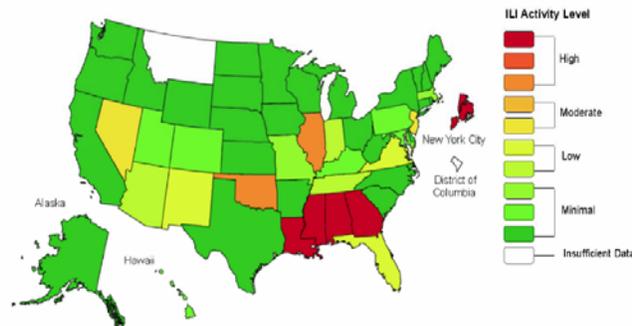
Iowa activity level ¹	Local
Percent of outpatient visits for ILI ²	0.6% (threshold 2.1%)
Percent of influenza rapid test positive*	4.2%
Percent of RSV rapid tests positive*	12.2%
Percent school absence due to illness	NA
Number of schools with ≥10% absence due to illness	NA
Influenza-associated hospitalizations**	15 of 5327 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.

NA: Not available due to school winter break

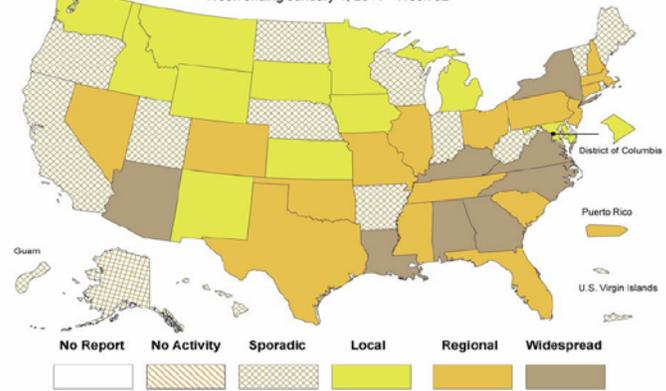
Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILInet
2010-11 Influenza Season Week 52 ending Jan 01, 2011



Interactive web tool available at: <http://ais.cdc.gov/araso/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.

Weekly Influenza Activity Estimates Reported by State & Territorial Epidemiologists*
Week ending January 1, 2011 - Week 52



*This map indicates geographic spread & does not measure the severity of influenza activity.

Iowa Statewide Activity Summary

Recent increase in Influenza activity has noted in Iowa. Fourteen new cases of influenza A and two 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.

The proportion of outpatient visits for influenza-like illness (ILI) was 0.6%, which is below the threshold of 2.1%, however this was a holiday week, and reporting may not be robust. The number of influenza-associated hospitalizations doubled in this reporting week. Most hospitalizations occurred in older adults >65 years of age. The percent of RSV rapid tests that tested positive has increased over the last several weeks. Other respiratory viruses recently identified in Iowa include respiratory syncytial virus (RSV), parainfluenza 1, parainfluenza 2, parainfluenza 3, adenovirus, and rhinovirus. The regional activity will begin to be reported next week.

National Activity Summary - www.cdc.gov

Synopsis: During week 52 (December 26, 2010 – January 1, 2011), influenza activity in the United States decreased slightly.

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 4,911 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, 995 (20.3%) were positive for influenza.
- The proportion of deaths attributed to pneumonia and influenza (P&I) was below the epidemic threshold.
- One influenza-associated pediatric death was reported and was associated with Influenza B virus infection.
- The proportion of outpatient visits for influenza-like illness (ILI) was 2.6%, which is above the national baseline of 2.5%. Four of the 10 regions (Regions 2, 3, 4, and 5) reported ILI above region-specific baseline levels; six states and New York City experienced high ILI activity, two states experienced moderate ILI activity, six states experienced low ILI activity, 35 states experienced minimal ILI activity, and data were insufficient from the District of Columbia and one state.
- The geographic spread of influenza in eight states was reported as widespread; Puerto Rico and 16 states reported regional influenza activity; the District of Columbia and 11 states reported local influenza activity, and Guam, the U.S. Virgin Islands, and 15 states reported sporadic influenza activity.

International Activity Summary - www.who.int

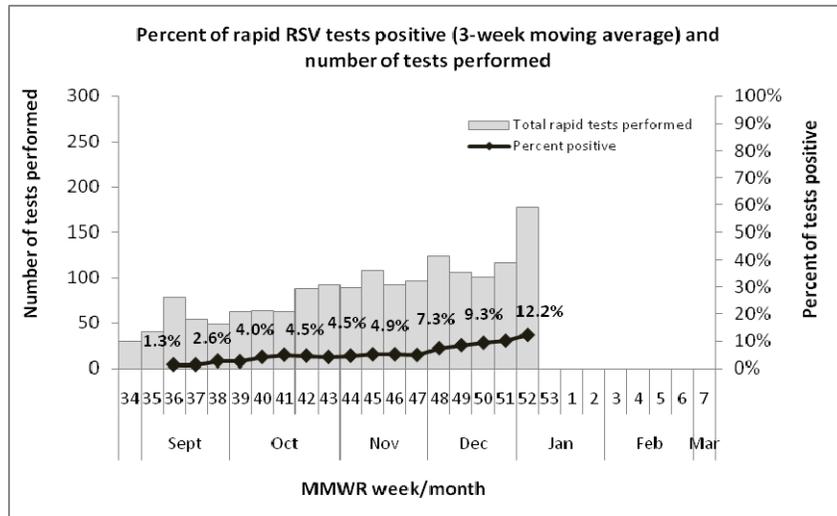
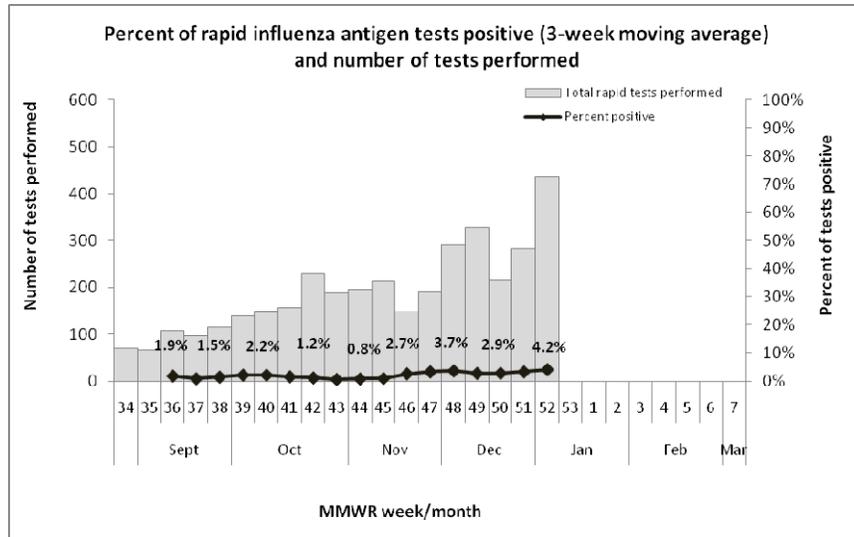
The winter influenza season is now under way in parts of the Northern Hemisphere. North America is seeing increases of influenza-like illness (ILI) now above baseline levels in parts of Canada and the United States of America (US) associated primarily with influenza viruses A (H3N2) and type B. The United Kingdom of Great Britain and Northern Ireland (UK) has been experiencing a surge in both mild and severe cases for the last three weeks which has not yet peaked and is primarily associated with influenza A (H1N1) 2009 virus and to a lesser extent influenza type B. The pattern of illness associated with H1N1 (2009) virus infection in the UK is similar to last season primarily affecting young adults, particularly those with underlying chronic illness or pregnancy although a number have had no known risk factors. On the European continent, the Middle East and in northern Asia rates of influenza-like illness are low but recent increases have been noted in some areas. In tropical regions, very little activity is noted in most of the world, however Sri Lanka has reported a marked increase in the number of both mild and severe cases related to H1N1 (2009) virus, including 22 deaths. As in the UK, the deaths in Sri Lanka have been predominantly in people under the age of 60 years and most have had preexisting medical conditions. No significant influenza transmission has been reported in Southern Hemisphere temperate regions. Notably, the large majority of viruses that have been characterized from North America and the UK have been antigenically similar to those contained in the current trivalent influenza vaccine. WHO continues to recommend vaccination for those at high risk of complications, where it is available, and early treatment of those at high risk or with severe or rapidly deteriorating disease

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.

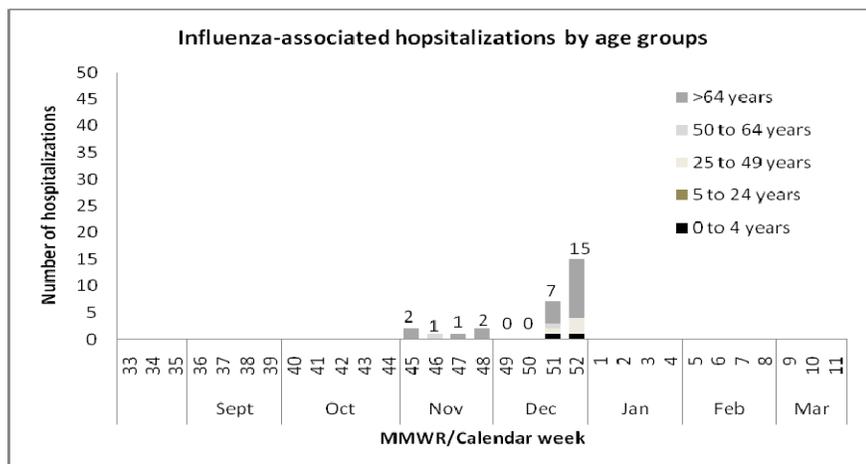
Specimens tested by the State Hygienic Laboratory and Mercy Dunes in Sioux City

Influenza viruses isolated 9/1/10 to present week			Number of positive results for non-influenza respiratory virus isolated since 9/1/10		
	Current week	Cumulative		Current week	Cumulative
Flu A	14	53	Adenovirus Isolated	1	23
Flu A (2009 H1N1)	2	9	Enteroviruses (presumptive)	0	4
Flu A (H3)	12	43	<i>Coxsackievirus A9 Isolated</i>	0	2
Subtyping not reported	0	1	<i>Coxsackievirus B4 Isolated</i>	0	1
Flu B	2	19	<i>Echovirus 9 Isolated</i>	0	2
Indeterminate/Equivocal	2	22	Parainfluenza Virus Type 1 Isolated	0	2
Negative	40	962	Parainfluenza Virus Type 2 Isolated	0	15
Total	58	1056	Parainfluenza Virus Type 3 Isolated	1	8
			Rhinovirus Isolated	0	13
			Respiratory syncytial virus (RSV)	1	2



Influenza-associated hospitalizations

Twenty-one Iowa hospitals participate in the IISN, 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. Because of recent holidays, schools have been not been in session.

