

Iowa Influenza Surveillance Network (IISN) Influenza-like Illness (ILI) and Other Respiratory Viruses

Weekly Activity Report For the week ending December 1, 2012, Week 48



# Quick Stats for this reporting week

| lowa activity level <sup>1</sup>                   | Regional                    |
|--|-----------------------------|
| Percent of outpatient visits for ILI <sup>2</sup>  | 0.7 % (baseline 2.1%)       |
| Percent of influenza rapid test positive           | 16.8% (124/736)             |
| Percent of RSV rapid tests positive                | 14.5% (21/145)              |
| Percent school absence due to illness              | 2.8% (baseline 2.8%)        |
| Number of schools with ≥10% absence due to illness | 2***                        |
| Influenza-associated hospitalizations*             | 14/6568 inpatients surveyed |
| Influenza-associated pediatric mortality**         | 0                           |

\* Hospitalizations due to influenza are voluntarily reported through a weekly survey of lowa sentinel hospitals

\*\*CDC asks states to report any pediatric death (<18 years old) associated with influenza

\*\*\* 14 schools reported ≥10% absenteeism due to illness this week that will fall into the next reporting period

Note: All data in this report are provisional and may change as additional reports are received





\*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

The influenza activity in Iowa remains regional. For this reporting week, the State Hygienic Laboratory (SHL) confirmed a total of 63 cases of seasonal influenza, including 60 influenza A (H3), one influenza A (subtyping pending), and two influenza B. The number of influenza-associated hospitalizations increased and there were 14 cases reported from sentinel hospitals for this reporting period. Two schools reported 10 percent or greater absenteeism due to influenza-like illness for this reporting period, however, 14 schools reported influenza-like outbreak this week that will fall into the next reporting period. In addition, two cases of RSV, one adenovirus, two parainfluenza 2, and one parainfluenza 3 were detected during this reporting week. Thus far this season, the other respiratory viruses that have been identified include adenovirus, rhinovirus, parainfluenza 2-3, RSV, and human metapneumovirus (hMPV).

## <u>National activity summary - www.cdc.gov</u>

Synopsis: During week 48 (November 25-December 1), influenza activity increased in the U.S.

<sup>1</sup> No Activity: No laboratory-confirmed cases of influenza and no reported increase in the number of cases of influenza-like illness (ILI<sup>2</sup>).
Sporadic: Isolated laboratory-confirmed influenza cases or a single influenza outbreak has been reported, but there is no increase in cases of ILI<sup>2</sup>.
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.

<sup>2</sup> ILI: Influenza-like Illness is defined as a fever of ≥100° F as well as cough and/or sore throat.

- Viral Surveillance: Of 5,511 specimens tested and reported by U.S. World Health Organization and National Respiratory and Enteric Virus Surveillance System collaborating laboratories during week 48, 1,139 (20.7 percent) were positive for influenza.
- **Pneumonia and Influenza Mortality**: The proportion of deaths attributed to pneumonia and influenza was below the epidemic threshold.
- Influenza-associated Pediatric Deaths: Three influenza-associated pediatric deaths were reported. One of these deaths was associated with an influenza B virus and two were associated with influenza A viruses for which the subtype was not determined.
- **Outpatient Illness Surveillance**: The proportion of outpatient visits for influenza-like illness (ILI) was 1.9 percent, which is below the national baseline of 2.2 percent. Three regions reported ILI above region-specific baseline levels. Four states experienced high ILI activity, three states experienced moderate ILI activity; six states experienced low ILI activity; New York City and 37 states experienced minimal ILI activity, and the District of Columbia had insufficient data.
- **Geographic Spread of Influenza**: The geographic spread of influenza in eight states was reported as widespread; 15 states reported regional activity; 15 states reported local activity; the District of Columbia, Guam, and 12 states reported sporadic activity, and Puerto Rico and the U.S. Virgin Islands did not report.

## International activity summary - www.who.int

Countries of the Northern Hemisphere temperate region report increasing influenza virus detections; however, none have crossed their seasonal threshold or announced the beginning of their season. Countries in southern and South-east Asia, except Cambodia, reported decreasing influenza virus detections. Cambodia has reported increased detections of influenza A (H3N2) for at least six weeks. In Sub-Saharan Africa, Cameroon has continued to experience circulation of influenza A (H3N2) but appears to have peaked and the rate of detections has decreased. Ethiopia and Ghana reported increases in influenza A (H1N1) pdm09, while Madagascar, Kenya and Togo reported low circulation of mainly influenza B. Influenza activity in the temperate countries of the Southern Hemisphere is now at inter-seasonal levels.

## Laboratory surveillance program – influenza and other respiratory viruses

The State Hygienic Laboratory (SHL) is the primary lab for influenza testing and reporting 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, the Dunes Medical Laboratories at Mercy Medical Center in Sioux City, and Iowa Methodist Medical Center in Des Moines.

#### Table 1. Influenza viruses isolated Current Cumulative week since 9/2/12 Flu A 61 (48%) 324 (38%) A (2009 H1N1) 0 (0%) 1 (<1%) 60 (47%) 319 (38%) A (H3) A (H3N2) variant 0 (0%) 1 (<1%) Subtyping not reported 1 (<1%) 3 (<1%) Flu B 2 (2%) 54 (6%) Equivocal 0 (0%) 0 (0%) Indeterminate 1 (<1%) 3 (<1%) Negative 65 (50%) 460 (55%) Total 129 841

| Table 2. Influenza viruses by age group 9/2/12 to present week |                      |            |                            |                      |          |
|--|----------------------|------------|----------------------------|----------------------|----------|
| Age<br>group   | Flu A (2009<br>H1N1) | Flu A (H3) | Flu A<br>(H3N2)<br>Variant | Flu A (no<br>typing) | Flu B    |
| 0-4  | 0 (0%)               | 59 (19%)   | * (*%)                     | 0 (0%)               | 16 (30%) |
| 5-17   | 1 (100%)             | 94 (29%)   | * (*%)                     | 2 (67%)              | 20 (37%) |
| 18-24  | 0 (0%)               | 24 (8%)    | 0 (0%)                     | 0 (0%)               | 2 (4%)   |
| 25-49  | 0 (0%)               | 67 (21%)   | 0 (0%)                     | 1 (10%)              | 9 (17%)  |
| 50-64  | 0 (0%)               | 23 (7%)    | 0 (0%)                     | 1 (33%)              | 3 (6%)   |
| >64  | 0 (0%)               | 52 (16%)   | 0 (0%)                     | 0 (0%)               | 4 (7%)   |
| Total  | 1                    | 319        | 1                          | 3                    | 54       |

\* Counts of three or less of reportable diseases are suppressed to protect confidentiality. Note that counts may not add up to the total due to missing age information

### Specimens tested by the State Hygienic Laboratory

|                                   | Current week | Cumulative since 9/2/12 |
|-----------------------------------|--------------|-------------------------|
| Adenovirus                        | 1            | 4                       |
| Parainfluenza Virus Type 1        | 0            | 0                       |
| Parainfluenza Virus Type 2        | 2            | 10                      |
| Parainfluenza Virus Type 3        | 1            | 30                      |
| Rhinovirus                        | 0            | 28                      |
| Respiratory syncytial virus (RSV) | 2            | 80                      |
| human metapneumovirus (hMPV)      | 0            | 1                       |





# 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. This system is a key part of Iowa's influenza surveillance. Any Iowa health care providers, who are interested in joining this important surveillance program, please contact Yumei Sun at 515-281-7134 or yumei.sun@idph.iowa.gov for more information.



# Influenza-associated hospitalizations

Twenty-one 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

Approximately 80 schools participating in IISN voluntarily track and report absence due to all illness (including non-influenza illnesses) and the total enrollment each week.



# Seasonal influenza vaccination

Seasonal influenza vaccination in Iowa is based on doses reported to the Iowa Immunization Registry Information System<sup>3</sup> (IRIS). IRIS is a confidential, computerized, population-based system that tracks immunizations for children, adolescents and adults who are seen in a variety of public and private healthcare provider sites throughout the state.



Note: The data for the 2012-2013 season is only up to 12/6/12 and there is a lag between the vaccine administration date and the date reported to the IRIS. Therefore, the current season's data will be adjusted as additional data is received.

<sup>&</sup>lt;sup>3</sup> For information on the immunization data, contact Kim Tichy, IRIS coordinator, at 515-281-4288 or Kimberly. Tichy@idph.iowa.gov

**<u>Regional activity</u>** (Data from sentinel surveillance system surveillance sites, except all schools with ≥10% absence due to illness must report.)

| Region 1 (Central)                       |                | Region 2 (North Central)                              |
|--|----------------|---|
| Influenza-associated hospitalizations    | 11/4270        | Influenza-associated hospitalizations 0/458           |
| Percent of influenza rapid test positive | 14.6% (15/103) | Percent of influenza rapid test positive 12.5% (2/16) |
| Percent of RSV rapid tests positive      | 29.4% (10/34)  | Percent of RSV rapid tests positive 0.0% (0/4)        |
| Schools with ≥10% absence due to illness | 0              | Schools with ≥10% absence due to illness 0            |
| Region 3 (Northwest)                     |                | Region 4 (Southwest)                                  |
| Influenza-associated hospitalizations    | 1/129          | Influenza-associated hospitalizations 0/16            |
| Percent of influenza rapid test positive | 10.3% (6/58)   | Percent of influenza rapid test positive 24.2% (8/33) |
| Percent of RSV rapid tests positive      | 15.4% (2/13)   | Percent of RSV rapid tests positive 0.0% (0/5)        |
| Schools with ≥10% absence due to illness | 0              | Schools with ≥10% absence due to illness 0            |
| Region 5 (Southeast)                     |                | Region 6 (East Central)                               |

| Region 5 (Southeast)                     |              | Region 6 (East Central)                  |                |
|--|--------------|--|----------------|
| Influenza-associated hospitalizations    | N/A          | Influenza-associated hospitalizations    | 2/1695         |
| Percent of influenza rapid test positive | 16.1% (9/56) | Percent of influenza rapid test positive | 17.9% (84/470) |
| Percent of RSV rapid tests positive      | 10.0% (2/20) | Percent of RSV rapid tests positive      | 10.1% (7/69)   |
| Schools with ≥10% absence due to illness | 0            | Schools with ≥10% absence due to illness | 2              |
| N/A: not available                       |              |  |                |

## Iowa map with regions and in red the number of schools that have ≥10% absence due to illness

