



Iowa Influenza Surveillance Network (IISN)

Influenza-like Illness (ILI) and Other Respiratory Viruses

Monthly Activity Report

September 2017



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

Iowa statewide activity summary:

Influenza activity in Iowa remains low. During this reporting month, four influenza A(H3) viruses were confirmed at the State Hygienic Laboratory. Other respiratory viruses reported in this period include 29 adenovirus, 49 parainfluenza 1, seven parainfluenza 3, six parainfluenza 4, 406 rhinovirus/enterovirus, 12 RSV, five hMPV and 14 coronavirus. No deaths due to influenza were reported in September. One respiratory outbreak in a long term care facility was reported in September, but no labs were positive for influenza.

Note that this data is included in the 2016-2017 influenza season (10/2/16-09/30/17) and the weekly reports will begin again next week for the start of the 2017-2018 season.

Laboratory surveillance program:

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 sub-type of positive tests to the influenza surveillance network several times every week.

Table 1: Influenza A viruses detected by SHL by age group

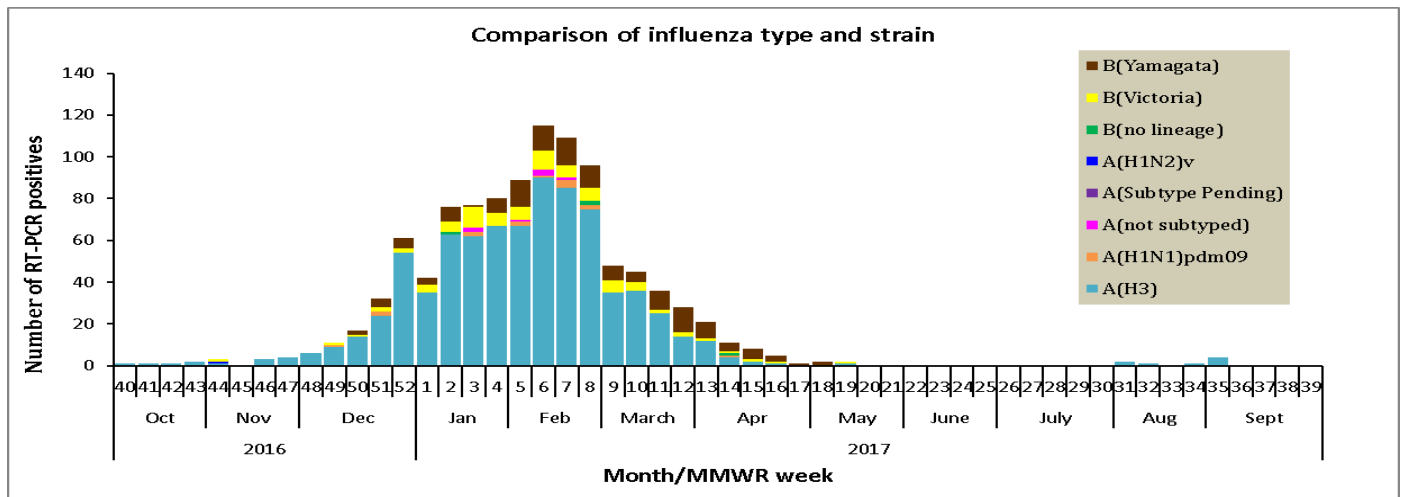
| | SEPTEMBER 2017 | | | | | CUMULATIVE (10/2/16 – CURRENT MONTH) | | | | |
|--------------|----------------|----------|----------|-----------------|--------------|--------------------------------------|------------|----------|-----------------|--------------|
| | Flu A | | | | | Flu A | | | | |
| | A(H1N1)pdm09 | A(H3) | A(H1N2v) | Subtype Pending | Not subtyped | A(H1N1)pdm09 | A(H3) | A(H1N2v) | Subtype Pending | Not subtyped |
| 0-4 | 0(0%) | 0(0%) | 0(0%) | 0(0%) | 0(0%) | 4(27%) | 32(4%) | 0(0%) | 0(0%) | 0(0%) |
| 5-17 | 0(0%) | 0(0%) | 0(0%) | 0(0%) | 0(0%) | 2(13%) | 49(6%) | 0(0%) | 0(0%) | 0(0%) |
| 18-24 | 0(0%) | 1(25%) | 0(0%) | 0(0%) | 0(0%) | 0(0%) | 121(15%) | 0(0%) | 0(0%) | 1(14%) |
| 25-49 | 0(0%) | 1(25%) | 0(0%) | 0(0%) | 0(0%) | 4(27%) | 67(8%) | 0(0%) | 0(0%) | 2(29%) |
| 50-64 | 0(0%) | 1(25%) | 0(0%) | 0(0%) | 0(0%) | 2(13%) | 92(12%) | 1(100%) | 0(0%) | 1(14%) |
| >64 | 0(0%) | 1(25%) | 0(0%) | 0(0%) | 0(0%) | 3(20%) | 441(55%) | 0(0%) | 0(0%) | 3(43%) |
| Total | 0 | 4 | 0 | 0 | 0 | 15 | 802 | 1 | 0 | 7 |

*Counts of three or less are sometimes suppressed to protect confidentiality. Note that counts may not add up to the total due to missing age information. Only cases of Iowa residents are included. "Not subtyped" column is due to weak detections. This can be due to poor collection, timing of collection or stage of infection.

Table 2: Influenza B viruses detected by SHL by age group

| | SEPTEMBER 2017 | | | CUMULATIVE (10/2/16 – CURRENT MONTH) | | |
|--------------|------------------|------------------|-----------------|--------------------------------------|------------------|-----------------|
| | Flu B | | | Flu B | | |
| | Victoria Lineage | Yamagata Lineage | Lineage Pending | Victoria Lineage | Yamagata Lineage | Lineage Pending |
| 0-4 | 0(0%) | 0(0%) | 0(0%) | 8(10%) | 7(5%) | 2(50%) |
| 5-17 | 0(0%) | 0(0%) | 0(0%) | 31(40%) | 28(21%) | 1(25%) |
| 18-24 | 0(0%) | 0(0%) | 0(0%) | 14(18%) | 15(11%) | 1(25%) |
| 25-49 | 0(0%) | 0(0%) | 0(0%) | 12(15%) | 16(12%) | 0(0%) |
| 50-64 | 0(0%) | 0(0%) | 0(0%) | 4(5%) | 26(19%) | 0(0%) |
| >64 | 0(0%) | 0(0%) | 0(0%) | 9(12%) | 42(32%) | 0(0%) |
| Total | 0 | 0 | 0 | 78 | 134 | 4 |

*Counts of three or less are sometimes suppressed to protect confidentiality. Note that counts may not add up to the total due to missing age information. Only cases of Iowa residents are included

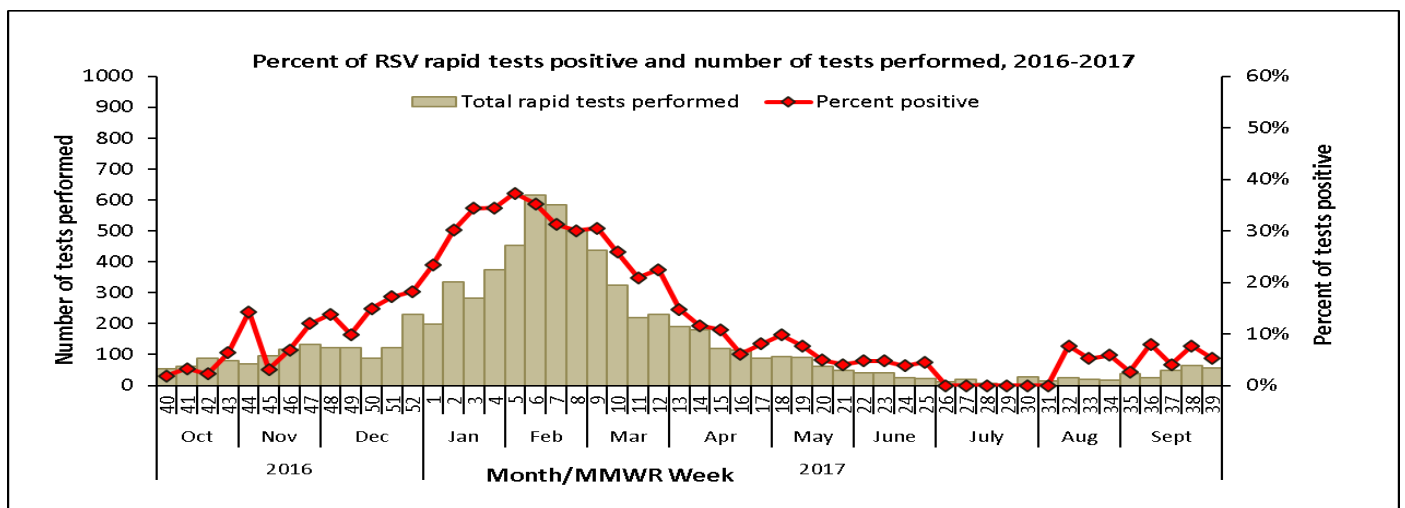
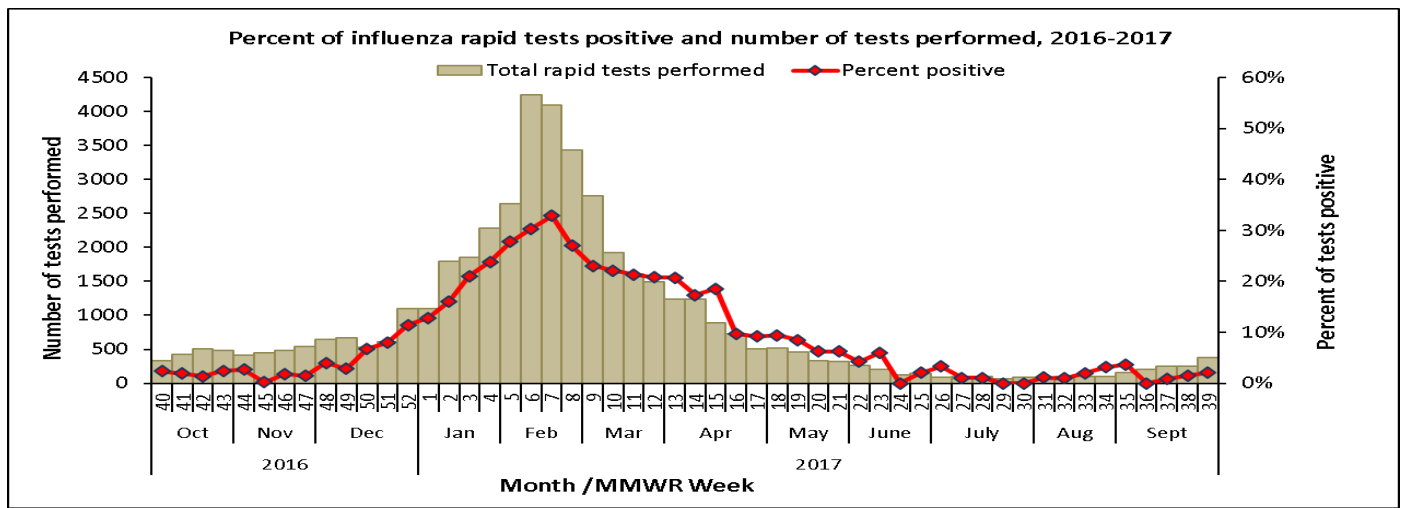


Rapid influenza and RSV test surveillance:

The State Hygienic Laboratory (SHL) runs a weekly web-based survey program where laboratorians report the number of influenza and respiratory syncytial virus (RSV) rapid tests performed and the number of tests positive. This table includes only the number of patients tested for influenza or RSV at laboratory surveillance sites throughout the state. This table does not provide case counts.

| REGION* | RAPID ANTIGEN INFLUENZA TESTS | | | | RAPID ANTIGEN RSV TESTS | | |
|--------------------|-------------------------------|-----------|----------|------------|-------------------------|-----------|------------|
| | Tested | Flu A | Flu B | % Positive | Tested | Positive | % Positive |
| Region 1 (Central) | 258 | 2 | 0 | 1 | 30 | 0 | 0 |
| Region 2 (NE) | 19 | 0 | 0 | 0 | 9 | 0 | 0 |
| Region 3 (NW) | 44 | 1 | 0 | 2 | 17 | 0 | 0 |
| Region 4 (SW) | 54 | 0 | 0 | 0 | 12 | 1 | 8 |
| Region 5 (SE) | 155 | 1 | 0 | 1 | 58 | 1 | 2 |
| Region 6 (Eastern) | 720 | 10 | 6 | 2 | 108 | 11 | 10 |
| Total | 1250 | 14 | 6 | 2 | 234 | 13 | 6 |

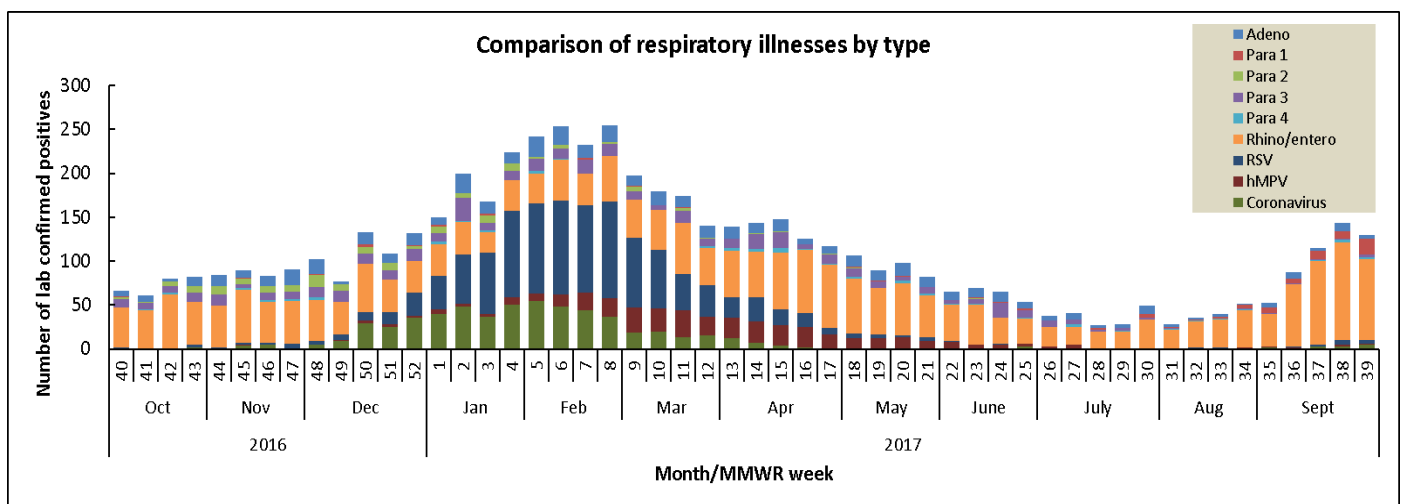
*Region 1- Boone, Calhoun, Carroll, Dallas, Greene, Grundy, Hamilton, Hardin, Jasper, Marshall, Polk, Poweshiek, Story, Tama, Warren, Webster; Region 2- Allamakee, Bremer, Butler, Cerro Gordo, Chickasaw, Emmet, Fayette, Floyd, Franklin, Hancock, Howard, Humboldt, Kossuth, Mitchell, Winnebago, Winneshiek, Worth, Wright; Region 3- Buena Vista, Cherokee, Clay, Crawford, Dickinson, Ida, Lyon, Monona, O'Brien, Osceola, Palo Alto, Plymouth, Pocahontas, Sac, Sioux, Woodbury; Region 4- Adair, Adams, Audubon, Cass, Clarke, Decatur, Fremont, Guthrie, Harrison, Madison, Mills, Montgomery, Page, Pottawattamie, Ringgold, Shelby, Taylor, Union; Region 5- Appanoose, Davis, Des Moines, Henry, Jefferson, Keokuk, Lee, Louisa, Lucas, Mahaska, Marion, Monroe, Muscatine, Van Buren, Wapello, Washington, Wayne; Region 6- Benton, Black Hawk, Buchanan, Cedar, Clayton, Clinton, Delaware, Dubuque, Iowa, Jackson, Johnson, Jones, Linn, Scott.



Non-influenza respiratory virus:

The State Hygienic Laboratory (SHL) runs a weekly web-based survey program where laboratorians report the number of positive tests for non-influenza respiratory viruses. This table also includes the positive non-influenza virus tests reported from the Dunes Medical Laboratories at Mercy Medical Center in Sioux City. The table includes only the number of positive tests at laboratory surveillance sites throughout the state. The table does not provide case counts.

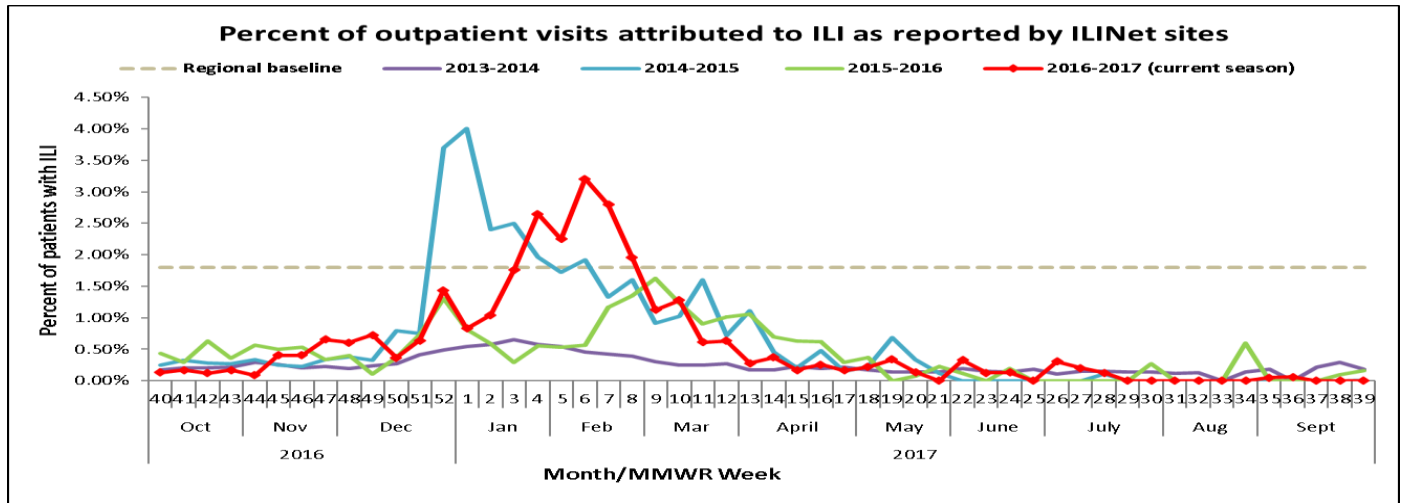
| Table 4: Number of positive results for non-influenza respiratory virus collected by SHL and Mercy Dunes in Sioux City | | |
|--|----------------|--------------------------------------|
| Viruses | SEPTEMBER 2017 | CUMULATIVE (10/2/16 – CURRENT MONTH) |
| Adenovirus | 29 | 541 |
| Parainfluenza Virus Type 1 | 49 | 86 |
| Parainfluenza Virus Type 2 | 0 | 138 |
| Parainfluenza Virus Type 3 | 7 | 429 |
| Parainfluenza Virus Type 4 | 6 | 66 |
| Rhinovirus/Enterovirus | 406 | 2423 |
| Respiratory syncytial virus (RSV) | 12 | 1107 |
| Human metapneumovirus (hMPV) | 5 | 389 |
| Coronavirus | 14 | 594 |
| Total | 528 | 5773 |



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. Across the state, 17 providers, ranging from family medicine to student health centers, participate weekly in the ILINet program. Iowa health care providers interested in joining this surveillance program should contact Andy Weigel at 515-322-1937 or andy.weigel@idph.iowa.gov for more information.

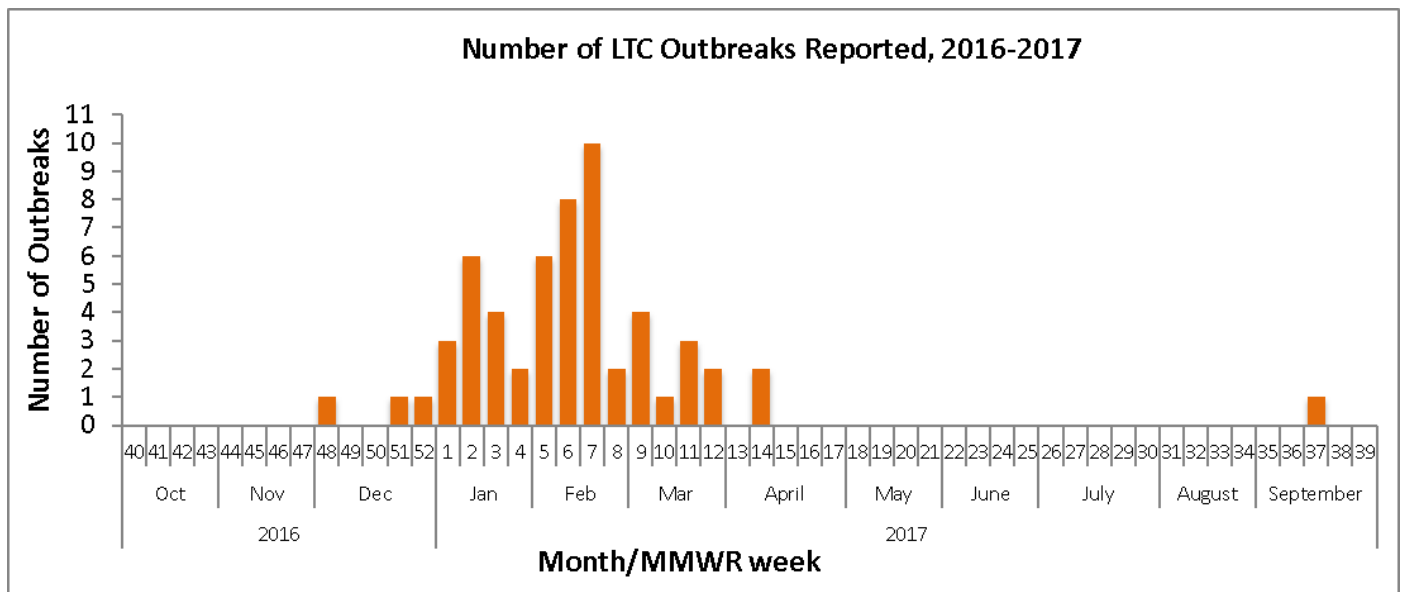
| Week | %ILI | Total ILI | Age 0-4 | Age 5-24 | Age 25-49 | Age 50-64 | Age >64 |
|------------------------------|-------|-----------|---------|----------|-----------|-----------|---------|
| Week 35, ending September 2 | 0.05% | 1 | 0 | 1 | 0 | 0 | 0 |
| Week 36, ending September 9 | 0.06% | 1 | 0 | 1 | 0 | 0 | 0 |
| Week 37, ending September 16 | 0.00% | 0 | 0 | 0 | 0 | 0 | 0 |
| Week 38, ending September 23 | 0.00% | 0 | 0 | 0 | 0 | 0 | 0 |
| Week 39, ending September 30 | 0.00% | 0 | 0 | 0 | 0 | 0 | 0 |



Long-term care outbreaks

| REGION* | SEPTEMBER 2017 | CUMULATIVE (10/2/16 – CURRENT MONTH) |
|--------------------|----------------|--------------------------------------|
| Region 1 (Central) | 0 | 19 |
| Region 2 (NE) | 0 | 4 |
| Region 3 (NW) | 0 | 7 |
| Region 4 (SW) | 0 | 9 |
| Region 5 (SE) | 0 | 8 |
| Region 6 (Eastern) | 1 | 10 |
| Total | 0 | 57 |

*Region 1- Boone, Calhoun, Carroll, Dallas, Greene, Grundy, Hamilton, Hardin, Jasper, Marshall, Polk, Poweshiek, Story, Tama, Warren, Webster; Region 2- Allamakee, Bremer, Butler, Cerro Gordo, Chickasaw, Emmet, Fayette, Floyd, Franklin, Hancock, Howard, Humboldt, Kossuth, Mitchell, Winnebago, Winneshiek, Worth, Wright; Region 3- Buena Vista, Cherokee, Clay, Crawford, Dickinson, Ida, Lyon, Monona, O'Brien, Osceola, Palo Alto, Plymouth, Pocahontas, Sac, Sioux, Woodbury; Region 4- Adair, Adams, Audubon, Cass, Clarke, Decatur, Fremont, Guthrie, Harrison, Madison, Mills, Montgomery, Page, Pottawattamie, Ringgold, Shelby, Taylor, Union; Region 5- Appanoose, Davis, Des Moines, Henry, Jefferson, Keokuk, Lee, Louisa, Lucas, Mahaska, Marion, Monroe, Muscatine, Van Buren, Wapello, Washington, Wayne; Region 6- Benton, Black Hawk, Buchanan, Cedar, Clayton, Clinton, Delaware, Dubuque, Iowa, Jackson, Johnson, Jones, Linn, Scott.



Other resources:

Vaccine:

Influenza vaccine recommendation: idph.iowa.gov/imm/immunization/vaccine

CDC vaccine information: www.cdc.gov/flu/faq/flu-vaccine-types.htm

Vaccine finder: <http://vaccinefinder.org/>

Neighboring states' influenza information:

Illinois: www.dph.illinois.gov/topics-services/diseases-and-conditions/influenza/surveillance

Minnesota: www.health.state.mn.us/divs/idepc/diseases/flu/stats/index.html

Missouri: health.mo.gov/living/healthcondiseases/communicable/influenza/reports.php

South Dakota: doh.sd.gov/diseases/infectious/flu/

Wisconsin: www.dhs.wisconsin.gov/influenza/index.htm

National activity summary - (CDC):

Condensed reports over the summer months are available at www.cdc.gov/flu/weekly/.

International activity summary - (WHO):

Detailed information can be found online at www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/.