



Iowa Influenza Surveillance Network (IISN)
Influenza-like Illness (ILI) and Other Respiratory Viruses
Weekly Activity Report
For the week ending October 27, 2018 - Week 43



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

Iowa Influenza Geographic Spread				
No Activity	Sporadic	Local	Regional	Widespread

Note: See CDC activity estimates for definition www.cdc.gov/flu/weekly/overview.htm

Quick Stats	
Predominate influenza subtype	A(H3)
Percent of influenza rapid test positive	1% (5/969)
Percent of RSV rapid tests positive	4% (3/82)
Influenza-associated hospitalizations	8/5494 inpatients surveyed
Percent of outpatient visits for ILI	0.65% (baseline 1.6%)
Percent school absence due to illness	1.7%
Number of long-term care outbreaks	1
Number of schools with ≥10% absence due to illness	1
Influenza-associated mortality -all ages (Cumulative)	0
Influenza-associated pediatric mortality (Cumulative)	0
Predominate non-influenza virus	Rhinovirus/enterovirus

Note: Deaths are considered influenza-associated when influenza is listed on the death certificate. This is an underestimate of influenza-related deaths. Cumulative mortality totals are from 9/30/2018 to the current week.

Iowa statewide activity summary:

Influenza activity is low in Iowa this week, but with small increases from last week. The geographic spread of influenza in Iowa is sporadic. The State Hygienic Laboratory confirmed four influenza A(H3) and two influenza A(H1N1)pdm09 viruses from submitted samples. Eight influenza-related hospitalizations were reported from sentinel hospitals. The proportion of outpatient visits due to influenza-like illness (ILI) was 0.65 percent, which is below the regional baseline of 1.6 percent. One long-term care outbreak was investigated, but no specimens confirmed positive for influenza by PCR and no other pathogens were detected. One school in the east flu region reported at least 10 percent illness. No influenza-related deaths or were reported this reporting week. Surveillance sites reported detecting the following non-influenza respiratory illnesses with the most frequency: 169 rhinovirus/enterovirus, 41 parainfluenza virus type two, and 34 parainfluenza type four.

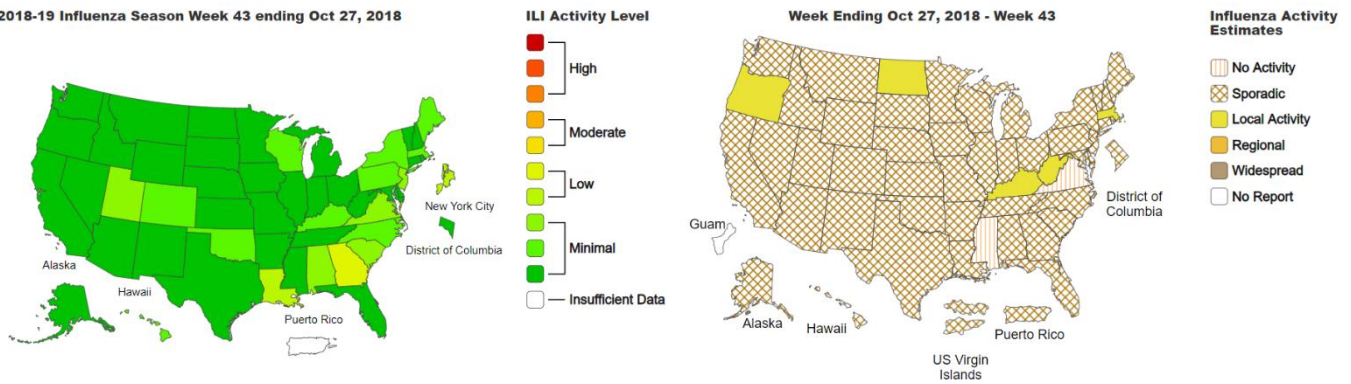
International activity summary - (WHO):

In the temperate zone of the northern hemisphere influenza activity remained at inter-seasonal levels. Increased influenza detections were reported in some countries of Southern and South-East Asia. In the temperate zones of the southern hemisphere, influenza activity appeared to decrease overall. Worldwide, seasonal influenza subtype A viruses accounted for the majority of detections.

Visit www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/ for more information. It was last updated 10/29/2018.

National activity summary - (CDC)-Last Updated for Week 43:

2018-19 Influenza Season Week 43 ending Oct 27, 2018



Synopsis: During week 43 (October 20-27, 2018), influenza activity in the United States remains low, although small increases in activity were reported. Influenza A(H1N1)pdm09, influenza A(H3N2), and influenza B viruses continue to co-circulate, with influenza A(H1N1)pdm09 viruses reported most commonly by public health laboratories during the most recent three weeks.

Viral Surveillance: Influenza A viruses have predominated in the United States since the beginning of July. The percentage of respiratory specimens testing positive for influenza in clinical laboratories was low. The majority of influenza viruses characterized antigenically and genetically are similar to the cell-grown reference viruses representing the 2018–2019 Northern Hemisphere influenza vaccine viruses. All viruses tested since late May show susceptibility to the antiviral drugs oseltamivir, zanamivir, and peramivir.

Outpatient Illness Surveillance: The proportion of outpatient visits for influenza-like illness (ILI) increased slightly to 1.7%, which is below the national baseline of 2.2%. All regions reported ILI below their region-specific baseline level.

Geographic Spread of Influenza: The geographic spread of influenza in five states was reported as local; the District of Columbia, Puerto Rico, the U.S. Virgin Islands and 43 states reported sporadic activity; two states reported no activity; and Guam did not report.

Pneumonia and Influenza Mortality: The proportion of deaths attributed to pneumonia and influenza (P&I) was below the system-specific epidemic threshold in the National Center for Health Statistics (NCHS) Mortality Surveillance System.

Influenza-associated Pediatric Deaths: Three influenza-associated pediatric deaths were reported to CDC. One occurred during the 2018-2019 season and two occurred during the 2017-2018 season.

Detailed information can be found online at www.cdc.gov/flu/weekly/.

Laboratory surveillance program:

The State Hygienic Laboratory (SHL) is the primary laboratory in Iowa characterizing specimens for influenza surveillance. SHL reports the number of tests performed and the type and subtype/lineage of positive tests to the influenza surveillance network daily. SHL also sends a portion of specimens to CDC for further characterization.

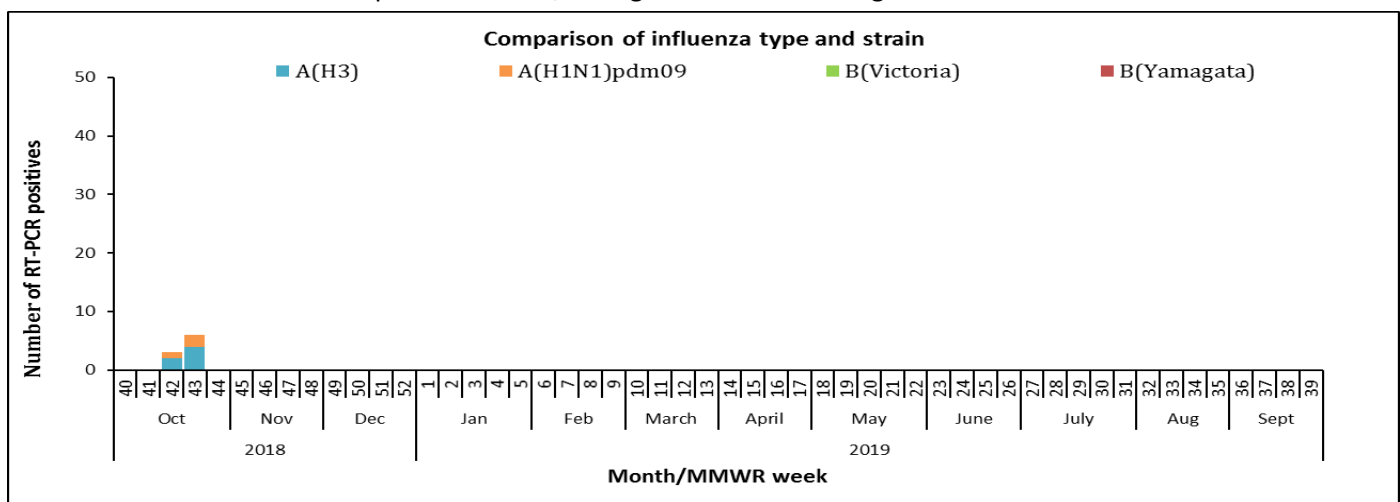
Table 1: Influenza A viruses detected by SHL by age group

Age Group	CURRENT WEEK				CUMULATIVE (9/30/18– CURRENT WEEK)			
	A(H1N1) pdm09	A(H3)	Not subtyped	Total	A(H1N1) pdm09	A(H3)	Not subtyped	Total
0-4	0	0	0	0 (0%)	0	0	0	0 (0%)
5-17	2	1	0	3 (50%)	2	1	0	3 (33%)
18-24	0	0	0	0 (0%)	0	0	0	0 (0%)
25-49	0	0	0	0 (0%)	1	1	0	2 (22%)
50-64	0	1	0	1 (17%)	0	1	0	1 (11%)
>64	0	2	0	2 (33%)	0	3	0	3 (33%)
Total	2 (33%)	4 (67%)	0 (0%)	6	3 (33%)	6 (67%)	0 (0%)	9

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

Age Group	CURRENT WEEK				CUMULATIVE (9/30/18– CURRENT WEEK)			
	Victoria Lineage	Yamagata Lineage	Not subtyped	Total	Victoria Lineage	Yamagata Lineage	Not subtyped	Total
0-4	0	0	0	0 (0%)	0	0	0	0 (0%)
5-17	0	0	0	0 (0%)	0	0	0	0 (0%)
18-24	0	0	0	0 (0%)	0	0	0	0 (0%)
25-49	0	0	0	0 (0%)	0	0	0	0 (0%)
50-64	0	0	0	0 (0%)	0	0	0	0 (0%)
>64	0	0	0	0 (0%)	0	0	0	0 (0%)
Total	0 (0%)	0 (0%)	0 (0%)	0	0 (0%)	0 (0%)	0 (0%)	0

Table 1 and 2 Notes: Cell counts of three or less are sometimes suppressed to protect confidentiality. Totals by age may not add up to totals by subtype/lineage due to missing age information. Only cases of Iowa residents are included. Specimens listed as “not subtyped” may be pending or were not able to be subtyped due to weak positive lab results. This can be due to poor collection, timing of collection or stage of infection.



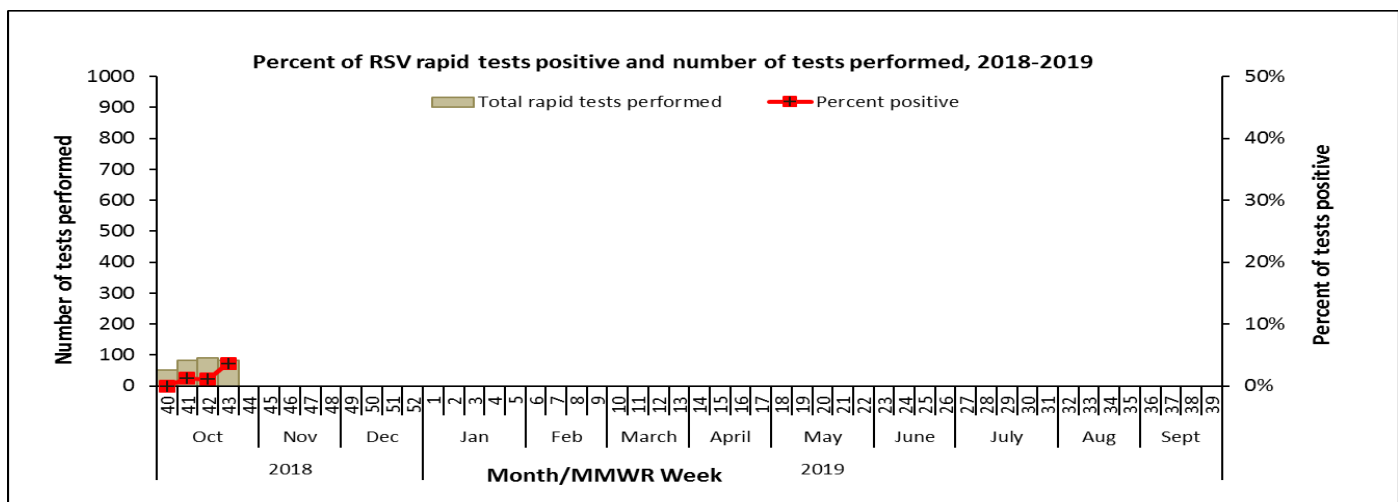
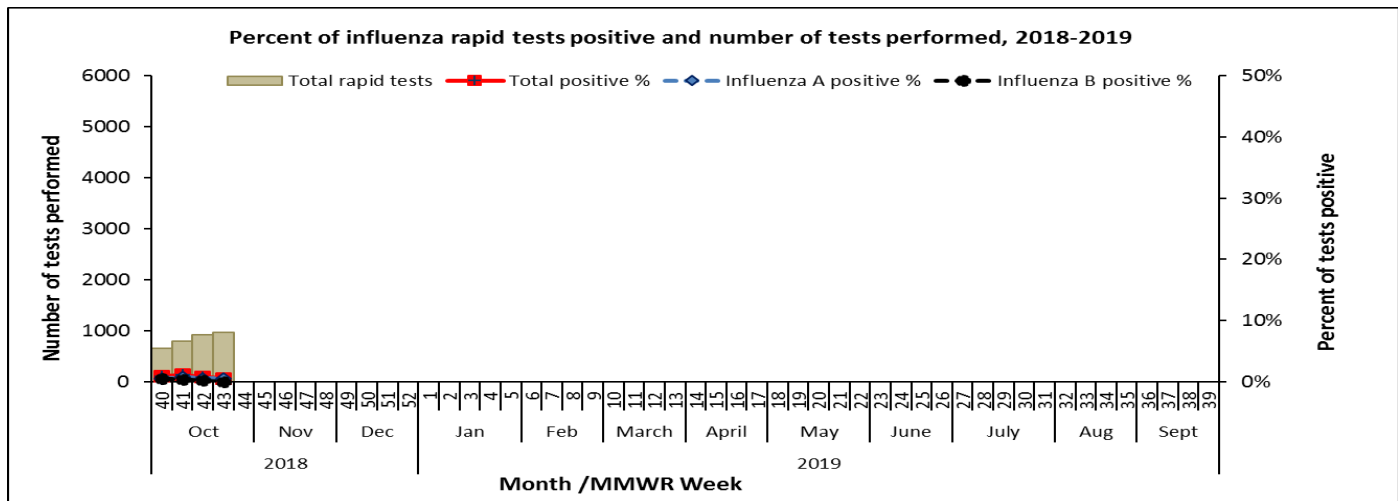
Rapid influenza and RSV test surveillance:

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.

Table 3: Percent of influenza rapid tests positive and number of tests performed by region for the present week

REGION	RAPID ANTIGEN INFLUENZA TESTS				RAPID ANTIGEN RSV TESTS		
	Tested	Flu A	Flu B	% Positive	Tested	Positive	% Positive
Region 1 (Central)	328	1	0	0	12	0	0
Region 2 (NE)	39	1	0	3	5	1	20
Region 3 (NW)	64	0	0	0	17	0	0
Region 4 (SW)	86	2	0	2	8	0	0
Region 5 (SE)	55	0	0	0	14	0	0
Region 6 (Eastern)	397	1	0	0	26	2	8
Total	969	5	0	1	82	3	4

Note: see map in the school section for the counties in each region.

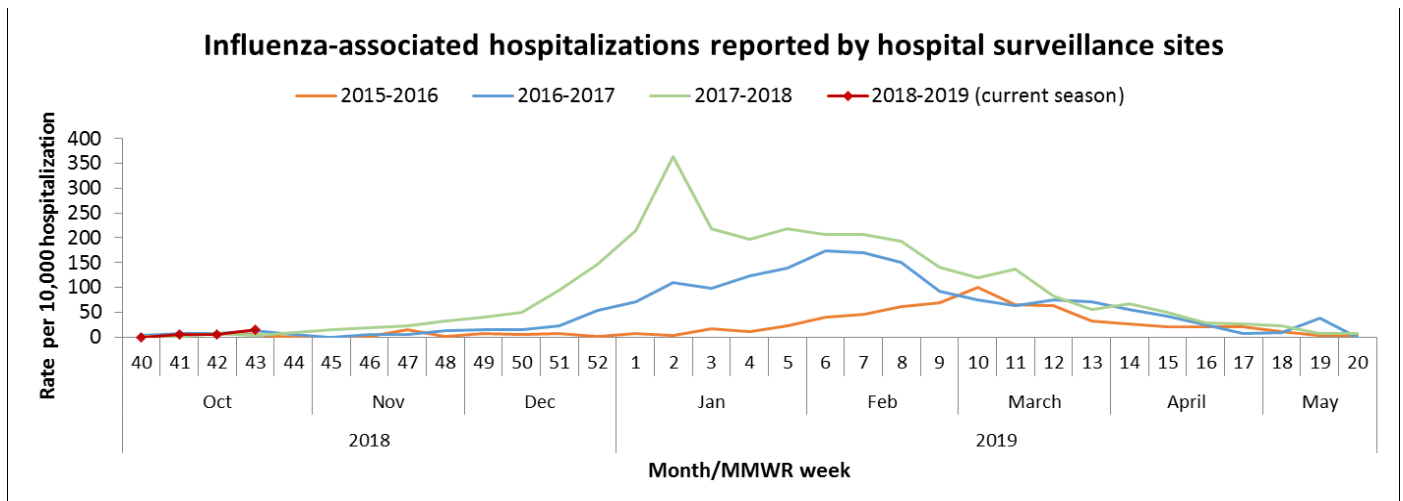
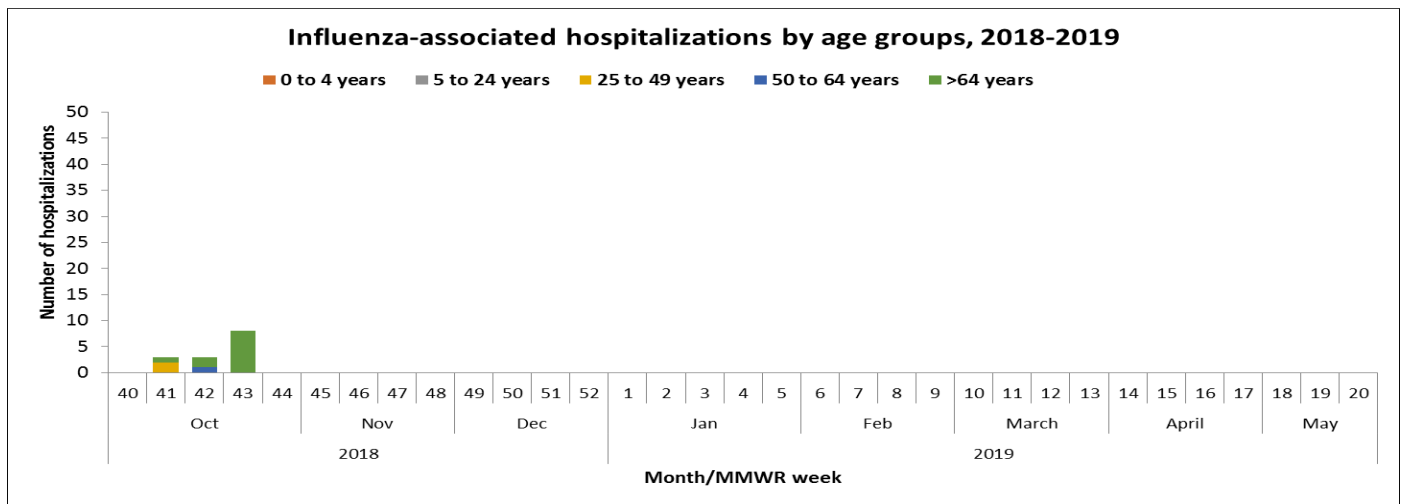


Influenza-associated hospitalizations:

Sentinel hospitals that participate in IISN voluntarily track and report the number of influenza-associated hospitalizations and the total number of inpatients each week. Iowa hospitals interested in joining this surveillance program should contact Andy Weigel at 515-322-1937 or andy.weigel@idph.iowa.gov for more information.

Table 4: Number of influenza-associated hospitalization reported by age group

AGE	CURRENT WEEK	CUMULATIVE (9/30/18– CURRENT WEEK)
Age 0-4	0	0
Age 5-24	0	0
Age 25-49	0	2
Age 50-64	0	1
Age >64	8	11
Total	8	14



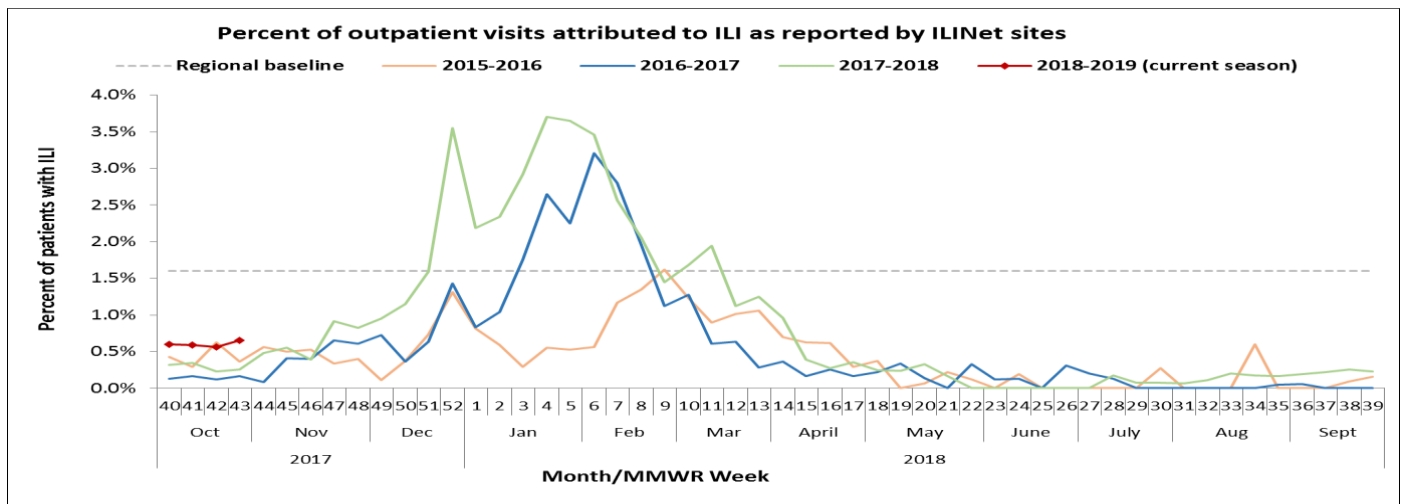
Outpatient health care provider surveillance program (ILINet):

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. 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.

Table 5: Outpatient visits for influenza-like illness (ILI)

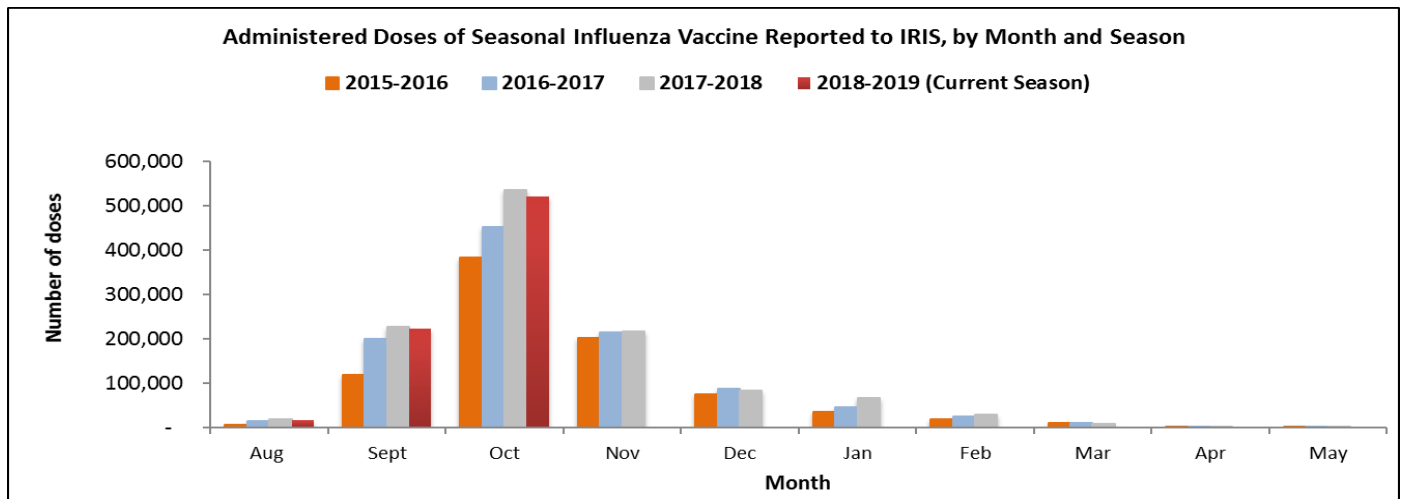
Week	Age 0-4	Age 5-24	Age 25-49	Age 50-64	Age >64	Total ILI	ILI Percent
Week 41, ending Oct 13	9	18	2	1	4	34	0.59
Week 42, ending Oct 20	8	15	6	1	3	33	0.56
Week 43, ending Oct 27	13	15	6	3	3	40	0.65

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



Seasonal influenza vaccination:

Seasonal influenza vaccination data in Iowa is based on doses reported to the Iowa Immunization Registry Information System (IRIS). IRIS is a confidential, computerized, population-based system that tracks immunization for children, adolescents and adults who are seen in a variety of public and private healthcare provider sites throughout the state of Iowa. For more information on the immunization data, contact Kim Tichy, IRIS coordinator at 515-281-4288 or kimberly.tichy@idph.iowa.gov.



Note: The data for the 2018-2019 season is only up to the current week and there is a lag between the vaccine administration date and the date reported to the IRIS. The current season’s data will be adjusted as additional data is received.

Long-term Care Outbreaks:

Table 6: Number of long-term care outbreaks investigated

REGION	CURRENT WEEK	CUMULATIVE (9/30/18– CURRENT WEEK)
Region 1 (Central)	0	0
Region 2 (NE)	0	0
Region 3 (NW)	0	0
Region 4 (SW)	0	0
Region 5 (SE)	1	1
Region 6 (Eastern)	0	0
Total	1	1

Note: see map in the school section for the counties in each region.

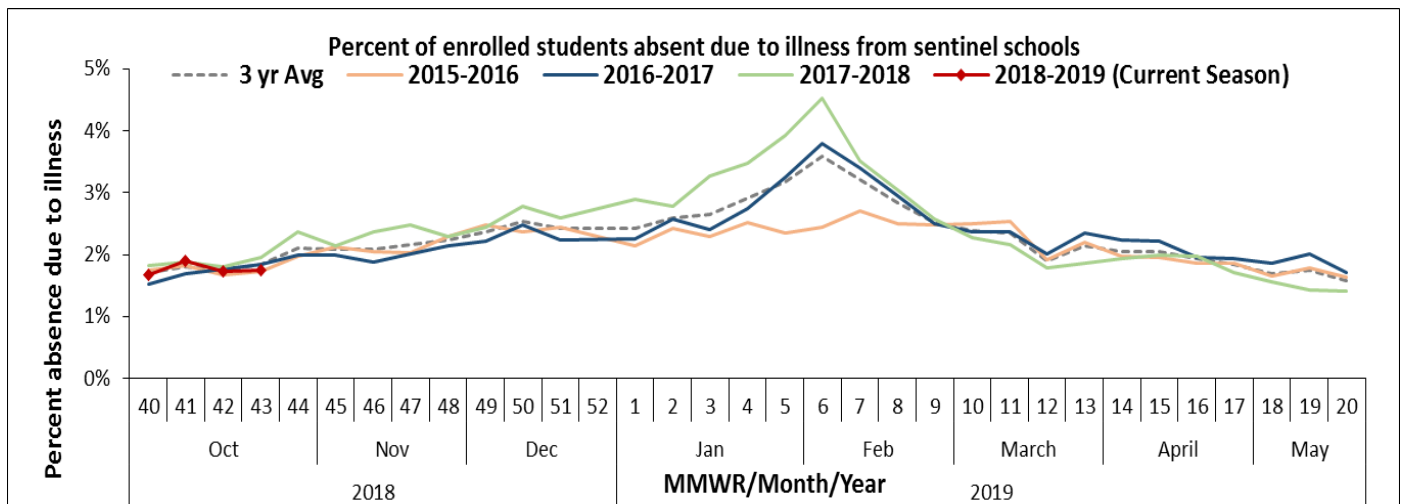
School surveillance program

IDPH monitors illnesses in schools from two different types of reporting: 10 percent school absence reports and weekly sentinel illness reporting. Iowa schools (K-12) track and report (including non-influenza illnesses) when the number of students absent with illness reaches or exceeds 10 percent of total student enrollment. Iowa sentinel schools that participate in IISN voluntarily track and report absence due to all illness and the total enrollment each week. This data provides excellent trends for influenza activity as well as age-specific information used to target vaccination efforts and messages.

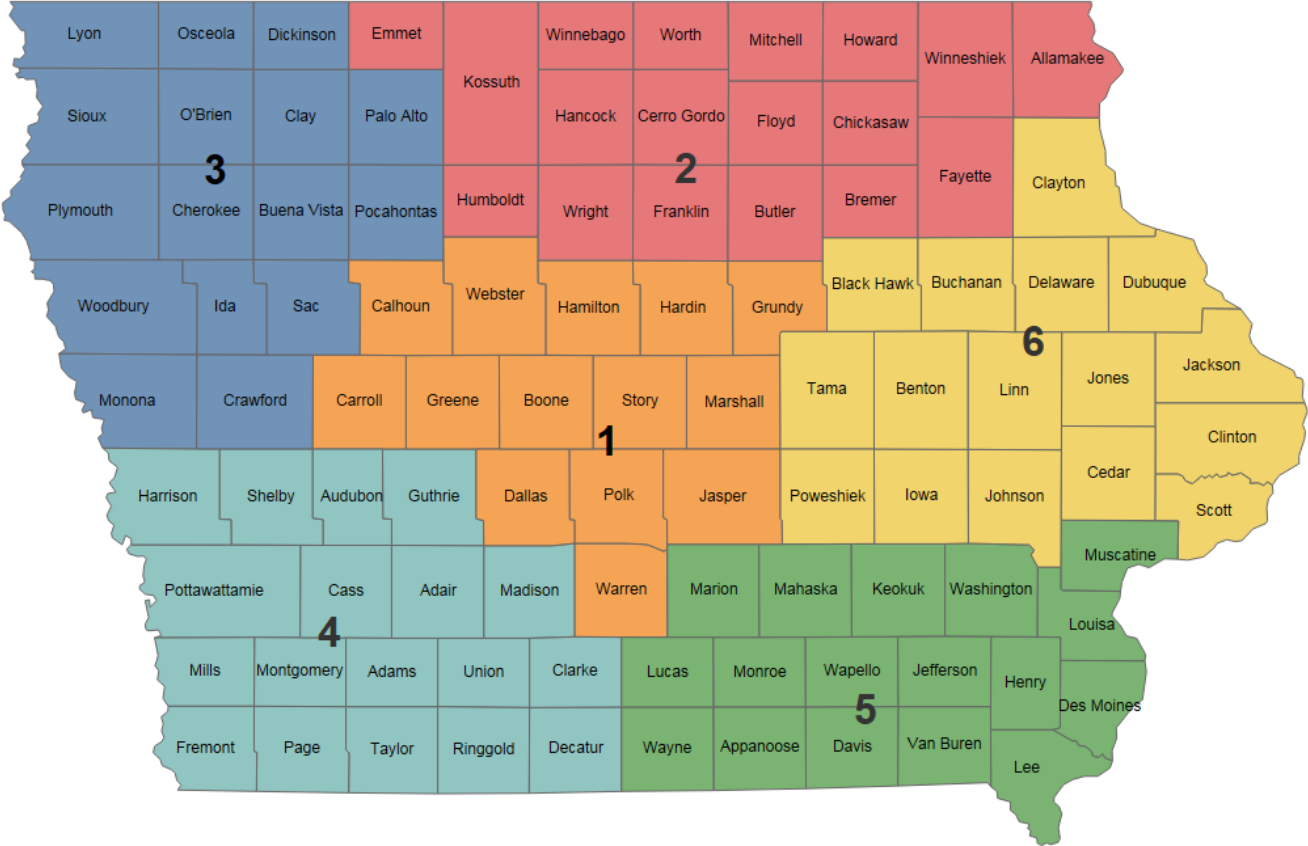
Table 7: Number of schools reporting >10% absenteeism due to any illness

REGION	CURRENT WEEK	CUMULATIVE (9/30/18–CURRENT WEEK)
Region 1 (Central)	0	0
Region 2 (NE)	0	0
Region 3 (NW)	0	0
Region 4 (SW)	0	0
Region 5 (SE)	0	0
Region 6 (Eastern)	1	1
Total	1	1

Note: see map in the school section for the counties in each region.



Iowa Influenza Region Map

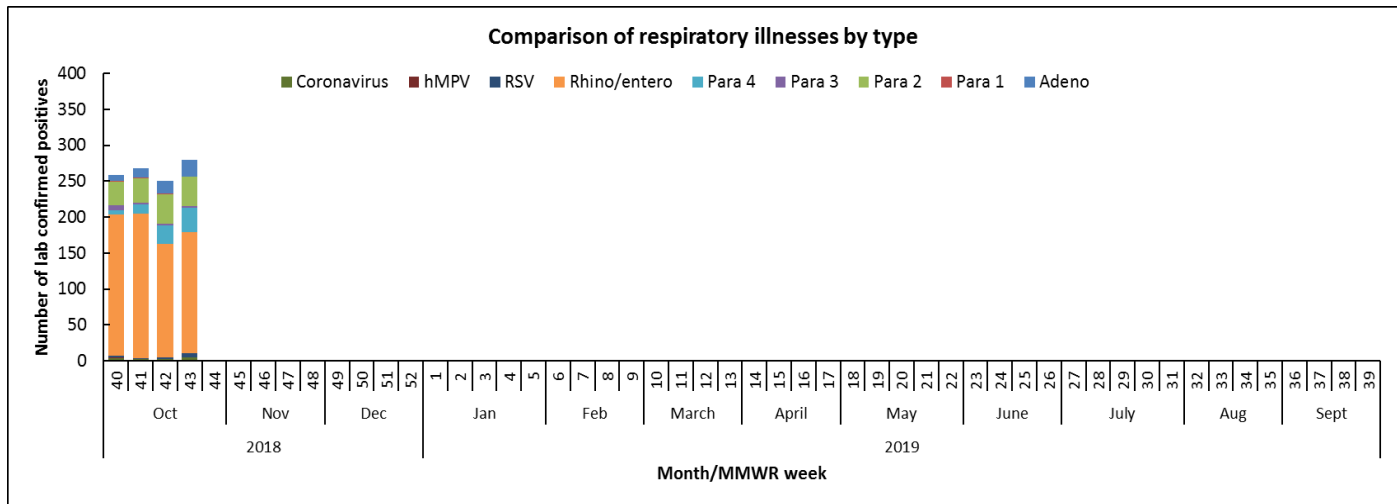


Non-influenza respiratory viruses:

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 8: Number of positive results for non-influenza respiratory virus collected by SHL, Mercy Dunes in Sioux City and Iowa Methodist Medical Center

Viruses	CURRENT WEEK	CUMULATIVE (9/30/18–CURRENT WEEK)
Adenovirus	24	62
Parainfluenza Virus Type 1	0	3
Parainfluenza Virus Type 2	41	149
Parainfluenza Virus Type 3	2	13
Parainfluenza Virus Type 4	34	78
Rhinovirus/Enterovirus	169	725
Respiratory syncytial virus (RSV)	5	12
Human metapneumovirus (hMPV)	0	1
Coronavirus	5	13
Total	280	1056



Other resources:

Vaccine:

Influenza vaccine recommendation: idph.iowa.gov/immmtb/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