



Iowa Influenza Surveillance Network (IISN)

Influenza-like Illness (ILI) and Other Respiratory Viruses

Weekly Activity Report



For the week ending October 28, 2017 - 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	
Percent of influenza rapid test positive	2% (12/635)
Percent of RSV rapid tests positive	2% (3/142)
Influenza-associated hospitalizations	2/3108 inpatients surveyed
Percent of outpatient visits for ILI	0.26% (baseline 1.9%)
Percent school absence due to illness	1.95%
Number of schools with ≥10% absence due to illness	0
Influenza-associated mortality -all ages (Cumulative)	1
Influenza-associated pediatric mortality (Cumulative)	0

Note: Deaths in which influenza is listed on the death certificate. This is an underestimate of influenza-related deaths. Cumulative is 10/1/2017 - current week.

Iowa statewide activity summary:

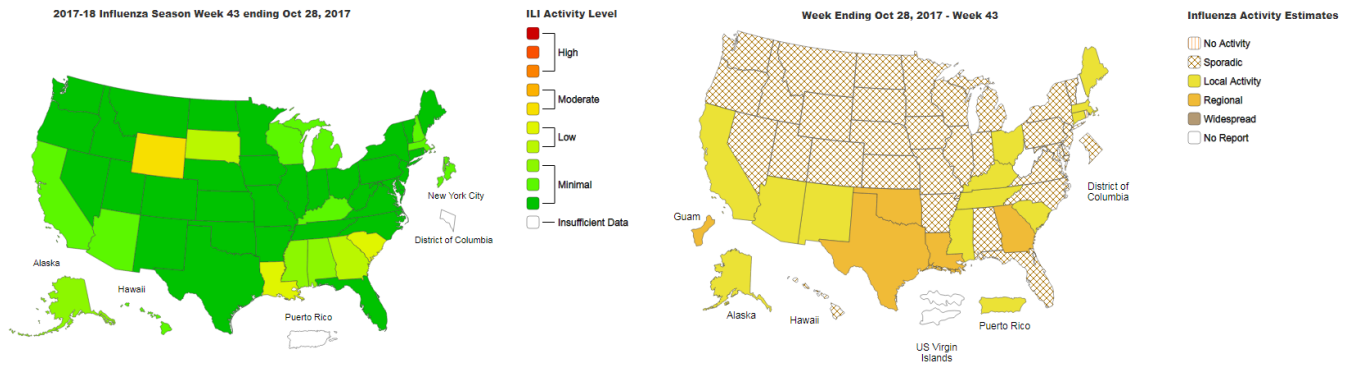
Influenza activity is low in Iowa. The geographic spread of influenza in Iowa is sporadic. For this reporting week, the State Hygienic Laboratory confirmed four influenza A(H3), three influenza A(H1N1)pdm09, and one influenza A not subtyped (due to a weak positive) viruses from submitted samples with two additional influenza A and one influenza B positive specimens awaiting subtyping/lineage. Two influenza-related hospitalizations were reported from sentinel hospitals during this reporting week. The proportion of outpatient visits due to influenza-like illness (ILI) was 0.26 percent, which is below the regional baseline of 1.9. In this reporting week, 9 adenovirus, 40 parainfluenza virus type 1, three parainfluenza virus type 4, 73 rhinovirus/ enterovirus, four RSV, two hMPV and four coronavirus were detected from surveillance sites.

International activity summary - (WHO):

Declining levels of influenza activity were reported in the temperate zone of the southern hemisphere and in some countries of South and South East Asia. In Central America and the Caribbean, low influenza activity was reported in a few countries. Influenza activity remained at low levels in the temperate zone of the northern hemisphere. Worldwide, influenza A(H3N2) and B viruses accounted for the majority of influenza detections.

Visit www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/ for more information. It was last updated 10/30/2017.

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



Synopsis: During week 43 (October 22-28, 2017), influenza activity was low in the United States.

Viral Surveillance: The most frequently identified influenza virus type reported by public health laboratories during week 43 was influenza A. The percentage of respiratory specimens testing positive for influenza in clinical laboratories is low.

Novel Influenza A Virus: Three human infections with novel influenza A virus were reported.

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: One influenza-associated pediatric death was reported that occurred during the 2016-2017 season.

Outpatient Illness Surveillance: The proportion of outpatient visits for influenza-like illness (ILI) was 1.5%, which is below the national baseline of 2.2%. All 10 regions reported ILI below region-specific baseline levels. One state experienced moderate ILI activity, four states experienced low ILI activity, New York City and 45 states experienced minimal ILI activity, and the District of Columbia and Puerto Rico had insufficient data.

Geographic Spread of Influenza: The geographic spread of influenza in Guam and four states was reported as regional; Puerto Rico and 12 states reported local activity; the District of Columbia and 31 states reported sporadic activity; one state reported no activity; and the U.S. Virgin Islands and two states did not report.

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

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 daily.

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

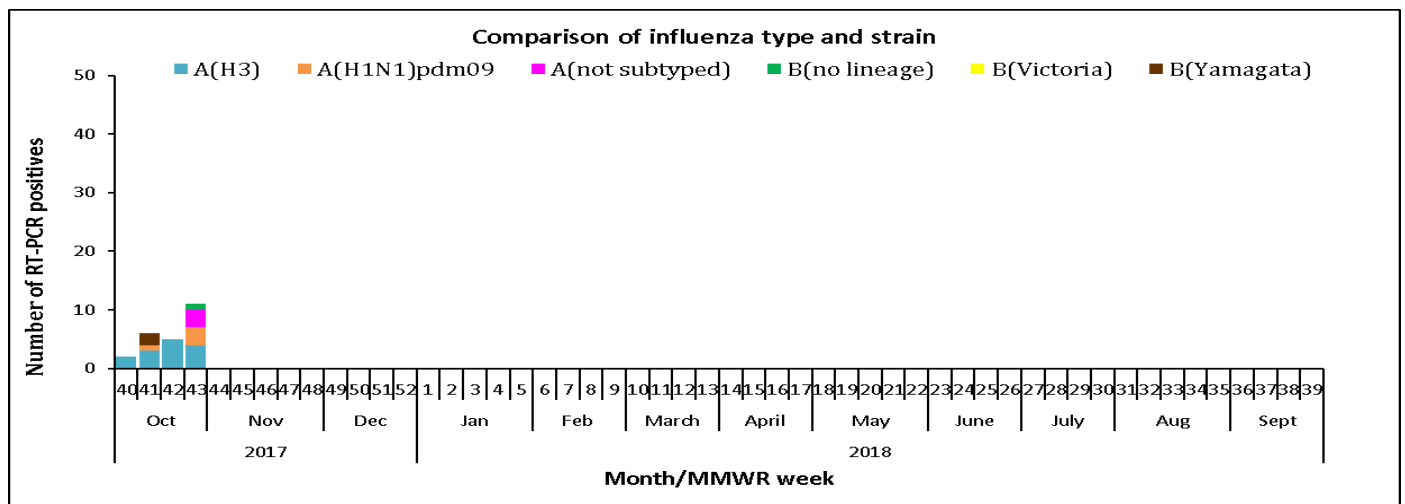
Age Group	CURRENT WEEK				CUMULATIVE (10/1/17– CURRENT WEEK)			
	A(H1N1) pdm09	A(H3)	Pending/ Not subtyped	Total	A(H1N1) pdm09	A(H3)	Pending/ Not subtyped	Total
0-4	2	0	1	3 (30%)	3	0	1	4 (19%)
5-17	0	0	1	1 (10%)	0	1	1	2 (10%)
18-24	0	0	0	0 (0%)	0	0	0	0 (0%)
25-49	1	0	0	1 (10%)	1	1	0	2 (10%)
50-64	0	1	1	2 (20%)	0	4	0	4 (19%)
>64	0	3	0	3 (30%)	0	8	1	9 (43%)
Total	3 (30%)	4 (40%)	3 (30%)	10	4 (19%)	14 (67%)	3 (14%)	21

Notes: Counts of three or less are sometimes suppressed to protect confidentiality. Counts may not add up to the total due to missing age information. Only cases of Iowa residents are included. "Pending/Not subtyped" column is pending or unsubtypeable 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

Age Group	CURRENT WEEK				CUMULATIVE (10/1/17– CURRENT WEEK)			
	Victoria Lineage	Yamagata Lineage	Lineage Pending	Total	Victoria Lineage	Yamagata Lineage	Lineage Pending	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	1	0	1 (33%)
50-64	0	0	1	1 (100%)	0	1	1	2 (67%)
>64	0	0	0	0 (0%)	0	0	0	0 (0%)
Total	0 (0%)	0 (0%)	1 (100%)	1	0 (0%)	2 (67%)	1 (33%)	3

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



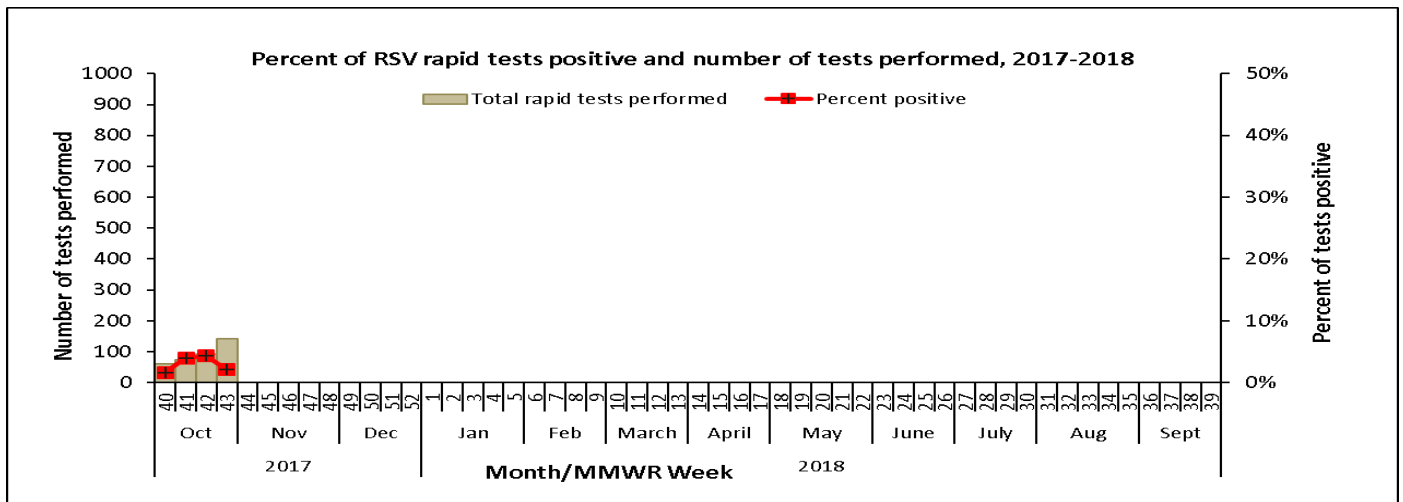
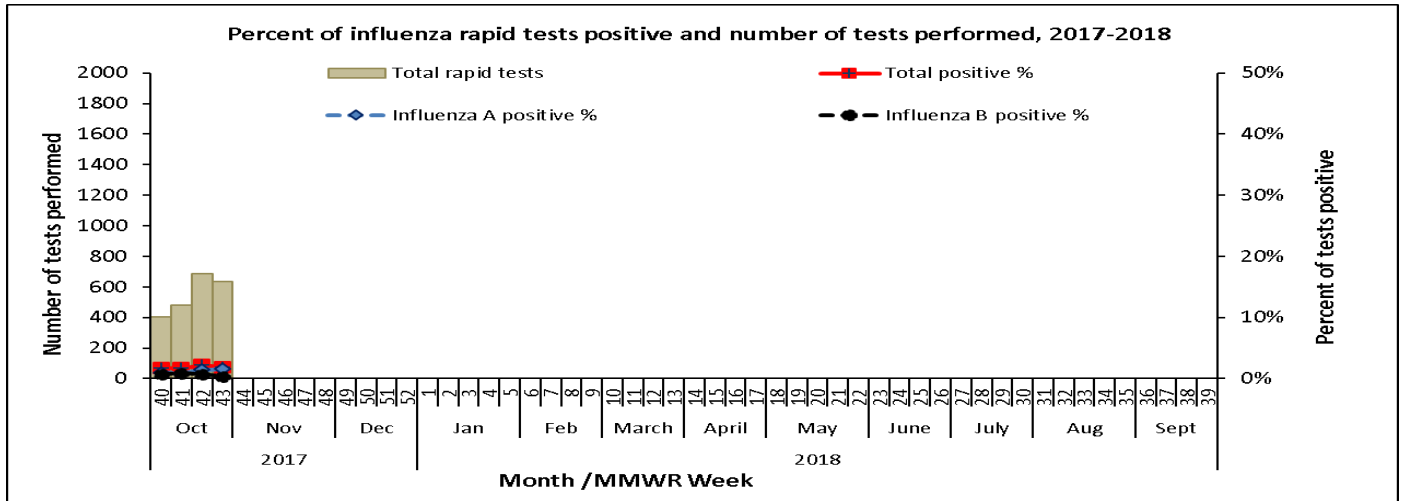
Rapid influenza and RSV test surveillance:

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.

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

REGION*	RAPID INFLUENZA TESTS				RAPID RSV TESTS		
	Tested	Flu A	Flu B	% Positive	Tested	Positive	% Positive
Region 1 (Central)	163	0	1	1	19	0	0
Region 2 (NE)	13	1	0	8	3	0	0
Region 3 (NW)	57	2	0	4	44	0	0
Region 4 (SW)	39	4	0	10	8	1	13
Region 5 (SE)	67	0	0	0	31	0	0
Region 6 (Eastern)	296	3	1	1	37	2	5
Total	635	10	2	2	142	3	2

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

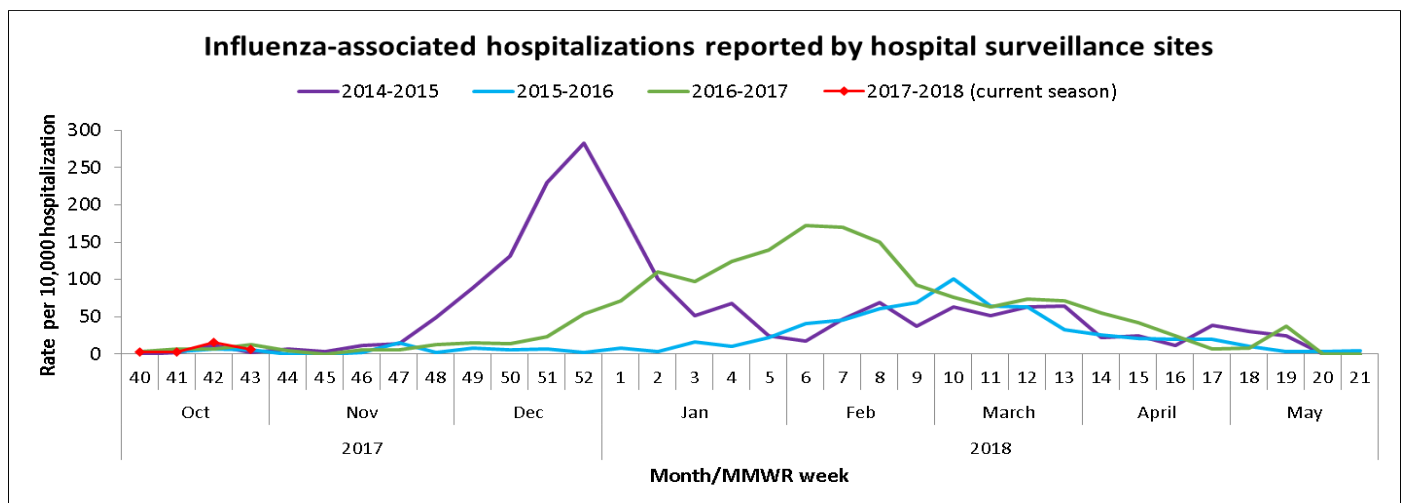
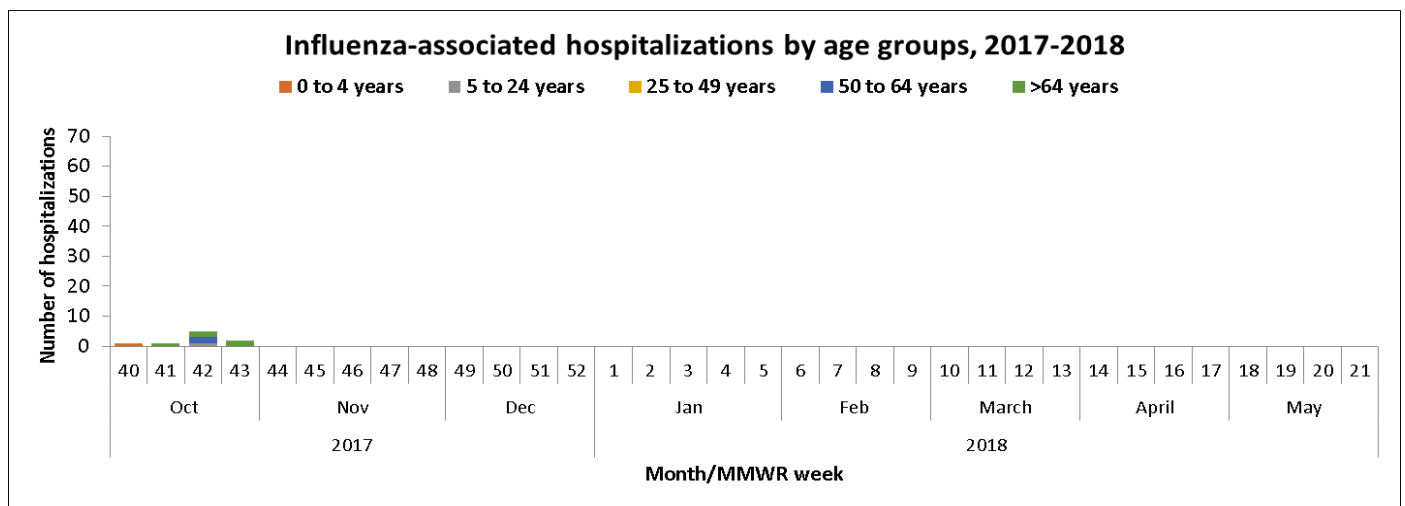


Influenza-associated hospitalizations:

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 or more information.

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

AGE	CURRENT WEEK	CUMULATIVE (10/1/17 – CURRENT WEEK)
Age 0-4	0	1
Age 5-24	0	1
Age 25-49	0	0
Age 50-64	0	2
Age >64	2	5
Total	2	9



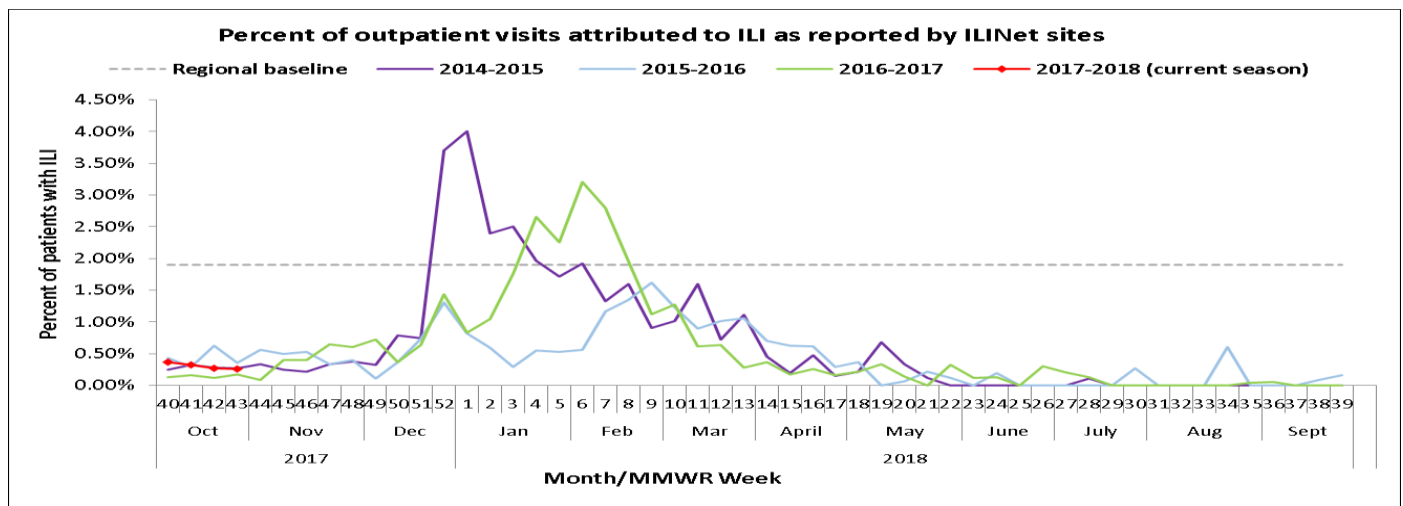
Outpatient health care provider surveillance program (ILINet):

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)

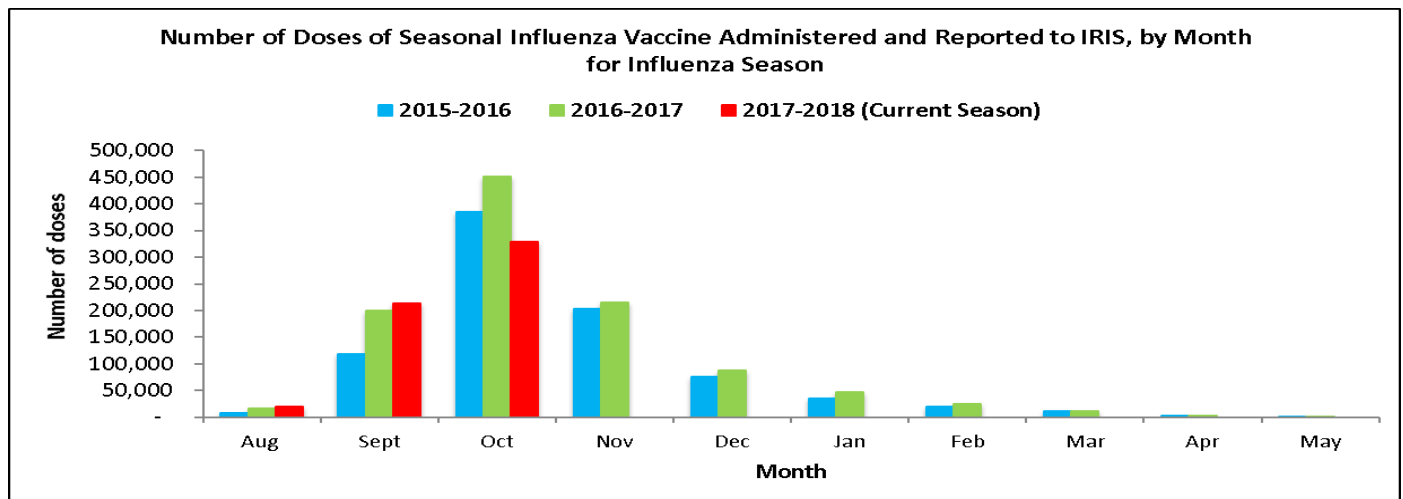
Week	Age 0-4	Age 5-24	Age 25-49	Age 50-64	Age > 64	Total ILI	ILI Percent
Week 41, ending October 14	4	2	1	2	1	10	0.32
Week 42, ending October 21	3	3	2	1	0	9	0.27
Week 43, ending October 28	4	3	1	0	1	9	0.26

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 2017-2018 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 (10/1/17 – 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)	0	0
Total	0	0

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.

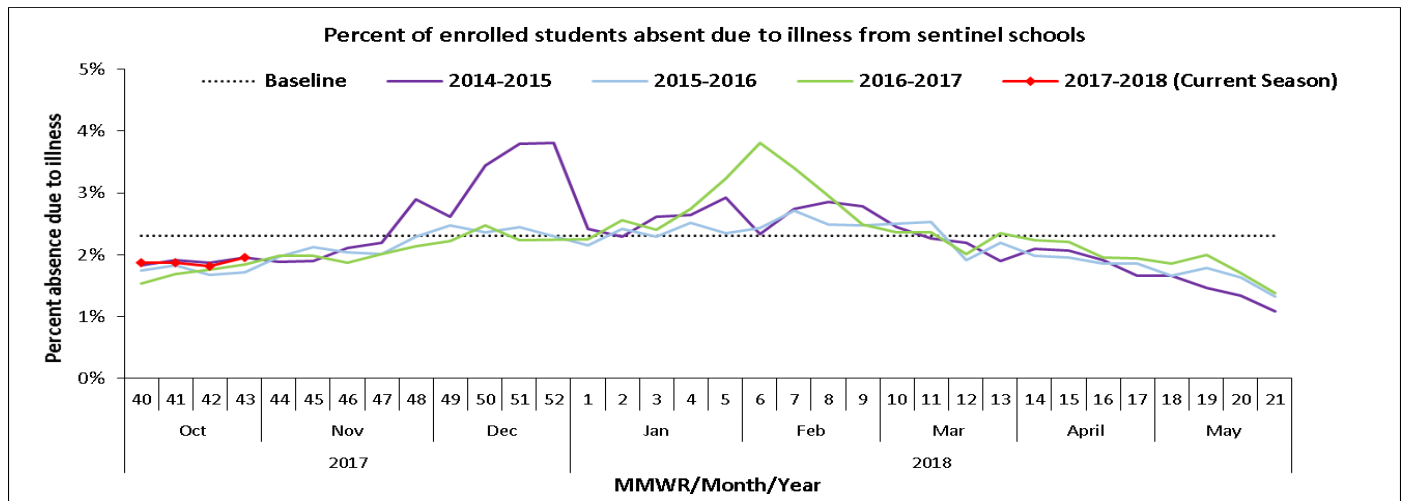
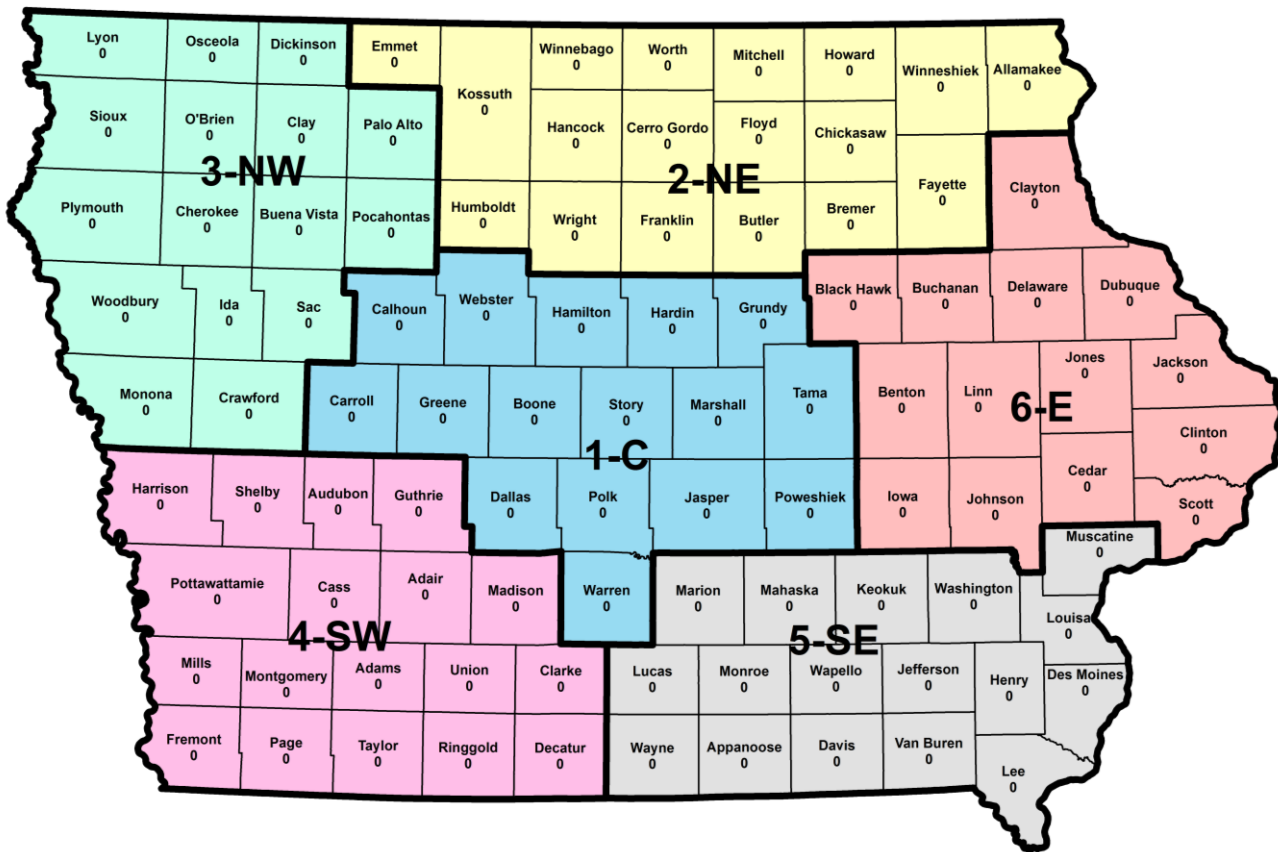


Table 7: Number of schools reporting >10% absenteeism due to any illness

REGION	CURRENT WEEK	CUMULATIVE (10/1/17 – CURRENT WEEK)
Region 1 (Central)	0	1
Region 2 (NE)	0	0
Region 3 (NW)	0	0
Region 4 (SW)	0	0
Region 5 (SE)	0	0
Region 6 (Eastern)	0	0
Total	0	1

Note: Regional map with schools that have ≥10% absence due to illness for this current reporting week is displayed below (region numbers and region abbreviation in large black font).

Number of schools with 10 percent school absenteeism by county and region

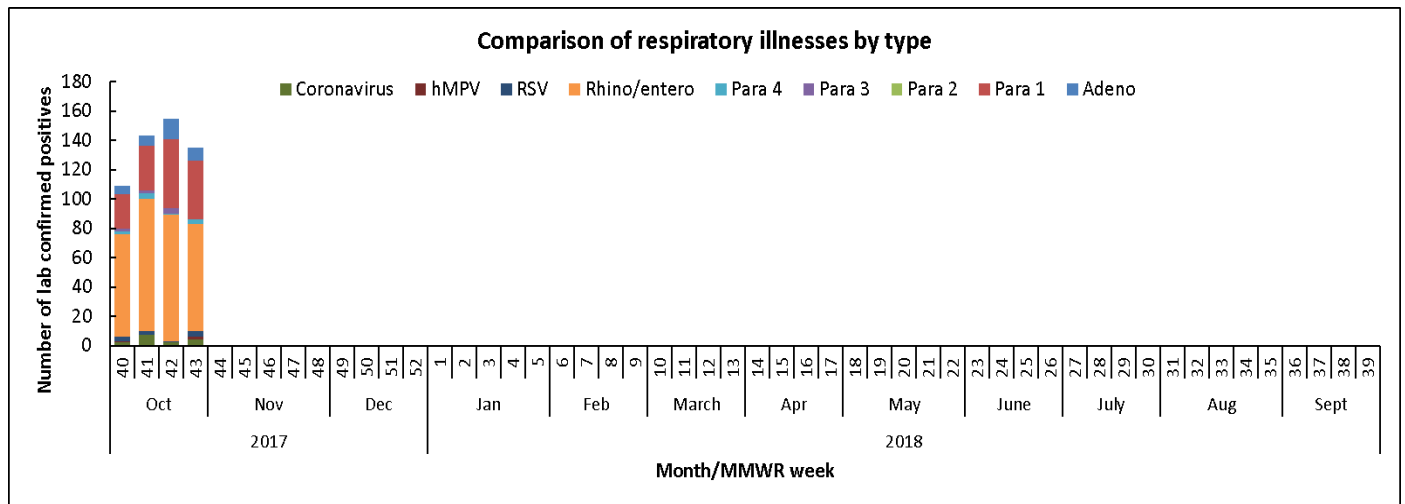


Non-influenza respiratory viruses:

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 (10/1/17 – CURRENT WEEK)
Adenovirus	9	36
Parainfluenza Virus Type 1	40	140
Parainfluenza Virus Type 2	0	0
Parainfluenza Virus Type 3	0	8
Parainfluenza Virus Type 4	3	10
Rhinovirus/Enterovirus	73	319
Respiratory syncytial virus (RSV)	4	11
Human metapneumovirus (hMPV)	2	3
Coronavirus	4	15
Total	135	542



Other resources:

Vaccine:

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

CDC vaccine information: www.cdc.gov/flu/fag/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