



Iowa Influenza Surveillance Network (IISN)

Influenza-like Illness (ILI) and Other Respiratory Viruses

Weekly Activity Report



For the week ending December 7, 2019 - Week 49

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

Quick Stats	
Predominate influenza subtype	B(Victoria lineage)
Percent of influenza rapid test positive	8% (114/1393)
Percent of RSV rapid tests positive	29% (80/275)
Influenza-associated hospitalizations	22/7125 inpatients surveyed
Percent of outpatient visits for ILI	0.98% (baseline 1.7%)
Number of long-term care outbreaks	0
Percent school absence due to illness	2.2%
Number of schools with ≥10% absence due to illness	4
Influenza-associated mortality -all ages (Cumulative)	5
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 9/29/2019 to the current week.

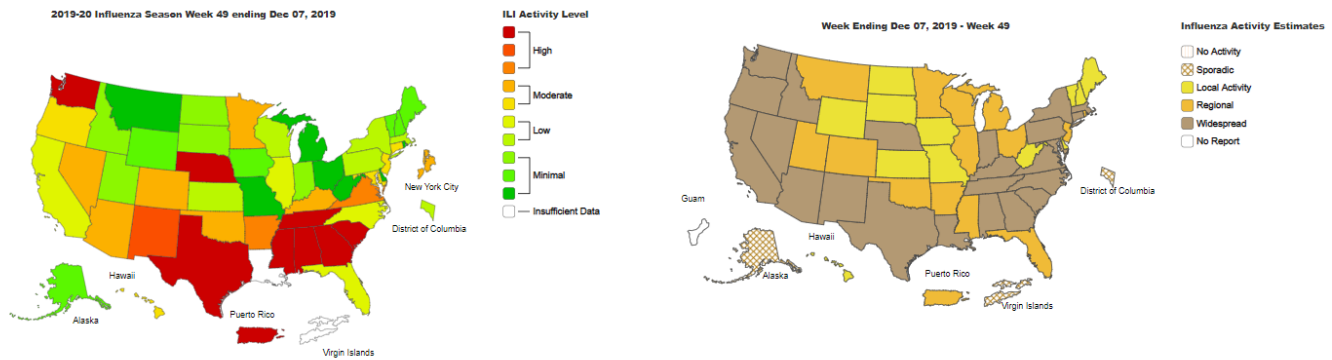
Iowa statewide activity summary:

Influenza activity is below typical season high, but has been increasing on most indicators over the last few weeks. The geographic spread of influenza is local. For this reporting week, the State Hygienic Laboratory identified 15 influenza A(H1N1)pdm09, two influenza A(H3) and 23 B(Victoria lineage) from submitted samples. Twenty-two influenza-related hospitalizations were reported. The proportion of outpatient visits due to influenza-like illness (ILI) was 0.98%, which is below the regional baseline of 1.7%. No long-term care influenza outbreaks were reported and four schools reported at least 10% of students absent due to illness. One influenza-associated deaths was reported. Surveillance sites reported detecting the following non-influenza respiratory illnesses with the most frequency: 131 rhinovirus/enterovirus, 99 RSV and 58 adenovirus.

International activity summary - (WHO):

In the temperate zone of the northern hemisphere, respiratory illness indicators and influenza activity started to increase in most countries. Influenza activity was elevated across the countries in Western Asia. In the temperate zones of the southern hemisphere, influenza activity returned to inter-seasonal levels. Worldwide, seasonal influenza A(H3N2) 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 12/9/2019.

National activity summary - (CDC)-Last Updated in Week 49:

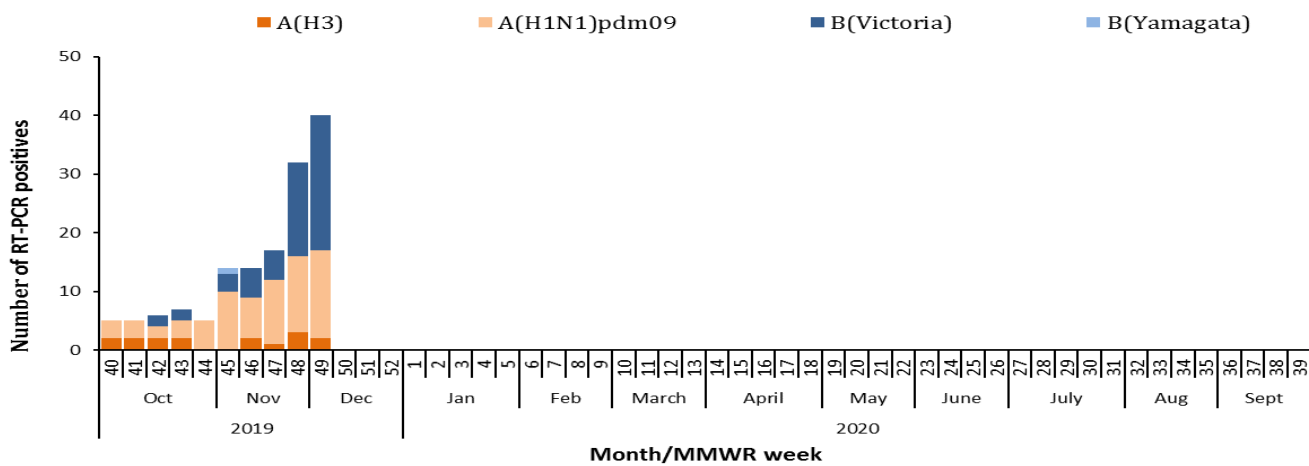


Detailed information can be found online at www.cdc.gov/flu/weekly/.

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.

Influenza viruses detected by SHL by week



Cumulative Influenza viruses detected by SHL by age group (9/29/19 – Current Week)

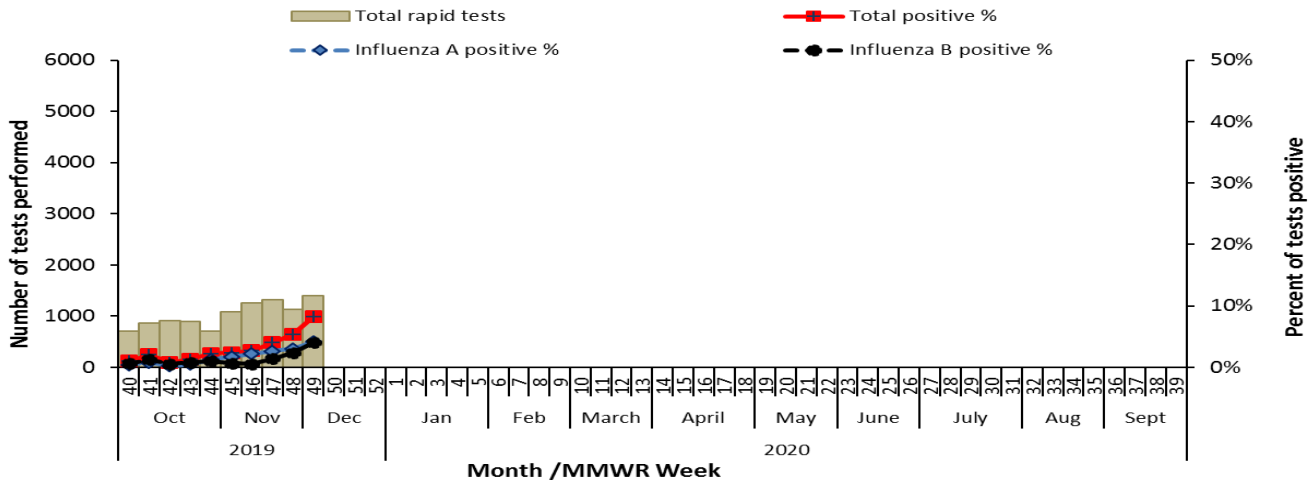
Age Group	Influenza A				Influenza B				Total	Percent
	A(H1N1) pdm09	A(H3)	Not subtyped	Total A	Victoria Lineage	Yamagata Lineage	Not subtyped	Total B		
0-4	7	2	0	9	10	0	0	10	19	13%
5-17	18	0	0	18	23	1	0	24	42	29%
18-24	7	2	0	9	12	0	0	12	21	14%
25-49	10	3	0	13	10	0	0	10	23	16%
50-64	16	3	0	19	1	0	0	1	20	14%
>64	14	6	1	21	0	0	0	0	21	14%
Total	72	16	1	89	56	1	0	57	146	
Percent	81%	18%	1%		98%	2%				

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.

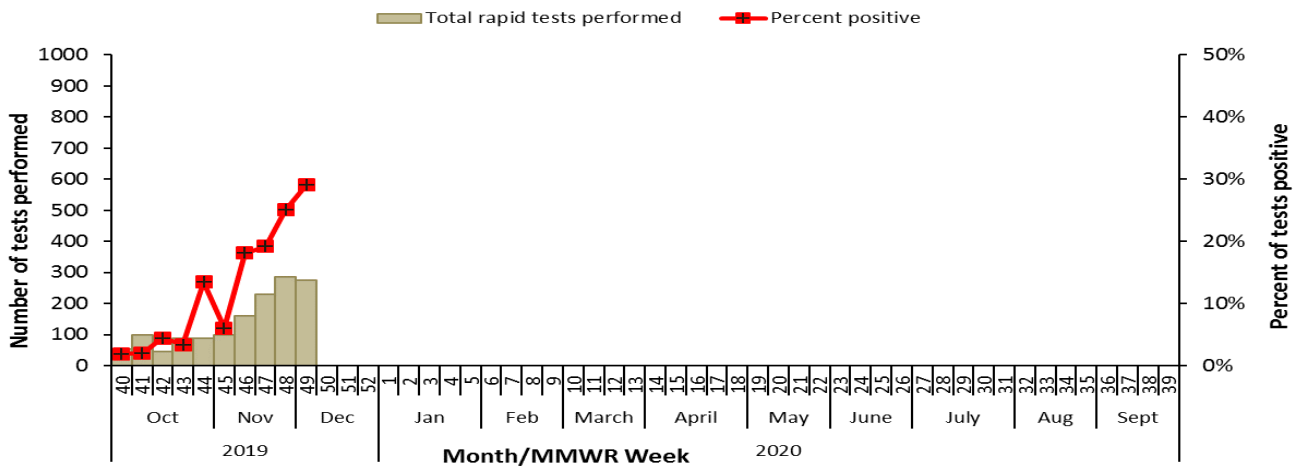
Rapid influenza and RSV test surveillance:

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.

Percent of influenza rapid tests positive and number of tests performed, 2019-2020



Percent of RSV rapid tests positive and number of tests performed, 2019-2020



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

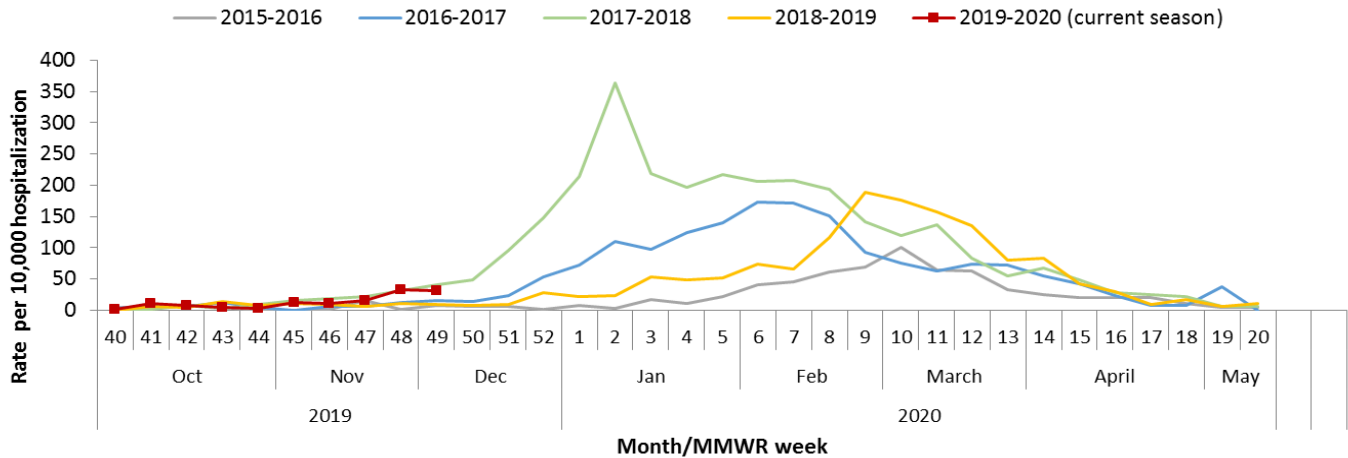
REGION	RAPID INFLUENZA TESTS				RAPID RSV TESTS		
	Tested	Flu A	Flu B	% Positive	Tested	Positive	% Positive
Region 1 (Central)	435	20	13	8	23	4	17
Region 2 (NE)	90	1	0	1	27	11	41
Region 3 (NW)	226	1	30	14	158	47	30
Region 4 (SW)	167	30	5	21	37	8	22
Region 5 (SE)	42	0	0	0	16	5	31
Region 6 (Eastern)	433	6	8	3	14	5	36
Total	1393	58	56	8	275	80	29

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

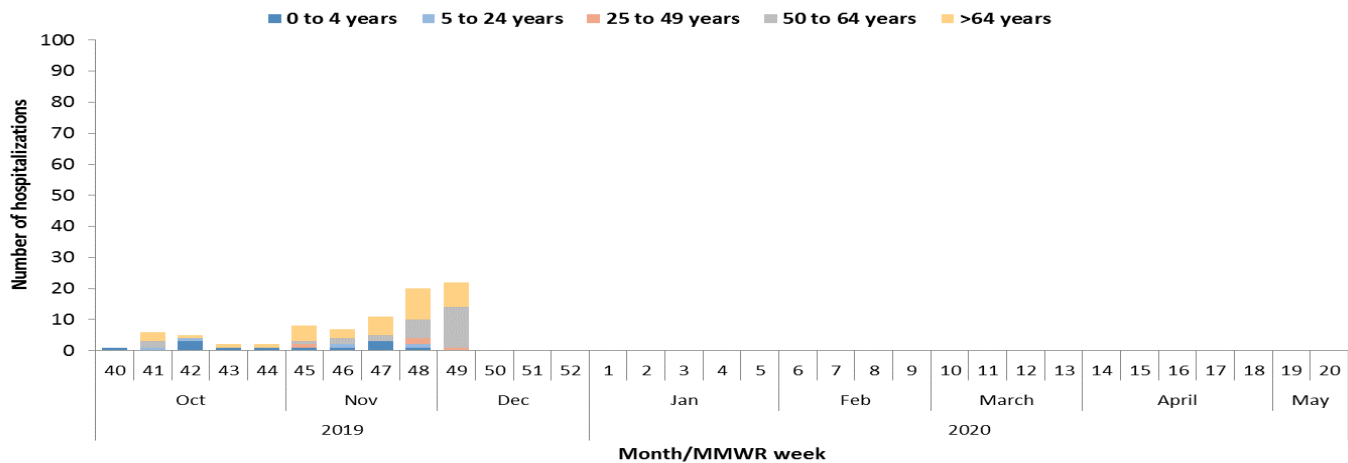
Influenza-associated hospitalizations:

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.

Influenza-associated hospitalizations reported by hospital surveillance sites



Number of influenza-associated hospitalizations by age group and week



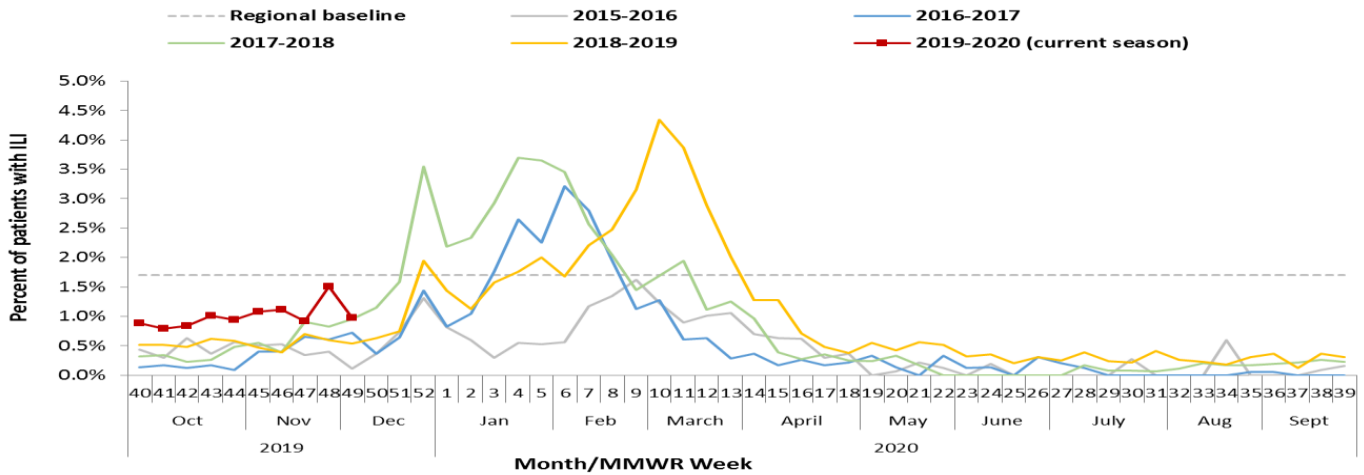
Number of influenza-associated hospitalizations reported by age group

AGE	CURRENT WEEK	CUMULATIVE (9/29/19– CURRENT WEEK)
Age 0-4	0	12
Age 5-24	0	4
Age 25-49	1	4
Age 50-64	13	26
Age >64	8	38
Total	22	84

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.

Percent of outpatient visits attributed to ILI as reported by ILINet sites



Outpatient visits for influenza-like illness (ILI)

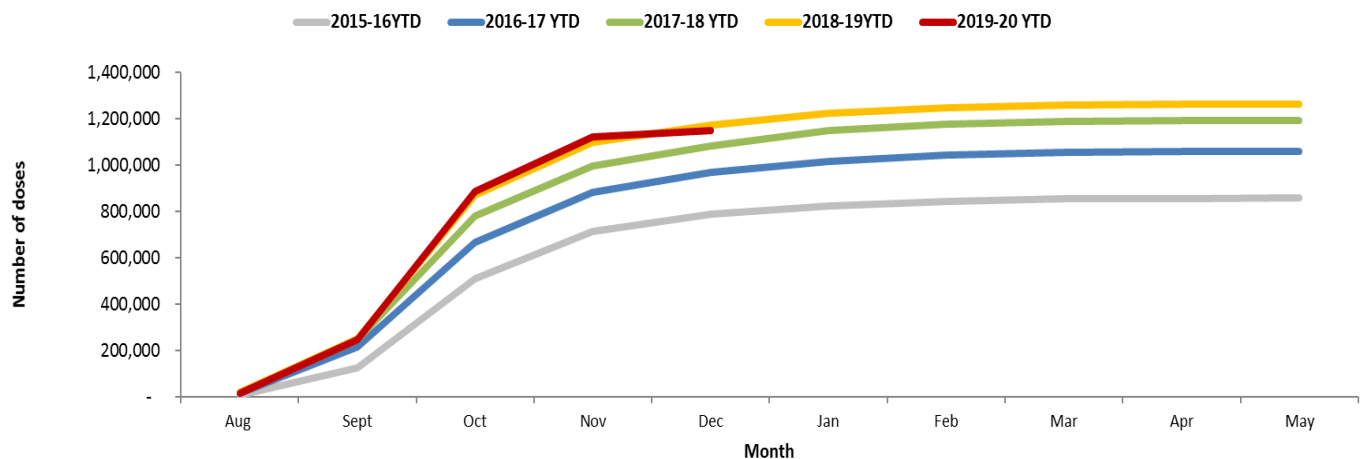
Week, End Date	Age 0-4	Age 5-24	Age 25-49	Age 50-64	Age >64	Total ILI	%ILI
Week 47, November 23	23	35	7	0	3	68	0.92
Week 48, November 30	24	25	6	4	2	61	1.51
Week 49, December 7	26	26	12	3	3	70	0.98

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.

Administered Doses of Seasonal Influenza Vaccine Reported to IRIS, Year to Date by Season



Note: The data for the 2019-2020 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:

Number of long-term care outbreaks investigated

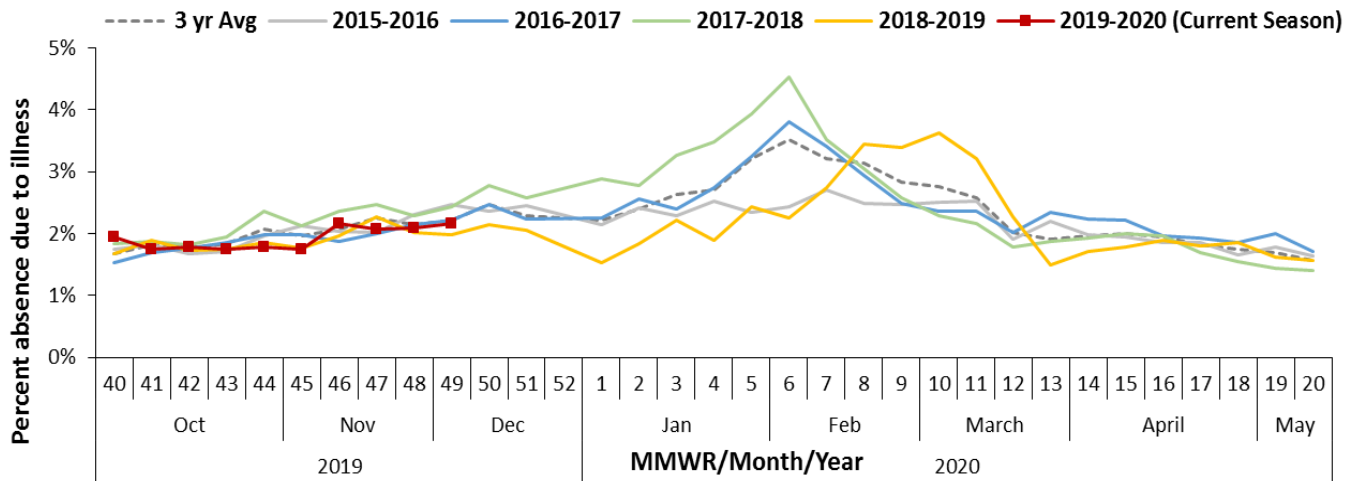
REGION	CURRENT WEEK	CUMULATIVE (9/29/19– CURRENT WEEK)
Region 1 (Central)	0	0
Region 2 (NE)	0	0
Region 3 (NW)	0	0
Region 4 (SW)	0	1
Region 5 (SE)	0	0
Region 6 (Eastern)	0	0
Total	0	1

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

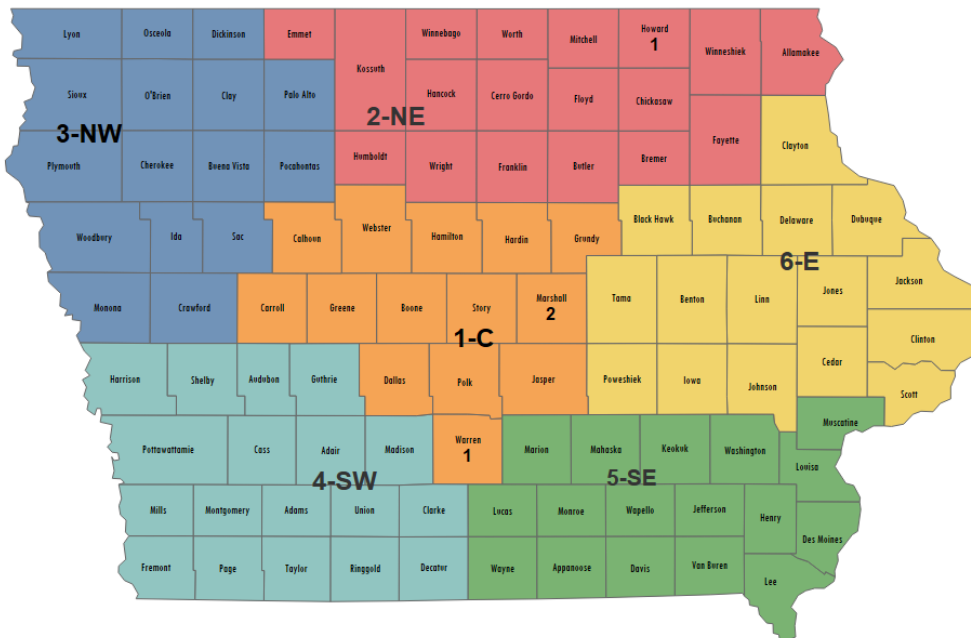
School surveillance program

IDPH monitors illnesses in schools from two different types of reporting: 10% 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% 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.

Percent of enrolled students absent due to illness reported by sentinel schools



Number of schools reporting >10% absenteeism due to any illness by Flu Region and County



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

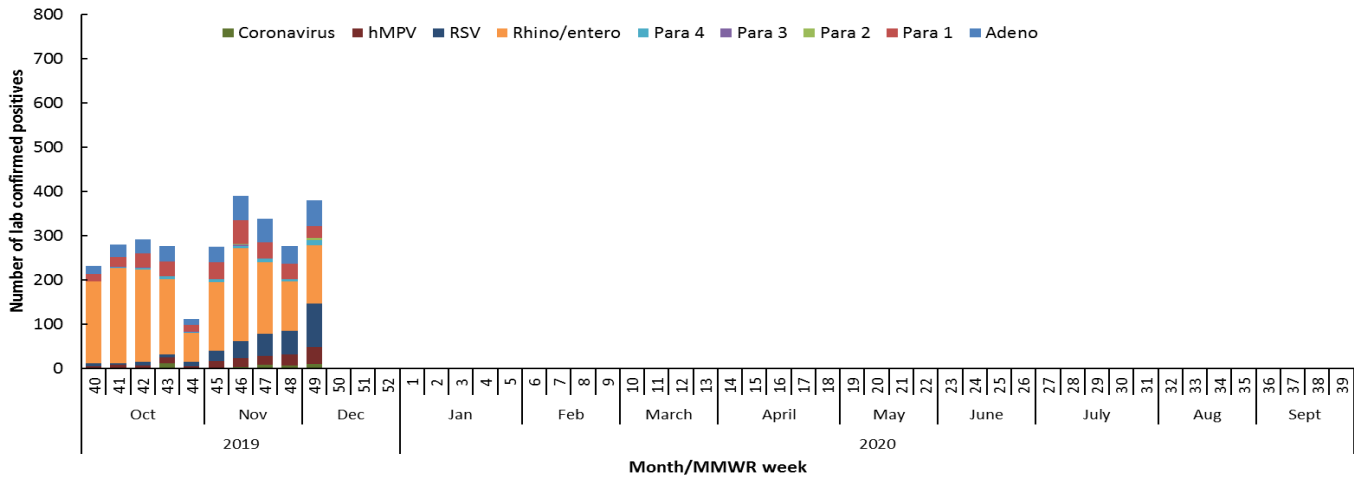
REGION	CURRENT WEEK	CUMULATIVE (9/29/19–CURRENT WEEK)
Region 1 (Central)	3	4
Region 2 (NE)	1	1
Region 3 (NW)	0	1
Region 4 (SW)	0	3
Region 5 (SE)	0	2
Region 6 (Eastern)	0	6
Total	4	17

Note: see map in the school section for the counties in each region. Each school that reports 10 percent illness is counted only once per week for weekly numbers and only once per season for the cumulative reports.

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.

Comparison of respiratory illnesses by type



Number of positive results for non-influenza respiratory virus reported by clinical laboratories

Viruses	CURRENT WEEK	CUMULATIVE (9/29/19–CURRENT WEEK)
Adenovirus	58	367
Parainfluenza Virus Type 1	27	308
Parainfluenza Virus Type 2	4	6
Parainfluenza Virus Type 3	1	8
Parainfluenza Virus Type 4	11	52
Rhinovirus/Enterovirus	131	1612
Respiratory syncytial virus (RSV)	99	297
Human metapneumovirus (hMPV)	38	154
Coronavirus	10	43

Other resources:

Vaccine:

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

CDC vaccine information: www.cdc.gov/flu/prevent/keyfacts.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