



Iowa Influenza Surveillance Network (IISN)
Influenza-like Illness (ILI) and Other Respiratory Viruses
Weekly Activity Report
For the week ending October 19, 2019 - Week 42



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% (7/907) |
| Percent of RSV rapid tests positive | 4% (2/45) |
| Influenza-associated hospitalizations | 5/5865 inpatients surveyed |
| Percent of outpatient visits for ILI | 0.83% (baseline 1.7%) |
| Number of long-term care outbreaks | 0 |
| Percent school absence due to illness | 1.8% |
| Number of schools with ≥10% absence due to illness | 2 |
| 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 9/29/2019 to the current week.

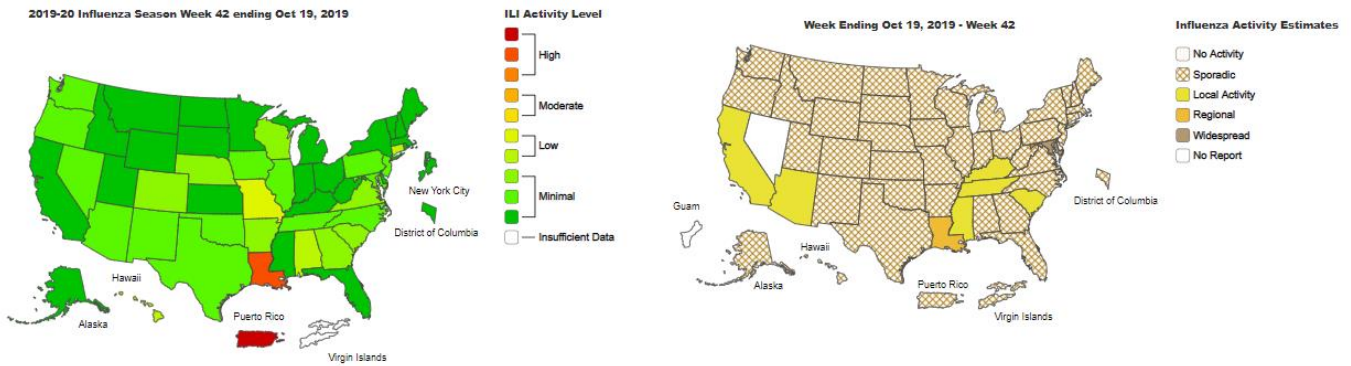
Iowa statewide activity summary:

Influenza activity is low in Iowa. The geographic spread of influenza in Iowa is sporadic. For this reporting week, the State Hygienic Laboratory identified two influenza A(H1N1)pdm09 and one influenza A(H3) viruses from submitted samples, as well as one influenza A and one influenza B positive specimens pending subtyping. Five influenza-related hospitalizations were reported. The proportion of outpatient visits due to influenza-like illness (ILI) was 0.83%, which is below the regional baseline of 1.7%. No influenza outbreaks were reported this reporting week, but two schools reported at least 10% of students absent due to illness. One influenza-associated death was reported, but the date of death was from spring 2019, so it will not be counted for this influenza season. Surveillance sites reported detecting the following non-influenza respiratory illnesses with the most frequency: 209 rhinovirus/enterovirus, 32 adenovirus and 32 parainfluenza virus type one.

International activity summary - (WHO):

In the temperate zones of the southern hemisphere, influenza activity was low in most countries, and appeared to decrease in Chile after a second wave of influenza activity of predominately B viruses. In the temperate zone of the northern hemisphere, influenza activity remained at inter-seasonal levels in most countries. Influenza season appeared to have started across the countries of the Arabian Peninsula. Worldwide, seasonal influenza A viruses continued to account for the majority of detections, though the proportion of influenza B viruses increased in recent weeks. Visit www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/ for more information. It was last updated 10/14/2019.

National activity summary - (CDC)-Last Updated in Week 42:

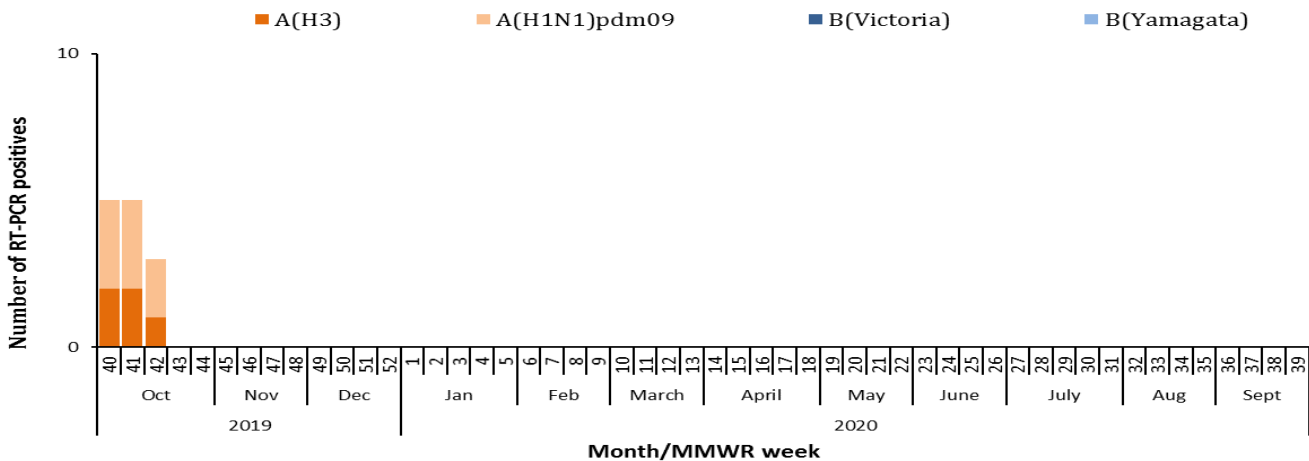


Detailed information can be found online at www.cdc.gov/flu/weekly/.

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)

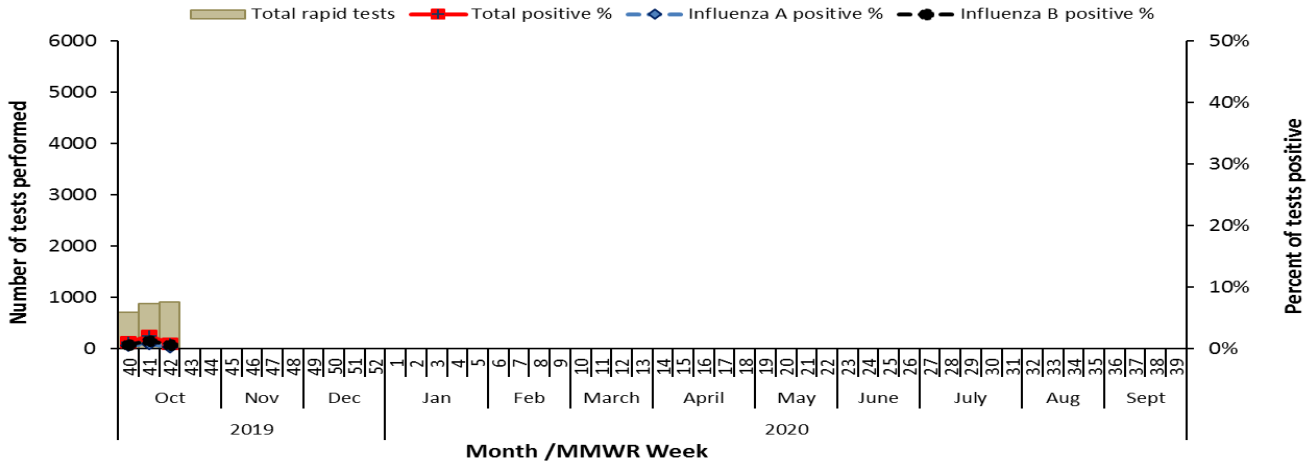
| Age Group | Influenza A | | | | Influenza B | | | | Total | Percent |
|----------------|---------------|------------|--------------|-----------|------------------|------------------|--------------|----------|-----------|---------|
| | A(H1N1) pdm09 | A(H3) | Not subtyped | Total A | Victoria Lineage | Yamagata Lineage | Not subtyped | Total B | | |
| 0-4 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 13% |
| 5-17 | 3 | 0 | 0 | 3 | 0 | 0 | 1 | 1 | 4 | 27% |
| 18-24 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 7% |
| 25-49 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 7% |
| 50-64 | 3 | 1 | 1 | 5 | 0 | 0 | 0 | 0 | 5 | 33% |
| >64 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 13% |
| Total | 8 | 5 | 1 | 14 | 0 | 0 | 0 | 1 | 15 | |
| Percent | 57% | 36% | 7% | | | | 100% | | | |

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.

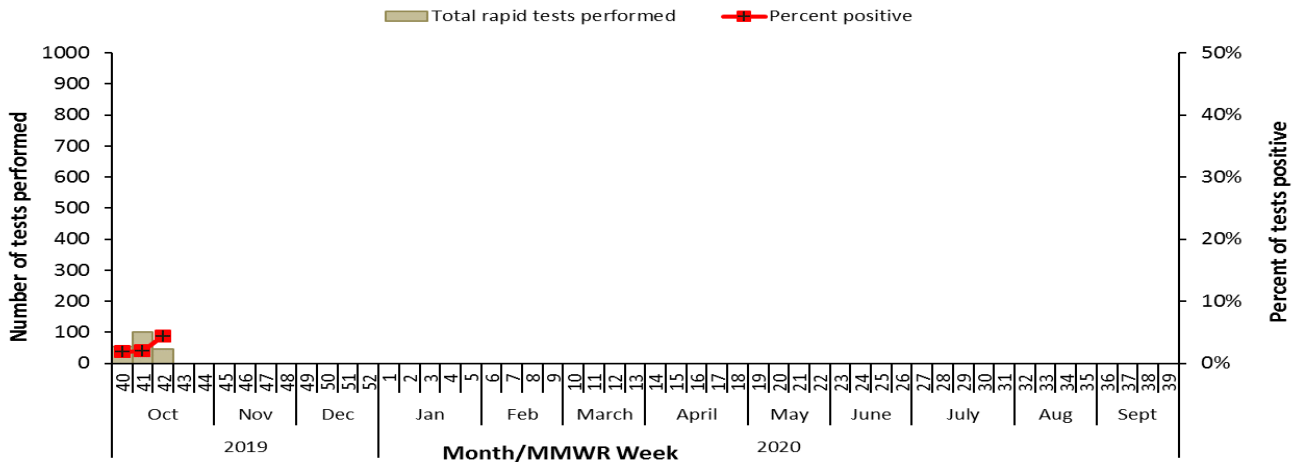
Rapid influenza and RSV test surveillance:

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.

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

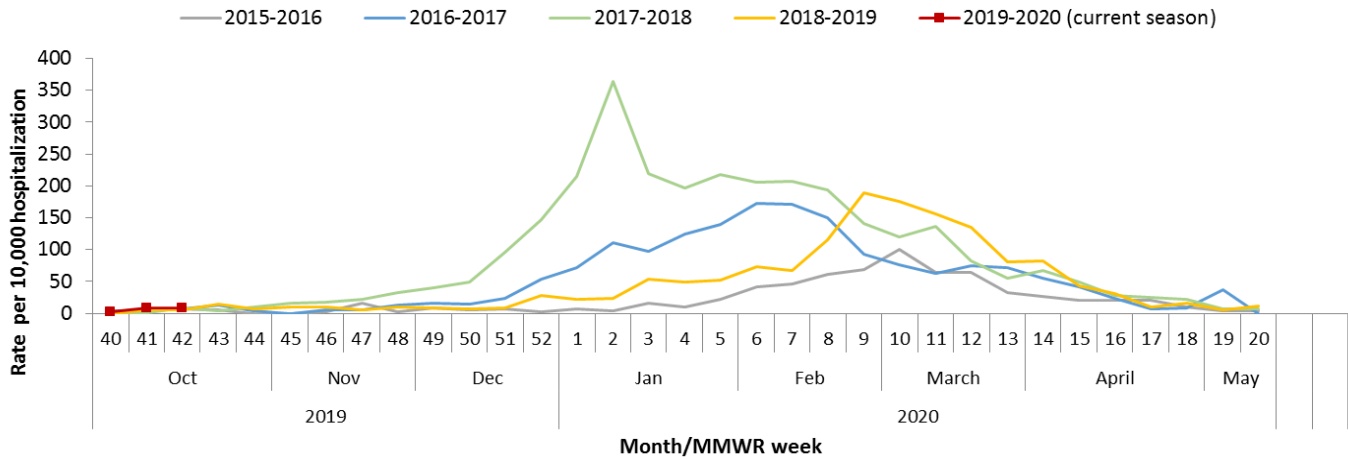
| REGION | RAPID INFLUENZA TESTS | | | | RAPID RSV TESTS | | |
|--------------------|-----------------------|----------|----------|------------|-----------------|----------|------------|
| | Tested | Flu A | Flu B | % Positive | Tested | Positive | % Positive |
| Region 1 (Central) | 282 | 0 | 3 | 1 | 10 | 0 | 0 |
| Region 2 (NE) | 47 | 1 | 0 | 2 | 2 | 0 | 0 |
| Region 3 (NW) | 89 | 0 | 2 | 2 | 25 | 2 | 8 |
| Region 4 (SW) | 22 | 0 | 0 | 0 | 3 | 0 | 0 |
| Region 5 (SE) | 8 | 0 | 0 | 0 | 2 | 0 | 0 |
| Region 6 (Eastern) | 459 | 1 | 0 | 0 | 3 | 0 | 0 |
| Total | 907 | 2 | 5 | 1 | 45 | 2 | 4 |

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

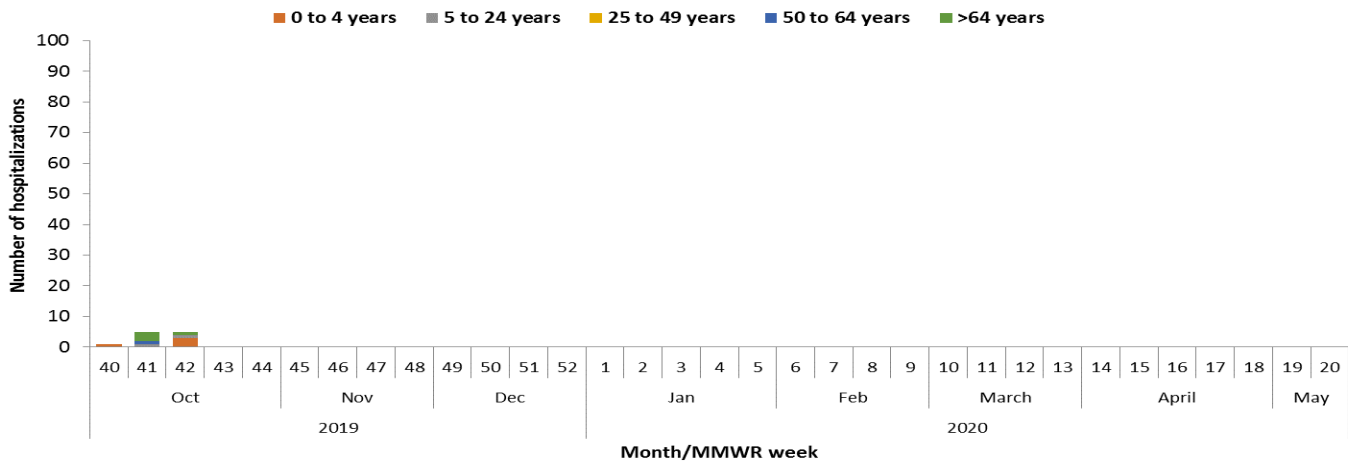
Influenza-associated hospitalizations:

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.

Influenza-associated hospitalizations reported by hospital surveillance sites



Number of influenza-associated hospitalizations by age group and week



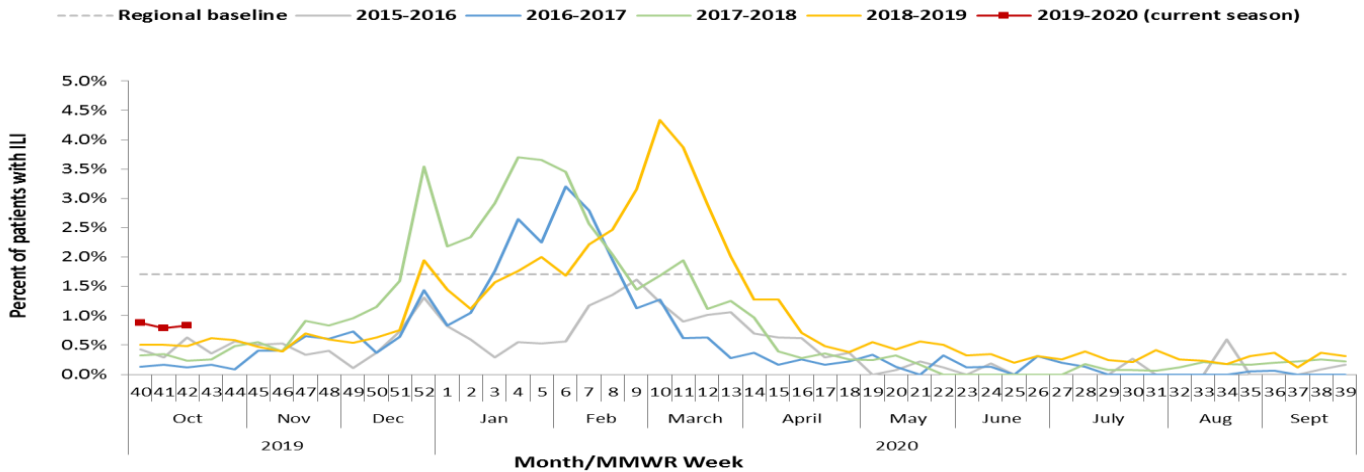
Number of influenza-associated hospitalizations reported by age group

| AGE | CURRENT WEEK | CUMULATIVE (9/29/19– CURRENT WEEK) |
|--------------|--------------|------------------------------------|
| Age 0-4 | 3 | 4 |
| Age 5-24 | 1 | 2 |
| Age 25-49 | 0 | 0 |
| Age 50-64 | 0 | 1 |
| Age >64 | 1 | 4 |
| Total | 5 | 11 |

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)

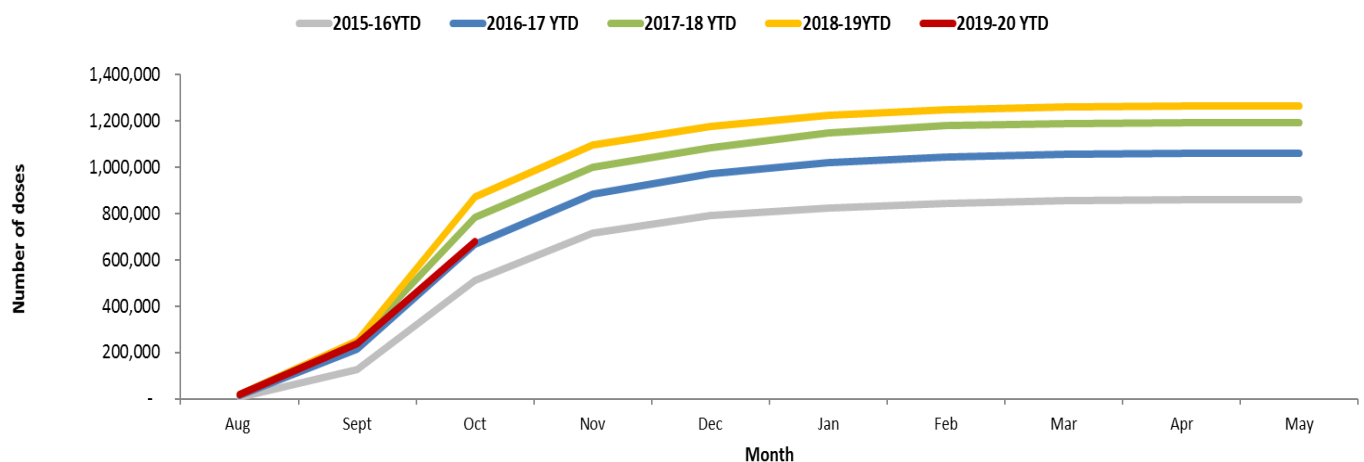
| Week, End Date | Age 0-4 | Age 5-24 | Age 25-49 | Age 50-64 | Age >64 | Total ILI | %ILI |
|---------------------|---------|----------|-----------|-----------|---------|-----------|------|
| Week 40, October 5 | 9 | 43 | 7 | 0 | 1 | 60 | 0.88 |
| Week 41, October 12 | 9 | 45 | 3 | 0 | 0 | 57 | 0.79 |
| Week 42, October 19 | 9 | 50 | 3 | 1 | 1 | 64 | 0.83 |

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

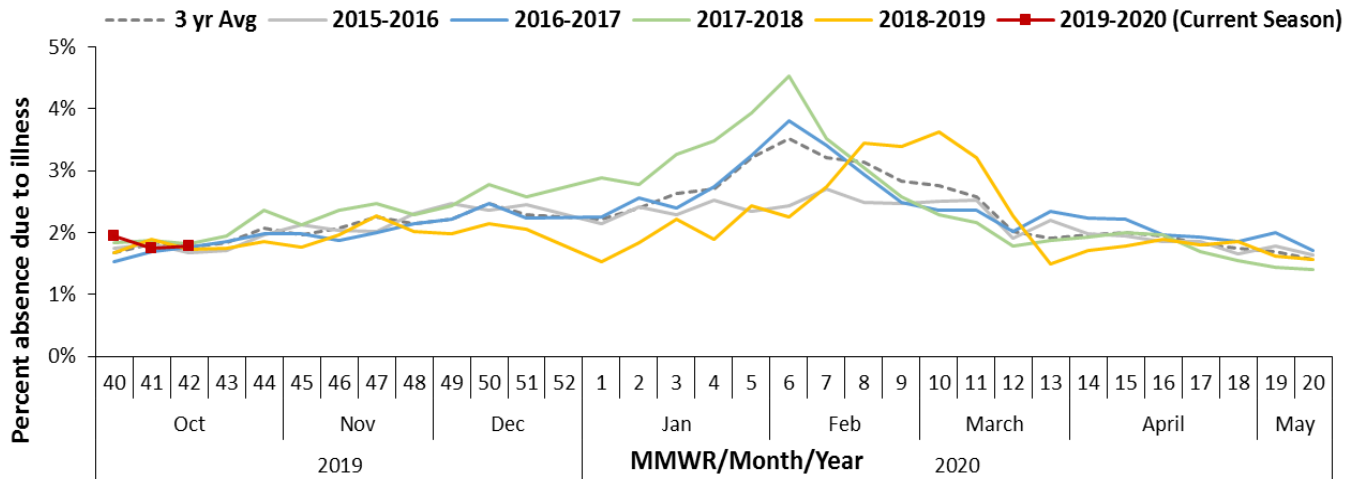
| REGION | CURRENT WEEK | CUMULATIVE (9/29/19– CURRENT WEEK) |
|--------------------|--------------|------------------------------------|
| Region 1 (Central) | 0 | 0 |
| Region 2 (NE) | 0 | 0 |
| Region 3 (NW) | 0 | 0 |
| Region 4 (SW) | 0 | 0 |
| Region 5 (SE) | 0 | 0 |
| Region 6 (Eastern) | 0 | 0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

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

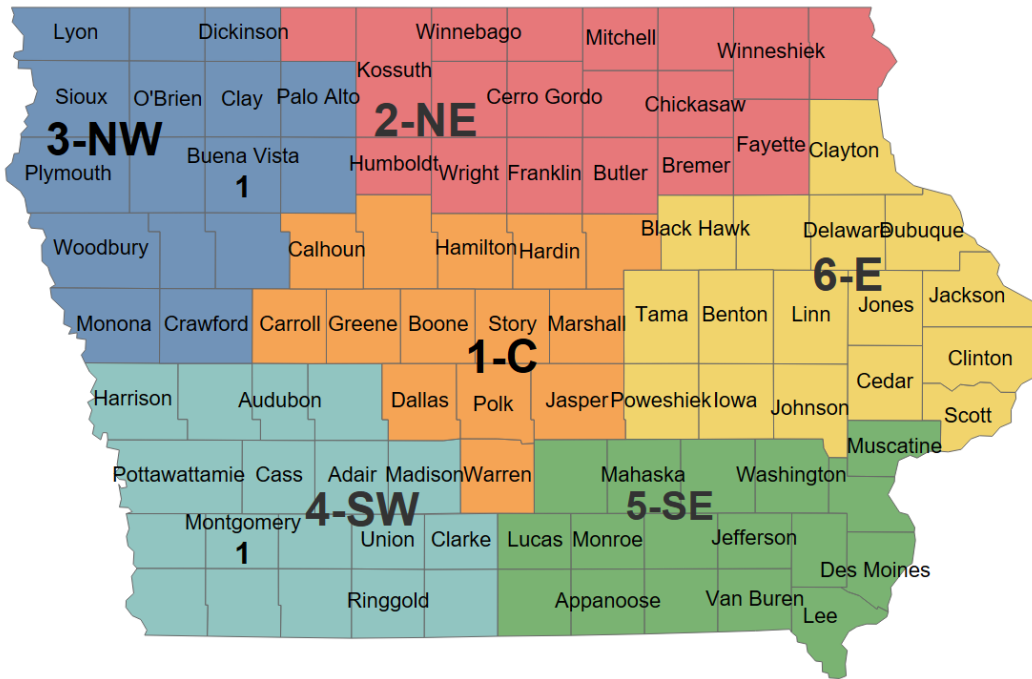
School surveillance program

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

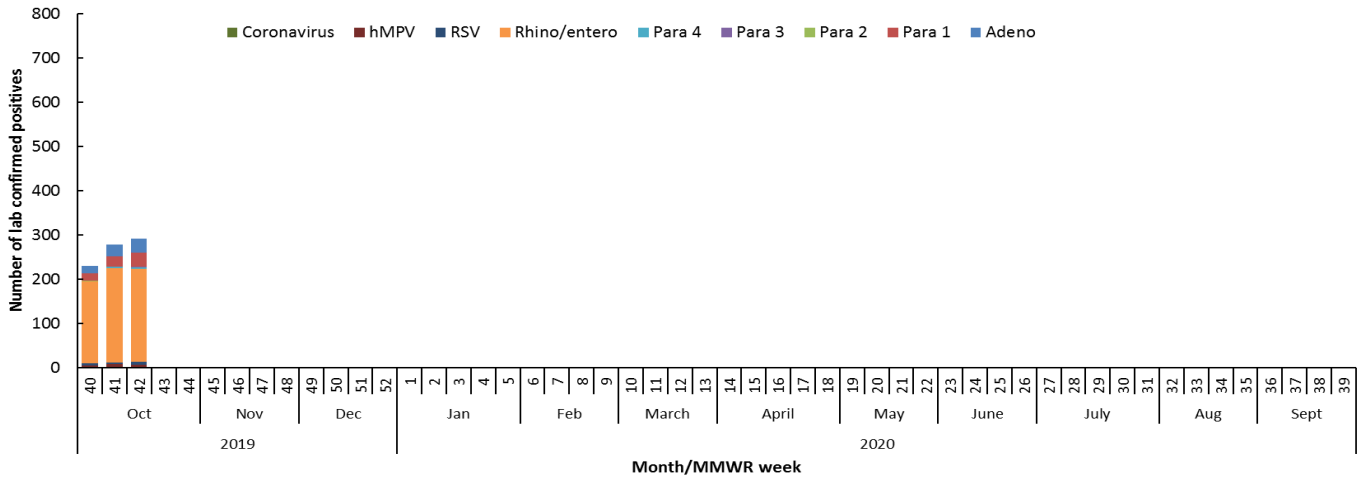
| REGION | CURRENT WEEK | CUMULATIVE (9/29/19–CURRENT WEEK) |
|--------------------|--------------|-----------------------------------|
| Region 1 (Central) | 0 | 1 |
| Region 2 (NE) | 0 | 0 |
| Region 3 (NW) | 1 | 1 |
| Region 4 (SW) | 1 | 1 |
| Region 5 (SE) | 0 | 0 |
| Region 6 (Eastern) | 0 | 1 |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

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

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 | 32 | 77 |
| Parainfluenza Virus Type 1 | 32 | 71 |
| Parainfluenza Virus Type 2 | 0 | 1 |
| Parainfluenza Virus Type 3 | 1 | 2 |
| Parainfluenza Virus Type 4 | 4 | 6 |
| Rhinovirus/Enterovirus | 209 | 608 |
| Respiratory syncytial virus (RSV) | 7 | 17 |
| Human metapneumovirus (hMPV) | 7 | 17 |
| Coronavirus | 0 | 3 |

Other resources:

Vaccine:

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

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