

Montana Influenza Summary

Cases reported as of April 11, 2020 (MMWR Week 15)
 Montana DPHHS, Communicable Disease Epidemiology

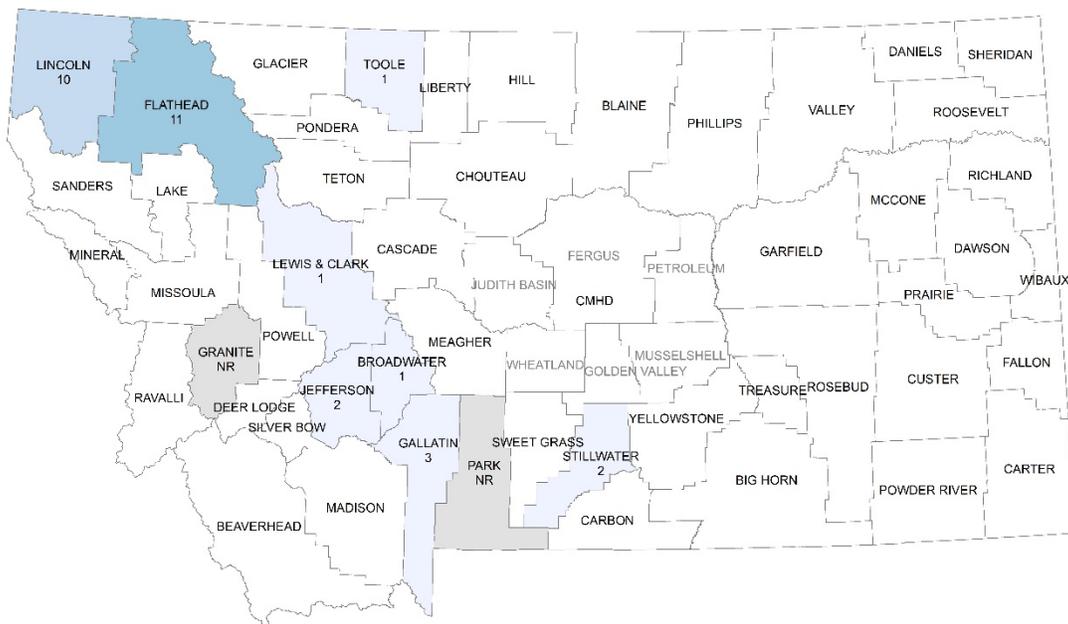


The Montana Department of Health and Human Services (DPHHS) provides a weekly report throughout the influenza season that coordinates data from a variety of sources to give the most complete and up to date view of influenza activity in the state of Montana. All data are preliminary and may change as more complete information is received.

State Summary: Flu activity is defined as LOCAL¹

- Influenza activity decreased during week 15 with 31 new cases reported.
- Season to date, 11,246 cases, 488 hospitalizations, and 17 deaths due to influenza have been reported. All counties in Montana have reported at least one case of influenza.
- The most common influenza subtype identified this week was influenza B.
- During week 15, the proportion of healthcare provider and emergency room visits for influenza like illness (ILI) decreased and remains below baseline.
- No new influenza outbreaks were reported during week 15; to date this season 17 outbreaks have been reported and schools are the most common setting.
- RSV activity decreased during week 15 and remains below the 10% positivity threshold. **RSV 2019-2020 season onset was 12/21/2019 and offset was 3/28/2020.** Detailed RSV information is found on page 6.

Figure 1. Newly reported influenza cases as of April 11, 2020



Number of cases

No report
 No cases reported
 1-5
 6-10
 11-50
 51-100
 101-150
 151-300

Tribal cases are included in county totals.

CMHD = Central Montana Health District. CMHD includes Fergus, Golden Valley, Judith Basin, Musselshell, Petroleum, and Wheatland counties.

Figure 2. Number and incidence rate (per 10,000) of reported influenza cases by county of residence – Montana, 2019-2020 season

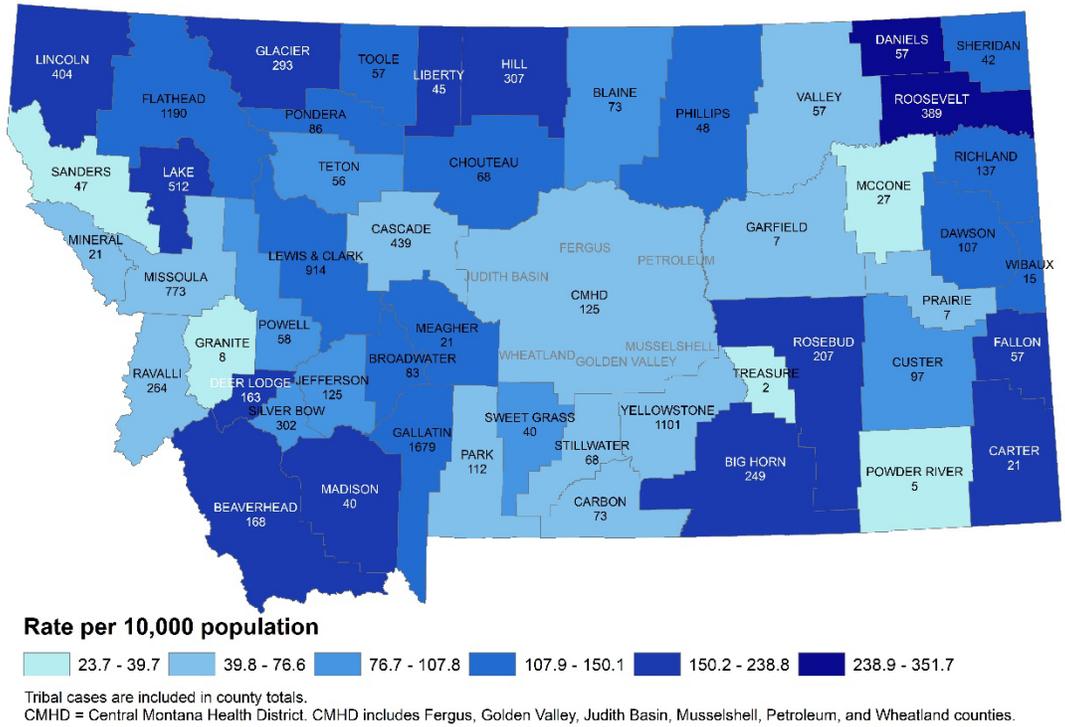
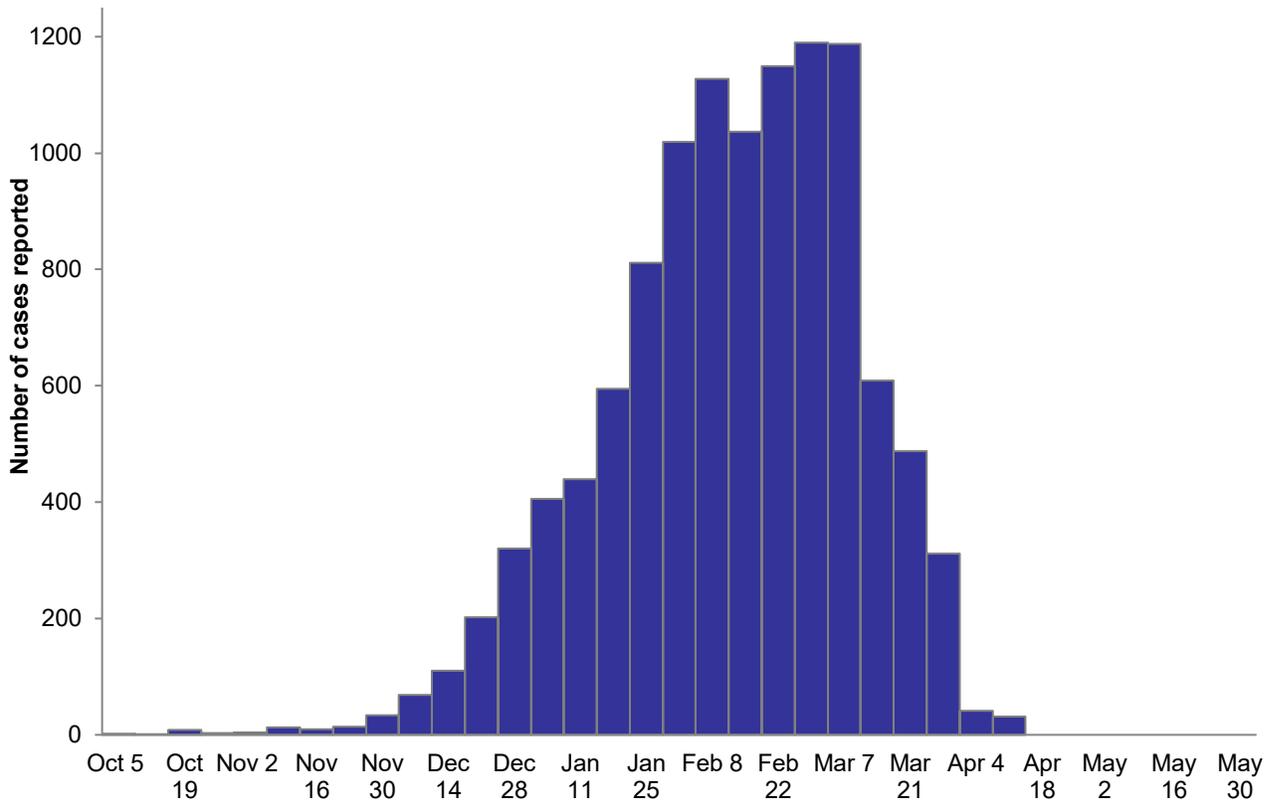


Figure 3. Influenza cases reported by week – Montana, 2019-2020 season



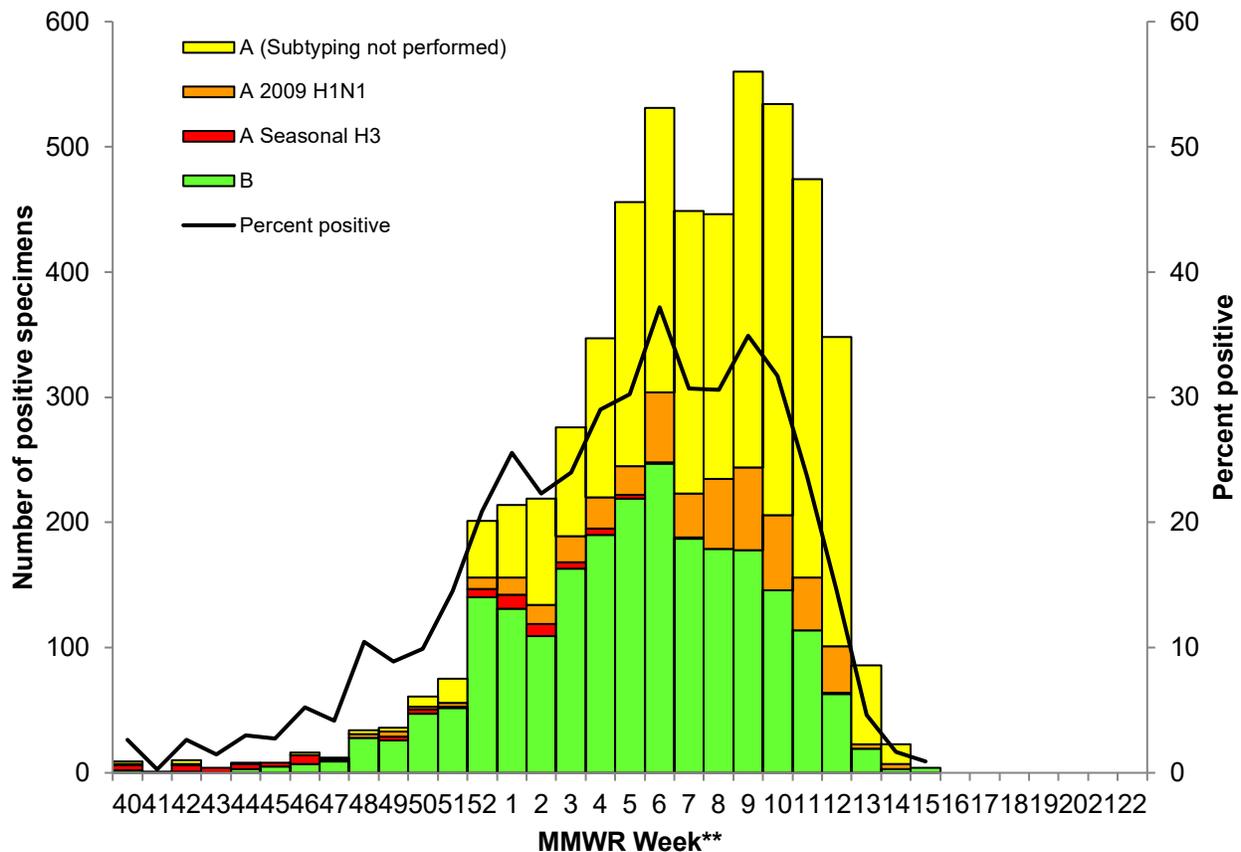
Laboratory Surveillance

The Montana Public Health Laboratory (MTPHL) and partners report the number of specimens tested for influenza by Polymerase Chain Reaction (PCR) as well as the number of positives by influenza virus type and influenza A virus subtype. The table presented below contains data for week 15 and the season to date.

Table 1. Influenza type confirmed by Montana Public Health Laboratory and partners²

	Week 15	Season to date
Number of specimens tested	451	26715
Number of positive specimens (%)	4(0.9)	5427(20.3)
Positive specimens by type/subtype		
Influenza A (%)	0	3155(58.1)
2009 H1N1	0	482
H3	0	81
Subtyping not performed	0	2607
Influenza B (%)	3	2272(41.9)

Figure 4. Influenza positive tests reported by the Montana Public Health Laboratory and partners, 2019-2020 season



**The MMWR week is the week of the epidemiologic year for which the National Notifiable Diseases Surveillance System (NNDSS) disease report is assigned by the reporting local or state health department for the purposes of MMWR disease incidence reporting and publishing. Values for MMWR week range from 1 to 53, although most years consist of 52 weeks.

Hospitalizations and deaths

Influenza cases, including hospitalizations and deaths, are reportable to local public health in Montana³. Since October 1, 2019, 488 influenza-associated hospitalizations have been reported, with a cumulative rate (all ages) of 46.5 per 100,000 population (Figures 5-6). An influenza related death is included in season totals when it is reported to DPHHS or if influenza is indicated on a death record. Season to date, 17 deaths attributed to influenza were reported. Table 2 presents influenza hospitalizations and deaths current as of the week ending April 11, 2020.

Table 2. Influenza Hospitalizations and deaths – Montana, week ending 4/11/2020

Hospitalizations		Deaths (season to date)		
Current Week	Season to date	Pediatric (0-17 years)	Adult <65 years	Adult >65 years
19	488	0	4	13

Figure 5. Influenza-associated hospitalizations by age group and percentage of emergency room outpatient visits due to ILI – Montana, 2019-20 season

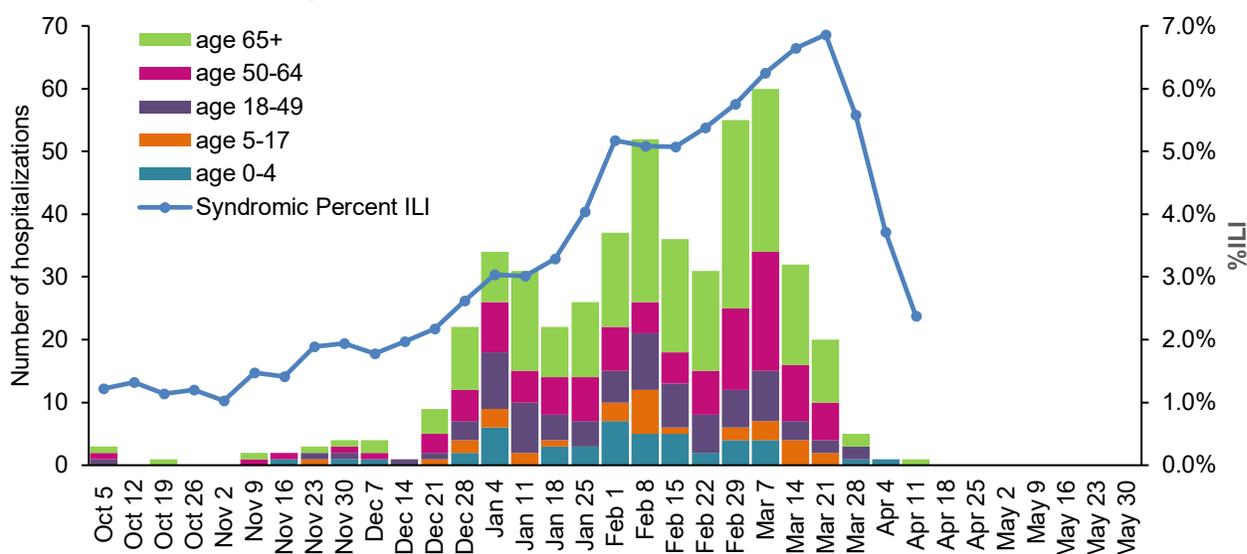
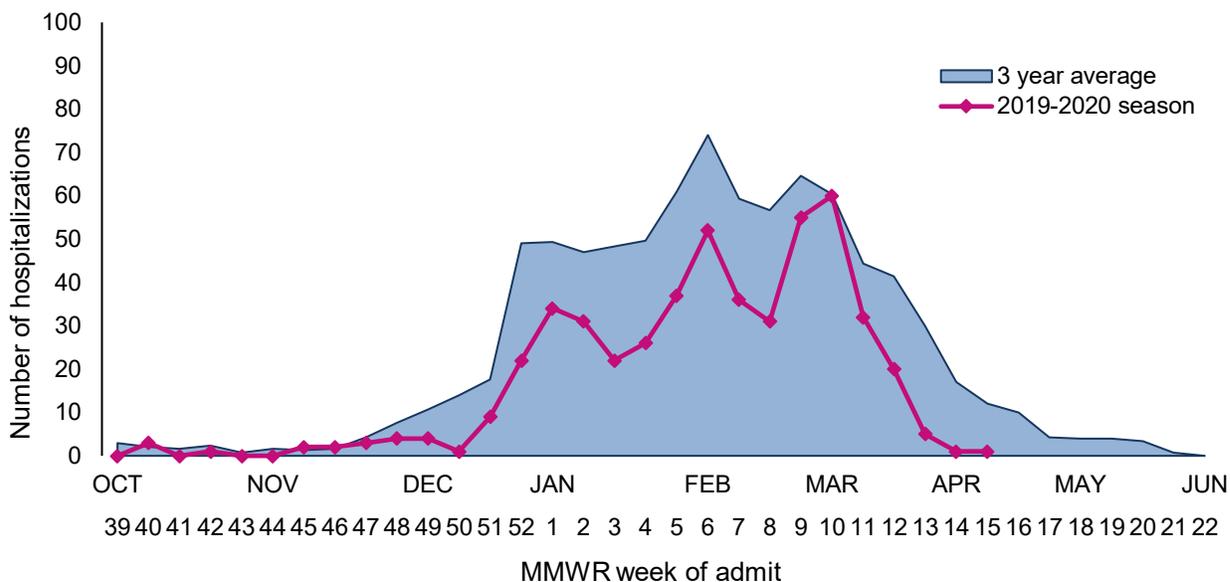


Figure 6. Number of influenza-related hospitalizations (all ages) – Montana, 2019-20 season vs. 3-year average

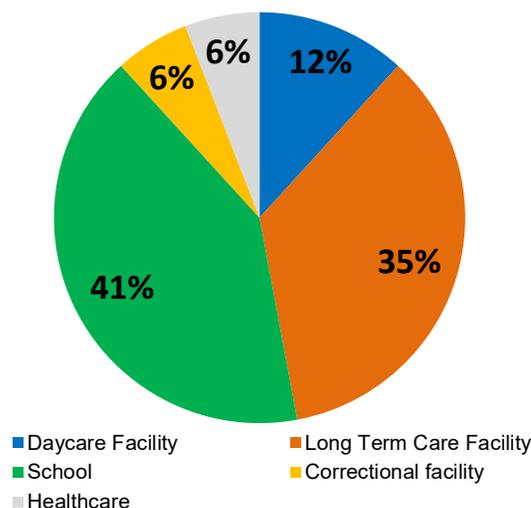


Outbreaks

Outbreaks in a congregate setting are reportable to DPHHS by Administrative Rule (ARM). An outbreak is defined as “an incidence of a disease or infection significantly exceeding the incidence normally observed in a population of people over a period of time specific to the disease or infection in question” ([ARM 34.114.101 \(24\)](#)).

For the week ending 4/11/2020, no new influenza outbreaks were reported to DPHHS, with a total of 17 reported season to date. Settings include long term care, correctional facility, daycare, and schools.

Figure 8. Reported influenza outbreaks by setting – Montana, 2019-20 season



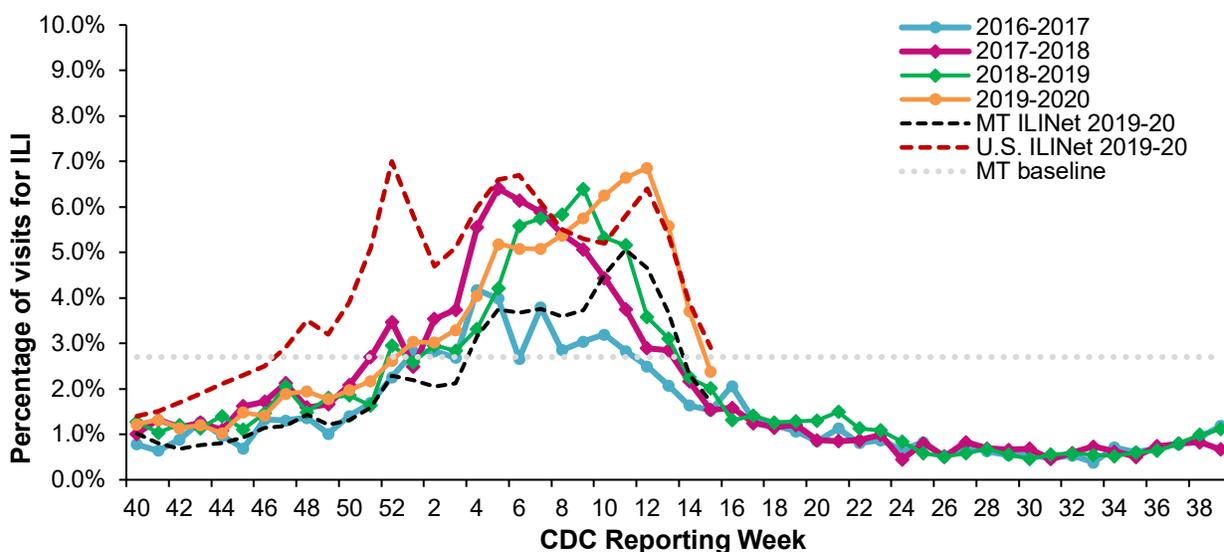
Influenza like Illness Network (ILINet) and Syndromic Surveillance

The U.S. Outpatient ILI Surveillance Network (ILINet) is a national system that conducts surveillance for Influenza-like illness (ILI) in outpatient healthcare facilities. ILI has a standardized definition which includes a fever (temperature of 100° F or greater), cough, and/or sore throat. Currently, 44 facilities participate in ILINet in Montana, either through manual data entry or through the syndromic surveillance data feed.

Syndromic surveillance data in Montana is analyzed in ESSENCE, which collects real-time emergency department (ED) data from facilities across Montana including chief complaint of ILI symptoms. Figure 8 below shows the proportion of medical visits with a chief complaint of ILI each week for the current as well as past three seasons and presented alongside the U.S. and MT ILINet values.

For the week ending 4/11/2020, 2.4% of all patient visits were due to ILI in Montana compared to 2.9% in the United States (Figure 9).

Figure 9. Percentage of ER visits for chief complaint of ILI – Montana, selected seasons



Respiratory Syncytial Virus (RSV)

RSV is a respiratory virus and is the most common cause of bronchiolitis and pneumonia in children less than one year of age. Typically, the RSV season tends to mirror that of influenza. RSV surveillance is compiled from 15 sentinel laboratories in Montana that report weekly testing data⁴. Figures 10 and 11 describe RSV testing for the current season and a comparison of the percent positivity over the current and last three seasons, respectively. During the week ending 2/29/2020, the percentage of positive RSV tests decreased but remains above the 10% threshold. **The 2019-2020 RSV season onset occurred on 12/21/2019.**

Figure 10. Number and percent positive RSV tests – Montana, 2019-2020

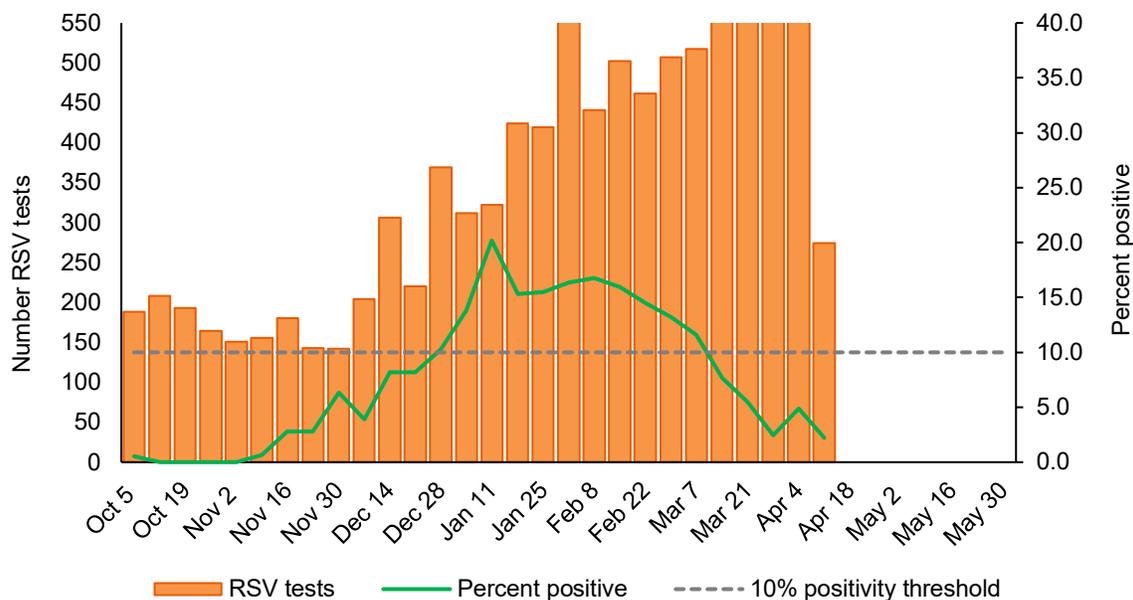
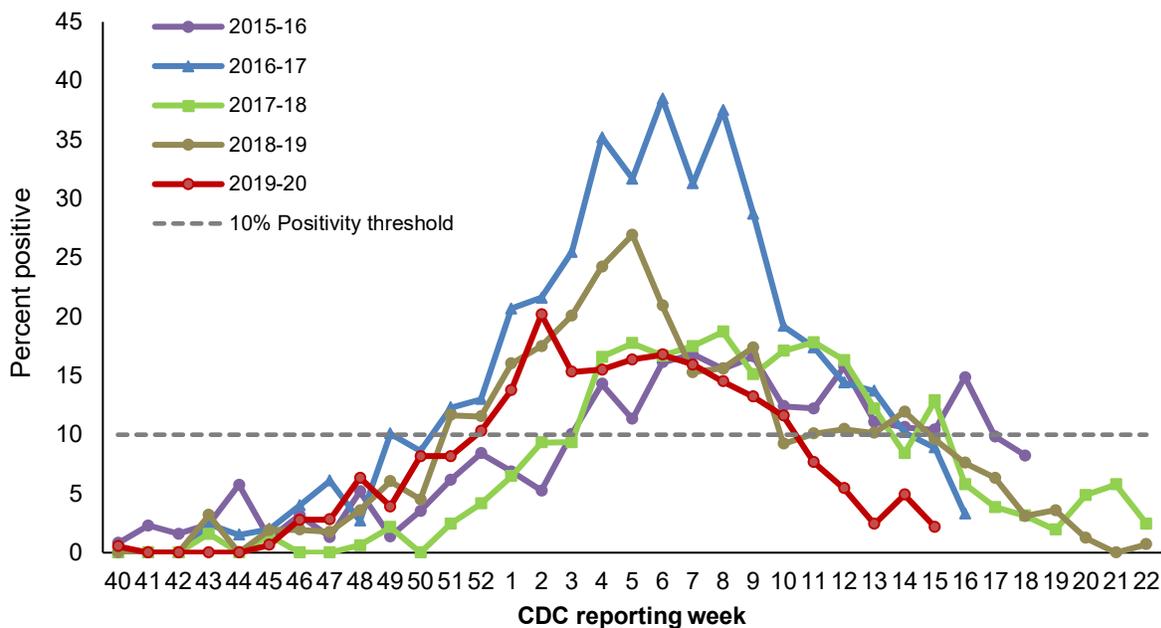


Figure 11. RSV positivity rates – Montana, select seasons



Additional Resources

Montana DPHHS Influenza: <http://dphhs.mt.gov/publichealth/cdepi/diseases/influenza>

National Influenza Surveillance Report (CDC Flu View): <https://www.cdc.gov/flu/weekly/>

International Influenza Data (WHO): <http://www.who.int/influenza/en/>

Influenza vaccine resources: visit <https://vaccinefinder.org> or www.cdc.gov/flu to find a location near you

Notes

¹Influenza Activity: State health departments report the estimated level of geographic spread of influenza activity in their states each week through the **State and Territorial Epidemiologists Reports**. States report geographic spread of influenza activity as no activity, sporadic, local, regional, or widespread. These levels are defined as follows:

- **No Activity:** No laboratory-confirmed cases of influenza and no reported increase in the number of cases of ILI.
- **Sporadic:** Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.
- **Local:** Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in a single region of the state.
- **Regional:** Outbreaks of influenza or increases in ILI and recent laboratory confirmed influenza in at least two but less than half the regions of the state with recent laboratory evidence of influenza in those regions.
- **Widespread:** Outbreaks of influenza or increases in ILI cases and recent laboratory-confirmed influenza in at least half the regions of the state with recent laboratory evidence of influenza in the state.

²Molecular influenza testing partner laboratories: Barrett Hospital and Healthcare, Benefis Healthcare System, Big Sandy Medical Center, Bighorn County Hospital, Billings Clinic Hospital, Bozeman Deaconess Hospital, Cabinet Peaks Medical Center, Central Montana Medical Center, Community Medical Center, Deer Lodge Medical Center, Glacier Medical Associates, Grant Creek Family Practice, Great Falls Clinic, Holy Rosary Health Care, Kalispell Regional Medical Center, Liberty County Hospital, Livingston Healthcare, Pondera Medical Center, Poplar Community Hospital, Roundup Memorial Hospital, St. Joseph Hospital, St. Patrick's Hospital, St. Peter's Hospital, St. Vincent Hospital, Sidney Health Center, Trinity Hospital, and VA Ft. Harrison.

³Per the Administrative Rules of Montana [37.114.203](#) and [37.114.316](#), influenza is a reportable condition for the following:

- Influenza cases, hospitalizations, and deaths
- Influenza outbreaks in congregate settings
- Other illnesses of public health significance (novel influenza A)

⁴RSV laboratory surveillance partners: Barrett Hospital and Healthcare, Benefis Healthcare System, Bighorn County Hospital, Billings Clinic Hospital, Bozeman Deaconess Hospital, Community Medical Center, Deer Lodge Medical Center, Great Falls Clinic, Holy Rosary Health Care, Kalispell Regional Medical Center, Liberty County Hospital, Phillips County Hospital, Poplar Community Hospital, Rosebud Healthcare, St. Peter's Hospital, St. Vincent Hospital, and Trinity Hospital.

For additional information on influenza activity in Montana, please contact your local health department or the Department of Public Health and Human Services' Communicable Disease Epidemiology Section at (406) 444-0273 or visit <https://dphhs.mt.gov/publichealth/cdepi/diseases/influenza>.