

Montana Influenza Summary

Cases reported as of April 14, 2018 (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 REGIONAL¹

- Influenza activity decreased during week 15 of 2018 with 174 new cases reported from 21 counties.
- Season to date, 9,943 cases, 941 hospitalizations, and 58 deaths (1 pediatric) due to influenza have been reported. Peak activity occurred during MMWR weeks 5–6.
- The most common influenza type identified this season is Influenza A H3. However, the proportion of influenza B strains detected has increased over the last several weeks and is now at 76%. Influenza A H1N1 strains have also been identified (7.6%).
- During week 15, the proportion of healthcare provider and emergency room visits for influenza like illness (ILI) decreased.
- No new influenza outbreaks were reported during week 15. Season to date, 32 outbreaks have been reported.
- RSV activity increased slightly during week 15, back above the 10% positivity threshold. Detailed RSV information is found on page 6. Four RSV outbreaks have been reported to date in long term care and daycare facilities.

Figure 1. New confirmed cases of influenza reported: week of April 8–14, 2018

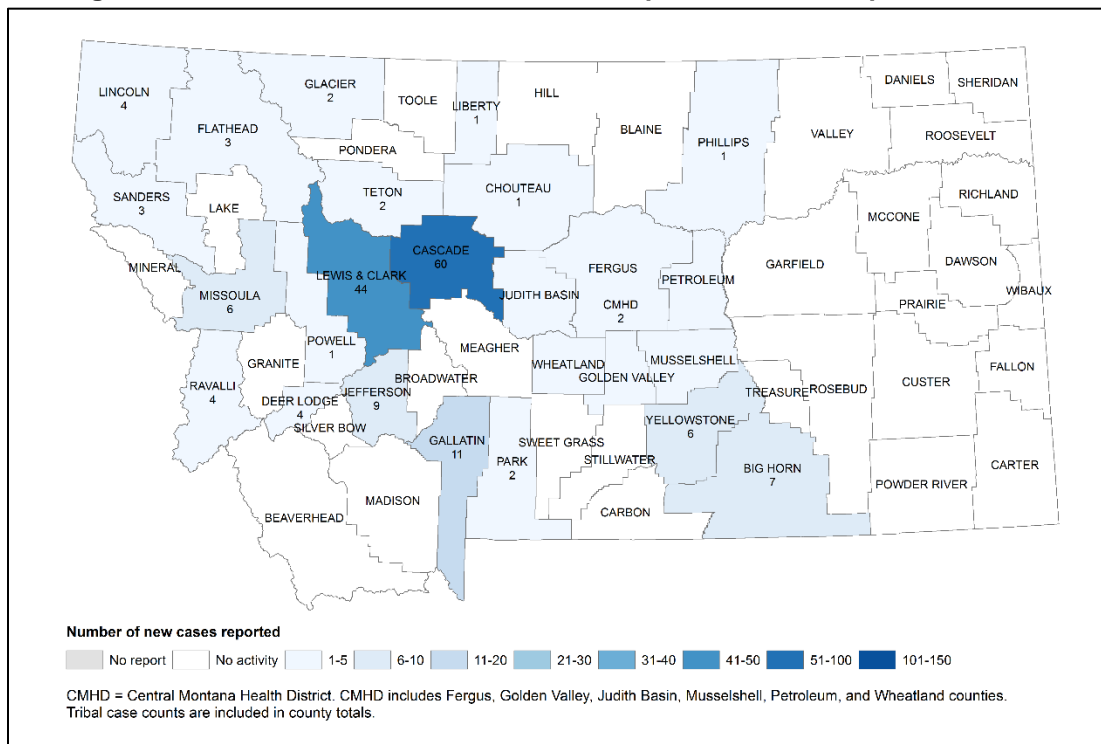


Figure 2. Number and incidence rate of reported influenza cases by county of residence, Montana – 2017-2018 season

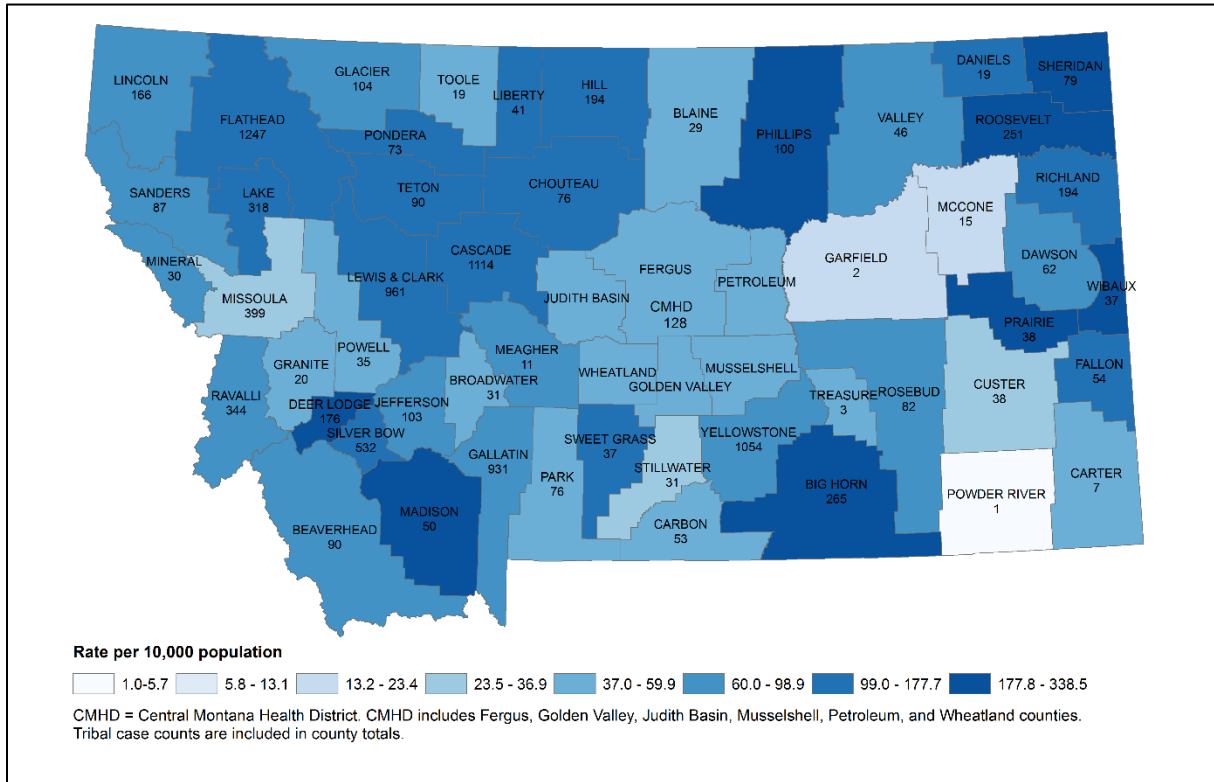
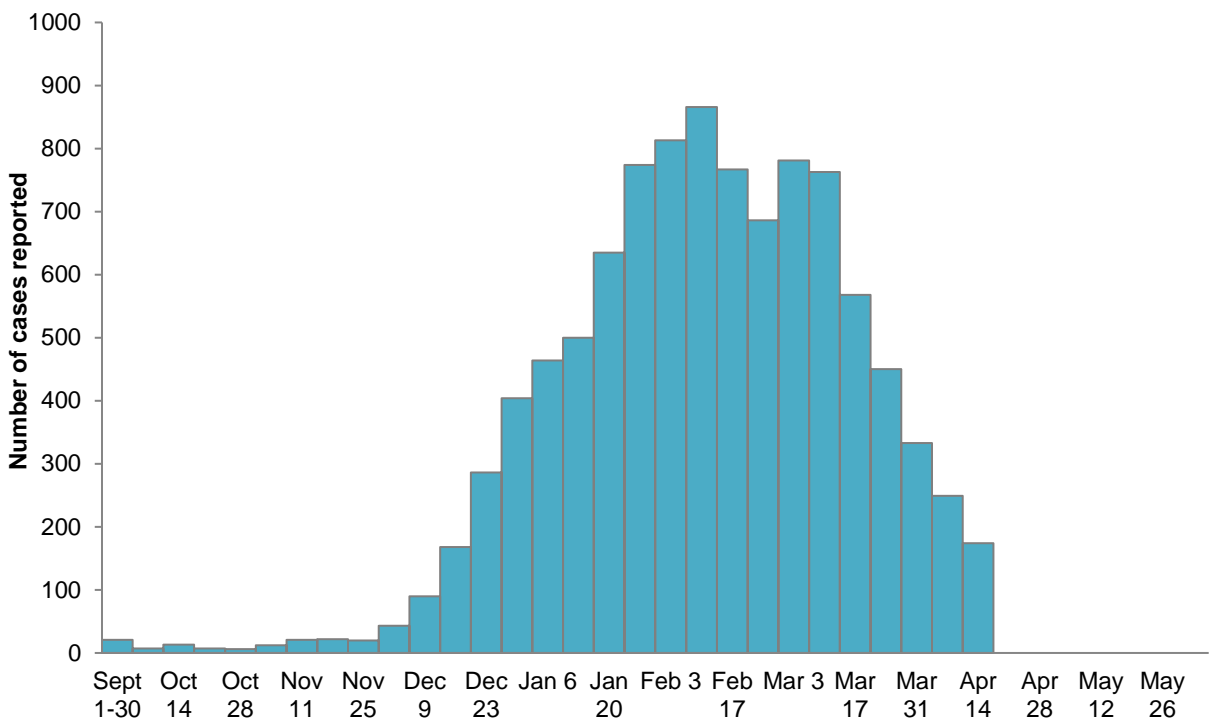


Figure 3. Influenza cases reported by week, Montana – 2017-2018 season



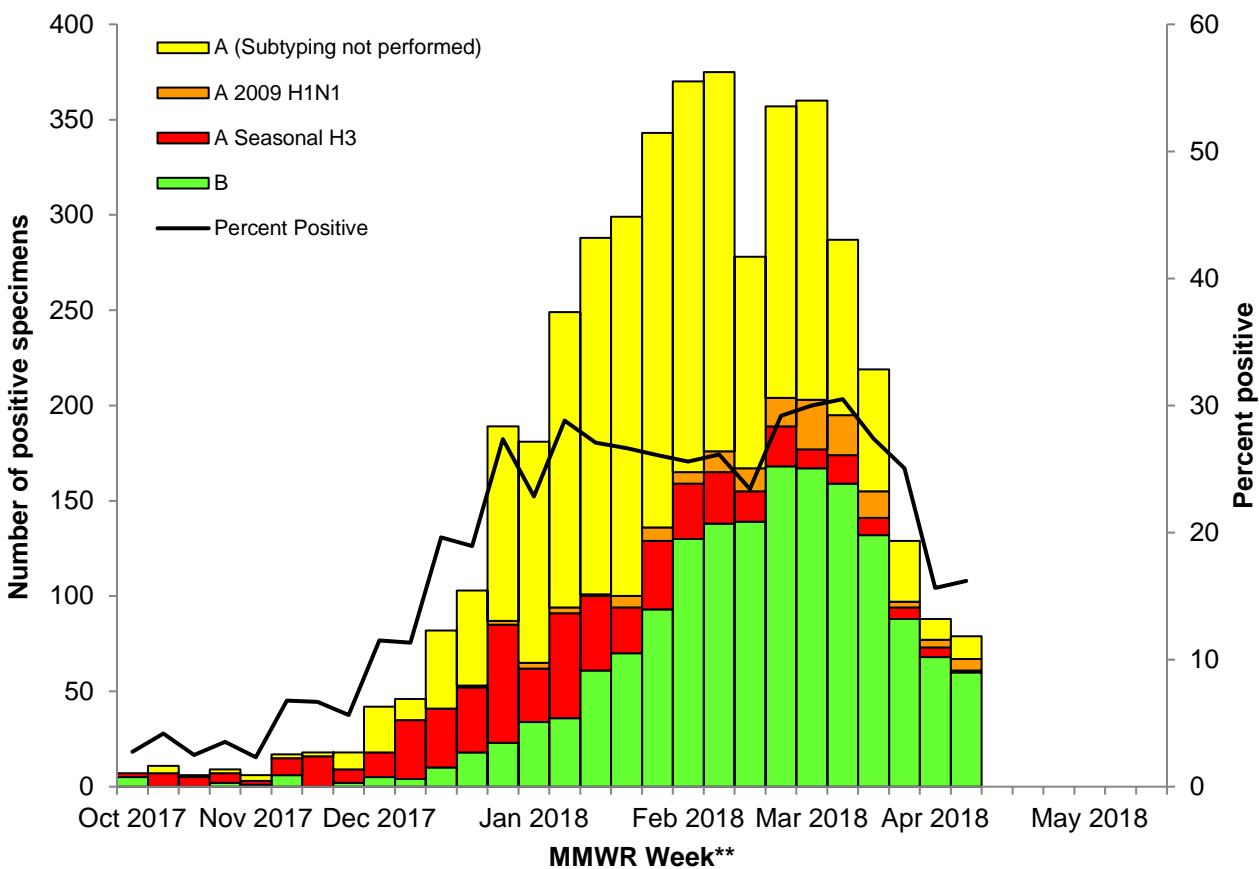
Laboratory Surveillance

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	488	19399
Number of positive specimens (%)	79(16.2)	5444(22.9)
Positive specimens by type/subtype		
Influenza A (%)	19(24)	2825
2009 H1N1	6	142
Subtyping not performed	12	2150
H3	1	545
Influenza B (%)	60(76)	1619

Figure 4. Influenza positive tests reported by the Montana Public Health Laboratory and partners², 2017-2018 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

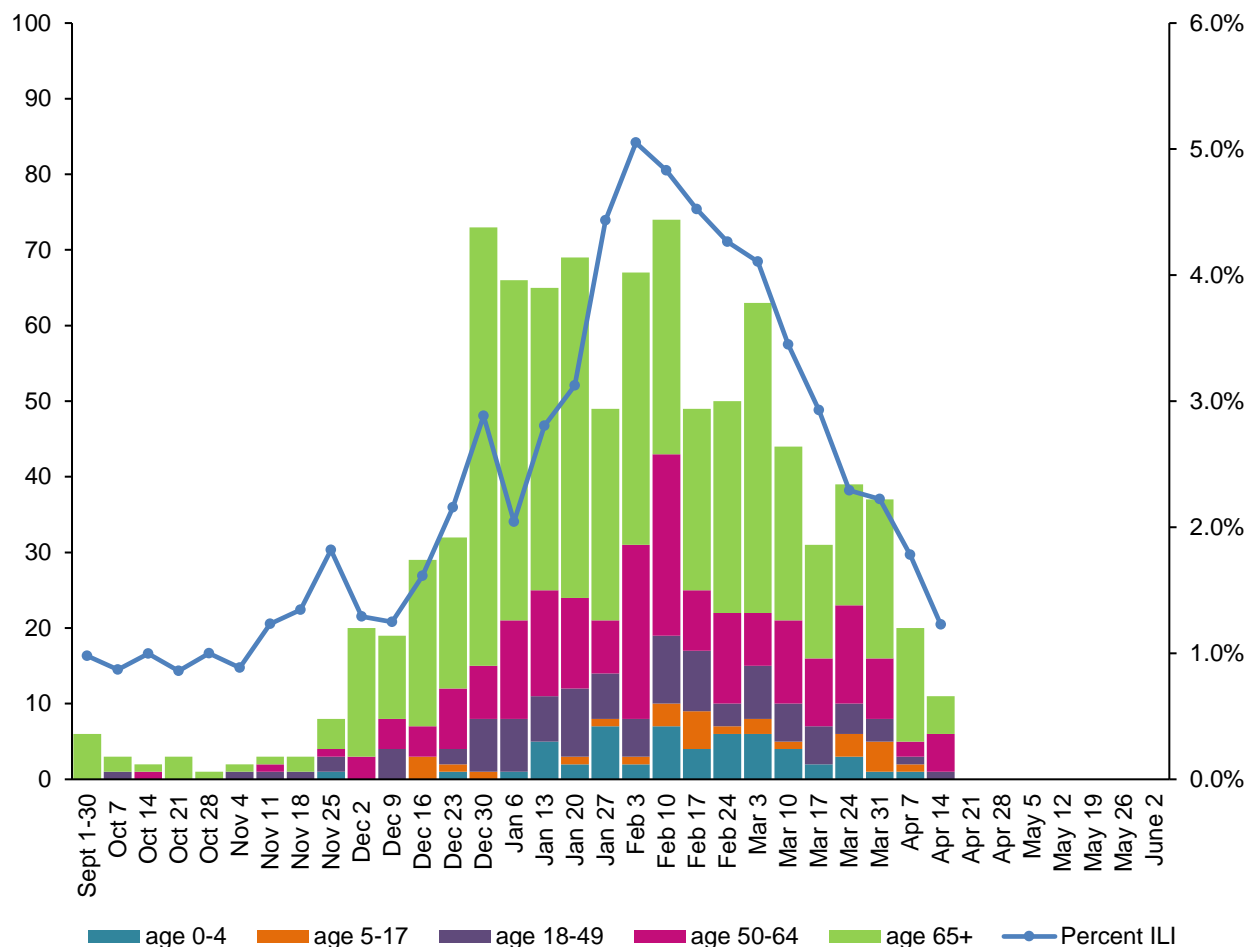
Influenza cases, including hospitalizations and deaths, are reportable to local public health in Montana³. Since September 1, 2017, 941 influenza-associated hospitalizations have been reported, with a cumulative rate of 90.3 per 100,000 population. The age group with the highest rate of hospitalization are those aged 65 years and older (Figure 5).

Season to date, there have been 58 reported deaths attributed to influenza, including one pediatric death. An influenza related death is included in season totals when it is reported to DPHHS or if influenza is indicated on a death record. Table 2 presents influenza hospitalizations and deaths current as of the week ending April 14, 2018.

Table 2. Influenza Hospitalizations and deaths – Montana, week ending 4/14/2018

Hospitalizations		Deaths (season to date)		
Current Week	Season to date	Pediatric	Adult <65 years	Adult >65 years
11	941	1	9	48

Figure 5. Influenza-associated hospitalizations by age group and percentage of emergency room outpatient visits due to ILI – Montana, 2017-18 season*

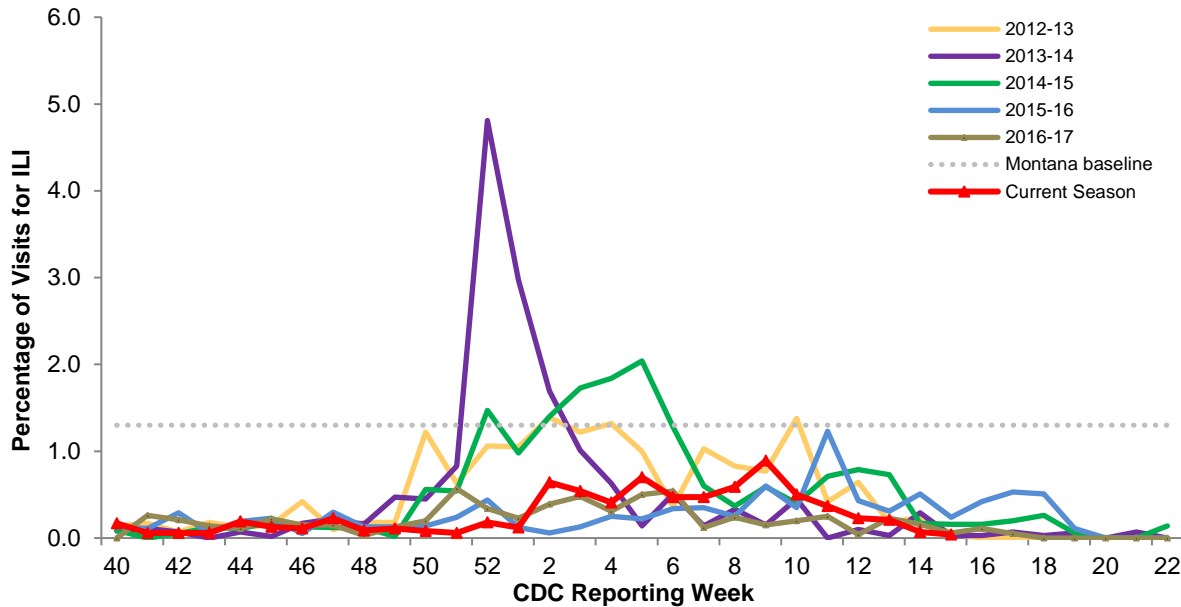


*Reported by hospital admission date

Influenza like Illness Surveillance Network (ILINet)

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 is defined as a fever (temperature of 100° F or greater) and cough and/or sore throat. Currently, nine facilities participate in ILINet in Montana. For the week ending 4/14/2018, 0.04% of patient visits were due to ILI in Montana compared to 1.8% in the United States.

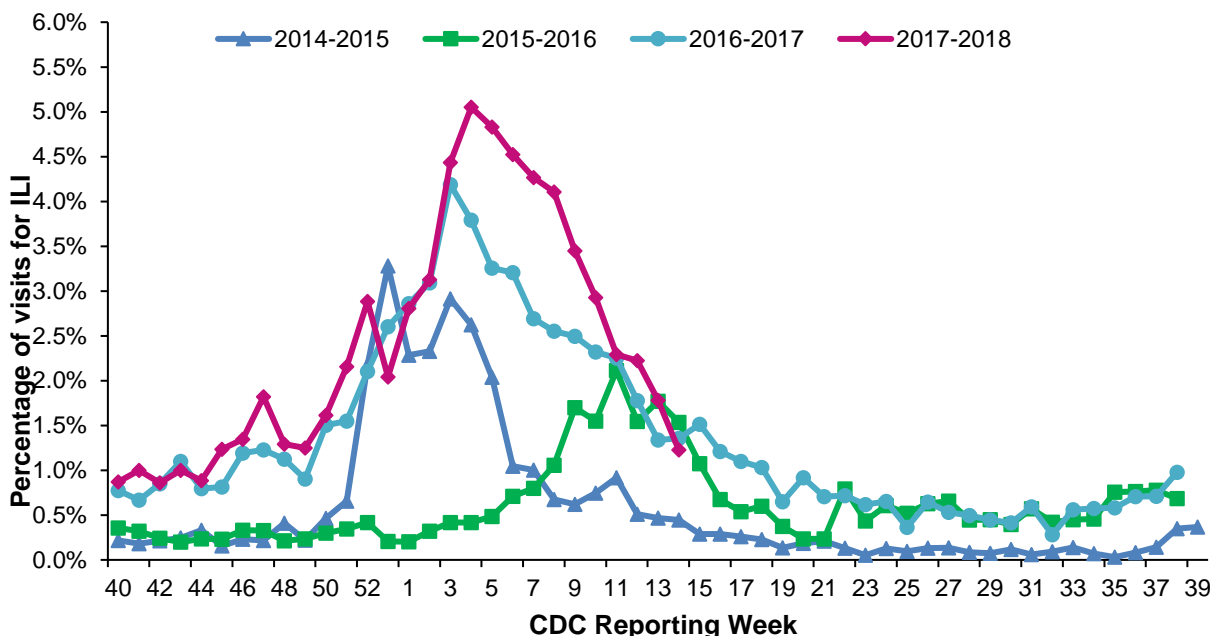
Figure 6. Percentage of ILI reported by sentinel provider – Montana, selected seasons



Syndromic Surveillance

Syndromic surveillance data in Montana is analyzed in ESSENCE, which collects real-time emergency department (ED) data from 35 facilities across Montana. Figure 7 shows the proportion of visits with a chief complaint of influenza-like illness each week for the current as well as past three seasons.

Figure 7. 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 8 and 9 describe RSV testing for the current season and a comparison of the percent positivity over the current and last three seasons, respectively.

Figure 8. Number and percent positive RSV tests – Montana, 2017-2018

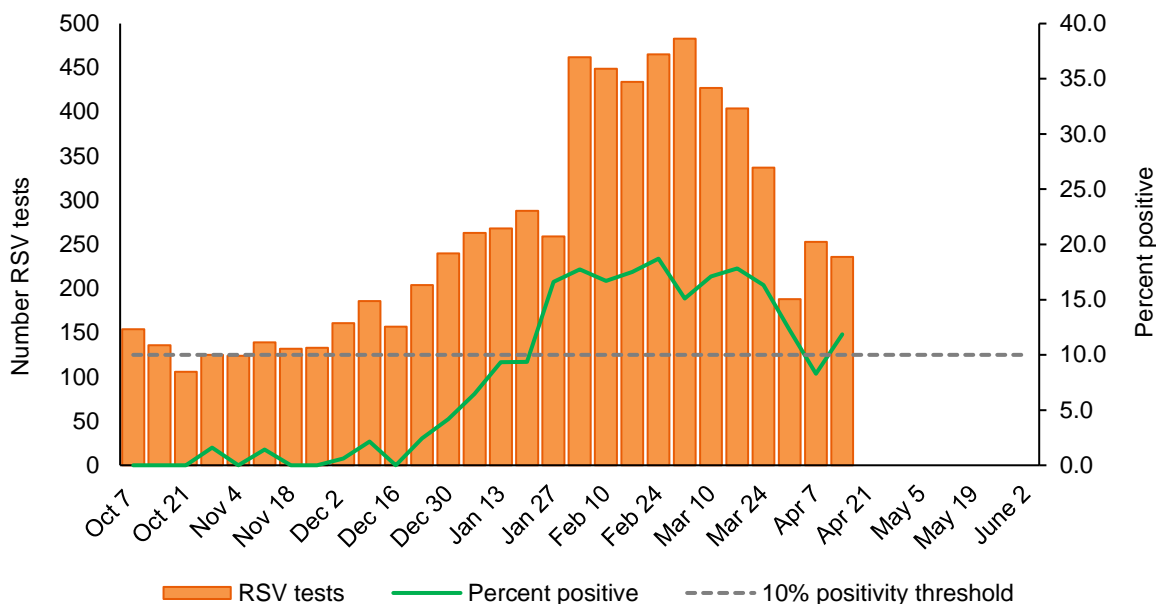
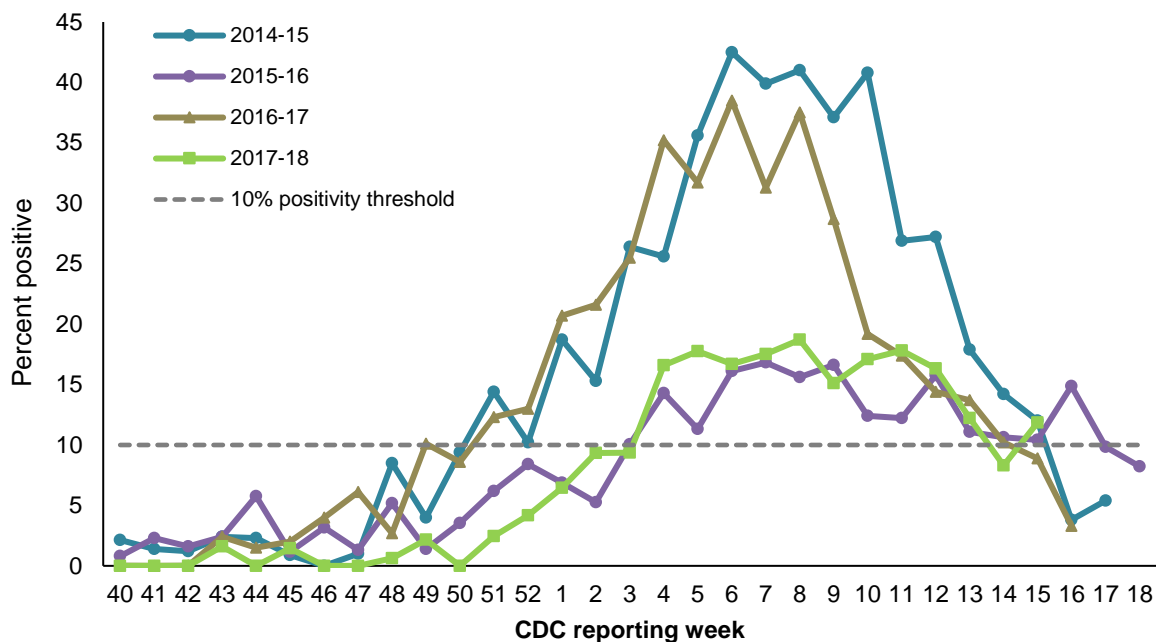


Figure 9. RSV positivity rates – Montana, select seasons



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: <http://www.who.int/influenza/en/>

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

Notes

¹**Influenza 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.

²**Molecular influenza testing partner laboratories:** Barrett Hospital and Healthcare, Benefis Healthcare System, Big Sandy Medical Center, Bighorn County Hospital, Billings Clinic Hospital, Bozeman Deaconess Hospital, 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, Phillips County Hospital, Poplar Community Hospital, Rosebud Healthcare, St. Joseph Hospital, St. Patrick's Hospital, St. Peter's Hospital, St. Vincent Hospital, Sidney Health Center, Trinity Hospital, and VA Ft. Harrison.

³**Per 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)

⁴**RSV 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 [DPHHS Influenza](#).