

# Montana Influenza Summary

Cases reported as of February 10, 2018 (MMWR Week 06)

Montana DPHHS, Communicable Disease Epidemiology

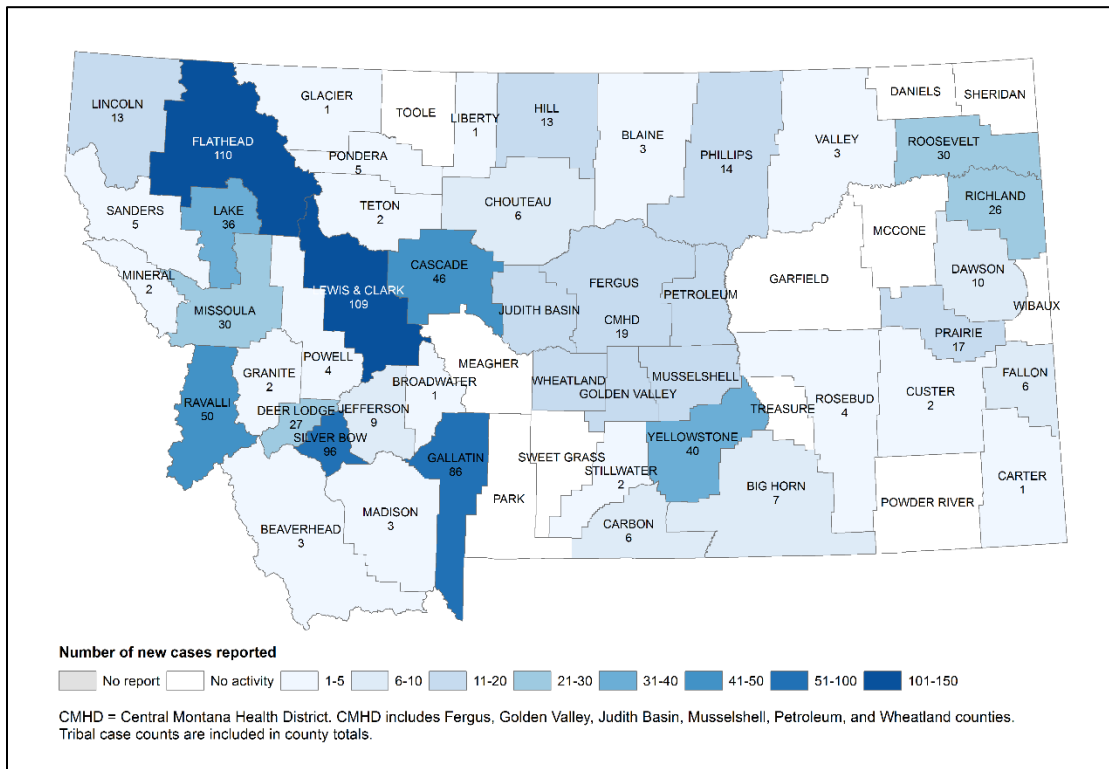


The Montana Department of Health and Human Services (DPHHS) provides a weekly report throughout the influenza season that coordinates data from a variety of sources to give the most complete and up to date view of influenza activity in the state of Montana. All data are preliminary and may change as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

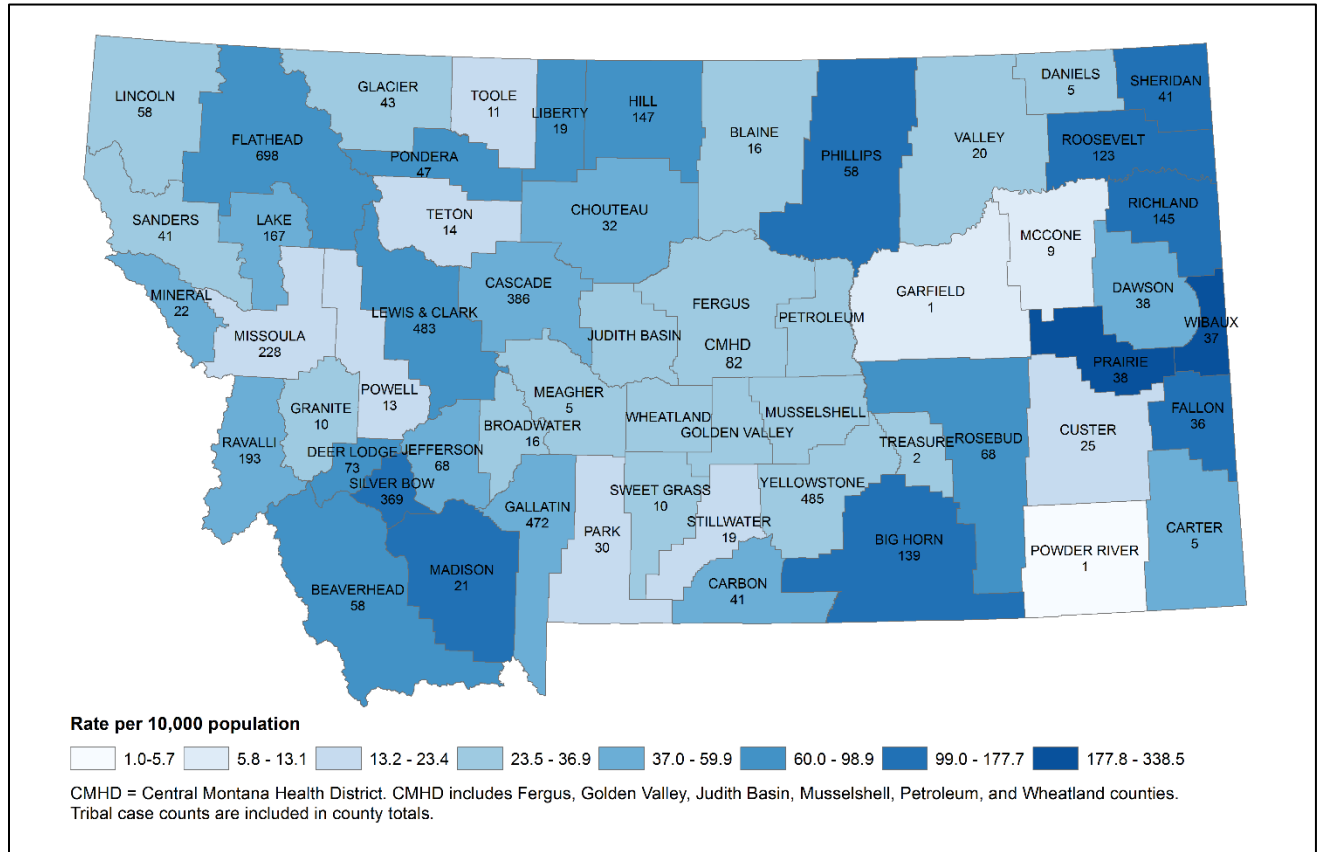
## State Summary: Flu activity is defined as WIDESPREAD<sup>1</sup>

- Influenza activity increased during week 6 of 2018 with 859 new cases reported from 42 counties.
- Season to date, at least one case of influenza has been reported from all counties in Montana.
- Season to date, 5,168 cases, 557 hospitalizations, and 24 deaths due to influenza have been reported.
- 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 three weeks and is now at 36%
- During week 6, the proportion of healthcare provider and emergency room visits for influenza like illness (ILI) decreased slightly.
- Two new influenza outbreaks were reported during week 6. Season to date, 18 outbreaks have been reported.
- RSV activity decreased slightly during week 6 but remains above the 10% positivity threshold (16.7%). RSV season onset has occurred. Detailed RSV information is found on page 6.

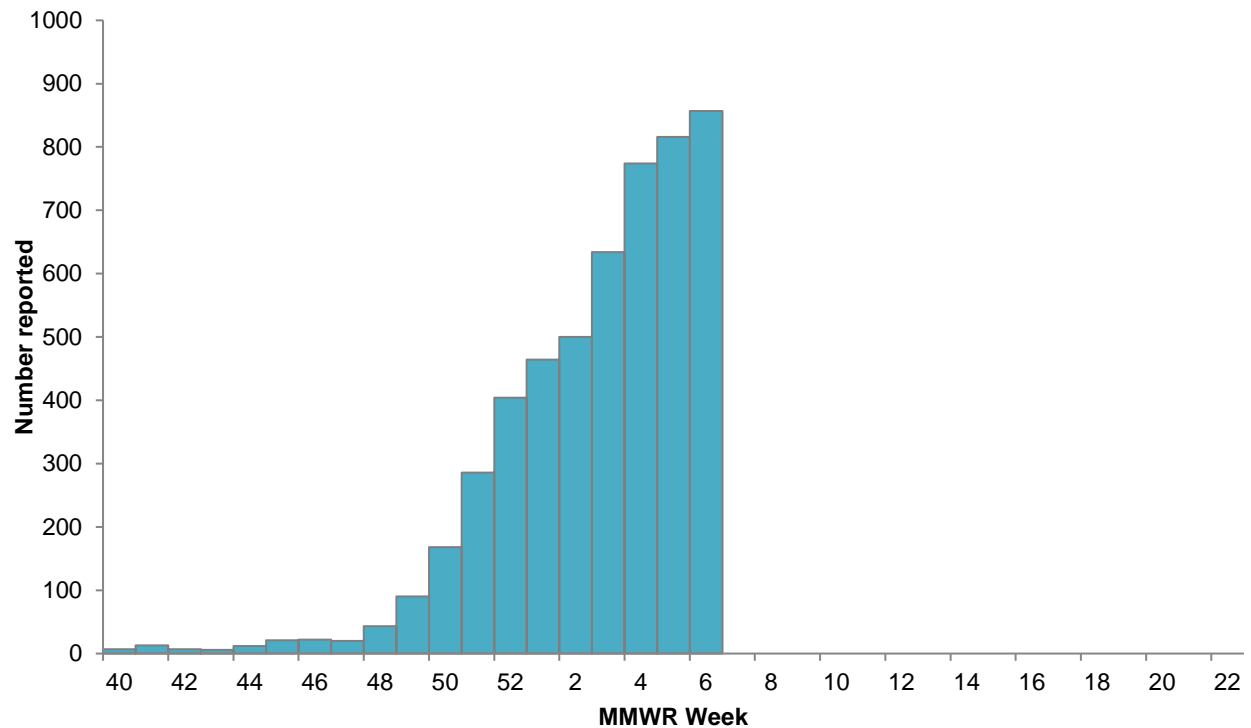
**Figure 1. New confirmed cases of influenza reported: week of February 4–10, 2018**



**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**



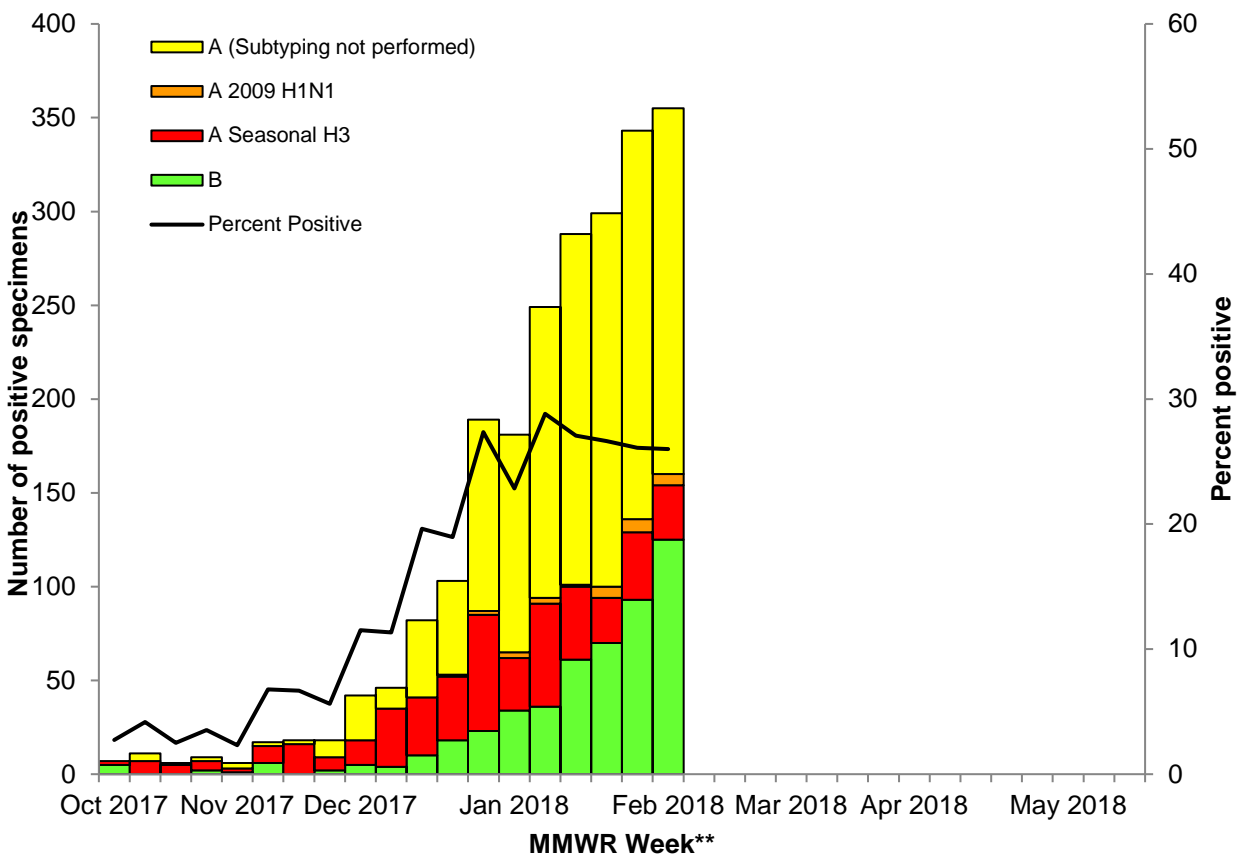
## Laboratory Surveillance

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 6 and the season to date.

**Table 1. Influenza type confirmed by Montana Public Health Laboratory and partners<sup>2</sup>**

	Week 6	Season to date
<b>Number of specimens tested</b>	1338	10967
<b>Number of positive specimens (%)</b>	348(26.0)	225(20.1)
<b>Positive specimens by type/subtype</b>		
<b>Influenza A (%)</b>	223 (64)	1762
<b>2009 H1N1</b>	6	30
<b>Subtyping not performed</b>	195	1309
<b>H3</b>	29	435
<b>Influenza B (%)</b>	125(36)	495

**Figure 4. Influenza positive tests reported by the Montana Public Health Laboratory and partners<sup>2</sup>, 2017-2018 season**



\*\*The MMWR week is the week of the epidemiologic year for which the National Notifiable Diseases Surveillance System (NNSS) 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

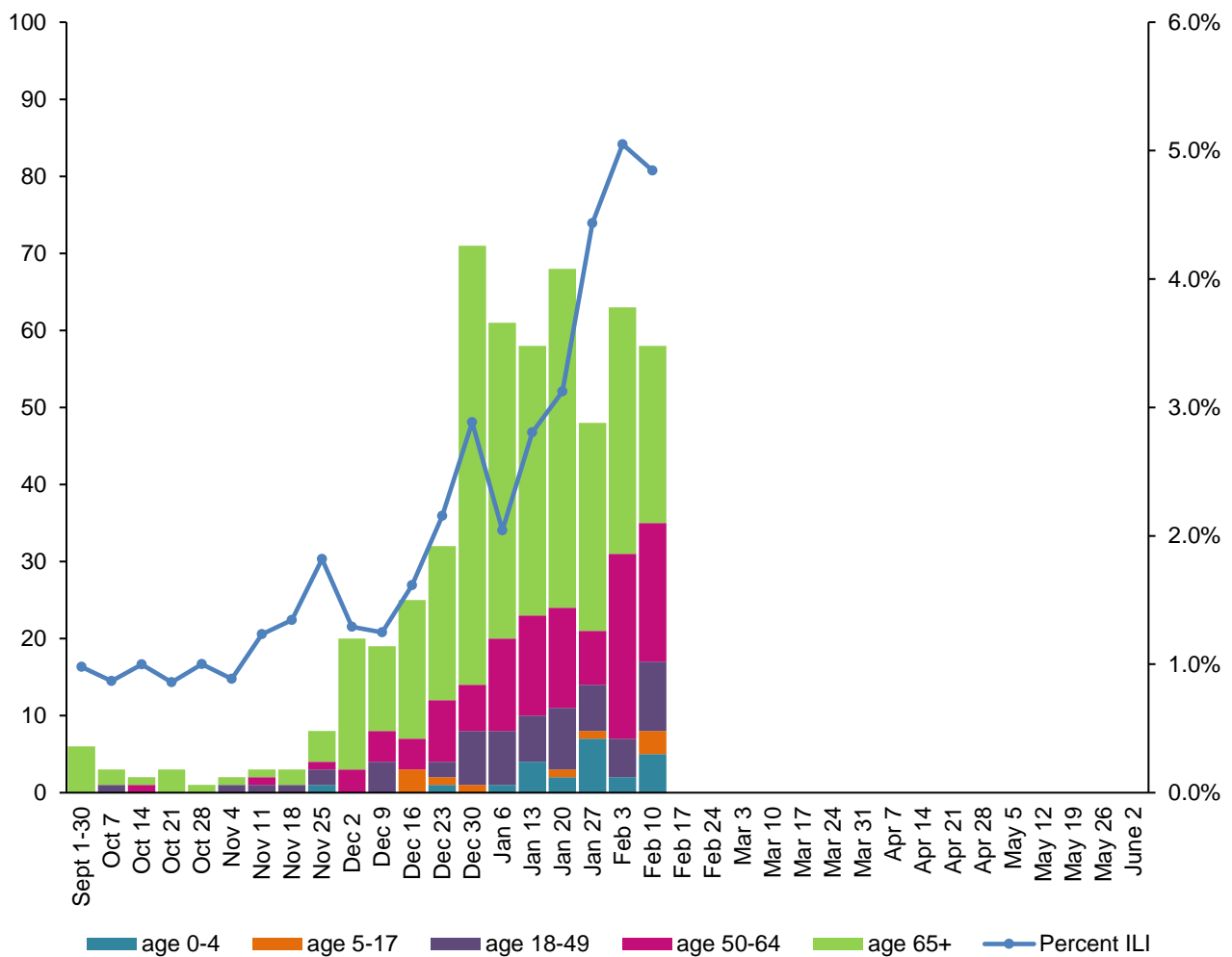
Influenza cases, including hospitalizations and deaths, are reportable to local public health in Montana<sup>3</sup>. Since September 1, 2017, 557 influenza-associated hospitalizations have been reported, with a cumulative rate of 53.4 per 100,000 population. The age group with the highest rate of hospitalization are those aged 65 years and older (Figure 5).

Season to date, there have been twenty-four reported deaths attributed to influenza. 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 February 10, 2018.

**Table 2. Influenza Hospitalizations and deaths – Montana, week ending 2/10/2018**

Hospitalizations		Deaths (season to date)		
Current Week	Season to date	Pediatric	Adult <65 years	Adult >65 years
58	557	0	3	21

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

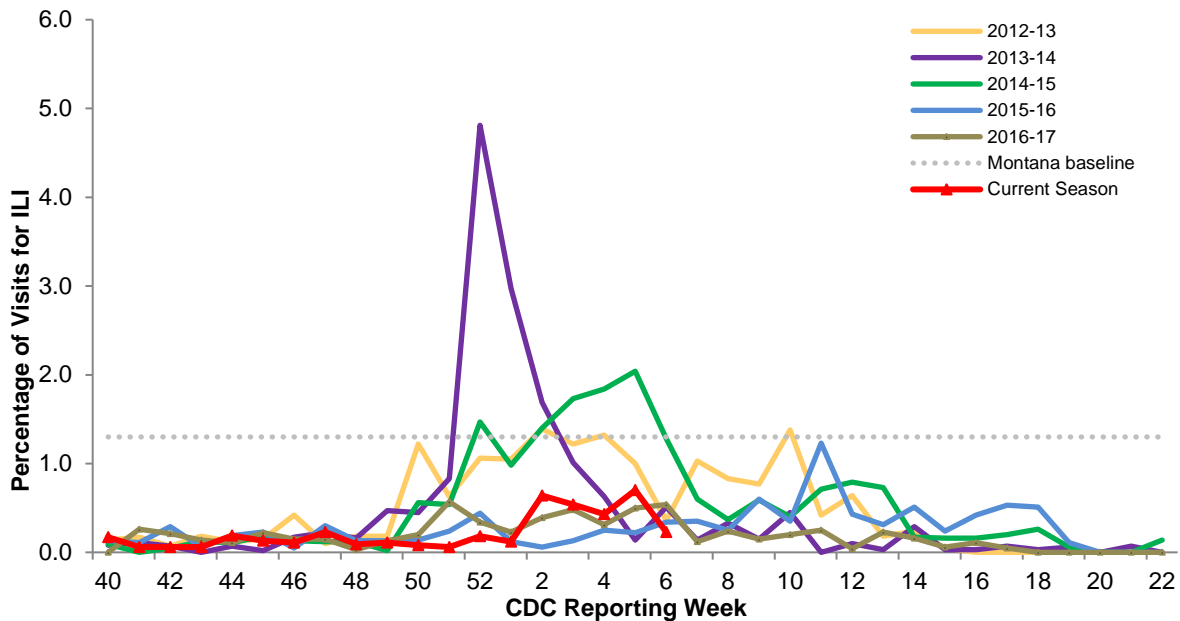


\*Reported by hospital admission date

## 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 2/10/2018, 0.23% of patient visits were due to ILI in Montana compared to 7.5% in the United States.

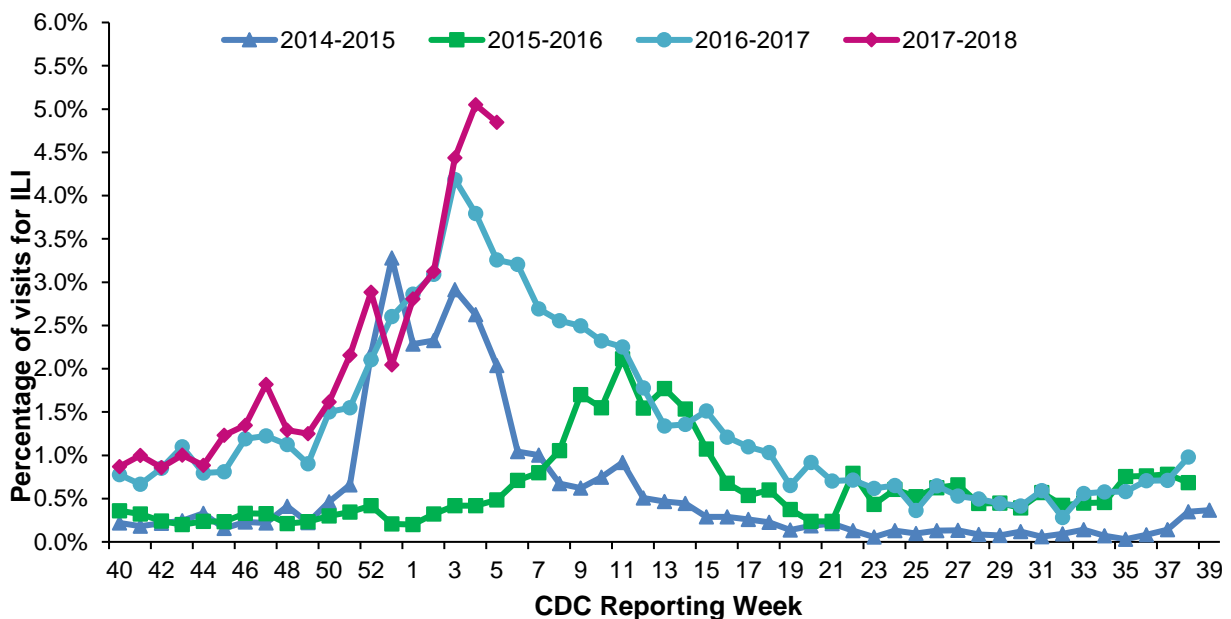
**Figure 6. Percentage of ILI reported by sentinel provider – Montana, selected seasons**



## 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.

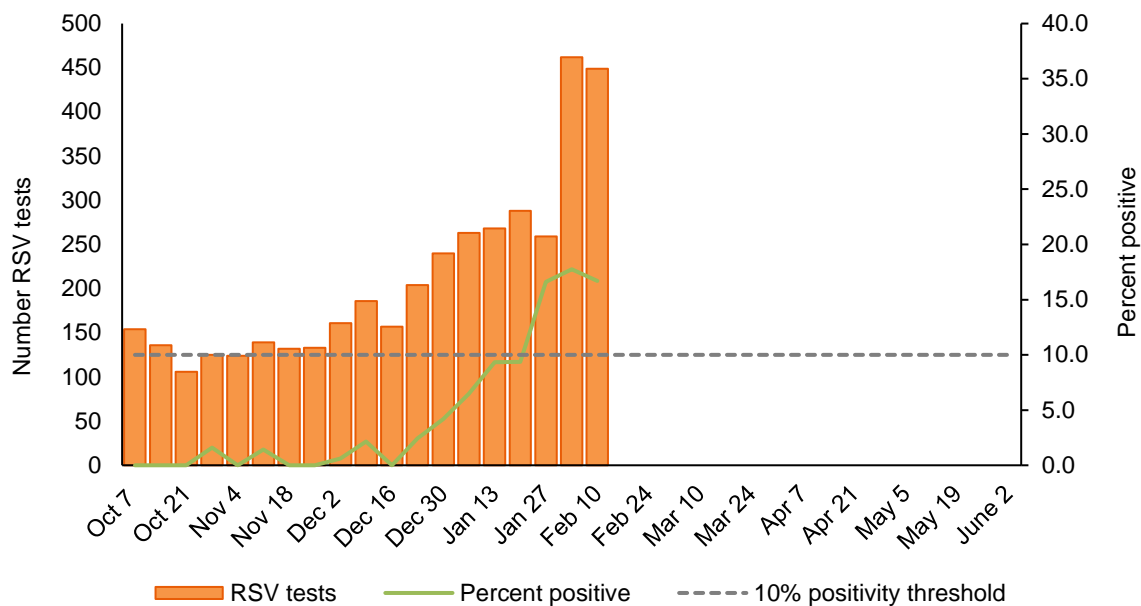
**Figure 7. Percentage of ER visits for chief complaint of ILI – Montana, selected seasons**



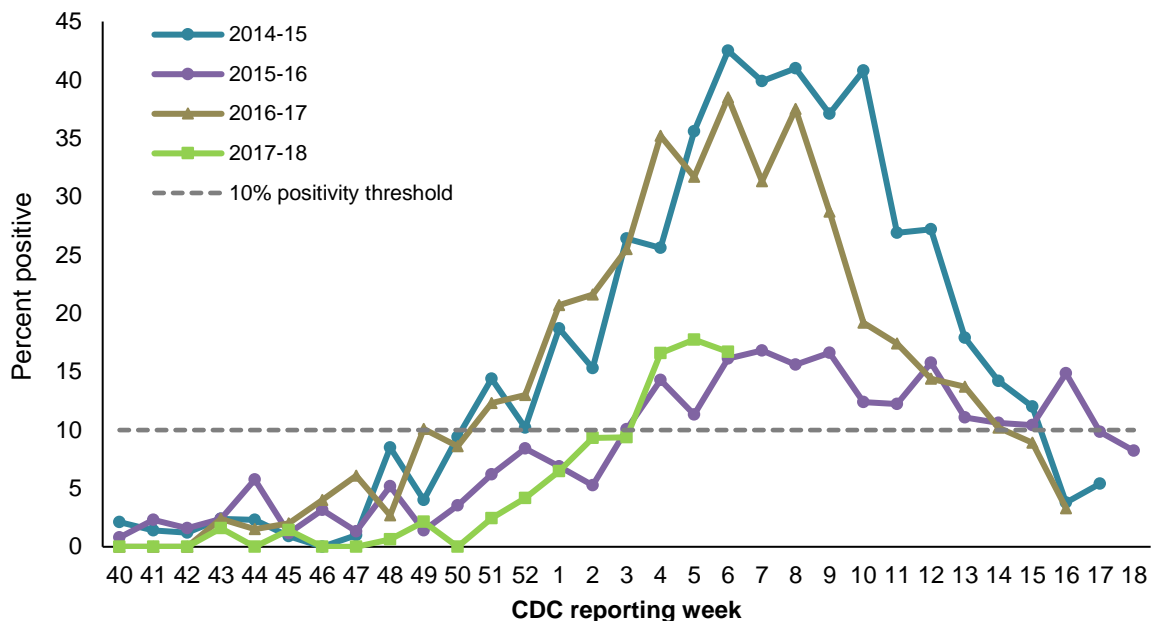
## Respiratory Syncytial Virus (RSV)

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 data<sup>4</sup>. 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](http://www.cdc.gov/flu) to find a location near you where you can get vaccinated.

## Notes

**<sup>1</sup>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.

**<sup>2</sup>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.

**<sup>3</sup>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)

**<sup>4</sup>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](#).*