



# Summit County Public Health Influenza Surveillance Report 2019 – 2020 Season



**Public Health**  
Prevent. Promote. Protect.

## Report #18

**Flu Surveillance Weeks 18 & 19 (2/2/2020 to 2/15/2020)**

**Centers for Disease Control and Prevention MMWR Weeks 6 & 7**

### Summit County Surveillance Data:

In **Week 19** of surveillance, influenza-related activity continued to be high in Summit County.

**Table 1: Overall Influenza Activity Indicators in Summit County by Week**

|  | Week 18<br>MMWR 6<br>N (%) <sup>1</sup> | Week 19<br>MMWR 7<br>N (%) <sup>1</sup> | Percent<br>change from<br>previous week | Number of<br>weeks<br>increasing or<br>decreasing |
|--|---|---|---|---|
| <b>Lab Reports</b>   |   |   |   |   |
| Tests Performed  | 1876                                    | 1862                                    | - 0.7%                                  | NC  |
| Positive Tests (Number and %)  | 749 (39.9)                              | 730 (39.2)                              | - 1.8%                                  | NC  |
| Influenza A (Number and %)   | 400 (21.3)                              | 397 (21.3)                              | 0.0%                                    | NC  |
| Influenza B (Number and %)   | 349 (18.6)                              | 333 (17.9)                              | - 3.9%                                  | ↓3  |
| <b>Acute care hospitalizations for Influenza:</b>  | 81                                      | 72                                      | - 11.1%                                 | ↓1  |
| <b>Influenza ILI Community Report:</b>   |   |   |   |   |
| Long-term Care ILI Cases   | 0                                       | 3                                       | + 100%                                  | ↑1  |
| Correctional & Addiction Facility  | 5                                       | 0                                       | - 100%                                  | ↓1  |
| Physician Offices & University Clinic  | 19                                      | 16                                      | - 15.8%                                 | ↓1  |
| <b>Pharmacy Prescriptions</b>  |   |   |   |   |
| Zanamivir (Relenza)  | 0                                       | 0                                       | --                                      | --  |
| Oseltamivir (Tamiflu)  | 119                                     | 102                                     | - 14.3%                                 | ↓1  |
| Baloxavir marboxil (Xofluza)   | 0                                       | 0                                       | --                                      | --  |
| <i>Total</i>   | 119                                     | 102                                     | - 14.3%                                 | ↓1  |
| <b>Schools absenteeism<sup>2</sup></b>   | 9.5%                                    | 8.4%                                    | - 11.6%                                 | ↓1  |
| <b>Deaths</b>  |   |   |   |   |
| Pneumonia associated   | 2 (1.9)                                 | 4 (3.4)                                 | + 77.8%                                 | ↑1  |
| Influenza associated   | 0                                       | 0                                       | --                                      | --  |
| <b>Emergency room visits (EpiCenter)<sup>3</sup></b>   |   |   |   |   |
| Constitutional Complaints  | 1164 (18.1)                             | 991 (16.1)                              | - 10.9%                                 | ↓1  |
| Fever and ILI  | 235 (3.6)                               | 174 (2.8)                               | - 22.5%                                 | ↓1  |
| 1) N and % are reported when available, NC = no change, or change that is not significant  |   |   |   |   |
| 2) Absence is for any reason. Percent is from total number of students enrolled. Data was collected from 6 schools or school districts throughout Summit County (n = 32,000 students)  |   |   |   |   |
| 3) Percent is from total number of emergency room interactions   |   |   |   |   |
| <b>Note:</b> Data is provisional and may be updated as more information is received. Percentages should be interpreted with caution. Small changes in number can result in large changes in percent. When a percentage, or prevalence, is available in this table, the percent change will be calculated from those values |   |   |   |   |

**Zero** deaths related to influenza were reported during Week 19, and there were 4 deaths associated with pneumonia. **Figure 1** displays weekly Summit County death counts associated with pneumonia and influenza. *The seasonal average for pneumonia and influenza (P&I) deaths is 3.2%.*

**Acute Care Hospitalizations:** 72 hospitalization was reported during Week 19. **Figure 2** displays influenza associated hospitalizations in Summit County.

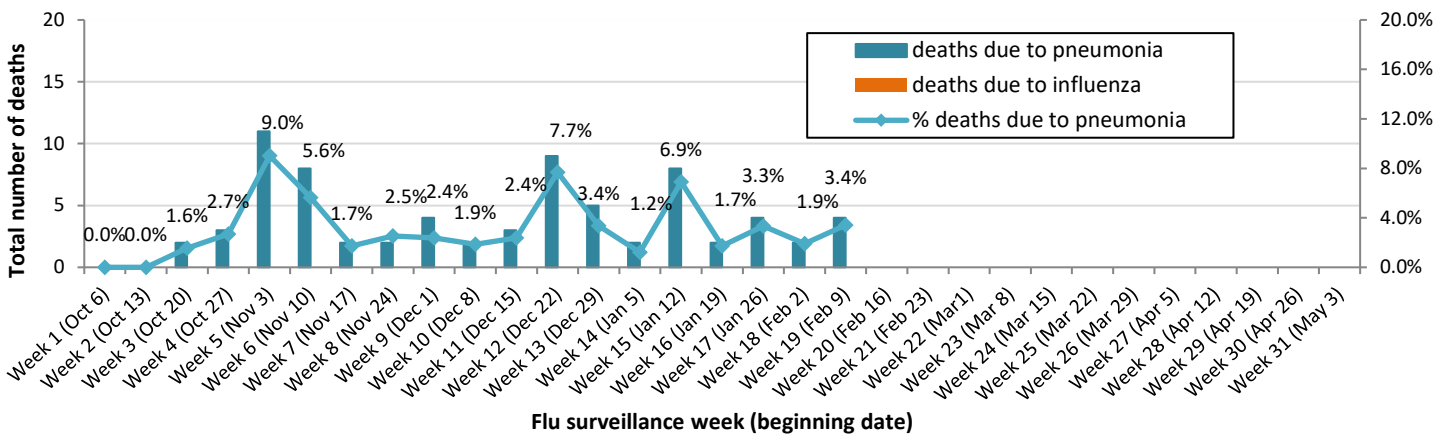
**COMMUNITY ILI REPORTS:** Influenza like Illness (ILI) as defined by the CDC is fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. Community ILI reports: **Long Term Care Facilities:** There were three cases of ILI reported. **Correctional and Inpatient Addiction facilities:** Zero cases of ILI were reported. **Physician offices and clinics:** During Week 19, 16 cases of ILI were reported.

**Pharmacies:** 102 antiviral prescriptions were filled by reporting pharmacies during Week 19.

**School absenteeism** includes absences regardless of reason. During Week 19, the reported absence rate was 8.4%, a 11.6% decrease from Week 18.

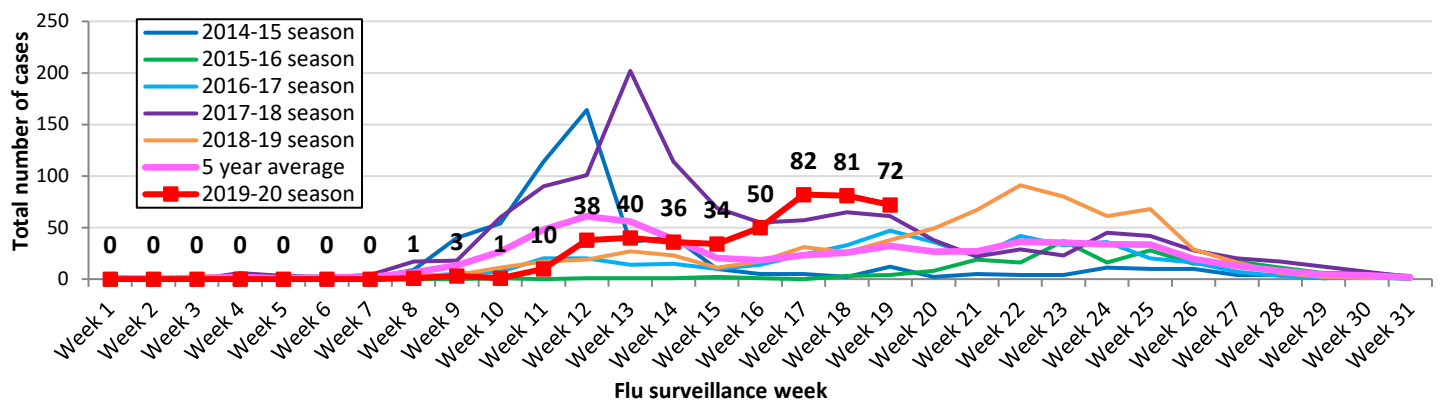
**Lab reports:** During Week 19 of influenza surveillance, reporting Summit County laboratories performed 1862 flu tests, of which 730 were positive (Type A = 397, Type B = 333). (**Figure 4**).

**Figure 1. Weekly Summit County death counts associated with pneumonia and influenza during 2019-2020 season**



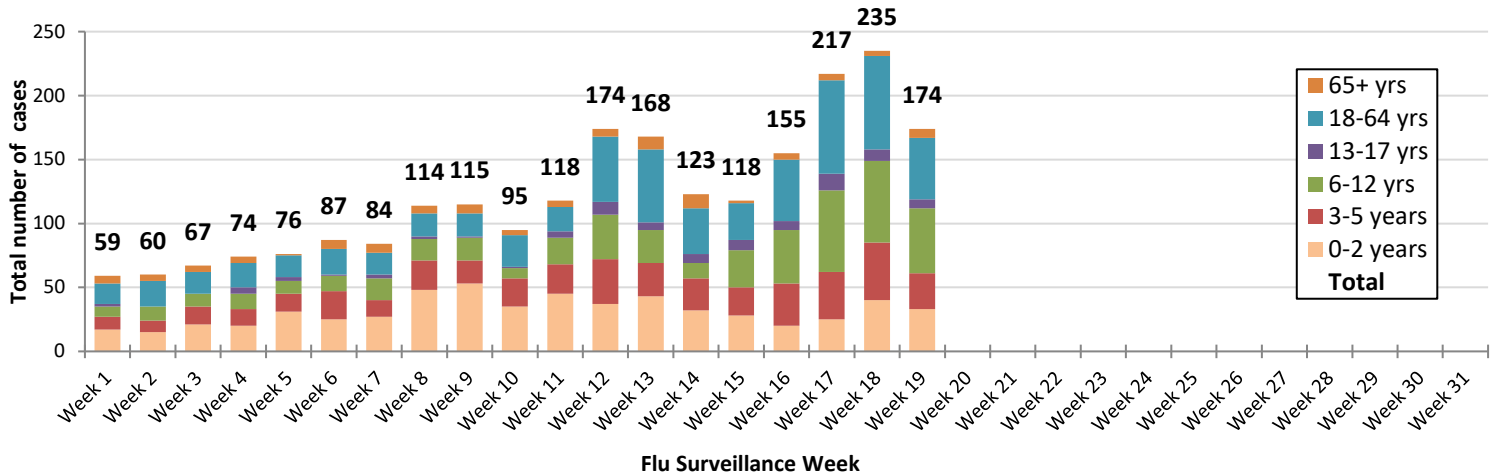
**Influenza-associated hospitalization:** Summit County hospitals reported 72 influenza-associated hospitalizations during Week 19. **Figure 2** displays weekly confirmed hospitalization count for Summit County (**cumulative count to date = 448**).

**Figure 2. Summit County influenza-associated hospitalizations by week, 2019-2020 and previous five seasons**

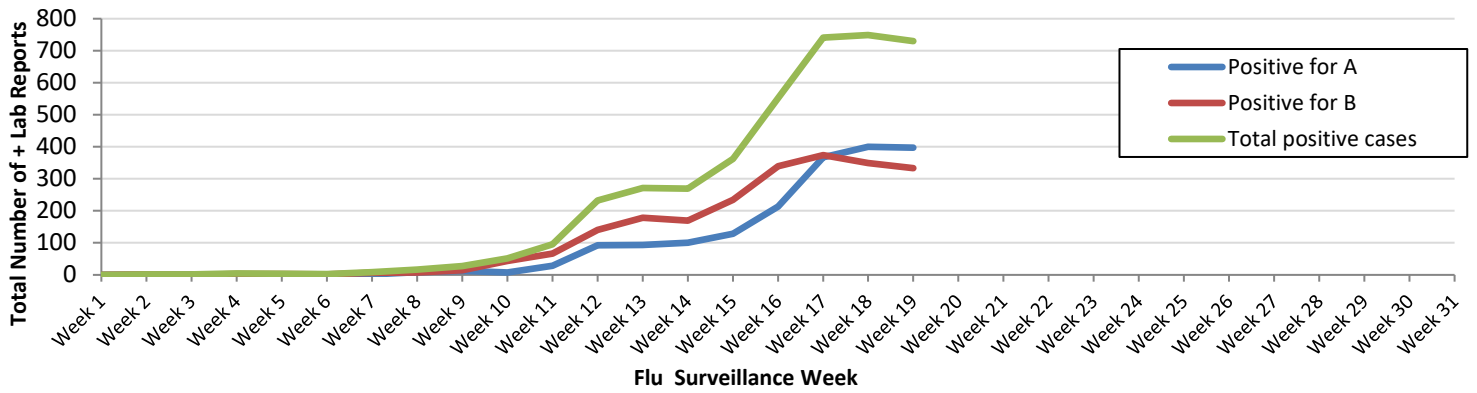


**EpiCenter** collects and analyzes health related data in real time to provide information about the health of the community. This system tracks ER visits related to constitutional complaints and fever and ILI. **Figure 3** displays the weekly number of ER visits related to ILI and flu symptoms in Summit County. There were 174 ILI-related visits reported during Week 19, which was 2.8% of total ED visits (n = 6154). This rate was 22.5% lower than the ILI rate during Week 18.

**Figure 3. Weekly ED visits in Summit County related to Fever + ILI stratified by age groups, 2019 to 2020 season**



**Figure 4. Influenza diagnostic tests with positive results completed by Summit County health facilities, 2019 - 2020 season**



**Ohio Influenza Activity: from the Ohio Department of Health:**

**Current Ohio Activity Level (Geographic Spread) – Widespread**

**Definition:** Increased ILI in at least half of the regions AND recent (within the past 3 weeks) lab confirmed influenza in the state.

During MMWR Week 7, public health surveillance data sources indicate high intensity for influenza-like illness (ILI) in outpatient settings reported by Ohio’s sentinel providers. The percentage of emergency department visits with patients exhibiting constitutional symptoms decreased but are above baseline levels statewide; fever and ILI specified ED visits decreased and are also still above baseline levels. Reported cases of influenza-associated hospitalizations are above the seasonal threshold. There were 1192 influenza-associated hospitalizations reported during MMWR Week 7.

**Ohio Influenza Activity Summary Dashboard (February 9 - 15, 2020):**

| Data Source   | Current week value | Percent Change from last week <sup>1</sup> | # of weeks <sup>2</sup> | Trend Chart <sup>3</sup> |
|---|--------------------|--|-------------------------|--------------------------|
| Influenza-like Illness (ILI) Outpatient Data (ILINet Sentinel Provider Visits)  | 3.32%              | -24.20%                                    | ↓ 2                     |                          |
| Thermometer Sales (National Retail Data Monitor)                                | 2272               | -10.62%                                    | ↓ 2                     |                          |
| Fever and ILI Specified ED Visits (EpiCenter)                                   | 3.61%              | -17.95%                                    | ↓ 1                     |                          |
| Constitutional ED Visits (EpiCenter)  | 16.21%             | -8.88%                                     | ↓ 1                     |                          |
| Confirmed Influenza-associated Hospitalizations (Ohio Disease Reporting System) | 1192               | 19.92%                                     | ↑ 4                     |                          |
| Outpatient Medical Claims Data <sup>4</sup>                                     | 4.69%              | -31.23%                                    | ↓ 1                     |                          |

<sup>1</sup>Interpret percent changes with caution. Large variability may be exhibited in data sources with low weekly values.

<sup>2</sup>Number of weeks that the % change is increasing or decreasing.

<sup>3</sup>Black lines represent current week’s data; red lines represent baseline averages

<sup>4</sup>Medical Claims Data provided by athenahealth®

Source: <https://www.odh.ohio.gov/seasflu/Ohio%20Flu%20Activity.aspx>

## Ohio Surveillance Data:

- **ODH lab** has reported **607 positive** influenza tests from specimens sent from sentinel ILINet providers and hospital clinical labs. 2019-2020 influenza season results: **(310) A/pdmH1N1; (17) A/H3N2; (280) Influenza B;** (through 02/15/2020).
- The **National Respiratory and Enteric Virus Surveillance System (NREVSS)** has reported **59,438** influenza specimens tested by RT-PCR at participating facilities. 2019-2020 influenza season positive results: **(328) A/pdmH1N1; (3) A/H3N2; (5,675) Flu A Not Subtyped; and (7,113) Flu B;** (through 02/15/2020)
- **2 influenza-associated pediatric mortalities** have been reported during the 2019-2020 season (through 02/15/2020).
- **No novel influenza A virus infections** have been reported during the 2019-2020 season (through 02/15/2020).
- Incidence of confirmed **influenza-associated hospitalizations** in 2019-2020 season = **6,631** (through 02/15/2020).

## National Surveillance: from Centers for Disease Control and Prevention (CDC):

Key indicators that track flu activity remain high and, after falling during the first two weeks of the year, increased over the last three weeks. Indicators that track severity (hospitalizations and deaths) are not high at this point in the season.

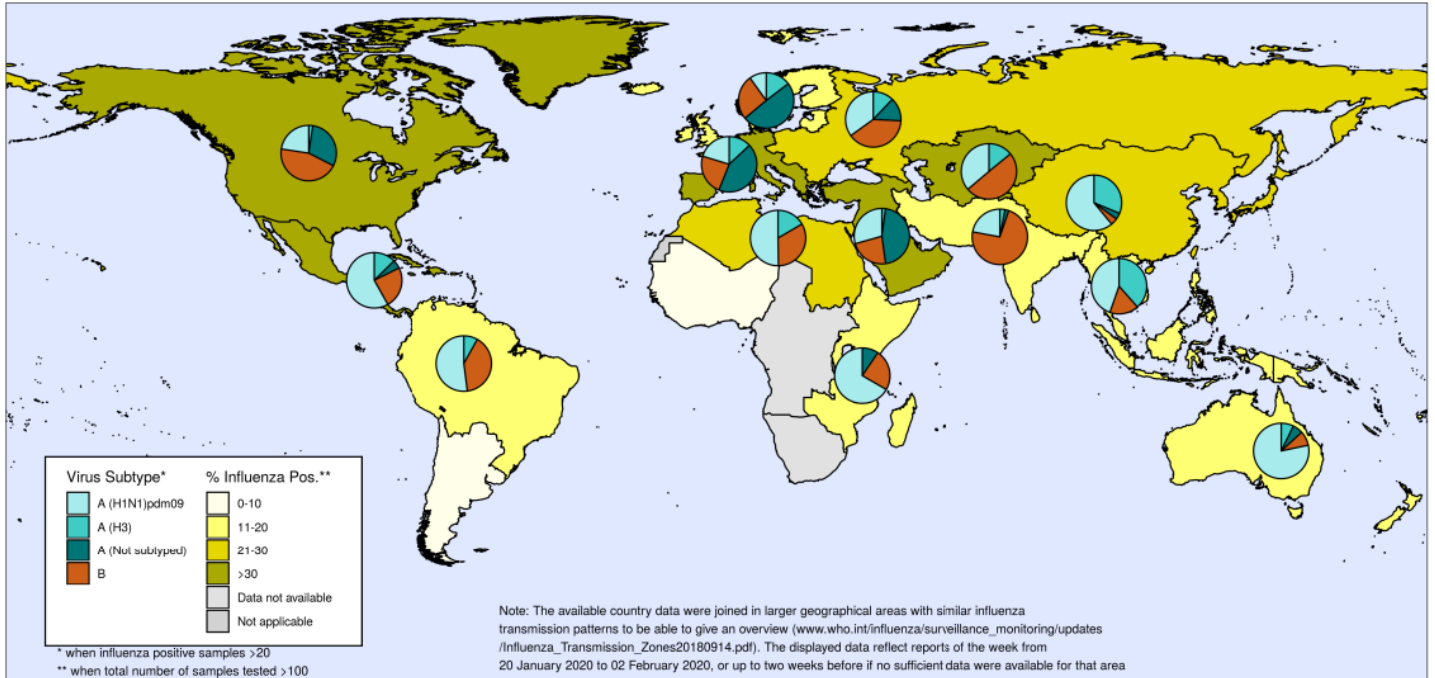
- **Viral Surveillance:** While influenza B/Victoria viruses predominated earlier in the season, during recent weeks, influenza A(H1N1)pdm09 viruses have been reported more frequently than B/Victoria viruses. For the season, the number of B/Victoria and A(H1N1)pdm09 viruses are approximately equal. The predominant virus continues to vary by region and by age group.
  - **Virus Characterization:** the percentage of viruses that were characterized antigenically are similar to the cell grown reference viruses representing the 2019-20 Northern Hemisphere influenza vaccines are listed by subtype. **A (H1N1)pdm09: 100%** (74 of 74 samples); **A (H3N2): 43.1%** (31 of 72 samples); **B/Victoria: 60.2%** (53 of 88 samples); **B/Yamagata: 100%** (10 of 10 samples).
  - **Antiviral Resistance:** the vast majority of influenza viruses tested (99.9%) show susceptibility to oseltamivir, peramivir, and zanamivir. All influenza viruses tested showed susceptibility to baloxavir.
- **Influenza-like Illness Surveillance (Figure 5):** Nationwide during week 7, 6.1% of patient visits reported through the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) were due to influenza-like illness (ILI). *This percentage is above the national baseline of 2.4%.* On a regional level, the percentage of outpatient visits for ILI ranged from 3.4% to 9.7% during week 7. All regions reported a percentage of outpatient visits for ILI which is above their region-specific baselines.
  - **ILI State Activity Indicator Map (Figure 6):** Puerto Rico, New York City, and 44 states reported high ILI activity; the District of Columbia and 4 states reported moderate activity; the US Virgin Islands experienced low activity, and Alaska and Idaho reported minimal ILI activity.
- **Geographic Spread of Influenza (Figure 7):** During Week 7, the geographic spread of influenza was reported widespread in Puerto Rico and 47 states; regional in 3 states, local in the District of Columbia; the U.S. Virgin Islands reported sporadic activity and Guam did not report.
- **Pneumonia and Influenza (P&I) Mortality:** Based on National Center for Health Statistics (NCHS) mortality surveillance data available on February 20, 2020, 6.8% of the deaths occurring during the week ending February 8, 2020 (week 6) were due to P&I. This percentage is below the epidemic threshold of 7.3% for week 6.
- **Influenza-associated Pediatric Deaths:** A total of 105 influenza-associated pediatric deaths occurring during the 2019-2020 season have been reported to CDC.
  - 72 deaths were associated with influenza B viruses. 12 of these had the lineage determined and all were B/Victoria viruses.
  - 33 deaths were associated with influenza A viruses. 20 of these had subtyping performed and 19 were A(H1N1)pdm09 viruses, one was A(H3) virus.







**Figure 8. Percentage of respiratory specimens that tested positive for influenza, by influenza transmission zone**  
**Map generated by the WHO on 14 February 2020**



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.



Data source: Global Influenza Surveillance and Response System (GISRS), FluNet ([www.who.int/flu-net](http://www.who.int/flu-net))  
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Source: [https://www.who.int/influenza/surveillance\\_monitoring/updates/latest\\_update\\_GIP\\_surveillance/en/](https://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/)

## Influenza News from CDC:

### Interim Flu Vaccine Effectiveness Estimates for the 2019-20 Flu Season Show Flu Vaccines Providing Substantial Protection, Especially in Children

**February 20, 2020** – Today, CDC published new interim flu vaccine effectiveness (VE) estimates for the 2019-2020 flu season. So far this season, flu vaccines are reducing doctor’s visits for flu illness by almost half (45%). This is consistent with estimates of flu vaccine effectiveness (VE) from previous flu seasons that ranged 40%-60% when flu vaccine viruses were similar to circulating influenza viruses. Vaccination is providing substantial protection (VE = 55%) for children who have been particularly hard hit by flu this season. These estimates are available for viewing in a CDC Morbidity and Mortality Weekly Report (MMWR) titled “[Interim Estimates of 2019-20 Seasonal influenza Vaccine Effectiveness – United States, February 2020.](https://www.cdc.gov/mmwr/preview/mmwrhtml/interim-estimates-of-2019-20-seasonal-influenza-vaccine-effectiveness-united-states-february-2020)”

The VE findings reported today provide important evidence that 2019-20 flu vaccines are working to protect children. This flu season has been especially bad for children. Flu hospitalization rates among children are higher than at this time in other recent seasons, including the 2017-18 season. Also, the number of pediatric flu deaths (92) is now higher for the same time period than in every season since reporting began in 2004-05, with the exception of the 2009 pandemic. Flu vaccination remains the best way to protect children and people of all ages against flu and its potentially serious complications.

This study used data from 4,112 children and adults enrolled in the U.S. Influenza Vaccine Effectiveness Network (U.S. Flu VE Network) during October 23, 2019–January 25, 2020. CDC conducts vaccine effectiveness (VE) studies each year to determine how well flu vaccines are working. Interim VE estimates are typically released during the flu season and updated after the season has ended.

The interim VE estimates published today also estimated the benefits provided by vaccination in different age groups. In addition to the VE estimate of 55% reported among children 6 months through 17 years of age, VE was estimated to be 25% among adults 18-49 years old, and 43% among adults 50 years of age and older. The lower VE point estimates observed among adults 18-49 years appear to be associated with a trend suggesting lower VE in age this group against A(H1N1)pdm09 viruses (VE = 5%). CDC will continue to monitor VE in this age group against A(H1N1)pdm09 viruses as more study participants are enrolled throughout the season. This will help CDC determine if VE against A(H1N1)pdm09 viruses in this age group is actually lower than in previous seasons, and if so, to investigate possible causes.

Vaccination is providing protection against the predominant influenza B/Victoria viruses. Circulation of different B/Victoria viruses early this season raised questions about how well vaccines would work against these viruses. These interim data are reassuring because effectiveness against B/Victoria viruses so far this season is similar to past seasons when vaccines were well-matched. So far this season, circulation of A(H3N2) viruses has been too limited to provide interim estimates of protection against these viruses.

The 2019-20 flu season began with a predominance of influenza B/Victoria viruses, followed by increasing numbers of A(H1N1)pdm09 viruses, with approximately equal numbers of influenza A(H1N1)pdm09 and influenza B/Victoria viruses now reported for the season overall. FluView data have shown increases in influenza A(H1N1)pdm09 viruses over recent weeks. Both influenza A and B viruses can cause severe illness, including hospitalizations and deaths. Some prior studies have suggested that influenza B virus infections might also result in more severe illness among children.

Overall, the VE findings reported today are encouraging and serve to highlight the importance of continued vaccination efforts in the United States. CDC recommends that everyone 6 months and older be vaccinated against flu if they have not already. It is especially important that children 6 months – 8 years old who have gotten less than two doses of flu vaccine in their lifetime, receive two doses of flu vaccine spaced at least 4 weeks apart for best protection against flu this season. This season is similar to past seasons in that most reported flu deaths in children have occurred in children who are not vaccinated or only partially vaccinated.

Vaccination efforts should continue as long as influenza viruses continue to circulate. At this time, flu activity remains high and is expected to continue for weeks.

For people who are suspected to have influenza, CDC recommends that flu antiviral drugs are started as soon as possible for those who are hospitalized, those who are very sick but who do not need to be hospitalized, and those who are at high risk of serious flu complications based on their age or health. Early treatment with antivirals is recommended for children younger than 2 years old because they are at high risk for serious flu complications that can require hospitalization—all children younger than 5 years are considered at high risk for serious flu complications, but the highest risk is for those younger than 2 years. Antiviral treatment should be started as soon as possible and should not wait for laboratory confirmation of influenza.

Source: <https://www.cdc.gov/flu/spotlights/2019-2020/interim-flu-vaccine-effectiveness.htm>

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**About this report:** Reporting agencies include labs, hospitals, long-term care and community-based care providers, physician offices, university clinic, pharmacies, and schools. Agencies are distributed throughout Summit County and report different indicators of flu activity including total lab tests, numbers of positive tests and type, antiviral prescriptions filled, school absences, and influenza like illness (ILI). Hospitalizations are lab confirmed for influenza and are obtained from the Ohio Disease Reporting System. Number of deaths associated with influenza and pneumonia are gathered from the Summit County Office of Vital Records death listings. Emergency room visits for complaints related to influenza are obtained by syndromic surveillance system (Epicenter).  
*Special thanks to all agencies who report influenza related data weekly.*

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Reporting from participants may not be complete each week. Numbers may change as updated reports are received. For questions, please contact Joan Hall or Tracy Rodriguez at the Summit County Public Health Communicable Disease Unit (330-375-2662 or [cdu@schd.org](mailto:cdu@schd.org)). This report was issued on February 21, 2020.

