



**Summit County Public Health  
Influenza Surveillance Report  
2019 – 2020 Season  
Report #10**



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

**Flu Surveillance Weeks 10 & 11 (12/8/2019 to 12/21/2019)  
Centers for Disease Control and Prevention MMWR Weeks 50 & 51**

**Summit County Surveillance Data:**

In **Week 11** of surveillance, influenza-related activity is elevated in Summit County, and continues to increase.

<b>Table 1: Overall Influenza Activity Indicators in Summit County by Week</b>				
	<b>Week 10 MMWR 50 N (%)<sup>1</sup></b>	<b>Week 11 MMWR 51 N (%)<sup>1</sup></b>	<b>Percent change from previous week</b>	<b>Number of weeks increasing or decreasing</b>
<b>Lab Reports</b>				
Test Performed	<b>780</b>	<b>867</b>	+ 11.2%	↑4
Positive Tests (Number and %)	<b>52 (6.7)</b>	<b>92 (10.6)</b>	+ 59.2%	↑5
Influenza A (Number and %)	<b>8 (1.0)</b>	<b>28 (3.2)</b>	+ 215%	↑1
Influenza B (Number and %)	<b>44 (5.6)</b>	<b>64 (7.4)</b>	+ 30.9%	↑5
<b>Acute care hospitalization for Influenza:</b>	<b>1</b>	<b>10</b>	+ 900%	↑1
<b>Influenza ILI Community Report:</b>				
Long-term Care ILI Cases	<b>1</b>	<b>0</b>	- 100%	↓1
Correctional & Addiction Facility	<b>0</b>	<b>0</b>	--	--
Physician Offices & University Clinic	<b>3</b>	<b>2</b>	- 33.3%	↓1
<b>Pharmacy Prescriptions</b>				
Zanamivir (Relenza)	<b>0</b>	<b>0</b>	--	--
Oseltamivir (Tamiflu)	<b>12</b>	<b>13</b>	+8.3%	↑2
Baloxavir marboxil (Xofluza)	<b>0</b>	<b>0</b>	--	--
<i>Total</i>	<b>12</b>	<b>13</b>	+8.3%	↑2
<b>Schools absenteeism<sup>2</sup></b>	<b>6.6</b>	<b>6.8</b>	+3.0%	NC
<b>Deaths</b>				
Pneumonia associated	<b>2 (1.9)</b>	<b>3 (2.4)</b>	28.6%	↑1
Influenza associated	<b>0</b>	<b>0</b>	--	--
<b>Emergency room visits (EpiCenter)<sup>3</sup></b>				
Constitutional Complaints	<b>580 (9.5)</b>	<b>622 (10.3)</b>	25.3%	↑1
Fever and ILI	<b>95 (1.6)</b>	<b>118 (1.9)</b>	8.2%	↑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 11, and there were three deaths associated with pneumonia. **Figure 1** displays weekly Summit County death counts associated with pneumonia and influenza.

**Acute Care Hospitalizations:** Ten hospitalization was reported during Week 11. **Figure 2** displays influenza associated hospitalizations in Summit County.

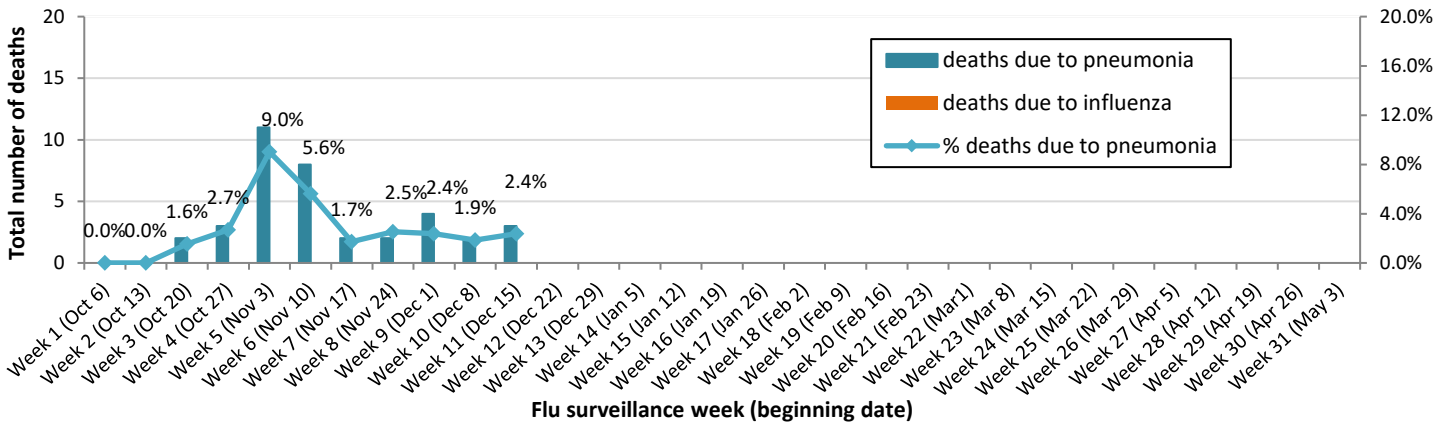
**COMMUNITY ILI REPORTS:** Influenza like Illness (ILI) as defined by the CDC is fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. Community ILI reports: **Long Term Care Facilities:** There were no cases of ILI reported. **Correctional and Inpatient Addiction facilities:** Zero cases ILI reported. **Physician offices and clinics:** During Week 11, two cases of ILI were reported.

**Pharmacies:** 13 antiviral prescriptions were filled by reporting pharmacies during Week 11, a 8.3% increase from Week 10.

**School absenteeism** includes absences regardless of reason. During Week 11 the rate was 6.8%, a slight increase of 3.0% from the rate reported in Week 9.

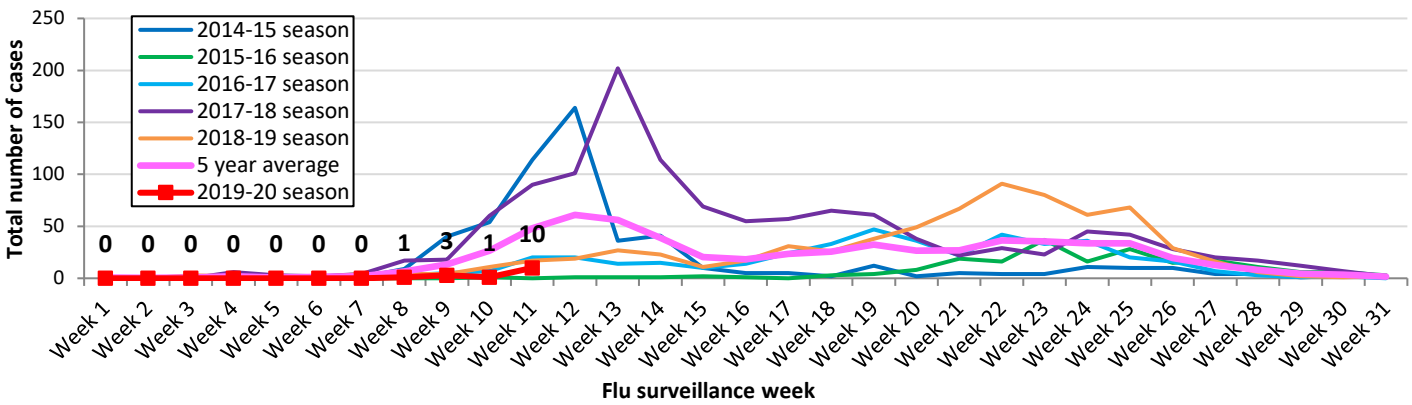
**Lab reports:** During Week 11 of influenza surveillance, reporting Summit County laboratories performed 867 flu tests, of which 92 were positive (Type A = 28, Type B = 64). (**Figure 4**)

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



**Influenza-associated hospitalization:** Summit County hospitals reported ten influenza-associated hospitalizations during Week 11. **Figure 2** displays weekly confirmed hospitalization count for Summit County (**cumulative count to date = 15**).

**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 118 ILI-related visits reported during Week 11, which was 1.9% of total ED visits (n = 6064). This rate was 8.2% higher than the ILI rate during Week 10.

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

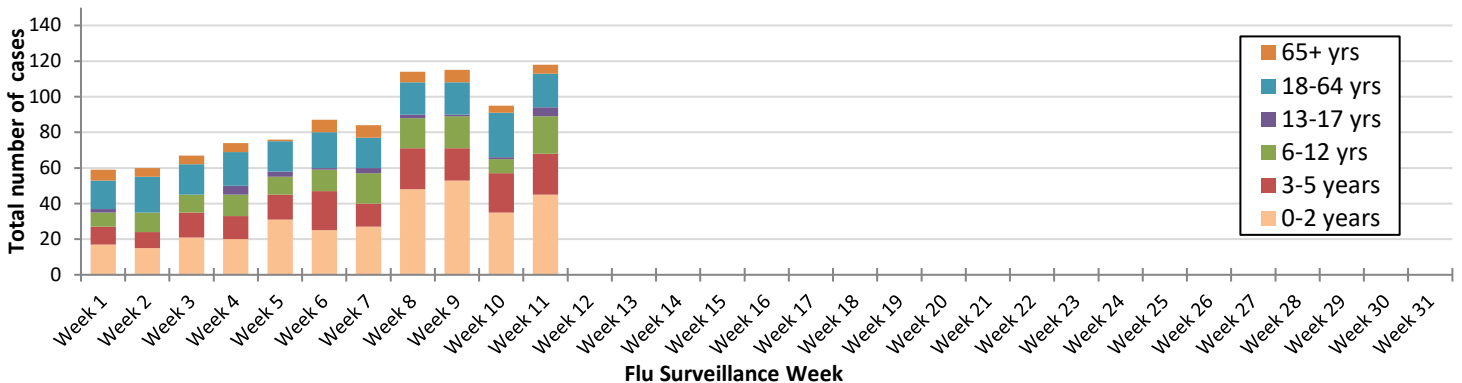
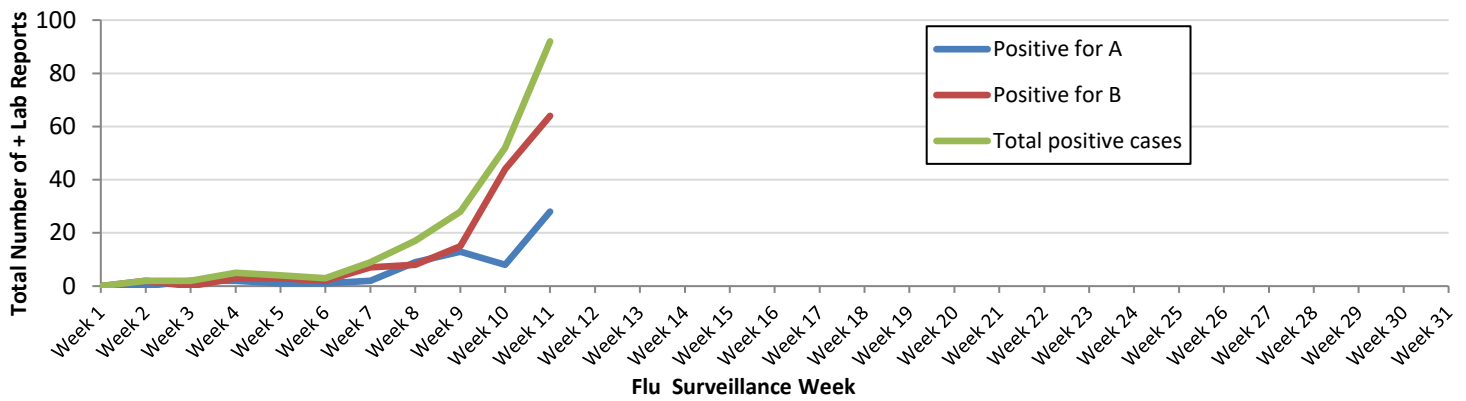


Figure 4. Influenza diagnostic tests with positive results completed by Summit County health facilities, 2019 - 2020 season



**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 51, public health surveillance data sources indicate minimal 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 are above baseline levels statewide; fever and ILI specified ED visits are also above baseline levels. Reported cases of influenza-associated hospitalizations are above the seasonal threshold. There were 216 influenza-associated hospitalizations reported during MMWR Week 51.

**Ohio Influenza Activity Summary Dashboard (December 15 – 21, 2019):**

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)	1.87%	58.47%	↑ 3	
Thermometer Sales (National Retail Data Monitor)	1240	7.92%	↑ 3	
Fever and ILI Specified ED Visits (EpiCenter)	3.43%	23.83%	↑ 2	
Constitutional ED Visits (EpiCenter)	13.11%	17.37%	↑ 10	
Confirmed Influenza-associated Hospitalizations (Ohio Disease Reporting System)	216	52.11%	↑ 6	
Outpatient Medical Claims Data <sup>4</sup>	1.33%	22.02%	↑ 3	

<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 **97 positive** influenza tests from specimens sent from sentinel ILINet providers and hospital clinical labs. 2019-2020 influenza season results: **(30) A/pdmH1N1; (12) A/H3N2; (55) Influenza B;** (through 12/21/2019).
- The **National Respiratory and Enteric Virus Surveillance System (NREVSS)** has **22,916** influenza specimens tested by RTPCR at participating facilities. 2019-2020 influenza season positive results: **(28) A/pdmH1N1; (2) A/H3N2; (254) Flu A Not Subtyped; and (860) Flu B;** (through 12/21/2019)
- **0 pediatric influenza-associated mortalities** have been reported during the 2019-2020 season (through 12/21/2019).
- No **novel influenza A virus infections** have been reported during the 2019-2020 season (through 12/21/2019).
- Incidence of **confirmed influenza-associated hospitalizations** in 2019-2020 season = **616** (through 12/21/2019).

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

According to this week's FluView report, seasonal influenza activity in the United States has been elevated for seven weeks and continues to increase.

- **Viral Surveillance:** Nationally influenza B/Victoria viruses have been reported more frequently than other influenza viruses this season followed by A(H1N1)pdm09. The predominant virus varies 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%** (47 of 47 samples); **A (H3N2): 34.1%** (14 of 41 samples); **B/Victoria: 58%** (29 of 50 samples); **B/Yamagata: 100%** (10 of 10 samples).
  - **Antiviral Resistance:** the vast majority of influenza viruses tested (> 99%) show susceptibility to oseltamivir, peramivir, and zanamivir. All influenza viruses tested showed susceptibility to baloxavir.
- **Influenza-like Illness Surveillance (Figure 5):** Nationwide during week 51, 5.1% 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 2.5% to 10.0% during week 51. All regions reported a percentage of outpatient visits for ILI which is equal to or above their region-specific baselines.
  - **ILI State Activity Indicator Map (Figure 6):** District of Columbia, Puerto Rico, New York City, and 25 states reported high ILI activity; 6 states reported moderate activity; 9 states experienced low ILI activity; and 6 states reported minimal activity. Data was insufficient for US Virgin Islands and 4 states.
- **Geographic Spread of Influenza (Figure 7):** The geographic spread of influenza was reported widespread in 39 states; regional in 9 states, local in the District of Columbia and 2 states; the U.S. Virgin Islands reported sporadic activity; and Guam Puerto Rico did not report.
- **Pneumonia and Influenza Mortality:** Based on National Center for Health Statistics (NCHS) mortality surveillance data available on December 26, 2019, 5.7% of the deaths occurring during the week ending December 14, 2019 (week 50) were due to P&I. This percentage is below the epidemic threshold of 6.7% for week 50.
- **Influenza-associated Pediatric Deaths:** A total of 22 influenza-associated pediatric deaths occurring during the 2019-2020 season have been reported to CDC.
  - Sixteen deaths were associated with influenza B viruses. Five of these had the lineage determined and all were B/Victoria viruses.
  - Six deaths were associated with influenza A viruses. Four of these had subtyping performed and all were A(H1N1)pdm09 viruses.

Figure 5. Percentage of visits for influenza-like illness (ILI) reported by the U.S. Outpatient Influenza-like Surveillance Network (ILINet), weekly national summary, 2019-2020 and selected previous seasons

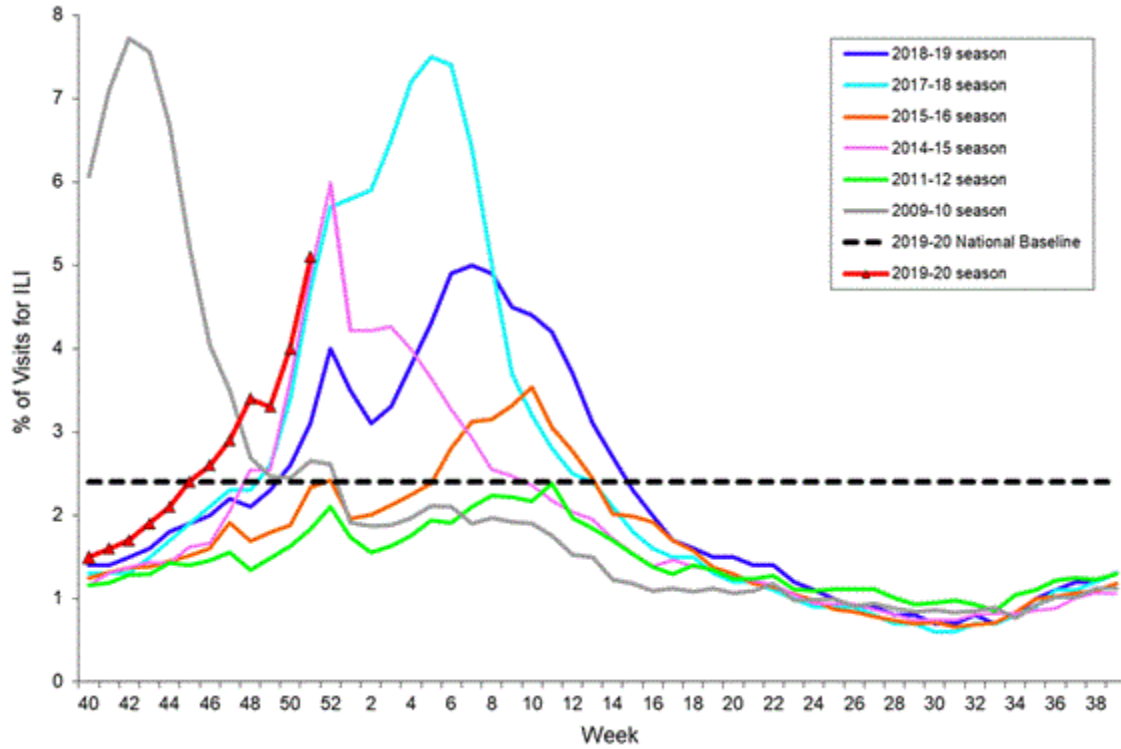


Figure 6. Influenza-like illness (ILI) activity level indicator determined by data reported to ILINet  
2019-20 Influenza Season Week 51 ending Dec 21, 2019

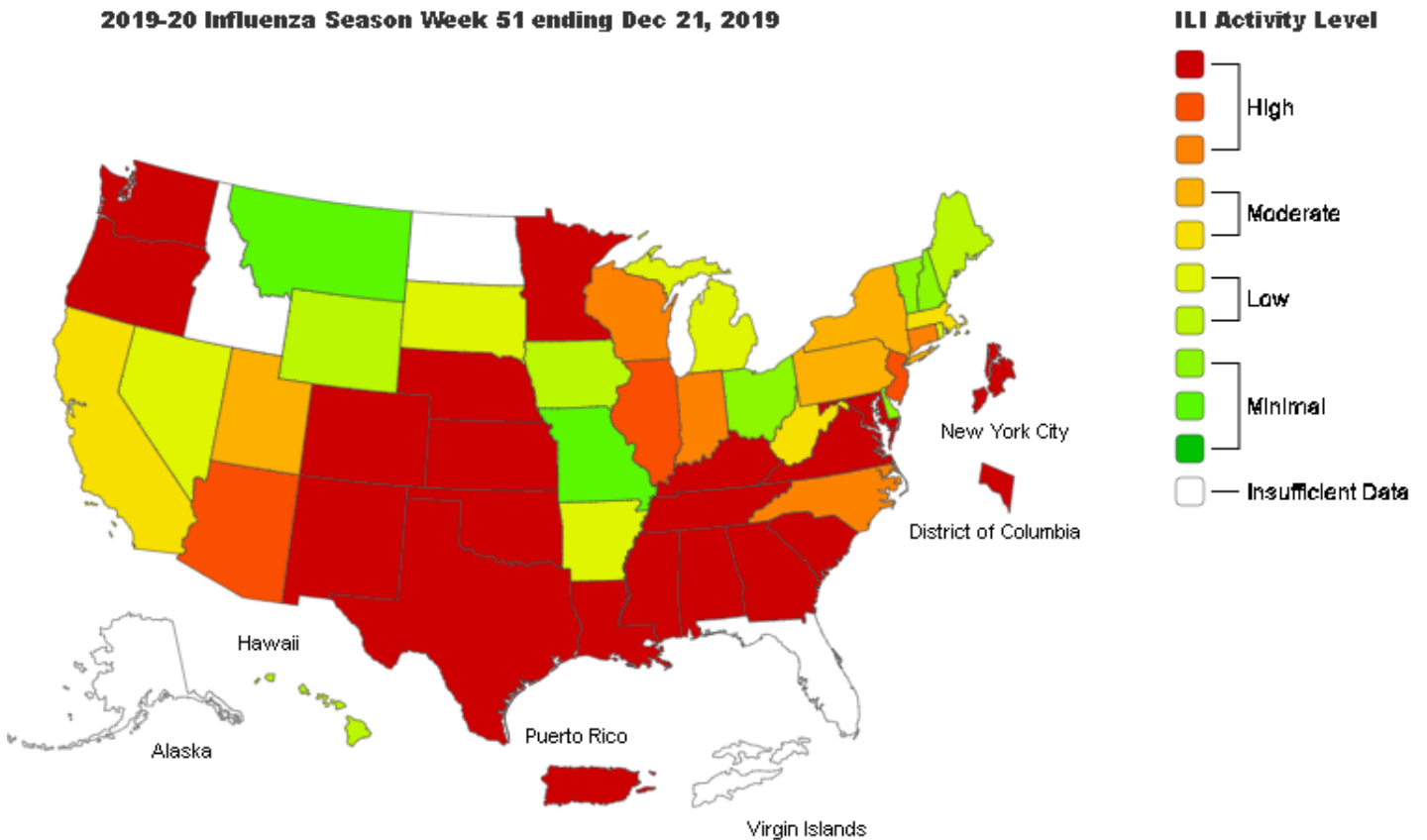
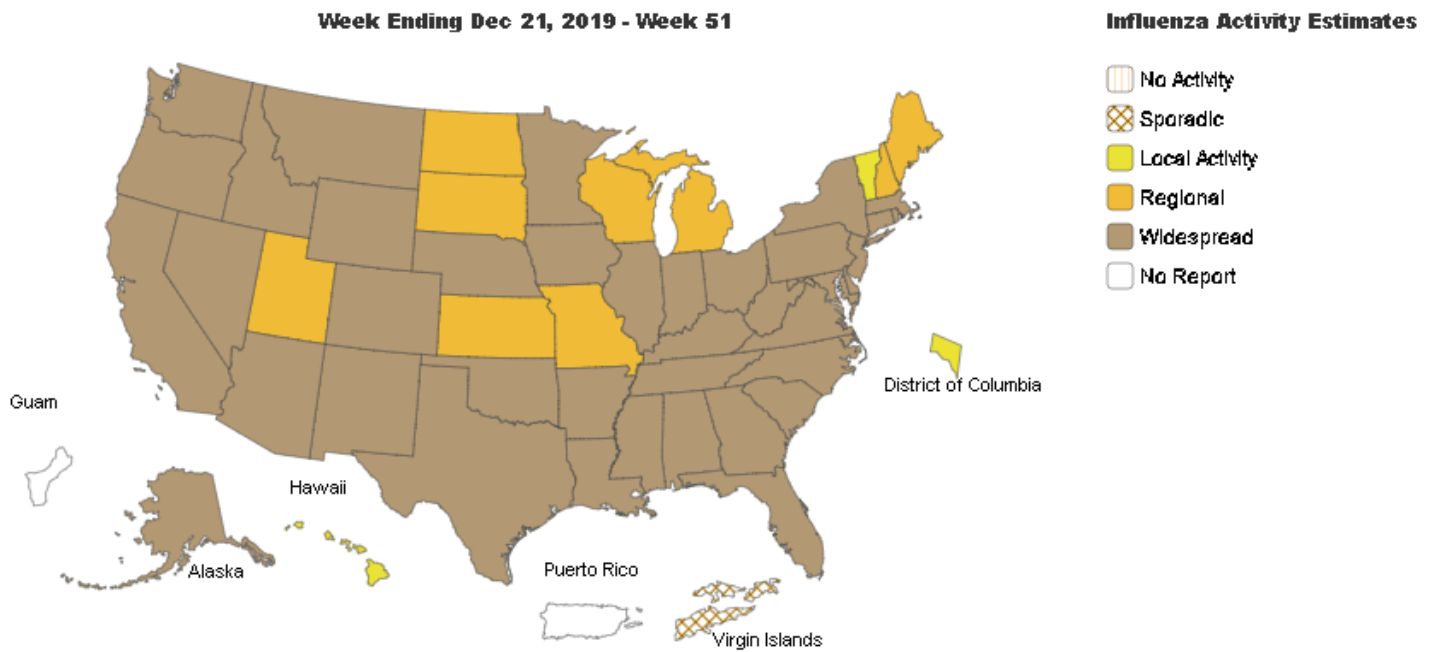


Figure 7. Weekly influenza activity (geographic spread) estimates reported by state and territorial epidemiologists



Source: <https://www.cdc.gov/flu/weekly/>

## Global Surveillance:

Influenza Update N° 357, World Health Organization (WHO), published 20 December 2019, based on data up to 9 December 2019. The Update is published every two weeks.

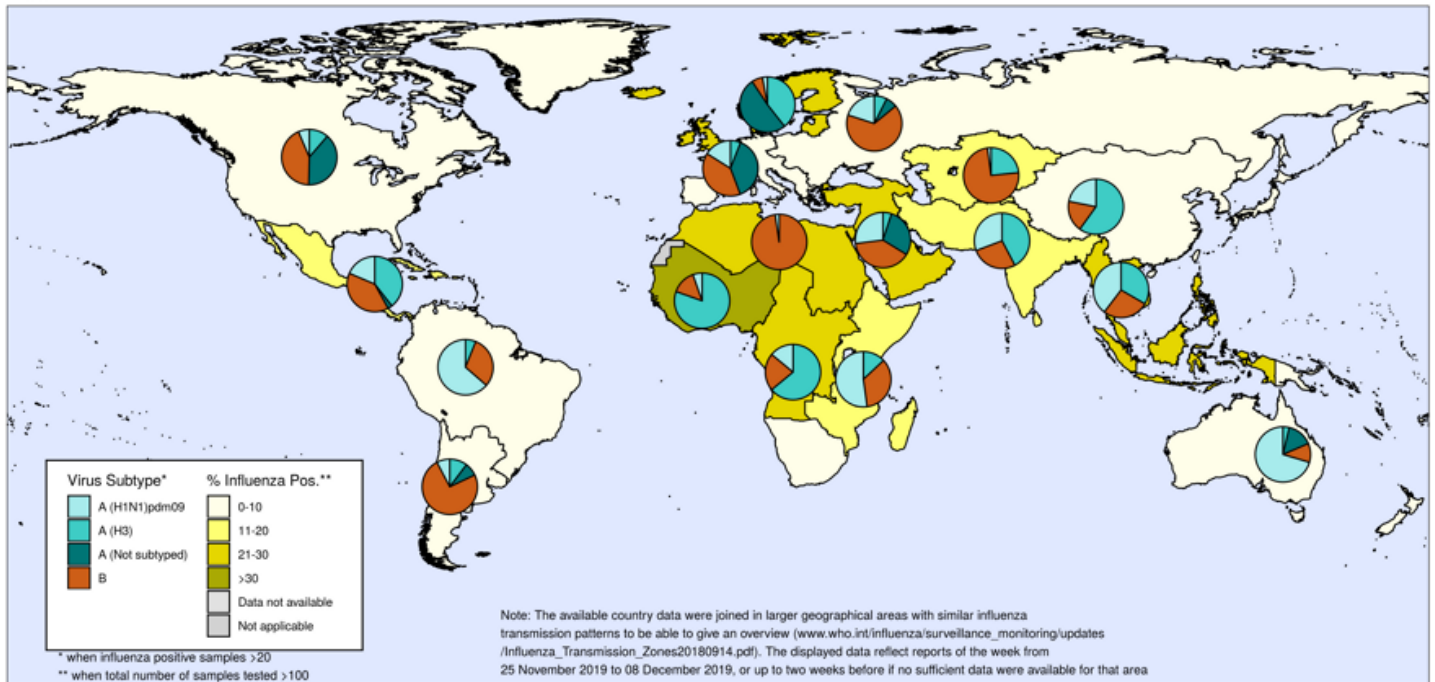
### Summary

- In **the temperate zone of the northern hemisphere**, respiratory illness indicators and influenza activity continued to increase in most countries.
- In **the Caribbean and Central American countries**, influenza activity was low overall, except for Cuba where increased detections of influenza B/Victoria lineage viruses were reported. In tropical South American countries, influenza activity remained low.
- In **tropical Africa**, influenza activity remained elevated in some countries of Middle and Western Africa.
- In **Southern Asia**, influenza activity was low across reporting countries, but was reported at high levels in the Islamic Republic of Iran in recent weeks.
- In **South East Asia**, influenza activity continued to be reported in Lao People's Democratic Republic and the Philippines.
- In **the temperate zones of the southern hemisphere**, influenza activity remained at inter-seasonal levels.
- **Worldwide**, seasonal influenza A(H3N2) viruses accounted for the majority of detections.

National Influenza Centres (NICs) and other national influenza laboratories from 112 countries, areas or territories reported data to FluNet for the time period from 25 November 2019 to 08 December 2019 (data as of 2019-12-19 11:04:16 UTC). The WHO GISRS laboratories tested more than 86 210 specimens during that time period. 9438 were positive for influenza viruses, of which 7067 (74.9%) were typed as influenza A and 2371 (25.1%) as influenza B. Of the sub-typed influenza A viruses, 1216 (30.2%) were influenza A(H1N1)pdm09 and 2809 (69.8%) were influenza A(H3N2). Of the characterized B viruses, 25 (5.2%) belonged to the B-Yamagata lineage and 458 (94.8%) to the B-Victoria lineage.



**Figure 8. Percentage of respiratory specimens that tested positive for influenza, by influenza transmission zone**  
**Map generated by the WHO on 19 December 2019**



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/fluinet)  
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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 CIDRAP and CDC

### Study: Barring non-medical exemptions increases vaccination rates

A study published earlier this week in *PLOS Medicine* showed a 2016 ban on non-medical vaccine exemptions in California increased vaccine uptake.

This is the first official study of the effects of the California law, and was conducted by researchers at the University of California-San Francisco. Researchers used county surveillance data to estimate how many children would have received the measles, mumps, rubella (MMR) vaccine if the law had not been enacted, and then compared that number to the number of children who received the vaccine.

MMR coverage across the state increased 3.3 % after the law was passed, and nonmedical exemptions decreased by 2.4 %. Medical exemptions increased 0.4 %. On a county level, vaccine uptake varied greatly, ranging from a 6% decrease to a 26% increase.

"The largest increases in vaccine coverage were observed in the most 'high-risk' counties, meaning those with the lowest prepolicy vaccine coverage. Our findings suggest that government policies removing nonmedical exemptions can be effective at increasing vaccination coverage," the authors concluded.

**Dec 23 PLOS Med study**

Source: <http://www.cidrap.umn.edu/news-perspective/2019/12/news-scan-dec-26-2019>

## Telework tied to working more hours while ill during flu season

A study yesterday determined that, compared with workers without a telework option, those with telework access worked more days when they had an acute respiratory illness (ARI) during the 2017-18 flu season, but there was no difference in days worked at the usual workplace, according to findings published in *Emerging Infectious Diseases*.

CDC and other US researchers analyzed data on working adults who sought care for an ARI from Nov 1, 2017, through Apr 19, 2018, at one of six outpatient clinics participating in the US Influenza Vaccine Effectiveness Network. The final analysis included 1,374 workers, with a median age of 42, who completed a follow-up survey. Thirty-six percent had lab-confirmed flu.

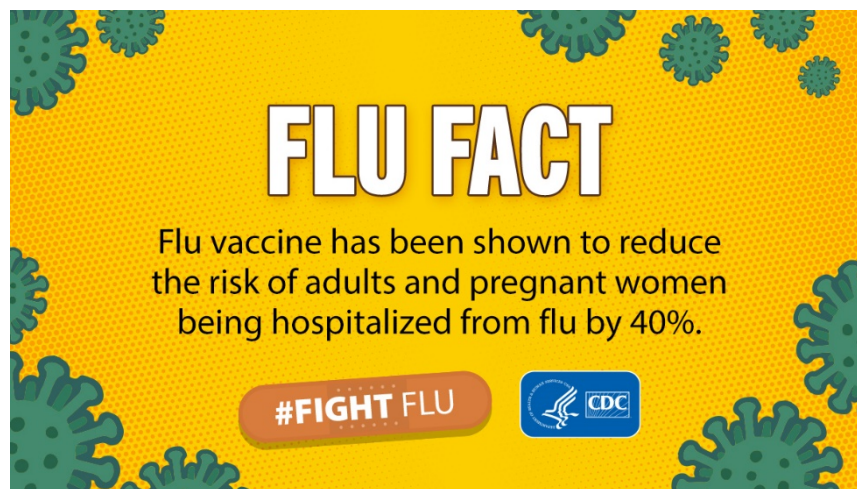


Among the volunteers, 198 (15%) were able to telework, and 1,074 (79%) had access to paid sick leave. During the first 3 days of illness, 28% of teleworkers continued to work, compared with 41% of those who did not telework. "This difference was attributable to more days teleworking while ill, as there was no difference in the mean number of days worked at the usual workplace while ill," the investigators wrote.

The researchers also found that those with paid leave were significantly less likely to work during the first 3 days of illness, whether off-site or at their typical workplace (adjusted ratio of days worked for both factors, 0.81). Results across all groups were similar for those with lab-confirmed flu and those without.

**Dec 18 Emerg Infect Dis [study](#)**

Source: <http://www.cidrap.umn.edu/news-perspective/2019/12/news-scan-dec-19-2019>



**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.

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 December 27, 2019.