



**Summit County Public Health  
Influenza Surveillance Report  
2019 – 2020 Season  
Report #4**



**Flu Surveillance Weeks 4 & 5 (10/27/2019 to 11/9/2019)  
Centers for Disease Control and Prevention MMWR Weeks 44 & 45**

**Summit County Surveillance Data:**

In **Week 5** of surveillance, influenza-related activity remained minimal in Summit County, but is increasing.

Table 1: Overall Influenza Activity Indicators in Summit County by Week				
	Week 4 MMWR 44 N (%) <sup>1</sup>	Week 5 MMWR 45 N (%) <sup>1</sup>	Percent change from previous week	Number of weeks increasing or decreasing
<b>Lab Reports</b>				
Test Performed	474	501	5.7%	↑2
Positive Tests (Number and %)	5 (1.1)	4 (0.8)	- 24.3 %	↓1
Influenza A (Number and %)	2 (0.4)	1 (0.2)	- 52.7 %	↓2
Influenza B (Number and %)	3 (0.6)	3 (0.6)	NC	NC
<b>Acute care hospitalization for Influenza:</b>	0	0	--	--
<b>Influenza ILI Community Report:</b>				
Long-term Care ILI	2	0	- 100%	↓1
Correctional & Addiction Facility	0	0	--	--
Physician Offices & University Clinic	1	0	- 100%	↓1
<b>Pharmacy Prescriptions</b>				
Zanamivir (Relenza)	0	0	--	--
Oseltamivir (Tamiflu)	2	1	- 50.0%	↓1
Baloxavir marboxil (Xofluza)	0	0	--	--
<i>Total</i>	0	0	--	--
<b>Schools absenteeism<sup>2</sup></b>	6.5	5.7	- 12.3%	↓1
<b>Deaths</b>				
Pneumonia associated	3 (2.7)	11 (9.0)	+ 237%	↑3
Influenza associated	0	0	--	--
<b>Emergency room visits (EpiCenter)<sup>3</sup></b>				
Constitutional Complaints	464 (7.8)	459 (8.0)	2.4%	↑1
Fever and ILI	74 (1.2)	76 (1.3)	6.3%	↑3
1) N and % are reported when available, NC = no change				
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 = 10,459 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 5, and there were eleven deaths associated with pneumonia. **Figure 1** displays weekly Summit County death counts associated with pneumonia and influenza.

**Acute Care Hospitalizations:** There were no reported hospitalizations during Week 5. **Figure 2** displays influenza associated hospitalizations in Summit County.

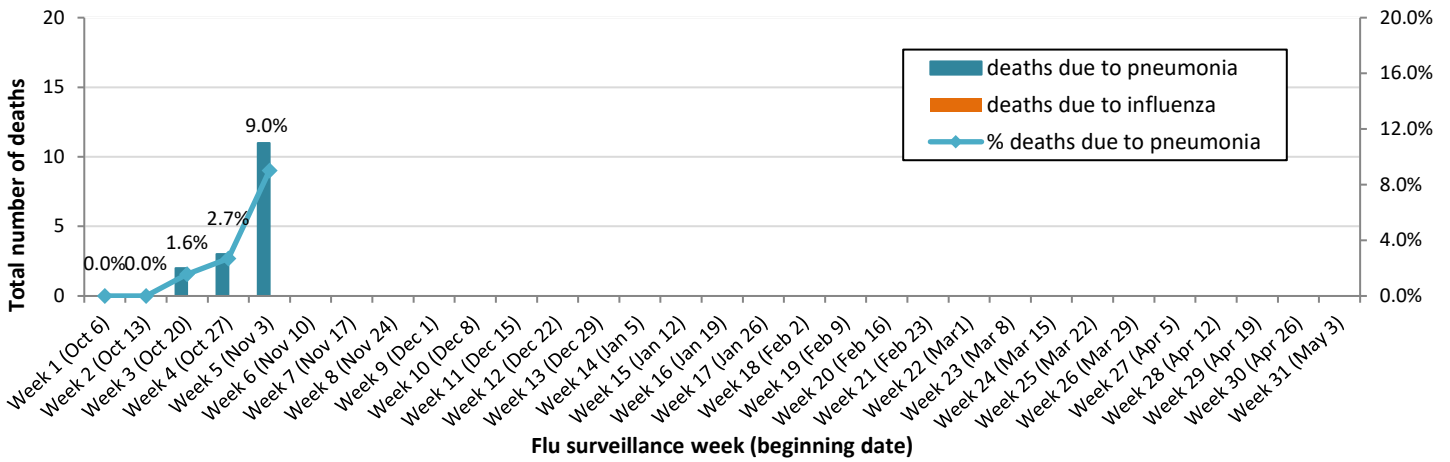
**COMMUNITY ILI REPORTS:** Influenza like illness (ILI) as defined by the CDC is fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. Community ILI reports: **Long Term Care Facilities:** There were zero cases of ILI reported. **Correctional and Inpatient Addiction facilities:** Zero cases ILI reported. **Physician offices and clinics:** During Week 5, zero cases of ILI were reported.

**Pharmacies:** One prescription for CDC-approved antiviral medications were reported during Week 5.

**School absenteeism** includes absences regardless of reason. During Week 5 the rate was 5.7%, a decrease of 12% from Week 4.

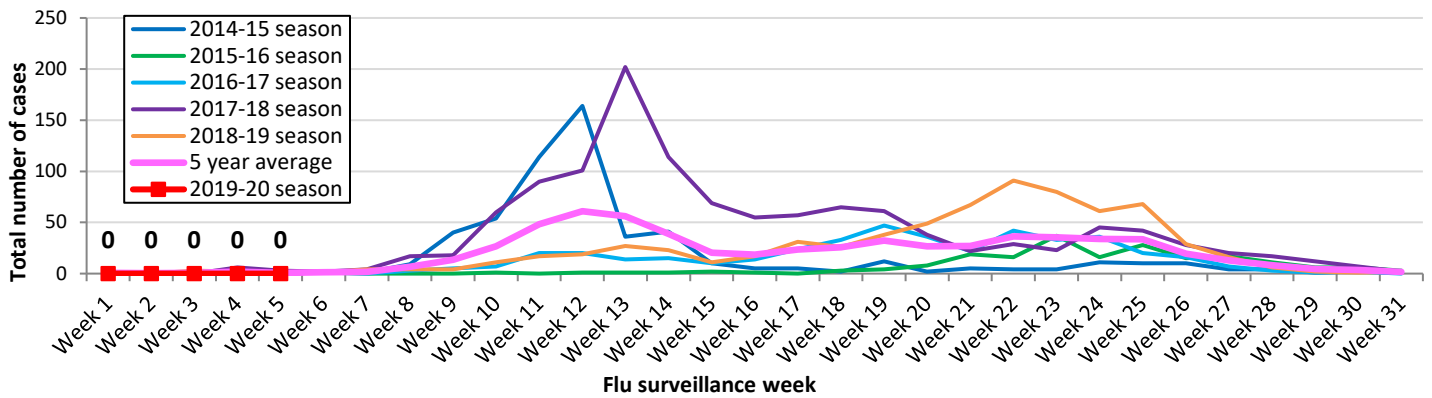
**Lab reports:** During Week 5 of influenza surveillance, Summit County facilities performed 501 flu tests, of which 4 tested positive (Type A = 1, Type B = 3). **(Figure 4)**

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



**Influenza-associated hospitalization:** Summit County hospitals reported no influenza-associated hospitalizations during Week 5. **Figure 2** displays weekly confirmed hospitalization count for Summit County (**cumulative count to date = 0**).

**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 76 ILI-related visits reported during Week 5, which was 1.3% of total ED visits (n = 5756). This rate was 6.3% higher than the ILI rate during Week 4.

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

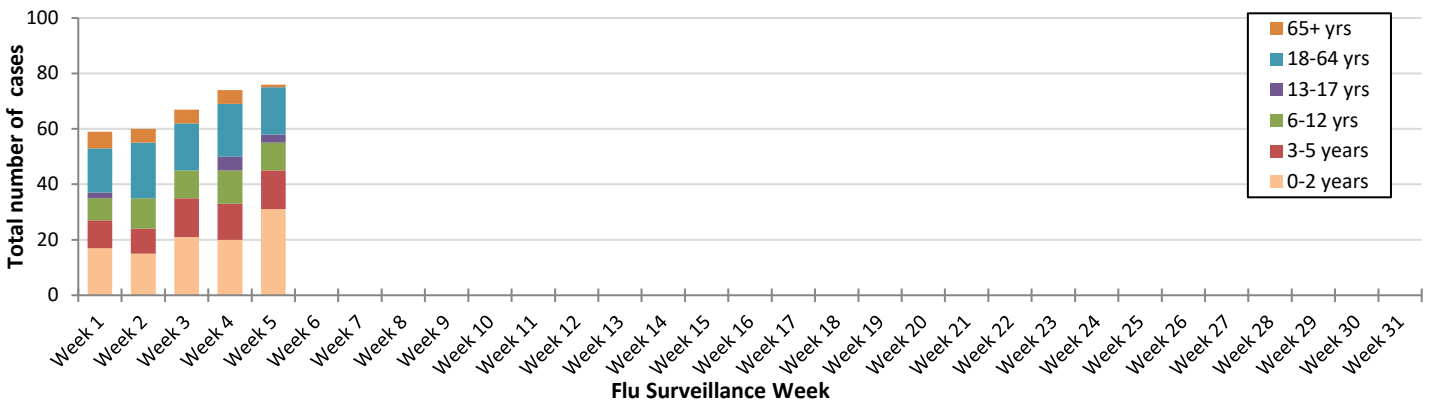
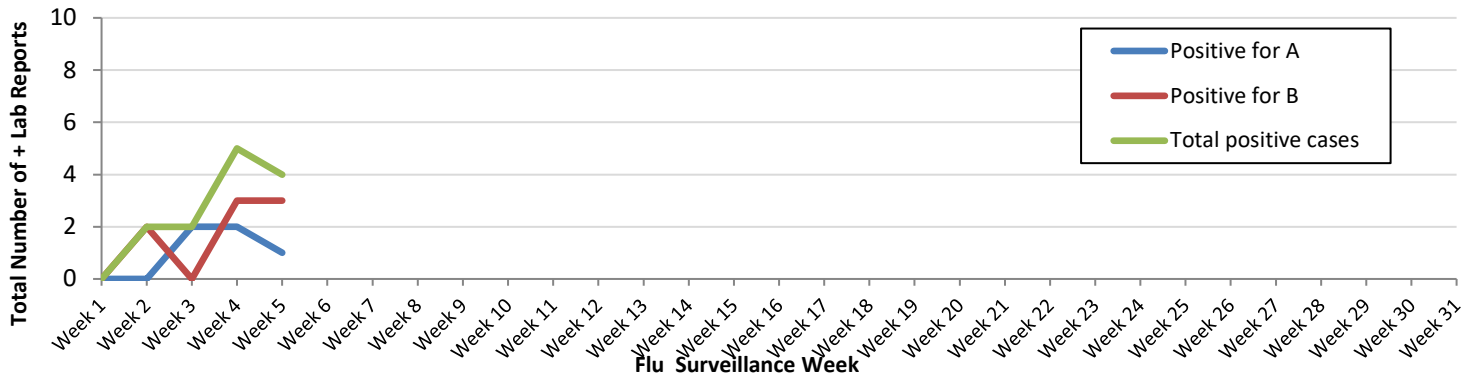


Figure 4. Influenza diagnostic tests with positive results completed by Summit County health facilities, 2019 - 2020 season



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

### Current Ohio Activity Level (Geographic Spread) – Sporadic

*Definition: 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.*

During MMWR Week 45, 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 slightly above baseline levels statewide; fever and ILI specified ED visits are also above baseline levels. Reported cases of influenza-associated hospitalizations are below the seasonal threshold\*. There were six influenza-associated hospitalizations reported during MMWR Week 45.

### Ohio Influenza Activity Summary Dashboard (November 3 – 11, 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)	0.62%	-31.11%	↓ 2	
Thermometer Sales (National Retail Data Monitor)	939	2.96%	↑ 1	
Fever and ILI Specified ED Visits (EpiCenter)	1.93%	7.82%	↑ 8	
Constitutional ED Visits (EpiCenter)	8.91%	3.60%	↑ 4	
Confirmed Influenza-associated Hospitalizations (Ohio Disease Reporting System)	6	-71.43%	↓ 1	
Outpatient Medical Claims Data <sup>4</sup>	0.43%	-8.51%	↓ 2	

<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>

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

According to this week's FluView report from CDC, seasonal influenza activity in the United States remains low but is increasing.

- **Viral Surveillance:** Nationally, influenza A(H3N2) and B/Victoria viruses have been reported more frequently than other influenza viruses this season; however, influenza A(H1N1)pdm09 viruses are also circulating widely. The predominant virus varies by region, and also by age group.
  - **Virus Characterization:** Virus characterization data will be updated starting later this season when sufficient numbers of specimens have been tested.
  - **Antiviral Resistance:** Antiviral resistance data will be updated starting later this season when sufficient numbers of specimens have been tested.
- **Influenza-like Illness Surveillance (Figure 5):** Nationwide during week 45, 2.3% 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 below the national baseline of 2.4%. On a regional level, the percentage of outpatient visits for ILI ranged from 1.2% to 4.2% during week 45. Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee), Region 6 (Arkansas, Louisiana, New Mexico, Oklahoma, and Texas), Region 7 (Iowa, Kansas, Missouri, and Nebraska), and Region 9 (Arizona, California, Hawaii, and Nevada) reported a percentage of outpatient visits for ILI which is equal to or above their region-specific baselines. Regions 1, 2, 3, 5, 8, and 10 remained below their region-specific baselines.
  - **ILI State Activity Indicator Map (Figure 6):** Louisiana reported high ILI activity; Puerto Rico and five states reported moderate activity, nine states reported low activity; and New York City, the District of Columbia, and 30 states experienced minimal ILI activity.
- **Geographic Spread of Influenza (Figure 7):** The geographic spread of influenza was reported widespread in California, Louisiana and Maryland, regional in seven states, local in Puerto Rico and 20 states; the District of Columbia, the U.S. Virgin Islands and 19 states reported sporadic activity; Rhode Island reported no activity; and Guam did not report.
- **Pneumonia and Influenza Mortality:** Based on National Center for Health Statistics (NCHS) mortality surveillance data available on November 14, 2019, 4.9% of the deaths occurring during the week ending October 19, 2019 (week 44) were due to P&I. This percentage is below the epidemic threshold of 6.0% for week 44.
- **Influenza-associated Pediatric Deaths:** Two influenza-associated pediatric deaths were reported to CDC during Week 45.

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

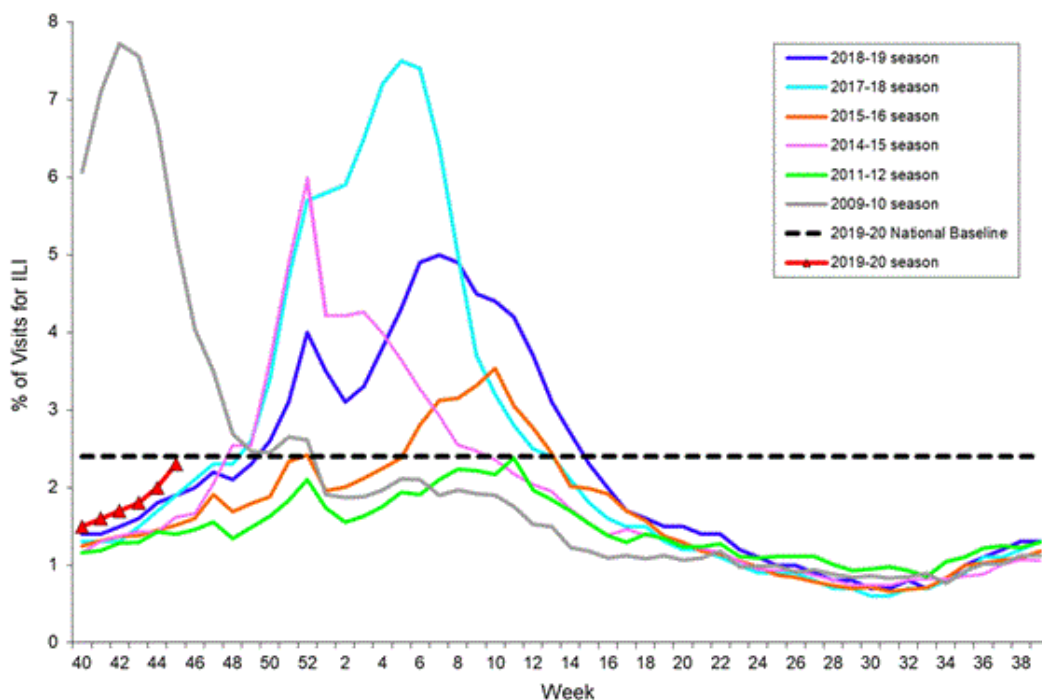


Figure 6. Influenza-like illness (ILI) activity level indicator determined by data reported to ILINet

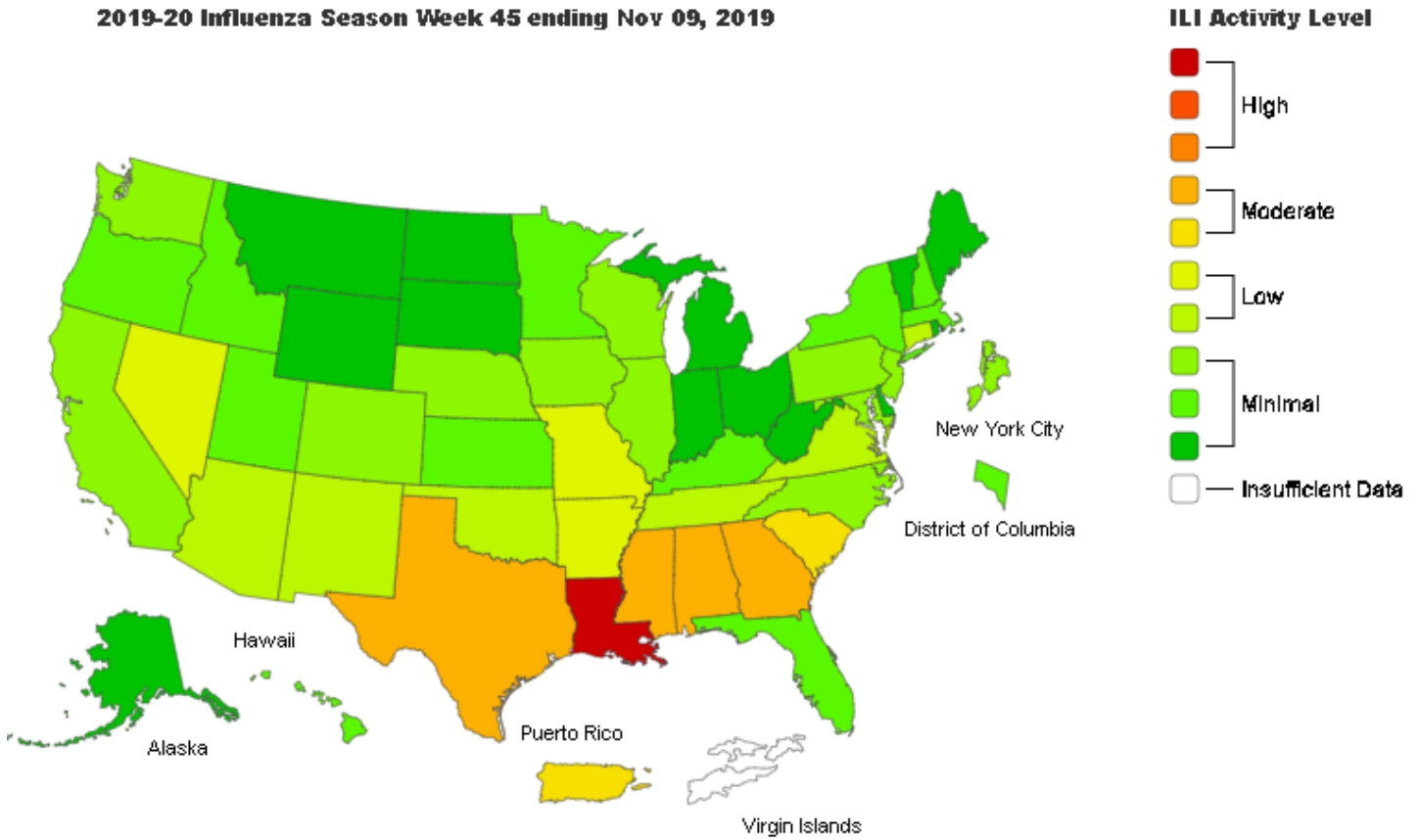
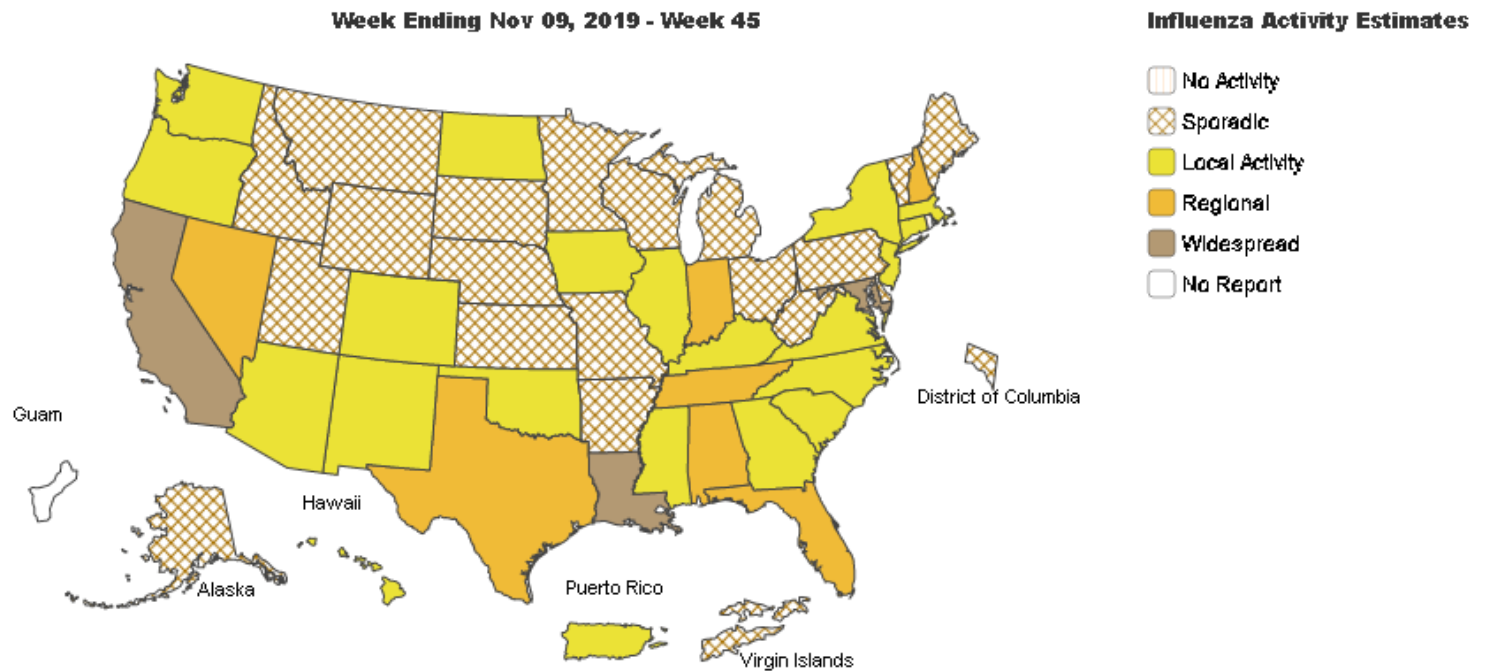


Figure 7. Weekly influenza activity (geographic spread) estimates reported by state and territorial epidemiologists



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

## Global Surveillance:

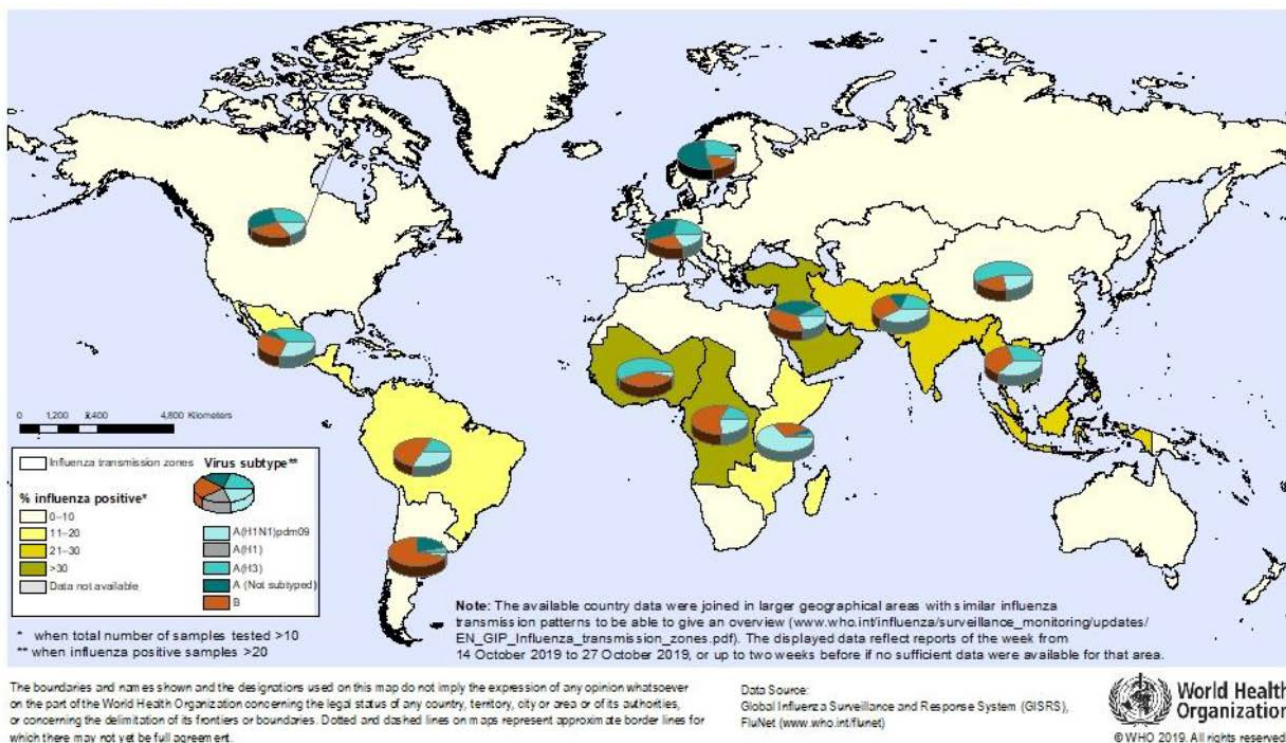
Influenza Update N° 354, World Health Organization (WHO), published 11 November 2019, based on data up to 27 October 2019. The Update is published every two weeks.

### Summary

- In the **temperate zone of the northern hemisphere**, influenza activity remained at inter-seasonal levels in most countries. However, influenza activity continued to increase across the countries of the Arabian Peninsula.
- In **the Caribbean**, and tropical South American countries, influenza activity was low overall, except for Cuba and Jamaica. In Central American countries, influenza activity was elevated in El Salvador and Nicaragua.
- In **tropical Africa**, influenza activity remained elevated in some countries of Western Africa.
- In **Southern Asia**, influenza activity was low across reporting countries, but started to increase in Iran (Islamic Republic of).
- In **South East Asia**, influenza activity continued to be reported in Lao PDR.
- In the **temperate zones of the southern hemisphere**, influenza activity was low in most countries, though influenza B virus detections continued to be reported in Chile.
- **Worldwide**, seasonal influenza A viruses accounted for the majority of detections.

National Influenza Centres (NICs) and other national influenza laboratories from 106 countries, areas or territories reported data to FluNet for the time period from 14 October 2019 to 27 October 2019 (data as of 2019-11-08 03:17:31 UTC). The WHO GISRS laboratories tested more than 77099 specimens during that time period. 4227 were positive for influenza viruses, of which 2939 (69.5%) were typed as influenza A and 1288 (30.5%) as influenza B. Of the sub-typed influenza A viruses, 924 (42.7%) were influenza A(H1N1)pdm09 and 1239 (57.3%) were influenza A(H3N2). Of the characterized B viruses, 27 (4.8%) belonged to the B-Yamagata lineage and 534 (95.2%) to the B-Victoria lineage.

**Figure 8. Percentage of respiratory specimens that tested positive for influenza, by influenza transmission zone (status as of 8 November 2019)**



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/)

### **Study adds more evidence that maternal flu vaccination protects babies**

A study over two influenza seasons in England added more evidence that immunizing pregnant women helps reduce lab-confirmed flu and related hospitalizations in babies younger than 6 months old. A team from Public Health England reported their findings on Nov 9 in the *Journal of Infectious Diseases*.

For the study, they used information from a clinical practice database that included a newly available pregnancy registry, which allowed the researchers to more accurately assess pregnancy timing and maternal flu vaccine uptake. Their goal was to reassess the effectiveness of maternal flu vaccination in preventing flu and flu-related hospitalizations in infants younger than 6 months in England during the 2013-14 season and the 2014-15 season. The former was dominated by 2009 H1N1, and the latter by a drifted H3N2 strain.

They found overall vaccine effectiveness (VE) of 66% (95% confidence interval [CI], 18% to 84%) in the 2013-14 season and a VE of 50% (95% CI, 11% to 72%) for 2014-15. VE for flu-related hospitalization was similar. Against the dominant 2009 H1N1 strain in 2013-14, VE was higher at 78% (95% CI, 16% to 94%), and against the drifted H3N2 strain the following season, VE was 60% (95% CI, 16% to 81%).

The results provide further evidence that maternal flu vaccination is effective against lab-confirmed flu and flu hospitalizations in young babies, even against a drifted H3N2 strain. Researchers noted their findings were similar to earlier studies from Bangladesh and South Africa, were somewhat higher than results from Mali and Nepal, and in the midrange of two observational studies from the United States. "Maternal vaccination is a valuable approach to protect infants (for whom seasonal influenza vaccine is not currently licensed) from influenza-related morbidity," they wrote.

**Nov 9 *J Infect Dis* [abstract](#)**

Source: <http://www.cidrap.umn.edu/news-perspective/2019/11/news-scan-nov-11-2019>

### **Flu vaccination in kids not tied to season severity, vaccine effectiveness**

A study that looked at flu season severity, vaccine effectiveness, and flu vaccination rates in children found no association between vaccination rates and severity of the current or prior season. A team based at Columbia University reported their findings today in *JAMA Pediatrics*.

They based their findings on their analysis of publicly available data from the US Centers for Disease Control and Prevention for 2010 to 2017 seasons, looking at vaccination rates for four different pediatric age groups, flu severity designations for pediatric patients, and flu VE.

Along with a lack of association between vaccination and flu season severity, they also found no significant link between uptake and current or prior year flu VE, which over the study period ranged from 19% to 60%. However, they did see a slight decline in vaccination rates in 2015 after a very low flu VE of 19% in 2014. Researchers said it's possible that effects of season severity and VE may be cumulative, reducing uptake if trends persist for multiple years.

The general decline in flu vaccination rates across age groups over recent years is alarming, they wrote, adding that the pattern could reflect the antivaccine movement or a mix of factors, which could include misperceptions about flu risk and severity, and lack of confidence in vaccine effectiveness, vaccine safety, and healthcare authorities. More studies are needed to tease out the factors that drive vaccination decisions, the group said.

**Nov 11 *JAMA Pediatr* [abstract](#)**

Source: <http://www.cidrap.umn.edu/news-perspective/2019/11/news-scan-nov-11-2019>

***This infographic and many others can be found on the CDC website:***

<https://www.cdc.gov/flu/resource-center/freeresources/graphics/index.htm>

**TAKE 3 ACTIONS TO FIGHT FLU**

Influenza (flu) is a contagious disease that can be serious. Every year, millions of people get sick, hundreds of thousands are hospitalized, and thousands to tens of thousands of people die from flu. CDC urges you to take the following actions to protect yourself and others from flu.

**GET YOURSELF AND YOUR FAMILY VACCINATED!**

A yearly flu vaccine is the first and most important step in protecting against flu viruses.

Everyone 6 months or older should get an annual flu vaccine. Protect Yourself. Protect Your Family. Get Vaccinated. #FightFlu

**STOP THE SPREAD**

Take everyday preventive actions to help stop the spread of flu viruses!

Avoid close contact with sick people, avoid touching your eyes, nose, and mouth, cover your coughs and sneezes, wash your hands often (with soap and water).

**ASK YOUR DOCTOR ABOUT FLU ANTIVIRALS**

Take antiviral drugs if your doctor prescribes them!

Antiviral drugs can be used to treat flu illness and can make illness milder and shorten the time you are sick.

[WWW.CDC.GOV/FLU](http://WWW.CDC.GOV/FLU) #FIGHT FLU CDC

***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 November 15, 2019.