



**Summit County Public Health  
Influenza Surveillance Report  
2018 – 2019 Season**

**Report #19**

**Flu Surveillance Week 20 (2/17 to 2/23/2019)**

**Centers for Disease Control and Prevention MMWR Week 8**



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

**Summit County Surveillance Data:**

During **Week 20**, influenza-related activity in Summit County *increased to moderate levels*.

<b>Table 1: Overall Influenza Activity Indicators in Summit County by Week</b>				
	<b>Week 19 MMWR 7 N (%)<sup>1</sup></b>	<b>Week 20 MMWR 8 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	1,042	1,371	+ 31.6%	↑3
Positive Tests (Number and %)	259 (24.9)	363 (26.5)	+ 6.4%	↑6
Influenza A (Number and %)	257 (24.7)	358 (26.1)	+ 5.7%	↑6
Influenza B (Number and %)	2 (0.2)	5 (0.4)	+ 100%	↑1
<b>Influenza hospitalizations:</b>	38	49	+ 29.0%	↑2
<b>Influenza ILI Community Report:</b>				
Long-term Care Facilities	0	0	--	--
Correctional & Addiction Facilities	0	4	+ 100%	↑1
Physician Offices & Clinics	8	4	- 50.0%	↓1
<b>Pharmacy Prescriptions</b>				
Amantidine	1	4	+ 300%	↑1
Rimantidine Flumadine	0	0	--	--
Relenza	0	0	--	--
Oseltamivir Tamiflu	32	47	+ 46.9%	↑3
<i>Total antiviral prescriptions</i>	33	51	+ 54.6%	↑1
<b>Schools absenteeism daily rate<sup>2</sup></b>	6.3	7.4	+ 17.5%	↑2
<b>Deaths</b>				
Pneumonia associated	6 (6.0)	7 (8.0)	+ 33.3%	↑1
Influenza associated	0	0	--	--
<b>Emergency room visits (EpiCenter)<sup>3</sup></b>				
Constitutional Complaints	597 (10.6)	727 (12.3)	+ 16.0%	↑3
Fever and ILI	93 (1.6)	128 (2.2)	+ 37.5%	↑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 8 schools or school districts throughout Summit County (n = ~37,000 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 20, the season total remains at 3. There were 7 deaths associated with pneumonia reported in Week 20. **Figure 1** displays weekly Summit County death counts associated with pneumonia and flu.

**Acute Care Hospitalizations:** There were 49 flu-related hospitalizations, a 29% increase from Week 19. (**Figure 2**)

**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.

**Long Term Care Facilities:** There were 0 cases of ILI reported.

**Correctional and Inpatient Addiction facilities:** There were 4 cases of ILI reported.

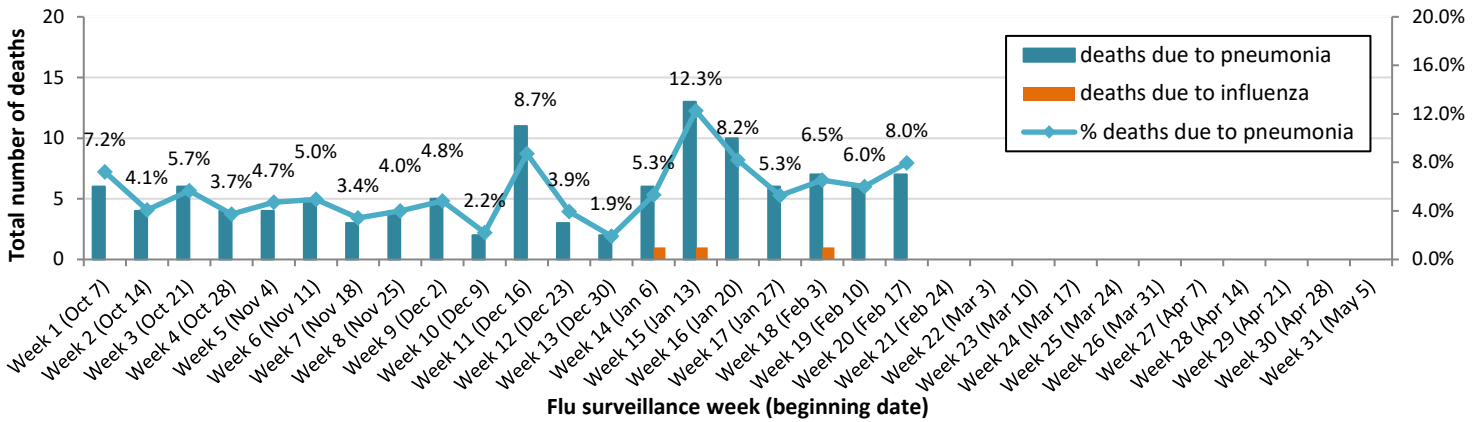
**Physician offices and clinics:** During Week 20, there were 4 cases of ILI reported.

**Pharmacies:** 51 Prescriptions for antiviral medications were reported during Week 20.

**School absenteeism** includes absences regardless of reason. During Week 20, area schools reported an average daily absence rate of 7.4%. This was a 17.5% increase over the rate reported during Week 19.

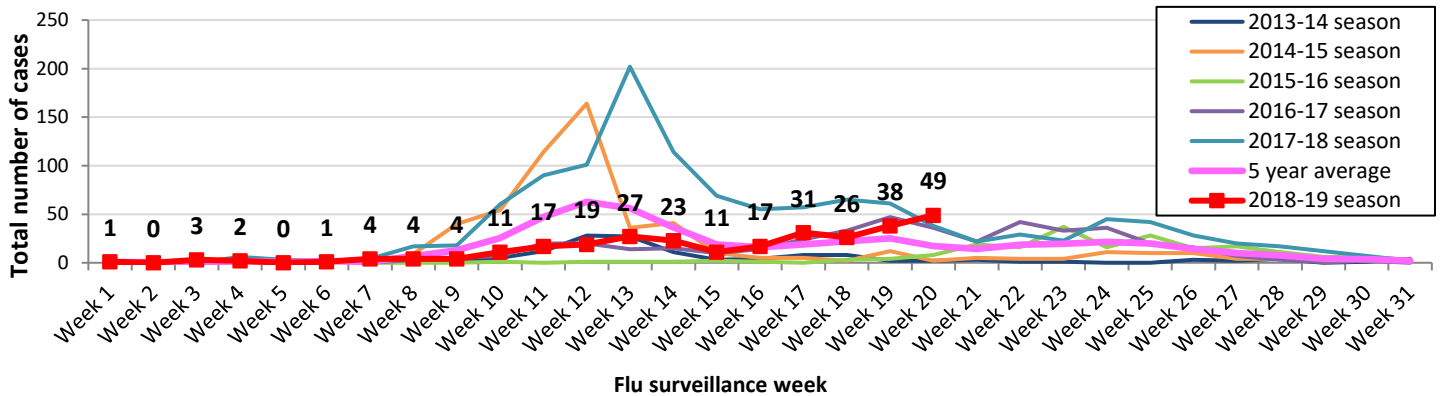
**Lab reports:** During Week 20, Summit County labs performed 1,371 influenza tests, of which 363 tested positive (358 Type A, 5 Type B). (**Figure 4**) The percentage of positive test results increased by 6.4% since Week 19.

**Figure 1. Weekly Summit County death counts associated with pneumonia and influenza during 2018-2019 season**



**Influenza-associated hospitalizations:** Summit County hospitals reported 49 influenza-associated hospitalizations in Week 20. **Figure 2** displays weekly confirmed hospitalization counts for Summit County (season count to date = 288).

**Figure 2. Summit County influenza-associated hospitalizations by week, 2018-2019 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 128 ILI-related visits reported during Week 20, which was 2.2% of total ED visits (n = 5,911). This was a 37.5% increase from the Week 19 rate.

**Figure 3. Weekly ER visits in Summit County related to Fever + ILI stratified by age groups, 2018 to 2019 season**

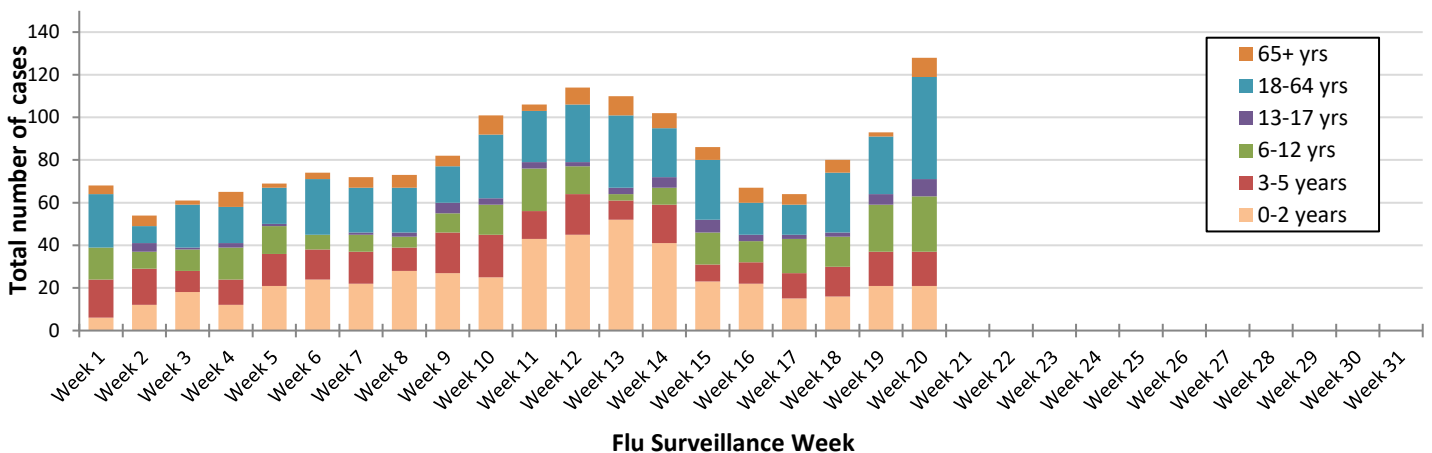
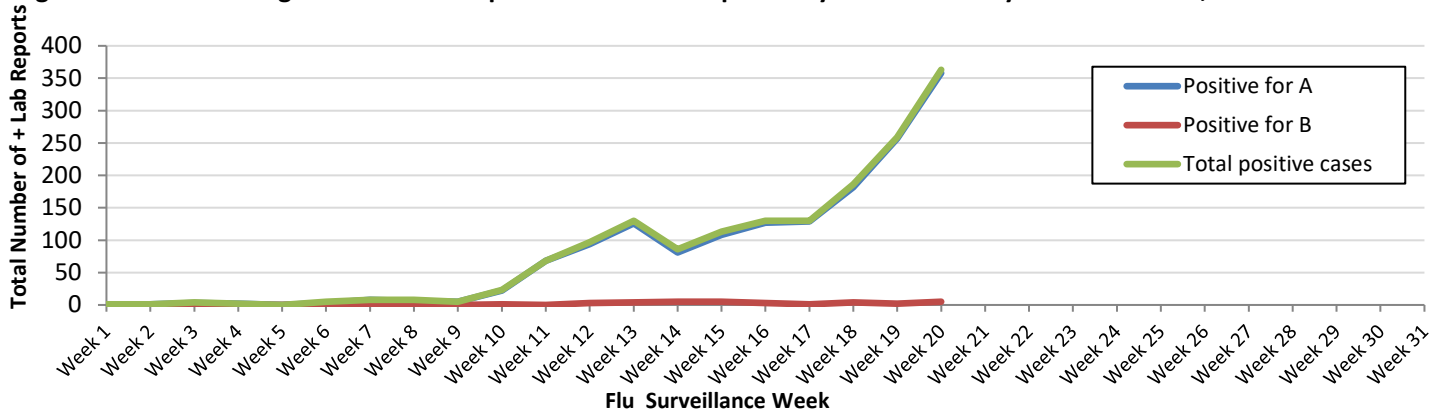


Figure 4. Influenza diagnostic tests with positive results completed by Summit County health facilities, 2018 - 2019 season



## Ohio Influenza Activity:

**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 8, 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 and fever and ILI specified ED visits are above baseline levels. Reported cases of influenza-associated hospitalizations are above the seasonal threshold\*. There were 630 influenza-associated hospitalizations reported during MMWR Week 8.

### Ohio Influenza Activity Summary Dashboard (February 17 – February 23, 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)	2.40%	36.36%	↑ 1	
Thermometer Sales (National Retail Data Monitor)	1883	15.81%	↑ 4	
Fever and ILI Specified ED Visits (EpiCenter)	3.23%	18.75%	↑ 6	
Constitutional ED Visits (EpiCenter)	13.61%	13.04%	↑ 4	
Confirmed Influenza-associated Hospitalizations (Ohio Disease Reporting System)	630	17.98%	↑ 4	
Outpatient Medical Claims Data <sup>4</sup>	3.49%	31.70%	↑ 6	

<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://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/seasonal-influenza/ohio-flu-activity/>

## Ohio Surveillance Data:

- **ODH lab** has reported 725 **positive** influenza tests from specimens sent from various submitters. 2018-2019 influenza season positive results: **(382) A/pdmH1N1; (224) A/H3N2; (1) Influenza B;** (through 02/23/2019).
- The **National Respiratory and Enteric Virus Surveillance System (NREVSS)** has reported **48,666** influenza tests performed at participating facilities. 2018-2019 influenza season positive results: **(240) A/pdmH1N1, (157) A/H3N2, (6099) Flu A Not Subtyped, and (92) Flu B** (through 02/23/2019).
- 3 **pediatric influenza-associated mortalities** have been reported during the 2018-2019 season (through 02/23/2019).
- No **novel influenza A virus infections** have been reported during the 2018-2019 season (through 02/23/2019).
- Incidence of confirmed **influenza-associated hospitalizations** in 2018-2019 season = 3806 (through 02/23/2019).

## National Influenza Activity:

***Influenza activity remains elevated in the United States.*** Influenza A(H1N1)pdm09, influenza A(H3N2), and influenza B viruses continue to co-circulate. Below is a summary of the key influenza indicators for the week ending February 23, 2019:

- **Viral Surveillance:** The percentage of respiratory specimens testing positive for influenza viruses in clinical laboratories increased slightly. Nationally, during week 8, influenza A(H3) viruses were reported more frequently than influenza A(H1N1)pdm09 viruses. During the most recent three weeks, influenza A(H3) viruses were reported more frequently than influenza A(H1N1)pdm09 viruses in HHS Regions 2, 4, 6 and 7.
  - **Virus Characterization:** The majority of influenza viruses characterized antigenically are similar to the cell-grown reference viruses representing the 2018–2019 Northern Hemisphere influenza vaccine viruses.
  - **Antiviral Resistance:** The vast majority of influenza viruses tested (>99%) show susceptibility to oseltamivir and peramivir. All influenza viruses tested showed susceptibility to zanamivir.
- **Influenza-like Illness Surveillance (Figure 5):** The proportion of outpatient visits for influenza-like illness (ILI) remained at 5.0%, which is above the national baseline of 2.2%. All 10 regions reported ILI at or above their region-specific baseline level.
  - **ILI State Activity Indicator Map (Figure 6):** New York City and 33 states experienced high ILI activity; the District of Columbia and eight states experienced moderate ILI activity; Puerto Rico and eight states experienced low ILI activity; one state experienced minimal ILI activity; and the U.S. Virgin Islands had insufficient data.
- **Geographic Spread of Influenza (Figure 7):** The geographic spread of influenza in Puerto Rico and 49 states was reported as widespread; the District of Columbia and one state reported local activity; the U.S. Virgin Islands reported sporadic activity; and Guam did not report.
- **Influenza-associated Hospitalizations:** A cumulative rate of 32.1 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported. The highest hospitalization rate is among adults 65 years and older (91.5 hospitalizations per 100,000 population).
- **Pneumonia and Influenza Mortality:** The proportion of deaths attributed to pneumonia and influenza (P&I) was below the system-specific epidemic threshold in the National Center for Health Statistics (NCHS) Mortality Surveillance System.
- **Influenza-associated Pediatric Deaths:** 15 influenza-associated pediatric deaths were reported to CDC during week 8.

Figure 5. Percentage of visits for influenza-like illness (ILI) reported by the U.S. Outpatient Influenza-like Surveillance Network (ILINet), weekly national summary, 2018-2019 and selected previous seasons

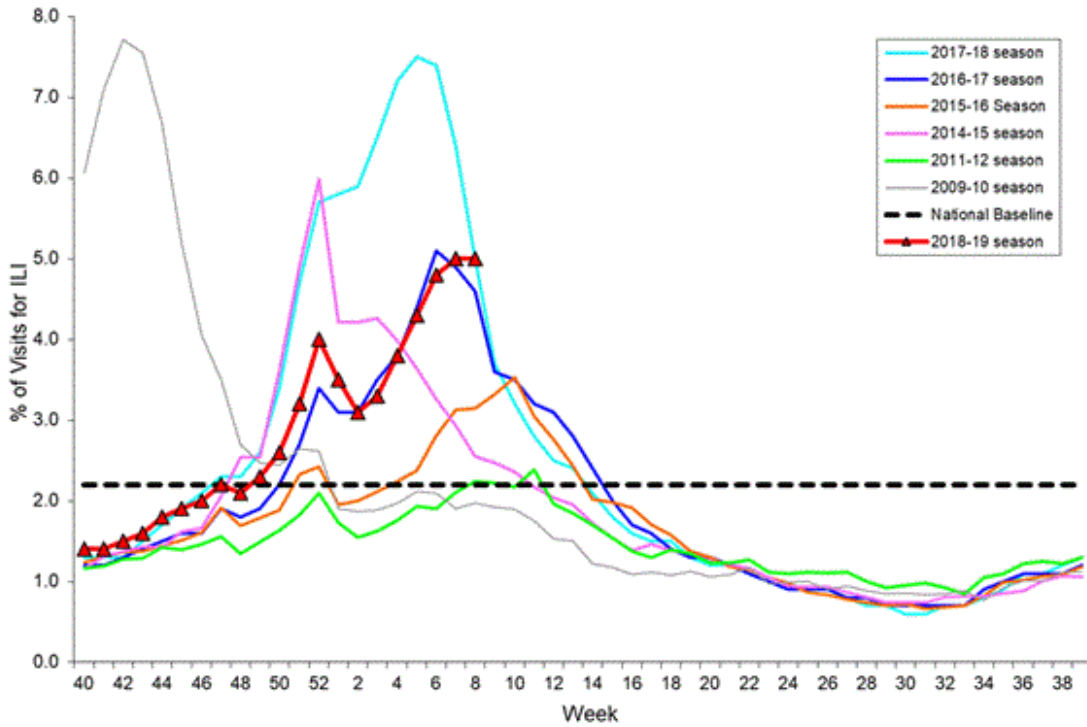


Figure 6. Influenza-like illness (ILI) activity level indicator determined by data reported to ILINet

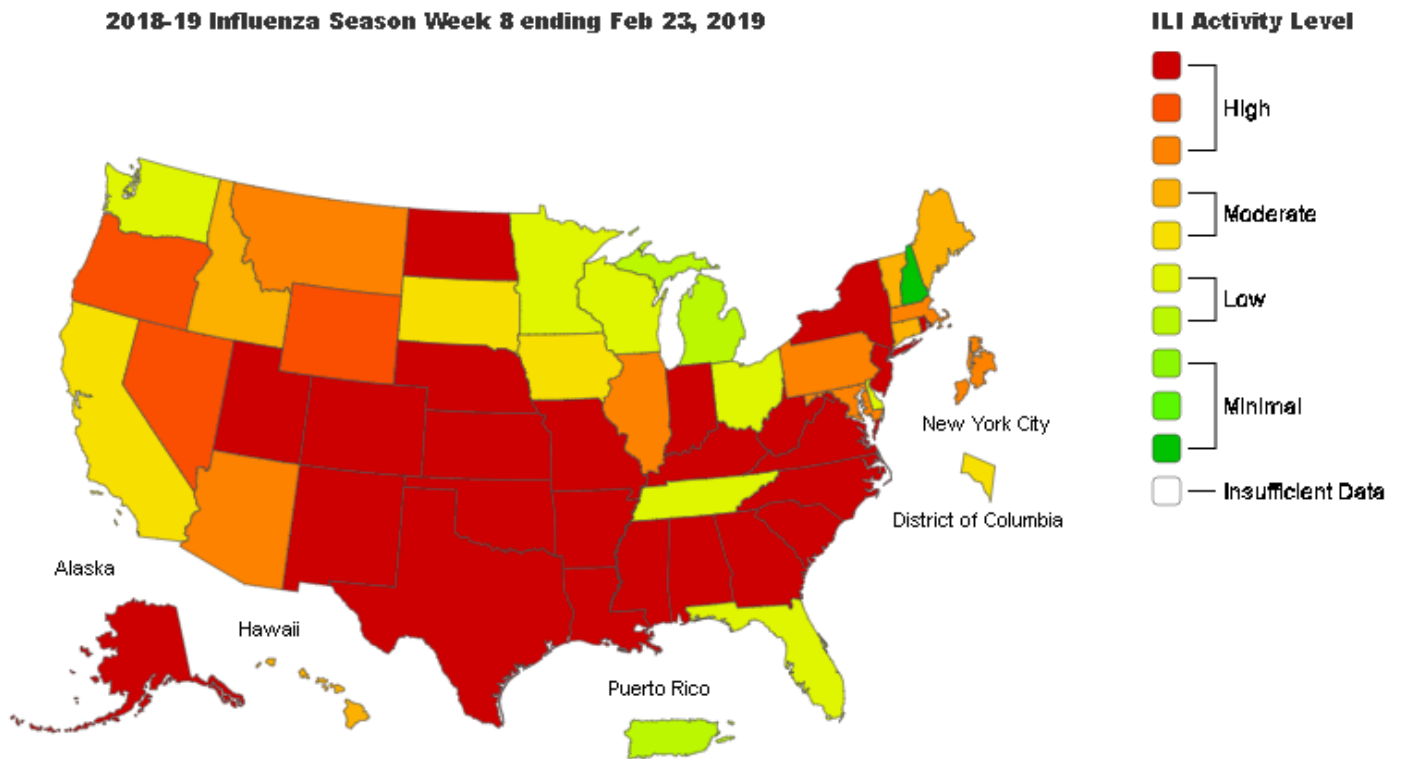
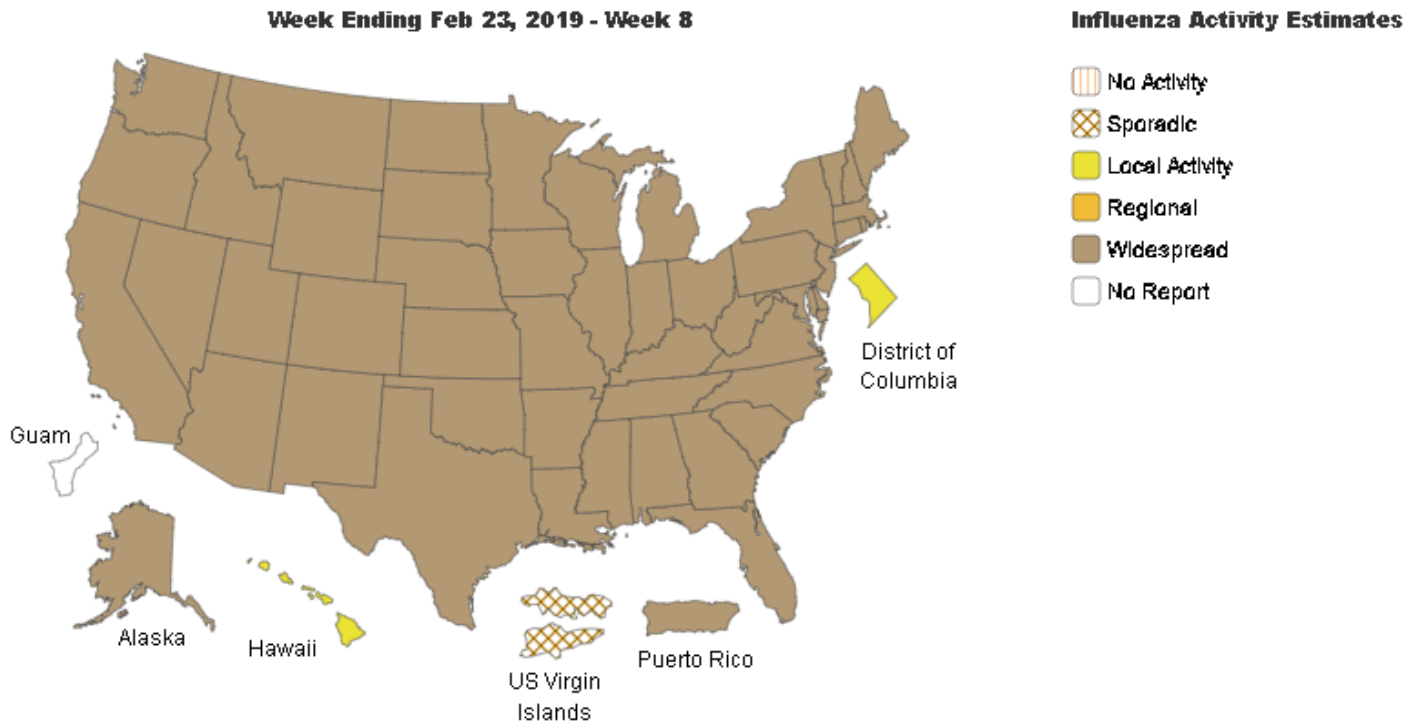


Figure 7. Weekly influenza activity (geographic spread) estimates reported by state and territorial epidemiologists



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

## Global Surveillance:

Influenza Update N° 335, World Health Organization (WHO), published 18 February 2019, based on data up to 03 February 2019. The Update is published every two weeks.

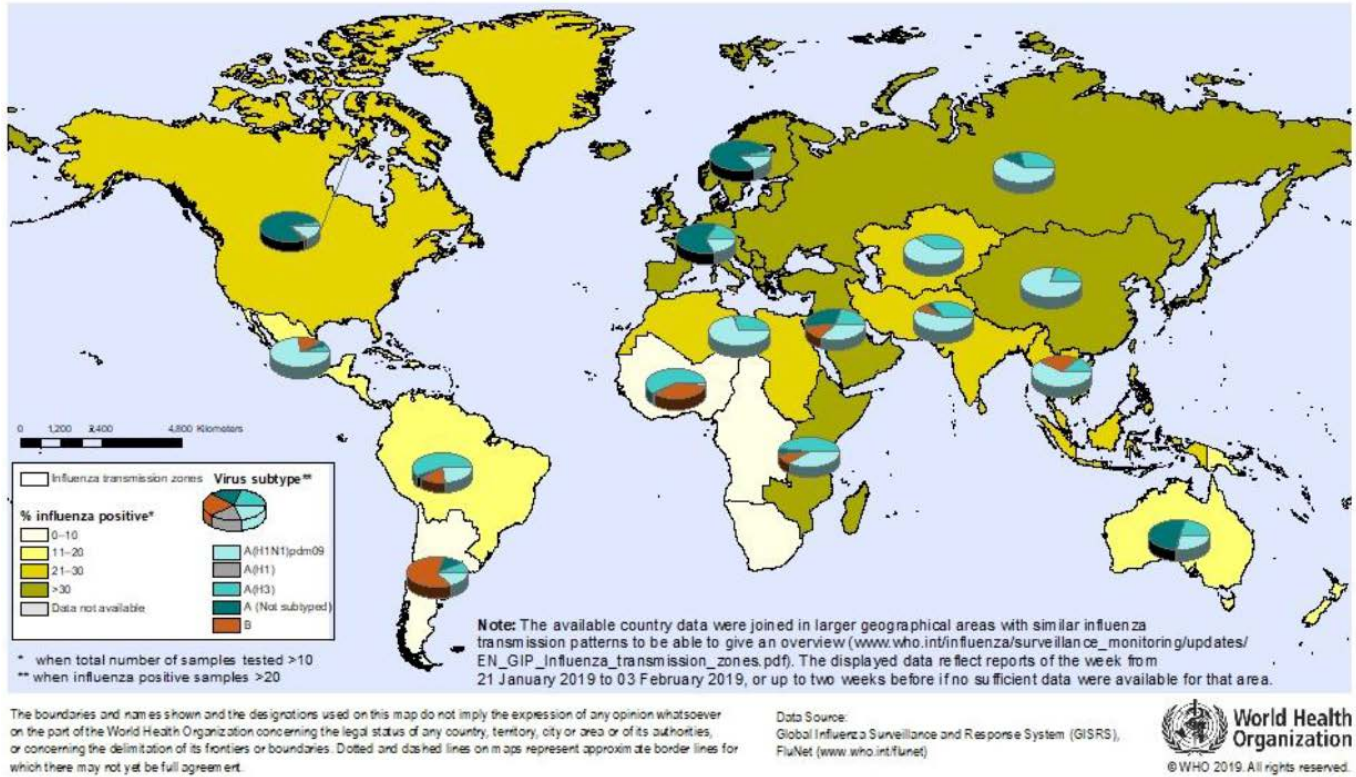
### Summary

*In the temperate zone of the northern hemisphere influenza activity continued to increase. In North America, influenza activity continued to be reported, with influenza A(H1N1)pdm09 predominating.*

- In Europe, influenza activity increased and in most of the countries was above the epidemic threshold. Influenza A viruses co-circulated.
- In North Africa, influenza A(H1N1)pdm09 detections sharply increased.
- In Western Asia, influenza activity remained elevated with increased activity in Cyprus, Israel, Jordan and Lebanon and appeared to have peaked in most countries of the Arabian Peninsula.
- In East Asia, influenza activity appeared to have peaked already, with influenza A(H1N1)pdm09 virus predominating.
- In Southern Asia, influenza detections remained elevated overall. Influenza activity appeared to decrease in Iran (Islamic Republic of) with influenza A(H3N2) the predominant circulating virus.
- In the temperate zones of the southern hemisphere, influenza activity remained at inter-seasonal levels, with the exception of some parts of Australia where influenza activity remained above inter-seasonal levels.
- Worldwide, seasonal influenza A viruses accounted for the majority of detections.

National Influenza Centres (NICs) and other national influenza laboratories from 111 countries, areas or territories reported data to FluNet for the time period from 21 January 2019 to 03 February 2019 (data as of 2019-02-15 04:05:38 UTC). The WHO GISRS laboratories tested more than 213440 specimens during that time period. A total of 69007 were positive for influenza viruses, of which 67733 (98.2%) were typed as influenza A and 1274 (1.8%) as influenza B. Of the sub-typed influenza A viruses, 25052 (72%) were influenza A(H1N1)pdm09 and 9734 (28%) were influenza A(H3N2). Of the characterized B viruses, 83 (27.8%) belonged to the B-Yamagata lineage and 216 (72.2%) to the B-Victoria lineage.

**Figure 8. Percentage of respiratory specimens that tested positive for influenza, by influenza transmission zone (status as of 15 February 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/)

## [Influenza News \(from CIDRAP\)](#)

### **Study presented to ACIP finds no link between flu shots and miscarriage**

A larger follow-up on a 2017 study that found an association between repeated doses of vaccine containing the 2009 H1N1 strain and miscarriage in pregnant women ruled out the association, researchers reported to federal vaccine advisors yesterday.

The group that presented the findings to the Centers for Disease Control and Prevention's (CDC's) Advisory Committee on Immunization Practices (ACIP) was from the Marshfield Clinic Research Institute — the same team that published the 2017 report on a potential safety signal. At the time they said the findings called for deeper investigation but cautioned that there was no biological basis for the phenomenon and that the data didn't show the vaccine causes miscarriages.

The new findings include data from three more flu seasons—2012-13, 2013-14, and 2014-15—and include 1,236 pairs of women, 627 who had been vaccinated and 609 who had not, CNN reported yesterday.

When the investigators looked at data from each flu season and all of the seasons combined, researchers found no increased miscarriage risk during the 28 days following flu vaccination or any other time period they examined. They said the odds ratio of having a miscarriage were less than or close to one and that minor variations could be explained by chance, concluding that the findings provided a high level of reassurance, according to the report.

Feb 27 CNN [story](#)

Sep 13, 2017, CIDRAP News story "[Study signals association between flu vaccine, miscarriage](#)"

Source: <http://www.cidrap.umn.edu/news-perspective/2019/02/news-scan-feb-28-2019>

## 2018-2019 U.S. Flu Season: Preliminary National Burden Estimates

CDC estimates that, from October 1, 2018, through February 23, 2019, there have been:

20.4 million – 23.6 million  
flu **illnesses**



9.5 million – 11.1 million  
flu **medical visits**



252,000 – 302,000  
flu **hospitalizations**



16,400 – 26,700  
flu **deaths**



Source: <https://www.cdc.gov/flu/about/burden/preliminary-in-season-estimates.htm>

**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 March 1, 2019.