



**Summit County Public Health  
Influenza Surveillance Report  
2018 – 2019 Season  
Report #22**



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

**Flu Surveillance Week 23 (3/10 to 3/16/2019)  
Centers for Disease Control and Prevention MMWR Week 11**

**Summit County Surveillance Data:**

During **Week 23**, influenza-related activity in Summit County *decreased but remained at moderate levels*.

<b>Table 1: Overall Influenza Activity Indicators in Summit County by Week</b>				
	<b>Week 22 MMWR 10 N (%)<sup>1</sup></b>	<b>Week 23 MMWR 10 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	1,575	1,557	- 1.1%	↓1
Positive Tests (Number and %)	573 (36.4)	530 (34.0)	- 6.6%	↓1
Influenza A (Number and %)	566 (35.9)	526 (33.8)	- 5.9%	↓1
Influenza B (Number and %)	7 (0.4)	4 (0.3)	- 50.0%	↓2
<b>Influenza hospitalizations:</b>	91	80	- 12.1%	↓1
<b>Influenza ILI Community Report:</b>				
Long-term Care Facilities	0	0	--	--
Correctional & Addiction Facilities	1	0	- 100%	↓3
Physician Offices & Clinics	20	13	- 35.0%	↓1
<b>Pharmacy Prescriptions</b>				
Amantidine	2	3	+ 50.0%	↑1
Rimantidine Flumadine	0	0	--	--
Relenza	1	0	- 100%	↓1
Oseltamivir Tamiflu	62	53	- 14.5%	↓1
<i>Total antiviral prescriptions</i>	65	56	- 13.8%	↓1
<b>Schools absenteeism daily rate<sup>2</sup></b>	7.0	7.3	+ 4.3%	↑3
<b>Deaths</b>				
Pneumonia associated	5 (3.9)	7 (6.4)	+ 62.9%	↑1
Influenza associated	2	1	- 50.0%	↓1
<b>Emergency room visits (EpiCenter)<sup>3</sup></b>				
Constitutional Complaints	829 (13.4)	947 (14.1)	+ 5.2%	↑2
Fever and ILI	158 (2.6)	192 (2.9)	+ 11.5%	↑2
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				

**One** influenza-related death was reported during Week 23, increasing the season total to 6. There were 7 deaths associated with pneumonia reported in Week 23. **Figure 1** displays weekly Summit County death counts associated with pneumonia and flu.

**Acute Care Hospitalizations:** There were 80 flu-related hospitalizations, a 12% decrease from Week 22. (**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 zero cases of ILI reported.

**Correctional and Inpatient Addiction facilities:** There were 0 cases of ILI reported.

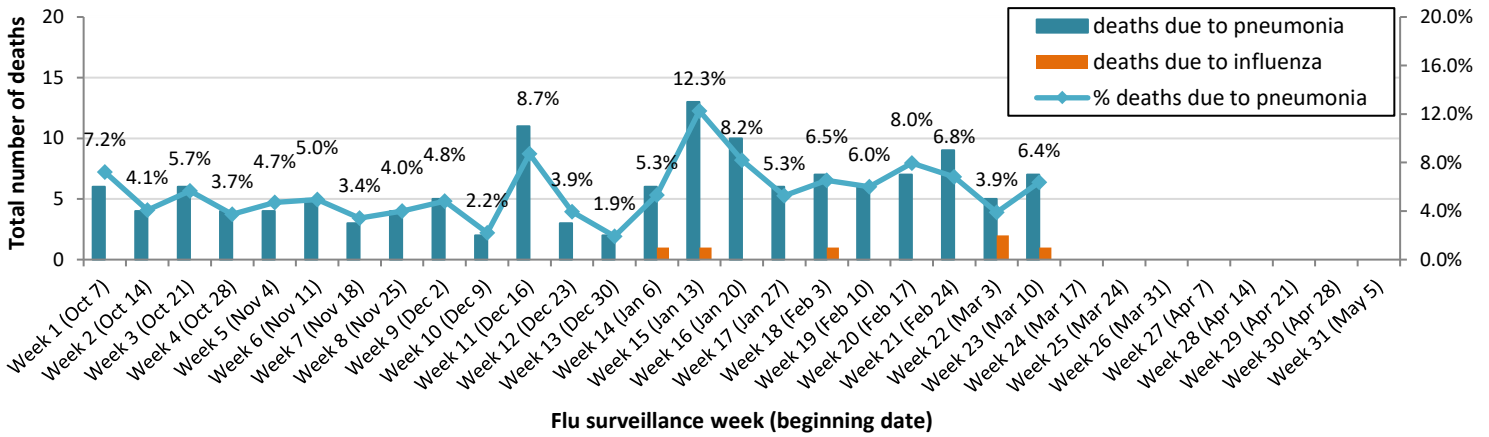
**Physician offices and clinics:** During Week 23, there were 13 cases of ILI reported.

**Pharmacies:** 56 Prescriptions for antiviral medications were reported during Week 23.

**School absenteeism** includes absences regardless of reason. During Week 23, area schools reported an average daily absence rate of 7.3%. This was a 4.3% increase over the rate reported during Week 22.

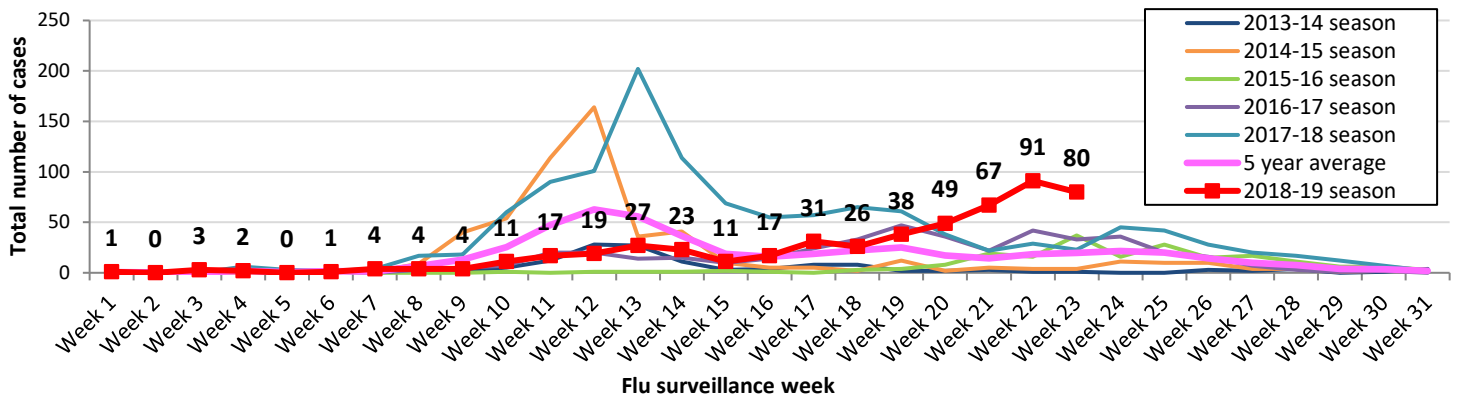
**Lab reports:** During Week 23, Summit County labs performed 1,557 influenza tests, of which 530 tested positive (526 Type A, 4 Type B). (**Figure 4**) The percentage of positive test results decreased by 6.6% since Week 22.

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



**Influenza-associated hospitalizations:** Summit County hospitals reported 80 influenza-associated hospitalizations in Week 23. **Figure 2** displays weekly confirmed hospitalization counts for Summit County (season count to date = 526).

**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 192 ILI-related visits reported during Week 23, which was 2.9% of total ED visits (n = 6,697). This was an 11.5% increase from the Week 22 rate.

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

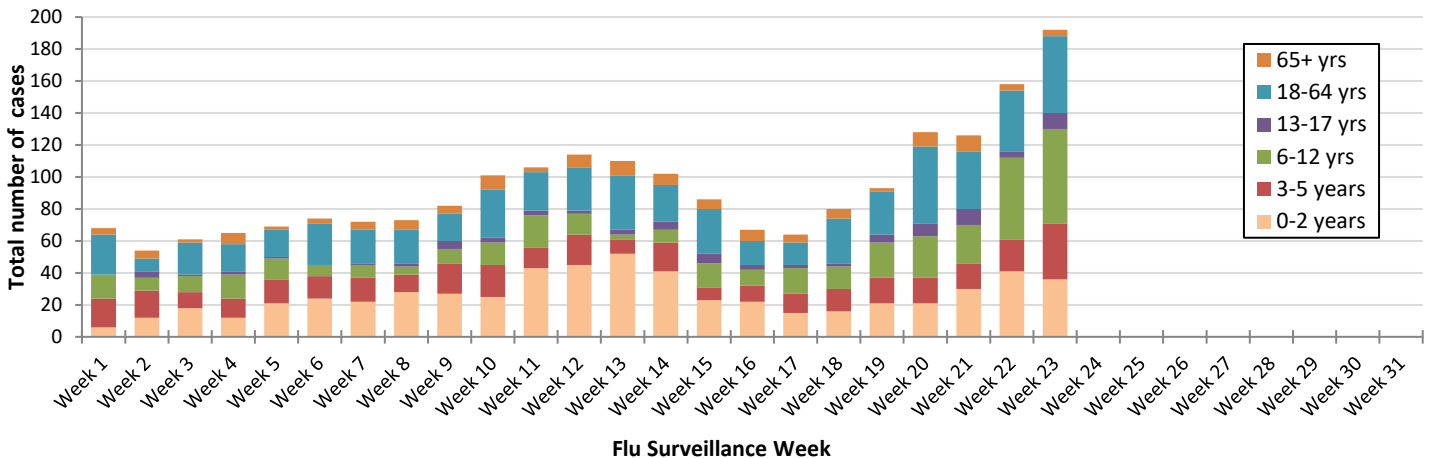
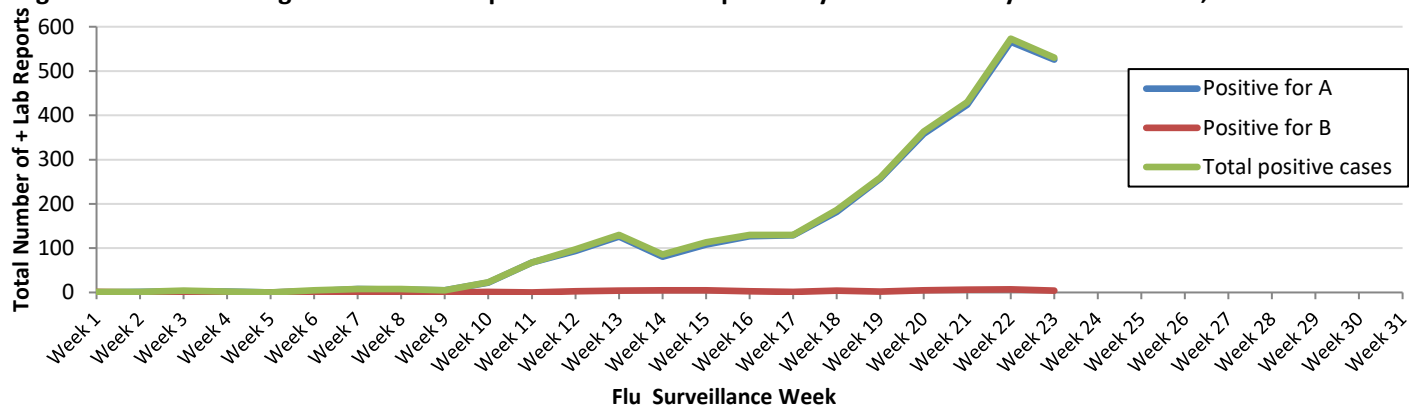


Figure 4. Influenza diagnostic tests with positive results completed by Summit County health facilities, 2018 - 2019 season



## 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 11, 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 and fever and ILI specified ED visits are above baseline levels. Reported cases of influenza-associated hospitalizations are above the seasonal threshold\*. There were 1108 influenza-associated hospitalizations reported during MMWR Week 11.

### Ohio Influenza Activity Summary Dashboard (March 10 – March 16, 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)	2.72%	-20.47%	↓ 1	
Thermometer Sales (National Retail Data Monitor)	2198	-5.62%	↓ 1	
Fever and ILI Specified ED Visits (EpiCenter)	3.56%	-1.93%	↓ 1	
Constitutional ED Visits (EpiCenter)	14.87%	-1.52%	↓ 1	
Confirmed Influenza-associated Hospitalizations (Ohio Disease Reporting System)	1108	26.05%	↑ 7	
Outpatient Medical Claims Data <sup>4</sup>	3.81%	-18.42%	↓ 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®

## Ohio Surveillance Data:

- **ODH lab** has reported 999 **positive** influenza tests from specimens sent from various submitters. 2018-2019 influenza season positive results: **(535) A/pdmH1N1; (462) A/H3N2; (2) Influenza B;** (through 3/16/2019).
- The **National Respiratory and Enteric Virus Surveillance System (NREVSS)** has reported **56,039** influenza tests performed at participating facilities. 2018-2019 influenza season positive results: **(271) A/pdmH1N1, (220) A/H3N2, (8,388) Flu A Not Subtyped, and (130) Flu B** (through 3/16/2019).
- 4 **pediatric influenza-associated mortalities** have been reported during the 2018-2019 season (through 3/16/2019).
- No **novel influenza A virus infections** have been reported during the 2018-2019 season (through 3/16/2019).
- Incidence of confirmed **influenza-associated hospitalizations** in 2018-2019 season = 6553 (through 3/16/2019).

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

## 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 March 16, 2019:

- **Viral Surveillance:** The percentage of respiratory specimens testing positive for influenza viruses in clinical laboratories increased slightly. Nationally, during the most recent three weeks, influenza A(H3) viruses were reported more frequently than influenza A(H1N1)pdm09 viruses and in HHS Regions 2, 4, 5, 6, 7, 8, 9 and 10.
  - **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. However, an increasing proportion of influenza A(H3N2) viruses are antigenically distinguishable from A/Singapore/INFIMH-16-0019/2016 (3C.2a1), a cell-propagated reference virus representing the A(H3N2) component of 2018-19 Northern Hemisphere influenza vaccines.
  - **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 4.4%, 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):** 26 states experienced high ILI activity; 12 states experienced moderate ILI activity; New York City, Puerto Rico and eight states experienced low ILI activity; four states experienced minimal ILI activity; and the U.S. Virgin Islands and the District of Columbia had insufficient data.
- **Geographic Spread of Influenza (Figure 7):** The geographic spread of influenza in 44 states was reported as widespread; Puerto Rico and four states reported regional activity; the District of Columbia and two states reported local activity; the U.S. Virgin Islands reported sporadic activity; and Guam did not report.
- **Influenza-associated Hospitalizations:** A cumulative rate of 47.1 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported. The highest hospitalization rate is among adults 65 years and older (146.0 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:** Eight influenza-associated pediatric deaths were reported to CDC during week 11.

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

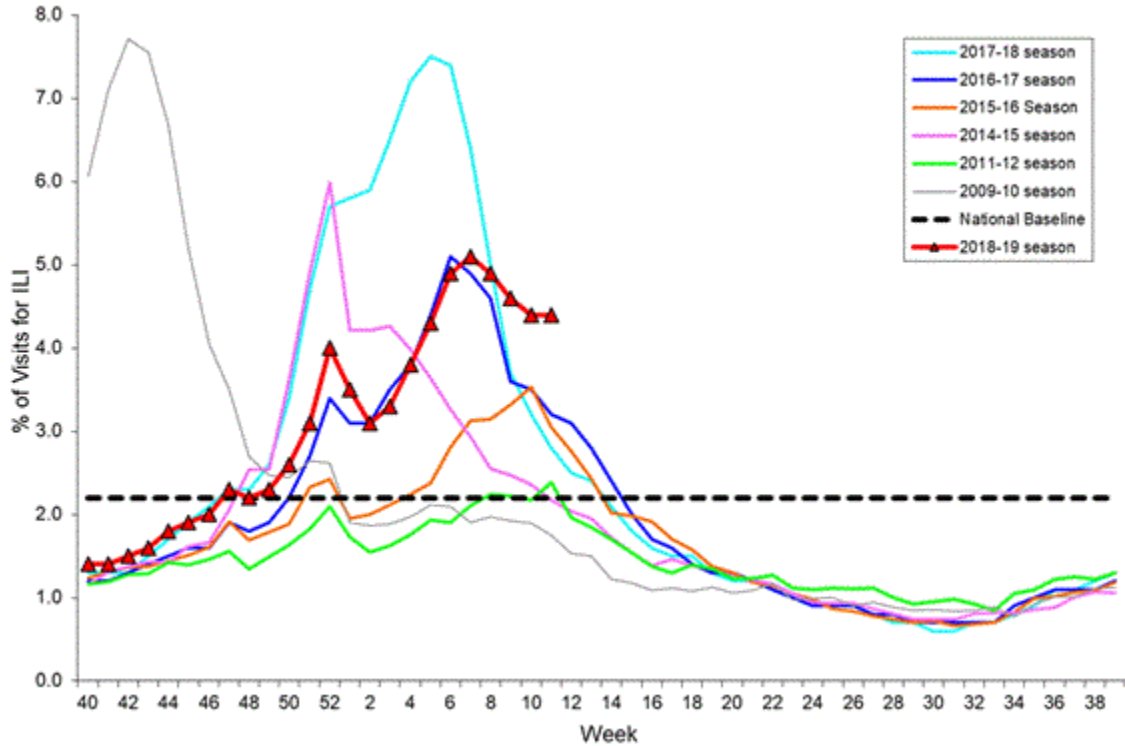


Figure 6. Influenza-like illness (ILI) activity level indicator determined by data reported to ILINet

2018-19 Influenza Season Week 11 ending Mar 16, 2019

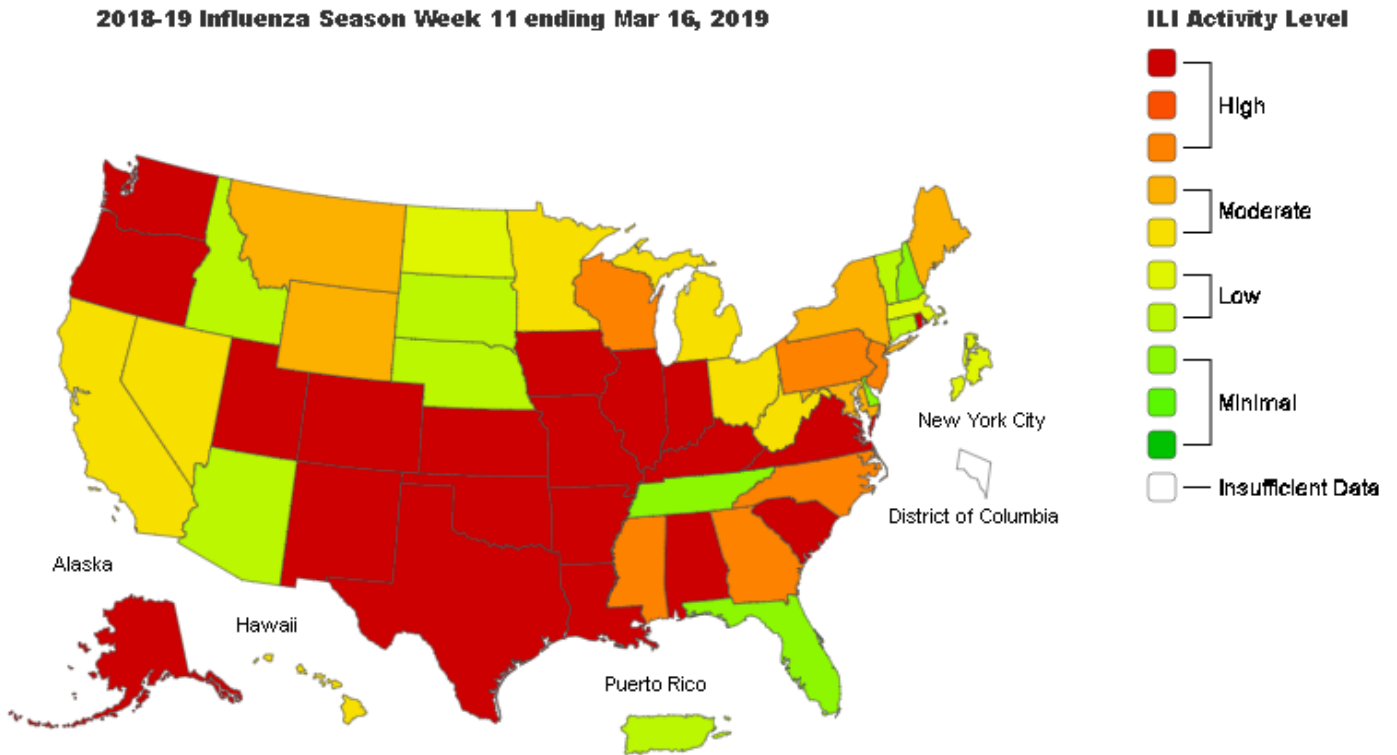
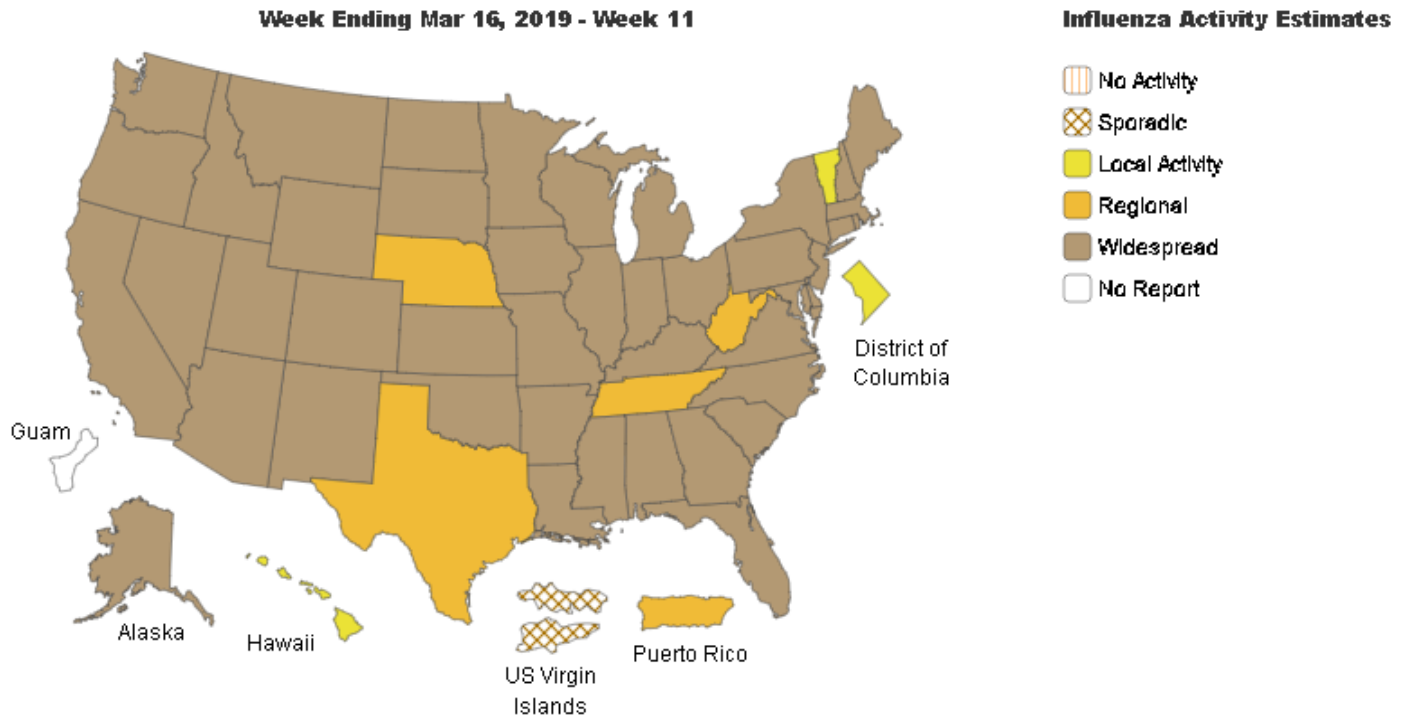


Figure 7. Weekly influenza activity (geographic spread) estimates reported by state and territorial epidemiologists



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

## Global Surveillance:

Influenza Update N° 337, World Health Organization (WHO), published 18 March 2019, based on data up to 03 March 2019. The Update is published every two weeks.

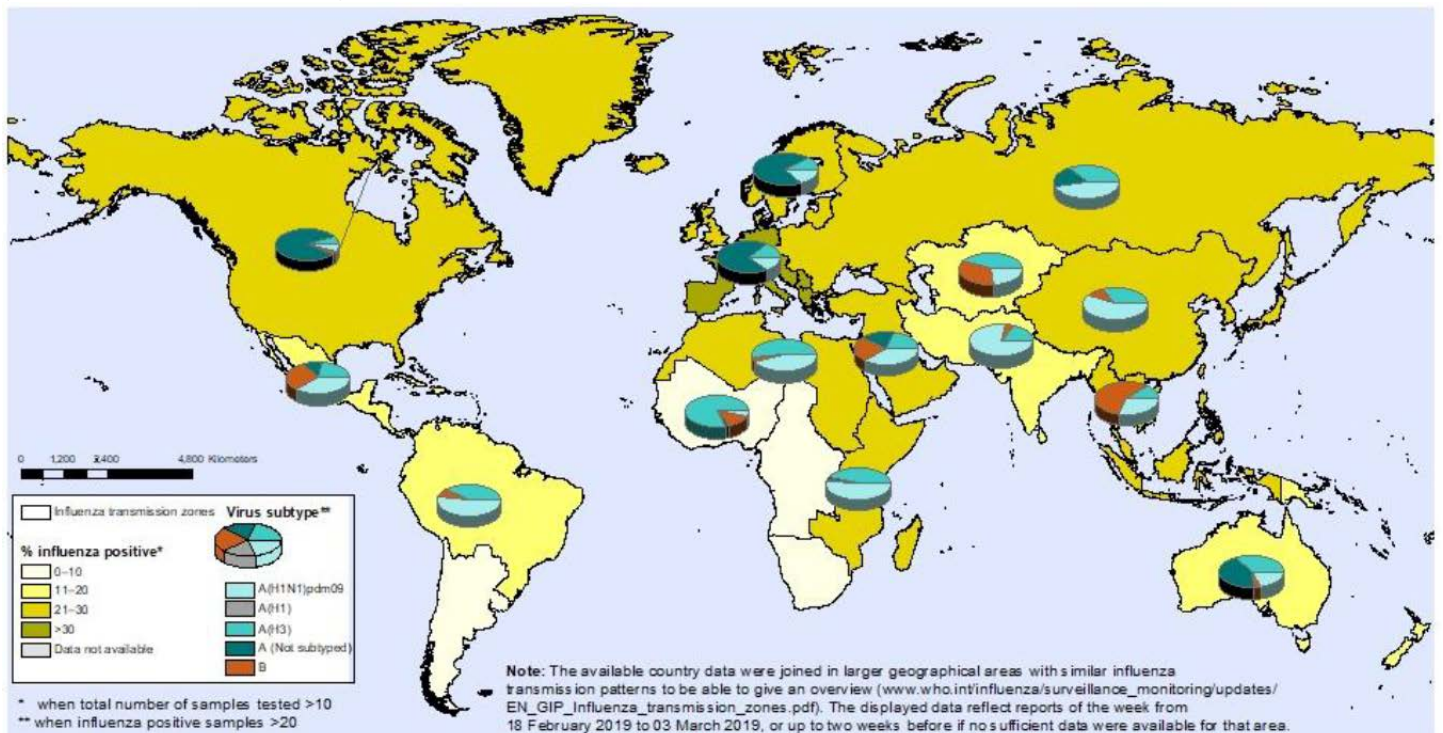
## Summary

*In the temperate zone of the northern hemisphere influenza activity continued to be reported.*

- In North America, influenza activity continued but in recent weeks influenza A(H3N2) was the dominant virus, followed by influenza A(H1N1)pdm09.
- In Europe, influenza activity decreased across the continent, with two thirds of countries still above baseline for influenza-like illness activity. Influenza A viruses co-circulated.
- In North Africa, influenza activity was still reported in some countries.
- In Western Asia, influenza activity appeared to decrease overall, with exception of some countries where activity remained elevated.
- In East Asia, influenza activity appeared to decrease overall, with influenza A(H1N1)pdm09 virus predominating.
- Worldwide, seasonal influenza A viruses accounted for the majority of detections.

National Influenza Centres (NICs) and other national influenza laboratories from 114 countries, areas or territories reported data to FluNet for the time period from 18 February 2019 to 03 March 2019 (data as of 2019-03-15 07:02:52 UTC). The WHO GISRS laboratories tested more than 205150 specimens during that time period. 59350 were positive for influenza viruses, of which 57635 (97.1%) were typed as influenza A and 1715 (2.9%) as influenza B. Of the sub-typed influenza A viruses, 14751 (59.5%) were influenza A(H1N1)pdm09 and 10037 (40.5%) were influenza A(H3N2). Of the characterized B viruses, 147 (19%) belonged to the B-Yamagata lineage and 625 (81%) to the B-Victoria lineage.

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



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

### AAP: No flu vaccine preference for 2019-'20 season

Melissa Jenco, News Content Editor

The AAP no longer will express a preference for the flu shot over nasal spray vaccine for children during the 2019-'20 flu season. The recommendation comes after the Academy reviewed current data on vaccine coverage and effectiveness and flu season characteristics. It also considered the reformulation of the nasal spray vaccine. The guidance is expected to be similar to the recommendations from the Centers for Disease Control and Prevention (CDC).

The AAP recommends universal vaccination for everyone 6 months and older.

“Every effort should be made to ensure that all children receive their influenza vaccine every year before influenza viruses begin circulating in the community,” said Flor M. Munoz, M.D., FAAP, a member of the AAP Committee on Infectious Diseases (COID). “Any licensed influenza vaccine given as indicated for age and health status can be used to protect children against influenza in 2019-'20.”

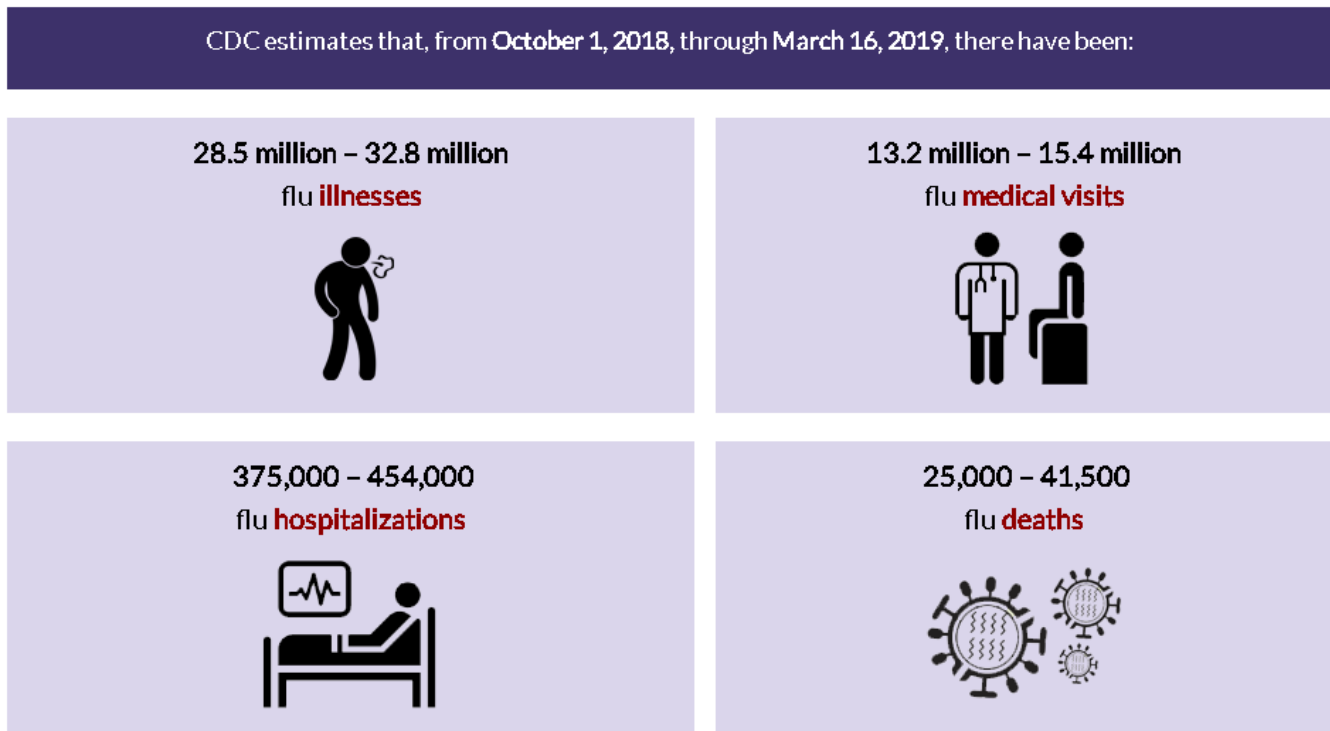
The AAP and CDC did not recommend using the nasal spray (live attenuated influenza vaccine, LAIV) in 2016-'17 or 2017-'18 due to poor effectiveness against H1N1 strains. LAIV manufacturer AstraZeneca has since changed the formulation of the vaccine to include a new strain (A/Slovenia) that it suggested would produce better antibody responses than the previous H1N1 strain (A/Bolivia).

This season, the [Academy recommended](#) using the flu shot (inactivated influenza vaccine, IIV) as the primary vaccine choice, while saying LAIV may be used for children who would not otherwise receive a vaccine. The CDC did not express a preference. In making a recommendation for 2019-'20, the Academy reviewed U.K. data showing that the reformulated LAIV has been effective against influenza A/H1N1 for children this season, when H1N1 has been the predominant circulating strain. While U.K. effectiveness data tend to differ somewhat from U.S. data, AAP leaders said the data were encouraging. The Academy also considered reported effectiveness of LAIV against other influenza virus strains.

“This year, we’re just feeling more comfortable with current data that (LAIV) has been effective” said COID Chair Yvonne A. Maldonado, M.D., FAAP. U.S. data for LAIV effectiveness are not expected to be available this season due to low utilization compared to IIV. However, the CDC released [interim effectiveness data](#) for all vaccines, which showed 61% effectiveness against medically attended influenza for children and 48% for the overall population.

H1N1 viruses have been predominant for much of the season, although H3N2 viruses recently surpassed them in some US regions. The [CDC estimates](#) 23 million to 26 million people have gotten sick and as many as 31,200 have died this season. The CDC’s Advisory Committee on Immunization Practices is expected to discuss its flu policy in June but recently said it does not anticipate major changes. In that case, the CDC and AAP policies will be similar next season. The AAP policy statement on influenza immunization in children will be published later this year in *Pediatrics*.

Source: <https://www.aappublications.org/news/2019/03/14/flu vaccine031419>



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 22, 2019.