



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

Report #28

Flu Surveillance Week 29 (4/21 to 4/27/2019)

Centers for Disease Control and Prevention MMWR Week 17



Public Health
Prevent. Promote. Protect.

Summit County Surveillance Data:

During **Week 29**, influenza-related activity in Summit County *decrease to minimal levels*.

Table 1: Overall Influenza Activity Indicators in Summit County by Week				
	Week 28 MMWR 16 N (%)¹	Week 29 MMWR 17 N (%)¹	Percent change from previous week	Number of weeks increasing or decreasing
Lab Reports				
Test Performed	573	459	- 19.9%	↓7
Positive Tests (Number and %)	23 (4.0)	10 (2.2)	- 45.0%	↓7
Influenza A (Number and %)	20 (3.5)	8 (1.7)	- 51.4%	↓7
Influenza B (Number and %)	3 (0.5)	2 (0.4)	- 20.0%	↓2
Influenza hospitalizations:	6	2	- 66.7%	↓4
Influenza ILI Community Report:				
Long-term Care Facilities	0	0	--	--
Correctional & Addiction Facilities	0	0	--	--
Physician Offices & Clinics	0	1	+ 100%	↑1
Pharmacy Prescriptions				
Amantidine	3	4	+ 33.3%	↑3
Rimantidine Flumadine	0	0	--	--
Relenza	0	0	--	--
Oseltamivir Tamiflu	8	6	- 25.0%	↓7
<i>Total antiviral prescriptions</i>	11	10	- 9.1%	↓7
Schools absenteeism daily rate²	5.2	3.5	- 32.7%	↓1
Deaths				
Pneumonia associated	8 (6.7)	5 (4.0)	- 40.3%	↓1
Influenza associated	0	0	--	--
Emergency room visits (EpiCenter)³				
Constitutional Complaints	450 (7.7)	424 (7.4)	- 3.9%	↓6
Fever and ILI	51 (0.9)	55 (1.0)	+ 11.0%	↑1
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 Note: 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 influenza-related deaths were reported during Week 29, the season total remains at 13. There were 5 deaths associated with pneumonia reported in Week 29. **Figure 1** displays weekly Summit County death counts associated with pneumonia and flu.

Acute Care Hospitalizations: There were 2 flu-related hospitalizations, a 67% decrease from Week 28. (**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 no cases of ILI reported.

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

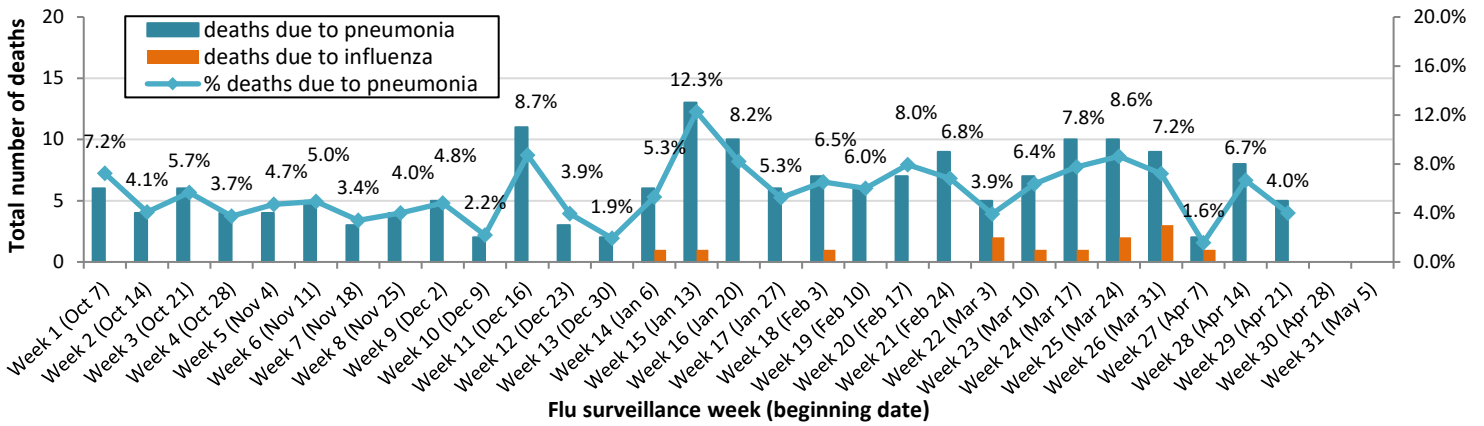
Physician offices and clinics: During Week 29, there was 1 case of ILI reported.

Pharmacies: 10 Prescriptions for antiviral medications were dispensed by reporting pharmacies during Week 29.

School absenteeism includes absences regardless of reason. During Week 29, area schools reported an average daily absence rate of 3.5%, which was 33% lower than the Week 28 rate.

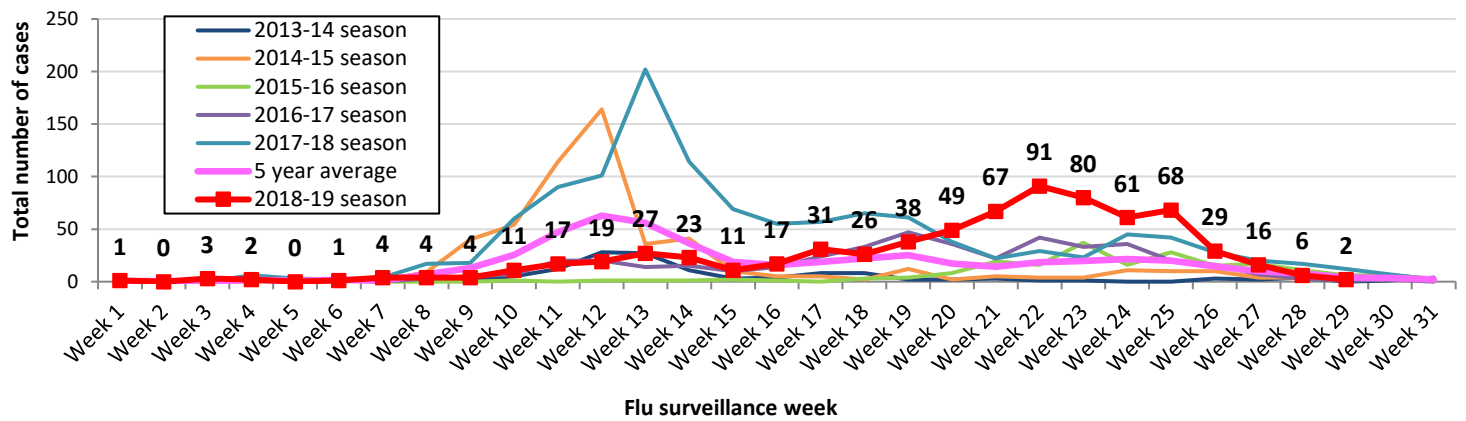
Lab reports: During Week 29, Summit County labs performed 459 influenza tests, of which 10 tested positive (8 Type A, 2 Type B). (**Figure 4**) The percentage of positive test results decreased by 45% since Week 28.

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



Influenza-associated hospitalizations: Summit County hospitals reported 2 influenza-associated hospitalizations in Week 29. **Figure 2** displays weekly confirmed hospitalization counts for Summit County (season count to date = 708).

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 55 ILI-related visits reported during Week 29, which was 1.0% of total ED visits (n = 5,710). This rate was 11% higher than the Week 28 rate.

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

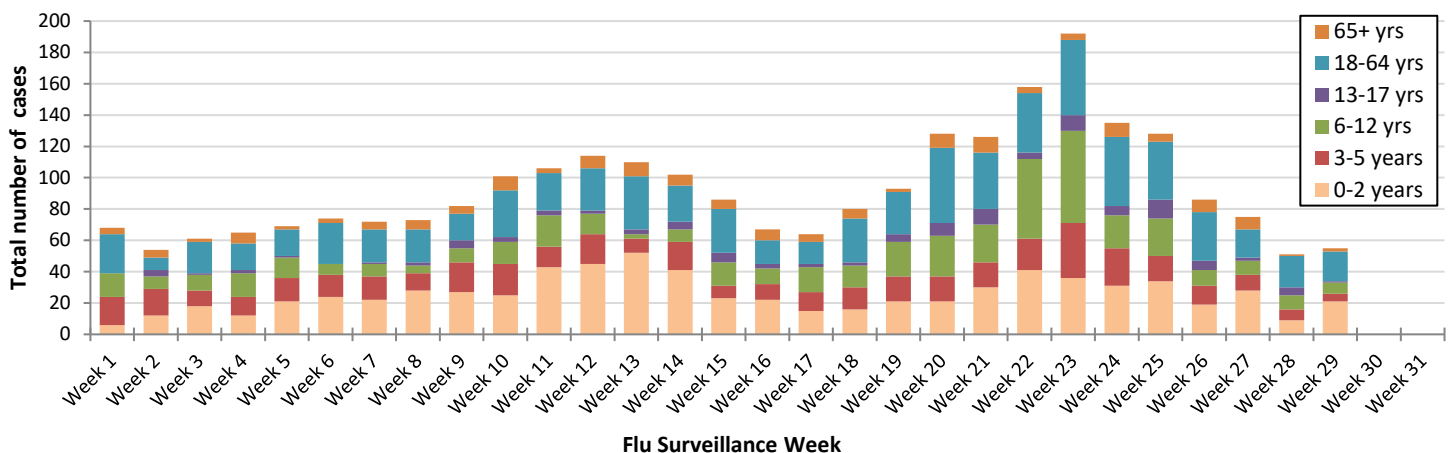
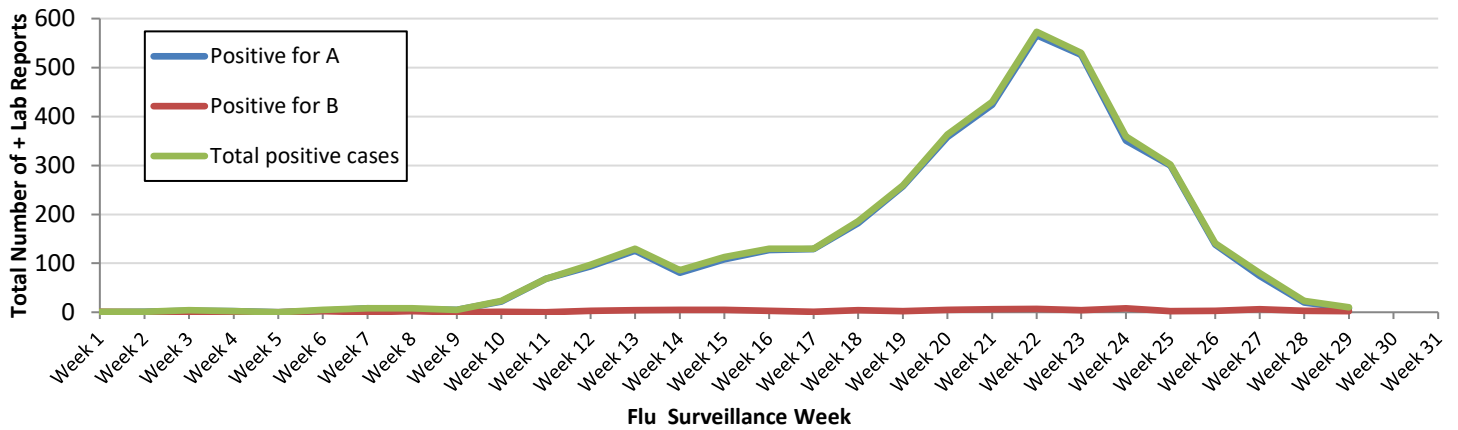


Figure 4. Influenza diagnostic tests with positive results completed by Summit County health facilities, 2018 - 2019 season



Ohio Influenza Activity:

Current Ohio Activity Level (Geographic Spread) – Regional Definition: Increased ILI in > 2 but less than half of the regions AND recent (within the past 3 weeks) lab confirmed influenza in the affected regions, OR institutional Outbreaks (ILI or lab confirmed) in > 2 but less than half of the regions AND recent (within the past 3 weeks) lab confirmed influenza in the affected regions.

During MMWR Week 17, 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 (ED) visits with patients exhibiting constitutional symptoms and fever and ILI specified ED visits **decreased** and are now below baseline levels. Reported cases of influenza-associated hospitalizations remain **above** the seasonal threshold*. There were 146 influenza-associated hospitalizations reported during MMWR Week 17.

Ohio Influenza Activity Summary Dashboard (April 21 – 27, 2019):

Data Source	Current week value	Percent Change from last week ¹	# of weeks ²	Trend Chart ³
Influenza-like Illness (ILI) Outpatient Data (ILINet Sentinel Provider Visits)	0.64%	-44.35%	↓ 5	
Thermometer Sales (National Retail Data Monitor)	796	1.02%	↑ 1	
Fever and ILI Specified ED Visits (EpiCenter)	1.58%	-2.47%	↓ 7	
Constitutional ED Visits (EpiCenter)	8.35%	-4.35%	↓ 7	
Confirmed Influenza-associated Hospitalizations (Ohio Disease Reporting System)	146	-17.51%	↓ 5	
Outpatient Medical Claims Data ⁴	0.65%	-23.53%	↓ 7	

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

²Number of weeks that the % change is increasing or decreasing.

³Black lines represent current week's data; red lines represent baseline averages

⁴Medical Claims Data provided by athenahealth®

Ohio Surveillance Data:

- **ODH lab** has reported 1295 **positive** influenza tests from specimens sent from various submitters. 2018-2019 influenza season positive results: **(661) A/pdmH1N1; (625) A/H3N2; (9) Influenza B;** (through 4/27/2019).
- The **National Respiratory and Enteric Virus Surveillance System (NREVSS)** has reported **76,884** influenza tests performed at participating facilities. 2018-2019 influenza season positive results: **(443) A/pdmH1N1, (563) A/H3N2, (12,715) Flu A Not Subtyped, and (298) Flu B** (through 4/27/2019).
- **4 pediatric influenza-associated mortalities** have been reported during the 2018-2019 season (through 4/27/2019).
- No **novel influenza A virus infections** have been reported during the 2018-2019 season (through 4/27/2019).
- Incidence of confirmed **influenza-associated hospitalizations** in 2018-2019 season = 9761 (through 4/27/2019).

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

National Influenza Activity:

Influenza activity continues to decrease in the United States. While influenza A(H1N1)pdm09 viruses predominated from October to mid-February, influenza A(H3N2) viruses have been more commonly identified since late February. Small numbers of influenza B viruses also have been reported. Below is a summary of the key influenza indicators for the week ending April 27, 2019:

- **Viral Surveillance:** The percentage of respiratory specimens testing positive for influenza viruses in clinical laboratories decreased. During the most recent three weeks, influenza A(H3) viruses were reported more frequently than influenza A(H1N1)pdm09 viruses nationally, and in all 10 HHS Regions.
 - **Virus Characterization:** The majority of influenza A(H1N1)pdm09 and influenza B viruses characterized antigenically are similar to the cell-grown reference viruses representing the 2018–2019 Northern Hemisphere influenza vaccine viruses. However, the majority 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) decreased to 1.8%, which is below the national baseline of 2.2%. All regions reported ILI below their region-specific baseline level.
 - **ILI State Activity Indicator Map (Figure 6):** Puerto Rico experienced high ILI activity; four states experienced low ILI activity; New York City, the District of Columbia and 46 states 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 three states was reported as widespread; Puerto Rico and seven states reported regional activity; 18 states reported local activity; the District of Columbia, the U.S. Virgin Islands and 22 states reported sporadic activity; and Guam did not report.
- **Influenza-associated Hospitalizations:** A cumulative rate of 64.7 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported. The highest hospitalization rate is among adults 65 years and older (216.6 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:** 5 flu-associated pediatric deaths were reported to CDC during week 17.

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

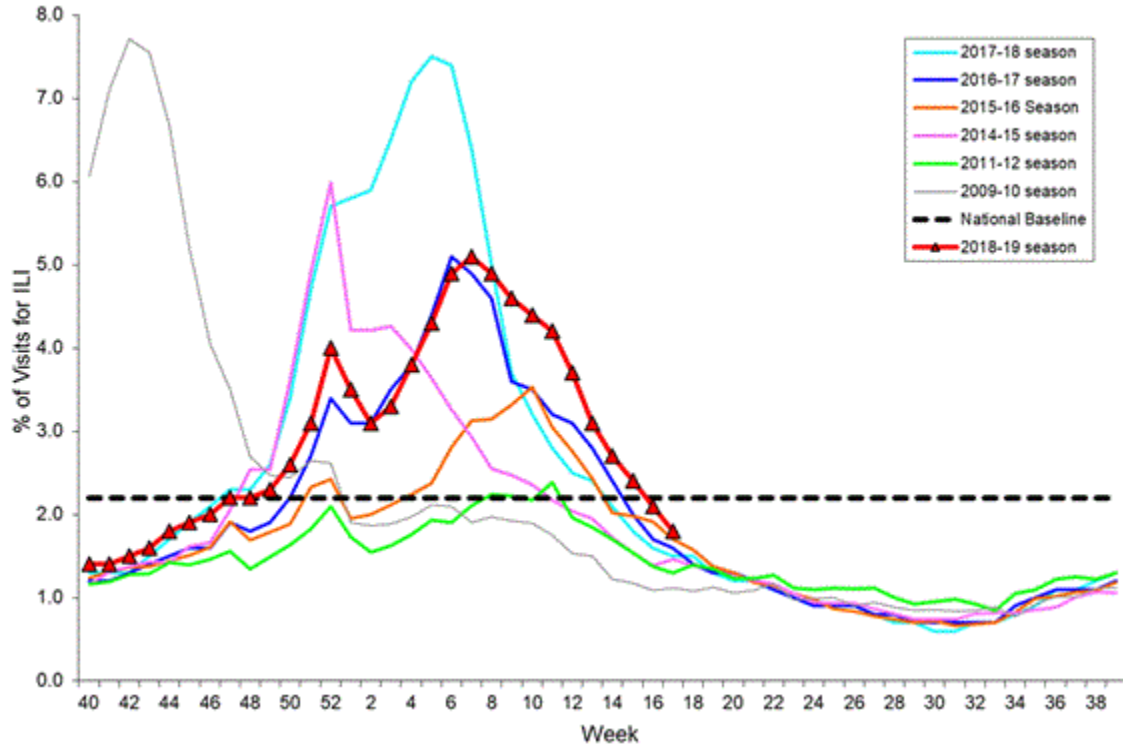


Figure 6. Influenza-like illness (ILI) activity level indicator determined by data reported to ILINet

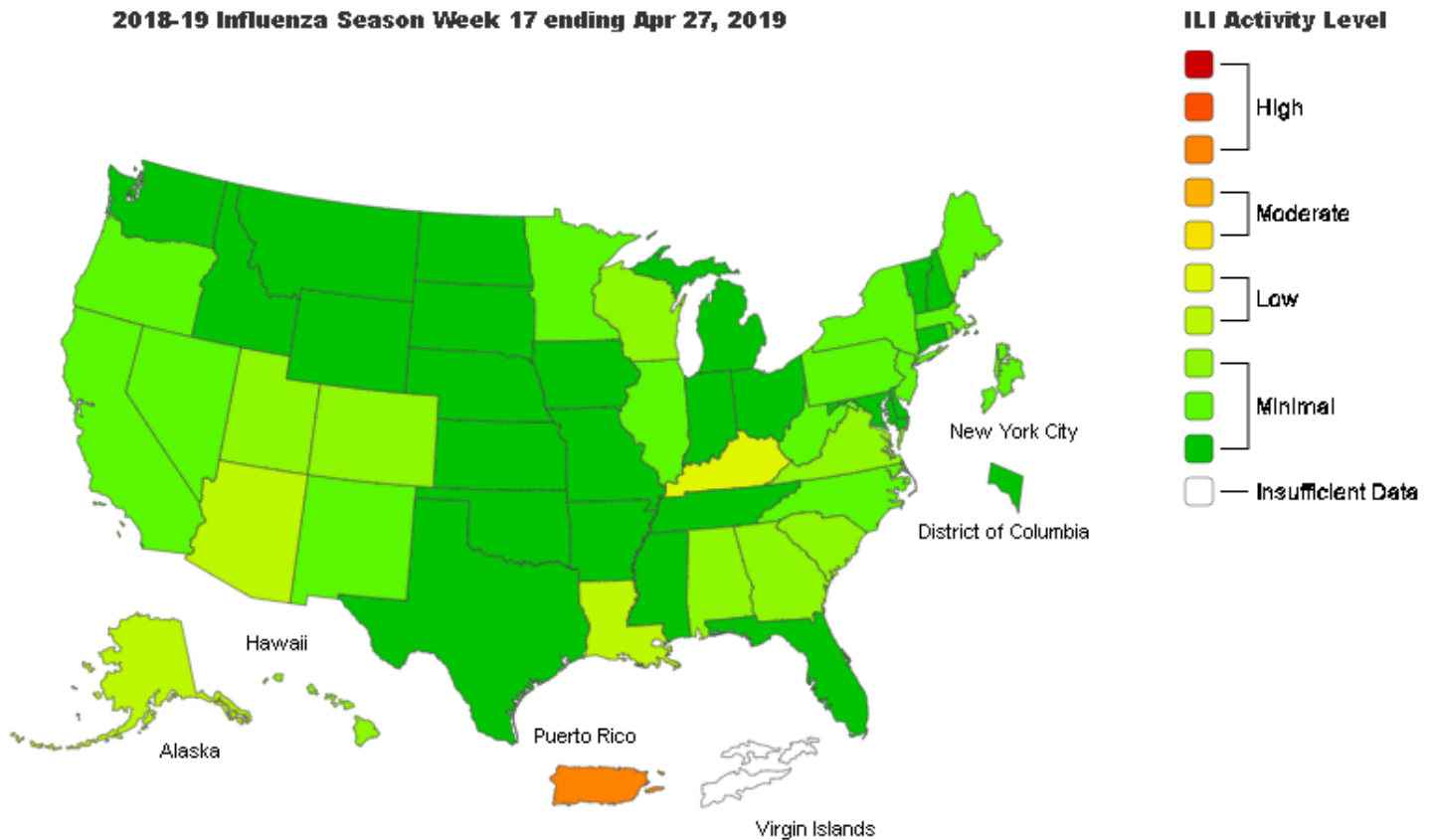
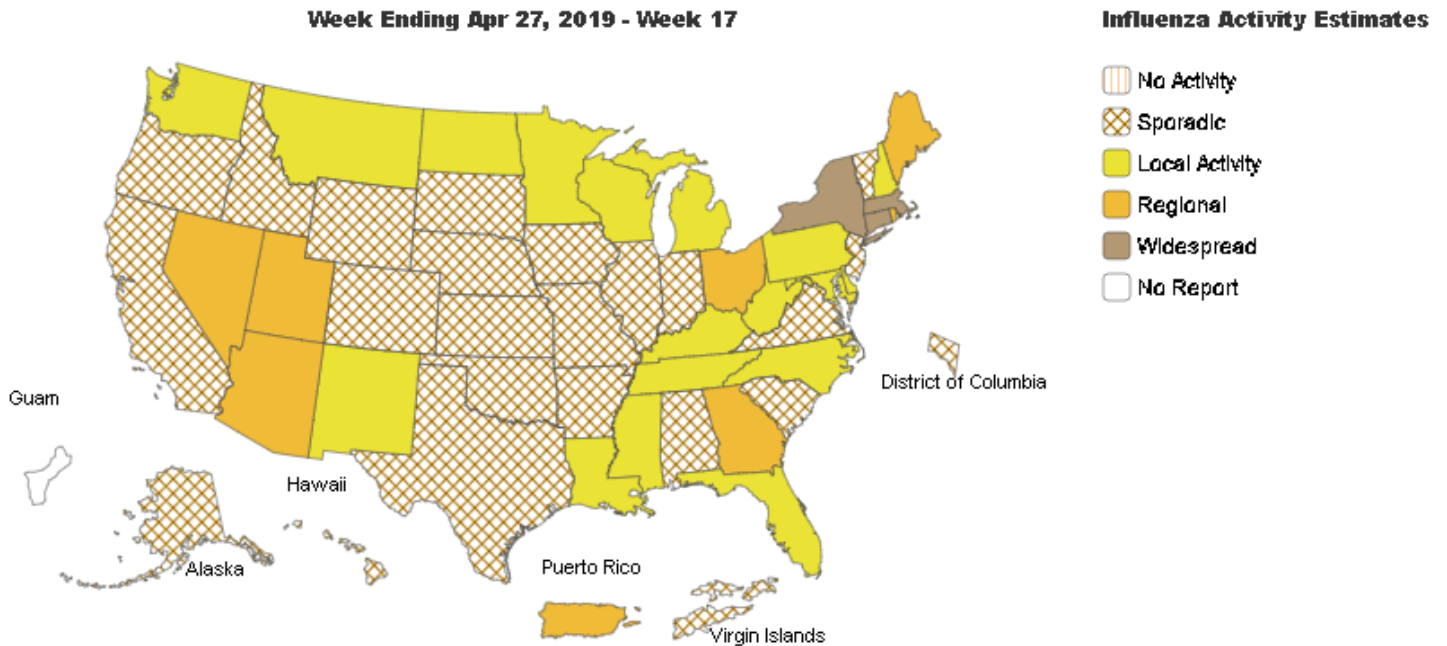


Figure 7. Weekly influenza activity (geographic spread) estimates reported by state and territorial epidemiologists



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

Global Surveillance:

Influenza Update N° 340, World Health Organization (WHO), published 29 April 2019, based on data up to 14 April 2019. The Update is published every two weeks.

Summary:

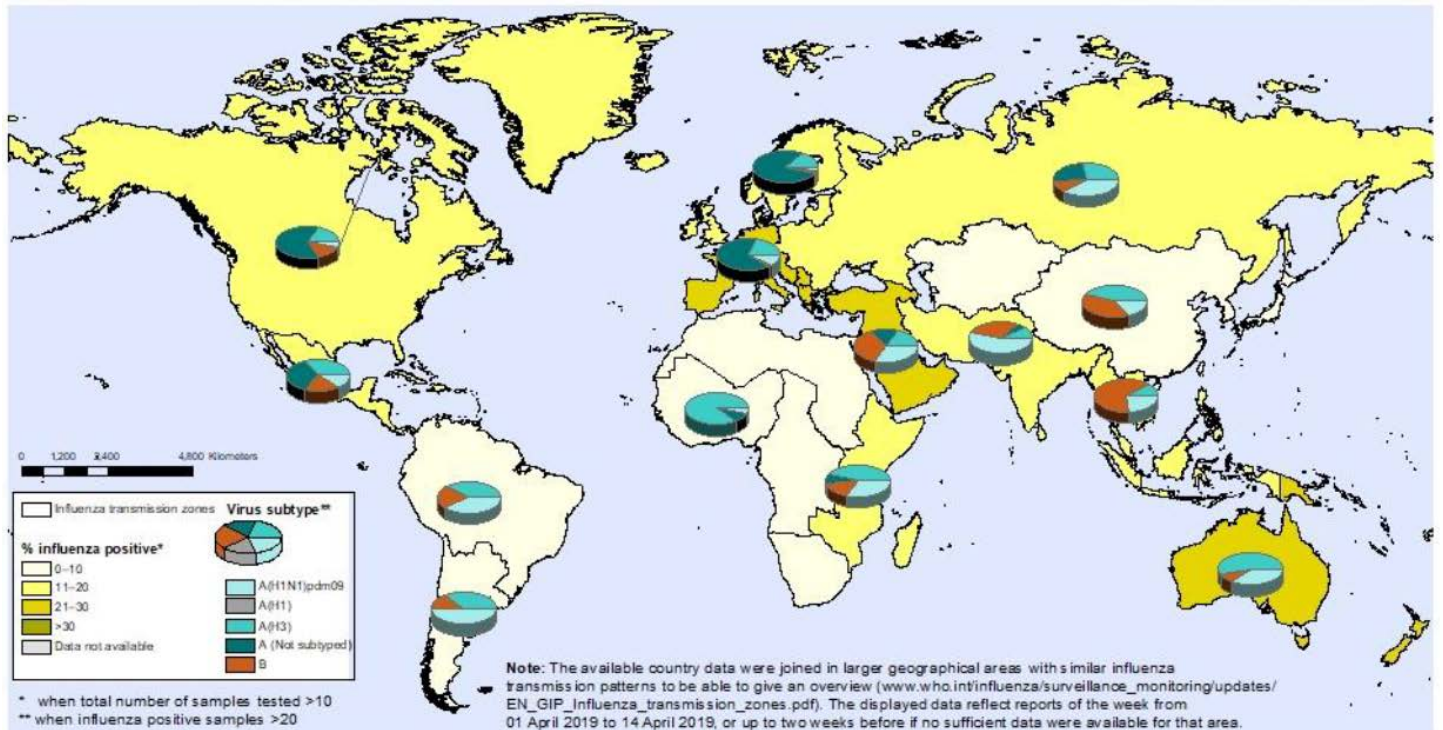
Worldwide, seasonal influenza A viruses accounted for the majority of detections.

In the temperate zone of the northern hemisphere influenza activity decreased overall.

- In **North America**, influenza activity continued to decrease with influenza A(H3N2) the dominant virus, followed by influenza B.
- In **Europe**, influenza activity decreased across the continent. Both influenza A viruses co-circulated; influenza A(H3N2) was the most frequently identified subtype.
- In **North Africa**, influenza detections were low across reporting countries.
- In **Western Asia**, influenza activity appeared to decrease overall, with exception of Saudi Arabia where activity remained elevated.
- In **East Asia**, influenza activity was reported in some countries, with influenza B viruses most frequently detected, followed by influenza A(H3N2). A second wave of influenza activity was reported in the Republic of Korea.

National Influenza Centres (NICs) and other national influenza laboratories from 124 countries, areas or territories reported data to FluNet for the time period from 01 April 2019 to 14 April 2019 (data as of 2019-04-26 03:51:00 UTC). The WHO GISRS laboratories tested more than 137187 specimens during that time period. A total of 20772 were positive for influenza viruses, of which 17422 (83.9%) were typed as influenza A and 3350 (16.1%) as influenza B. Of the sub-typed influenza A viruses, 1917 (32.8%) were influenza A(H1N1)pdm09 and 3922 (67.2%) were influenza A(H3N2). Of the characterized B viruses, 108 (8.3%) belonged to the B-Yamagata lineage and 1196 (91.7%) to the B-Victoria lineage.

Figure 8. Percentage of respiratory specimens that tested positive for influenza, by influenza transmission zone (status as of 26 April 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/

Influenza News from the CDC

What CDC Does About Novel Flu: Outbreak Investigations

CDC works with state and local health departments to investigate human outbreaks with novel flu viruses (i.e., flu viruses that do not normally circulate in people) and animal outbreaks caused by unusual or concerning flu viruses in order to:

1. identify the flu virus causing the outbreak,
2. assess the public health risk posed by this virus outbreak,
3. and to help prevent people from getting infected.

CDC takes novel flu outbreaks seriously because of their potential to harm large numbers of people. CDC scientists become concerned when:

- People are infected with animal flu viruses, including swine (pig) and avian (bird) flu viruses, or people are infected with a human flu virus that changed abruptly and significantly, resulting in a new human seasonal influenza A virus (called a novel flu infection in people). Flu viruses are found in animals that are not the usual host for that virus – for example, when [avian influenza A\(H7N2\) viruses were found in cats in a New York City animal shelter](#);



- Specific influenza viruses of special public health concern are detected– for example, when [highly pathogenic avian influenza H5 and H7 viruses](#) are found in U.S. poultry.

When any of these scenarios happens, CDC works with state public health officials on a public health investigation and also coordinates with the United States Department of Agriculture (USDA) and state animal health officials as appropriate.

In the case of novel flu, the goals of an outbreak investigation are to identify the source of the infection in people, to determine if person-to-person spread of the virus is happening, and to slow or stop the spread of the virus in people and sometimes animals.

Epidemiologists, sometimes called [“disease detectives”](#), do this type of investigative work. Disease detectives use various methods to figure out the [“anatomy of an outbreak.”](#) For influenza, this might include:

- Interviewing people who report illness.
- Asking that all people reporting to a healthcare provider (physicians’ offices, health clinics, hospitals, and other health care facilities) with influenza-like illness (ILI) be evaluated for influenza and that they be reported to the local public health department.
- Interviewing people who have tested positive for flu.
- Evaluating the capacity for person-to-person spread of the virus in question through contact tracing, which is the identification and diagnosis of people who may have come into contact with an infected person.
- Investigating reports of exposure to animals known to carry influenza viruses, such as pigs and birds.
- Monitoring responders to animal influenza outbreaks, such as people working in outbreaks among pigs and poultry.

Follow the link below for a few examples of this investigative process, showing how CDC takes quick action to respond to novel flu outbreaks in order to help stop or slow the spread of disease.

[Novel Swine/Variant and Avian Flu Outbreaks](#)

Source: <https://www.cdc.gov/flu/outbreak-investigations.html>



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. This report was issued on May 3, 2019.