



**Summit County Public Health  
Influenza Surveillance Report  
2017 – 2018 Season  
Report #15**



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

**Flu Surveillance Weeks 29 & 30 (Beginning 4/22/2018 through 5/5/2018)  
Centers for Disease Control and Prevention MMWR Weeks 17 & 18**

**Summit County Surveillance Data:**

In **Weeks 29 & 30** of influenza surveillance, influenza-related activity has decreased in Summit County.

<b>Table 1: Overall Influenza Activity Indicators in Summit County by Week</b>				
	<b>Week 29 MMWR Wk 17 N (%)*</b>	<b>Week 30 MMWR Wk 18 N (%)*</b>	<b>% change from previous week</b>	<b>Number of weeks increasing or decreasing</b>
<b>Lab Reports</b>				
Total Test Performed	394	360	-8.6	↓4
Positive Tests (number and %)	57 (14.5)	46 (12.8)	-19.3	↓6
Influenza A (number and %)	23 (5.8)	29 (8.1)	26.1	↑1
Influenza B (number and %)	34 (8.6)	17 (4.7)	-50.0	↓1
<b>Acute care hospitalization for Influenza:</b>	23	13	-43.5	↓1
<b>Influenza ILI Community Report:</b>				
Long-term Care ILI	0	0	--	--
Correctional & Addiction Facility	0	0	--	--
Physician Offices & University Clinic	1	1	--	--
<b>Pharmacy Prescriptions</b>				
Amantidine	2	0	-100.0	↓1
Rimantidine Flumadine	0	0	--	--
Relenza	0	0	--	--
Oseltamivir Tamiflu	7	0	-100.0	↓1
<i>Total</i>	9	0	-100.0	↓1
<b>School Absenteeism (%)**</b>	16.0	15.4	-3.8	↓2
<b>Pneumonia and Influenza Deaths (Total for 2017-18 flu season)</b>				
Pneumonia associated	10 (5.2)	1 (0.5)	-90.0	↓2
Influenza associated	0 (0.0)	1 (0.5)	100.0	↑1
<b>Emergency room visits (EpiCenter)***</b>				
Constitutional Complaints	530 (8.8)	470 (7.7)	-12.5	↓1
Fever and ILI	100 (1.7)	53 (0.9)	-47.1	↓1
* N and % are reported when available				
**Percent is from total number of students enrolled at all schools reporting, and also accounts for weeks less than 5 days. Seven schools located throughout Summit County, with a total enrollment of approximately 7100 students, report absences.				
***Percent is from total number of emergency room interactions				
ª Percentages should be interpreted with caution. Small changes in number can result in big changes in percent.				
¸ This percent change is the difference in percent (i.e., the percent change in prevalence). It is not the percent change in the number of tests, number of school absences, number of deaths, etc.)				

There were no influenza-associated deaths reported in Week 29 and one was reported in Week 30. **Figure 1** displays weekly Summit County death counts associated with pneumonia and influenza. There were 34 influenza deaths this season, one of which was a pediatric death.

**Lab reports:** During Week 29, Summit County labs performed 394 tests, of which 23 tested positive for flu A and 34 for flu B. For Week 30, there were 360 tests: positive results were 29 flu A and 17 flu B. (**Figure 4**)

**Acute Care Hospitalizations:** 23 reported influenza associated hospitalizations during Week 29, and 13 in Week 30. **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.

**Long Term Care Facilities:** There were no cases of ILI reported from Long Term Care facilities in Weeks 29 and 30.

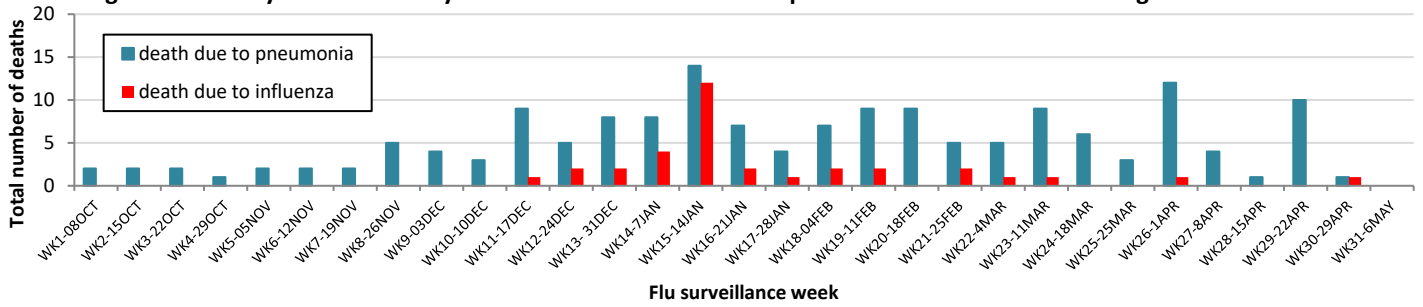
**Correctional and Addiction facility:** There were no cases of ILI reported in Weeks 29 and 30.

**Physician Office and University Clinic:** There was one reported ILI case in both Weeks 29 and 30.

**Pharmacy:** Amantadine was prescribed 2 times in Week 29 and 0 times in Week 30. Tamiflu was prescribed 7 times in Week 29 and 14 times in Week 30.

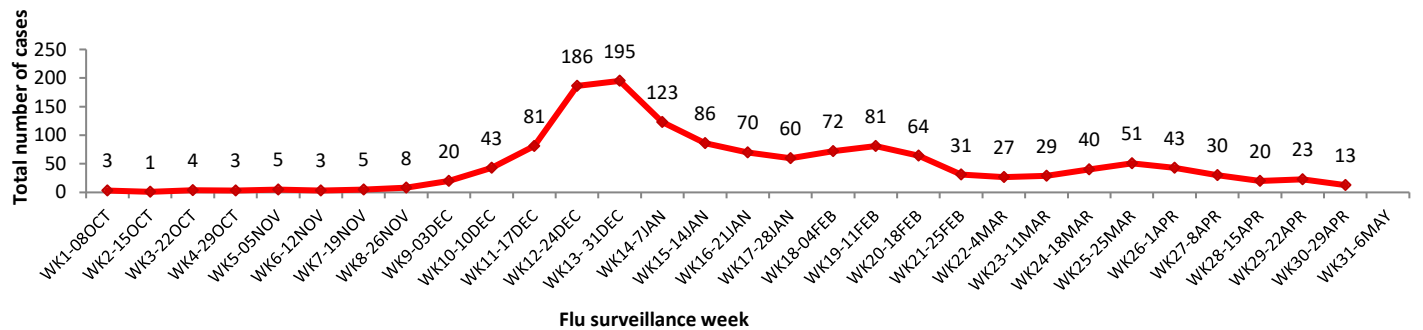
**School absenteeism** includes absences regardless of reason. In Week 29, there was an absence rate of 16.0% and in Week 30 the absence rate was 15.4%.

**Figure 1. Weekly Summit County death counts associated with pneumonia and influenza during 2017-2018 flu season**



**Influenza-associated hospitalization:** Summit County hospitals reported 23 influenza-associated hospitalizations in Week 29 and 13 hospitalizations during Week 30. **Figure 2** displays weekly confirmed hospitalization count for Summit County (**cumulative count to date = 1420**).

**Figure 2. Summit County influenza-associated hospitalizations by week, 2017-2018 influenza season**



**EpiCenter** collects and analyzes health related data in real time to provide information about the health of the community. For influenza surveillance, constitutional complaints, influenza-like illness (ILI), and fever are monitored. **Figure 3** displays the weekly number of ER visits related to ILI and fever symptoms in Summit County, stratified by age group. ILI-related ER visits increased in Week 29 but then decreased by nearly 50% in Week 30. Children aged less than 18 years accounted for 70% of ILI-related ER visits during Week 29 and nearly 60% of visits during Week 30

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

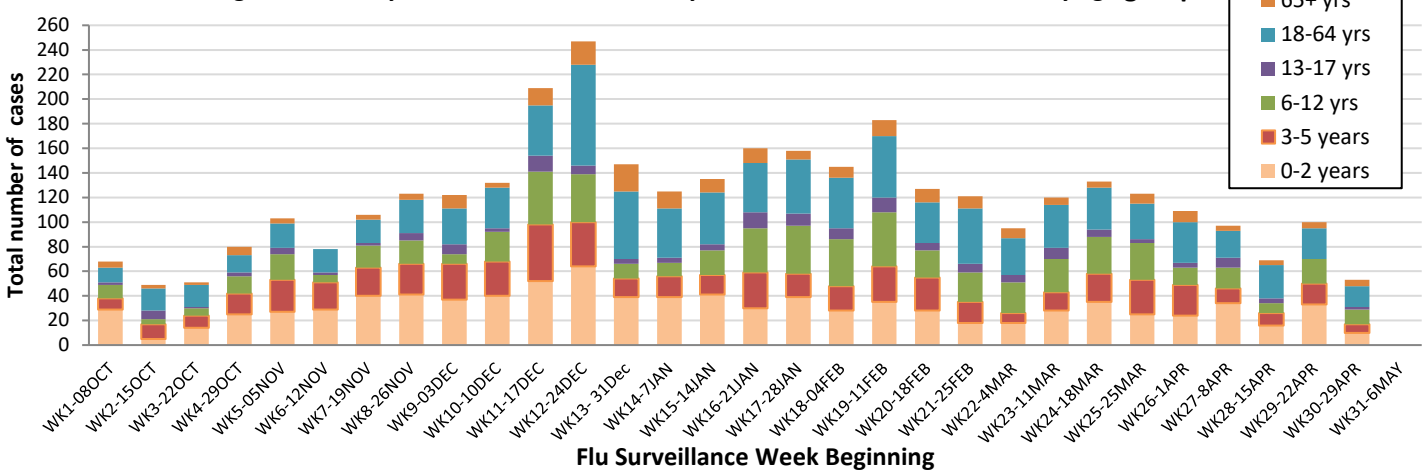
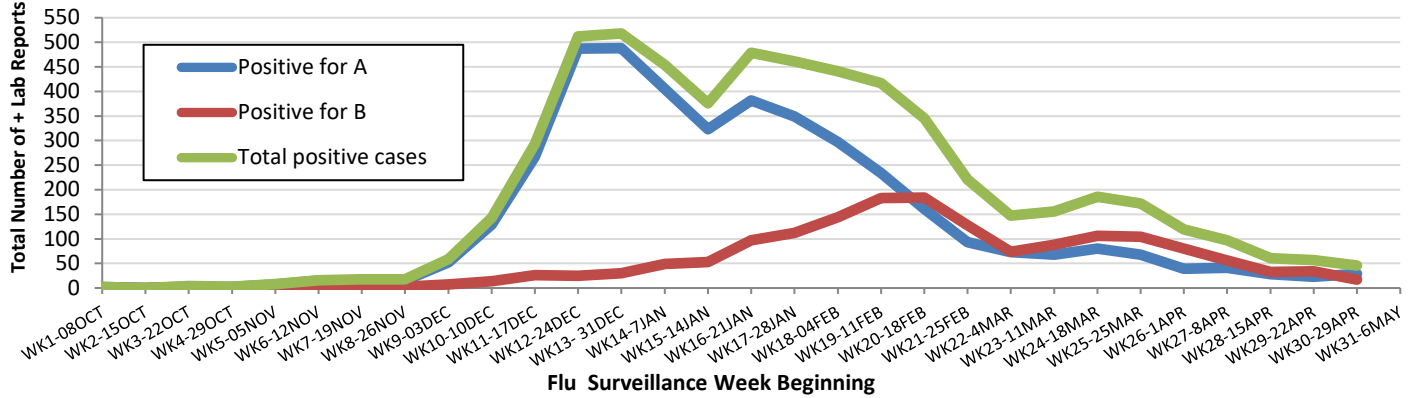


Figure 4: Influenza lab tests with positive results, 2017-2018 Summit County Influenza Surveillance



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

**Current Statewide Influenza Activity (for MMWR Week 18, April 29 – May 5, 2018):**

**Current Ohio Activity Level (Geographic Spread) – Local**

Definition: Increased ILI in 1 region; ILI activity in other regions is not increased AND recent (within the past 3 weeks) lab evidence of influenza in region with increased ILI, OR 2 or more institutional outbreaks (ILI or lab confirmed) in 1 region; ILI activity in other regions is not increased AND recent (within the past 3 weeks) lab evidence of influenza in region with the outbreaks; virus activity is no greater than sporadic in other regions.

**Ohio Influenza Activity Summary Dashboard: (April 29 – May 5, 2018)**

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)	0.41%	-63.72%	↓ 1	
Thermometer Sales (National Retail Data Monitor)	1048	-16.79%	↓ 13	
Fever and ILI Specified ED Visits (EpiCenter)	1.60%	-6.98%	↓ 1	
Constitutional ED Visits (EpiCenter)	8.60%	-3.48%	↓ 1	
Confirmed Influenza-associated Hospitalizations (Ohio Disease Reporting System)	170	-28.27%	↓ 6	
Outpatient Medical Claims Data <sup>4</sup>	0.49%	-5.77%	↓ 5	

<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®

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

During week 18 (April 29-May 5, 2018), influenza activity decreased in the United States.

- **Viral Surveillance:** Overall, influenza A(H3) viruses have predominated this season. Since early March, influenza B viruses have been more frequently reported than influenza A viruses. The percentage of respiratory specimens testing positive for influenza in clinical laboratories decreased.
- **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:** Two influenza-associated pediatric deaths were reported.
- **Influenza-associated Hospitalizations:** A cumulative rate of 106.5 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported.
- **Outpatient Illness Surveillance:** The proportion of outpatient visits for influenza-like illness (ILI) was 1.5%, which is below the national baseline of 2.2%. One of 10 regions reported ILI at or above their region-specific baseline level. Puerto Rico and one state experienced low ILI activity; and New York City, the District of Columbia, and 49 states experienced minimal ILI activity.
- **Geographic Spread of Influenza:** The geographic spread of influenza in three states was reported as widespread; Guam, Puerto Rico and four states reported regional activity; 16 states reported local activity; the District of Columbia, and 25 states reported sporadic activity; and the U.S. Virgin Islands and two states reported no influenza activity.

Figure 5. Percentage of visits for influenza-like illness (ILI) reported by the U.S. Outpatient Influenza-like Surveillance Network (ILINet), weekly national summary, 2017-2018 and selected previous seasons

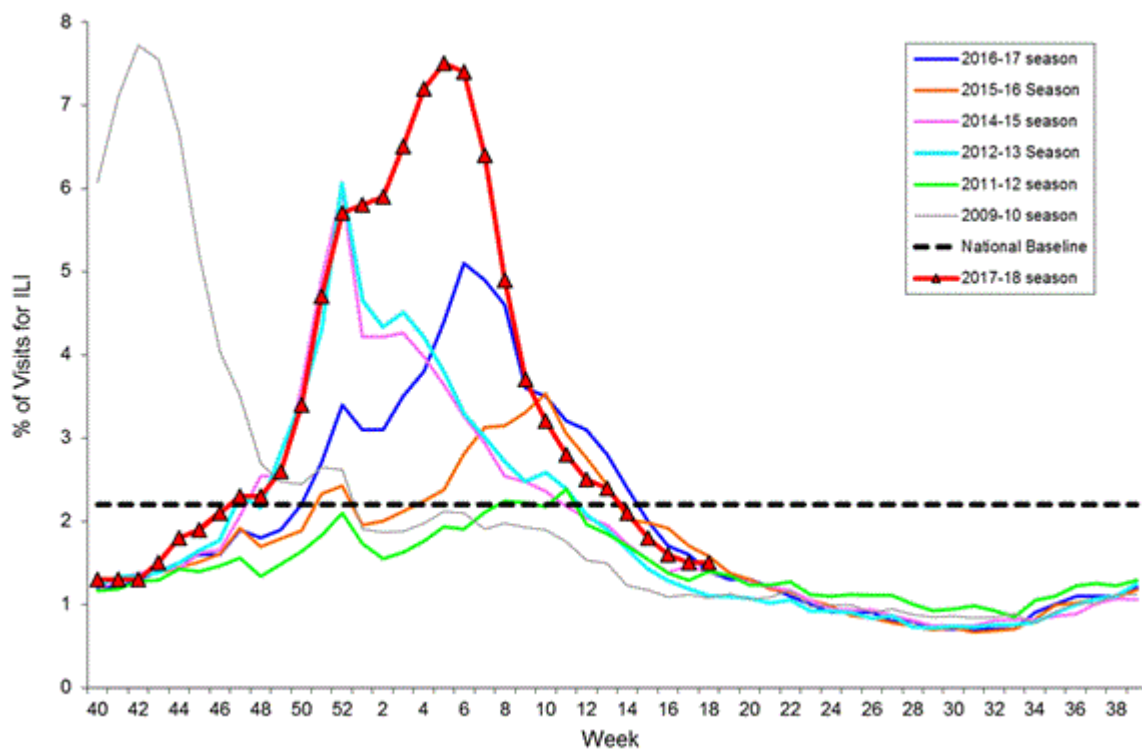


Figure 6. Influenza-like illness (ILI) activity level indicator determined by data reported to ILINet

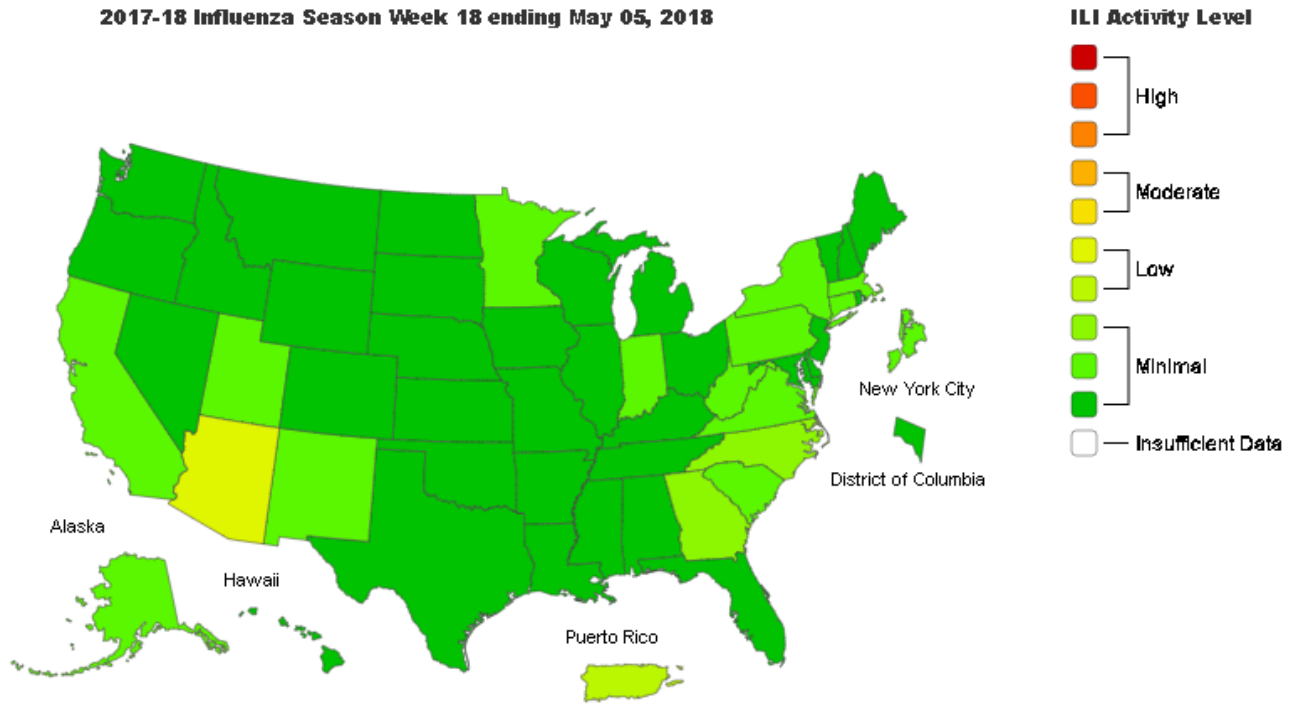
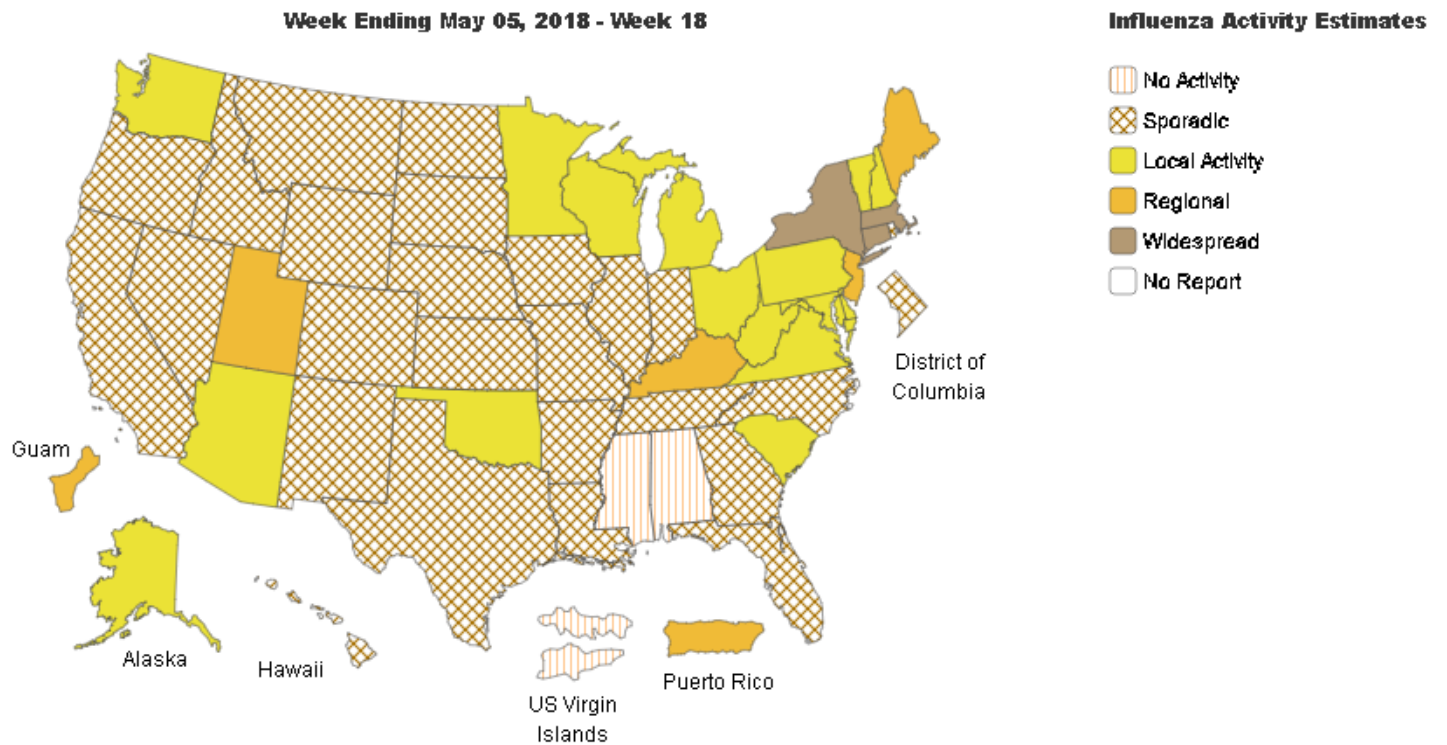


Figure 7. Weekly influenza activity (geographic spread) estimates reported by state and territorial epidemiologists



Reference: <https://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

# Global Surveillance:

Influenza Update N° 314, World Health Organization (WHO), released 04/30/2018:

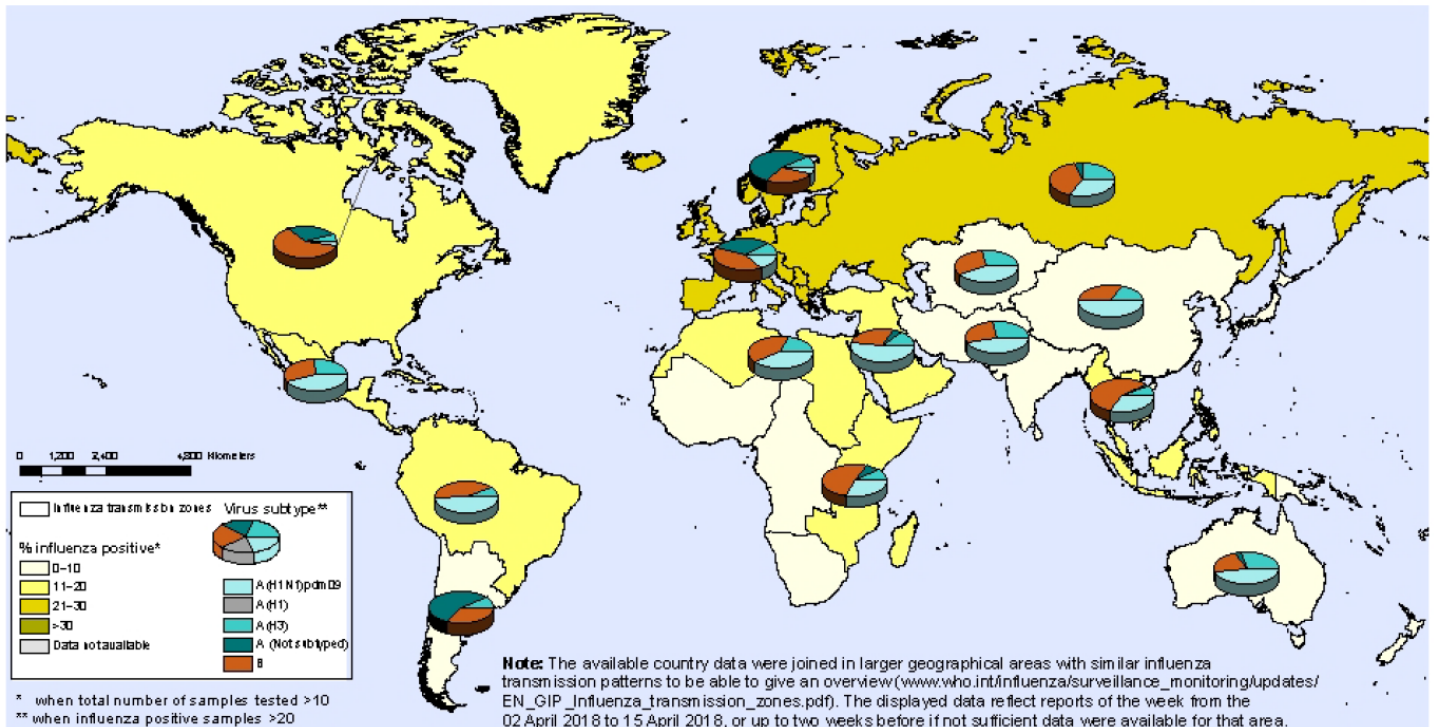
Influenza activity returned to inter-seasonal levels in most of the countries in the temperate zone of the northern hemisphere except for Eastern Europe. In the temperate zone of the southern hemisphere, influenza activity remained below the seasonal thresholds. Worldwide, seasonal influenza subtypes A and B accounted for approximately the same proportion of influenza detections.

National Influenza Centres (NICs) and other national influenza laboratories from 113 countries, areas or territories reported data to FluNet for the time period from 02 April 2018 to 15 April 2018 (data as of 2018-04-27 03:39:08 UTC). The WHO GISRS laboratories tested more than 137071 specimens during that time period of which 21639 were positive for influenza viruses. Among positive viruses 12034 (55.6%) were typed as influenza A and 9605 (44.4%) as influenza B. Of the sub-typed influenza A viruses, 3077 (58.2%) were influenza A(H1N1)pdm09 and 2211 (41.8%) were influenza A(H3N2). Of the characterized B viruses, 917 (88.7%) belonged to the B-Yamagata lineage and 117 (11.3%) to the B-Victoria lineage.

- In North America, overall influenza activity and influenza indicators continued to decrease. Type B was the more predominant type detected in the United States, while types A and B co-circulated in Canada.
- Overall, influenza viruses continued to circulate widely in the European region, but most of the countries reported low to medium intensity. In Eastern Europe, influenza activity decreased overall, but remained at high level in the Russian Federation with detections of influenza A and B viruses.
- In the Caribbean region, influenza activity continues to increase, especially in the Dominican Republic, Jamaica, Puerto Rico, and the French Territories. Influenza activity remains low in Central America, except for Guatemala and Honduras.
- In South America, influenza activity varied by country, with increases reported in Peru, Bolivia, and Brazil.

## Percentage of respiratory specimens that tested positive for influenza By influenza transmission zone

Status as of 27 April 2018



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).



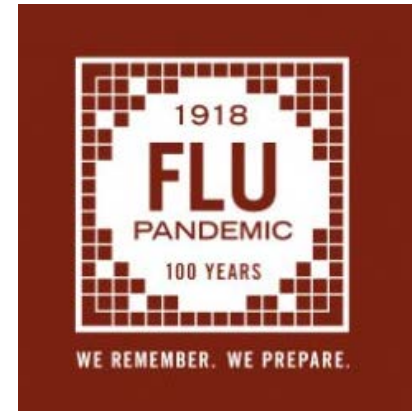
Reference: [http://www.who.int/influenza/surveillance\\_monitoring/updates/latest\\_update\\_GIP\\_surveillance/en/](http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/)

## Information from the Centers for Disease Control and Prevention regarding the 2017-2018

### Flu Season:

#### 2018 is the 100 year commemoration of the 1918 influenza pandemic

One hundred years ago the 1918 influenza pandemic devastated entire communities and took an estimated 675,000 American lives. It was the most severe pandemic in recent history, sweeping the globe quickly and killing more than 50 million people. For more than 70 years, CDC has used its science, surveillance, and service to address the continuing threat and burden of influenza. These efforts have dramatically improved influenza preparedness, yet seasonal and pandemic influenza viruses continue to pose a unique public health challenge as influenza viruses are constantly changing. As America's premier public health agency, CDC and its public health partners work together to address remaining gaps, increase our pandemic preparedness, and to minimize the effects of future influenza pandemics.



#### Are We Prepared?

Influenza and its ever-present potential to cause global outbreaks of disease, or “flu pandemics,” poses one of the world’s greatest infectious disease challenges. Pandemics happen when new (novel) influenza A viruses emerge which are able to infect people easily and spread from person to person in an efficient and sustained way. People may have little or no immunity to the pandemic virus, so the consequences can be severe. Four influenza pandemics occurred in the past century: 1918, 1957, 1968, and 2009. The 1918 pandemic was the most severe, killing 675,000 Americans and at least 50 million people worldwide.

CDC is working to protect Americans and the global community from the threat of a future flu pandemic, which could cause many more illnesses, hospitalizations and deaths than are seen during seasonal flu outbreaks and which could overwhelm the U.S. health care system. So, how prepared are we for the next flu pandemic? Many scientific and medical advances have been made to fight seasonal and pandemic flu. Developments since the 1918 influenza pandemic include vaccines to prevent flu, antiviral drugs (which are the main treatment for flu), and a global influenza surveillance system with 114 World Health Organization member states that constantly monitor flu activity. There is also a much better understanding of non-pharmaceutical interventions that help slow the spread of flu, such as social distancing, respiratory and cough etiquette and hand hygiene.



Red Cross Volunteers, 1918

The advances in pandemic preparedness and response are great, but there is still much to do to improve U.S. and global readiness for the next flu pandemic. This includes more broadly effective tools to prevent and treat flu. Better surveillance of flu viruses in animals is also needed. The 1918 pandemic centenary gives us an opportunity to explore the historic impact of this event and also reminds us that influenza is unpredictable and has the potential to cause devastating harm. CDC is committed to preparing for and responding to future flu pandemics. An effective response will save lives and diminish the potential for social and economic turmoil.

# INFLUENZA MILESTONES

1917 - 2009



Source: <https://www.cdc.gov/flu/pandemic-resources/1918-commemoration/index.htm>

**About this report:** Reporting agencies include labs, hospitals, long-term care and community-based care providers, physician offices, university clinic, correctional facility, 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 were obtained by syndromic surveillance system (Epicenter).

**Many thanks to all agencies who report Influenza-related data weekly.**

For additional information, please visit the 2017-2018 Influenza dashboard at: <https://www.scph.org/dashboards>

Reporting from participants may not be complete each week. Numbers may change as updated reports are received. For questions, please contact Joan Hall (jhall@sched.org) or Tracy Rodriguez (trodriguez@sched.org), Summit County Public Health Communicable Disease Unit (330-375-2662). This report was issued on May 11, 2018.