



**Summit County Public Health
Influenza Surveillance Report
2017 – 2018 Season
Report # 7**



**Flu Surveillance Weeks 13 & 14 (Beginning 12/31/2017 through 1/13/2018)
Centers for Disease Control and Prevention MMWR Weeks 1 & 2**

Summit County Surveillance Data:

In **Weeks 13 & 14** of influenza surveillance, influenza-related activity has significantly increased in Summit County.

Table 1: Overall Influenza Activity Indicators in Summit County by Week				
	MMWR Week 1 N (%)*	MMWR Week 2 N (%)*	Percent change from previous week	Number of weeks increasing or decreasing
Lab Reports				
Total Test Performed	1468	1500	2.2	↑5
Positive Tests (Number and %)	518(35)	454 (30)	-12.4	↓1
Influenza A (Number and %)	488(33)	405(27)	-17	↓1
Influenza B (Number and %)	30(2)	49(3)	63.3	↑2
Acute care hospitalization for Influenza:	205	123	-40	↓1
Influenza ILI Community Report:				
Long-term Care ILI	1	0	--100	↓1
Correctional & Addiction Facility	0	1	--	--
Physician Offices & University Clinic	14	21	50	↑2
Pharmacy Prescriptions				
Amantidine	2	5	150	↑1
Rimantidine Flumadine	0	0	--	--
Relenza	0	0	--	--
Oseltamivir Tamiflu	64	64		
<i>Total</i>	66	69	4.5	↑1
Schools** 7 Schools reporting	6753students	7137students		
Number Absent	308(4.6)	604(8.5)	96	↑1
Deaths (Total)	139	124		
Pneumonia associated	9 (6.5)	8 (6.4)	-11	↓1
Influenza associated	2(1.4)	4(3.2)	100	↑1
Emergency room visits (Epi Center)***	6382	6241		
Constitutional Complaints	936 (14.7)	779(12.5)	-17	↓1
Fever and ILI	147 (2.3)	125 (2.0)	-15	↓1
* N and % are reported when available				
**Percent is from total number of students enrolled at all schools reporting. WK 13 6573 and 7137 WK 14. reporting)				
***Percent is from total number of emergency room interactions				
³ Percentages should be interpreted with caution. Small changes in number can result in big changes in percent.				
^b 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 2 deaths associated with influenza in week 13 and 4 in week 14. **Figure 1** displays weekly Summit County death counts associated with pneumonia and influenza.

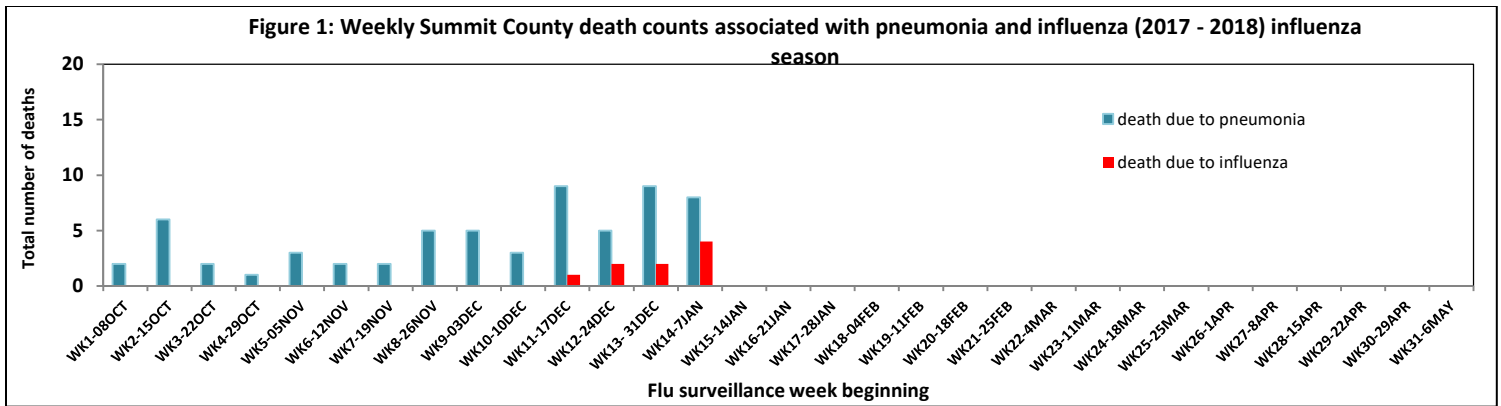
Acute Care Hospitalizations: 205 reported influenza associated hospitalizations during week 13, and 123 in week 14. **Figure 2** displays Influenza Associated Hospitalizations in Summit County.

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 was 1 case ILI from reporting Long Term Care facilities. **Correctional and Addiction facility:** One case of ILI reported **Physician Office and University Clinic:** During week 13, 14cases of ILI were reported and Week 14 reported 21 cases were reported.

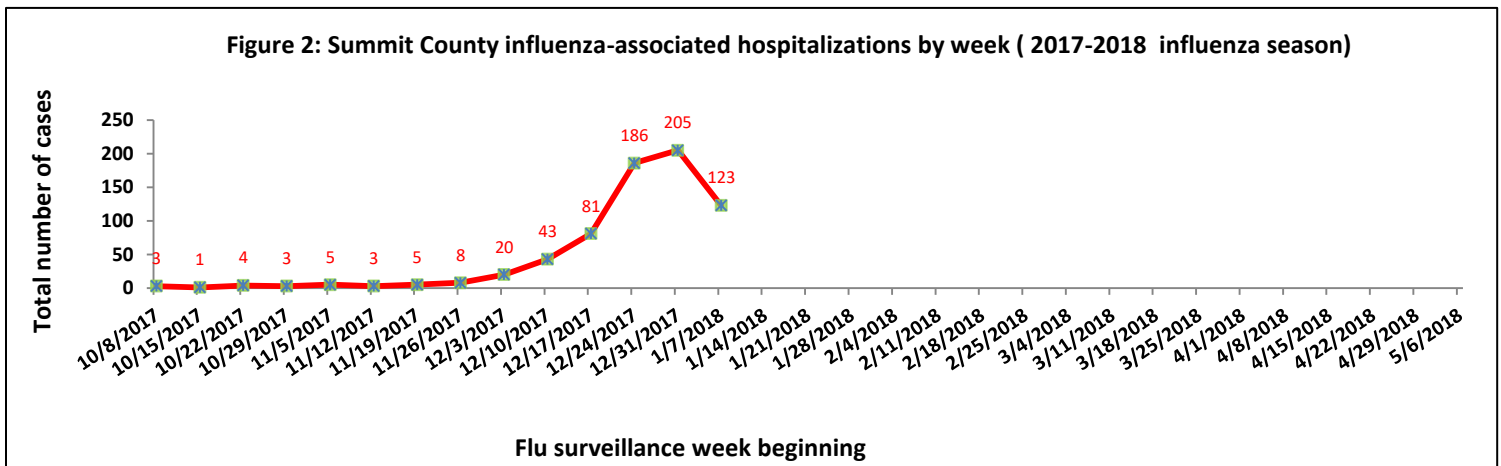
Pharmacy: 2 prescriptions for Amantadine were reported during week 13 and 64 prescriptions for Tamiflu. Week 14 had 5 prescriptions for Amantadine and 64 prescriptions for Tamiflu.

School absenteeism includes absences regardless of reason. In WK 13, there were 308 absences and in WK 14 604 absences. Schools were closed several days due to weather.

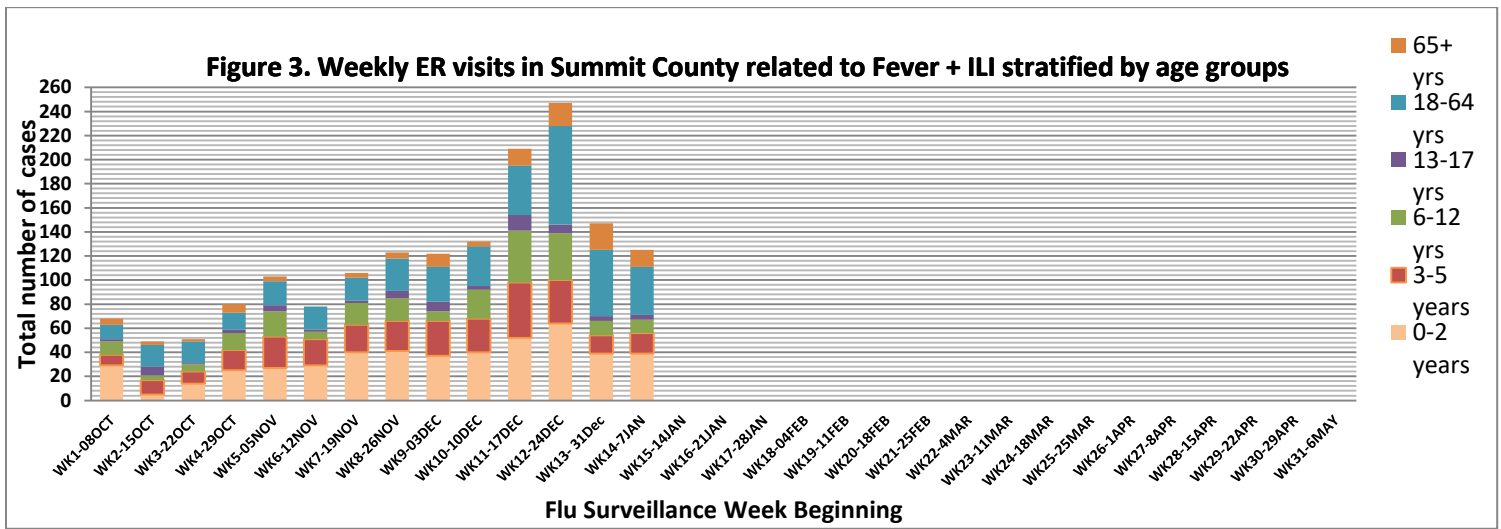
Lab reports: During week 13 Summit County labs performed 1468 tests, of which 488 tested positive for influenza A & 30 for Influenza B. Week 14 there were 1500 total tests - 405 A and 49 B. See **Figure 4**.

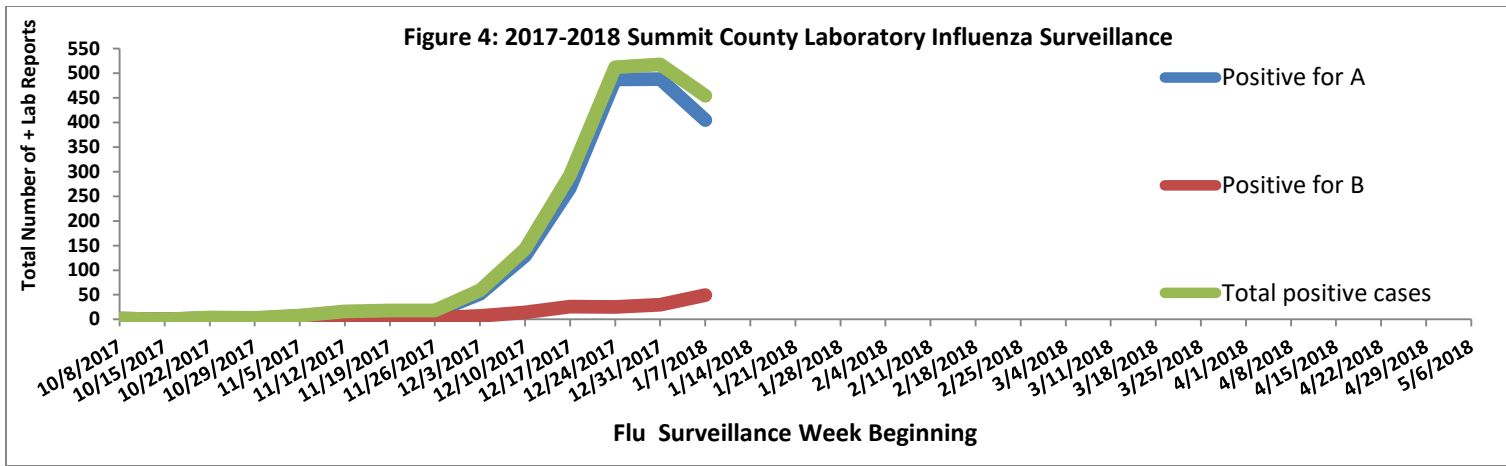


Influenza-associated hospitalization: Summit County hospitals reported 205 influenza-associated hospitalizations in WK 13 and 123 hospitalizations during week 14. **Figure 2** displays weekly confirmed hospitalization count for Summit County (cumulative count to date =690).



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, stratified by age group. During weeks 13 & 14, adults (18-64) and infants (0-2) had the most ER visits related to ILI.





Ohio Influenza Activity: From the Ohio Department of Health:

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 1, public health surveillance data sources indicate increasing influenza-like illness (ILI) activity in outpatient settings reported by Ohio’s sentinel ILI Net providers. Outpatient medical claims related to influenza-like illness are above seasonal threshold levels but decreased for the first time in several weeks during MMWR Week 1. 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 1750 influenza-associated hospitalizations reported

Ohio Influenza Activity Summary Dashboard:

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)	4.57%	5.54%	↑ 5	
Thermometer Sales (National Retail Data Monitor)	2594	8.90%	↑ 4	
Fever and ILI Specified ED Visits (EpiCenter)	3.30%	-8.84%	↓ 1	
Constitutional ED Visits (EpiCenter)	14.45%	-0.14%	↓ 1	
Confirmed Influenza-associated Hospitalizations (Ohio Disease Reporting System)	1750	89.19%	↑ 8	
Outpatient Medical Claims Data ⁴	2.60%	-10.03%	↓ 1	

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.

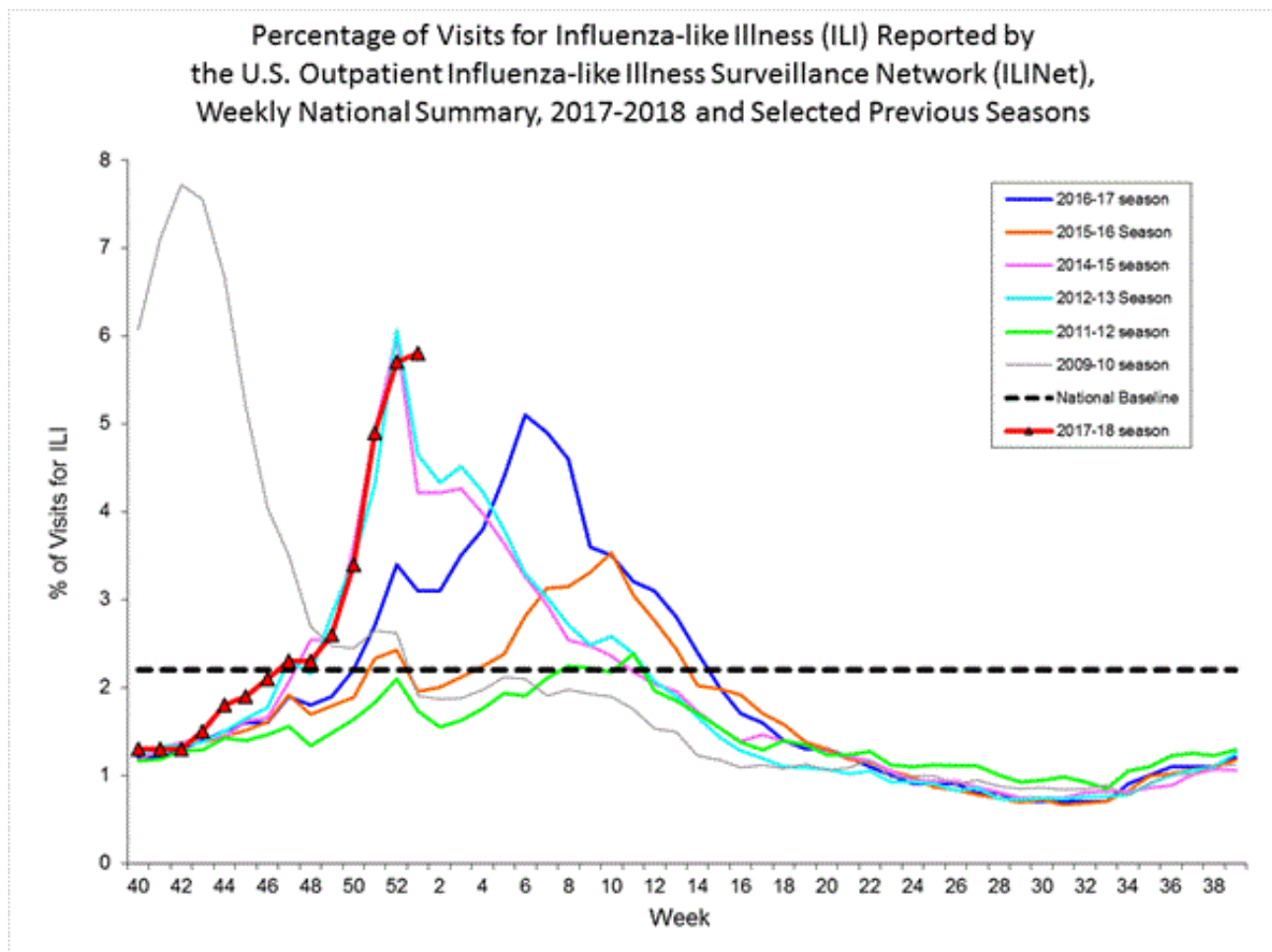
³Black lines represent current week's data; red lines represent baseline averages

⁴Medical Claims Data provided by athenahealth®

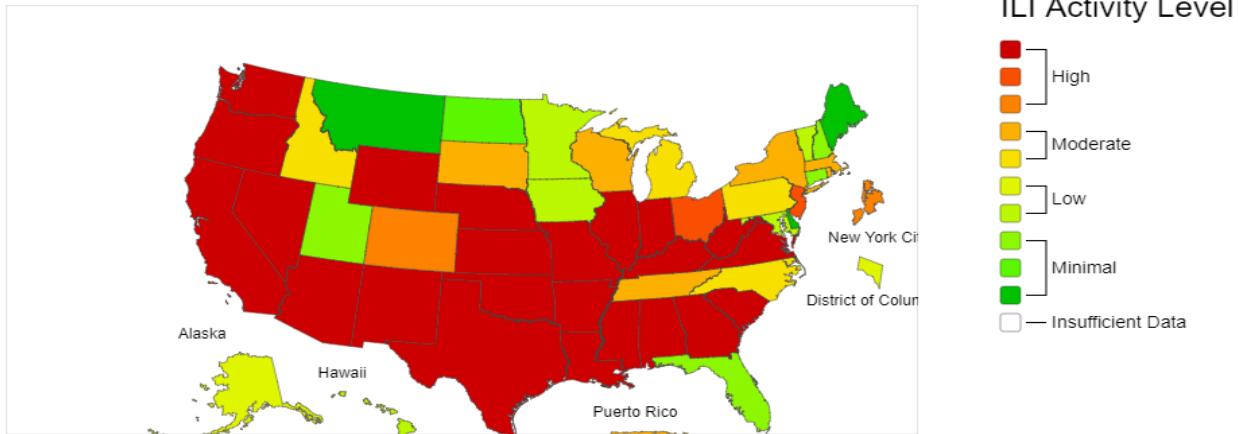
National Surveillance: from the Centers for Disease Control and Prevention (CDC):

During MMWR week 1 (December 31, 2017-January 6, 2018), influenza activity increased in the United States.

- **Viral Surveillance:** The most frequently identified influenza virus subtype reported by public health laboratories during week 1 was influenza A(H3). The percentage of respiratory specimens testing positive for influenza in clinical laboratories remained elevated.
- **Pneumonia and Influenza Mortality:** The proportion of deaths attributed to pneumonia and influenza (P&I) was at the system-specific epidemic threshold in the National Center for Health Statistics (NCHS) Mortality Surveillance System.
- **Influenza-associated Pediatric Deaths:** Seven influenza-associated pediatric deaths were reported.
- **Influenza-associated Hospitalizations:** A cumulative rate of 22.7 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 5.8%, which is above the national baseline of 2.2%. All 10 regions reported ILI at or above region-specific baseline levels. New York City and 26 states experienced high ILI activity; Puerto Rico and 10 states experienced moderate ILI activity; the District of Columbia and six states experienced low ILI activity; and eight states experienced minimal ILI activity.
- **Geographic Spread of Influenza:** The geographic spread of influenza in 49 states was reported as widespread; Guam and one state reported regional activity; the District of Columbia reported local activity; the U.S. Virgin Islands reported sporadic activity; and Puerto Rico did not report.



2017-18 Influenza Season Week 1 ending Jan 06, 2018

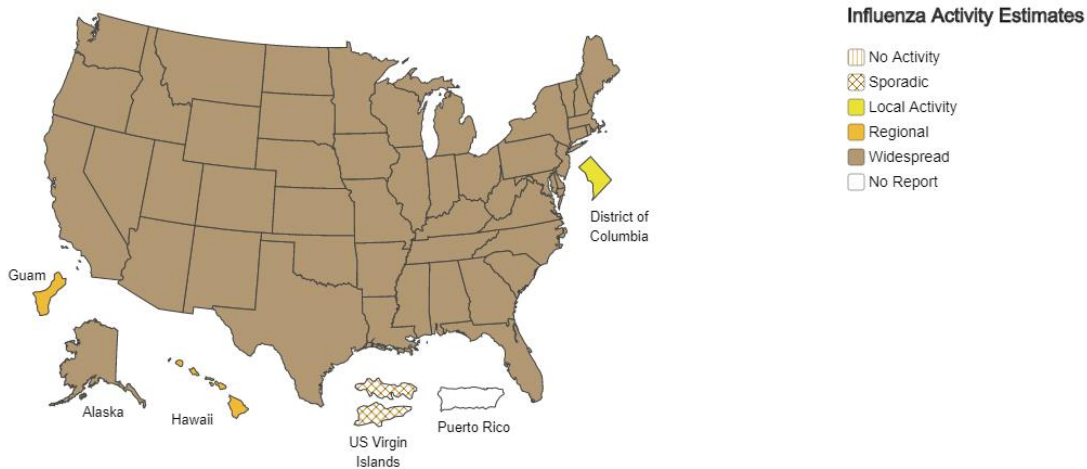


*This map uses the proportion of outpatient visits to healthcare providers for influenza-like illness to measure the ILI activity level within a state. It does not, however, measure the extent of geographic spread of flu within a state. Therefore, outbreaks occurring in a single city could cause the state to display high activity levels.
 *Data collected in ILINet may disproportionately represent certain populations within a state, and therefore may not accurately depict the full picture of influenza activity for the whole state.
 *Data displayed in this map are based on data collected in ILINet, whereas the State and Territorial flu activity map are based on reports from state and territorial epidemiologists. The data presented in this map is preliminary and may change as more data is received.
 *Differences in the data presented by CDC and state health departments likely represent differing levels of data completeness with data presented by the state likely being the more complete.
 *For the data download you can use Activity Level for the number and Activity Level Label for the text description.

A Weekly Influenza Surveillance Report Prepared by the Influenza Division

Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists*

Week Ending Jan 06, 2018 - Week 1



*This map indicates geographic spread and does not measure the severity of influenza activity.

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

Global Surveillance: from the World Health Organization:

Influenza activity continued to increase in the temperate zone of the northern hemisphere while in the temperate zone of the southern hemisphere activity was at inter-seasonal levels. Worldwide, influenza A(H3N2) and B viruses accounted for the majority of influenza detections although influenza A(H1N1)pdm09 viruses were predominant in some countries.

In North America, overall influenza activity continued to increase in the region, with detections of predominantly influenza A(H3N2) viruses.

In Europe, influenza activity increased above baseline levels in most countries in Northern and Southwestern Europe with sharp increases in respiratory illness indicators in some countries. Activity remained low in countries in Eastern Europe. Influenza B virus detections remained frequent and the subtype of the influenza A viruses detected varied depending on the country and the surveillance system (outpatient or inpatient systems).

In Western Asia, increasing influenza activity was reported in Israel and Jordan with predominantly influenza B and A(H1N1)pdm09 virus detections, respectively.

In Central Asia, low to no influenza activity was reported.

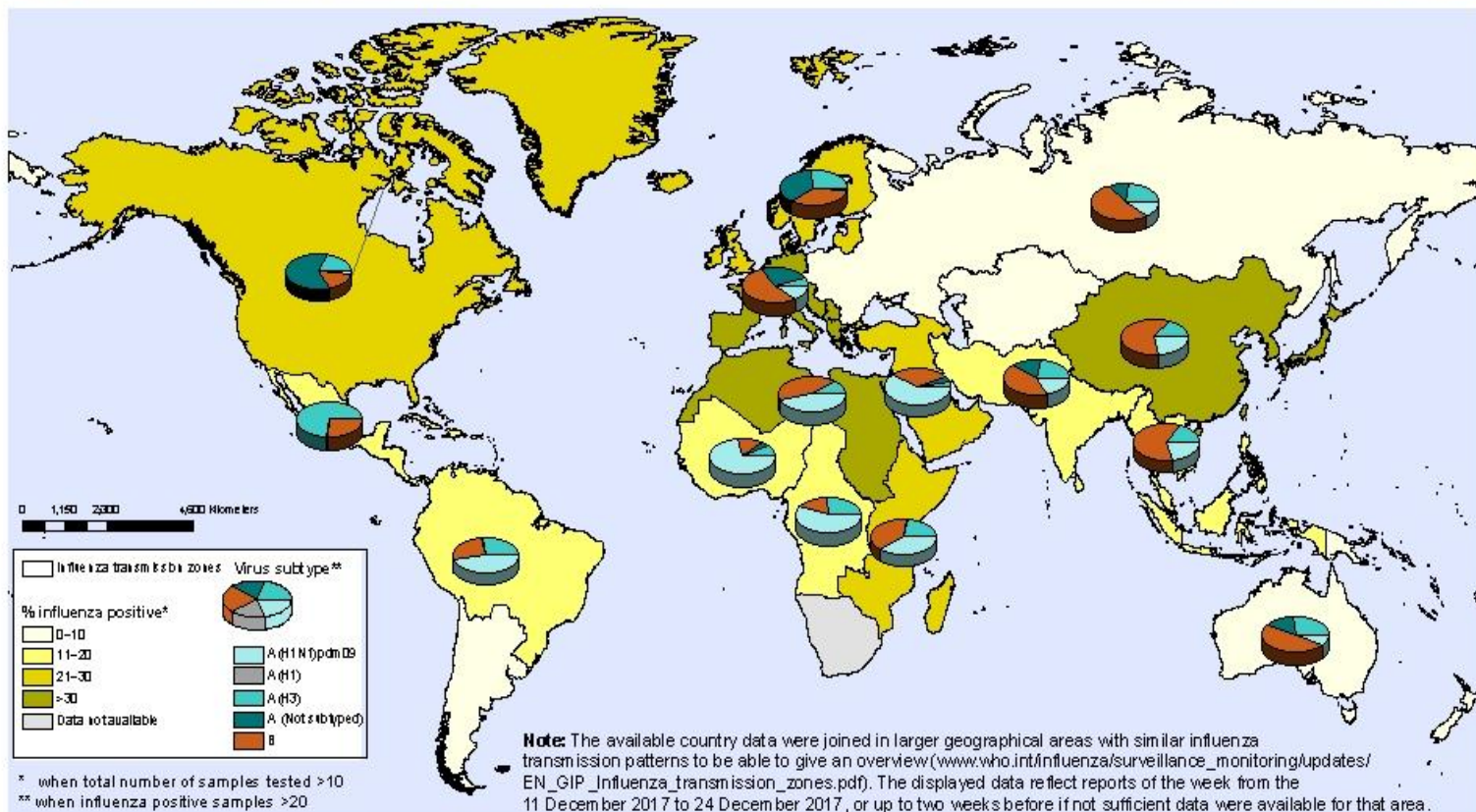
In the Caribbean and Central American countries, low to no influenza activity was reported.

In the tropical countries of South America, low to no influenza activity was reported.

In the temperate zone of the Southern Hemisphere, influenza activity decreased overall to inter-seasonal levels.

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

Status as of 07 January 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/flu-net).

 **World Health Organization**
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Reference: http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/

Prompt Use of Antivirals is Key this Flu Season

The sharp increase in influenza A(H3N2) activity in the United States has prompted the CDC to release a health advisory emphasizing the importance of its antiviral treatment recommendations this season.

The [December 27 health advisory](#) published via CDC's Health Alert Network (HAN) highlights the potential for influenza A(H3N2) virus-predominant season to be associated with more hospitalizations and deaths in persons aged 65 years and older and young children compared with other age groups.

The CDC provides the following important information for patients:

- If you get sick with flu, antiviral drugs can be used to treat your illness.
- It is very important that antiviral drugs are used early to treat hospitalized patients, people with severe flu illness, and people who are at [high risk of serious flu complications](#) based on their age or health.
- If you have severe illness or are at high risk of serious flu complications, you may be treated with flu antiviral drugs if you get sick with flu.
- For people with a high-risk condition, treatment with an antiviral drug can mean the difference between having milder illness instead of very serious illness that could result in a hospital stay.
- Other people also may be treated with antiviral drugs by their doctor this season, based on the clinical judgment of their doctor.
- Antiviral drugs work best when started within two days of symptoms first appearing, but there are data to suggest they can still be beneficial in very ill patients even up to five days after getting sick. This would be especially important for a person who is at high risk of serious flu complications and who is very sick.
- If your health care provider thinks you have the flu, your health care provider may prescribe antiviral drugs. Your provider may sometimes order a test for flu, but this is not necessary for treatment to begin.
- Antibiotics don't work on viruses like those such as those that cause flu. It is important to remember that anytime you take antibiotics it can lead to antibiotic resistance and cause side effects. Antibiotics can be effective against bacterial co-infection with flu virus infection, but are not needed if bacterial infection is not suspected.
- Other practices that may help decrease the spread of influenza include respiratory hygiene, social distancing (e.g., staying home from work and school when ill, staying away from people who are sick) and hand washing.
- Antiviral drugs are not a substitute for getting a flu vaccine. While flu vaccine can vary in how well it works, a flu vaccine is the first and best way to **prevent seasonal influenza**. Antiviral drugs are a second line of defense to **treat** the flu (including [seasonal flu](#) and [variant flu viruses](#)) if you get sick.

People at high risk for serious complications from influenza include:

- [Children younger than 5, but especially children younger than 2 years old](#)
- [Adults 65 years of age and older](#)
- [Pregnant women](#) (and women up to two weeks postpartum)
- Residents of nursing homes and other [long-term care facilities](#)
- [American Indians and Alaskan Natives](#)
- People who have certain chronic medical conditions, including:
 - [Asthma](#)
 - Neurological and neurodevelopmental conditions (including disorders of the brain, spinal cord, peripheral nerve, and muscle such as cerebral palsy, epilepsy [seizure disorders], stroke, intellectual disability [mental retardation], moderate to severe developmental delay, muscular dystrophy, or spinal cord injury)
 - Chronic lung disease (such as chronic obstructive pulmonary disease [COPD] and cystic fibrosis)
 - [Heart disease](#) (such as congenital heart disease, congestive heart failure and coronary artery disease)
 - Blood disorders (such as sickle cell disease)
 - Endocrine disorders (such as [diabetes](#) mellitus)
 - Kidney disorders
 - Liver disorders
 - Metabolic disorders (such as inherited metabolic disorders and mitochondrial disorders)
 - Weakened immune system due to disease or medication (such as people with [HIV or AIDS](#), or [cancer](#), or those on chronic steroids)
 - People younger than 19 years of age who are receiving aspirin therapy
 - People with extreme obesity (body mass index [BMI] of 40 or greater)

Reference: <https://www.cdc.gov/features/flu-antivirals/index.html>

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 are obtained by syndromic surveillance system (Epicenter).

Many 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 Tracy Rodriguez, Summit County Public Health Communicable Disease Unit. This report was issued on January 19, 2018.