



**Summit County Public Health
Influenza Surveillance Report
2017 – 2018 Season
Report # 9**



**Flu Surveillance Weeks 17 & 18 (Beginning 1/28/2018 through 2/10/2018)
Centers for Disease Control and Prevention MMWR Weeks 5 & 6**

Summit County Surveillance Data:

In **Weeks 17 & 18** of influenza surveillance, influenza-related activity has slightly decreased in Summit County.

Table 1: Overall Influenza Activity Indicators in Summit County by Week				
	Week 5 N (%)*	Week 6 N (%)*	Percent change from previous week	Number of weeks increasing or decreasing
Lab Reports				
Total Test Performed	1611	1619	0.5	↑1
Positive Tests (Number and %)	461 (28.6)	441 (27.2)	-4.3	↓2
Influenza A (Number and %)	349 (21.7)	297 (18.3)	-14.9	↓2
Influenza B (Number and %)	112 (7.0)	144 (8.9)	28.6	↑6
Acute care hospitalization for Influenza:	60	72	20.0	↑1
Influenza ILI Community Report:				
Long-term Care ILI	2	1	-50.0	↓1
Correctional & Addiction Facility	3	1	-66.7	↓1
Physician Offices & University Clinic	26	20	-23.1	↓1
Pharmacy Prescriptions				
Amantidine	1	1	--	--
Rimantidine Flumadine	0	0	--	--
Relenza	0	0	--	--
Oseltamivir Tamiflu	101	76	-24.8	↓1
<i>Total</i>	102	77	-27.4	↓1
School Absenteeism (%)**	23.5	19.5	-17.0	↓1
Deaths (Total)				
Pneumonia associated	4 (3.6)	7 (6.6)	75.0	↑1
Influenza associated	1 (0.9)	2 (1.9)	100.0	↑1
Emergency room visits (Epi Center)***				
Constitutional Complaints	895 (14.7)	886 (14.4)	-1.0	↓1
Fever and ILI	158 (2.6)	145 (2.4)	-8.2	↓2
* 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				
§ 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 was 1 influenza associated death reported in week 17 and 2 in week 18 **Figure 1** displays weekly Summit County death counts associated with pneumonia and influenza.

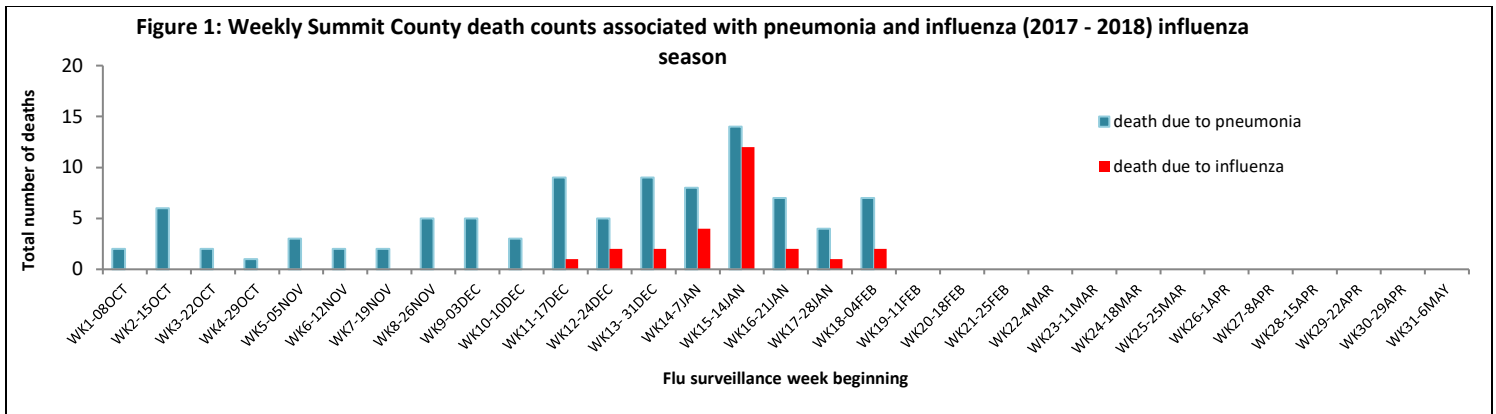
Acute Care Hospitalizations: 60 reported influenza associated hospitalizations during week 17, and **72** in week 18. **Figure 2** displays Influenza Associated Hospitalizations in Summit County.

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 were a total of 3 cases of ILI reported from Long Term Care facilities in weeks 17 & 18. **Correctional and Addiction facility:** There was one case of ILI reported in week 4. **Physician Office and University Clinic:** During week 17, 26 cases of ILI were reported and Week 18 reported 10 cases.

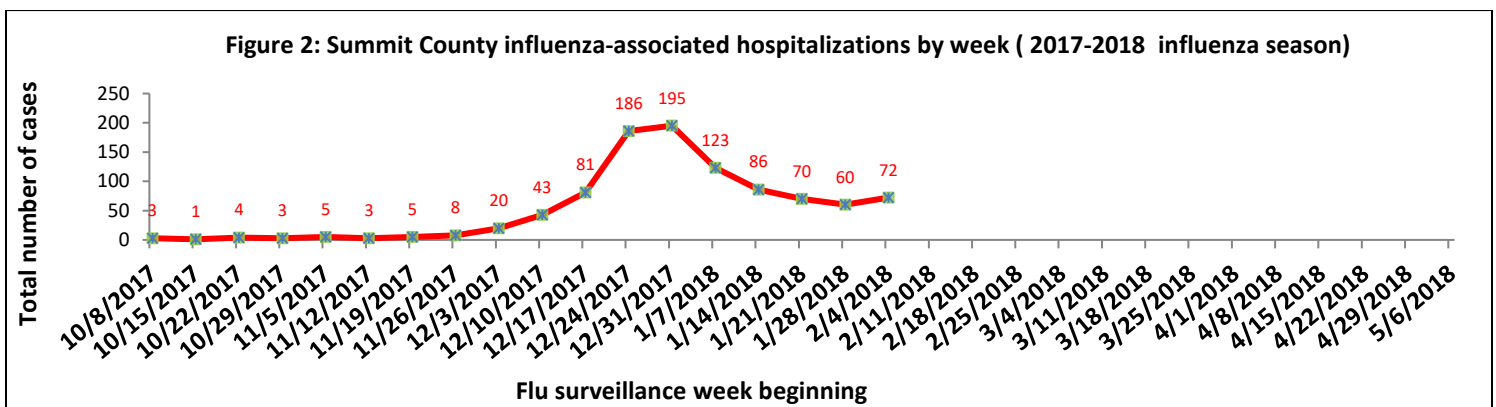
Pharmacy: 1 prescription for Amantidine was reported during week 17 and 101 prescriptions for Tamiflu. Week 18 had 1 prescription for Amantidine and 76 prescriptions for Tamiflu.

School absenteeism includes absences regardless of reason. In WK 17, there was an absence rate of 23.5% and in WK 18 the absence rate was 19.5%.

Lab reports: During week 17 Summit County labs performed 1611 tests, of which 349 tested positive for influenza A & 112 for Influenza B. For week 18 there were 1619 total tests: 297 A and 144 B. See **Figure 4**.



Influenza-associated hospitalization: Summit County hospitals reported 60 influenza-associated hospitalizations in WK 17 and 72 hospitalizations during week 18. **Figure 2** displays weekly confirmed hospitalization count for Summit County (**cumulative count to date = 968**).



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. **Figures 3** displays the weekly number of ER visits related to ILI and flu symptoms in Summit County, stratified by age group. During weeks 17, adults (18-64), children (6-12), and infants (0-2) and during week 188 adults (18-64) and children (6-12) had the most visits related to ILI.

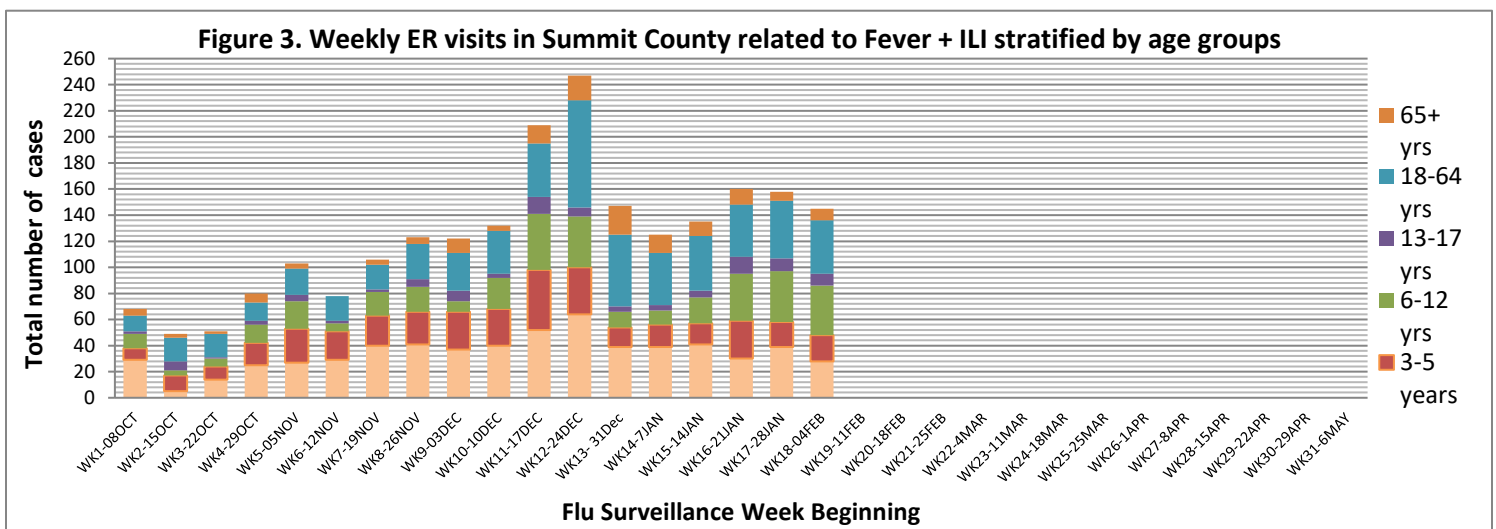
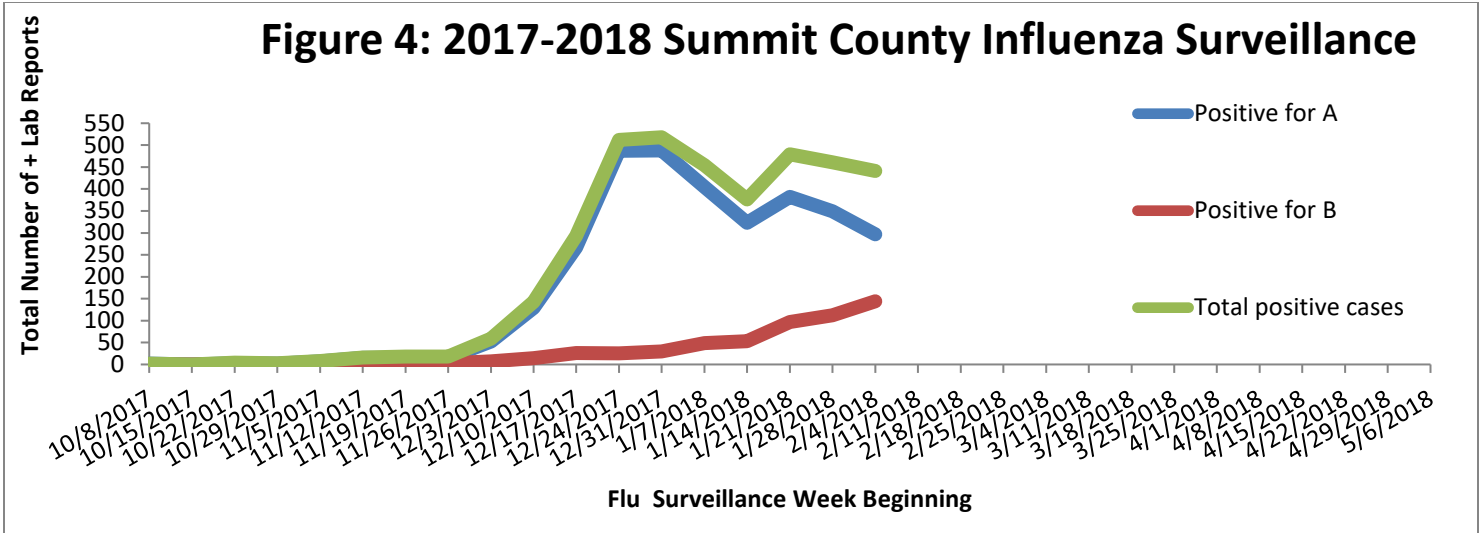


Figure 4: 2017-2018 Summit County Influenza Surveillance



Ohio Influenza Activity: From the Ohio Department of Health:

Current 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.

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)	4.62%	15.50%	↑ 3	
Thermometer Sales (National Retail Data Monitor)	3741	14.61%	↑ 8	
Fever and ILI Specified ED Visits (EpiCenter)	4.08%	12.71%	↑ 2	
Constitutional ED Visits (EpiCenter)	17.27%	7.07%	↑ 11	
Confirmed Influenza-associated Hospitalizations (Ohio Disease Reporting System)	1126	-10.63%	↓ 3	
Outpatient Medical Claims Data ⁴	3.40%	1.80%	↑ 2	

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®

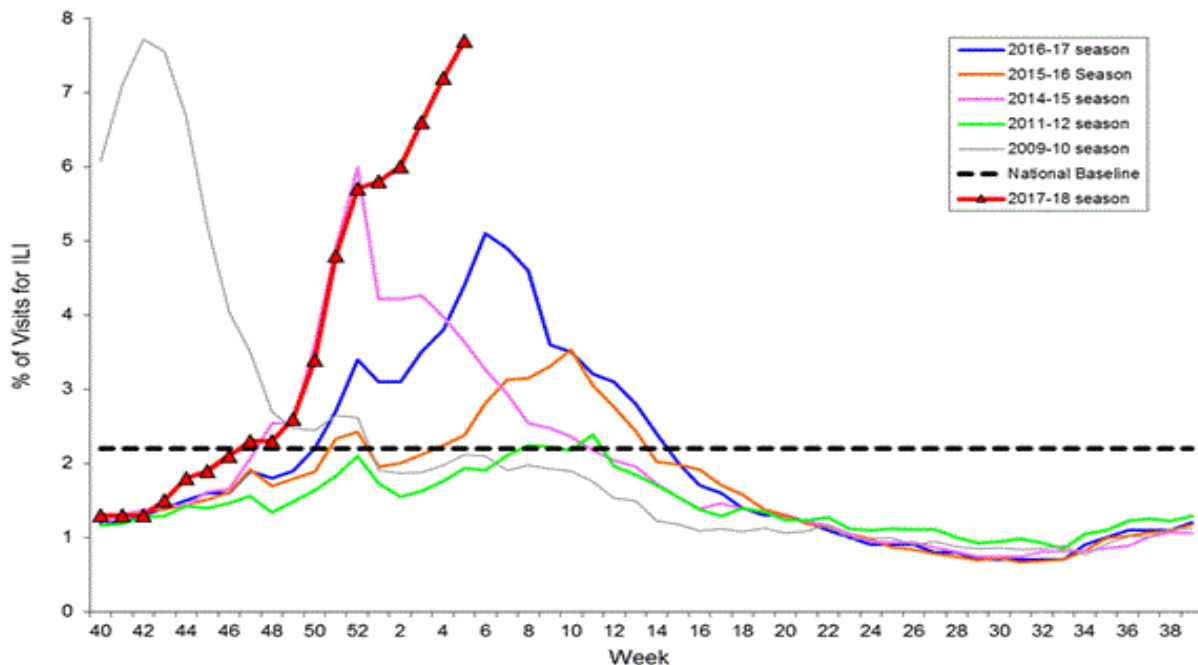
*The seasonal threshold is 25 cases of influenza-associated hospitalizations; historical data demonstrate that once the weekly count exceeds 25 cases, the number of weekly cases thereafter will likely not decrease until after the peak of influenza activity for the season

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

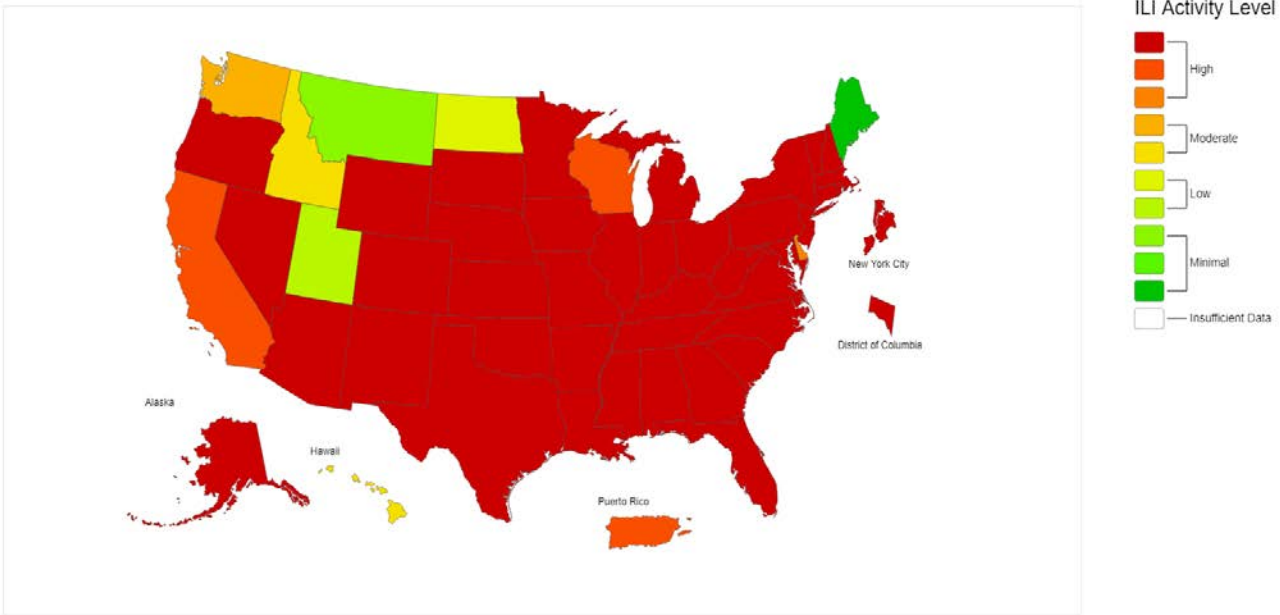
During week 5 (January 28-February 3, 2018), influenza activity increased in the United States.

- **Viral Surveillance:** The most frequently identified influenza virus subtype reported by public health laboratories during week 5 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 above the system-specific epidemic threshold in the National Center for Health Statistics (NCHS) Mortality Surveillance System.
- **Influenza-associated Pediatric Deaths:** Ten influenza-associated pediatric deaths were reported.
- **Influenza-associated Hospitalizations:** A cumulative rate of 59.9 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 7.7%, which is above the national baseline of 2.2%. All 10 regions reported ILI at or above region-specific baseline levels. New York City, the District of Columbia, Puerto Rico and 43 states experienced high ILI activity; three states experienced moderate ILI activity; two states experienced low ILI activity; and two states experienced minimal ILI activity.
- **Geographic Spread of Influenza:** The geographic spread of influenza in Puerto Rico and 48 states was reported as widespread; two states reported regional activity; the District of Columbia and Guam reported local activity; and the U.S. Virgin Islands reported sporadic activity.

Percentage of Visits for Influenza-like Illness (ILI) Reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, 2017-2018 and Selected Previous Seasons



2017-18 Influenza Season Week 5 ending Feb 03, 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 Feb 03, 2018 - Week 5



*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:

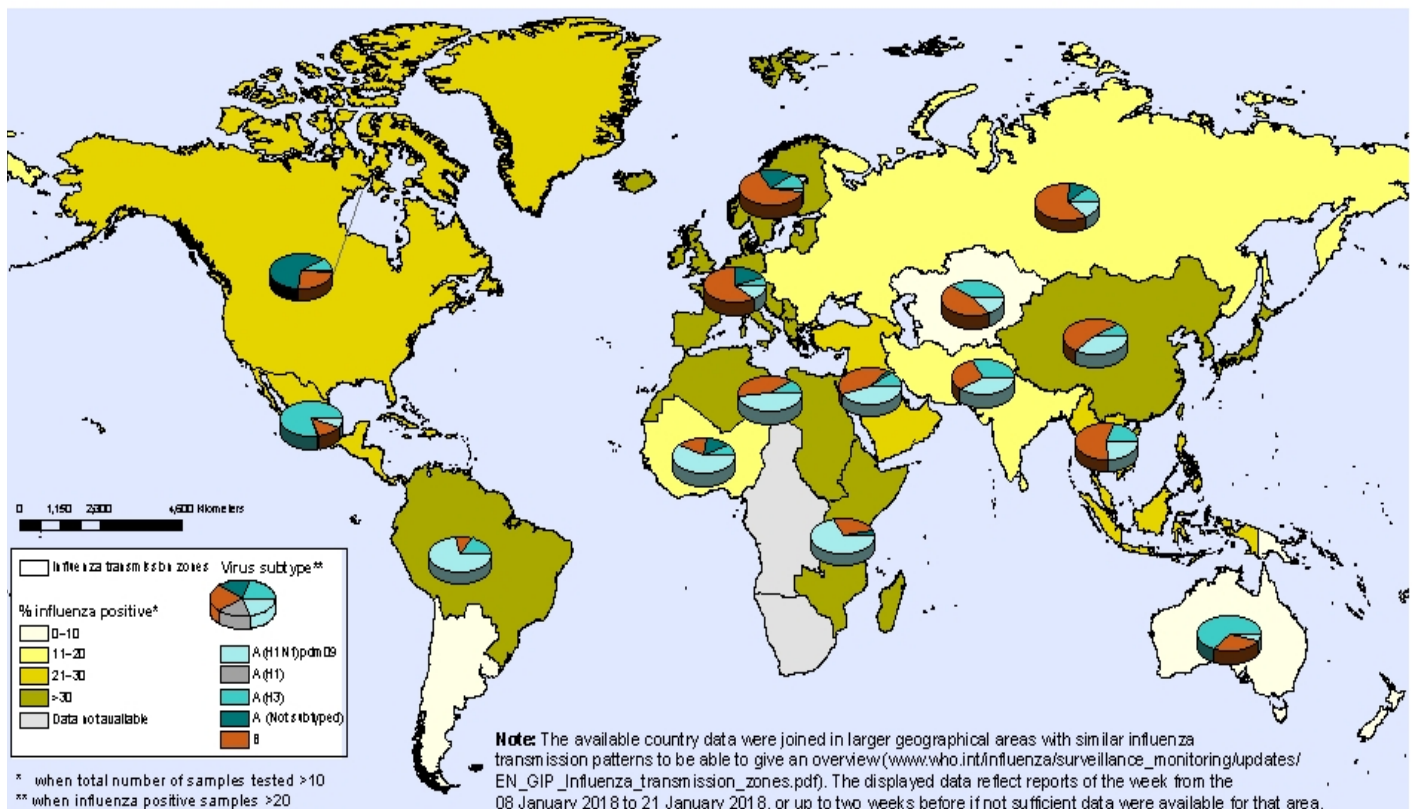
Influenza activity remained high in the temperate zone of the northern hemisphere while in the temperate zone of the southern hemisphere activity was at inter-seasonal levels. Worldwide, influenza A accounted still for the majority of influenza detections but influenza B (mostly from the Yamagata lineage) increased in recent weeks.

Up to now, the majority of countries which are in the influenza season, reported influenza like illness reaching moderate levels in comparison with previous years, with few reaching levels exceeding those of previous years. Some countries however have reported levels of hospitalization and ICU admissions reaching or exceeding peak levels of previous influenza seasons. WHO recommends countries with current influenza activity or entering their season to adopt necessary measures for ensuring appropriate case management, compliance with infection control measures and seasonal influenza vaccination for high risk groups.

- In North America, overall influenza activity remained high, with detections of predominantly influenza A(H3N2) viruses.
- In Europe, influenza activity remained high in Northern and Southwestern Europe, and peaked in few countries but started to increase in Eastern Europe. Influenza B remained the virus most frequently detected and the subtype of the influenza A viruses detected varied depending on the country and the surveillance system.
- In the Caribbean and Central American countries, respiratory illness indicators and influenza activity remained low in general.
- In the tropical countries of South America, influenza activity and respiratory illness indicators were generally low, with exception of Ecuador

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

Status as of 01 February 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).



Reference: http://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/

Misconceptions about Flu Vaccines

Can a flu shot give you the flu?

No, a flu shot cannot cause flu illness. Flu vaccines given with a needle are currently made in two ways: the vaccine is made either with a) flu vaccine viruses that have been 'inactivated' and are therefore not infectious, or b) with no flu vaccine viruses at all (which is the case for recombinant influenza vaccine). The most common side effects from the influenza shot are soreness, redness, tenderness or swelling where the shot was given. Low-grade fever, headache and muscle aches also may occur.

In randomized, blinded studies, where some people get inactivated flu shots and others get salt-water shots, the only differences in symptoms was increased soreness in the arm and redness at the injection site among people who got the flu shot. There were no differences in terms of body aches, fever, cough, runny nose or sore throat.

- Carolyn Bridges et al. (2000). [Effectiveness and cost-benefit of influenza vaccination of healthy working adults: A randomized controlled trial.](#)
- Kristin Nichol et al. (1995). [The effectiveness of vaccination against influenza in healthy working adults.](#) New England Journal of Medicine. 333(14): 889-893.

Are any of the available flu vaccines recommended over the others?

For the 2017-2018 flu season, the [Advisory Committee on Immunization Practices \(ACIP\)](#) recommends annual influenza vaccination for everyone 6 months and older with either the inactivated influenza vaccine (IIV) or the recombinant influenza vaccine (RIV). The nasal spray flu vaccine (live attenuated influenza vaccine or LAIV) should not be used during 2017-2018. There is no preference for one vaccine over another among the recommended, approved injectable influenza vaccines. There are [many vaccine options](#) to choose from, but the most important thing is for all people 6 months and older to get a flu vaccine every year. If you have questions about which vaccine is best for you, talk to your doctor or other health care professional.

Is it better to get the flu than the flu vaccine?

No. Flu can be a serious disease, particularly among young children, older adults, and people with certain chronic health conditions, such as asthma, heart disease or diabetes. Any flu infection can carry a risk of serious complications, hospitalization or death, even among otherwise healthy children and adults. Therefore, getting vaccinated is a safer choice than risking illness to obtain immune protection.

Do I really need a flu vaccine every year?

Yes. CDC recommends a yearly flu vaccine for just about everyone 6 months and older, even when the viruses the vaccine protects against have not changed from the previous season. The reason for this is that a person's immune protection from vaccination declines over time, so a yearly vaccination is needed to get the "optimal" or best protection against the flu.

Why do some people not feel well after getting the seasonal flu vaccine?

Some people report having mild reactions to flu vaccination. The most common reaction to the flu shot in adults has been soreness, redness or swelling at the spot where the shot was given. This usually lasts less than two days. This initial soreness is most likely the result of the body's early immune response reacting to a foreign substance entering the body. Other reactions following the flu shot are usually mild and can include a low grade fever and aches. If these reactions occur, they usually begin soon after the shot and last 1-2 days. The most common reactions people have to flu vaccine are considerably less severe than the symptoms caused by actual flu illness.

What about serious reactions to flu vaccine?

Serious allergic reactions to flu vaccines are very rare. If they do occur, it is usually within a few minutes to a few hours after the vaccination. While these reactions can be life-threatening, effective treatments are available.

What about people who get a seasonal flu vaccine and still get sick with flu symptoms?

There are several reasons why someone might develop flu symptoms, even after they have been vaccinated against flu.

1. One reason is that some people can become ill from other respiratory viruses besides flu such as rhinoviruses, which are associated with the common cold, cause symptoms similar to flu, and also spread and cause illness during the flu season. The flu vaccine only protects against influenza, not other illnesses.
2. Another explanation is that it is possible to be exposed to influenza viruses, which cause the flu, shortly before getting vaccinated or during the two-week period after vaccination that it takes the body to develop immune protection. This exposure may result in a person becoming ill with flu before protection from the vaccine takes effect.
3. A third reason why some people may experience flu like symptoms despite getting vaccinated is that they may have been exposed to a flu virus that is very different from the viruses the vaccine is designed to protect against. The ability of a flu vaccine to protect a person depends largely on the similarity or “match” between the viruses selected to make the vaccine and those spreading and causing illness. There are many different flu viruses that spread and cause illness among people. For more information, see [Influenza \(Flu\) Viruses](#).
4. The final explanation for experiencing flu symptoms after vaccination is that the flu vaccine can vary in how well it works and some people who get vaccinated may still get sick.

Reference: <https://www.cdc.gov/flu/about/ga/misconceptions.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 are 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 McKenzie McConaha, Joan Hall or Tracy Rodriguez, Summit County Public Health Communicable Disease Unit. Report was issued on February 16, 2018.