



**Summit County Public Health
Influenza Surveillance Report
2017 – 2018 Season
Report # 6**



**Flu Surveillance Weeks 11 & 12 (Beginning 12/17/2017 through 12/30/2017)
Centers for Disease Control and Prevention MMWR Weeks 51 & 52**

Summit County Surveillance Data:

In **Weeks 11 & 12** of influenza surveillance, influenza-related activity has significantly increased in Summit County.

Table 1: Overall Influenza Activity Indicators in Summit County by Week				
	Week 51 N (%)*	Week 52 N (%)*	Percent change from previous week	Number of weeks increasing or decreasing
Lab Reports				
Total Test Performed	1003	1459		
Positive Tests (Number and %)	293 (29.2)	512(35)	74.7	↑4
Influenza A (Number and %)	267 (26.6)	487(33)	82.3	↑4
Influenza B (Number and %)	26 (2.6)	25 (17)	-3.8	↑3
Acute care hospitalization for Influenza:	81	47	135	↑3
Influenza ILI Community Report:				
Long-term Care ILI	0	0	--	--
Correctional & Addiction Facility	0	0	--	--
Physician Offices & University Clinic	0	1		↑1
Pharmacy Prescriptions				
Amantidine	4	3	-25	↓1
Rimantidine Flumadine	0	0	--	--
Relenza	0	0	--	--
Oseltamivir Tamiflu	9	14	55	↑3
Total	13	17	30.8	↑3
Schools** 7 Schools reporting				
Number Absent	1464 (20.5)	1334	-8.9	↓1
Deaths (Total)				
Pneumonia associated	5 (5.2)	3 (2.2)	-40	↓1
Influenza associated	0	0	--	--
Emergency room visits (Epi Center)***				
Constitutional Complaints	892 (13.7)	1035 (15.8)	16.0	↑5
Fever and ILI	209(3.1)	247(3.8)	18.2	↑5
* N and % are reported when available				
**Percent is from total number of students enrolled at all schools reporting. WK 11 (1) and WK 12 schools closed.				
***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.)				

The first death related to influenza was reported during WK 11 & 12, however there were **8** total deaths associated with pneumonia. **Figure 1** displays weekly Summit County death counts associated with pneumonia and influenza.

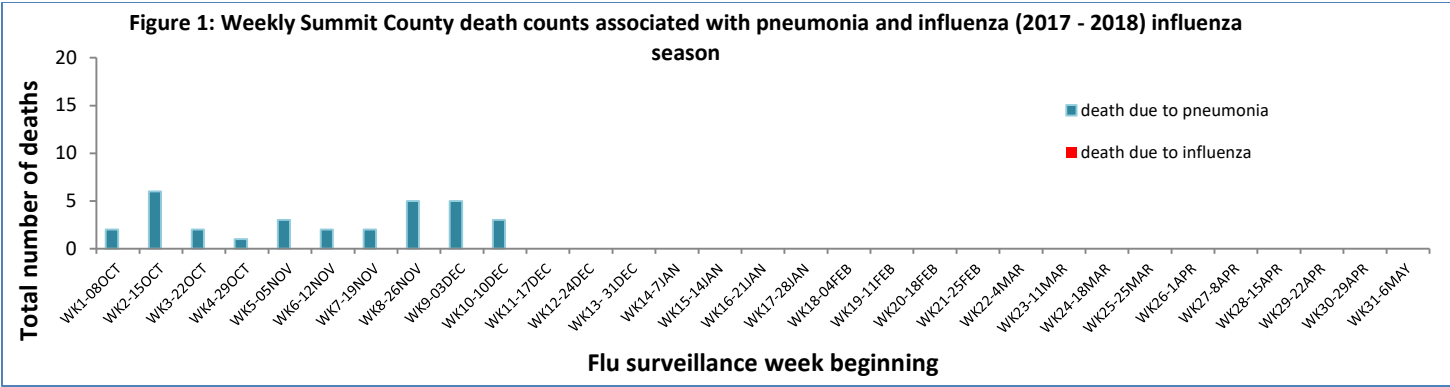
Acute Care Hospitalizations: 81 reported influenza associated hospitalizations during week 11, and **43** in week 12. **Figure 2** displays Influenza Associated Hospitalizations in Summit County.

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 2 cases ILI reported from Long Term Care facilities. **Correctional and Addiction facility:** Zero cases ILI reported **Physician Office and University Clinic:** During week 11, 6 cases of ILI were reported and Week 12 reported **3** cases.

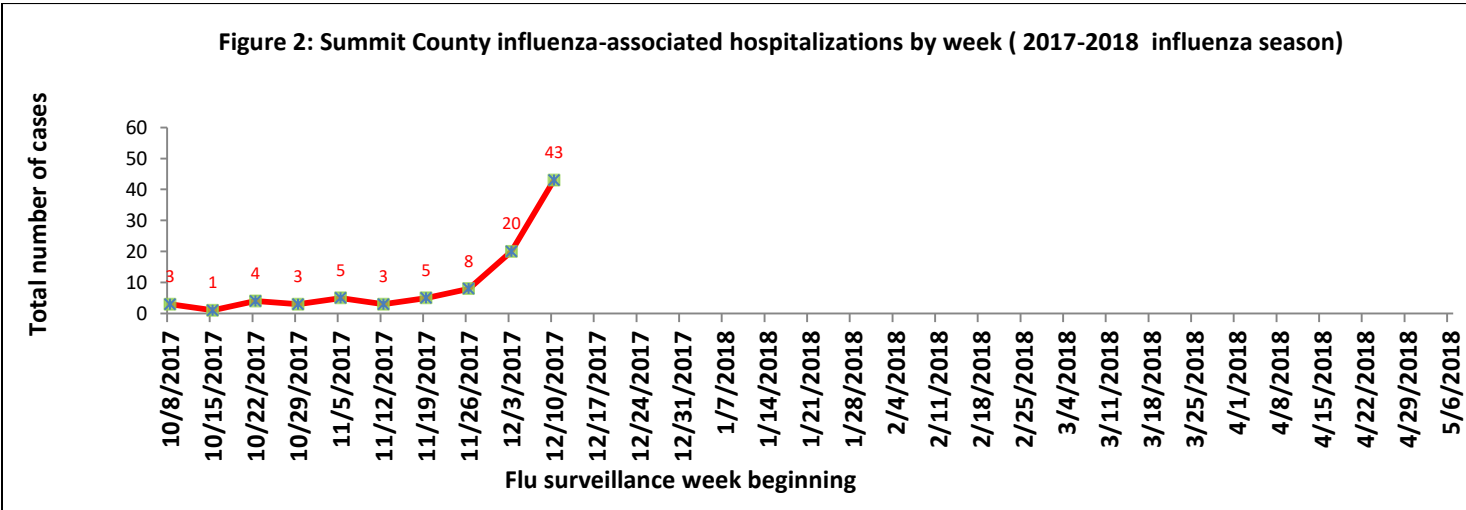
Pharmacy: 44 prescriptions for Amantidine were reported during week 11 and **9** prescriptions for Tamiflu. Week 12 had **3** prescriptions for Amantidine and **14** prescriptions for Tamiflu.

School absenteeism includes absences regardless of reason. In WK 11, there were **1458** absences and in WK 12 schools were closed.

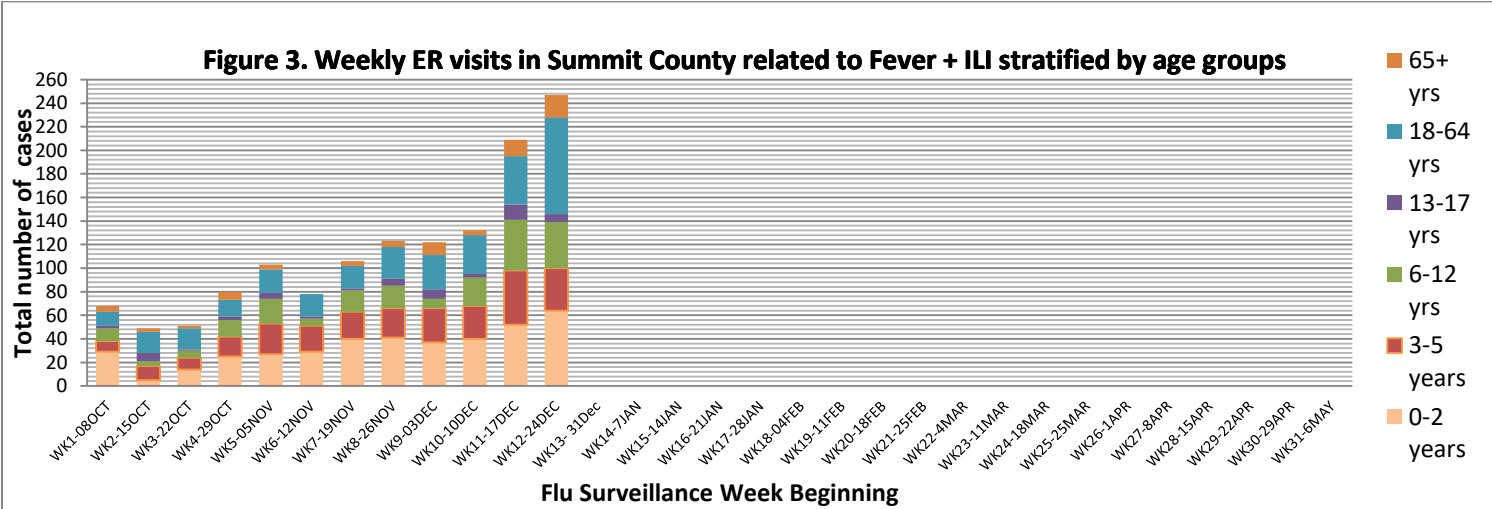
Lab reports: During week 11 Summit County labs performed 1003 tests, of which 267 tested positive for influenza A & 26 for Influenza B. Week 12 there were 1459 total tests - 487 A and 25 B. See **Figure 4**.

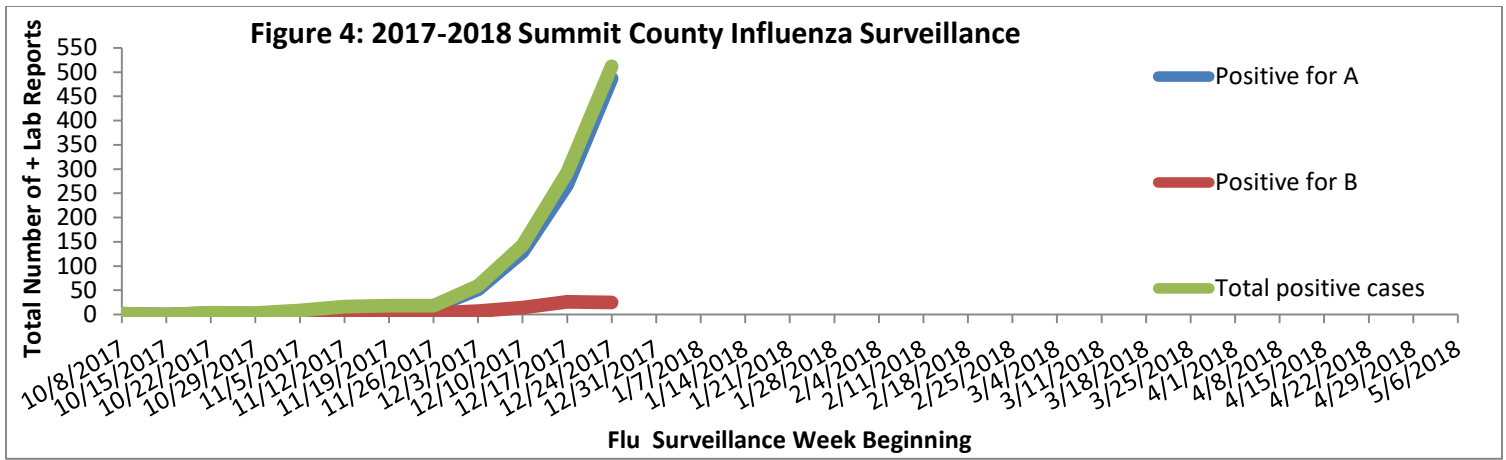


Influenza-associated hospitalization: Summit County hospitals reported 20 influenza-associated hospitalizations in WK 9 and 43 hospitalizations during week10. **Figure 2** displays weekly confirmed hospitalization count for Summit County (cumulative count to date = 95).



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 11 & 12, adults (18-64) and infants (0-2) had the most visits related to ILI.





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)	1.33%	2.31%	↑ 1	
Thermometer Sales (National Retail Data Monitor)	1481	-4.14%	↓ 1	
Fever and ILI Specified ED Visits (EpiCenter)	2.07%	5.61%	↑ 9	
Constitutional ED Visits (EpiCenter)	9.24%	2.21%	↑ 4	
Confirmed Influenza-associated Hospitalizations (Ohio Disease Reporting System)	144	56.52%	↑ 4	
Outpatient Medical Claims Data ⁴	0.37%	19.35%	↑ 4	

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.

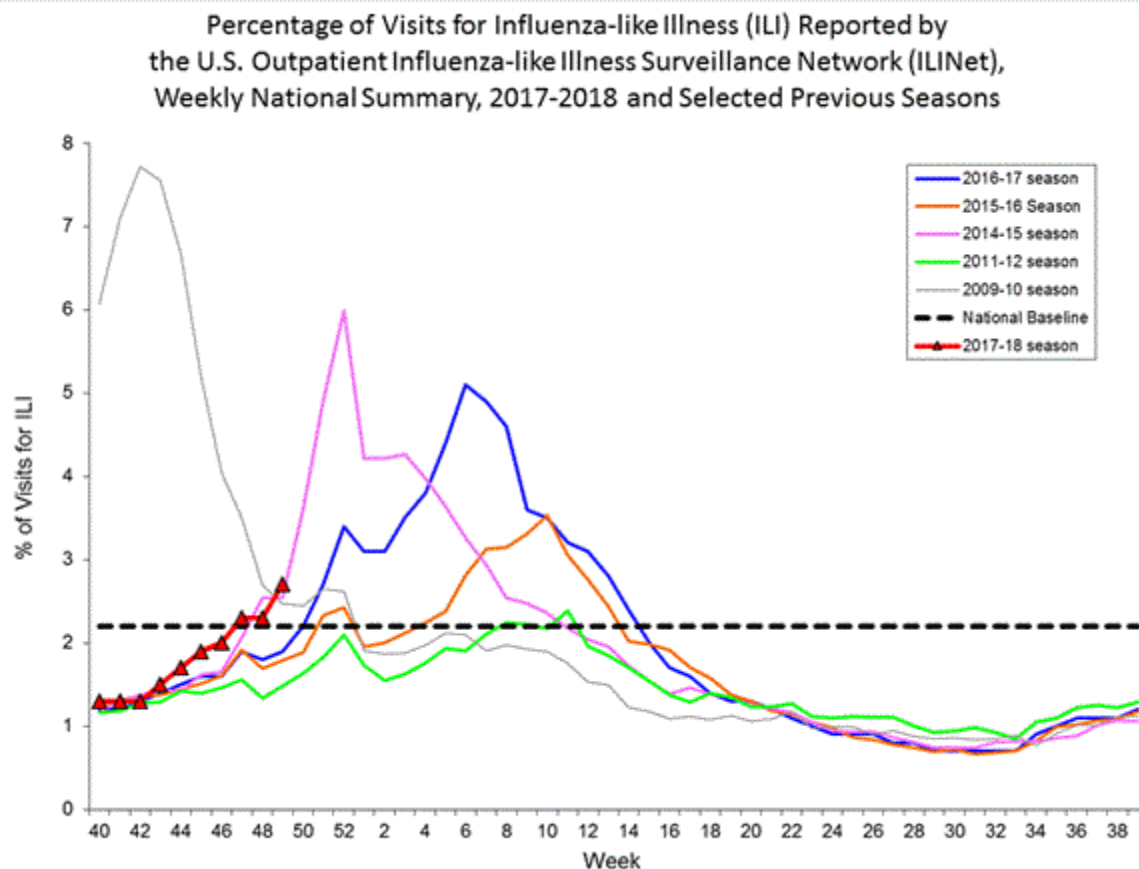
³Black lines represent current week's data; red lines represent baseline averages (Week 40 data is a single data point, no line is visible until week 41).

⁴Medical Claims Data provided by athenahealth®

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

During week 49 (December 3-9, 2017), influenza activity increased in the United States.

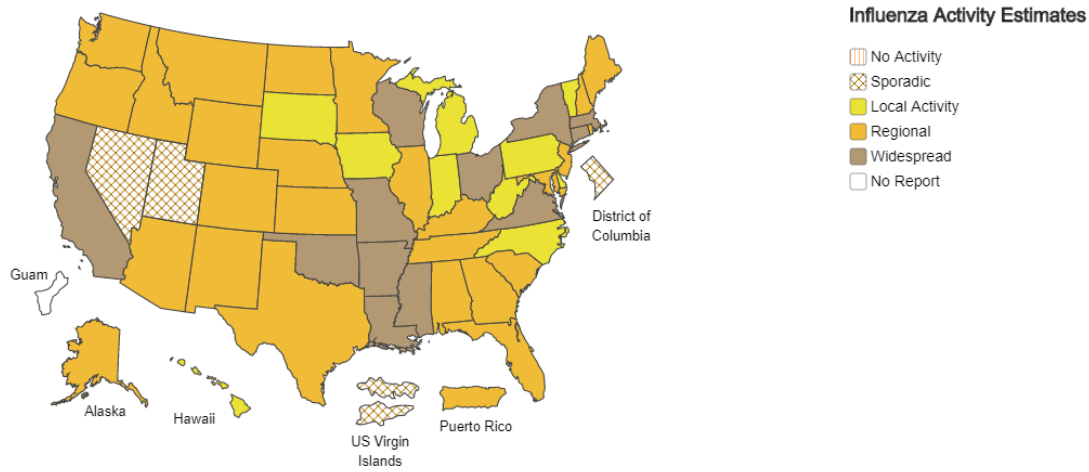
- **Viral Surveillance:** The most frequently identified influenza virus type reported by public health laboratories during week 49 was influenza A. The percentage of respiratory specimens testing positive for influenza in clinical laboratories increased.
- **Novel Influenza A Virus:** One human infection with a novel influenza A virus was reported.
- **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:** One influenza-associated pediatric death was reported.
- **Influenza-associated Hospitalizations:** A cumulative rate of 4.3 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 2.7%, which is above the national baseline of 2.2%. Seven of the 10 regions reported ILI at or above region-specific baseline levels. Four states experienced high ILI activity; five states experienced moderate ILI activity; New York City, Puerto Rico, and 16 states experienced low ILI activity; 25 states experienced minimal ILI activity; and the District of Columbia had insufficient data.



A Weekly Influenza Surveillance Report Prepared by the Influenza Division

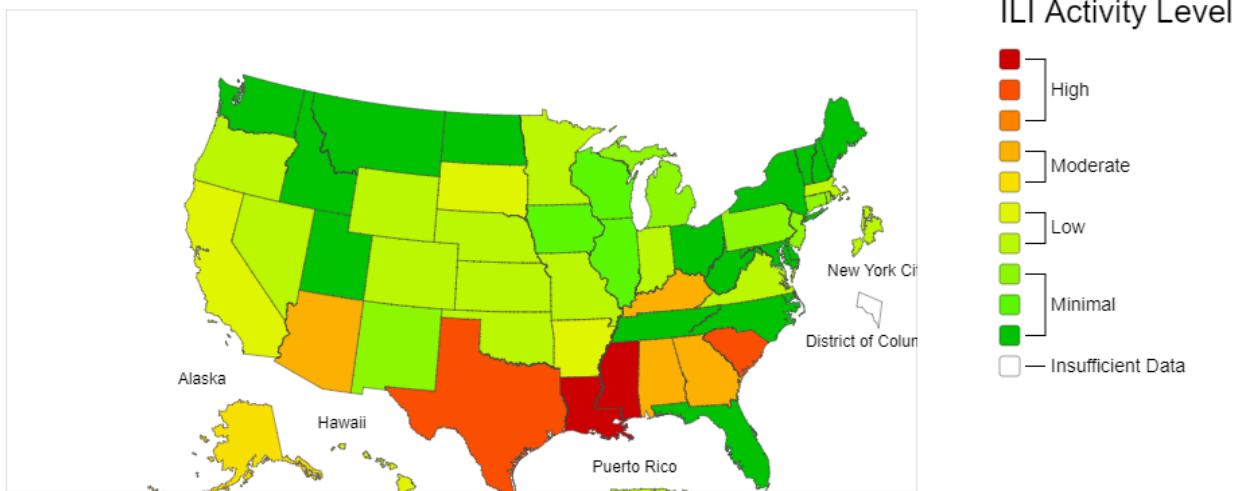
Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists*

Week Ending Dec 09, 2017 - Week 49



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

2017-18 Influenza Season Week 49 ending Dec 09, 2017



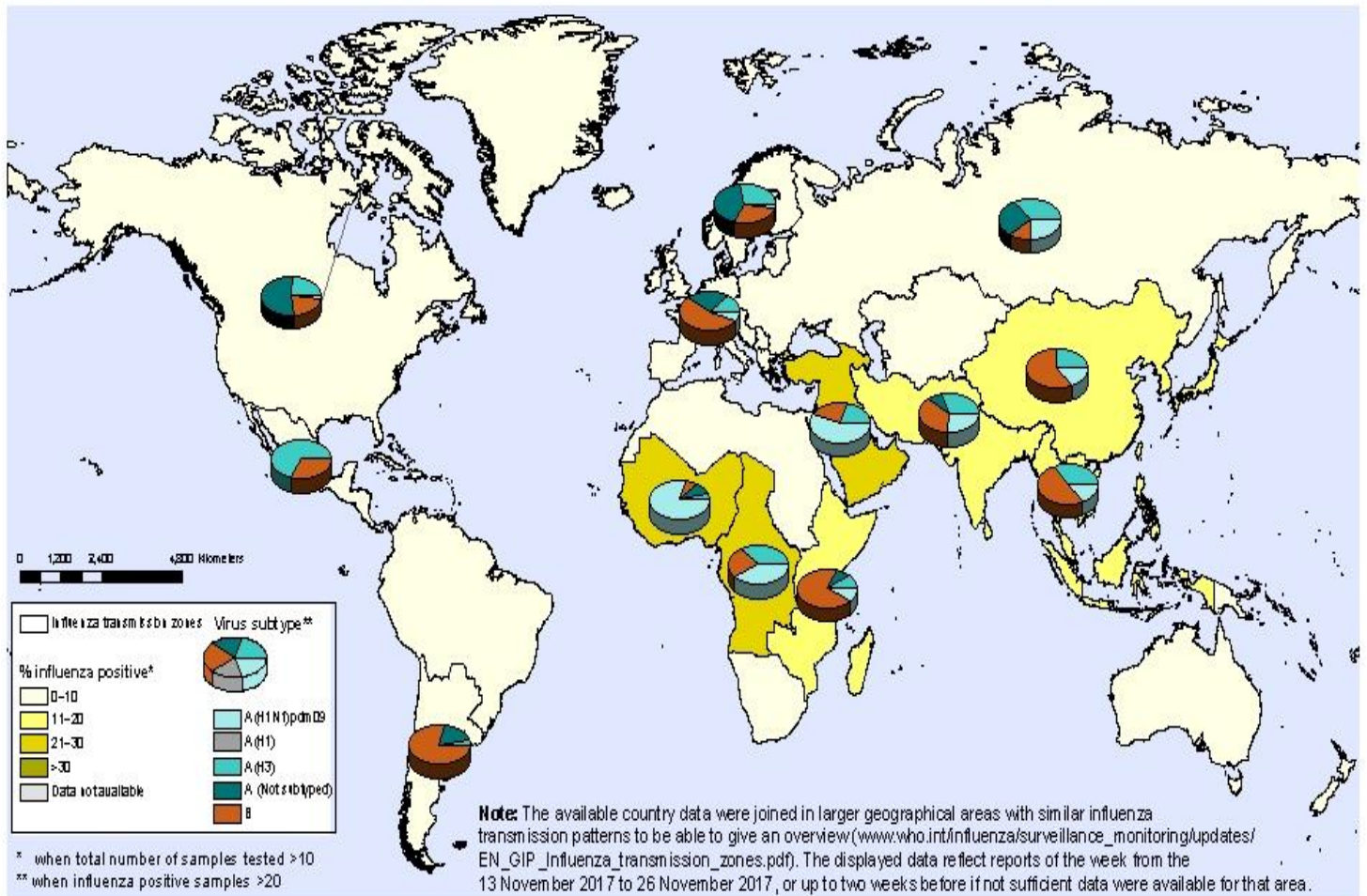
*This map uses the proportion of outpatient visits to healthcare providers for influenza-like illness to measure the ILI activity level within a state. It does not, however, measure the extent of geographic spread of flu within a state. Therefore, outbreaks occurring in a single city could cause the 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.

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 appeared to have decreased at inter-seasonal levels. In Central America and the Caribbean, influenza activity remained low. Worldwide, influenza A (H3N2) and B viruses accounted for the majority of influenza detections.

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

Status as of 08 December 2017



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/).



Frequently Asked Flu Questions 2017-2018 Influenza Season

Some news reports have claimed the flu vaccine is expected to be only 10% effective this year, is this true?

The 10% vaccine effectiveness (VE) figure reported in the news is an Australian interim *estimate* of the vaccine's benefit against one flu virus (the H3N2 virus) that circulated in Australia during its most recent flu season. In the United States last season, overall vaccine effectiveness against all circulating flu viruses was 39%, and VE was only a bit lower (32%) against H3N2 viruses. Vaccine effectiveness against other flu viruses (i.e., H1N1 or B viruses) was higher. The United States has a very robust network that estimates vaccine effectiveness each season. This season's flu vaccine includes the same H3N2 vaccine component as last season, and most circulating H3N2 viruses that have been tested in the United States this season are still similar to the H3N2 vaccine virus. Based on this data, CDC believes U.S. VE estimates from last season are likely to be a better predictor of the flu vaccine benefits to expect this season against circulating H3N2 viruses in the United States. This is assuming minimal change to circulating H3N2 viruses. However, because it is early in the season, CDC flu experts cannot predict which flu viruses will predominate. Estimates of the flu vaccine's effectiveness against circulating flu viruses in the United States will be available later in the season.

Can the flu vaccine provide protection even if the flu vaccine is not a “good” match?

Yes, antibodies made in response to vaccination with one flu virus can sometimes provide protection against different but related flu viruses. A less than ideal match may result in reduced vaccine effectiveness against the flu virus that is different from what is in the flu vaccine, but it can still provide some protection against flu illness.

In addition, it's important to remember that the flu vaccine contains three or four flu viruses (depending on the type of vaccine you receive) so that even when there is a less than ideal match or lower effectiveness against one virus, the flu vaccine may protect against the other flu viruses.

For these reasons, even during seasons when there is a less than ideal match, CDC continues to recommend flu vaccination for everyone 6 months and older. Vaccination is particularly important for [people at high risk for serious flu complications](#), and their close contacts.

Can I get vaccinated and still get the flu?

Yes. It's possible to get sick with the flu even if you have been vaccinated (although you won't know for sure unless you get a flu test). This is possible for the following reasons:

- You may be exposed to a flu virus shortly before getting vaccinated or during the period that it takes the body to gain protection after getting vaccinated. This exposure may result in you becoming ill with flu before the vaccine begins to protect you. (About 2 weeks after vaccination antibodies that provide protection develop in the body.)

- You may be exposed to a flu virus that is not included in the seasonal flu vaccine. There are many different flu viruses that circulate every year. The flu vaccine is made to protect against the three or four flu viruses that research suggests will be most common.
- Unfortunately, some people can become infected with a flu virus that the flu vaccine is designed to protect against, despite getting vaccinated. Protection provided by flu vaccination can vary widely, based in part on health and age factors of the person getting vaccinated. In general, the flu vaccine works best among healthy younger adults and older children. Some older people and people with certain chronic illnesses may develop less immunity after vaccination. Flu vaccination is not a perfect tool, but it is the best way to protect against flu infection.

Reference: <https://www.cdc.gov/flu/about/season/flu-season-2017-2018.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.

Reporting from participants may not be complete each week. Numbers may change as updated reports are received. For questions, please contact Jane Adams or Tracy Rodriguez, Summit County Public Health Communicable Disease Unit. Report was issued on December 21, 2017.