



**Summit County Public Health
Influenza Surveillance Report
2018 – 2019 Season
Report #6**



Public Health
Prevent. Promote. Protect.

**Flu Surveillance Week 7 (11/18/2018 to 11/24/2018)
Centers for Disease Control and Prevention MMWR Week 47**

Summit County Surveillance Data:

During **Week 7**, influenza-related activity increased in Summit County, but remained low overall.

Table 1: Overall Influenza Activity Indicators in Summit County by Week				
	Week 6 MMWR 46 N (%)¹	Week 7 MMWR 47 N (%)¹	Percent change from previous week	Number of weeks increasing or decreasing
Lab Reports				
Test Performed	453	451	- 0.4%	NC
Positive Tests (Number and %)	5 (1.1)	8 (1.8)	+ 63.6%	↑2
Influenza A (Number and %)	3 (0.7)	8 (1.8)	+ 157%	↑2
Influenza B (Number and %)	2 (0.4)	0 (0.0)	- 100%	↓1
Influenza hospitalizations:	1	4	+ 300%	↑2
Influenza ILI Community Report:				
Long-term Care Facilities	0	0	--	--
Correctional & Addiction Facilities	0	0	--	--
Physician Offices & Clinics	1	0	- 100%	↓2
Pharmacy Prescriptions				
Amantidine	3	3	NC	NC
Rimantidine Flumadine	0	0	--	--
Relenza	0	0	--	--
Oseltamivir Tamiflu	1	2	+ 100%	↑1
<i>Total antiviral prescriptions</i>	4	5	+ 20.0%	↑2
Schools absenteeism daily rate²	6.4	7.8	+ 21.9%	↑1
Deaths				
Pneumonia associated	5 (5.0)	3 (3.4)	- 32.0%	↓1
Influenza associated	0	0	--	--
Emergency room visits (EpiCenter)³				
Constitutional Complaints	467 (8.2)	483 (8.8)	+ 7.3%	↑1
Fever and ILI	74 (1.3)	72 (1.3)	NC	NC
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 7 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 deaths related to influenza were reported during Week 7, and there were three total deaths associated with pneumonia. **Figure 1** displays weekly Summit County death counts associated with pneumonia and influenza.

Acute Care Hospitalizations: There were three flu-related hospitalization reported during Week 7. (**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 0 cases of ILI reported.

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

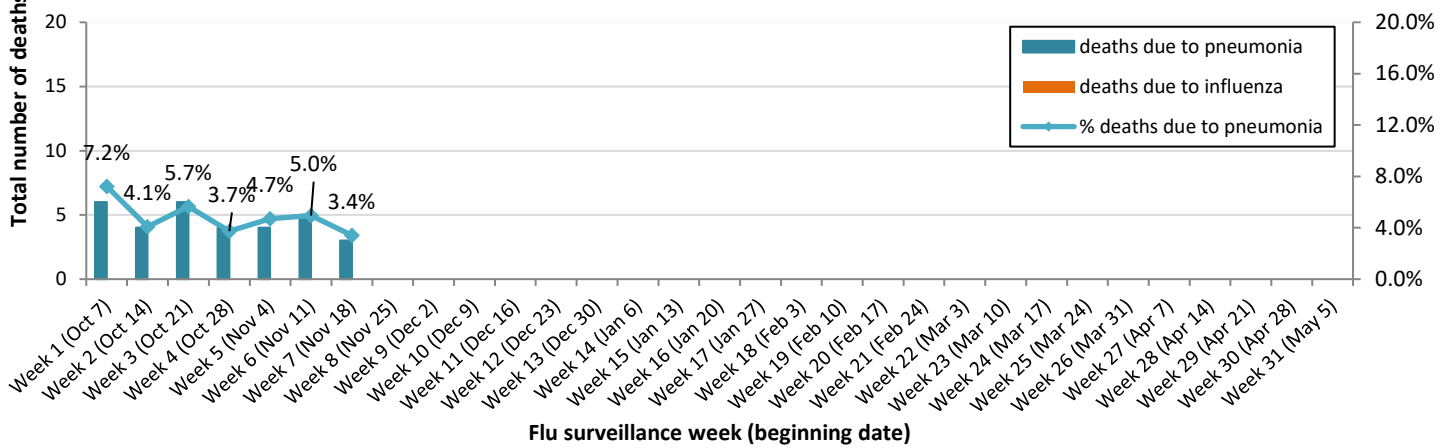
Physician offices and clinics: During Week 7, there were 0 cases of ILI reported.

Pharmacies: Five prescription for antiviral medications was reported during Week 7.

School absenteeism includes absences regardless of reason. In Week 7, the absence rate was 7.8%, a 22% increase from Week 6. Week 7 was the week of Thanksgiving break, which likely contributed to the increase.

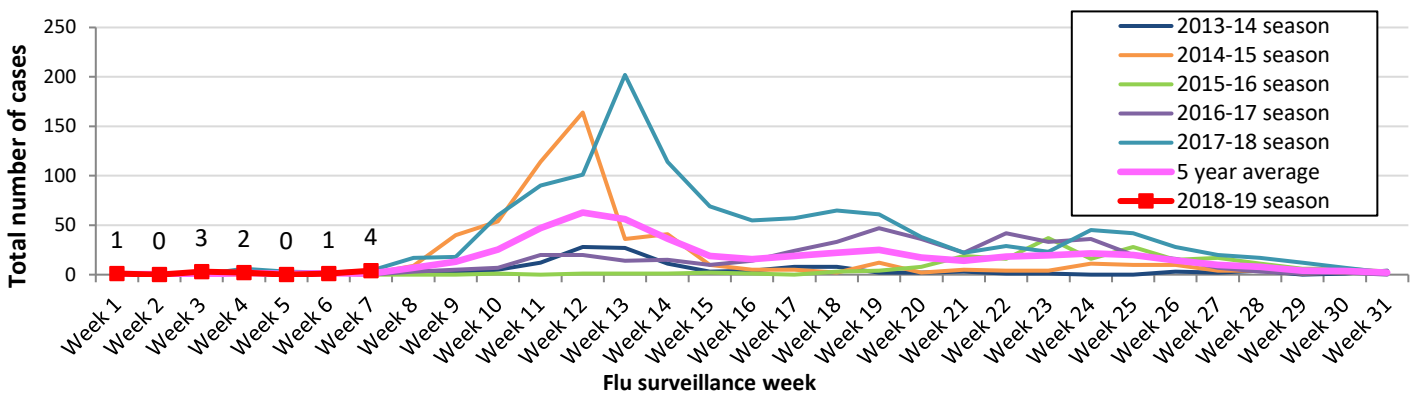
Lab reports: During the Week 7, Summit County labs performed 451 tests, of which 8 tested positive (all Type A). (**Figure 4**) As more hospitals replace the rapid flu test with BIOFIRE respiratory panels, the number of flu tests performed will likely be higher this year.

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



Influenza-associated hospitalizations: Summit County hospitals reported four influenza-associated hospitalizations in Week 7. **Figure 2** displays weekly confirmed hospitalization counts for Summit County (season count to date =11).

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, and there were 72 ILI-related visits reported during Week 7. This was not a significant change from the previous week.

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

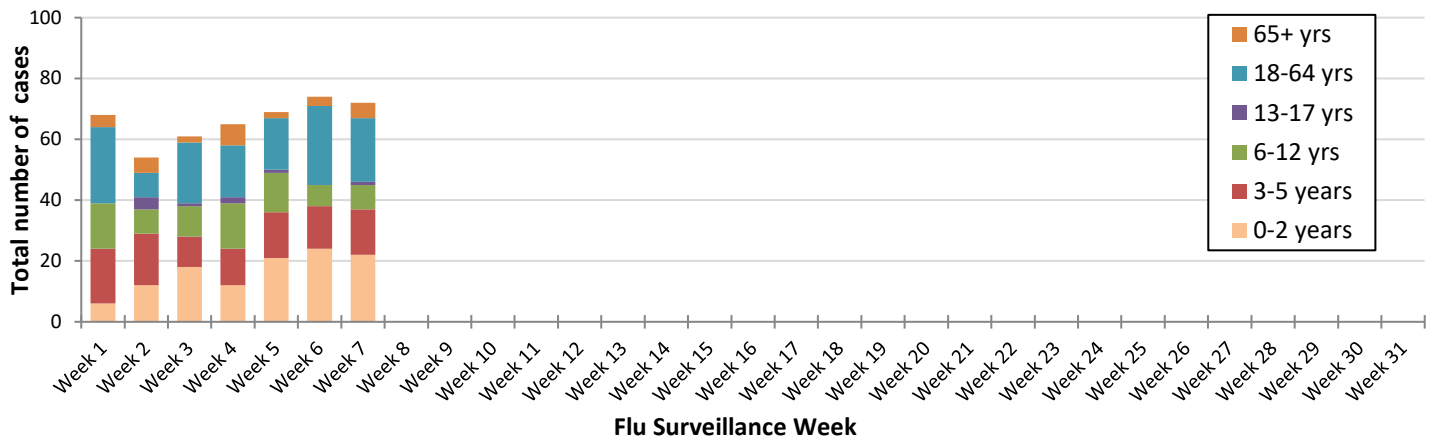
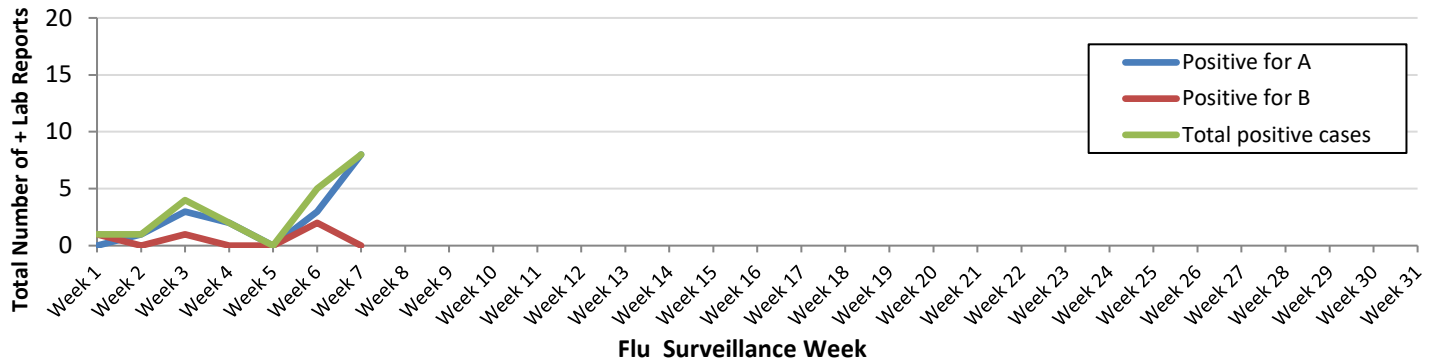


Figure 4. Influenza diagnostic tests with positive results completed by Summit County health facilities, 2018-2019 season



Ohio Influenza Activity:

Current Ohio Activity Level (Geographic Spread) – 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.

During MMWR Week 47, 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 visits with patients exhibiting constitutional symptoms are slightly above baseline levels statewide; fever and ILI specified ED visits are below baseline levels. Reported cases of influenza-associated hospitalizations are below the seasonal threshold*. There were 24 influenza-associated hospitalizations reported during MMWR Week 47.

Ohio Influenza Activity Summary Dashboard (November 18 – November 24, 2018):

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)	0.94%	11.90%	↑ 1	
Thermometer Sales (National Retail Data Monitor)	1060	-11.00%	↓ 2	
Fever and ILI Specified ED Visits (EpiCenter)	1.84%	6.98%	↑ 1	
Constitutional ED Visits (EpiCenter)	9.91%	14.17%	↑ 3	
Confirmed Influenza-associated Hospitalizations (Ohio Disease Reporting System)	24	20.00%	↑ 3	
Outpatient Medical Claims Data ⁴	0.48%	29.73%	↑ 3	

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®

Source: <https://www.odh.ohio.gov/en/seasflu/Ohio-Flu-Activity>

National Influenza Activity

Influenza activity in the United States increased slightly. The increase in the percentage of patient visits for ILI may be influenced in part by a reduction in routine healthcare visits during the Thanksgiving holidays, as has occurred in previous seasons. Influenza A(H1N1)pdm09, influenza A(H3N2), and influenza B viruses continue to co-circulate, with influenza A(H1N1)pdm09 viruses reported most commonly by public health laboratories since September 30, 2018. Below is a summary of the key influenza indicators for the week ending November 24, 2018:

- **Viral Surveillance:** Influenza A viruses have predominated in the United States since the beginning of July. The percentage of respiratory specimens testing positive for influenza in clinical laboratories was low.
 - **Virus Characterization:** The majority of influenza viruses characterized antigenically and genetically are similar to the cell-grown reference viruses representing the 2018–2019 Northern Hemisphere influenza vaccine viruses.
 - **Antiviral Resistance:** All viruses tested since late May show susceptibility to the antiviral drugs oseltamivir, zanamivir, and peramivir.
- **Influenza-like Illness Surveillance (Figure 5):** The proportion of outpatient visits for influenza-like illness (ILI) increased to 2.3%, which is above the national baseline of 2.2%. Five of 10 regions reported ILI at or above their region-specific baseline level.
 - **ILI State Activity Indicator Map (Figure 6):** Two states experienced high ILI activity; three states experienced moderate ILI activity; New York City, the District of Columbia, Puerto Rico and eight states experienced low ILI activity; and 37 states experienced minimal ILI activity.
- **Geographic Spread of Influenza (Figure 7):** The geographic spread of influenza in five states was reported as regional; 16 states reported local activity; the District of Columbia, Puerto Rico, the U.S. Virgin Islands and 28 states reported sporadic activity; and Guam and one state reported no influenza activity.
- **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 to CDC for week 47.

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

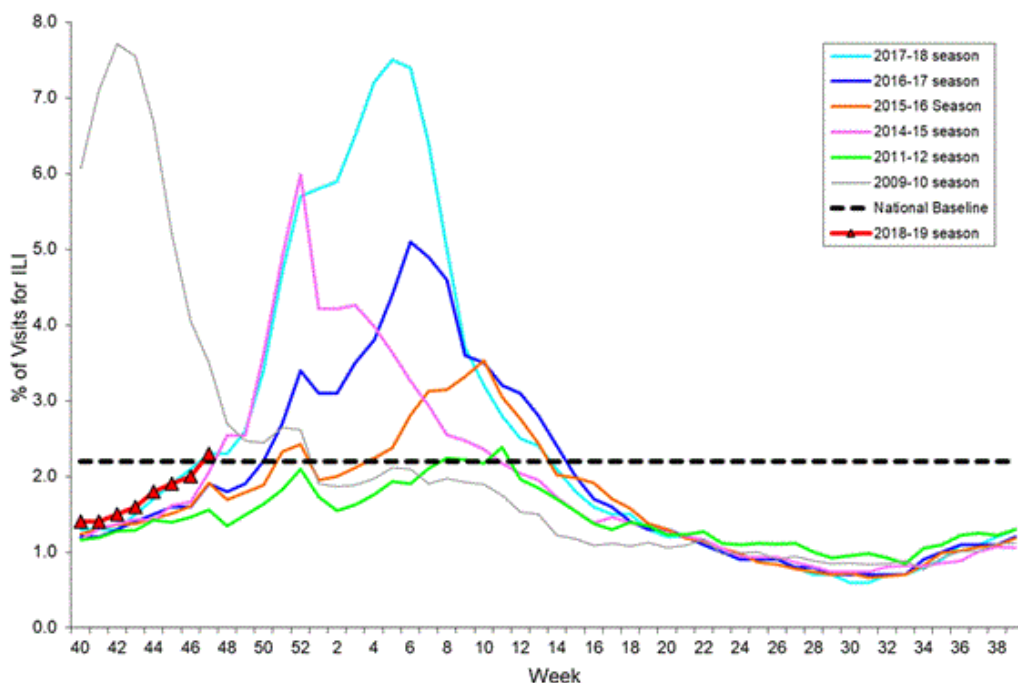


Figure 6. Influenza-like illness (ILI) activity level indicator determined by data reported to ILINet

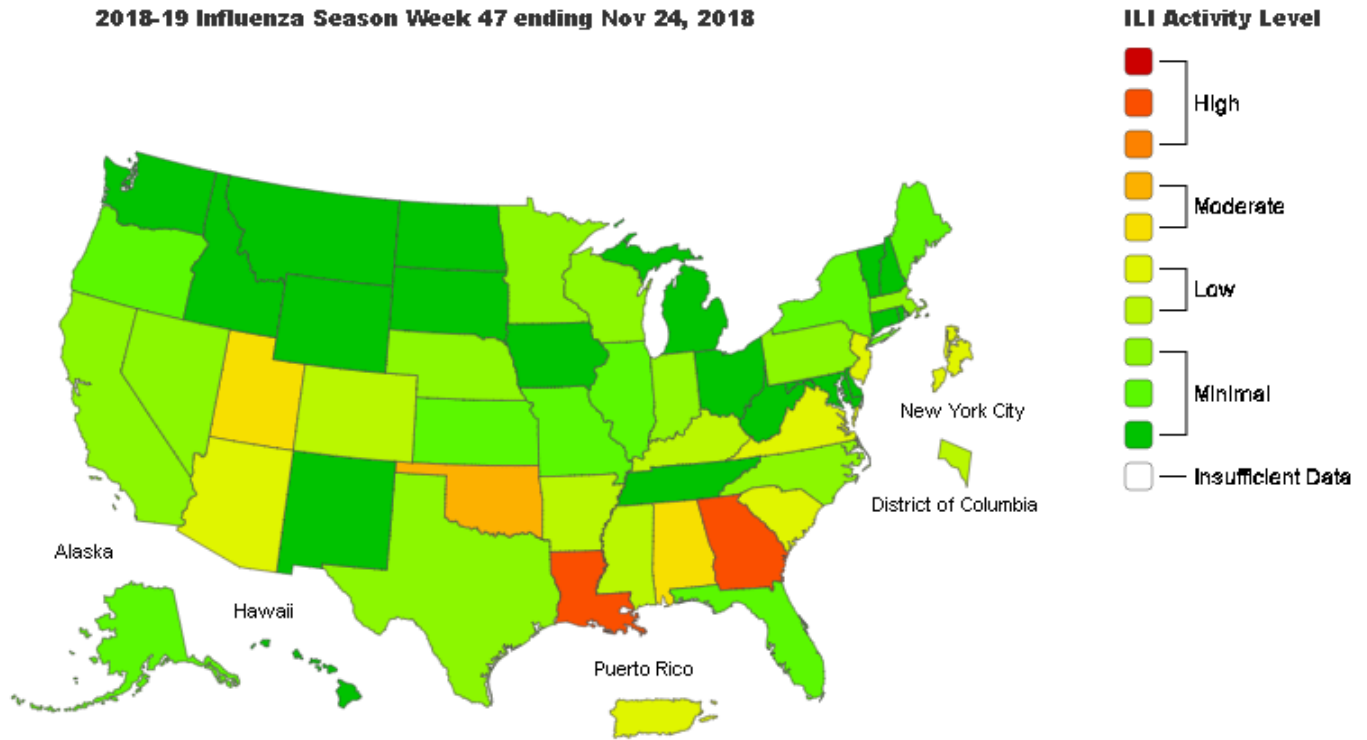
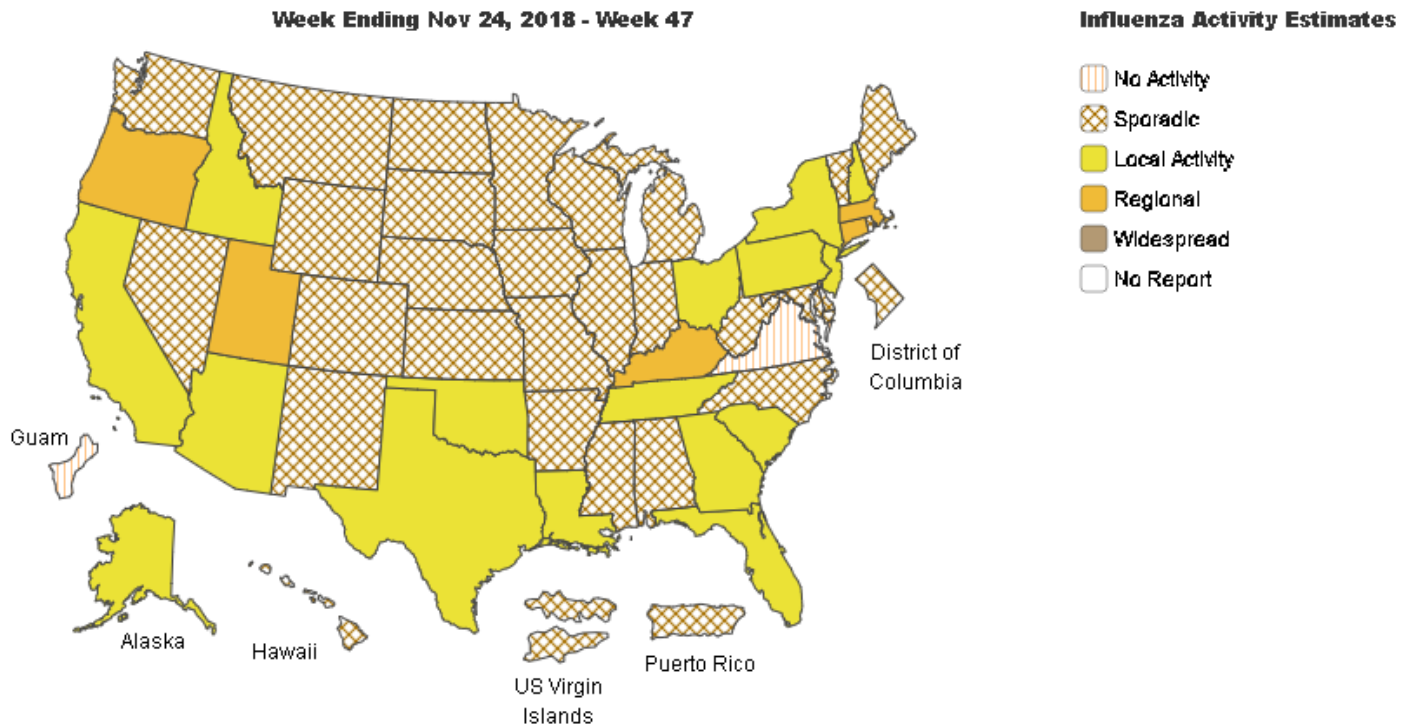


Figure 7. Weekly influenza activity (geographic spread) estimates reported by state and territorial epidemiologists



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

Global Surveillance:

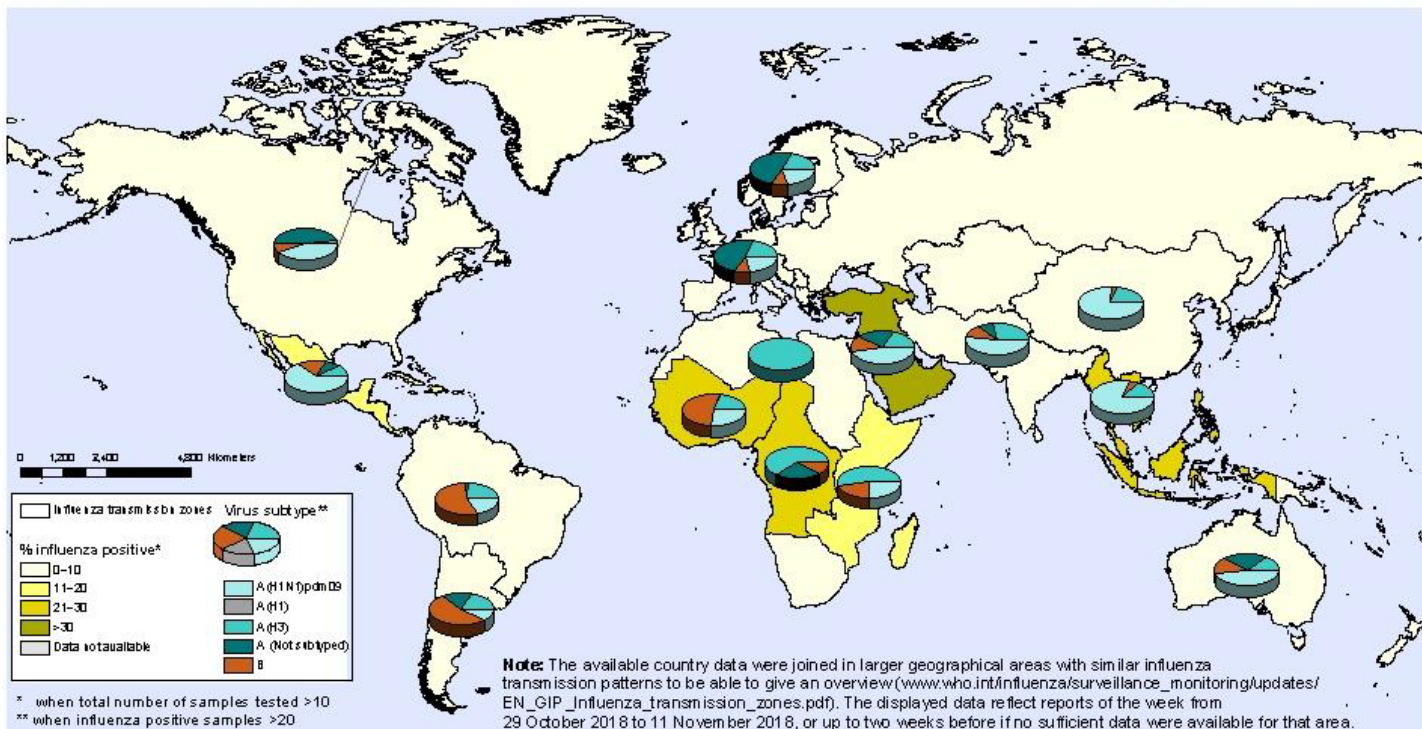
Influenza Update N° 329, World Health Organization (WHO), published 11/26/2018, based on data up to 11/11/2018. The Update is published every two weeks.

Summary

- In the temperate zone of the northern hemisphere influenza activity started to increase although overall influenza activity remained low. Increased influenza detections were reported in some countries of South-East Asia and Central America. In the temperate zones of the southern hemisphere, influenza activity returned to inter-seasonal levels. Worldwide, seasonal influenza subtype A viruses accounted for the majority of detections.
- National Influenza Centres (NICs) and other national influenza laboratories from 114 countries, areas or territories reported data to FluNet for the time period from 29 October 2018 to 11 November 2018 (data as of 2018-11-23 04:11:01 UTC). The WHO GISRS laboratories tested more than 116728 specimens during that time period. 5534 were positive for influenza viruses, of which 4894 (88.4%) were typed as influenza A and 640 (11.6%) as influenza B. Of the sub-typed influenza A viruses, 2695 (85%) were influenza A(H1N1)pdm09 and 475 (15%) were influenza A(H3N2). Of the characterized B viruses, 53 (43.1%) belonged to the B-Yamagata lineage and 70 (56.9%) to the B-Victoria lineage.

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

Status as of 23 November 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**
© WHO 2018. All rights reserved.

Source: https://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/

What You Should Know About Influenza (Flu) Antiviral Drugs

FIGHT FLU



Can the flu be treated?

Yes. There are prescription medications called “antiviral drugs” that can treat flu illness.

What are antiviral drugs?

Antiviral drugs are prescription medicines (pills, liquid, or an inhaled powder) that fight against the flu in your body. Antiviral drugs are not sold over-the-counter. You can only get them if you have a prescription from your doctor or health care provider. Antiviral drugs are different from antibiotics, which fight against bacterial infections.



What should I do if I think I have the flu?

If you get the flu, antiviral drugs are a treatment option. Check with your doctor promptly if you are at high risk of serious flu complications (see the next page for full list of high risk factors) and you get flu symptoms. Flu symptoms can include fever, cough, sore throat, runny or stuffy nose, body aches, headache, chills, and fatigue. Your doctor may prescribe antiviral drugs to treat your flu illness.

Should I still get a flu vaccine?

Yes. 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 influenza. Antiviral drugs are a second line of defense to treat the flu if you get sick.

What are the benefits of antiviral drugs?

When used for treatment, antiviral drugs can lessen symptoms and shorten the time you are sick by 1 or 2 days. They also can prevent serious flu complications, like pneumonia. For people at high risk of serious flu complications, treatment with an antiviral drug can mean the difference between having a milder illness versus a very serious illness that could result in a hospital stay.

What are the possible side effects of antiviral drugs?

Some side effects have been associated with the use of flu antiviral drugs, including nausea, vomiting, dizziness, runny or stuffy nose, cough, diarrhea, headache, and some behavioral side effects. These are uncommon. Your doctor can give you more information about these drugs or you can check the CDC or the Food and Drug Administration (FDA) websites.

When should antiviral drugs be taken for treatment?

Studies show that flu antiviral drugs work best for treatment when they are started within 2 days of getting sick. However, starting them later can still be helpful, especially if the sick person is at high risk of serious flu complications or is very sick from the flu. Follow instructions for taking these drugs.

For more information, visit:
www.cdc.gov/flu
or call **1-800-CDC-INFO**



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

What antiviral drugs are recommended this flu season?

There are three FDA-approved antiviral drugs recommended by CDC this season. The brand names for these are Tamiflu® (generic name oseltamivir), Relenza® (generic name zanamivir), and Rapivab® (generic name peramivir). Tamiflu® is available as a pill or liquid and Relenza® is a powder that is inhaled. (Relenza® is not for people with breathing problems like asthma or COPD, for example.) Rapivab® is given intravenously by a health care provider.



How long should antiviral drugs be taken?

To treat the flu, Tamiflu® and Relenza® are usually prescribed for 5 days, although people hospitalized with the flu may need the medicine for longer than 5 days. Rapivab® is given intravenously for 15 to 30 minutes.

Can children and pregnant women take antiviral drugs?

Yes. Children and pregnant women can take antiviral drugs.

Who should take antiviral drugs?

It's very important that antiviral drugs are used early to treat people who are very sick with the flu (for example, people who are in the hospital) and people who are sick with the flu who are at high risk of serious flu complications, either because of their age or because they have a high risk medical condition. Other people also may be treated with antiviral drugs by their doctor this season. Most people who are otherwise healthy and get the flu, however, do not need to be treated with antiviral drugs.

The following is a list of all the health and age factors that are known to increase a person's risk of getting serious complications from the flu:

- Asthma
- Blood disorders (such as sickle cell disease)
- Chronic lung disease (such as chronic obstructive pulmonary disease [COPD] and cystic fibrosis)
- Endocrine disorders (such as diabetes mellitus)
- Extreme obesity (people with a body mass index [BMI] of 40 or greater)
- Heart disease (such as congenital heart disease, congestive heart failure and coronary artery disease)
- Kidney disorders
- Liver disorders
- Metabolic disorders (such as inherited metabolic disorders and mitochondrial disorders)
- Neurological and neurodevelopmental conditions
- People younger than 19 years of age and on long-term aspirin therapy
- Weakened immune system due to medication (such as people with HIV or AIDS, or cancer, or those on chronic steroids)

Other people at high risk from the flu:

- Adults 65 years and older
- Children younger than 5 years old, but especially children younger than 2 years old
- Pregnant women and women up to 2 weeks after the end of pregnancy
- American Indians and Alaska Natives

It is especially important that these people get a flu vaccine and seek medical treatment quickly if they get flu symptoms.

CIS HCVG-15-FLU-102 11/22/2016

Last Updated November 22, 2016

This fact sheet can be downloaded here: <https://www.cdc.gov/flu/antivirals/whatyoushould.htm>

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). Report was issued on November 30, 2018.