



**Summit County Public Health
Influenza Surveillance Report
2018 – 2019 Season
Report #3**



**Flu Surveillance Week 4 (10/28/2018 to 11/3/2018)
Centers for Disease Control and Prevention MMWR Week 44**

Summit County Surveillance Data:

In **Week 4** of influenza surveillance, influenza-related activity remained low in Summit County.

Table 1: Overall Influenza Activity Indicators in Summit County by Week				
	Week 3 MMWR 43 N (%)¹	Week 4 MMWR 44 N (%)¹	Percent change from previous week	Number of weeks increasing or decreasing
Lab Reports				
Test Performed	433	421	+ 2.8%	↑3
Positive Tests (Number and %)	4 (0.9)	2 (0.5)	-48.6%	↓1
Influenza A (Number and %)	3 (0.7)	2 (0.5)	-31.4%	↓1
Influenza B (Number and %)	1 (0.2)	0 (0.0)	- 100%	↓1
Acute care hospitalization for Influenza:	3	2	-66.7%	↓1
Influenza ILI Community Report:				
Long-term Care Facilities	0	0	--	--
Correctional & Addiction Facilities	0	0	--	--
Physician Offices & Clinics	1	1	No Change	--
Pharmacy Prescriptions				
Amantidine	3	3	No Change	--
Rimantidine Flumadine	0	0	--	--
Relenza	0	0	--	--
Oseltamivir Tamiflu	1	2	+100.0%	↑1
<i>Total</i>	4	5	+25.0%	↑1
Schools absenteeism²	5.5	6.2	+12.7%	↑1
Deaths				
Pneumonia associated	6(5.7)	4(3.7)	-34.0%	↓1
Influenza associated	0	0	--	--
Emergency room visits (EpiCenter)³				
Constitutional Complaints	437 (7.6)	452 (7.9)	+3.9%	↑1
Fever and ILI	61 (1.1)	65 (1.1)	No Change	--
1) N and % are reported when available				
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 = ~36,000 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 4, and there were four total deaths associated with pneumonia. **Figure 1** displays weekly Summit County death counts associated with pneumonia and influenza.

Acute Care Hospitalizations: There were two reported hospitalizations during Week 4. (**Figure 2**)

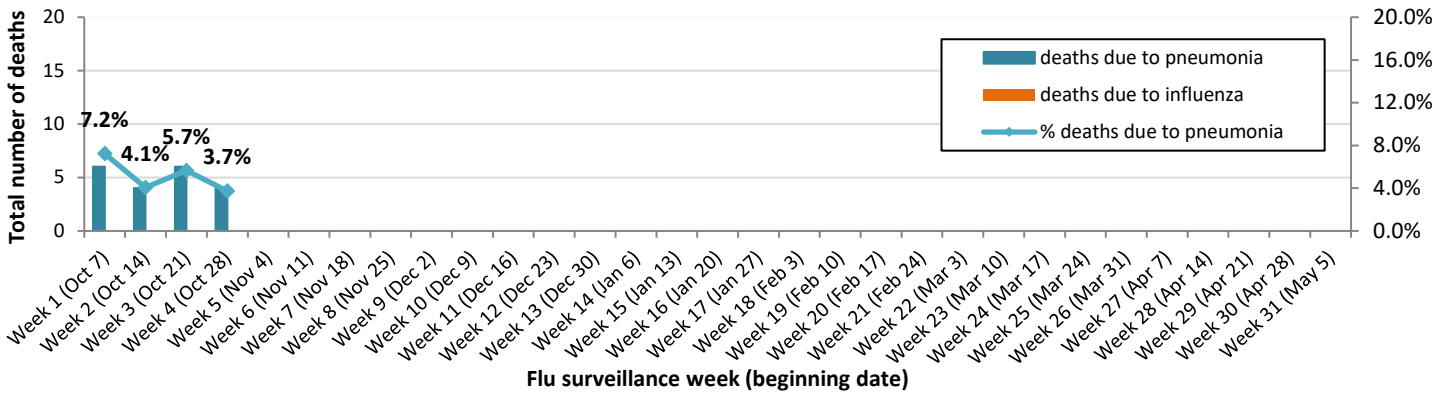
COMMUNITY ILI REPORTS: Influenza like illness (ILI) as defined by the CDC is fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. Community ILI reports: **Long Term Care Facilities:** There were no cases of ILI reported. **Correctional and Inpatient Addiction facilities:** Zero cases ILI reported. **Physician offices and clinics:** During Week 4, there was one case of ILI reported.

Pharmacies: Five prescriptions for antiviral medications were reported during Week 4.

School absenteeism includes absences regardless of reason. In Week 4, the absence rate was 6.2%, an increase of 12.7% over the Week 3 rate.

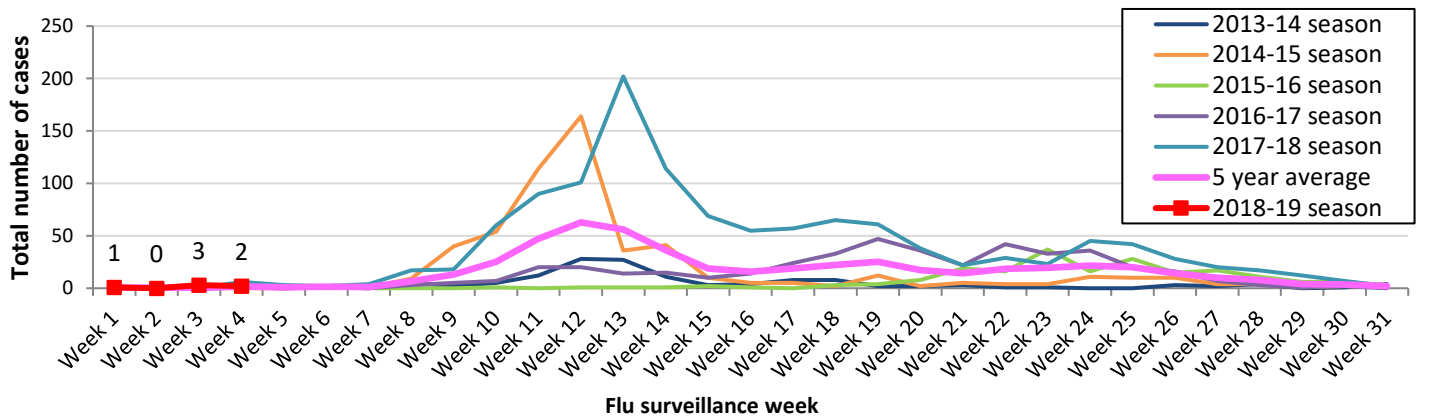
Lab reports: During the Week 4, Summit County labs performed 421 tests, of which 2 tested positive (2 Type A and 0 Type B). This is not a significant change from Week 3. (**Figure 4**) As more hospitals replace the rapid flu test with BIOFIRE respiratory panels, the number of tests performed will likely increase this year.

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



Influenza-associated hospitalization: Summit County hospitals reported 2 influenza-associated hospitalizations in Week 4. **Figure 2** displays weekly confirmed hospitalization count for Summit County (**cumulative count to date =6**).

Figure 2. Summit County influenza-associated hospitalizations by week, 2018-2019 season, 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 65 ILI-related visits reported during Week 4. This was not a significant change from the previous week.

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

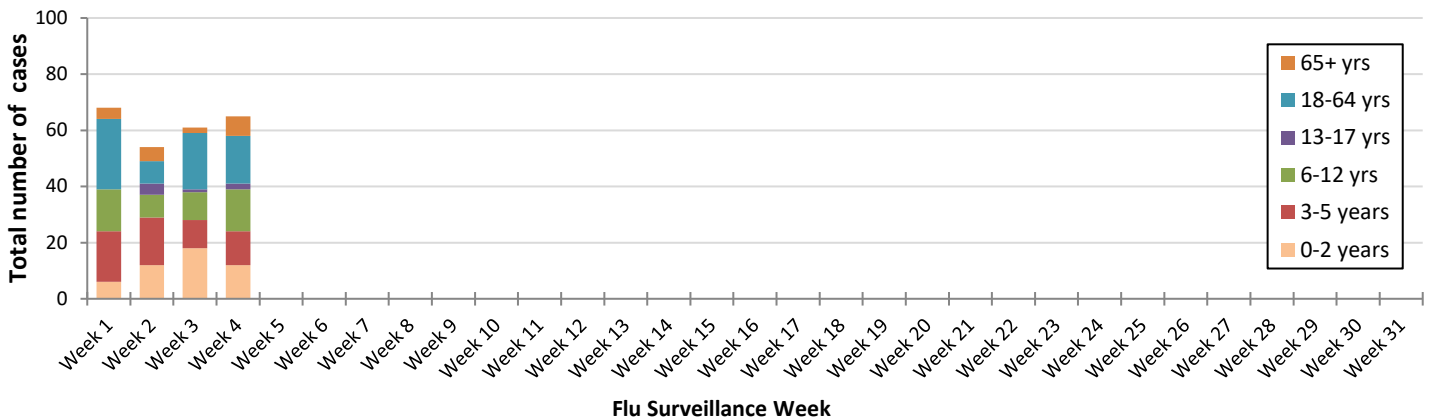
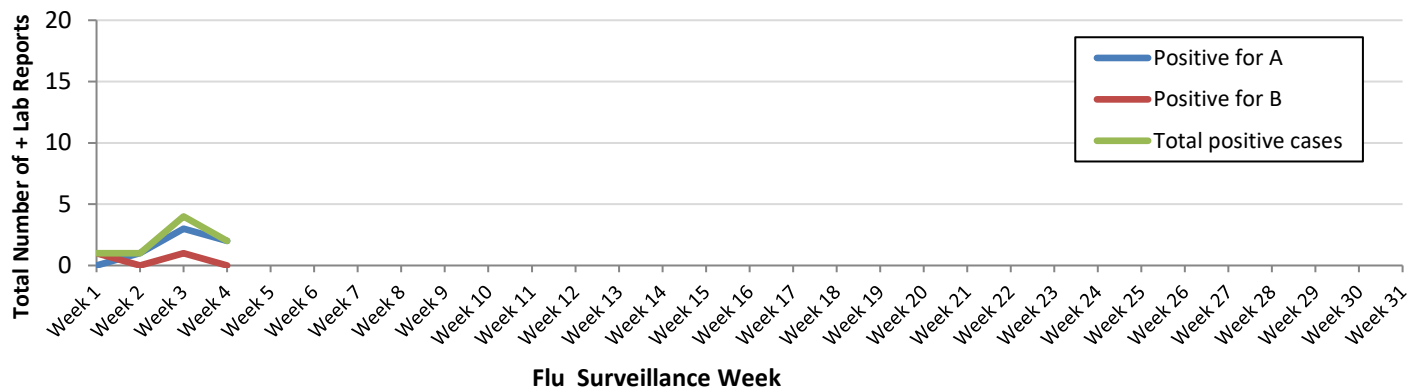


Figure 4. Influenza diagnostic tests with positive results completed by Summit County health facilities, 2018 - 2019



Ohio Influenza Activity:

Current Ohio Activity Level (Geographic Spread) – Sporadic

Definition: Small numbers of laboratory-confirmed influenza cases or a single laboratory-confirmed influenza outbreak has been reported, but there is no increase in cases of ILI.

During MMWR Week 44, 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 14 influenza-associated hospitalizations reported during MMWR Week 44.

Ohio Influenza Activity Summary Dashboard (October 28 – November 3, 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)	1.15%	-19.58%	↓ 1	
Thermometer Sales (National Retail Data Monitor)	926	-4.10%	↓ 2	
Fever and ILI Specified ED Visits (EpiCenter)	1.65%	-2.94%	↓ 1	
Constitutional ED Visits (EpiCenter)	8.42%	-3.11%	↓ 1	
Confirmed Influenza-associated Hospitalizations (Ohio Disease Reporting System)	14	0.00%	-	
Outpatient Medical Claims Data ⁴	0.31%	40.91%	↑ 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®

Source: <https://www.odh.ohio.gov/seasflu/Ohio%20Flu%20Activity.aspx>

National Influenza Activity

Influenza activity in the United States remains low, although small increases in activity were reported. 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 3, 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:** The proportion of outpatient visits for influenza-like illness (ILI) increased slightly to 1.8%, which is below the national baseline of 2.2%. One of 10 regions reported ILI at or above their region-specific baseline level (see **Figure 5**).
ILI State Activity Indicator Map (Figure 6): One state experienced moderate ILI activity, three states experienced low ILI activity; and New York City, the District of Columbia, Puerto Rico and 46 states experienced minimal ILI activity.
- **Geographic Spread of Influenza:** The geographic spread of influenza in two states was reported as regional; Guam and six states reported local activity; the District of Columbia, Puerto Rico, the U.S. Virgin Islands and 40 states reported sporadic activity; and two states reported no activity (see **Figure 7**).
- **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:** No influenza-associated pediatric deaths were reported to CDC for week 44.

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

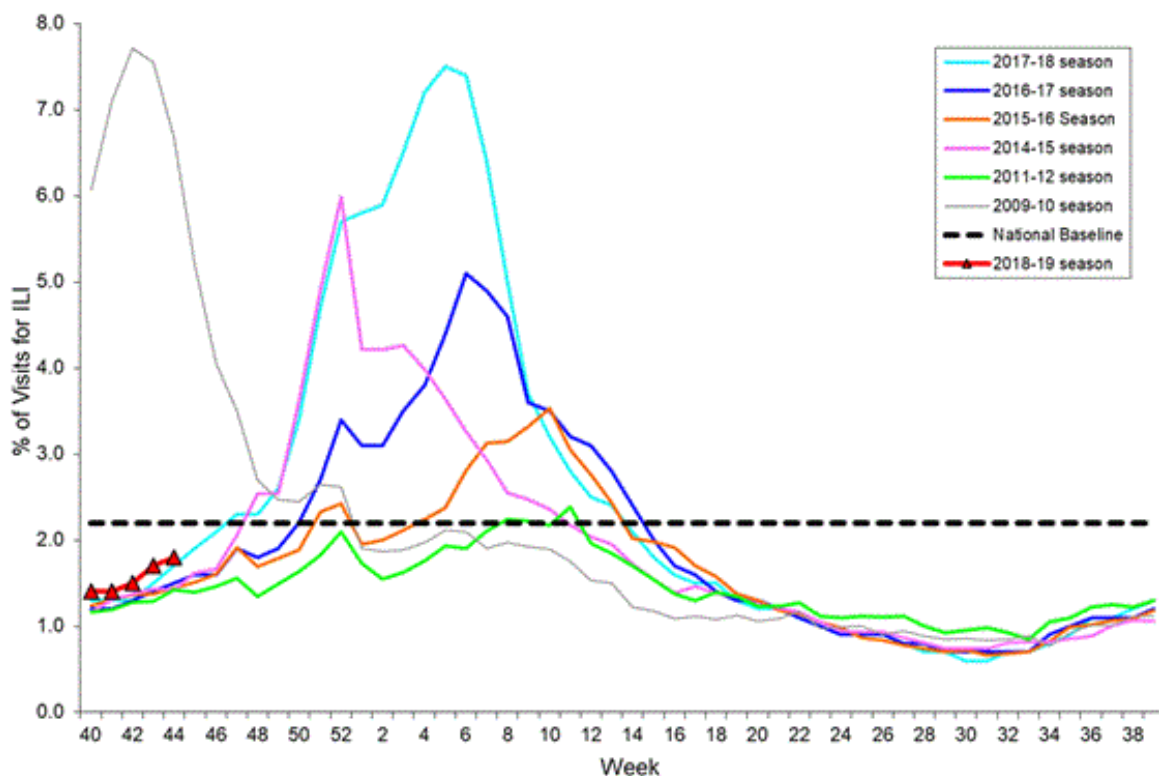


Figure 6. Influenza-like illness (ILI) activity level indicator determined by data reported to ILINet

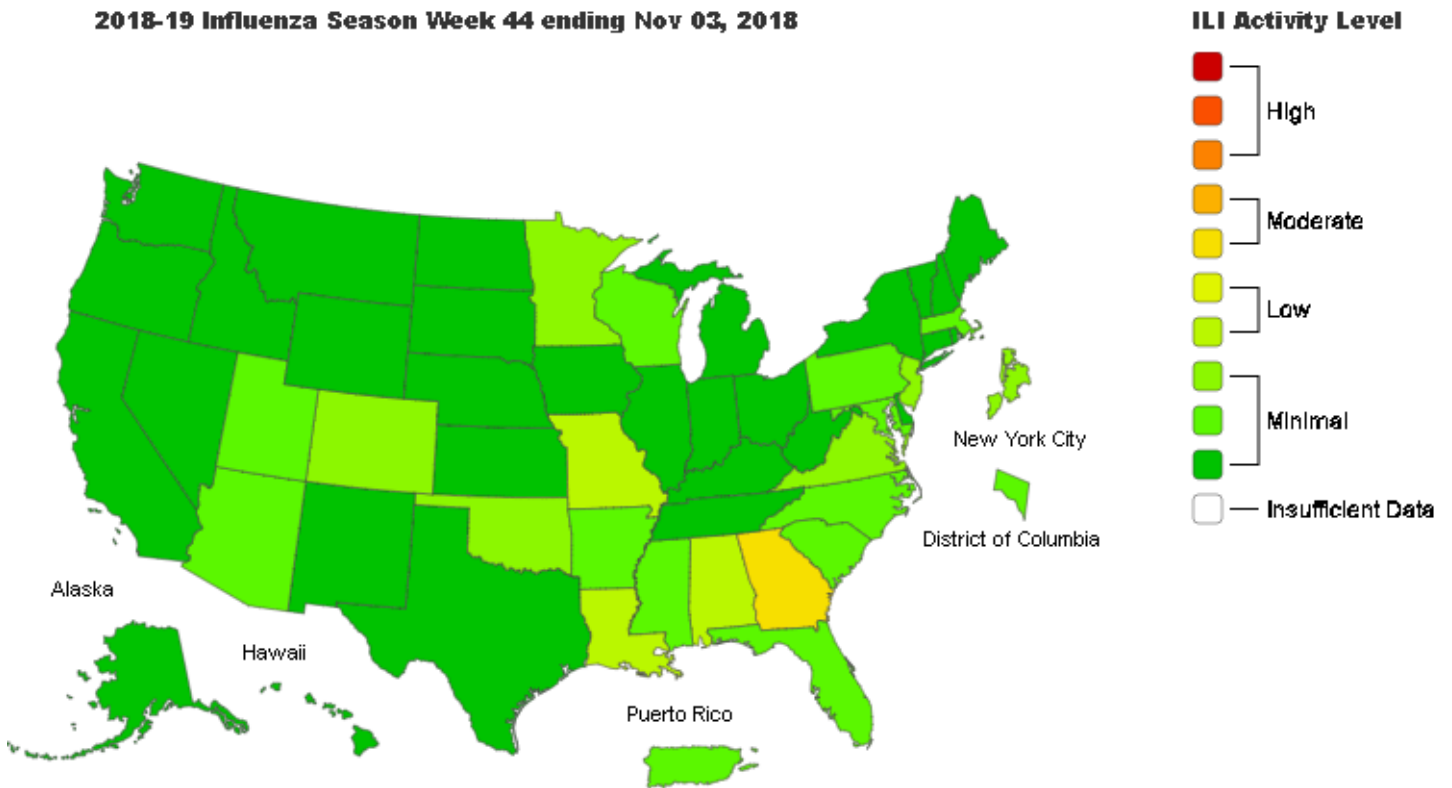
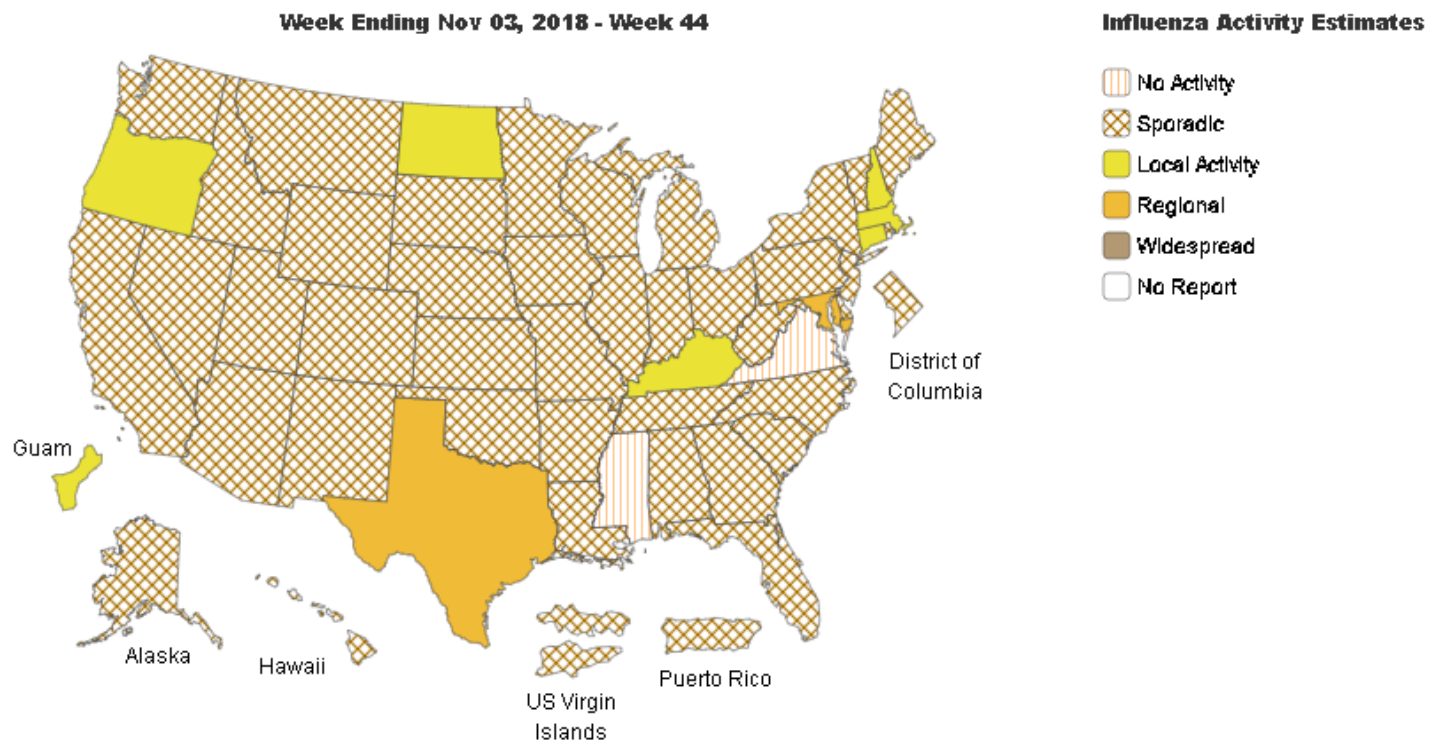


Figure 7. Weekly influenza activity (geographic spread) estimates reported by state and territorial epidemiologists



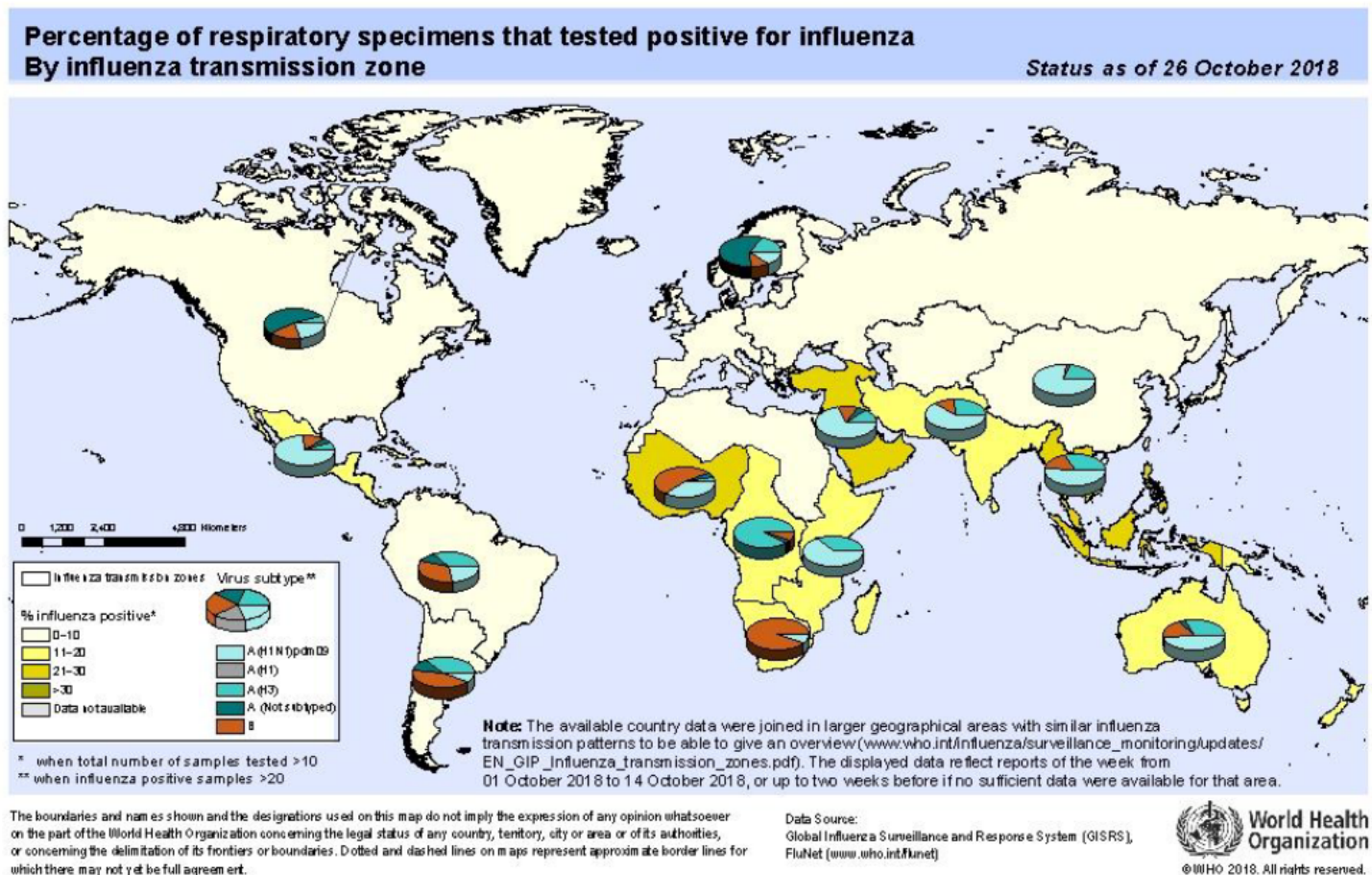
Source: <https://www.cdc.gov/flu/weekly/>

Global Surveillance:

Influenza Update N° 327, World Health Organization (WHO), published 10/29/2018, based on data up to 10/14/2018. The Update is published every two weeks.

Report Summary:

- In the temperate zone of the northern hemisphere influenza activity remained at inter-seasonal levels. Increased influenza detections were reported in some countries of Southern and South-East Asia. In the temperate zones of the southern hemisphere, influenza activity appeared to decrease overall. 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 01 October 2018 to 14 October 2018 (data as of 2018-10-26 05:19:52 UTC). The WHO GISRS laboratories tested more than 89996 specimens during that time period. 2890 were positive for influenza viruses, of which 2432 (84.2%) were typed as influenza A and 458 (15.8%) as influenza B. Of the sub-typed influenza A viruses, 1559 (80.1%) were influenza A(H1N1)pdm09 and 387 (19.9%) were influenza A(H3N2). Of the characterized B viruses, 67 (62%) belonged to the B-Yamagata lineage and 41 (38%) to the B-Victoria lineage.



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

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

Misconceptions about Flu Vaccine Effectiveness

Influenza vaccine effectiveness (VE) can vary from year to year, by virus type and subtype, and among different age and risk groups. For more information about vaccine effectiveness, visit the following website: <https://www.cdc.gov/flu/about/qa/vaccineeffect.htm>

There are many reasons to get a flu vaccine each year. Below is a summary of the benefits of flu vaccination, and selected scientific studies that support these benefits.

✓ **Flu vaccination can keep you from getting sick with flu.**

- 1) Flu vaccine prevents millions of illnesses and flu-related doctor's visits each year. For example, during **2016-2017**, flu vaccination prevented an estimated 5.3 million influenza illnesses, 2.6 million influenza-associated medical visits, and 85,000 influenza-associated hospitalizations.
- 2) In seasons when the vaccine viruses matched circulating strains, flu vaccine has been shown to reduce the risk of having to go to the doctor with flu by **40 percent to 60 percent**.

✓ **Flu vaccination can reduce the risk of flu-associated hospitalization for children, adults, and the elderly.**

- 1) Flu vaccine prevents tens of thousands of hospitalizations each year. For example, during **2016-2017**, flu vaccination prevented an estimated 85,000 flu-related hospitalizations.
- 2) A **2014 study** showed that flu vaccine reduced children's risk of flu-related pediatric intensive care unit (PICU) admission by 74% during flu seasons from 2010-2012.
- 3) In recent years, **flu vaccines have reduced the risk of flu-associated hospitalizations among adults** on average by about 40%.
- 4) A **2018 study** showed that from 2012 to 2015, flu vaccination among adults reduced the risk of being admitted to an intensive care unit (ICU) with flu by 82 percent.

✓ **Flu vaccination is an important preventive tool for people with chronic health conditions.**

- 1) Vaccination has been associated with **lower rates of some cardiac events** among people with heart disease, especially among those who had had a cardiac event in the past year.
- 2) Flu vaccination also has been shown in **separate studies** to be associated with reduced hospitalizations among people with **diabetes** and **chronic lung disease**.

✓ **Vaccination helps protect women during and after pregnancy.**

- 1) Vaccination reduces the risk of flu-associated acute respiratory infection in pregnant women by up to **one-half**.
- 2) A **2018 study** showed that getting a flu shot reduced a pregnant woman's risk of being hospitalized with flu by an average of 40 percent.
- 3) Getting vaccinated can also protect a baby after birth from flu. (Mom passes antibodies onto the developing baby during her pregnancy.) A number of **studies** have shown that in addition to helping to protect pregnant women, a flu vaccine given during pregnancy helps protect the baby from flu infection for several months after birth, when he or she is not old enough to be vaccinated.

✓ **Flu vaccine can be life-saving in children.**

- 1) A **2017 study** was the first of its kind to show that flu vaccination can significantly reduce a child's risk of dying from influenza.

- ✓ **Flu vaccination has been shown in several studies to reduce severity of illness in people who get vaccinated but still get sick.**
 - 1) A 2017 [study](#) showed that flu vaccination reduced deaths, intensive care unit (ICU) admissions, ICU length of stay, and overall duration of hospitalization among hospitalized flu patients.
 - 2) A [2018 study](#) showed that among adults hospitalized with flu, vaccinated patients were 59 percent less likely to be admitted to the ICU than those who had not been vaccinated. Among adults in the ICU with flu, vaccinated patients on average spent 4 fewer days in the hospital than those who were not vaccinated.

- ✓ **Getting vaccinated yourself may also protect people around you, including those who are more vulnerable to serious flu illness, like babies and young children, older people, and people with certain chronic health conditions.**

Misconceptions about the Timing of Seasonal Influenza Vaccination

Should I wait to get vaccinated so that my immunity lasts through the end of the season?

CDC recommends that people get a flu vaccine by the end of October. Getting vaccinated later, however, can still be beneficial. As long as flu viruses are circulating, it is not too late to get vaccinated, even in January or later. While seasonal flu outbreaks can happen as early as October, most of the time flu activity peaks between December and February, although activity can last as late as May. Since it takes about two weeks after vaccination for antibodies to develop in the body that protect against flu virus infection, it is best that people get vaccinated in time to be protected before flu viruses begin spreading in their community.

While delaying getting of vaccine until later in the fall may lead to higher levels of immunity during winter months, this should be balanced against possible risks, such as missed opportunities to receive vaccine and difficulties associated with vaccinating a large number of people within a shorter time period.

Is it too late to get vaccinated after Thanksgiving (or the end of November)?

No. Vaccination can still be beneficial as long as flu viruses are circulating. If you have not been vaccinated by Thanksgiving (or the end of November), it can still be protective to get vaccinated in December or later. Flu is unpredictable and seasons can vary. Seasonal flu disease usually peaks between December and March most years, but disease can occur as late as May.

Misconceptions about “Stomach Flu”

Is the “stomach flu” really the flu?

No. Many people use the term “stomach flu” to describe illnesses with nausea, vomiting or diarrhea. These symptoms can be caused by many different viruses, bacteria or even parasites. While vomiting, diarrhea, and being nauseous or “sick to your stomach” can sometimes be related to the flu — more commonly in children than adults — these problems are rarely the main symptoms of influenza. The flu is a respiratory disease and not a stomach or intestinal disease

Source: <https://www.cdc.gov/flu/about/qa/misconceptions.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 2, 2018.