



# Summit County Public Health Influenza Surveillance Report 2019 – 2020 Season



**Public Health**  
Prevent. Promote. Protect.

## Report #22

### Flu Surveillance Weeks 22 & 23 (3/1/2020 to 3/14/2020) Centers for Disease Control and Prevention MMWR Weeks 10 & 11

#### Summit County Surveillance Data:

In **Week 23** of surveillance, influenza-related activity remained at moderate in Summit County.

Table 1: Overall Influenza Activity Indicators in Summit County by Week				
	Week 22 MMWR 10 N (%) <sup>1</sup>	Week 23 MMWR 11 N (%) <sup>1</sup>	Percent change from previous week	Number of weeks increasing or decreasing
<b>Lab Reports</b>				
Tests Performed	1616	1803	+ 11.6%	↑1
Positive Tests (Number and %)	491 (30.4)	405 (22.5)	- 26.1%	↓3
Influenza A (Number and %)	340 (21.0)	280 (15.5)	- 26.2%	↓2
Influenza B (Number and %)	151 (9.3)	125 (6.9)	- 25.8%	↓7
<b>Acute care hospitalizations for Influenza:</b>	54	41	- 24.1%	↓2
<b>Influenza ILI Community Report:</b>				
Long-term Care ILI Cases	3	1	- 66.7%	↓2
Correctional & Addiction Facility	1	0	- 100.0%	↓2
Physician Offices & University Clinic	11	2	- 81.8%	↓3
<b>Pharmacy Prescriptions</b>				
Zanamivir (Relenza)	0	0	--	--
Oseltamivir (Tamiflu)	64	55	- 14.1%	↓2
Baloxavir marboxil (Xofluza)	0	0	--	--
<i>Total</i>	64	55	- 14.1%	↓2
<b>Schools absenteeism<sup>2</sup></b>	6.7%	9.5%	+ 41.8%	↑1
<b>Deaths</b>				
Pneumonia associated	7 (6.4)	3 (2.9)	- 53.8%	↓1
Influenza associated	0 (0.0)	0 (0.0)	--	--
<b>Emergency room visits (EpiCenter)<sup>3</sup></b>				
Constitutional Complaints	859 (14.2)	871 (14.5)	+ 2.3%	↑1
Fever and ILI	165 (2.7)	195 (3.3)	+ 19.2%	↑2
1) N and % are reported when available, NC = no change, or change that is not significant				
2) Absence is for any reason. Percent is from total number of students enrolled. Data was collected from 6 schools or school districts throughout Summit County (n = 32,000 students)				
3) Percent is from total number of emergency room interactions				
<b>Note:</b> 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 23, and there were 3 deaths associated with pneumonia. **Figure 1** displays weekly Summit County death counts associated with pneumonia and influenza. *The seasonal average for pneumonia and influenza (P&I) deaths is 3.3%.*

**Acute Care Hospitalizations:** 41 hospitalizations were reported during Week 23. **Figure 2** displays influenza associated hospitalizations in Summit County.

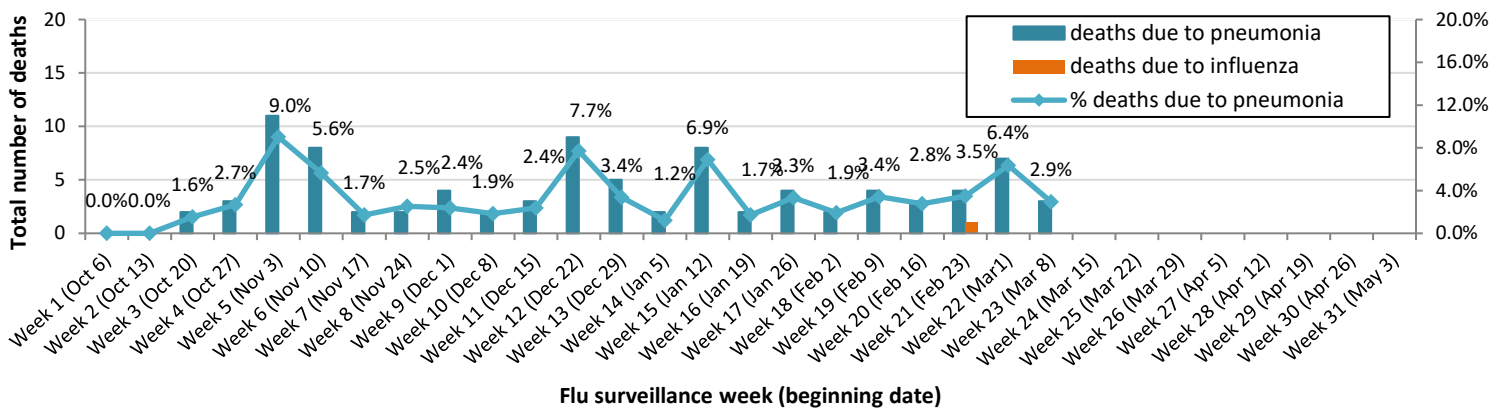
**COMMUNITY ILI REPORTS:** Influenza like Illness (ILI) as defined by the CDC is fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza. Community ILI reports: **Long Term Care Facilities:** There was one case of ILI reported. **Correctional and Inpatient Addiction facilities:** Zero cases of ILI were reported. **Physician offices and clinics:** During Week 23, 2 cases of ILI were reported.

**Pharmacies:** 55 antiviral prescriptions were filled by reporting pharmacies during Week 23.

**School absenteeism** includes absences regardless of reason. During Week 23, the reported absence rate was 9.5%, a 41.8% increase from Week 22.

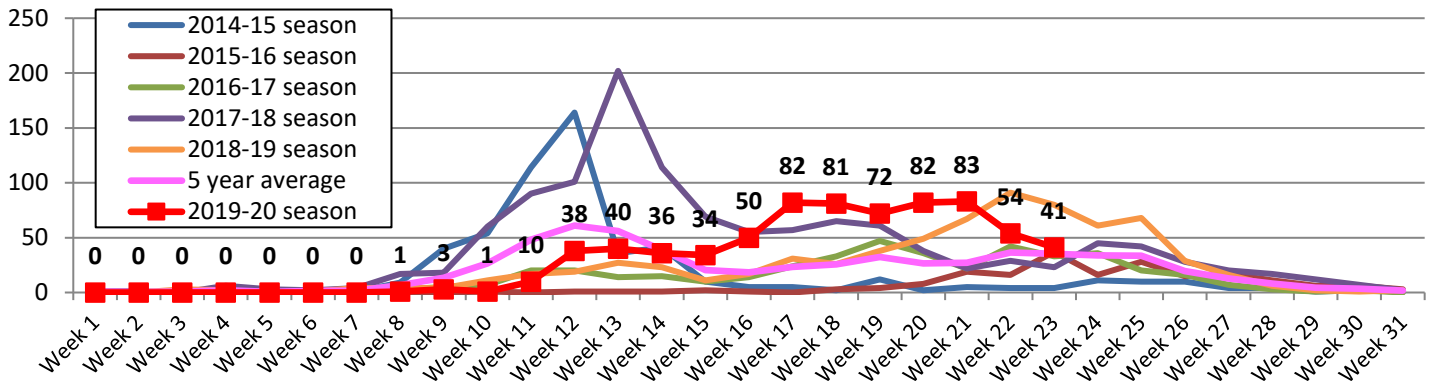
**Lab reports:** During Week 23 of influenza surveillance, reporting Summit County laboratories performed 1803 flu tests, of which 405 were positive (Type A = 280, Type B = 125). (**Figure 4**).

**Figure 1. Weekly Summit County death counts associated with pneumonia and influenza during 2019-2020 season**



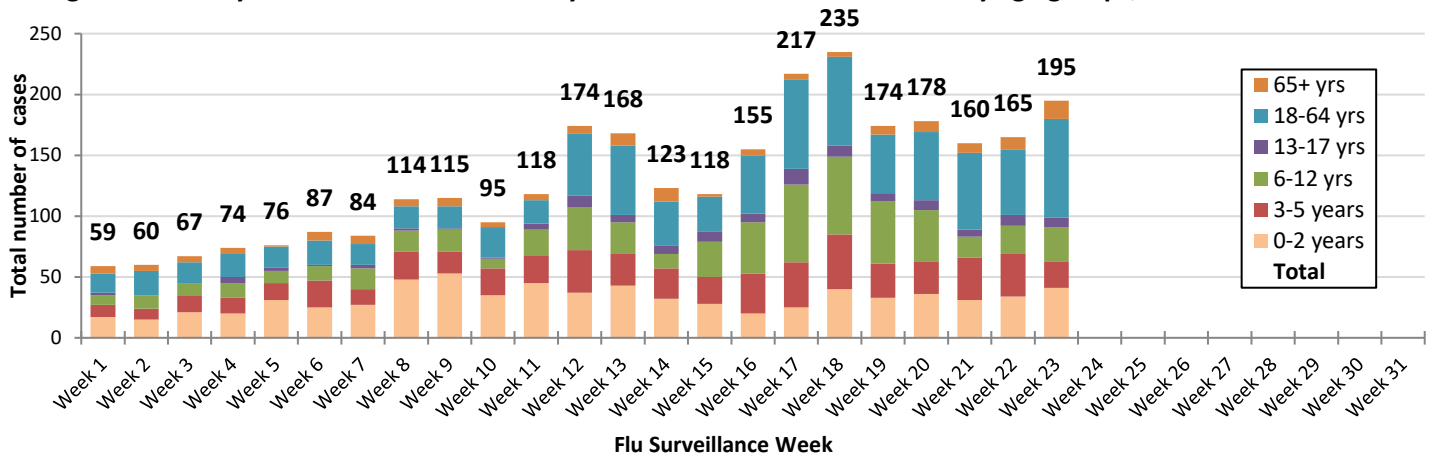
**Influenza-associated hospitalization:** Summit County hospitals reported 41 influenza-associated hospitalizations during Week 23. **Figure 2** displays weekly confirmed hospitalization count for Summit County (**cumulative count to date = 708**).

**Figure 2. Summit County influenza-associated hospitalizations by week, 2019-2020 and previous five seasons**

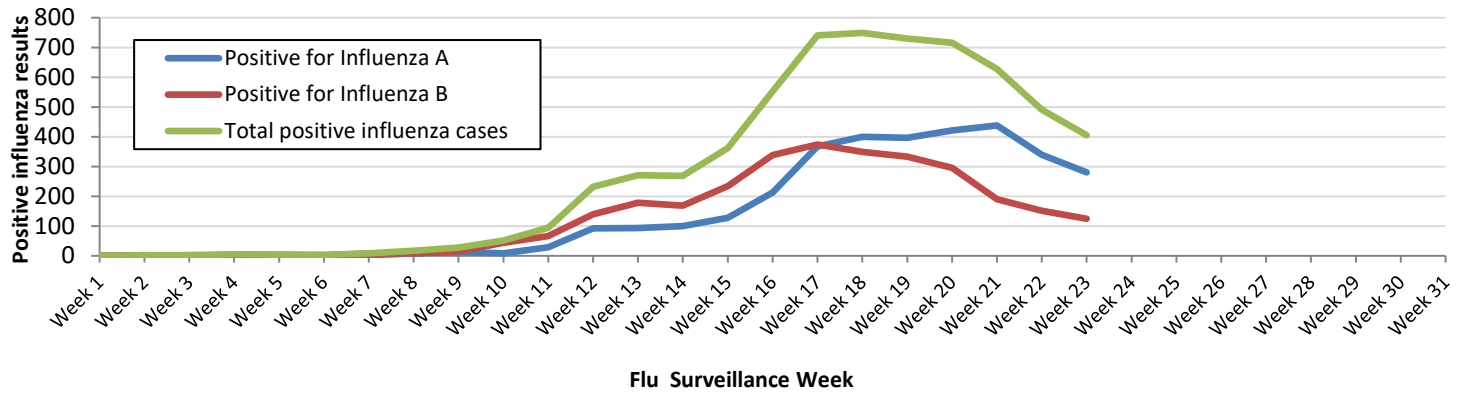


**EpiCenter** collects and analyzes health related data in real time to provide information about the health of the community. This system tracks ER visits related to constitutional complaints and fever and ILI. **Figure 3** displays the weekly number of ER visits related to ILI and flu symptoms in Summit County. There were 195 ILI-related visits reported during Week 23, which was 3.3% of total ED visits (n = 5996). This rate was 19.2% higher than the ILI rate during Week 22.

**Figure 3. Weekly ED visits in Summit County related to Fever + ILI stratified by age groups, 2019 to 2020 season**



**Figure 4. Influenza diagnostic tests with positive results completed by Summit County health facilities, 2019 - 2020 season**



**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 11, public health surveillance data sources indicate High 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 increased and are still above baseline levels statewide; fever and ILI specified ED visits increased and are also still above baseline levels. Reported cases of influenza-associated hospitalizations are above the seasonal threshold\*. There were 579 influenza-associated hospitalizations reported during MMWR Week 11.

**Ohio Influenza Activity Summary Dashboard (March 8 - 14, 2020):**

Data Source	Current week value	Percent Change from last week <sup>1</sup>	# of weeks <sup>2</sup>	Trend Chart <sup>3</sup>
Influenza-like Illness (ILI) Outpatient Data (ILINet Sentinel Provider Visits)	3.46%	14.95%	↑ 1	
Thermometer Sales (National Retail Data Monitor)	9996	193.65%	↑ 3	
Fever and ILI Specified ED Visits (EpiCenter)	4.20%	28.05%	↑ 2	
Constitutional ED Visits (EpiCenter)	15.60%	9.17%	↑ 1	
Confirmed Influenza-associated Hospitalizations (Ohio Disease Reporting System)	579	-36.65%	↓ 3	
Outpatient Medical Claims Data <sup>4</sup>	3.62%	-21.13%	-	

<sup>1</sup>Interpret percent changes with caution. Large variability may be exhibited in data sources with low weekly values.

<sup>2</sup>Number of weeks that the % change is increasing or decreasing.

<sup>3</sup>Black lines represent current week's data; red lines represent baseline averages

<sup>4</sup>Medical Claims Data provided by athenahealth® not available for week 11, data as of week 9 is shown.

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

## Ohio Surveillance Data:

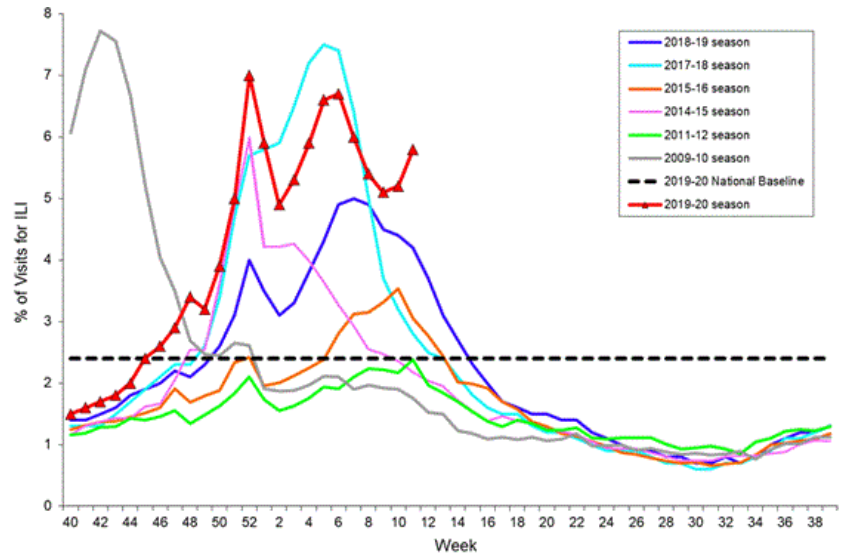
- **ODH lab** has reported **969 positive** influenza tests from specimens sent from sentinel ILINet providers and hospital clinical labs. 2019-2020 influenza season results: **(570) A/H1N1pdm09; (17) A/H3N2; (382) Influenza B;** (through 03/14/2020).
- The **National Respiratory and Enteric Virus Surveillance System (NREVSS)** has reported **75,071** influenza specimens tested by RT-PCR at participating facilities. 2019-2020 influenza season positive results: **(553) A/pdmH1N1; (3) A/H3N2; (8,619) Flu A Not Subtyped; and (8,380) Flu B;** (through 03/14/2020)
- **4 influenza-associated pediatric mortalities** have been reported during the 2019-2020 season (through 03/14/2020).
- No **novel influenza A virus infections** have been reported during the 2019-2020 season (through 03/14/2020).
- Incidence of confirmed **influenza-associated hospitalizations** in 2019-2020 season = **10,008** (through 03/14/2020).

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

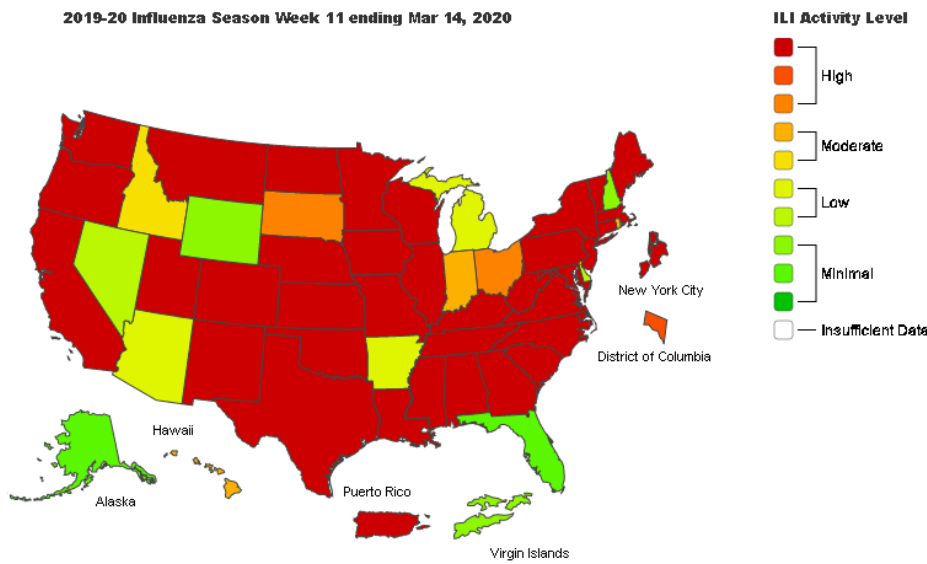
Laboratory confirmed flu activity as reported by clinical laboratories continued to decrease; however, influenza-like illness activity increased. Influenza severity indicators remain moderate to low overall, but hospitalization rates differ by age group, with high rates among children and young adults.

- **Viral Surveillance:** While influenza B/Victoria viruses predominated earlier in the season, during recent weeks, influenza A(H1N1)pdm09 viruses have been reported more frequently than B/Victoria viruses. For the season, A(H1N1)pdm09 viruses are the predominant virus nationally. However, the predominant virus continues to vary by age group.
  - **Virus Characterization:** the percentage of viruses that were characterized antigenically are similar to the cell grown reference viruses representing the 2019-20 Northern Hemisphere influenza vaccines are listed by subtype. **A (H1N1)pdm09: 80.8%** (143 of 177 samples); **A (H3N2): 40.8%** (31 of 76 samples); **B/Victoria: 62.4%** (106 of 175 samples); **B/Yamagata: 100%** (28 of 28 samples).
  - **Antiviral Resistance:** the vast majority of influenza viruses tested (99.4%) show susceptibility to oseltamivir, peramivir, and zanamivir. All influenza viruses tested showed susceptibility to baloxavir.
- **Influenza-like Illness Surveillance (Figure 5):** Nationwide during week 11, 5.8% of patient visits reported through the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) were due to influenza-like illness (ILI). *This percentage is above the national baseline of 2.4%.* On a regional level, the percentage of outpatient visits for ILI ranged from 4.6% to 7.9% during week 11. All regions reported a percentage of outpatient visits for ILI which is above their region-specific baselines.
  - **ILI State Activity Indicator Map (Figure 6):** Puerto Rico, New York City, and 37 states reported high ILI activity; 4 states reported moderate activity; the District of Columbia and 5 states reported low activity, and the US Virgin Islands and 4 states reported minimal ILI activity.
- **Geographic Spread of Influenza (Figure 7):** During Week 11, the geographic spread of influenza was reported widespread in Puerto Rico and 47 states; regional in Minnesota and Wyoming, local in the District of Columbia and Hawaii; sporadic in the U.S. Virgin Islands and Guam did not report.
- **Pneumonia and Influenza (P&I) Mortality:** Based on National Center for Health Statistics (NCHS) mortality surveillance data available on March 19, 2020, 7.1% of the deaths occurring during the week ending March 7, 2020 (Week 10) were due to P&I. This percentage is below the epidemic threshold of 7.3% for week 10.
- **Influenza-associated Pediatric Deaths:** A total of 149 influenza-associated pediatric deaths occurring during the 2019-2020 season have been reported to CDC.
  - 96 deaths were associated with influenza B viruses. 21 of these had the lineage determined and all were B/Victoria viruses.
  - 53 deaths were associated with influenza A viruses. 30 of these had subtyping performed and 29 were A(H1N1)pdm09 viruses, one was A(H3) virus.

**Figure 5. Percentage of visits for influenza-like illness (ILI) reported by the U.S. Outpatient Influenza-like Surveillance Network (ILINet), weekly national summary, 2019-2020 and selected previous seasons**

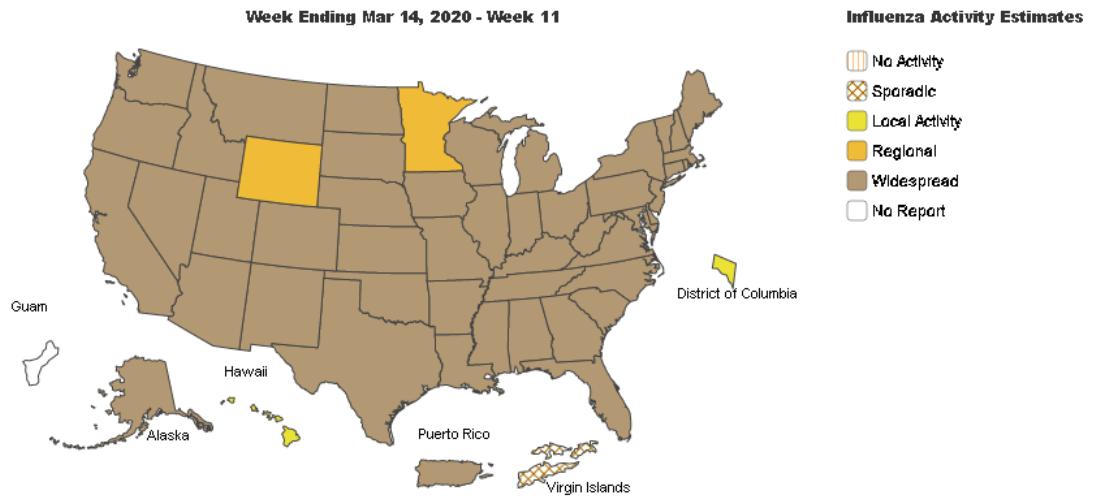


**2019-20 Influenza Season Week 11 ending Mar 14, 2020**



**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 for Figures 5 - 7: <https://www.cdc.gov/flu/weekly/>



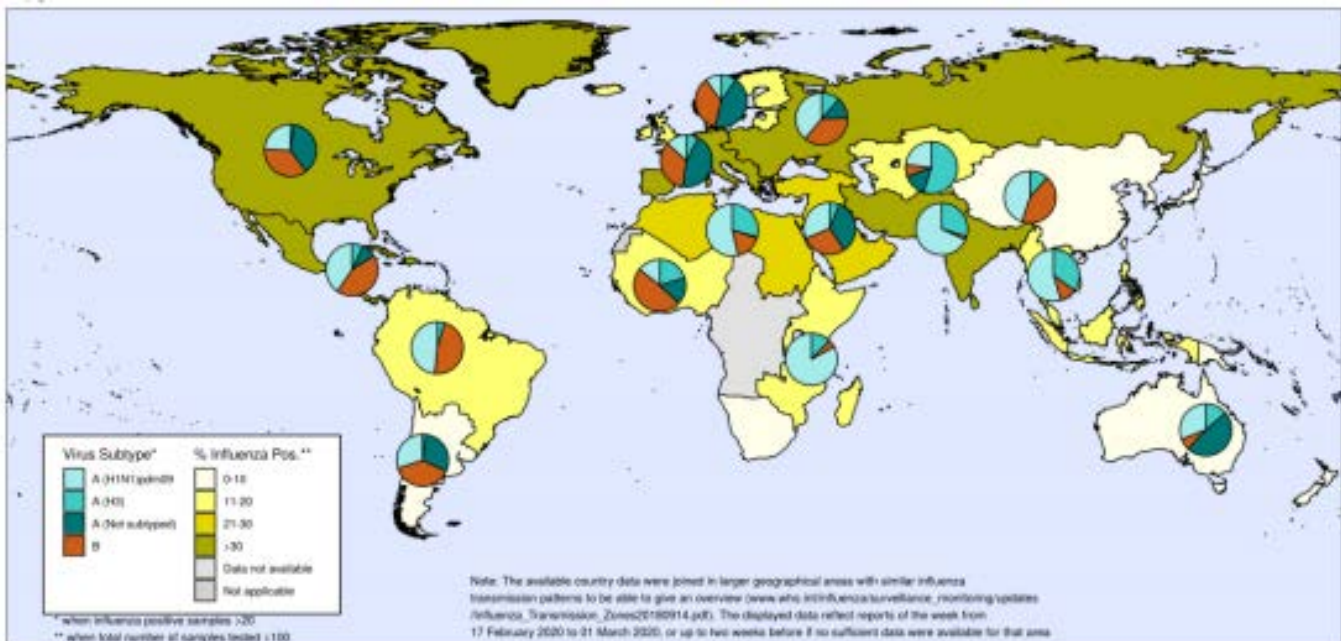
## Global Surveillance:

Influenza Update N° 363, World Health Organization (WHO), published 16 March 2020, based on data up to 01 March 2020. The Update is published every two weeks.

### Summary

- In the **temperate zone of the northern hemisphere**, respiratory illness indicators and influenza activity appeared to decrease overall.
  - In **North America**, influenza-like illness (ILI) and influenza activity started to decline, with influenza A(H1N1)pdm09 and B viruses co-circulating.
  - In **Europe**, influenza activity remained elevated overall, though appeared to have peaked in some countries.
  - In **Central Asia**, influenza activity decreased with detections of all seasonal influenza subtypes.
  - In **Northern Africa**, influenza activity continued to increase in Algeria and Tunisia, with detections of influenza A(H1N1)pdm09 and B viruses.
  - In **Western Asia**, influenza activity decreased in most countries, except in Armenia, Azerbaijan and Qatar.
  - In **East Asia**, ILI and influenza activity decreased overall.
- In the **Caribbean and Central American countries**, influenza activity was reported in some countries. In Mexico, influenza activity decreased, with influenza A(H1N1)pdm09 viruses most frequently detected.
- In **tropical South American** countries, influenza activity remained low.
- In **tropical Africa**, influenza detections were low across reporting countries.
- In **Southern Asia**, increased influenza activity was reported in Bhutan.
- In **South East Asia**, influenza activity continued to be reported in some countries.
- In the **temperate zones of the southern hemisphere**, influenza activity remained at interseasonal levels.
- **Worldwide**, seasonal influenza A viruses accounted for the majority of detections.

Figure 8. Percentage of respiratory specimens that tested positive for influenza, by influenza transmission zone  
Map generated by the WHO on 12 March 2020



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](http://www.who.int/flu-net))  
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National Influenza Centres (NICs) and other national influenza laboratories from 111 countries, areas or territories reported data to FluNet for the time period from 17 February 2020 to 01 March 2020 (data as of 2020-03-12 21:24:24 UTC). The WHO GISRS laboratories tested more than 233445 specimens during that time period. 62423 were positive for influenza viruses, of which **42013 (67.3%) were typed as influenza A and 20410 (32.7%) as influenza B**. Of the sub-typed influenza A viruses, **7348 (74.5%) were influenza A(H1N1)pdm09 and 2516 (25.5%) were influenza A(H3N2)**. Of the characterized B viruses, **18 (1.1%) belonged to the B-Yamagata lineage and 1574 (98.9%) to the B-Victoria lineage**.

During this reporting period, several countries tested specimens obtained through routine influenza surveillance for **COVID-19** and some have found positives. WHO encourages the testing of routine influenza surveillance samples from sentinel and non-sentinel sources for **COVID-19** where resources are available and invites all countries/areas/territories to report this information to routine, established regional and global platforms.

Source: [https://www.who.int/influenza/surveillance\\_monitoring/updates/latest\\_update\\_GIP\\_surveillance/en/](https://www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/)

## Influenza News from CDC:

### New Study Expands Understanding of Influenza-associated Complications

Flu is a respiratory disease and respiratory complications, such as pneumonia, are the most common reason for people to be hospitalized from flu. However, a study published in JAMA Network sheds new light on the number and impact of people hospitalized from flu for non-respiratory complications. Researchers looked at medical records of over 76,000 adult flu patients hospitalized from 2010 through 2018. Results showed that most had an acute respiratory complication as expected, but, nearly half also had a non-respiratory complication, and 5% of patients only experienced a non-respiratory complication from their flu infection. The most common acute non-respiratory complications reported were sepsis, acute kidney injury, and acute cardiovascular events.

#### Key Takeaways for the People with Underlying Medical Conditions:

- Everyone 6 months and older should receive an influenza vaccine every year to protect against influenza and the severe outcomes that can be associated with influenza illness.
- Influenza vaccination is especially important for people at high risk for serious influenza complications, including those with underlying medical conditions.

acutely experienced a non-respiratory complication from their flu infection. The most common acute non-respiratory complications reported were sepsis, acute kidney injury, and acute cardiovascular events.

In fact, besides pneumonia, which was the most common acute respiratory complication (occurring in 36% of patients), the next two most commonly occurring influenza complications were non-respiratory complications: sepsis (23%) and acute kidney injury (20%). Patients with pneumonia, sepsis and acute kidney injury, had a high frequency of severe hospital outcomes, including intensive care unit (ICU) admission and in-hospital mortality, underscoring the fact that non-respiratory complications can be just as severe as a respiratory complication. Additionally, in many cases, severe outcomes and the demand for hospital resources was greater for cases with non-respiratory complications. The study also found that patients with only acute non-respiratory complications were less likely to receive antivirals (81%) compared to those with respiratory complications (89%), suggesting possible missed opportunities to more effectively manage influenza infections in hospitalized patients. Understanding the frequency and impact of both respiratory and non-respiratory complications from flu provides a clearer picture of the full burden and impact of influenza disease.

This study also highlights the increased risk of influenza-associated complications for people with underlying medical conditions. Among patients with at least one acute respiratory complication, 43% had an underlying respiratory medical condition, such as asthma or chronic obstructive pulmonary disease (COPD). Among patients with an acute non-respiratory complication, there was a significantly higher frequency of underlying medical conditions, including

metabolic (52%), cardiovascular (51%), renal (33%), neurological (30%), immunosuppressive (19%), hepatic (7%), and hematologic (6%). This new evidence emphasizes the increased risk of influenza complications for people with underlying medical conditions and provides a reminder as to why influenza vaccination and the prompt use of antiviral medication is so important for people with underlying health conditions.

#### Key Takeaways for Health Care Professionals:

- Health care providers should be aware of the range of influenza related complications that can occur in patients hospitalized with influenza.
- Early antiviral treatment is important for all hospitalized patients, and especially for those at high risk for influenza complications.

These findings should serve as a reminder to health care providers of the vast array of complications that can result from influenza. Health care providers should be aware and consider the range of respiratory and non-respiratory complications that can occur in patients hospitalized with influenza.

Source: <https://www.cdc.gov/flu/spotlights/2019-2020/study-flu-complications.html>

**Prevention of Respiratory Illnesses:** The situation has changed since this information was included in the influenza report: as of March 20, 2020, Summit County now has 10 confirmed cases of COVID-19, and influenza continues to circulate at reduced but elevated levels. The Centers for Disease Control and Prevention (CDC) always recommends **everyday preventive actions to help prevent the spread of respiratory viruses**, including:

- ✓ **Wash your hands often with soap and water** for at least 20 seconds. Use an alcohol-based hand sanitizer that contains at least 60% alcohol if soap and water are not available.
- ✓ **Avoid touching your eyes, nose, and mouth** with unwashed hands.
- ✓ **Avoid close contact** with people who are sick.
- ✓ **Stay home** when you are sick.
- ✓ **Cover your cough or sneeze** with a tissue, then throw the tissue in the trash.
- ✓ **Clean and disinfect** frequently touched objects and surfaces.



An **influenza vaccine** is still available if you have not had it yet. **It is not too late to get the vaccine**, especially since influenza activity remains elevated during the 2019-20 season.

Source: <https://www.cdc.gov/coronavirus/2019-ncov/about/prevention-treatment.html>

**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](mailto:cdu@schd.org)). This report was issued on March 20, 2020.