



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



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

## Report #16 Flu Surveillance Weeks 16 & 17 (1/19/2020 to 2/1/2020) Centers for Disease Control and Prevention MMWR Weeks 4 & 5

### Summit County Surveillance Data:

In **Week 16** of surveillance, influenza-related activity increased to high in Summit County.

**Zero** deaths related to influenza were reported during Week 17, and there were 5 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:** 82 hospitalization was reported during Week 17. **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:** Three cases of ILI were reported. **Physician offices and clinics:** During Week 17, eight cases of ILI were reported.

**Pharmacies:** 79 antiviral prescriptions were filled by reporting pharmacies during Week 17.

**School absenteeism** includes absences regardless of reason. During Week 17, the reported absence rate was 8.1%, a small 2.5% increase from Week 16.

**Lab reports:** During Week 17 of influenza surveillance, reporting Summit County laboratories performed 1894 flu tests, of which 741 were positive (Type A = 367, Type B = 374). (**Figure 4**).

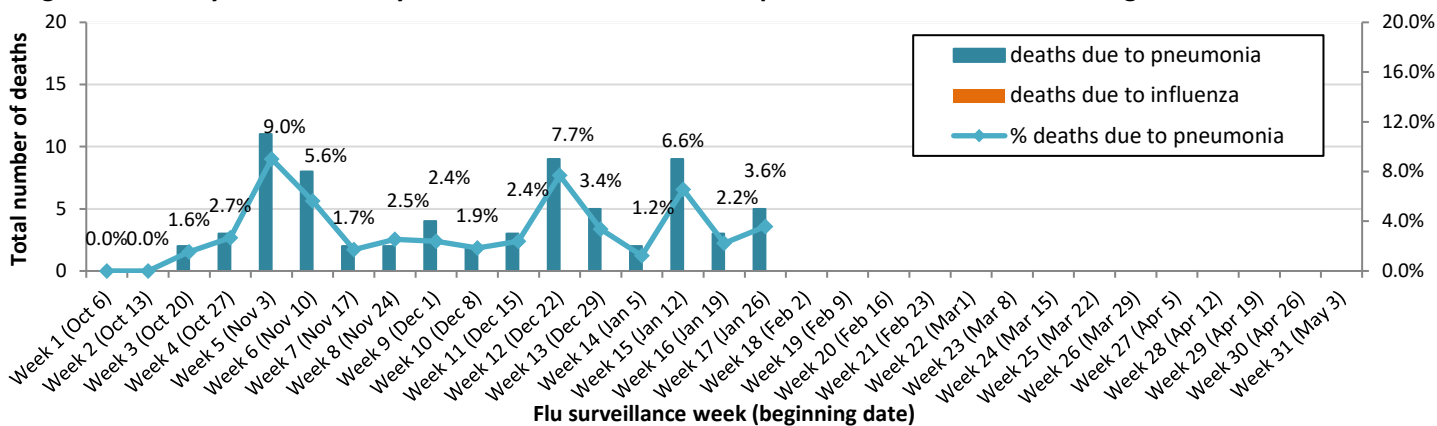
**Table 1: Overall Influenza Activity Indicators in Summit County by Week**

	Week 16 MMWR 4 N (%) <sup>1</sup>	Week 17 MMWR 5 N (%) <sup>1</sup>	Percent change from previous week	Number of weeks increasing or decreasing
<b>Lab Reports</b>				
Test Performed	1501	1894	+ 26.2%	↑3
Positive Tests (Number and %)	552 (36.8)	741 (39.1)	+6.4%	↑4
Influenza A (Number and %)	213 (14.2)	367 (19.4)	+ 36.5%	↑4
Influenza B (Number and %)	339 (22.6)	374 (19.7)	- 12.6%	↓1
<b>Acute care hospitalization for Influenza:</b>	50	82	+ 64.0%	↑2
<b>Influenza ILI Community Report:</b>				
Long-term Care ILI Cases	2	1	- 50.0%	↓1
Correctional & Addiction Facility	0	3	+ 100%	↑1
Physician Offices & University Clinic	7	8	+ 14.3%	↑1
<b>Pharmacy Prescriptions</b>				
Zanamivir (Relenza)	0	0	--	--
Oseltamivir (Tamiflu)	65	78	+ 20.0%	↑4
Baloxavir marboxil (Xofluza)	0	1	+ 100%	↑1
<i>Total</i>	65	79	+ 21.5%	↑4
<b>Schools absenteeism<sup>2</sup></b>	7.9%	8.1%	+ 2.5%	↑3
<b>Deaths</b>				
Pneumonia associated	3 (2.2)	5 (3.6)	+ 60.7%	↑1
Influenza associated	0	0	--	--
<b>Emergency room visits (EpiCenter)<sup>3</sup></b>				
Constitutional Complaints	886 (14.5)	1087 (16.5)	+ 13.6%	↑3
Fever and ILI	155 (2.5)	217 (3.3)	+ 29.6%	↑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

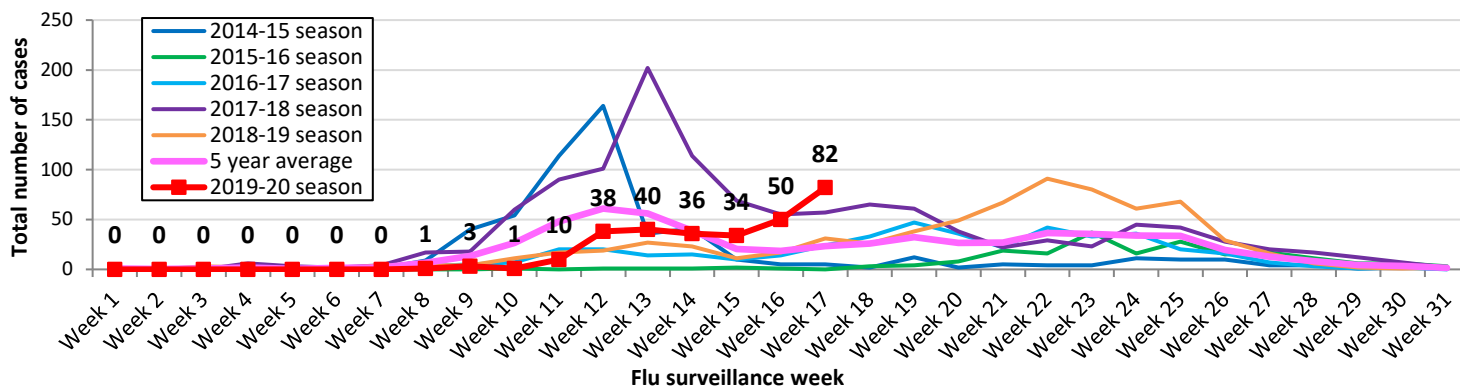
**Note:** Data is provisional and may be updated as more information is received. Percentages should be interpreted with caution. Small changes in number can result in large changes in percent. When a percentage, or prevalence, is available in this table, the percent change will be calculated from those values

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



**Influenza-associated hospitalization:** Summit County hospitals reported 82 influenza-associated hospitalizations during Week 17. **Figure 2** displays weekly confirmed hospitalization count for Summit County (**cumulative count to date = 295**).

**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 217 ILI-related visits reported during Week 17, which was 3.3% of total ED visits (n = 6590). This rate was 30% higher than the ILI rate during Week 16.

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

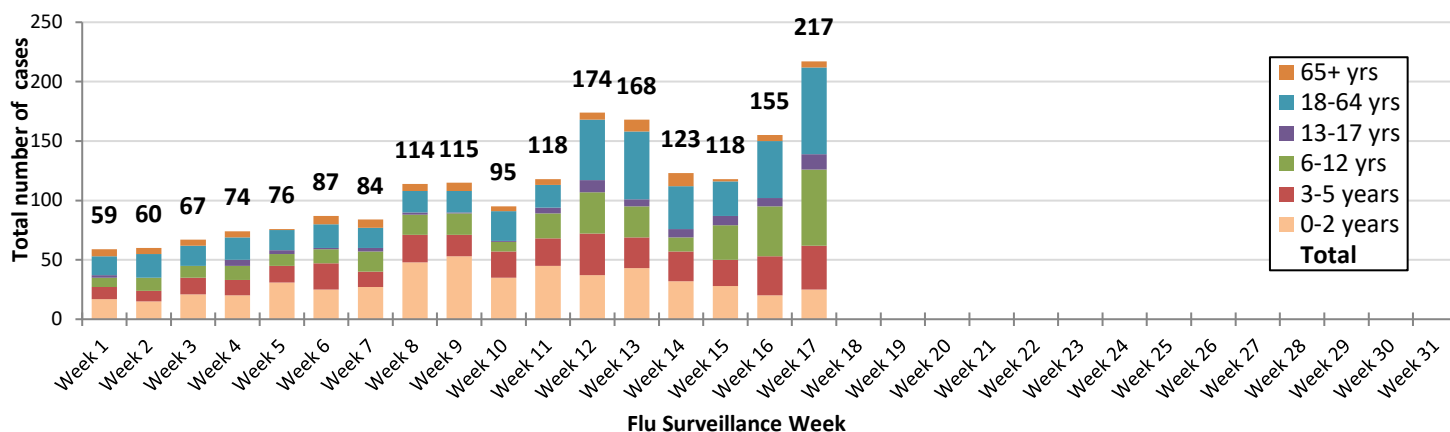
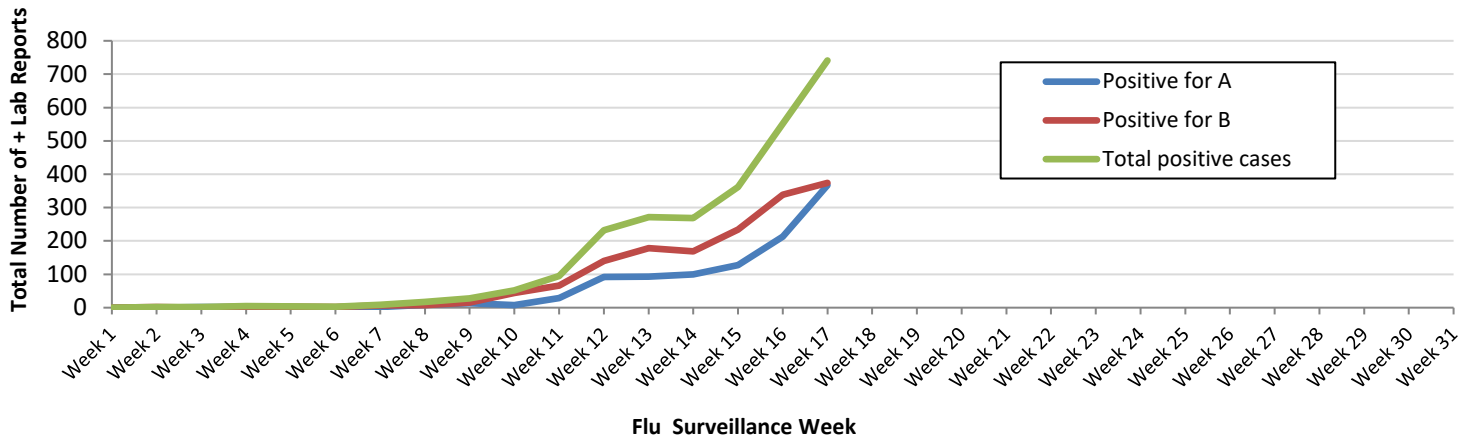


Figure 4. Influenza diagnostic tests with positive results completed by Summit County health facilities, 2019 - 2020 season



## 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 5, 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 above baseline levels statewide; fever and ILI specified ED visits increased and are also above baseline levels. Reported cases of influenza-associated hospitalizations are above the seasonal threshold\*. There were 832 influenza-associated hospitalizations reported during MMWR Week 5.

### Ohio Influenza Activity Summary Dashboard (January 26 – February 1, 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)	4.20%	38.61%	↑ 3	
Thermometer Sales (National Retail Data Monitor)	2590	32.55%	↑ 4	
Fever and ILI Specified ED Visits (EpiCenter)	4.19%	21.10%	↑ 3	
Constitutional ED Visits (EpiCenter)	17.70%	17.30%	↑ 3	
Confirmed Influenza-associated Hospitalizations (Ohio Disease Reporting System)	832	36.17%	↑ 2	
Outpatient Medical Claims Data <sup>4</sup>	5.55%	23.61%	↑ 3	

<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®

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

## Ohio Surveillance Data:

- **ODH lab** has reported **428 positive** influenza tests from specimens sent from sentinel ILINet providers and hospital clinical labs. 2019-2020 influenza season results: **(195) A/pdmH1N1; (15) A/H3N2; (218) Influenza B;** (through 02/01/2020).
- The **National Respiratory and Enteric Virus Surveillance System (NREVSS)** has tested **50,414** influenza specimens by RTPCR at participating facilities. 2019-2020 influenza season positive results: **(215) A/pdmH1N1; (3) A/H3N2; (3,278) Flu A Not Subtyped; and (5,900) Flu B;** (through 02/01/2020)
- **1 influenza-associated pediatric mortality** has been reported during the 2019-2020 season (through 02/01/2020).
- **No novel influenza A virus infections** have been reported during the 2019-2020 season (through 02/01/2020).
- Incidence of confirmed **influenza-associated hospitalizations** in 2019-2020 season = **4,465** (through 02/01/2020).

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

Key indicators that track flu activity remain high and, after falling during the first two weeks of the year, increased over the last three weeks. Indicators that track severity (hospitalizations and deaths) are not high at this point in the season.

- **Viral Surveillance:** Nationally influenza B/Victoria viruses have been reported more frequently than other influenza viruses this season. However, during recent weeks, influenza A(H1N1)pdm09 viruses have been reported more frequently than B/Victoria viruses. The predominant virus varies by region and 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: 100%** (74 of 74 samples); **A (H3N2): 43.5%** (30 of 69 samples); **B/Victoria: 60.2%** (53 of 88 samples); **B/Yamagata: 100%** (10 of 10 samples).
  - **Antiviral Resistance:** the vast majority of influenza viruses tested (99.9%) show susceptibility to oseltamivir, peramivir, and zanamivir. All influenza viruses tested showed susceptibility to baloxavir.
- **Influenza-like Illness Surveillance (Figure 5):** Nationwide during week 5, 6.7% 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 4.0% to 10.9% during week 5. 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 45 states reported high ILI activity; the District of Columbia, the US Virgin Islands and 2 states reported moderate activity; 2 states experienced low activity, and Idaho reported minimal ILI activity.
- **Geographic Spread of Influenza (Figure 7):** During Week 5, the geographic spread of influenza was reported widespread in Puerto Rico and 48 states; regional in two states, local in the District of Columbia; the U.S. Virgin Islands reported sporadic activity and Guam did not report.
- **Pneumonia and Influenza (P&I) Mortality:** Based on National Center for Health Statistics (NCHS) mortality surveillance data available on February 6, 2020, 7.1% of the deaths occurring during the week ending January 25, 2020 (week 4) were due to P&I. This percentage is below the epidemic threshold of 7.2% for week 4.
- **Influenza-associated Pediatric Deaths:** A total of 78 influenza-associated pediatric deaths occurring during the 2019-2020 season have been reported to CDC.
  - 52 deaths were associated with influenza B viruses. Nine of these had the lineage determined and all were B/Victoria viruses.
  - 26 deaths were associated with influenza A viruses. 16 of these had subtyping performed and all were A(H1N1)pdm09 viruses.

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

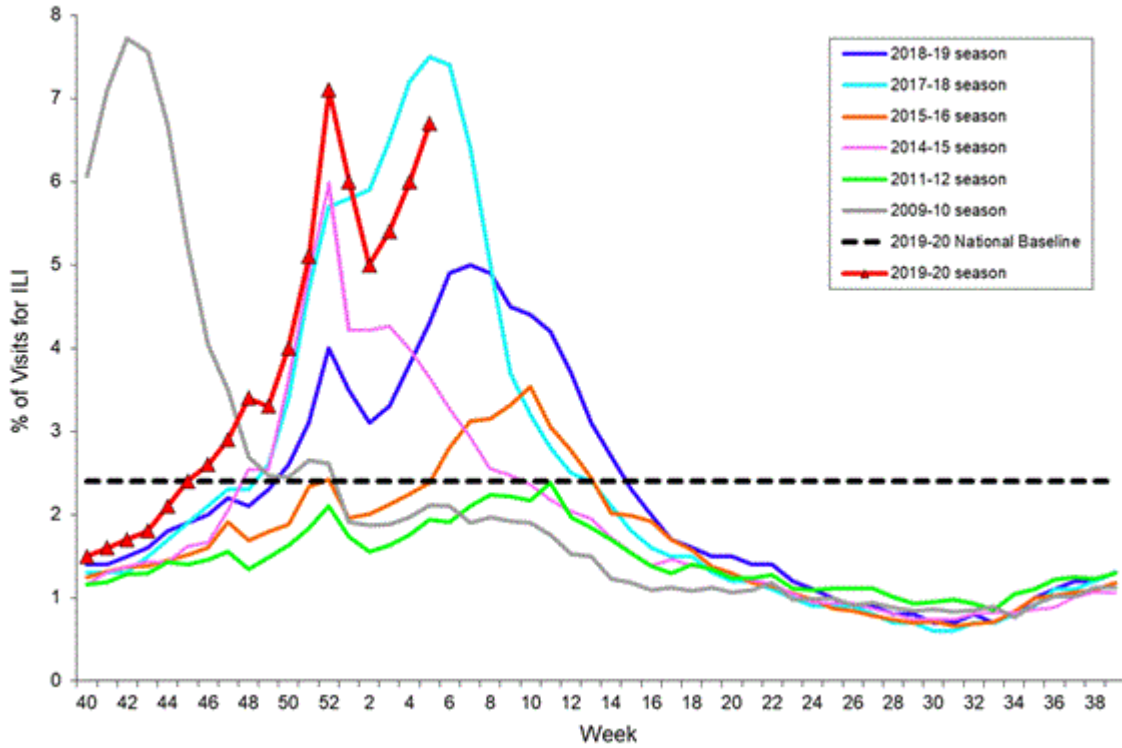


Figure 6. Influenza-like illness (ILI) activity level indicator determined by data reported to ILINet  
2019-20 Influenza Season Week 5 ending Feb 01, 2020

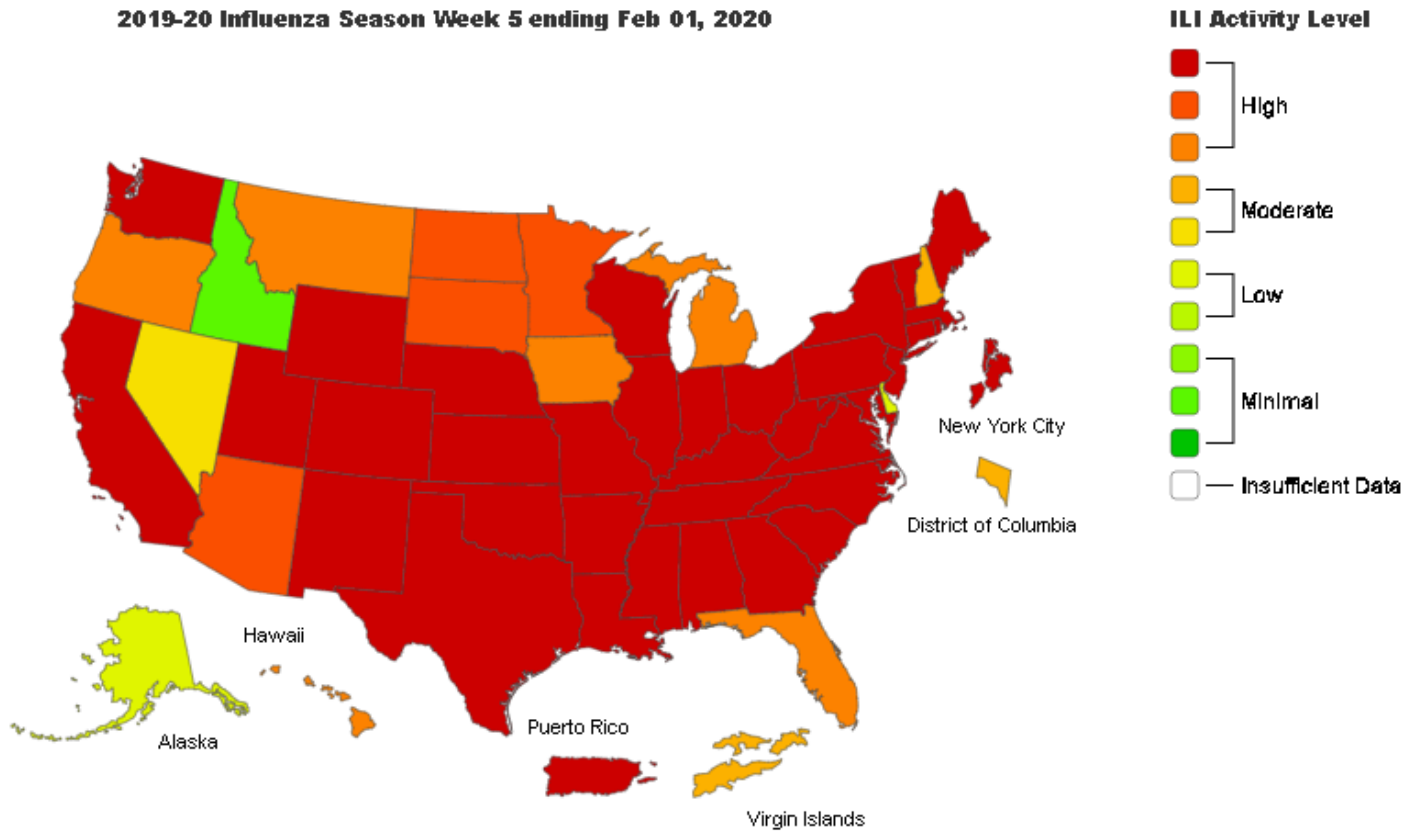
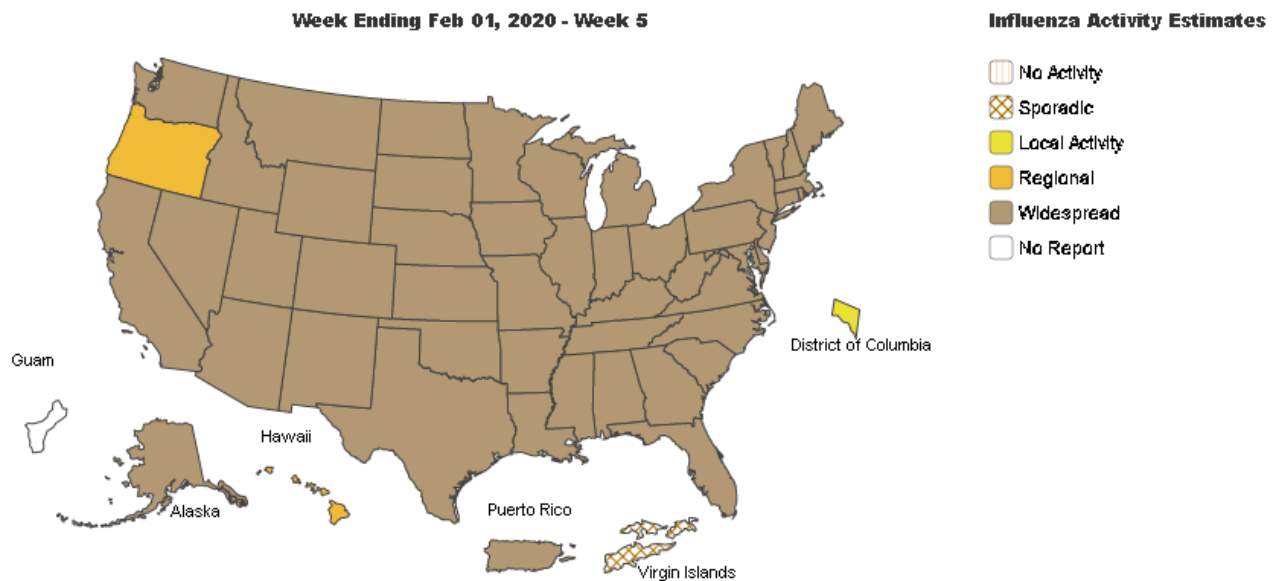


Figure 7. Weekly influenza activity (geographic spread) estimates reported by state and territorial epidemiologists



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

## Global Surveillance:

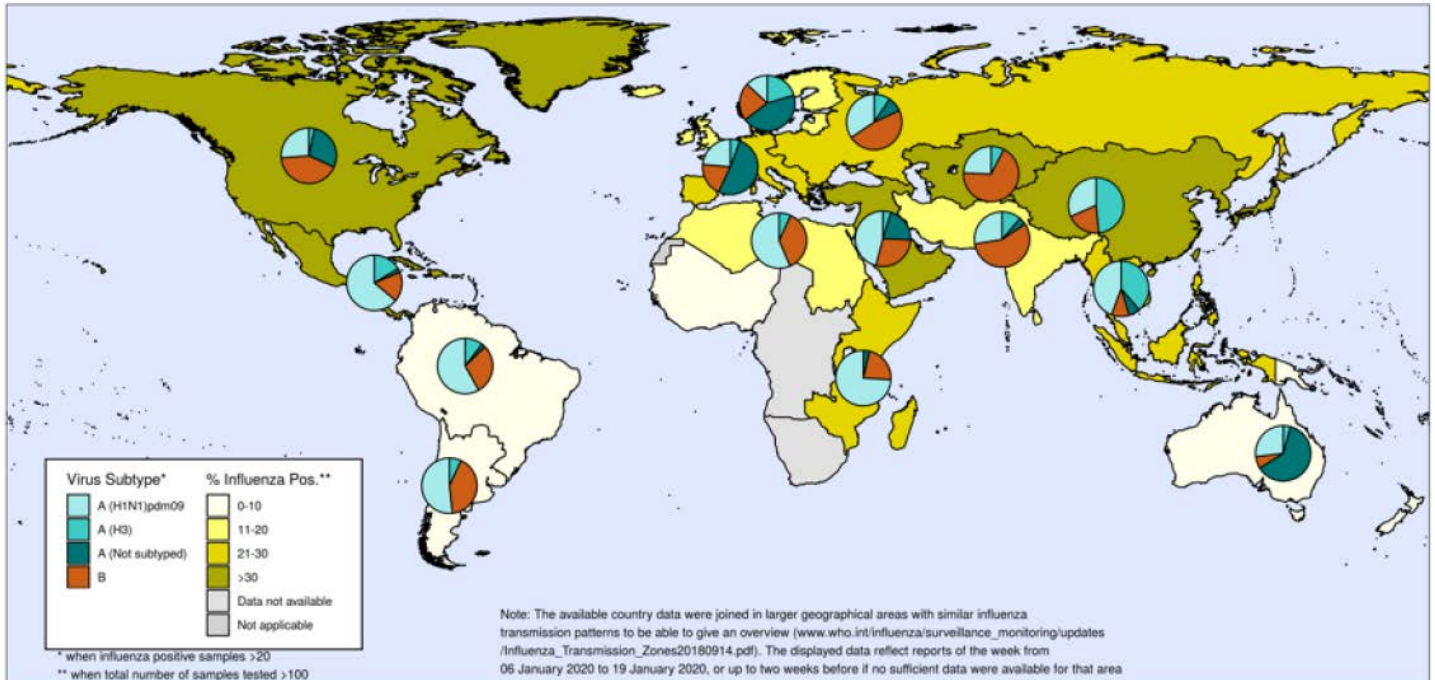
Influenza Update N° 360, World Health Organization (WHO), published 03 February 2020, based on data up to 19 January 2020. The Update is published every two weeks.

### Summary

- In the **temperate zone of the northern hemisphere**, respiratory illness indicators and influenza activity remained elevated overall.
  - In **North America**, influenza activity remained elevated influenza A(H1N1)pdm09 and B viruses co-circulating.
  - In **Europe**, influenza activity continued to increase across the region but appeared to decrease in some countries of Northern Europe.
  - In **Central Asia**, influenza activity increased with influenza B viruses predominant.
  - In **Northern Africa**, influenza activity appeared to decrease in Egypt after peaking in recent weeks.
  - In **Western Asia**, influenza activity remained elevated overall and continued to increase in Lebanon and Turkey.
  - In **East Asia**, influenza-like illness (ILI) and influenza activity remained elevated overall.
- In **the Caribbean and Central American countries**, influenza activity was low across reporting countries, except for Mexico with increased activity of influenza A(H1N1)pdm09 viruses. In tropical South American countries, increased influenza activity was reported in Peru.
- In **tropical Africa**, influenza activity was low across most reporting countries.
- In **Southern Asia**, influenza activity was low in most reporting countries, but increased in Afghanistan.
- In **South East Asia**, influenza activity continued to be reported in Lao People’s Democratic Republic and Malaysia and increased in Singapore.
- In **the temperate zones of the southern hemisphere**, influenza activity remained at inter-seasonal levels.
- **Worldwide**, seasonal influenza A viruses accounted for the majority of detections.

National Influenza Centres (NICs) and other national influenza laboratories from 111 countries, areas or territories reported data to FluNet for the time period from 06 January 2020 to 19 January 2020 (data as of 2020-01-31 05:10:18 UTC). The WHO GISRS laboratories tested more than 130830 specimens during that time period. A total of 33190 specimens were positive for influenza viruses, of which 23283 (70.2%) were typed as influenza A and 9907 (29.8%) as influenza B. Of the sub-typed influenza A viruses, 7834 (58.8%) were influenza A(H1N1)pdm09 and 5478 (41.2%) were influenza A(H3N2). Of the characterized B viruses, 42 (1.4%) belonged to the B-Yamagata lineage and 2925 (98.6%) to the B-Victoria lineage. Please note as of this week only data from sentinel sites are counted for the United States of America (USA).

**Figure 8. Percentage of respiratory specimens that tested positive for influenza, by influenza transmission zone**  
**Map generated by the WHO on 04 February 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)  
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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 CIDRAP and CDC:

### Study: Quadrivalent flu vaccines offer similar protection against flu B

A new study published in *Clinical Infectious Diseases* tracked flu vaccine efficacy against influenza B strains in both the trivalent (three-strain) and quadrivalent (four-strain) vaccines and found no significant differences between the two.

Beginning in 2013 in the United States, quadrivalent inactive influenza vaccines (IIV4) containing two B viruses became an option in addition to trivalent vaccines (IIV3), which contained one B strain. To conduct this study, researchers compared the odds of influenza B infection across four flu seasons (2013-14 to 2016-17) where both IIV3 and IIV4 vaccines were used, and by the two B lineages among vaccinated versus unvaccinated participants.

The overall effectiveness against any influenza B was 53% (95% confidence interval [CI], 45% to 59%) for IIV4 versus 45% (95% CI, 34% to 54%) for IIV3, the authors said. "IIV4 was more effective than IIV3 against the B lineage not included in IIV3, but comparative effectiveness against illness related to any influenza B favored neither vaccine valency," they wrote.

**Feb 1 *Clin Infect Dis* study**

**Feb 3 Tedros WHO executive board speech**

Source: <http://www.cidrap.umn.edu/news-perspective/2020/02/news-scan-feb-03-2020>

**Prevention of Respiratory Illnesses:** Although the new coronavirus (2019-nCoV) is of serious concern and is currently capturing news headlines, another respiratory virus – **Influenza** – remains a far bigger threat to most Americans. 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 continues to increase during the 2019-20 season.

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

## FDA approves Seqirus's H5N1 pandemic flu vaccine

Vaccine manufacturer Seqirus, of Holly Springs, North Carolina, announced today that the US Food and Drug Administration (FDA) has approved Audenz, its adjuvanted cell-based H5N1 pandemic flu vaccine. The FDA approved the vaccine for people aged 6 months and older in the event of an H5N1 flu pandemic, the company said in a news release. The vaccine uses the company's MF59 adjuvant, which is designed to enhance the body's immune response. It is produced using cell-based antigen manufacturing, which is designed for rapid production and can be stockpiled for first responders in the event of an H5N1 pandemic.

"Pandemic influenza viruses can be deadly and spread rapidly, making production of safe, effective vaccines essential in saving lives," said Rick Bright, PhD, director of the Biomedical Advanced Research and Development Authority (BARDA), part of the Office of the Assistant Secretary for Preparedness and Response at the Department of Health and Human Services. Russell Basser, MD, senior vice president of research and development at Seqirus, said, "This pandemic influenza vaccine exemplifies our commitment to developing innovative technologies that can help provide rapid response during a pandemic emergency."

**Feb 3 Seqirus [news release](#)**

Source: <http://www.cidrap.umn.edu/news-perspective/2020/02/news-scan-feb-03-2020>

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**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.

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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 February 7, 2020.