



**Summit County Public Health
Influenza Surveillance Report
2018 – 2019 Season
Report #15**



Public Health
Prevent. Promote. Protect.

**Flu Surveillance Week 16 (1/20 to 1/26/2019)
Centers for Disease Control and Prevention MMWR Week 4**

Summit County Surveillance Data:

During **Week 16**, influenza-related activity in Summit County continues to be at an elevated, but low, level.

Table 1: Overall Influenza Activity Indicators in Summit County by Week				
	Week 15 MMWR 3 N (%)¹	Week 16 MMWR 4 N (%)¹	Percent change from previous week	Number of weeks increasing or decreasing
Lab Reports				
Test Performed	876	724	- 17.6%	↓3
Positive Tests (Number and %)	113 (12.9)	88 (12.2)	- 5.4%	↓1
Influenza A (Number and %)	108 (12.3)	86 (11.9)	- 3.3%	↓1
Influenza B (Number and %)	5 (0.6)	2 (0.3)	- 50.0%	↓1
Influenza hospitalizations:	11	17	+ 54.5%	↑1
Influenza ILI Community Report:				
Long-term Care Facilities	4	0	- 100%	↓1
Correctional & Addiction Facilities	0	0	--	--
Physician Offices & Clinics	1	3	+ 200%	↑2
Pharmacy Prescriptions				
Amantidine	1	1	NC	NC
Rimantidine Flumadine	0	0	--	--
Relenza	0	0	--	--
Oseltamivir Tamiflu	14	27	+ 92.9%	↑2
<i>Total antiviral prescriptions</i>	15	28	+86.7%	↑2
Schools absenteeism daily rate²	6.5	8.3	+ 27.7%	↑3
Deaths				
Pneumonia associated	13 (12.3)	10 (8.2)	- 33.3%	↓1
Influenza associated	1	0	- 100%	↓1
Emergency room visits (EpiCenter)³				
Constitutional Complaints	501 (8.9)	458 (8.7)	- 2.3 %	↓3
Fever and ILI	86 (1.5)	67 (1.3)	- 13.3%	↓2
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 8 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 16, the season total remains at 2. There were 10 deaths associated with pneumonia reported in Week 16. **Figure 1** displays weekly Summit County death counts associated with pneumonia and flu.

Acute Care Hospitalizations: There were 17 flu-related hospitalizations reported during Week 16. (**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.

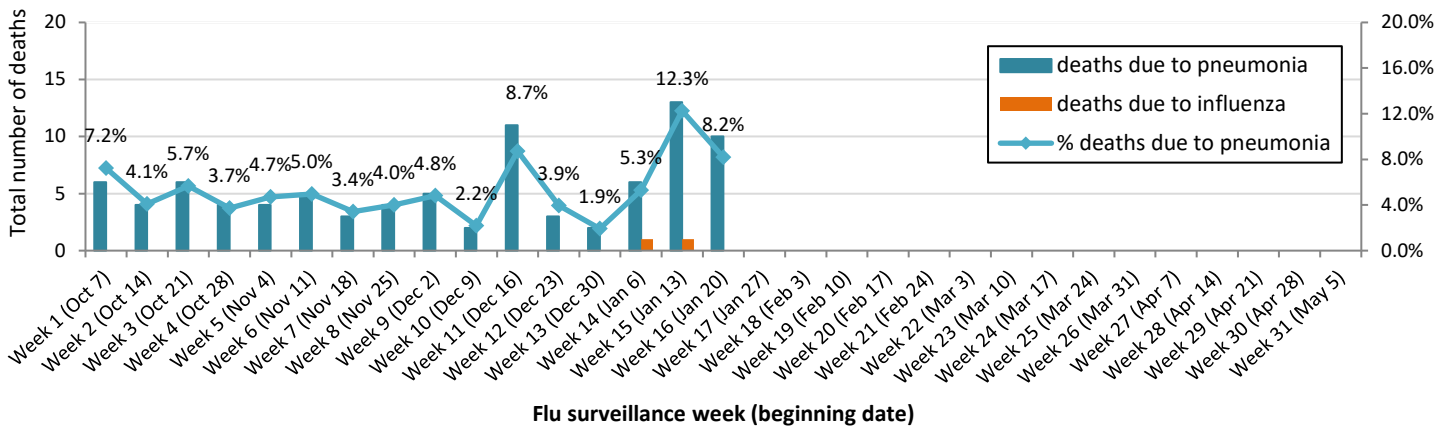
Physician offices and clinics: During Week 16, there were 3 cases of ILI reported.

Pharmacies: 28 prescriptions for antiviral medications were reported during Week 16.

School absenteeism includes absences regardless of reason. During Week 16, area schools reported an average daily absence rate of 8.3%. This was a 27.7% increase over the rate reported during Week 15.

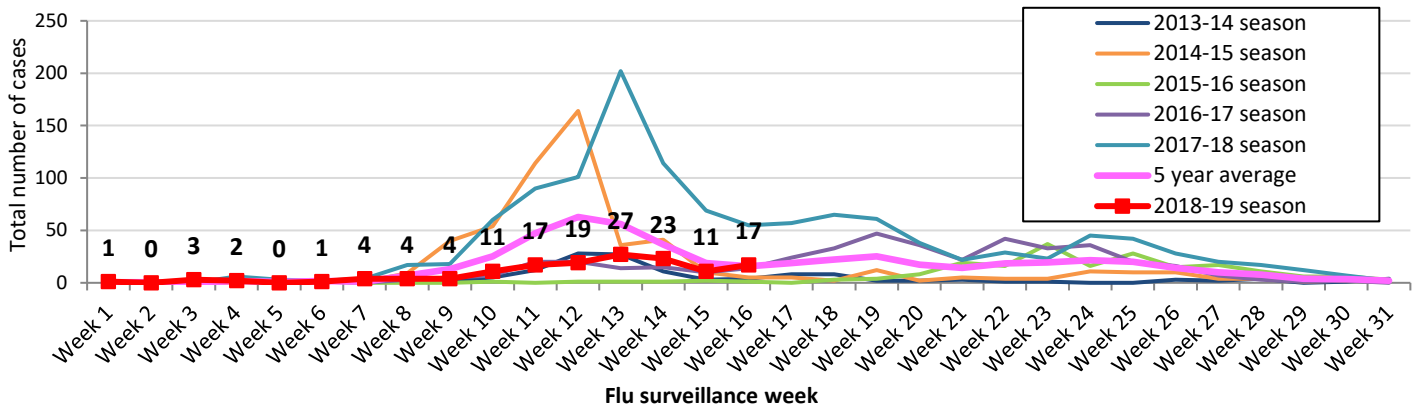
Lab reports: During Week 16, Summit County labs performed 724 influenza tests, of which 88 tested positive (86 Type A, 2 Type B). (**Figure 4**) The number of flu tests ordered decreased by 17.6%, and percentage of positive tests also decreased by smaller rates.

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



Influenza-associated hospitalizations: Summit County hospitals reported 17 influenza-associated hospitalizations in Week 16. **Figure 2** displays weekly confirmed hospitalization counts for Summit County (**season count to date = 144**).

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. There were 67 ILI-related visits reported during Week 16, which was 1.3% of total ED visits (n = 5,252). This was a 13.3% decrease from the Week 15 rate.

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

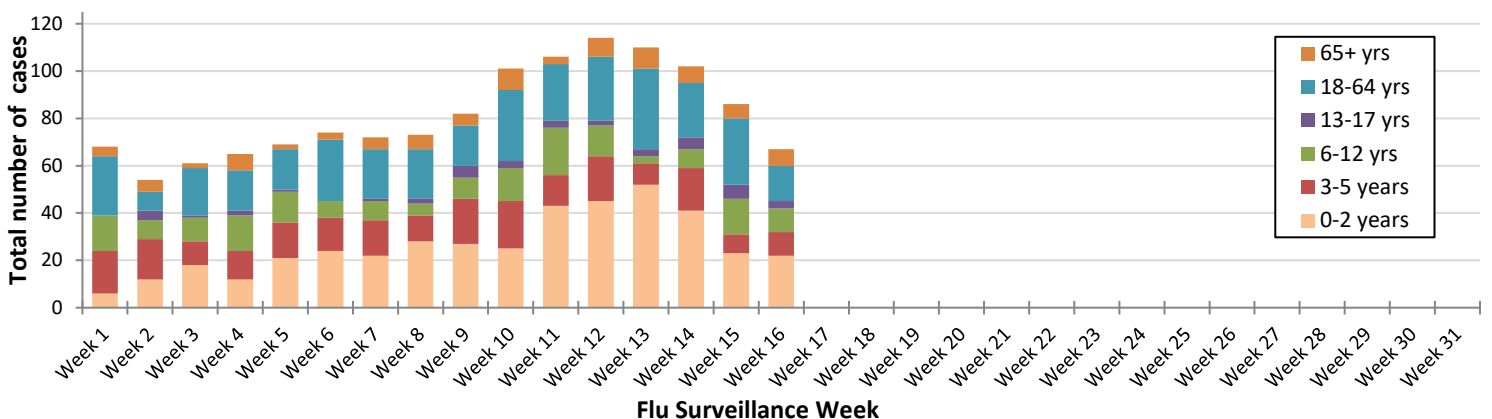
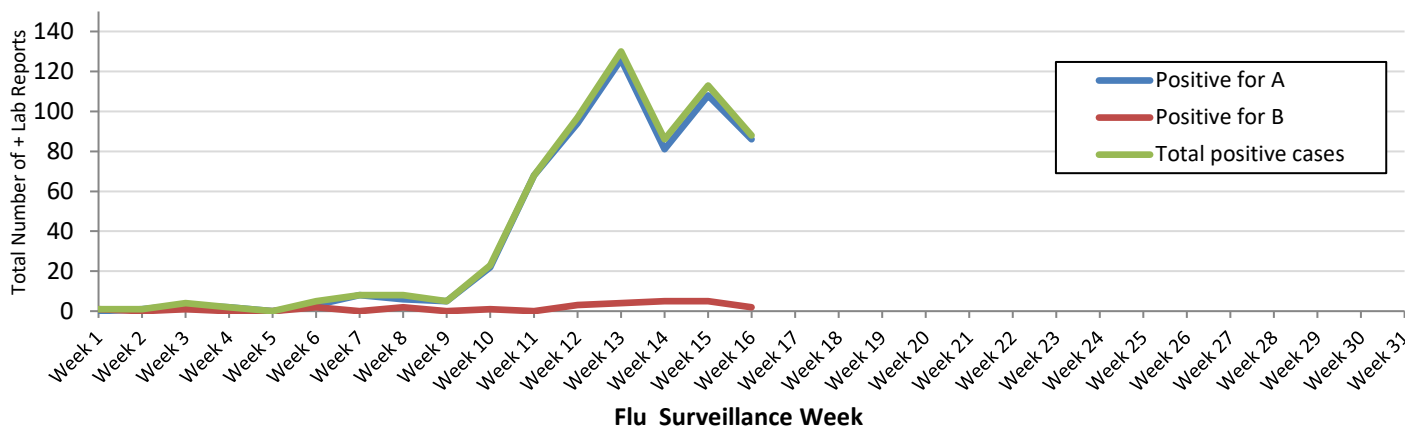


Figure 4. Influenza diagnostic tests with positive results completed by Summit County health facilities, 2018 - 2019 season



Ohio 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.

During MMWR Week 4, 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 and fever and ILI specified ED visits are below baseline levels. Reported cases of influenza-associated hospitalizations are above the seasonal threshold*. There were 273 influenza-associated hospitalizations reported during MMWR Week 4.

Ohio Influenza Activity Summary Dashboard (January 20 – January 16, 2019):

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)	1.44%	5.11%	↑ 2	
Thermometer Sales (National Retail Data Monitor)	1104	-18.76%	↓ 1	
Fever and ILI Specified ED Visits (EpiCenter)	2.30%	3.60%	↑ 2	
Constitutional ED Visits (EpiCenter)	10.28%	-0.87%	↓ 1	
Confirmed Influenza-associated Hospitalizations (Ohio Disease Reporting System)	273	-9.90%	↓ 2	
Outpatient Medical Claims Data ⁴	1.38%	28.97%	↑ 2	

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://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/seasonal-influenza/ohio-flu-activity/>

Ohio Surveillance Data:

- **ODH lab** has reported 293 **positive** influenza tests from specimens sent from various submitters. 2018-2019 influenza season positive results: **(160) A/pdmH1N1; (67) A/H3N2; (1) Influenza B**; (through 01/26/2019).
- The **National Respiratory and Enteric Virus Surveillance System (NREVSS)** has reported **35,870** influenza tests performed at participating facilities. 2018-2019 influenza season positive results: **(111) A/pdmH1N1, (46) A/H3N2, (2675) Flu A Not Subtyped, and (49) Flu B** (through 01/26/2019).
- **0 pediatric influenza-associated mortalities** have been reported during the 2018-2019 season (through 01/26/2019).
- No **novel influenza A virus infections** have been reported during the 2018-2019 season (through 01/26/2019).
- Incidence of confirmed **influenza-associated hospitalizations** in 2018-2019 season = **1832** (through 01/26/2019).

National Influenza Activity:

Influenza activity increased in the United States. Influenza A(H1N1)pdm09, influenza A(H3N2), and influenza B viruses continue to co-circulate. Below is a summary of the key influenza indicators for the week ending January 26, 2019:

- **Viral Surveillance:** The percentage of respiratory specimens testing positive for influenza viruses in clinical laboratories increased. Influenza A viruses have predominated in the United States since the beginning of October. Influenza A(H1N1)pdm09 viruses have predominated in most areas of the country, however influenza A(H3) viruses have predominated in the southeastern United States (HHS Region 4).
 - **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:** The vast majority of influenza viruses tested (>99%) show susceptibility to oseltamivir and peramivir. All influenza viruses tested showed susceptibility to zanamivir.
- **Influenza-like Illness Surveillance (Figure 5):** The proportion of outpatient visits for influenza-like illness (ILI) increased to 3.8%, which is above the national baseline of 2.2%. All 10 regions reported ILI at or above their region-specific baseline level.
 - **ILI State Activity Indicator Map (Figure 6):** New York City and 23 states experienced high ILI activity; Puerto Rico and 10 states experienced moderate ILI activity; the District of Columbia and 13 states experienced low ILI activity; and four states experienced minimal ILI activity.
- **Geographic Spread of Influenza (Figure 7):** The geographic spread of influenza in 45 states was reported as widespread; Puerto Rico and three states reported regional activity; two states reported local activity; the District of Columbia and the U.S. Virgin Islands reported sporadic activity; and Guam did not report.
- **Influenza-associated Hospitalizations:** A cumulative rate of 15.3 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported. The highest hospitalization rate is among adults 65 years and older (39.8 hospitalizations per 100,000 population).
- **Pneumonia and Influenza Mortality:** The proportion of deaths attributed to pneumonia and influenza (P&I) was at 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 during week 4

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

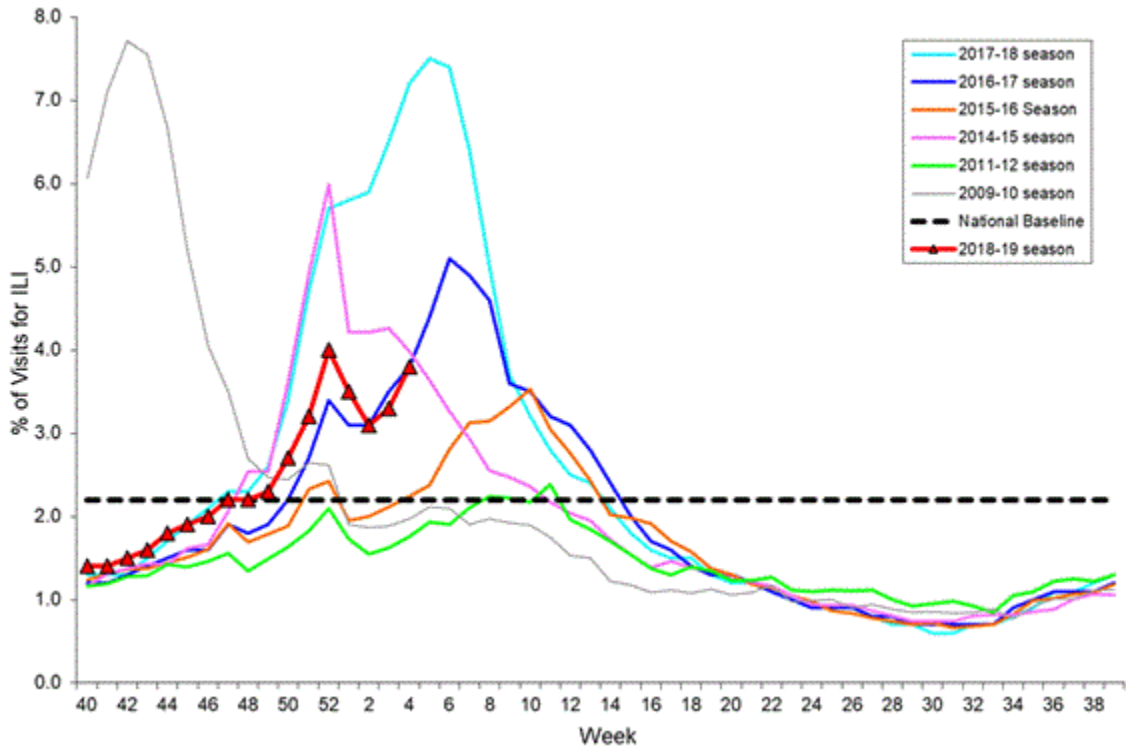


Figure 6. Influenza-like illness (ILI) activity level indicator determined by data reported to ILINet

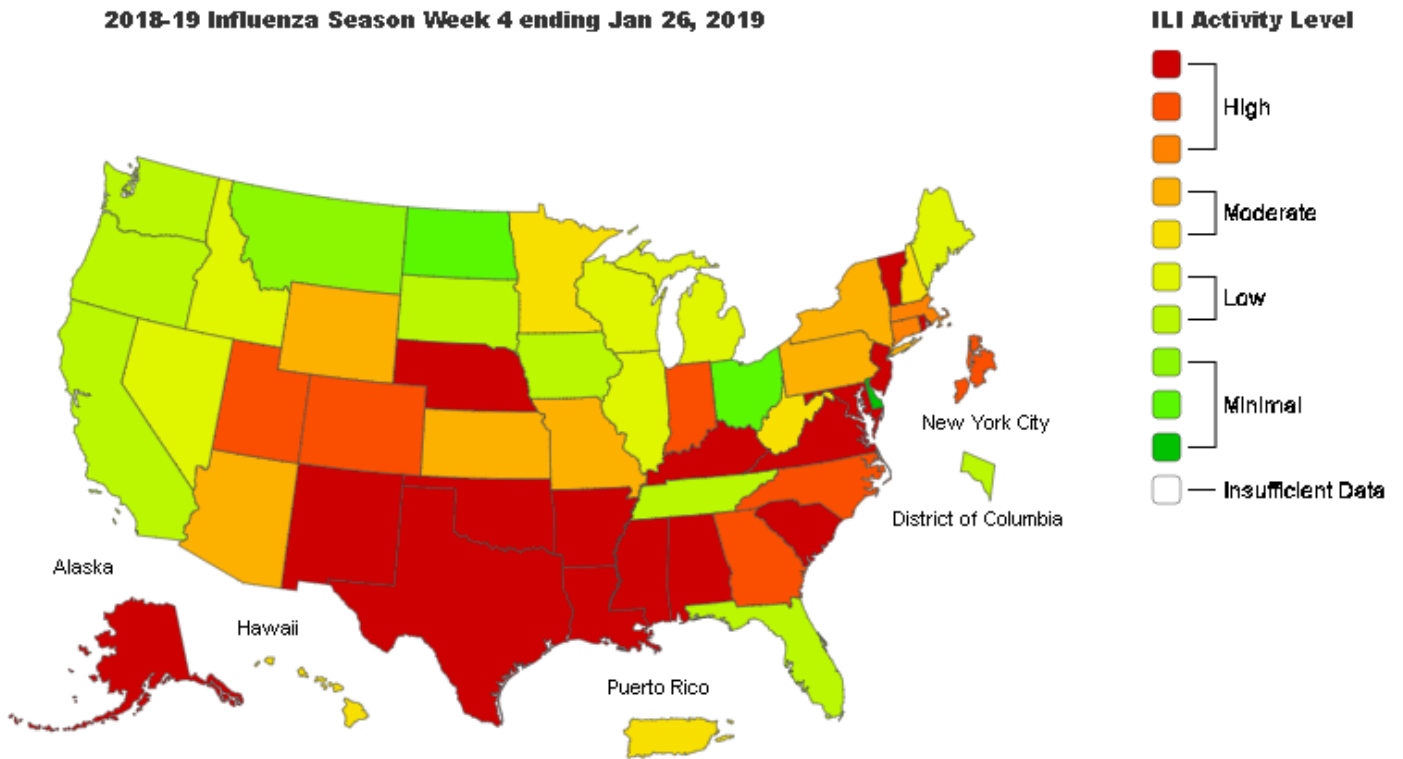
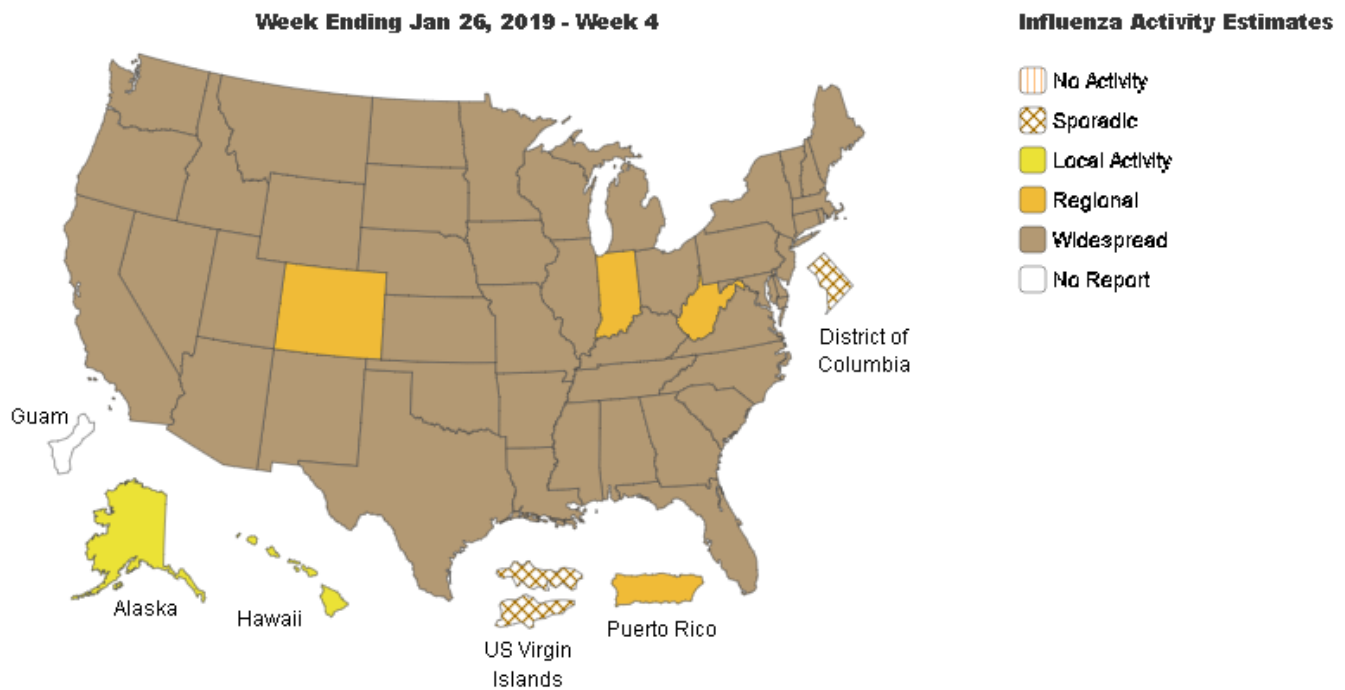


Figure 7. Weekly influenza activity (geographic spread) estimates reported by state and territorial epidemiologists



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

Global Surveillance:

Influenza Update N° 333, World Health Organization (WHO), published 21 January 2019, based on data up to 6 January 2019. The Update is published every two weeks.

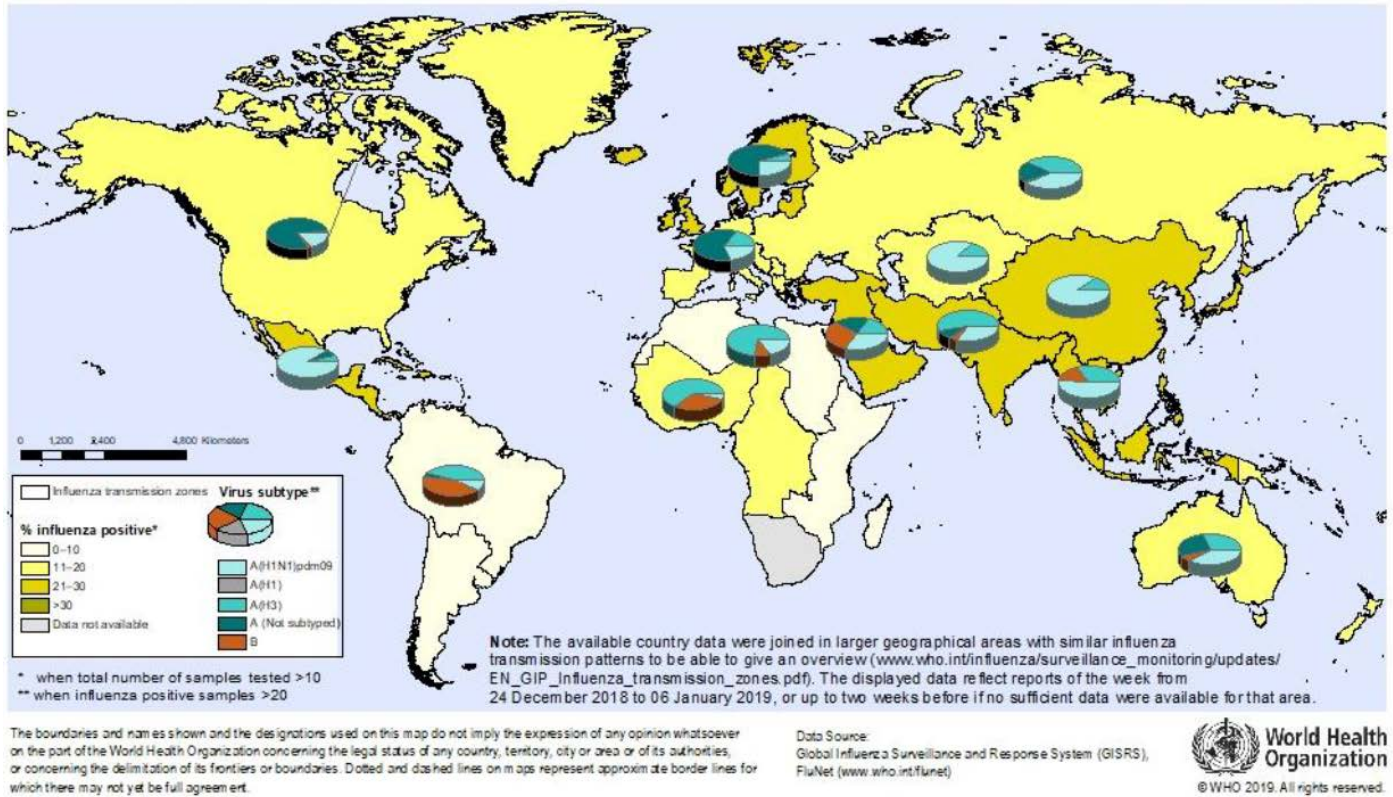
Summary

In the temperate zone of the northern hemisphere influenza activity continued to increase slowly.

- In North America influenza activity remained elevated overall with influenza A(H1N1)pdm09 predominating.
- In Europe, influenza activity continued to increase, with both A viruses circulating.
- In North Africa, influenza A(H3N2) detections continued to be reported in Egypt.
- In Western Asia, influenza activity continued to increase in some countries and appeared to decrease across countries of the Arabian Peninsula.
- In East Asia, influenza activity continued to increase, with influenza A(H1N1)pdm09 most frequently detected.
- In Southern Asia, influenza detections remained elevated overall. Influenza activity continued to increase in Iran (Islamic Republic of) with influenza A(H3N2) the predominant circulating virus.
- In the temperate zones of the southern hemisphere, influenza activity returned to inter-seasonal levels with exception of some parts in Australia.
- *Worldwide, seasonal influenza A viruses accounted for the majority of detections.*

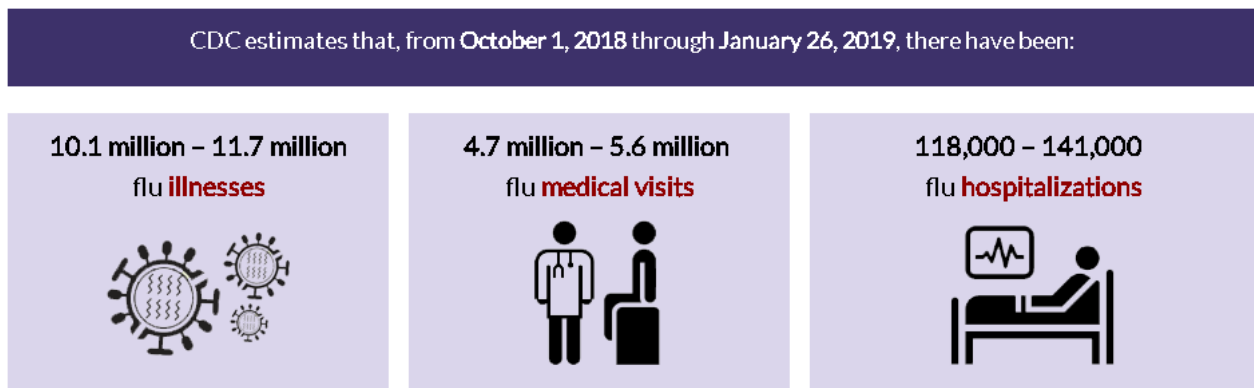
National Influenza Centres (NICs) and other national influenza laboratories from 104 countries, areas or territories reported data to FluNet for the time period from 24 December 2018 to 06 January 2019 (data as of 2019-01-18 04:01:21 UTC). The WHO GISRS laboratories tested more than 191778 specimens during that time period. 39161 were positive for influenza viruses, of which 38493 (98.3%) were typed as influenza A and 668 (1.7%) as influenza B. Of the sub-typed influenza A viruses, 13313 (79.4%) were influenza A(H1N1)pdm09 and 3446 (20.6%) were influenza A(H3N2). Of the characterized B viruses, 45 (38.1%) belonged to the B-Yamagata lineage and 73 (61.9%) to the B-Victoria lineage.

Figure 8. Percentage of respiratory specimens that tested positive for influenza, by influenza transmission zone (status as of 18 January 2019)



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

Influenza News from the CDC (Preliminary 2018-19 flu season burden estimates):



Source web page: <https://www.cdc.gov/flu/about/burden/preliminary-in-season-estimates.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). This report was issued on February 1, 2019.