



**Summit County Public Health
Influenza Surveillance Report
2018 – 2019 Season
Report #18**



**Flu Surveillance Week 19 (2/10 to 2/16/2019)
Centers for Disease Control and Prevention MMWR Week 7**

Summit County Surveillance Data:

During **Week 19**, influenza-related activity in Summit County continued to *increase*.

| Table 1: Overall Influenza Activity Indicators in Summit County by Week | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------|--------------------------------------------------|-------------------------------------------------------------|
| | Week 18 MMWR 6 N (%)¹ | Week 19 MMWR 7 N (%)¹ | Percent change from previous week | Number of weeks increasing or decreasing |
| Lab Reports | | | | |
| Test Performed | 892 | 1,042 | + 16.8% | ↑2 |
| Positive Tests (Number and %) | 186 (20.9) | 259 (24.9) | + 19.1% | ↑5 |
| Influenza A (Number and %) | 182 (20.4) | 257 (24.7) | + 21.1% | ↑5 |
| Influenza B (Number and %) | 4 (0.5) | 2 (0.2) | - 60.0% | ↓1 |
| Influenza hospitalizations: | 26 | 38 | + 46.2% | ↑1 |
| Influenza ILI Community Report: | | | | |
| Long-term Care Facilities | 0 | 0 | -- | -- |
| Correctional & Addiction Facilities | 0 | 0 | -- | -- |
| Physician Offices & Clinics | 8 | 5 | - 37.5% | ↓1 |
| Pharmacy Prescriptions | | | | |
| Amantidine | 5 | -- | -- | -- |
| Rimantidine Flumadine | 0 | -- | -- | -- |
| Relenza | 0 | -- | -- | -- |
| Oseltamivir Tamiflu | 29 | -- | -- | -- |
| <i>Total antiviral prescriptions</i> | 34 | -- | -- | -- |
| Schools absenteeism daily rate² | 4.9 | 6.3 | + 28.6% | ↑1 |
| Deaths | | | | |
| Pneumonia associated | 7 (6.5) | 6 (6.0) | - 7.7% | ↓1 |
| Influenza associated | 1 | 0 | - 100% | ↓1 |
| Emergency room visits (EpiCenter)³ | | | | |
| Constitutional Complaints | 567 (9.7) | 597 (10.6) | + 9.3% | ↑2 |
| Fever and ILI | 80 (1.4) | 93 (1.6) | + 14.3% | ↑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 19, the season total remains at 3. There were 6 deaths associated with pneumonia reported in Week 19. **Figure 1** displays weekly Summit County death counts associated with pneumonia and flu.

Acute Care Hospitalizations: There were 38 flu-related hospitalizations, a 46% increase from Week 18. (**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.

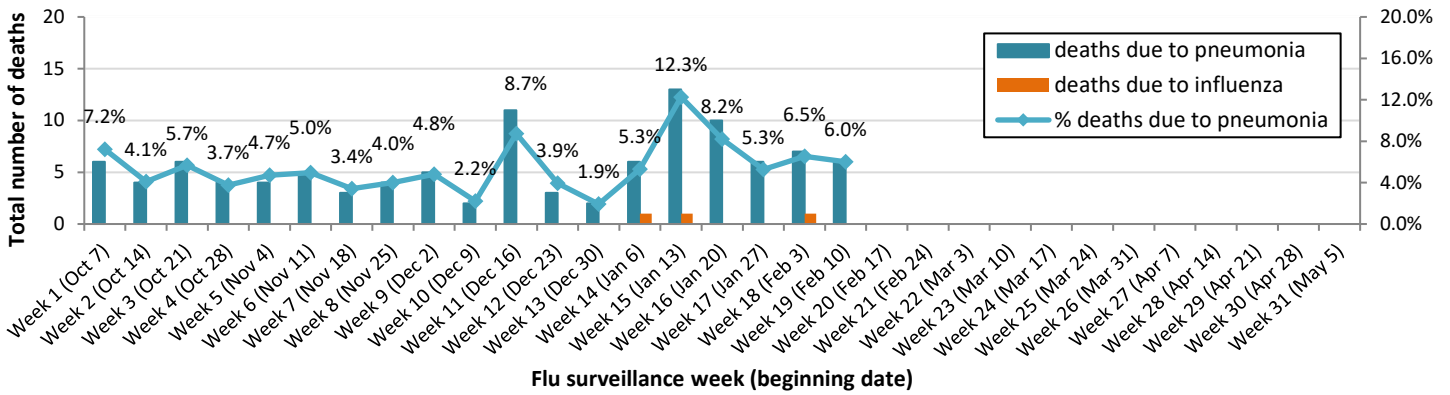
Physician offices and clinics: During Week 19, there were 5 cases of ILI reported.

Pharmacies: Reporting was incomplete and will be updated next week.

School absenteeism includes absences regardless of reason. During Week 19, area schools reported an average daily absence rate of 6.3%. This was a 28.6% increase over the rate reported during Week 18.

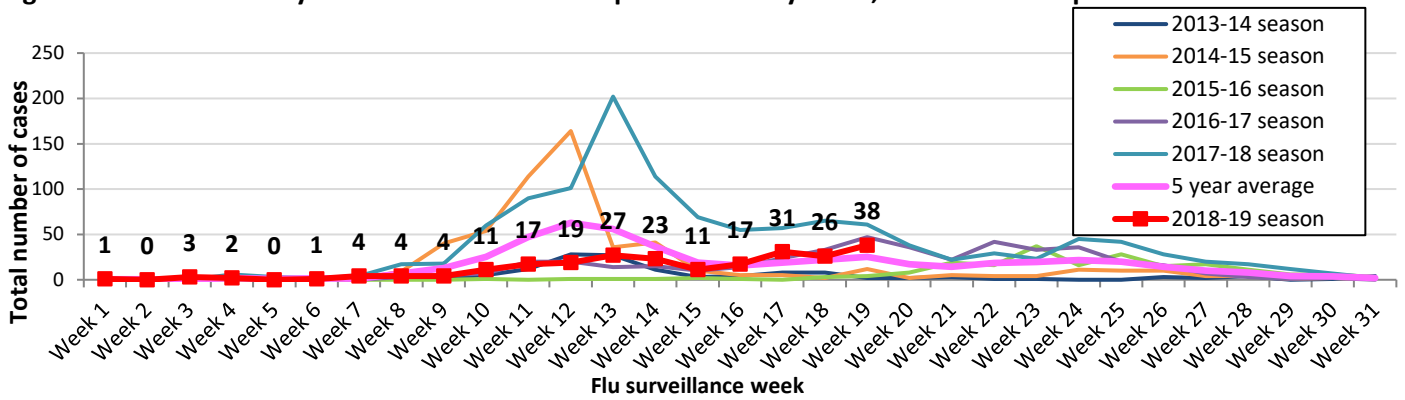
Lab reports: During Week 19, Summit County labs performed 1,042 influenza tests, of which 259 tested positive (257 Type A, 2 Type B). (**Figure 4**) The percentage of positive test results increased by 19% over Week 18.

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



Influenza-associated hospitalizations: Summit County hospitals reported 38 influenza-associated hospitalizations in Week 19. **Figure 2** displays weekly confirmed hospitalization counts for Summit County (**season count to date = 239**).

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 93 ILI-related visits reported during Week 19, which was 1.6% of total ED visits (n = 5,656). This was a 14.3% increase from the Week 18 rate.

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

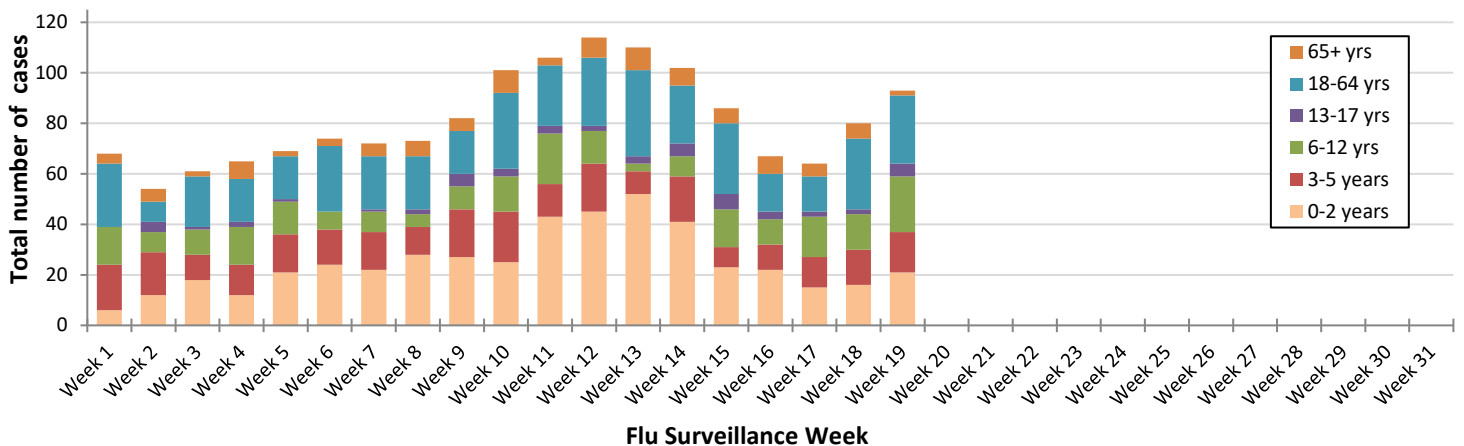
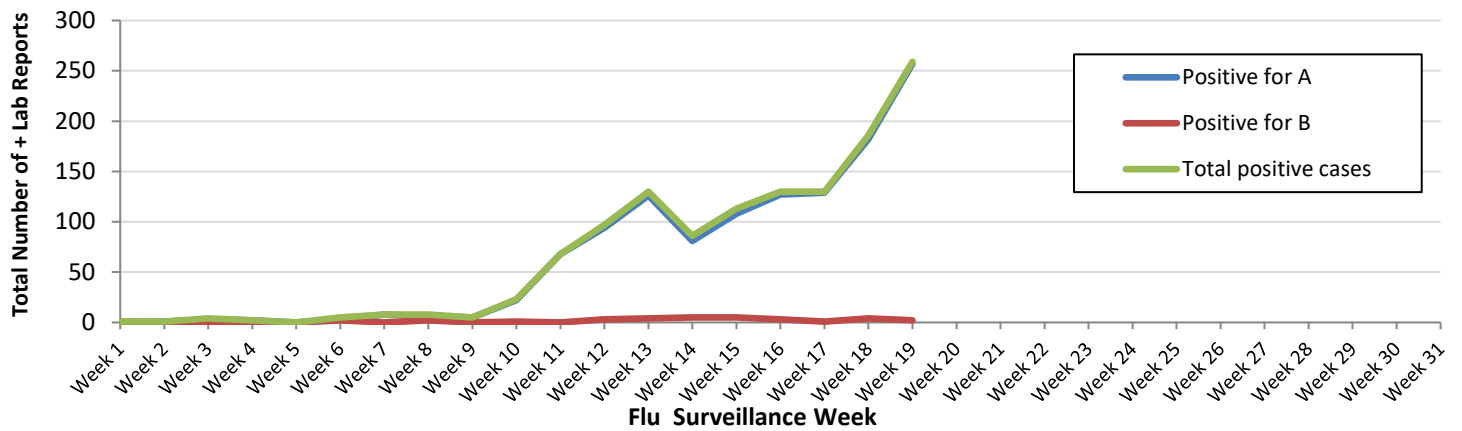


Figure 4. Influenza diagnostic tests with positive results completed by Summit County health facilities, 2018 - 2019 season



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 7, 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 above baseline levels. Reported cases of influenza-associated hospitalizations are above the seasonal threshold*. There were 534 influenza-associated hospitalizations reported during MMWR Week 7.

Ohio Influenza Activity Summary Dashboard (February 10 – February 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) | 1.71% | -4.47% | ↓ 1 | |
| Thermometer Sales (National Retail Data Monitor) | 1626 | 5.86% | ↑ 3 | |
| Fever and ILI Specified ED Visits (EpiCenter) | 2.72% | 15.25% | ↑ 5 | |
| Constitutional ED Visits (EpiCenter) | 12.02% | 9.17% | ↑ 3 | |
| Confirmed Influenza-associated Hospitalizations (Ohio Disease Reporting System) | 534 | 9.20% | ↑ 3 | |
| Outpatient Medical Claims Data ⁴ | 2.79% | 26.24% | ↑ 5 | |

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 585 **positive** influenza tests from specimens sent from various submitters. 2018-2019 influenza season positive results: **(323) A/pdmH1N1; (157) A/H3N2; (1) Influenza B;** (through 02/16/2019).
- The **National Respiratory and Enteric Virus Surveillance System (NREVSS)** has reported **43,884** influenza tests performed at participating facilities. 2018-2019 influenza season positive results: **(176) A/pdmH1N1, (76) A/H3N2, (4566) Flu A Not Subtyped, and (77) Flu B** (through 02/16/2019).
- **2 pediatric influenza-associated mortalities** have been reported during the 2018-2019 season (through 02/16/2019).
- No **novel influenza A virus infections** have been reported during the 2018-2019 season (through 02/16/2019).
- Incidence of confirmed **influenza-associated hospitalizations** in 2018-2019 season = 3178 (through 02/16/2019).

National Influenza Activity:

Influenza activity continues to increase 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 February 16, 2019:

- **Viral Surveillance:** The percentage of respiratory specimens testing positive for influenza viruses in clinical laboratories increased. While influenza A(H1N1)pdm09 viruses predominated in most areas of the country, influenza A(H3) viruses have predominated in HHS Region 4 and accounted for 47% of subtyped influenza A viruses detected nationally during week 7. During the most recent three weeks, influenza A(H3) viruses were reported more frequently than influenza A(H1N1)pdm09 viruses in HHS Regions 6 and 7 and influenza A(H1N1)pdm09 and influenza A(H3) viruses were reported in approximately equal numbers in HHS Region 2.
 - **Virus Characterization:** The majority of influenza viruses characterized antigenically 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 5.1%, 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 30 states experienced high ILI activity; the District of Columbia and 11 states experienced moderate ILI activity; six states experienced low ILI activity; the U.S. Virgin Islands and three states experienced minimal ILI activity; and Puerto Rico had insufficient data.
- **Geographic Spread of Influenza (Figure 7):** The geographic spread of influenza in Puerto Rico and 48 states was reported as widespread; one state reported regional activity; the District of Columbia reported local activity; the U.S. Virgin Islands and one state reported sporadic activity; and Guam did not report.
- **Influenza-associated Hospitalizations:** A cumulative rate of 27.4 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported. The highest hospitalization rate is among adults 65 years and older (75.6 hospitalizations per 100,000 population).
- **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:** Seven influenza-associated pediatric deaths were reported to CDC during week 7.

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

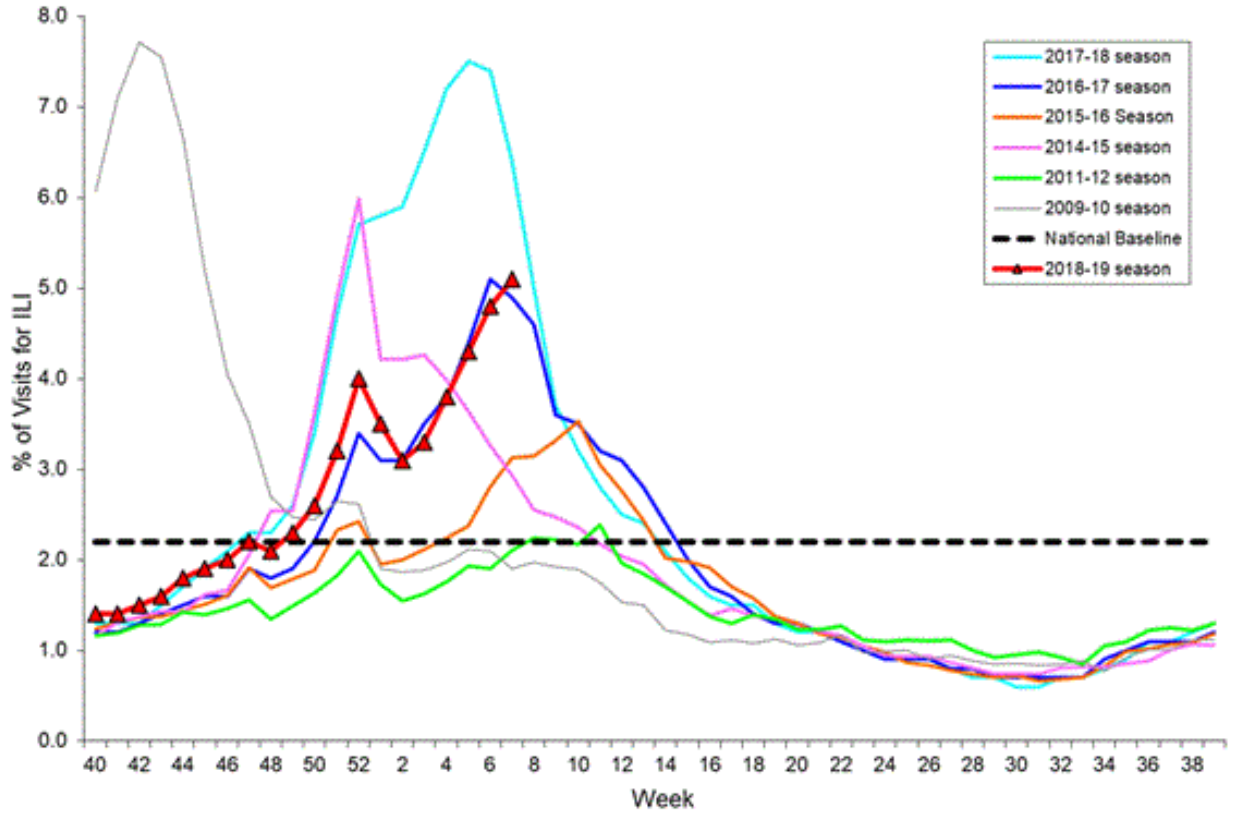


Figure 6. Influenza-like illness (ILI) activity level indicator determined by data reported to ILINet

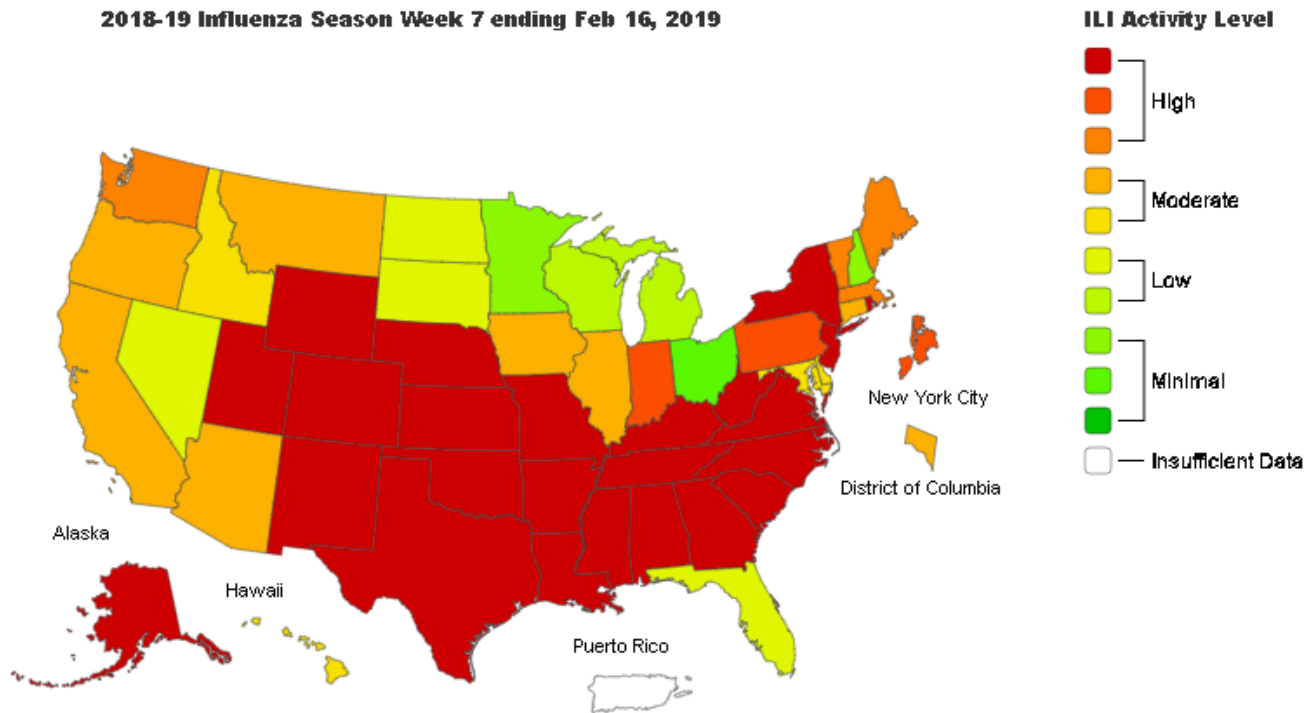
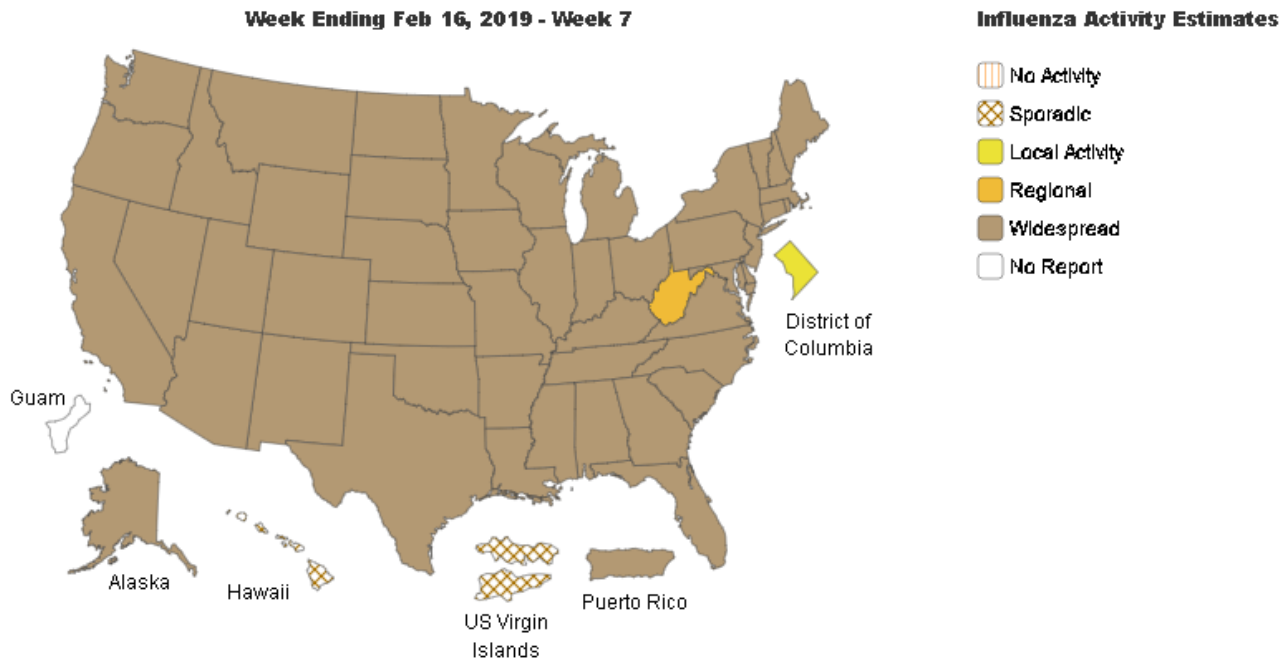


Figure 7. Weekly influenza activity (geographic spread) estimates reported by state and territorial epidemiologists



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

Global Surveillance:

Influenza Update N° 335, World Health Organization (WHO), published 18 February 2019, based on data up to 03 February 2019. The Update is published every two weeks.

Summary

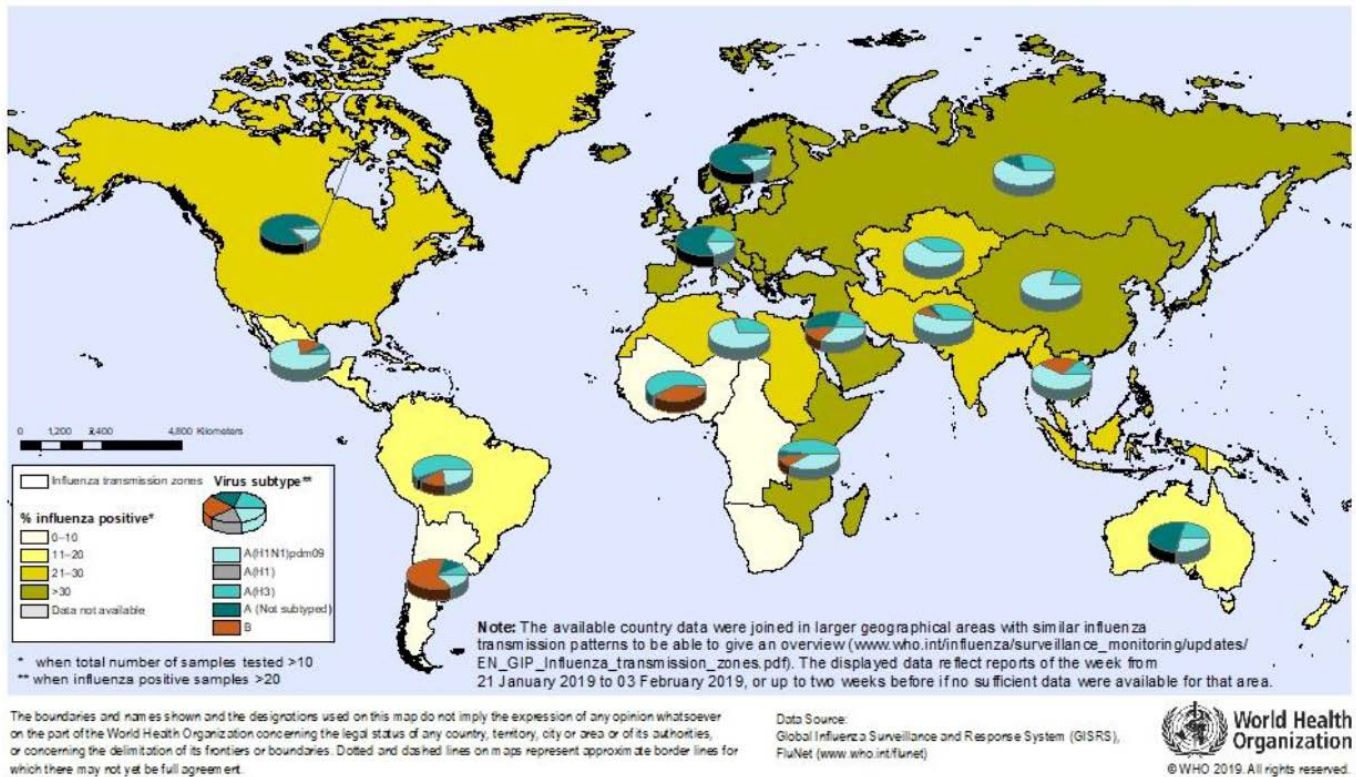
In the temperate zone of the northern hemisphere influenza activity continued to increase. In North America, influenza activity continued to be reported, with influenza A(H1N1)pdm09 predominating.

- In Europe, influenza activity increased and in most of the countries was above the epidemic threshold. Influenza A viruses co-circulated.
- In North Africa, influenza A(H1N1)pdm09 detections sharply increased.
- In Western Asia, influenza activity remained elevated with increased activity in Cyprus, Israel, Jordan and Lebanon and appeared to have peaked in most countries of the Arabian Peninsula.
- In East Asia, influenza activity appeared to have peaked already, with influenza A(H1N1)pdm09 virus predominating.
- In Southern Asia, influenza detections remained elevated overall. Influenza activity appeared to decrease in Iran (Islamic Republic of) with influenza A(H3N2) the predominant circulating virus.
- In the temperate zones of the southern hemisphere, influenza activity remained at inter-seasonal levels, with the exception of some parts of Australia where influenza activity remained above 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 21 January 2019 to 03 February 2019 (data as of 2019-02-15 04:05:38 UTC). The WHO GISRS laboratories tested more than 213440 specimens during that time period. A total of 69007 were positive for influenza viruses, of which 67733 (98.2%) were typed as influenza A and 1274 (1.8%) as influenza B. Of the

sub-typed influenza A viruses, 25052 (72%) were influenza A(H1N1)pdm09 and 9734 (28%) were influenza A(H3N2). Of the characterized B viruses, 83 (27.8%) belonged to the B-Yamagata lineage and 216 (72.2%) to the B-Victoria lineage.

Figure 8. Percentage of respiratory specimens that tested positive for influenza, by influenza transmission zone (status as of 15 February 2019)



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

Influenza News

From IDSE.net: Timing Matters in Flu Management

By Marie Rosenthal, MS

FEBRUARY 20, 2019

Although there are effective antiviral medications for treating influenza, the timing of the medication is crucial. Antiviral treatments work best when treatment is started within two days of developing flu-like symptoms. They can lessen fever and other symptoms; shorten the length of illness; and may reduce the risk for complications, such as otitis media in children, and serious respiratory infections and hospitalizations in adults. They also might prevent the need for antibiotics, according to the CDC.

“For people at high risk of serious flu complications, early treatment with an antiviral drug can mean having milder illness instead of more severe illness that might require a hospital stay. For adults hospitalized with flu illness, some studies have reported that early antiviral treatment can reduce their risk of death,” the CDC said. Because of these benefits, rapid influenza diagnostic tests (RIDTs) have a place in managing flu, explained

Steven Hoffart, PharmD, the owner of Magnolia Pharmacy in Texas, a hybrid independent pharmacy that provides traditional dispensing with point-of-care services and health and wellness services.

“One of the great things about being in the pharmacy is having the patient’s medical history with health conditions, and we can review their current medications. For those patients in good health without concurrent medical conditions, we can treat many of the symptoms with over-the-counter medications. In patients we screen with cardiovascular risk or certain health conditions that increase their risk of secondary pneumonia or other complications with the flu, upon testing positive, they are immediately referred to a doctor for further evaluation and treatment,” he said.

“It is key to have a good relationship with our local doctors regarding this service, so upon positive screenings, we can get quick access to care for our patients,” Dr. Hoffart added.

But even if patients don’t need an antiviral medication, an early diagnosis enables someone to more quickly manage symptoms and take precautions against infecting family, friends and colleagues, Dr. Hoffart told *Infectious Disease Special Edition*. Dr. Hoffart's pharmacy uses the BD Veritor point-of-care test. RIDTs detect influenza viral antigens in respiratory tract specimens. Available RIDTs differentiate between influenza type A and B viruses, but do not specifically identify or differentiate subtypes of influenza A viruses, according to the CDC. RIDTs can provide results in approximately 15 minutes, the agency added.

“The ability to accurately test and identify flu cases early and triage would be a tremendous benefit in terms of limiting and mitigating the exposure of others to the flu. Early detection is a real advantage, and the test is inexpensive and easy to administer,” Dr. Hoffart said. He said it is important to get people diagnosed and persuade them to stay away from jobs and schools to help stop the spread of influenza. If they test positive, the pharmacist can direct patients to appropriate care. “We have the ability to instruct and direct patients, depending on health conditions, to follow self-treatment guidelines for their own symptoms, but also preventative actions that can limit family members from being infected.”

It would be expensive to test everyone who has the sniffles, so the pharmacists screen patients to see which ones would benefit from the test, such as someone with fever or muscle aches in addition to the upper respiratory symptoms. At least in the community pharmacy, the test is not covered by insurance, he said. But it might be covered in the emergency department or ambulatory care center in a hospital. “The driving force in health care today is limiting costs and making access available to as many people as possible today. Rapid identification at the pharmacy allows us to identify those infected quickly, limit exposure to other patients, reduce antibiotics needed with early treatment, and start an antiviral if needed,” Dr. Hoffart said.

Source: <https://www.idse.net/Respiratory-Tract-Infections---Influenza/Article/02-19/Timing-Matters-in-Flu-Management/54177>

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 22, 2019.