# Summit County Public Health
# Influenza Surveillance Report
2018 – 2019 Season
**Report #21**
**Flu Surveillance Week 22 (3/3 to 3/9/2019)**
**Centers for Disease Control and Prevention MMWR Week 10**

## Summit County Surveillance Data:

During **Week 22**, influenza-related activity in Summit County *increased but remained at moderate levels.*

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

| | Week 21 MMWR 9 N (%)[1] | Week 22 MMWR 10 N (%)[1] | Percent change from previous week | Number of weeks increasing or decreasing |
|---|---|---|---|---|
| **Lab Reports** | | | | |
| Test Performed | 1,285 | 1,575 | **+22.6%** | **↑1** |
| Positive Tests (Number and %) | 430 (33.5) | 573 (36.4) | **+ 8.7%** | **↑8** |
| Influenza A (Number and %) | 424 (33.0) | 566 (35.9) | **+ 8.8%** | **↑7** |
| Influenza B (Number and %) | 6 (0.5) | 7 (0.4) | **- 20.0%** | **↓1** |
| **Influenza hospitalizations:** | 67 | 91 | **+ 35.8%** | **↑4** |
| **Influenza ILI Community Report:** | | | | |
| Long-term Care Facilities | 1 | 0 | **- 100%** | **↓1** |
| Correctional & Addiction Facilities | 2 | 1 | **- 50.0%** | **↓2** |
| Physician Offices & Clinics | 13 | 20 | **+ 53.9%** | **↑3** |
| **Pharmacy Prescriptions** | | | | |
| Amantidine | 3 | 2 | **- 33.3%** | **↓2** |
| Rimantidine Flumadine | 0 | 0 | -- | -- |
| Relenza | 0 | 1 | **+ 100%** | **↑1** |
| Oseltamivir Tamiflu | 50 | 62 | **+ 24.0%** | **↑5** |
| *Total antiviral prescriptions* | 53 | 65 | **+ 22.6%** | **↑3** |
| **Schools absenteeism daily rate[2]** | 5.3 | 7.0 | **+ 32.1%** | **↑1** |
| **Deaths** | | | | |
| Pneumonia associated | 9 (6.8) | 5 (3.9) | **-42.7%** | **↓2** |
| Influenza associated | 0 | 2 | **+100%** | **↑1** |
| **Emergency room visits (EpiCenter)[3]** | | | | |
| Constitutional Complaints | 685 (11.5) | 829 (13.4) | **+ 16.5%** | **↑1** |
| Fever and ILI | 126 (2.1) | 158 (2.6) | **+ 23.8%** | **↑1** |

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

**Two** deaths related to influenza were reported during Week 22, the season total increased to 5. There were 5 deaths associated with pneumonia reported in Week 22. **Figure 1** displays weekly Summit County death counts associated with pneumonia and flu.

**Acute Care Hospitalizations:** There were 91 flu-related hospitalizations, a 36% increase from Week 21. (**Figure 2**)

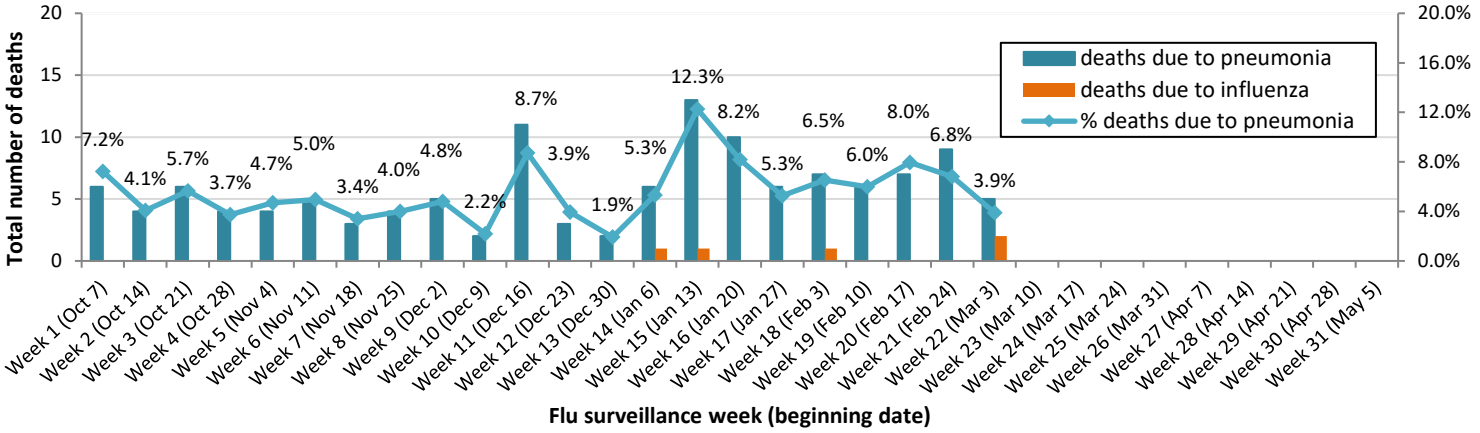
**COMMUNITY ILI REPORTS**:
Influenza like Illness (ILI) as defined by the CDC is fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat without a known cause other than influenza.
**Long Term Care Facilities:** There were zero cases of ILI reported.
**Correctional and Inpatient Addiction facilities:** There was 1 case of ILI reported.
**Physician offices and clinics:** During Week 22, there were 20 cases of ILI reported.

**Pharmacies:** 65 Prescriptions for antiviral medications were reported during Week 22.

**School absenteeism** includes absences regardless of reason. During Week 22, area schools reported an average daily absence rate of 7.0%. This was a 32% increase over the rate reported during Week 21.

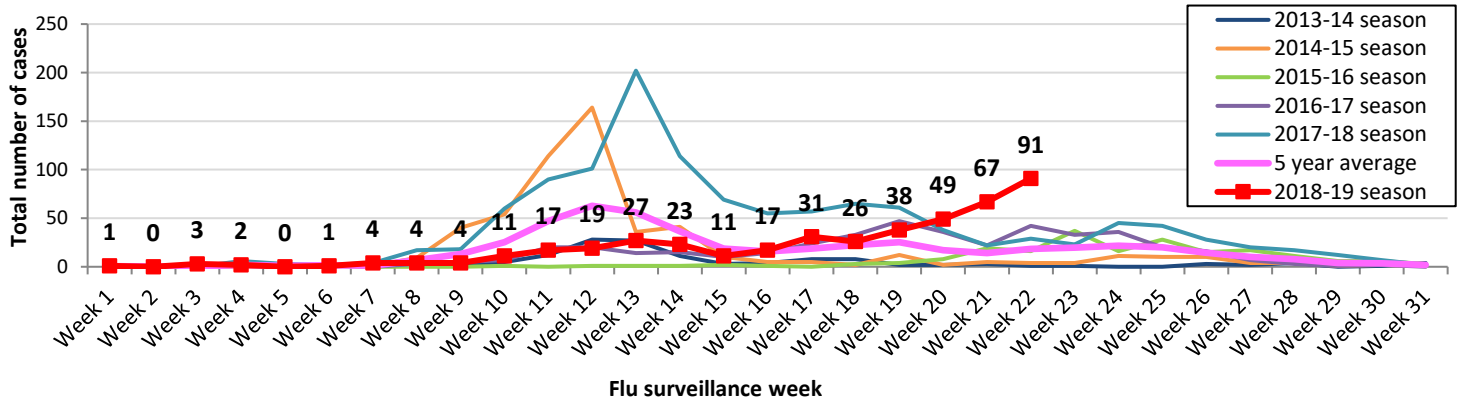
**Lab reports:** During Week 22, Summit County labs performed 1,575 influenza tests, of which 573 tested positive (566 Type A, 7 Type B). **(Figure 4)** The percentage of positive test results increased by 8.7% since Week 21.

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




**Influenza-associated hospitalizations**: Summit County hospitals reported 91 influenza-associated hospitalizations in Week 22. **Figure 2** displays weekly confirmed hospitalization counts for Summit County **(season count to date = 446).**

**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 158 ILI-related visits reported during Week 22, which was 2.6% of total ED visits (n = 6,174). This was a 23.8% increase from the Week 21 rate.

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

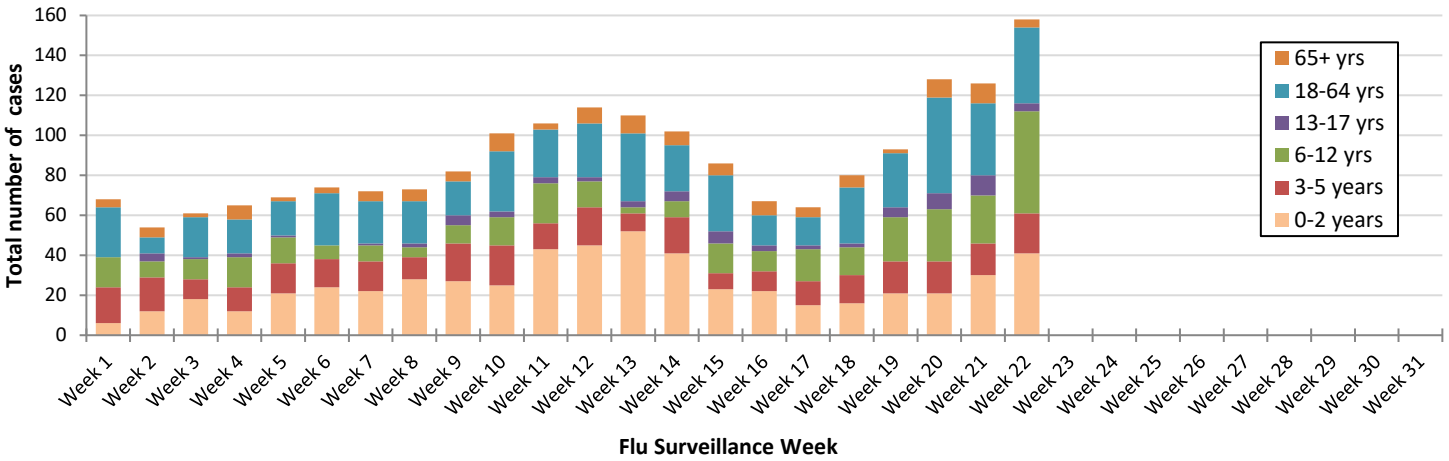
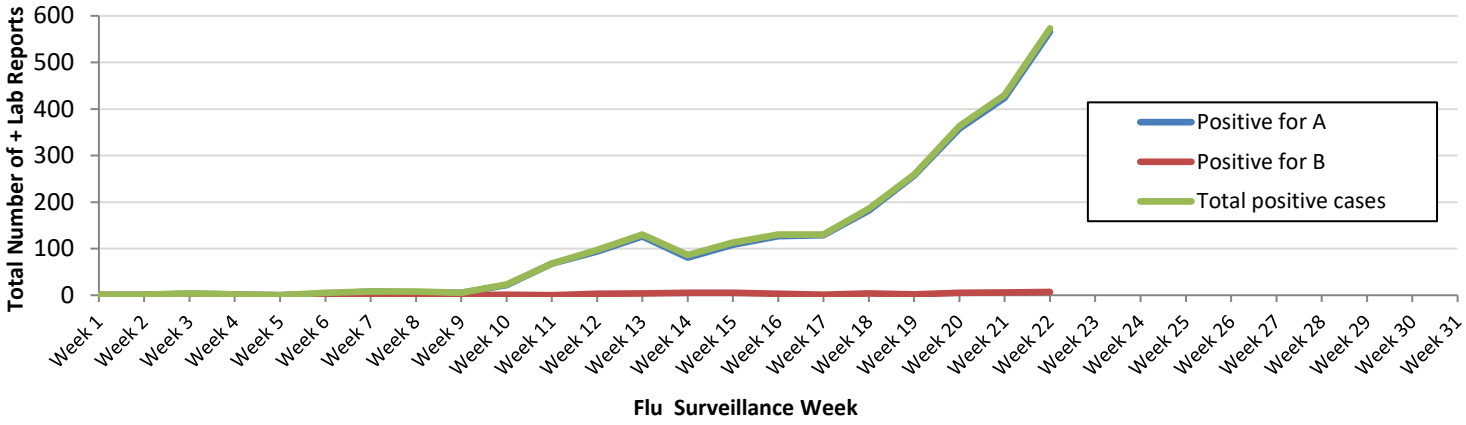


**Figure 4. Influenza diagnostic tests with positive results completed by Summit County health facilities, 2018 - 2019 season**

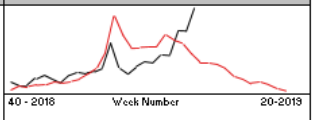
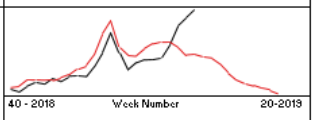
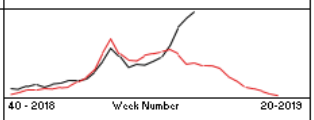
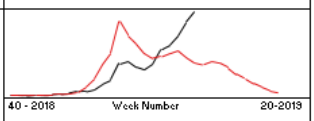
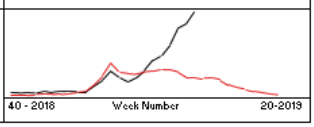



## Ohio Influenza Activity:

**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 10, 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 and fever and ILI specified ED visits are above baseline levels. Reported cases of influenza-associated hospitalizations are above the seasonal threshold*. There were 879 influenza-associated hospitalizations reported during MMWR Week 10.

### Ohio Influenza Activity Summary Dashboard (March 3 – March 9, 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) | 3.44% | 32.82% | ↑ 2 |  |
| Thermometer Sales (National Retail Data Monitor) | 2248 | 1.67% | ↑ 6 |  |
| Fever and ILI Specified ED Visits (EpiCenter) | 3.68% | 6.36% | ↑ 8 |  |
| Constitutional ED Visits (EpiCenter) | 15.05% | 4.22% | ↑ 6 |  |
| Confirmed Influenza-associated Hospitalizations (Ohio Disease Reporting System) | 879 | 13.86% | ↑ 6 |  |
| Outpatient Medical Claims Data[4] | 4.08% | 16.24% | ↑ 8 |  |



[1]Interpret percent changes with caution. Large variability may be exhibited in data sources with low weekly values.
[2]Number of weeks that the % change is increasing or decreasing.
[3]Black lines represent current week's data; red lines represent baseline averages
[4]Medical 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 910 **positive** influenza tests from specimens sent from various submitters. 2018-2019 influenza season positive results: **(505) A/pdmH1N1; (403) A/H3N2; (2) Influenza B;** (through 3/9/2019).

• The **National Respiratory and Enteric Virus Surveillance System (NREVSS)** has reported **52,218** influenza tests performed at participating facilities. 2018-2019 influenza season positive results: **(231) A/pdmH1N1, (139) A/H3N2, (7263) Flu A Not Subtyped, and (107) Flu B** (through 3/2/2019).*

***data is through MMWR Week 9; data through MMWR Week 10 was not available at the time of this report**

• 4 **pediatric influenza-associated mortalities** have been reported during the 2018-2019 season (through 3/9/2019).

• No **novel influenza A virus infections** have been reported during the 2018-2019 season (through 3/9/2019).

• Incidence of confirmed **influenza-associated hospitalizations** in 2018-2019 season = 5449 (through 3/9/2019).

## National Influenza Activity:

Influenza activity decreased slightly, but remains elevated 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 March 9, 2019:

- **Viral Surveillance:** The percentage of respiratory specimens testing positive for influenza viruses in clinical laboratories decreased slightly. Nationally, during week 10, influenza A(H3) viruses were reported more frequently than influenza A(H1N1)pdm09 viruses. During the most recent three weeks, influenza A(H3) viruses were reported more frequently than influenza A(H1N1)pdm09 viruses in HHS Regions 2, 4, 5, 6, 7, 8 and 10.
    - **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) decreased slightly to 4.5%, 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 Indictor Map (Figure 6):** 30 states experienced high ILI activity; 11 states experienced moderate ILI activity; New York City, the District of Columbia and five states experienced low ILI activity; Puerto Rico and four states experienced minimal ILI activity; and the U.S. Virgin Islands had insufficient data.
- **Geographic Spread of Influenza (figure 7):** The geographic spread of influenza in Puerto Rico and 46 states was reported as widespread; four states reported regional activity; the District of Columbia reported local activity; the U.S. Virgin Islands reported sporadic activity; and Guam did not report.
- **Influenza-associated Hospitalizations:** A cumulative rate of 41.3 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported. The highest hospitalization rate is among adults 65 years and older (123.9 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:** Four influenza-associated pediatric deaths were reported to CDC during week 10.

**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**

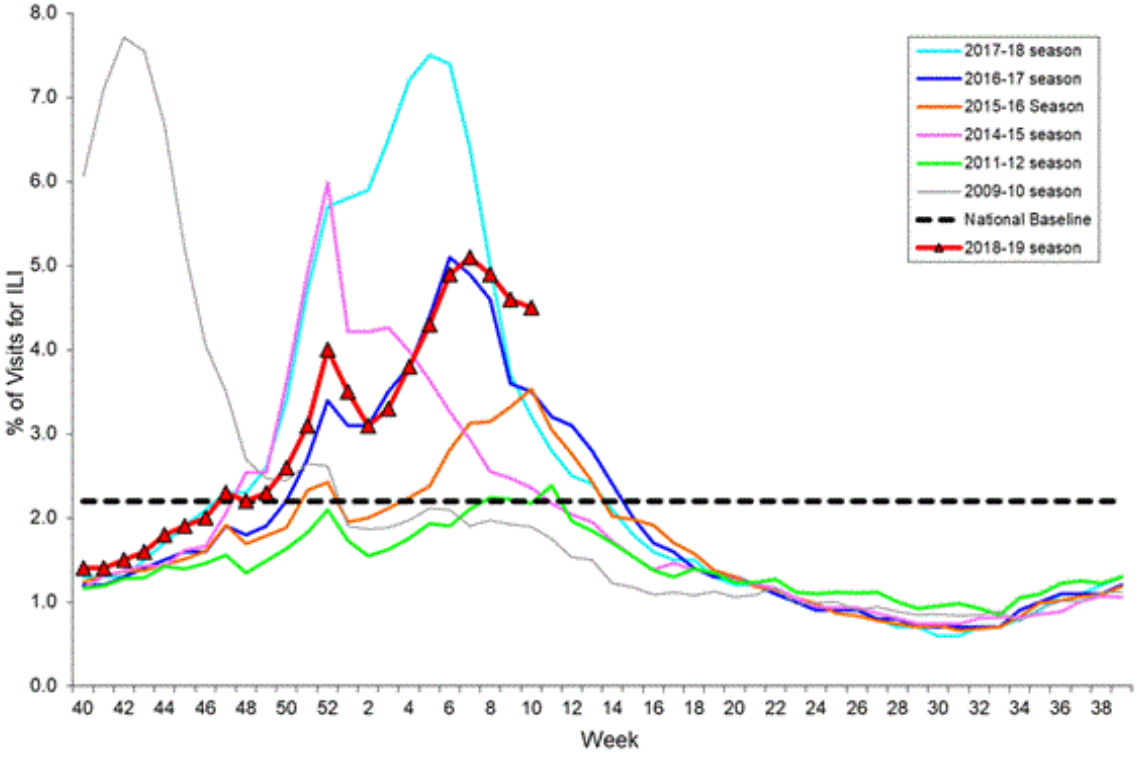



**Figure 6. Influenza-like illness (ILI) activity level indicator determined by data reported to ILINet**

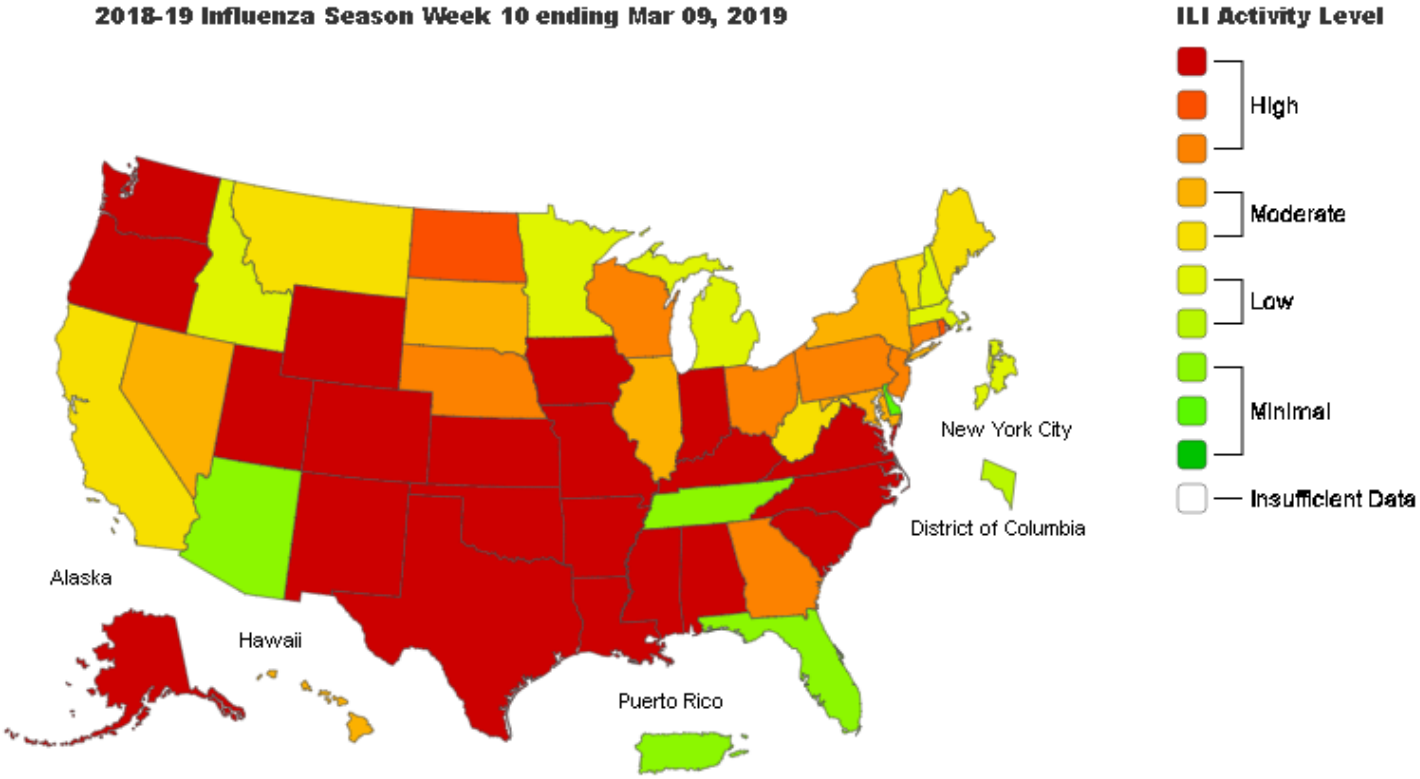
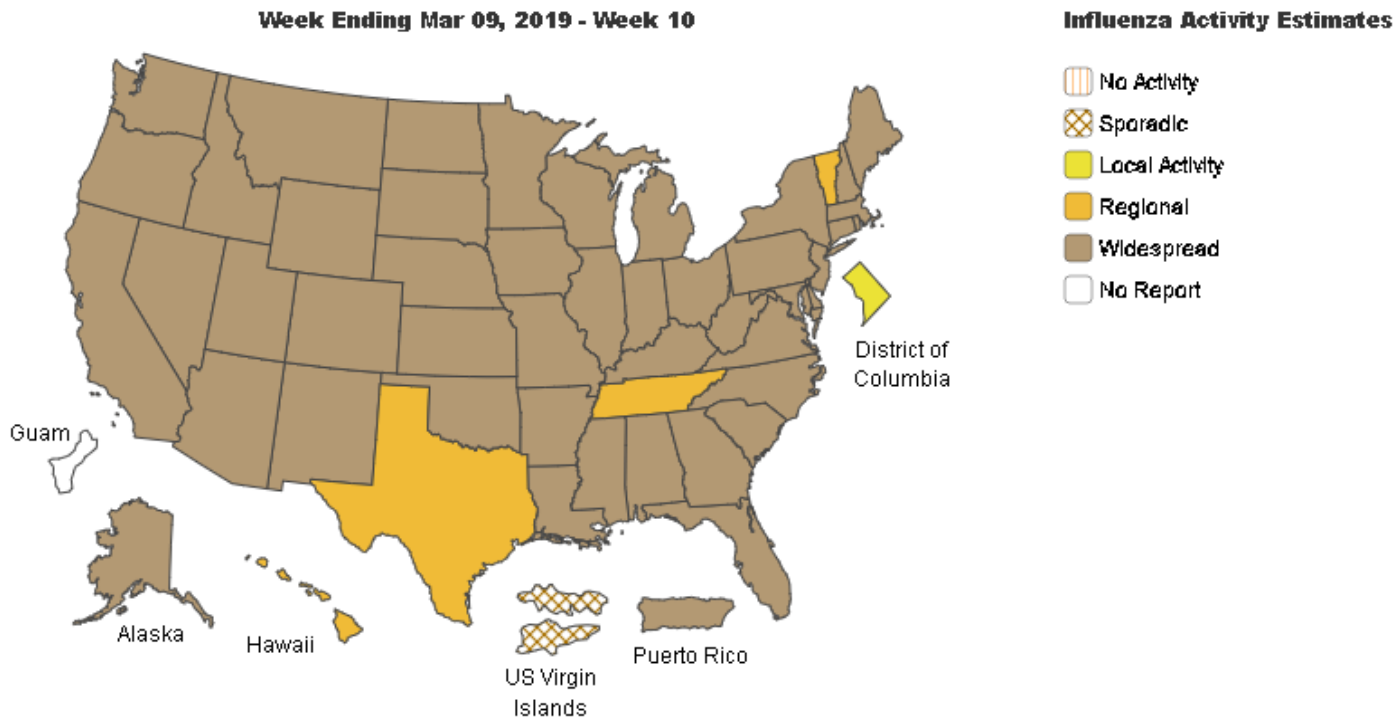


**Figure 7. Weekly influenza activity (geographic spread) estimates reported by state and territorial epidemiologists**




**Source:** [https://www.cdc.gov/flu/weekly/](https://www.cdc.gov/flu/weekly/)

## Global Surveillance:

**Influenza Update Nº 336, World Health Organization (WHO), published 04 March 2019, based on data up to 17 February 2019. The Update is published every two weeks.**

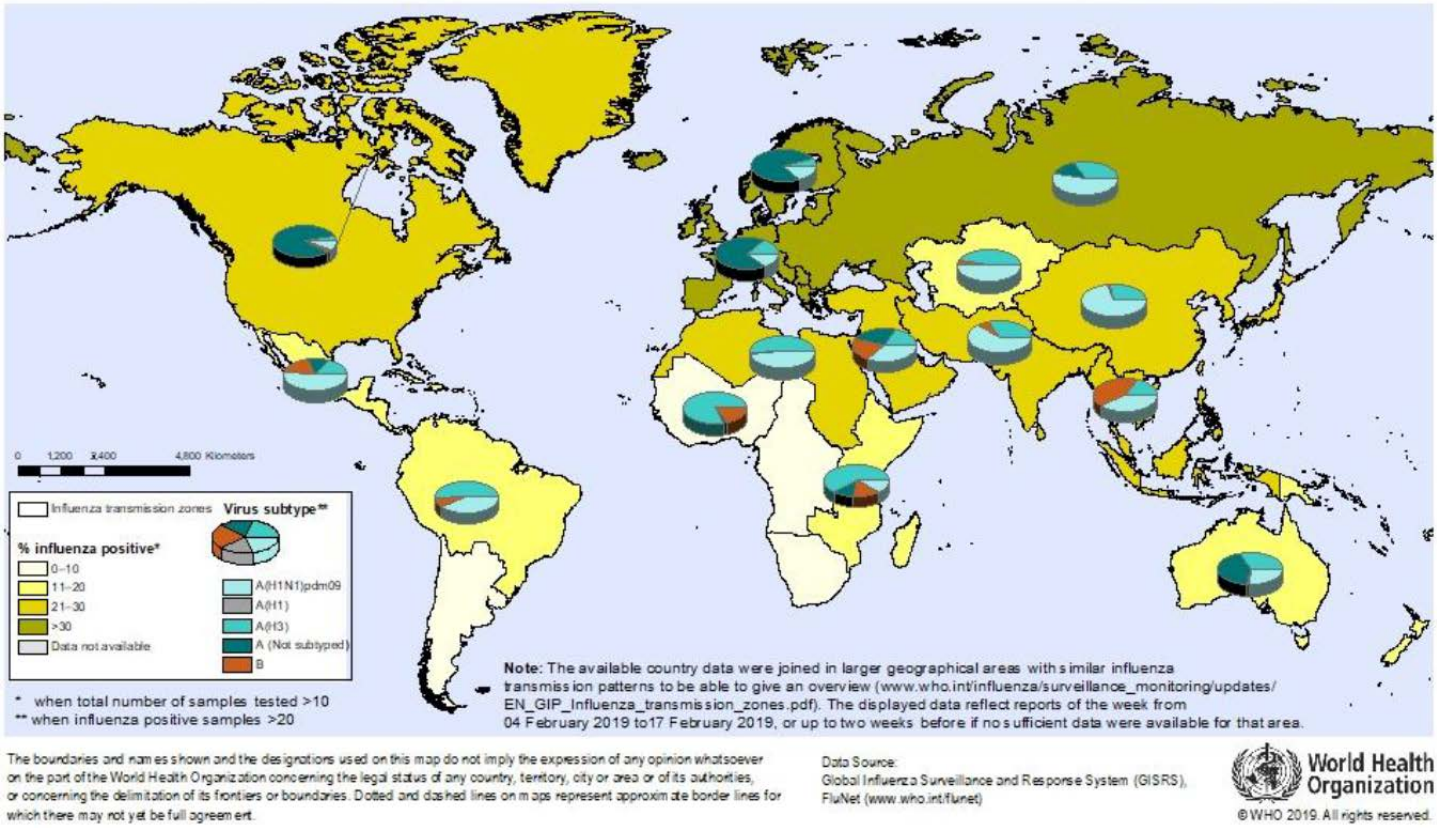
### Summary

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

- In North America, influenza activity continued to increase in the United States of America, with influenza A(H1N1)pdm09 as the dominant subtype, followed by influenza A(H3N2).
- In Europe, influenza activity remained elevated across the continent and was reported as widespread in most of the countries. Influenza A viruses co-circulated.
- In North Africa, influenza activity remained elevated.
- In Western Asia, influenza activity peaked is some countries and increased in other, with all seasonal influenza subtypes co-circulating.
- In East Asia, influenza activity appeared to decrease overall, with influenza A(H1N1)pdm09 virus predominating.
- Worldwide, seasonal influenza A viruses accounted for the majority of detections.

National Influenza Centres (NICs) and other national influenza laboratories from 115 countries, areas or territories reported data to FluNet for the time period from 04 February 2019 to 17 February 2019 (data as of 2019-03-01 05:22:16 UTC). The WHO GISRS laboratories tested more than 220347 specimens during that time period. 74302 were positive for influenza viruses, of which 73225 (98.6%) were typed as influenza A and 1077 (1.4%) as influenza B. Of the sub-typed influenza A viruses, 19600 (65.2%) were influenza A(H1N1)pdm09 and 10447 (34.8%) were influenza A(H3N2). Of the characterized B viruses, 82 (26.2%) belonged to the B-Yamagata lineage and 231 (73.8%) to the B-Victoria lineage.

**Figure 8. Percentage of respiratory specimens that tested positive for influenza, by influenza transmission zone (status as of 01 March 2019)**




**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

### Less flu disease and a flu program in every country by 2030, WHO says

**March 15, 2019 –** This month the World Health Organization (WHO) launched a new 10-year strategy for safeguarding the health of all people from influenza. It sets the tone for global work on influenza over the coming decade, with the goals of preventing seasonal influenza, controlling the spread of influenza from animals to humans, and preparing for the next pandemic.


The strategy calls on countries and partners including CDC to align their global and national capacities for influenza prevention, rapid detection and response so that countries will reduce the burden and the impact of seasonal, zoonotic and pandemic influenza by 2030.

High-level outcomes for 2030 include new and improved tools for prevention, detection, control and treatment of influenza, and a prioritized influenza program that contributes to national and global preparedness, response and health security, in every country.

To get there, WHO has outlined four strategic objectives which include promoting research and innovation to fill urgent knowledge gaps in the current understanding of the influenza virus and host response; strengthening global influenza surveillance, monitoring and data utilization; expanding seasonal flu prevention and control policies and programs to protect the vulnerable; and strengthening pandemic preparedness and response.

U.S. CDC is one of six WHO Collaborating Centers on Influenza. CDC has served as a Collaborating Center for Surveillance, Epidemiology, and Control of Influenza in Atlanta, Georgia since 1956 and is the largest global resource and reference center supporting public health interventions to control and prevent pandemic and seasonal influenza.

Go to Global Influenza Strategy: 2019-2030External and WHO launches new global influenza strategy External for more information.

**Source:** **https://www.cdc.gov/flu/spotlights/less-flu-who.htm**

## Bulgaria, Taiwan, South Africa report new high-path avian flu outbreaks

H5 strains of highly pathogenic avian flu have affected poultry in Bulgaria, Taiwan, and South Africa, the World Organization for Animal Health (OIE) reported yesterday and today.

In Bulgaria H5 avian flu sickened 20 birds among a flock of 3,200 poultry near Lovech, a city in the north-central part of the country. Officials plan to cull the flock to prevent disease spread. The outbreak began yesterday.

Taiwanese officials reported two H5N2 outbreaks on chicken farms on the west side of the island, in Yunlin and Changhua counties. Together the virus killed 82 of 53,103 susceptible birds, and officials euthanized the surviving poultry. The farms have also been placed under movement restrictions to prevent the transport of birds to other farms.

The outbreaks were first detected on Feb 25 and Mar 4. Taiwan has combatted a series of H5N2 outbreaks for months.

And in South Africa, officials confirmed H5N8 on a commercial ostrich farm in the province of Free State in an outbreak that began on Feb 1. They reported 75 H5N8 infections among 4,372 susceptible ostriches. Officials plan to cull the flock.
**Mar 13 OIE Bulgaria report**
**Mar 14 OIE Taiwan report**
**Mar 14 OIE South Africa report**

**Source:** **http://www.cidrap.umn.edu/news-perspective/2019/03/news-scan-mar-14-2019**

***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 March 15, 2019.