

Official websites use .gov A .gov website belongs to an official government organization in the United States. Secure .gov websites use HTTPS A lock () or https:// means you've safely connected to the .gov website. Share sensitive information only on official, secure websites. Updated July 5, 2024 Seasonal influenza activity remains low nationally. positive for influenza

this week Influenza A(H1N1)pdm09, A(H3N2), and B viruses were all co-circulating this week. Genetic and antigenic characterization and antiviral susceptibility are summarized in this report. of visits to a health care provider this week were for respiratory illness

(below baseline). This week no jurisdictions experienced moderate, high, or very high activity. weekly hospitalization rate. Because of the ongoing COVID-19 pandemic, this system will suspend data collection for the 2020-21 influenza season. of deaths attributed to influenza this week. influenza-associated deaths were reported this week for a total of 184 deaths this season. All data are preliminary and may change as more reports are received. Directional arrows indicate changes between the current week and the previous week. Additional information on the arrows can be found at the bottom of this page. A description of the CDC influenza surveillance system, including methodology and detailed descriptions of each data component is available on the surveillance methods page. Additional information on the current and previous influenza seasons for each surveillance component are available on FluView Interactive.

Key Points Nationally, the percentage of respiratory specimens testing positive for influenza in clinical laboratories remained stable (change of ≤ 0.5 percentage points) compared to the previous week. Nationally, influenza A(H1N1)pdm09, A(H3N2), and B/Victoria viruses are all co-circulating. However, the distribution of circulating viruses varies by region. For regional and state level data and age group distribution, please visit FluView Interactive. The results of tests performed by clinical laboratories nationwide are summarized below. Data from clinical laboratories (the percentage of

specimens tested that are positive for influenza virus) are used to monitor whether influenza activity is increasing or decreasing. The results of tests performed by public health laboratories nationwide are summarized below. Data from public health laboratories are used to monitor the proportion of circulating influenza viruses that belong to each influenza subtype/lineage.

[View Chart Data](#) | [View Full Screen](#) Additional virologic surveillance information for current and past seasons:

[Surveillance Methods](#) | [FluView Interactive: National, Regional, and State Data or Age](#)

[Data](#) A patient aged > 18 years in Colorado developed eye redness and irritation on June 26, 2024, while working at a commercial dairy cattle farm where highly pathogenic avian influenza (HPAI) A(H5N1) virus had been detected in cows. The patient reported their symptoms to the Colorado Department of Public Health and Environment during a public health visit to the farm. Respiratory and conjunctival specimens were collected on June 28, 2024. A respiratory specimen was inconclusive at the Colorado State Public Health Lab using the Centers for Disease Control and Prevention (CDC) influenza A(H5) assay. Specimens were then sent to CDC for further testing. The specimens were received and tested at CDC on July 2, 2024. A respiratory specimen was positive for influenza A and A(H5) virus using diagnostic RT-PCR. Additional analysis of the respiratory specimen, including genetic sequencing, is underway. The patient was not hospitalized, was provided with oseltamivir for treatment and symptoms are resolving. In response to this detection additional case investigation and surveillance activities are currently ongoing by public health officials. This is the fifth person to test positive for A(H5) virus in the United States overall. The first was reported in April 2022 in Colorado, the second in April 2024 in Texas, and the third and fourth were reported in May 2024 in Michigan. This is the fourth case associated with an ongoing multistate outbreak of HPAI A(H5N1) in dairy cows in 2024. Currently in the United States, HPAI A(H5N1) virus has been detected in wild birds, and there have been outbreaks among other animals

including commercial poultry, backyard flocks, and dairy cows. Sporadic infections in wild mammals have also been reported by United States Department of Agriculture (USDA) Animal Plant Health Inspection Service (APHIS). CDC recommends that state and local public health departments monitor people who are exposed to birds or other animals (including livestock) suspected to be infected with avian influenza A viruses for onset of signs and symptoms until 10 days after their last exposure and that people who develop signs or symptoms of respiratory illness and/or conjunctivitis be tested for influenza. During February 9, 2022 — June 29, 2024, over 9,800 people were monitored following exposure to HPAI infected birds, cows, or other animals. Interim recommendations for Prevention, Monitoring, and Public Health Investigations are available at

<https://www.cdc.gov/bird-flu/prevention/hpai-interim-recommendations.html>.

Information about avian influenza is available at <https://www.cdc.gov/flu/avianflu/index.htm>. The latest case reports on avian influenza outbreaks in wild birds, commercial poultry; backyard or hobbyist flocks; and mammals in the United States are available from the USDA at <https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/avian/avian-influenza/2022-hpai>. Additional information regarding human infections with novel influenza A viruses: Surveillance Methods | FluView Interactive CDC performs genetic and antigenic characterization of U.S. viruses submitted from state and local public health laboratories according to the Right Size Roadmap submission guidance. These data are used to compare how similar the currently circulating influenza viruses are to the reference viruses representing viruses contained in the current influenza vaccines. The data are also used to monitor evolutionary changes that continually occur in influenza viruses circulating in humans. CDC also tests susceptibility of circulating influenza viruses to antiviral medications including the neuraminidase inhibitors (oseltamivir, zanamivir, and peramivir) and the PA endonuclease inhibitor baloxavir.

CDC has genetically characterized 4,922 influenza viruses collected since October 1, 2023. CDC antigenically characterizes influenza viruses by hemagglutination inhibition (HI) (H1N1pdm09, H3N2, B/Victoria, and B/Yamagata viruses) or neutralization-based HINT (H3N2 viruses) using antisera that ferrets make after being infected with reference viruses representing the 2023-2024 Northern Hemisphere recommended cell or recombinant-based vaccine viruses. Antigenic differences between viruses are determined by comparing how well the antibodies made against the vaccine reference viruses recognize the circulating viruses that have been grown in cell culture. Ferret antisera are useful because antibodies raised against a particular virus can often recognize small changes in the surface proteins of other viruses. In HI assays, viruses with similar antigenic properties have antibody titer differences of less than or equal to 4-fold when compared to the reference (vaccine) virus. In HINT, viruses with similar antigenic properties have antibody neutralization titer differences of less than or equal to 8-fold. Viruses selected for antigenic characterization are a subset representing the genetic changes in the surface proteins seen in genetically characterized viruses.

Influenza A Viruses
Influenza B Viruses
Assessment of Virus Susceptibility to Antiviral Medications

CDC assesses susceptibility of influenza viruses to the antiviral medications including the neuraminidase inhibitors (oseltamivir, zanamivir, and peramivir) and the PA endonuclease inhibitor baloxavir using next generation sequence analysis supplemented by laboratory assays. Information about antiviral susceptibility test methods can be found at [U.S. Influenza Surveillance: Purpose and Methods | CDC](#). Viruses collected in the U.S. since October 1, 2023, were tested for antiviral susceptibility as follows: Three A(H1N1)pdm09 viruses had NA-H275Y amino acid substitution and one A(H1N1)pdm09 virus had NA-H275H/Y, conferring highly reduced inhibition by oseltamivir and peramivir. One (H1N1)pdm09 virus had NA-I223V and NA-S247N amino acid substitutions and showed reduced inhibition by oseltamivir. Two B viruses had NA-A245G amino acid substitution and showed reduced inhibition by

peramivir. One B virus had NA-D197N amino acid substitution and showed reduced inhibition by zanamivir and peramivir. One A(H3N2) virus had PA-I38T amino acid substitution and showed reduced susceptibility to baloxavir. High levels of resistance to the adamantanes (amantadine and rimantadine) persist among influenza A(H1N1)pdm09 and influenza A(H3N2) viruses (the adamantanes are not effective against influenza B viruses). Therefore, use of these antivirals for treatment and prevention of influenza A virus infection is not recommended and data from adamantane resistance testing are not presented. The U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) monitors outpatient visits for respiratory illness referred to as influenza-like illness [ILI (fever plus cough or sore throat)], not laboratory-confirmed influenza and will therefore capture respiratory illness visits due to infection with pathogens that can present with similar symptoms, including influenza viruses, SARS-CoV-2, and RSV. It is important to evaluate syndromic surveillance data, including that from ILINet, in the context of other sources of surveillance data to obtain a more complete and accurate picture of influenza, SARS-CoV-2, and other respiratory virus activity. CDC is providing integrated information about COVID-19, influenza, and RSV activity on a website that is updated weekly. Information about other respiratory virus activity can be found on CDC's National Respiratory and Enteric Virus Surveillance System (NREVSS) website. Nationally, the percentage of visits for respiratory illness that were reported through ILINet remained stable (change of ≤ 0.1 percentage points) compared to the previous week and is below the national baseline. All 10 regions are below their region-specific baselines. Multiple respiratory viruses are co-circulating, and the relative contribution of influenza virus infection to ILI varies by location. * Effective October 3, 2021 (week 40), the ILI definition (fever plus cough or sore throat) no longer includes "without a known cause other than influenza." About 70% of ILINet participants provide both the number of patient visits for respiratory illness and the total number of patient visits for the week broken out by age group. Data from this

subset of providers are used to calculate the percentages of patient visits for respiratory illness by age group. The percentage of visits for respiratory illness reported in ILINet decreased in the 0-4 years age group and remained stable for all other age groups in Week 26 compared to Week 25. [View Chart Data](#) | [View Full Screen Data](#) collected in ILINet are used to produce a measure of ILI activity* by state/jurisdiction and Core Based Statistical Areas (CBSA). *Data collected in ILINet may disproportionally represent certain populations within a jurisdiction or CBSA, and therefore, may not accurately depict the full picture of influenza activity for the entire jurisdiction or CBSA. Differences in the data presented here by CDC and independently by some health departments likely represent differing levels of data completeness with data presented by the health department likely being the more complete. Additional information about medically attended visits for ILI for current and past seasons:

[Surveillance Methods](#) | [FluView Interactive: National, Regional, and State Data](#) or [ILI Activity Map](#) The Influenza Hospitalization Surveillance Network (FluSurv-NET) conducts population-based surveillance for laboratory-confirmed influenza-related hospitalizations in select counties in 14 states and represents approximately 9% of the U.S. population. FluSurv-NET hospitalization data are preliminary. As data are received each week, prior case counts and rates are updated accordingly. A total of 25,196 laboratory-confirmed influenza-associated hospitalizations were reported by FluSurv-NET sites between October 1, 2023, and June 29, 2024. The weekly hospitalization rate observed in Week 26 was 0.1 per 100,000 population. The peak weekly hospitalization rate observed this season was 9.0 per 100,000 population and occurred during Week 52. Among 25,196 hospitalizations, 21,301 (84.5%) were associated with influenza A virus, 3,707 (14.7%) with influenza B virus, 53 (0.2%) with influenza A virus and influenza B virus co-infection, and 134(0.5%) with influenza virus for which the type was not determined. Among those with influenza A subtype information, 4,223 (68.0%) were A(H1N1) pdm09 and 1,991 (32.0%) were A(H3N2).

[View Full Screen](#) [View Full Screen](#) **In this figure, weekly rates for all seasons prior to the 2023-2024 season reflect end-of-season rates. For the 2023-2024 season, rates for recent hospital admissions are subject to reporting delays and are shown as a dashed line for the current season. As hospitalization data are received each week, prior case counts and rates are updated accordingly. Additional FluSurv-NET hospitalization surveillance information for current and past seasons and additional age groups:

[Surveillance Methods](#) | [FluView Interactive: Rates by Age, Sex, and Race/Ethnicity or Data on Patient Characteristics](#) | [RESP-NET Interactive](#) Effective May 1, 2024, hospitals are no longer required to report hospital admissions, hospital capacity, or hospital occupancy data to HHS through NHSN. Voluntarily reported NHSN hospital data can be found at [Weekly United States Hospitalization Metrics by Jurisdiction](#).

[View Chart Data](#) | [View Full Screen](#) Additional NHSN Hospitalization Surveillance information:

[Surveillance Methods](#) | [Additional Data](#) | [FluView Interactive](#) Based on NCHS mortality surveillance data available on July 3, 2024, the percentage of deaths that were due to influenza slightly decreased (≥ 0.1 percentage point change) compared to the previous week. The data presented are preliminary and may change as more data are received and processed. [View Chart Data](#) | [View Full Screen](#) Additional pneumonia, influenza and COVID-19 mortality surveillance information for current and past seasons:

[Surveillance Methods](#) | [FluView Interactive](#) Three influenza-associated pediatric deaths occurring during the 2023-2024 season were reported to CDC during Week 26. The deaths occurred during weeks 3, 17 and 18 of 2024 (the weeks ending January 20, April 27, and May 4 of 2024). Two deaths were associated with influenza A viruses and one death was associated with an influenza B virus with no lineage determined. One of the influenza A viruses had subtyping performed and it was an A(H1N1)pdm09 virus. A total of 184 influenza-associated pediatric deaths occurring during the 2023-2024 season have been reported to CDC. [View Full Screen](#) Additional pediatric mortality

surveillance information for current and past seasons:

Surveillance Methods | FluView Interactive Increasing:

Decreasing:

Stable: Clinical Labs: Up or down arrows indicate a change of greater than or equal to 0.5 percentage points in the percent of specimens positive for influenza compared to the previous week.

Outpatient Respiratory Illness (ILINet): Up or down arrows indicate a change of greater than 0.1 percentage points in the percent of visits due to respiratory illness (ILI) compared to the previous week.

NHSN Hospitalizations: Up or down arrows indicate change of greater than or equal to 5% of the number of patients admitted with laboratory-confirmed influenza compared to the previous week.

NCHS Mortality: Up or down arrows indicate change of greater than 0.1 percentage points of the percent of deaths due to influenza compared to the previous week. 1U.S.

Influenza Surveillance: Purpose and Methods (2023 Oct). Centers for Disease Control and Prevention. <https://www.cdc.gov/flu/weekly/overview.htm#ILINet>. 2Grohskopf LA,

Blanton LH, Ferdinands JM, Chung JR, Broder KR, Talbot HK. Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices — United States, 2023–24 Influenza Season. MMWR Recomm Rep 2023;72(No. RR-2):1–25. DOI: <http://dx.doi.org/10.15585/mmwr.rr7202a1>

3Influenza Antiviral Medications: Summary for Clinicians (2023 Sept). Centers for Disease Control and Prevention.

<https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm>. FluView

Interactive: FluView includes enhanced web-based interactive applications that can provide dynamic visuals of the influenza data collected and analyzed by CDC. These FluView Interactive applications allow people to create customized, visual interpretations of influenza data, as well as make comparisons across flu seasons,

regions, age groups and a variety of other demographics. National Institute for Occupational Safety and Health: Monthly surveillance data on the prevalence of health-related workplace absenteeism among full-time workers in the United States are available from NIOSH. U.S. State and local influenza surveillance: Select a jurisdiction below to access the latest local influenza information. World Health Organization: Additional influenza surveillance information from participating WHO member nations is available through

FluNet and the Global Epidemiology Reports. WHO Collaborating Centers for Influenza: Australia, China, Japan, the United Kingdom, and the United States (CDC in Atlanta, Georgia) Europe:

The most up-to-date influenza information from Europe is available from WHO/Europe and the European Centre for Disease Prevention and Control. Public Health Agency of Canada:

The most up-to-date influenza information from Canada is available in Canada's weekly FluWatch report. Public Health England:

The most up-to-date influenza information from the United Kingdom is available from Public Health England. Any links provided to non-Federal organizations are provided solely as a service to our users. These links do not constitute an endorsement of these organizations or their programs by CDC or the Federal Government, and none should be inferred. CDC is not responsible for the content of the individual organization web pages found at these links. A description of the CDC influenza surveillance system, including methodology and detailed descriptions of each data component is available on the surveillance methods page. To receive weekly email updates about Seasonal Flu, enter your email address:

