



Influenza (Flu) (</flu/index.htm>)

Weekly U.S. Influenza Surveillance Report

Updated March 15, 2024

FLUVIEW



A Weekly Influenza Surveillance Report Prepared by the Influenza Division

Key Updates for Week 10, ending March 9, 2024

Seasonal influenza activity remains elevated nationally with increases in some parts of the country.

Viruses

Clinical Lab

15.4% (Trend ↑)
positive for influenza
this week

</flu/weekly/index.htm#ClinicalLaboratories>

Public Health Lab

Influenza A(H1N1)pdm09,
A(H3N2) and B viruses were
reported in approximately equal
proportions this week.

</flu/weekly/index.htm#PublicHealthLaboratories>

Virus Characterization

Genetic and antigenic
characterization and antiviral
susceptibility are summarized in
this report.

</flu/weekly/index.htm#VirusCharacterization>

Illness

Outpatient Respiratory Illness

3.7% (Trend ↓)
of visits to a health care provider this week were for respiratory illness
(above baseline).

</flu/weekly/index.htm#ILINet>

Outpatient Respiratory Illness: Activity Map

This week 13 jurisdictions experienced moderate activity and 16 jurisdictions experienced high or very high activity.

[\(/flu/weekly/index.htm#ORIAM\)](/flu/weekly/index.htm#ORIAM)

FluSurv-NET

67.9 per 100,000
cumulative hospitalization rate.

[\(/flu/weekly/index.htm#FluSurvNet\)](/flu/weekly/index.htm#FluSurvNet)

NHSN Hospitalizations

8,819 (Trend ↓)
patients admitted to hospitals with influenza this week.

[\(/flu/weekly/index.htm#NHSN\)](/flu/weekly/index.htm#NHSN)

NCHS Mortality

0.7% (Trend ↑)
of deaths attributed to influenza this week.

[\(/flu/weekly/index.htm#NCHSMortality\)](/flu/weekly/index.htm#NCHSMortality)

Pediatric Deaths

15
influenza-associated deaths were reported (2 occurred during 2022-2023 season and 13 occurred during 2023-2024 season).

[\(/flu/weekly/index.htm#PedMortality\)](/flu/weekly/index.htm#PedMortality)

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 \(/flu/weekly/index.htm#Trends\)](#) 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 \(/flu/weekly/overview.htm\)](#) page.

Additional information on the current and previous influenza seasons for each surveillance component are available on [FluView Interactive \(/flu/weekly/fluviewinteractive.htm\)](#).

Key Points

- Seasonal influenza activity remains elevated nationally with increases in some parts of the country.
- Nationally, percent positivity for both influenza A and B increased compared to last week; however, trends in percent positivity for influenza A and B varied by region.
- Nationally, outpatient respiratory illness declined but remains above baseline.¹ Region 9 is at their baseline during Week 10 for the first time since late October, while the remaining HHS regions remain above their respective baselines.
- Nationally, the number of weekly flu hospital admissions has been decreasing since January.
- During Week 10, of the 575 viruses reported by public health laboratories, 384 (66.8%) were influenza A and 191 (33.2%) were influenza B. Of the 258 influenza A viruses subtyped during Week 10, 141 (54.7%) were influenza A(H1N1)pdm09 and 117 (45.3%) were A(H3N2).
- Thirteen influenza-associated pediatric deaths occurring during the 2023-2024 season were reported to CDC during Week 10, bringing the season total to 116 pediatric deaths.
- CDC estimates that there have been at least 29 million illnesses, 320,000 hospitalizations, and 20,000 deaths from flu so far this season.
- CDC recommends that everyone 6 months and older get an annual flu vaccine as long as influenza viruses are spreading.² Vaccination can still provide benefit this season.
- There also are prescription flu antiviral drugs that can treat flu illness; those should be started as early as possible and are especially important for higher risk patients.³
- Flu viruses are among several viruses contributing to respiratory disease activity. CDC is providing updated, integrated information (<https://www.cdc.gov/respiratory-viruses/index.html>) about COVID-19, flu, and RSV activity on a weekly basis.

U.S. Virologic Surveillance

<https://www.cdc.gov/flu/weekly/overview.htm#LabSurveillance>

Nationally, the percentage of respiratory specimens testing positive for influenza in clinical laboratories increased (change of >0.5 percentage points) compared to the previous week, but trends varied by region. Regions 5 and 10 reported an increase; regions 2, 4, 6, 8, and 9 reported a decrease; and regions 1, 3, and 7 remained stable during Week 10 compared to Week 9. The regions with the highest percent positivity were regions 7 (28.1%), 5 (22.3%), and 3 (17.0%). Nationally, influenza A(H1N1)pdm09, A(H3N2), and B/Victoria viruses circulated at approximately equal proportions during Week 10. However, the distribution of circulating viruses varies by region. For regional and state level data and age

group distribution, please visit [FluView Interactive \(https://gis.cdc.gov/grasp/fluview/fluportaldashboard.html\)](https://gis.cdc.gov/grasp/fluview/fluportaldashboard.html). Viruses known to be associated with recent receipt of live attenuated influenza vaccine (LAIV) or found upon further testing to be a vaccine virus are not included, as they are not circulating influenza viruses.

Clinical Laboratories

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.

	Week 10	Data Cumulative since October 1, 2023 (Week 40)
No. of specimens tested	65,809	2,419,084
No. of positive specimens (%)	10,161 (15.4%)	279,439 (11.6%)
<i>Positive specimens by type</i>		
Influenza A	5,532 (54.4%)	203,348 (72.8%)
Influenza B	4,629 (45.6%)	76,081 (27.2%)

<http://gis.cdc.gov/grasp/fluview/fluportaldashboard.html>

[View Chart Data \(/flu/weekly/weeklyarchives2023-2024/data/whoAllregt_cl10.html\)](/flu/weekly/weeklyarchives2023-2024/data/whoAllregt_cl10.html) | [View Full Screen \(/flu/weekly/WeeklyArchives2023-2024/WHONPHL10.html\)](/flu/weekly/WeeklyArchives2023-2024/WHONPHL10.html)

Public Health Laboratories

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.

	Week 10	Data Cumulative since October 1, 2023 (Week 40)
No. of specimens tested	2,307	87,432
No. of positive specimens	575	28,235
<i>Positive specimens by type/subtype</i>		

Influenza A	384 (66.8%)	22,468 (79.6%)
Subtyping Performed	258 (67.2%)	18,378 (81.8%)
(H1N1)pdm09	141 (54.7%)	13,557 (73.8%)
H3N2	117 (45.3%)	4,821 (26.2%)
H3N2v	0 (0.0%)	0 (0.0%)
Subtyping not performed	126 (32.8%)	4,090 (18.2%)
Influenza B	191 (33.2%)	5,767 (20.4%)
Lineage testing performed	147 (77.0%)	4,874 (84.5%)
Yamagata lineage	0 (0.0%)	0 (0.0%)
Victoria lineage	147 (100.0%)	4,874 (100.0%)
Lineage not performed	44 (23.0%)	893 (15.5%)

(<http://gis.cdc.gov/grasp/fluview/fluportaldashboard.html>)

[View Chart Data \(/flu/weekly/weeklyarchives2023-2024/data/whoAllregt_phl10.html\)](/flu/weekly/weeklyarchives2023-2024/data/whoAllregt_phl10.html) | [View Full Screen \(/flu/weekly/weeklyarchives2023-2024/WhoPHL10.html\)](/flu/weekly/weeklyarchives2023-2024/WhoPHL10.html)

Additional virologic surveillance information for current and past seasons:

[Surveillance Methods \(/flu/weekly/overview.htm#LabSurveillance\)](/flu/weekly/overview.htm#LabSurveillance) | [FluView Interactive: National, Regional, and State Data](#)
(<http://gis.cdc.gov/grasp/fluview/fluportaldashboard.html>) or [Age Data \(https://gis.cdc.gov/grasp/fluview/flu_by_age_virus.html\)](https://gis.cdc.gov/grasp/fluview/flu_by_age_virus.html)

Influenza Virus Characterization

[\(/flu/weekly/overview.htm#VirusCharacterization\)](/flu/weekly/overview.htm#VirusCharacterization)

CDC performs [genetic \(https://www.cdc.gov/flu/about/professionals/genetic-characterization.htm\)](https://www.cdc.gov/flu/about/professionals/genetic-characterization.htm) and [antigenic \(https://www.cdc.gov/flu/about/professionals/antigenic.htm\)](https://www.cdc.gov/flu/about/professionals/antigenic.htm) 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 2,640 influenza viruses collected since October 1, 2023.

Virus Subtype or Lineage	Genetic Characterization				
	Total No. of Subtype/Lineage Tested	HA Clade	Number (% of subtype/lineage tested)	HA Subclade	Number (% of subtype/lineage tested)
A/H1	1,148				
		6B.1A.5a	1,148 (100%)	2a	285 (24.8%)
				2a.1	863 (75.2%)
A/H3	777				
		3C.2a1b.2a	777 (100%)	2a.1b	1 (0.1%)
				2a.3a	1 (0.1%)
				2a.3a.1	774 (99.6%)
			2b	1 (0.1%)	
B/Victoria	715				
		V1A	715 (100%)	3a.2	715 (100%)
B/Yamagata	0				
		Y3	0	Y3	0 (0%)

CDC antigenically characterizes (<https://www.cdc.gov/flu/about/professionals/antigenic.htm>) influenza viruses by hemagglutination inhibition (HI) (H1N1pdm09, H3N2, B/Victoria, and B/Yamagata viruses) or neutralization-based HINT [HINT](https://pubmed.ncbi.nlm.nih.gov/30804469/) [\(https://pubmed.ncbi.nlm.nih.gov/30804469/\)](https://pubmed.ncbi.nlm.nih.gov/30804469/) (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

- **A (H1N1)pdm09:** 172 A(H1N1)pdm09 viruses were antigenically characterized by HI, and all were well-recognized (reacting at titers that were within 4-fold of the homologous virus titer) by ferret antisera to cell-grown A/Wisconsin/67/2022-like reference viruses representing the A(H1N1)pdm09 component for the cell- and recombinant-based influenza vaccines.
- **A (H3N2):** 192 A(H3N2) viruses were antigenically characterized by HI or HINT, and 190 (99.0%) were well-recognized (reacting at titers that were within 4-fold of the homologous virus titer in HI or reacting at titers that were less than or equal to 8-fold of the homologous virus in HINT) by ferret antisera to cell-grown A/Darwin/6/2021-like reference viruses representing the A(H3N2) component for the cell- and recombinant-based influenza vaccines.

Influenza B Viruses

- **B/Victoria:** 106 influenza B/Victoria-lineage virus were antigenically characterized by HI, and all were well-recognized (reacting at titers that were within 4-fold of the homologous virus titer) by ferret antisera to cell-grown B/Austria/1359417/2021-like reference viruses representing the B/Victoria component for the cell- and recombinant-based influenza vaccines.
- **B/Yamagata:** No influenza B/Yamagata-lineage viruses were available for antigenic characterization.

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 \(https://www.cdc.gov/flu/weekly/overview.htm\) Methods | CDC \(https://www.cdc.gov/flu/weekly/overview.htm\)](https://www.cdc.gov/flu/weekly/overview.htm).

Viruses collected in the U.S. since October 01, 2023, were tested for antiviral susceptibility as follows:

Antiviral Medication			Total Viruses	A/H1	A/H3	B/Victoria
Neuraminidase Inhibitors	Oseltamivir	Viruses Tested	2,594	1,128	778	688
		Reduced Inhibition	1 (0.4%)	1 (0.1%)	0 (0.0%)	0 (0.0%)
		Highly Reduced Inhibition	1 (0.4%)	1 (0.1%)	0 (0.0%)	0 (0.0%)
	Peramivir	Viruses Tested	2,594	1,128	778	688
		Reduced Inhibition	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		Highly Reduced Inhibition	1 (0.4%)	1 (0.1%)	0 (0.0%)	0 (0.0%)
	Zanamivir	Viruses Tested	2,594	1,128	778	688
		Reduced Inhibition	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
		Highly Reduced Inhibition	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
PA Cap-Dependent Endonuclease Inhibitor	Baloxavir	Viruses Tested	2,518	1,098	759	661
		Decreased Susceptibility	1 (0.4%)	0 (0.0%)	1 (0.1%)	0 (0.0%)

One A(H1N1)pdm09 virus had NA-H275Y amino acid substitution and showed 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.

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.

Outpatient Respiratory Illness Surveillance

(<https://www.cdc.gov/flu/weekly/overview.htm#ILINet>)

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](https://www.cdc.gov/respiratory-viruses/index.html) (<https://www.cdc.gov/respiratory-viruses/index.html>) 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](https://www.cdc.gov/surveillance/nrevss/index.html) (<https://www.cdc.gov/surveillance/nrevss/index.html>).

Outpatient Respiratory Illness Visits

Nationwide, during Week 10, 3.7% of patient visits reported through ILINet were due to respiratory illness that included fever plus a cough or sore throat, also referred to as ILI. This has decreased (change of >0.1 percentage points) compared to Week 9 and remains above the national baseline. The percentage of visits for ILI increased in regions 8 and 10 and decreased in all other regions (1, 2, 3, 4, 5, 6, 7, and 9) compared to Week 9. Region 9 is at their baseline, while all other regions remain above their region-specific baselines. Multiple respiratory viruses are co-circulating, and the relative contribution of influenza virus infection to ILI varies by location.

<http://gis.cdc.gov/grasp/fluview/fluportaldashboard.html>

* 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.”

[View Chart Data \(current season only\) \(/flu/weekly/weeklyarchives2023-2024/data/senAllregt10.html\)](/flu/weekly/weeklyarchives2023-2024/data/senAllregt10.html) | [View Full Screen \(/flu/weekly/weeklyarchives2023-2024/ILI10.html\)](/flu/weekly/weeklyarchives2023-2024/ILI10.html)

Outpatient Respiratory Illness Visits by Age Group

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 4 age groups (0-4 years, 5-24 years, 25-49 years, and 50-64 years), and remained stable in the 65+ years age group during Week 10 compared to Week 9.

<http://gis.cdc.gov/grasp/fluview/fluportaldashboard.html>

[View Chart Data \(/flu/weekly/weeklyarchives2023-2024/data/iliage10.html\)](/flu/weekly/weeklyarchives2023-2024/data/iliage10.html) | [View Full Screen \(/flu/weekly/weeklyarchives2023-2024/ILIAge10.html\)](/flu/weekly/weeklyarchives2023-2024/ILIAge10.html)

Outpatient Respiratory Illness Activity Map

Data collected in ILINet are used to produce a measure of ILI activity* [\(/flu/weekly/overview.htm#ILINet\)](/flu/weekly/overview.htm#ILINet) by state/jurisdiction and Core Based Statistical Areas (CBSA).

Activity Level	Number of Jurisdictions		Number of CBSAs	
	Week 10 (Week ending Mar. 9, 2024)	Week 9 (Week ending Mar. 2, 2024)	Week 10 (Week ending Mar. 9, 2024)	Week 9 (Week ending Mar. 2, 2024)
Very High	3	5	11	16
High	13	17	58	92
Moderate	13	15	95	102
Low	17	9	203	200
Minimal	9	9	337	299
Insufficient Data	0	0	225	220

*Data collected in ILINet may disproportionately 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 (</flu/weekly/overview.htm#ILINet>) | FluView Interactive: National, Regional, and State Data (<http://gis.cdc.gov/grasp/fluview/fluportaldashboard.html>) or ILI Activity Map (<https://gis.cdc.gov/grasp/fluview/main.html>)

Hospitalization Surveillance

(<http://www.cdc.gov/flu/weekly/overview.htm#HospitalizationSurv>)

FluSurv-NET

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 20,741 laboratory-confirmed influenza-associated hospitalizations were reported by FluSurv-NET sites between October 1, 2023, and March 9, 2024. The weekly hospitalization rate observed in Week 10 was 2.1 per 100,000 population. The weekly hospitalization rate observed during Week 52 is the third highest peak weekly rate observed during all seasons going back to 2010-2011 following the 2014-2015 and 2017-2018 seasons. The overall cumulative hospitalization rate was 67.9 per 100,000 population. This cumulative hospitalization rate is the second highest cumulative hospitalization rate when compared against previous end-of-season rates for Week 10, and it is the second highest cumulative in-season hospitalization rate observed in Week 10, following the 2017-2018 season (89.9). Cumulative in-season hospitalization rates observed in Week 10 from 2010-2011 through 2022-2023 ranged from 0.7 to 61.6.

When examining rates by age, the highest cumulative hospitalization rate per 100,000 population was among adults aged 65 years and older (184.3), followed by adults aged 50-64 years (81.5) and children aged 0-4 years (71.1). When examining age-adjusted rates by race and ethnicity, the highest rate of hospitalization per 100,000 population was among non-Hispanic Black persons (128.9), followed by non-Hispanic American Indian or Alaska Native persons (94.9), Hispanic persons (64.2), non-Hispanic White persons (51.9), and non-Hispanic Asian/Pacific Islander persons (36.1).

Among 20,741 hospitalizations, 17,868 (86.1%) were associated with influenza A virus, 2,745 (13.2%) with influenza B virus, 41 (0.2%) with influenza A virus and influenza B virus co-infection, and 87 (0.4%) with influenza virus for which the type was not determined. Among those with influenza A subtype information, 2,997 (72.4%) were A(H1N1) pdm09 and 1,138 (27.5%) were A(H3N2).

Among 2,315 hospitalized adults with information on underlying medical conditions, 95.6% had at least one reported underlying medical condition, the most commonly reported were hypertension, cardiovascular disease, obesity, and metabolic disease. Among 1,193 hospitalized women of childbearing age (15-49 years) with information on pregnancy status, 23.2% were pregnant. Among 675 hospitalized children with information on underlying medical conditions, 69.5% had at least one reported underlying medical condition; the most commonly reported was asthma, followed by obesity and neurologic disease.

<https://gis.cdc.gov/grasp/fluview/FluHospRates.html>

[View Full Screen \(/flu/weekly/weeklyarchives2023-2024/EIPRates10.html\)](/flu/weekly/weeklyarchives2023-2024/EIPRates10.html)

In this figure, cumulative 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. As hospitalization data are reviewed each week, prior case counts and rates are updated accordingly.

<https://gis.cdc.gov/grasp/fluview/FluHospChars.html>

[View Full Screen \(/flu/weekly/weeklyarchives2023-2024/EIPConditions10.html\)](/flu/weekly/weeklyarchives2023-2024/EIPConditions10.html)

In this figure, weekly rates for all seasons prior to the 2023-24 season reflect end-of-season rates. For the 2023-24 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 (<https://www.cdc.gov/flu/weekly/overview.htm#FluSurvNet>) | FluView Interactive: Rates by Age, Sex, and Race/Ethnicity (<http://gis.cdc.gov/GRASP/Fluview/FluHospRates.html>) or Data on Patient Characteristics (<http://gis.cdc.gov/grasp/fluview/FluHospChars.html>) | RESP-NET Interactive (<https://www.cdc.gov/surveillance/resp-net/dashboard.html>)

National Healthcare Safety Network (NHSN) Hospitalization Surveillance

Hospitals report to NHSN the weekly number of patients admitted with laboratory-confirmed influenza. During Week 10, 8,819 patients with laboratory-confirmed influenza were admitted to a hospital. Nationally and in all HHS regions, the number of patients admitted to a hospital with laboratory-confirmed influenza for Week 10 decreased (change of >5%) compared to Week 9.

Additional NHSN Hospitalization Surveillance information:

Surveillance Methods (<https://www.cdc.gov/flu/weekly/overview.htm#NHSN>) | Additional Data (<https://data.cdc.gov/Public-Health-Surveillance/Respiratory-Virus-Response-RVR-United-States-Hospi/9t9r-e5a3>) | FluView Interactive (<http://gis.cdc.gov/grasp/fluview/FluView12.html>)

Mortality Surveillance

(<https://www.cdc.gov/flu/weekly/overview.htm#MortalitySurveillance>)

National Center for Health Statistics (NCHS) Mortality Surveillance

Based on NCHS mortality surveillance data available on March 14, 2024, 0.7% of the deaths that occurred during the week ending March 9, 2024 (Week 10) were due to influenza. This percentage increased (≥ 0.1 percentage point change) compared to Week 9. The data presented are preliminary and may change as more data are received and processed.

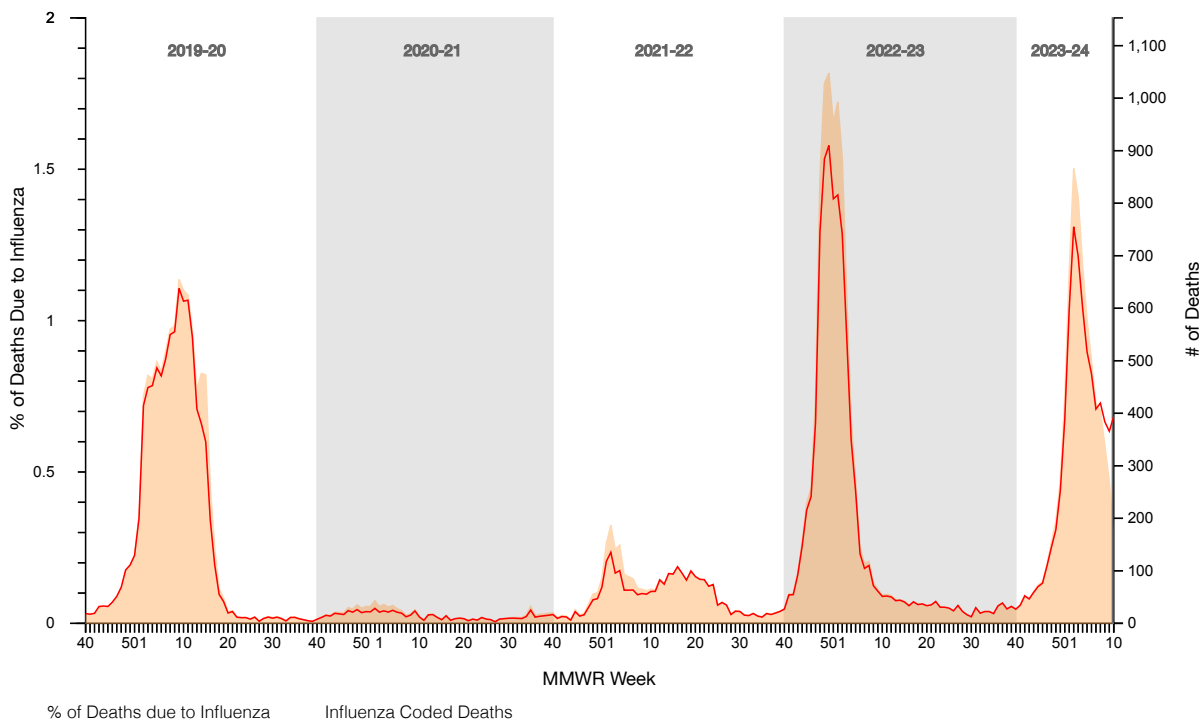
Season: 2023-24 Surveillance Area: National Age: All

Pneumonia and Influenza Mortality from the National Center for Health Statistics Mortality Surveillance System

National Summary data through the week ending March 9, 2024

2019-24

Show Number of Influenza Deaths



[View Regional and State Level Data \(https://gis.cdc.gov/grasp/fluview/Mortality.html\)](https://gis.cdc.gov/grasp/fluview/Mortality.html) | [Download Chart Data](#) | [Download PowerPoint Presentation](#)

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Additional pneumonia, influenza and COVID-19 mortality surveillance information for current and past seasons:

[Surveillance Methods \(https://www.cdc.gov/flu/weekly/overview.htm#NCHSMortality\)](https://www.cdc.gov/flu/weekly/overview.htm#NCHSMortality) | [FluView Interactive \(https://gis.cdc.gov/grasp/fluview/mortality.html\)](#)

Influenza-Associated Pediatric Mortality

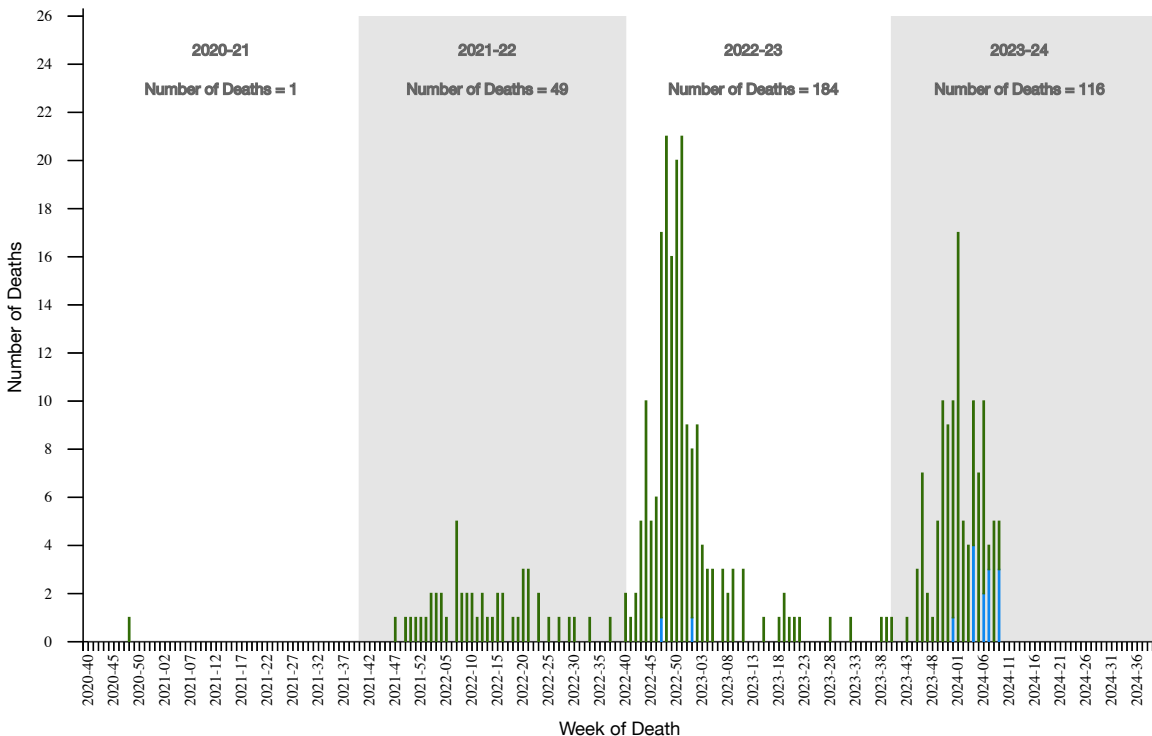
Fifteen influenza-associated pediatric deaths were reported to CDC during Week 10.

Thirteen deaths occurred during the 2023-2024 season, bringing the total pediatric deaths for this season to 116. The deaths occurred during Week 52 of 2023 (the week ending December 30, 2023) and between weeks 4 and 9 of 2024 (the weeks ending January 27, 2024, and March 2, 2024). Nine deaths were associated with influenza A viruses. Six of the influenza A viruses had subtyping performed; five were A(H1N1) viruses and one was an A(H3) virus. Three deaths were associated with influenza B viruses with no lineage determined. One death was associated with a co-infection with influenza A(H1N1) and influenza B viruses.

Two deaths occurring during the 2022-2023 season were also reported, which brings the total number of pediatric deaths for last season to 184. One death was associated with an influenza A(H3) virus and occurred during Week 47 of 2022 (the week ending November 26, 2022). The other death was associated with an influenza A(H1N1) virus and occurred during Week 1 of 2023 (the week ending January 7, 2023).

Influenza-Associated Pediatric Deaths by Week of Death, 2020-21 season to 2023-24 season

Select up to 4 Seasons ▾ Group By Reported Virus Type
 By Week Current Week Previous Weeks All Deaths



View FluView Interactive (<https://gis.cdc.gov/grasp/fluview/PedFluDeath.html>) | Download Chart Data | Download PowerPoint Presentation

Additional pediatric mortality surveillance information for current and past seasons:

Surveillance Methods (<https://www.cdc.gov/flu/weekly/overview.htm#PediatricMortality>) | FluView Interactive (<https://gis.cdc.gov/GRASP/Fluview/PedFluDeath.html>)

Trend Indicators

Increasing: ↑

Decreasing: ↓

Stable: →

Indicators Status by System

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.

Reference Footnotes

¹U.S. Influenza Surveillance: Purpose and Methods (2023 Oct). Centers for Disease Control and Prevention.

<https://www.cdc.gov/flu/weekly/overview.htm#ILINet> (<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> [↗](http://dx.doi.org/10.15585/mmwr.rr7202a1)

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

Additional National and International Influenza Surveillance Information

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](http://www.cdc.gov/flu/weekly/fluviewinteractive.htm)

(<http://www.cdc.gov/flu/weekly/fluviewinteractive.htm>) 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](https://www.cdc.gov/niosh/topics/absences/default.html)

(<https://www.cdc.gov/niosh/topics/absences/default.html>).

U.S. State and local influenza surveillance: Select a jurisdiction below to access the latest local influenza information.

Alabama (<http://adph.org/influenza/>)

Alaska

(<http://dhss.alaska.gov/dph/Epi/id/Pages/influenza/fluinfo>)

Colorado (<https://www.mass.gov/info-details/influenza-reporting>)

Connecticut (<https://portal.ct.gov/DPH/Epidemiology-ar>)

Georgia (https://dph.georgia.gov/flu-activity-georgia)	Hawaii (http://health.hawaii.gov/docd/resources/reports/influenza-reports/)
Iowa (https://idph.iowa.gov/influenza/reports)	Kansas (http://www.kdheks.gov/flu/surveillance.htm)
Maryland (https://phpa.health.maryland.gov/influenza/fluwatch/)	Massachusetts (https://www.mass.gov/info-details/influenza-reporting)
Missouri (http://health.mo.gov/living/healthcondiseases/communicable/influenza/reports.php)	Montana (https://dphhs.mt.gov/publichealth/cdepi/diseases/influenza)
New Jersey (http://www.nj.gov/health/cd/topics/flu.shtml)	New Mexico (https://nmhealth.org/about/erd/ideb/isp/)
Ohio (http://www.flu.ohio.gov)	Oklahoma (https://oklahoma.gov/health/health-education/acute-disease-service/disease-information/influenza-home-page.html)
South Carolina (http://www.scdhec.gov/Health/DiseasesandConditions/InfectiousDiseases/Flu/FluData/)	South Dakota (https://doh.sd.gov/health-data-reports/dashboards/influenza-dashboard/)
Vermont (http://www.healthvermont.gov/immunizations-infectious-disease/influenza/flu-activity-and-surveillance)	Virginia (http://www.vdh.virginia.gov/epidemiology/influenza-in-virginia/influenza-surveillance/)
Wyoming (https://health.wyo.gov/publichealth/infectious-disease-epidemiology-unit/disease/influenza/)	New York City (http://www1.nyc.gov/site/doh/providers/topics/flu-alerts.page)

World Health Organization:

Additional influenza surveillance information from participating WHO member nations is available through FluNet [↗](https://www.who.int/tools/flunet) (<https://www.who.int/tools/flunet>) and the Global Epidemiology Reports. [↗](https://www.who.int/teams/global-influenza-programme/surveillance-and-monitoring/influenza-surveillance-outputs) (<https://www.who.int/teams/global-influenza-programme/surveillance-and-monitoring/influenza-surveillance-outputs>)

WHO Collaborating Centers for Influenza:

Australia [↗](http://www.influenzacentre.org/Surveillance_Samples_Received.html) (http://www.influenzacentre.org/Surveillance_Samples_Received.html), China [↗](http://www.chinaivdc.cn/cnic/) (<http://www.chinaivdc.cn/cnic/>), Japan [↗](http://idsc.nih.go.jp/index.html) (<http://idsc.nih.go.jp/index.html>), the United Kingdom [↗](https://www.crick.ac.uk/research/worldwide-influenza-centre) (<https://www.crick.ac.uk/research/worldwide-influenza-centre>), and the United States (<http://www.cdc.gov/flu/>) (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 [↗](http://www.flunewseurope.org/) (<http://www.flunewseurope.org/>).

Public Health Agency of Canada:

The most up-to-date influenza information from Canada is available in Canada's weekly FluWatch report [↗](http://www.phac-aspc.gc.ca/fluwatch/) (<http://www.phac-aspc.gc.ca/fluwatch/>).

Public Health England:

The most up-to-date influenza information from the United Kingdom is available from [Public Health England](https://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/SeasonalInfluenza/) 
(<http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/SeasonalInfluenza/>).

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](http://www.cdc.gov/flu/weekly/overview.htm) (<http://www.cdc.gov/flu/weekly/overview.htm>) page.

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Source: Centers for Disease Control and Prevention (<https://www.cdc.gov/>), National Center for Immunization and Respiratory Diseases (NCIRD) (<https://www.cdc.gov/ncird/index.html>)