

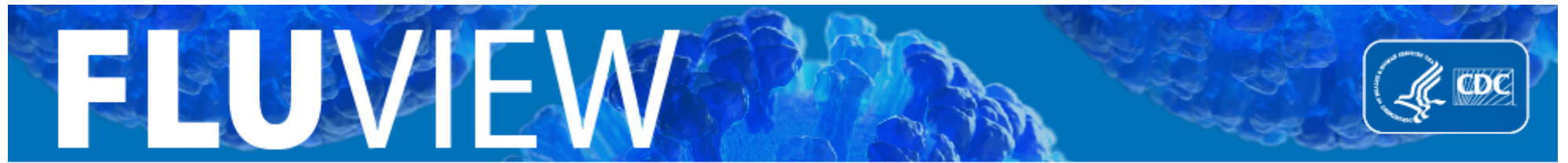
[Influenza \(Flu\) \(/flu/index.htm\)](/flu/index.htm)



[Influenza \(Flu\) \(/flu/index.htm\)](/flu/index.htm)

# Weekly U.S. Influenza Surveillance Report

Updated December 2, 2022



A Weekly Influenza Surveillance Report Prepared by the Influenza Division

**Note:** CDC is tracking the COVID-19 pandemic in a weekly publication called [COVID Data Tracker Weekly Review](https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/).  
(<https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/>)

## Key Updates for Week 47, ending November 26, 2022

Seasonal influenza activity is high and continues to increase across the country.

## Viruses

### Clinical Lab

**25.1%**  
positive for influenza  
this week

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

### Public Health Lab

The most frequently reported  
viruses this week were influenza  
**A(H3N2)**.  
[\(/flu/weekly/index.htm#PublicHealthLaboratories\)](/flu/weekly/index.htm#PublicHealthLaboratories)

### Virus Characterization

Genetic and antigenic  
characterization are summarized  
in this report.  
[\(/flu/weekly/index.htm#VirusCharacterization\)](/flu/weekly/index.htm#VirusCharacterization)

## Illness

### Outpatient Respiratory Illness

**7.5%**  
of visits to a health care provider are for respiratory illness this week  
*(above baseline)*

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

### Outpatient Respiratory Illness: Activity Map

This week, 2 jurisdictions experienced moderate activity and 47 jurisdictions experienced high or very high activity.

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

### Long-term Care Facilities

**2.6%**

of facilities reported  
≥ 1 influenza-positive test  
among residents this week.  
(</flu/weekly/index.htm#LTCF>)

## Severe Disease

### FluSurv-NET

**16.6 per 100,000**

cumulative hospitalization rate

(</flu/weekly/index.htm#FluSurvNet>)

### HHS Protect Hospitalizations

**19,593**

patients admitted to hospitals with influenza  
this week.

(</flu/weekly/index.htm#HHSProtect>)

### NCHS Mortality

**9.7%**

of deaths attributed to pneumonia, influenza, or COVID-  
19 this week (**above threshold**)

(</flu/weekly/index.htm#NCHSMortality>)

### Pediatric Deaths

**2**

deaths were reported this week for a total of 14 so far  
this season.

(</flu/weekly/index.htm#PedMortality>)

*All data are preliminary and may change as more reports are received.*

*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) (</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) (</flu/weekly/fluviewinteractive.htm>).*

### Key Points

- Seasonal influenza activity is high and continues to increase across the country.
- Of influenza A viruses detected and subtyped this season, 79% have been influenza A(H3N2) and 21% have been influenza A(H1N1).
- Two influenza-associated pediatric deaths were reported this week, for a total of 14 pediatric flu deaths reported so far this season.
- CDC estimates that, so far this season, there have been at least 8.7 million illnesses, 78,000 hospitalizations, and 4,500 deaths from flu.
- The cumulative hospitalization rate in the FluSurv-NET system is higher than the rate observed in week 47 during every previous season since 2010-2011.
- The number of flu hospital admissions reported in the HHS Protect system during week 47 almost doubled compared with week 46.
- The majority of influenza viruses tested are in the same genetic subclade as and antigenically similar to the influenza viruses included in this season's influenza vaccine.
- All viruses collected and evaluated this season have been susceptible to influenza antivirals.
- An annual flu vaccine is the best way to protect against flu. Vaccination helps prevent infection and can also prevent serious outcomes in people who get vaccinated but still get sick with flu.
- CDC recommends that everyone ages 6 months and older get a flu vaccine annually. Now is a good time to get vaccinated if you haven't already.
- There are also prescription flu antiviral drugs that can be used to treat flu illness; those need to be started as early as possible.

# U.S. Virologic Surveillance

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

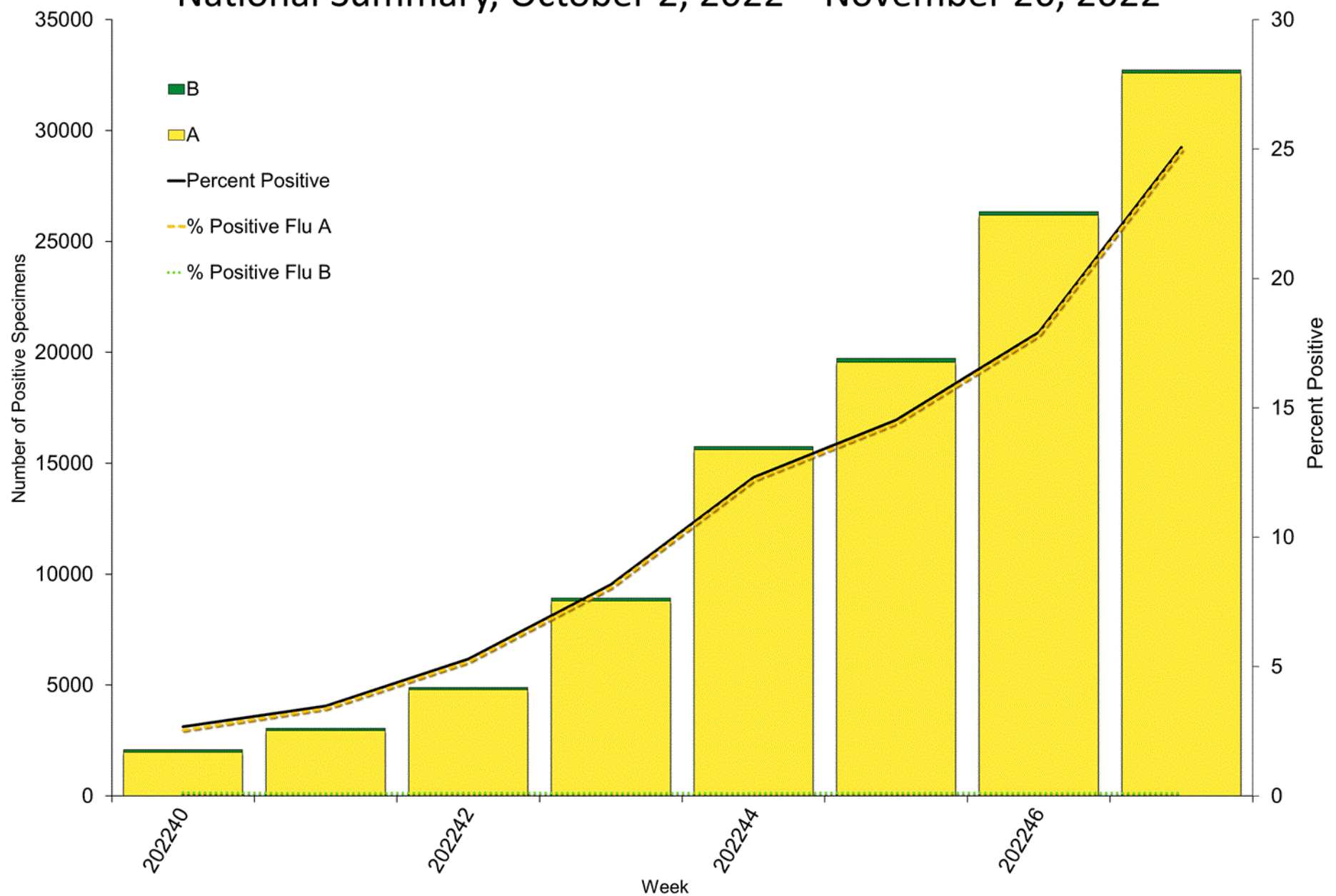
Nationally, the percentage of specimens testing positive for influenza in clinical laboratories is increasing. Percent positivity increased  $\geq 0.5$  percentage points this week in all regions. For regional and state level data and age group distribution, please visit [FluView Interactive](https://gis.cdc.gov/grasp/fluview/fluportaldashboard.html) (<https://gis.cdc.gov/grasp/fluview/fluportaldashboard.html>). Viruses known to be associated with recent live attenuated influenza vaccine (LAIV) receipt 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) are used to monitor whether influenza activity is increasing or decreasing.

	Week 47	Data Cumulative since October 2, 2022 (Week 40)
No. of specimens tested	130,584	907,795
No. of positive specimens (%)	32,733 (25.1%)	113,482 (12.5%)
<i>Positive specimens by type</i>		
Influenza A	32,594 (99.6%)	112,488 (99.1%)
Influenza B	139 (0.4%)	994 (0.9%)

## Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, October 2, 2022 – November 26, 2022



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

[View Chart Data \(/flu/weekly/weeklyarchives2022-2023/data/whoAllregt\\_cl47.html\)](/flu/weekly/weeklyarchives2022-2023/data/whoAllregt_cl47.html) | [View Full Screen \(/flu/weekly/WeeklyArchives2022-2023/WHONPHL47.html\)](/flu/weekly/WeeklyArchives2022-2023/WHONPHL47.html)

## Public Health Laboratories

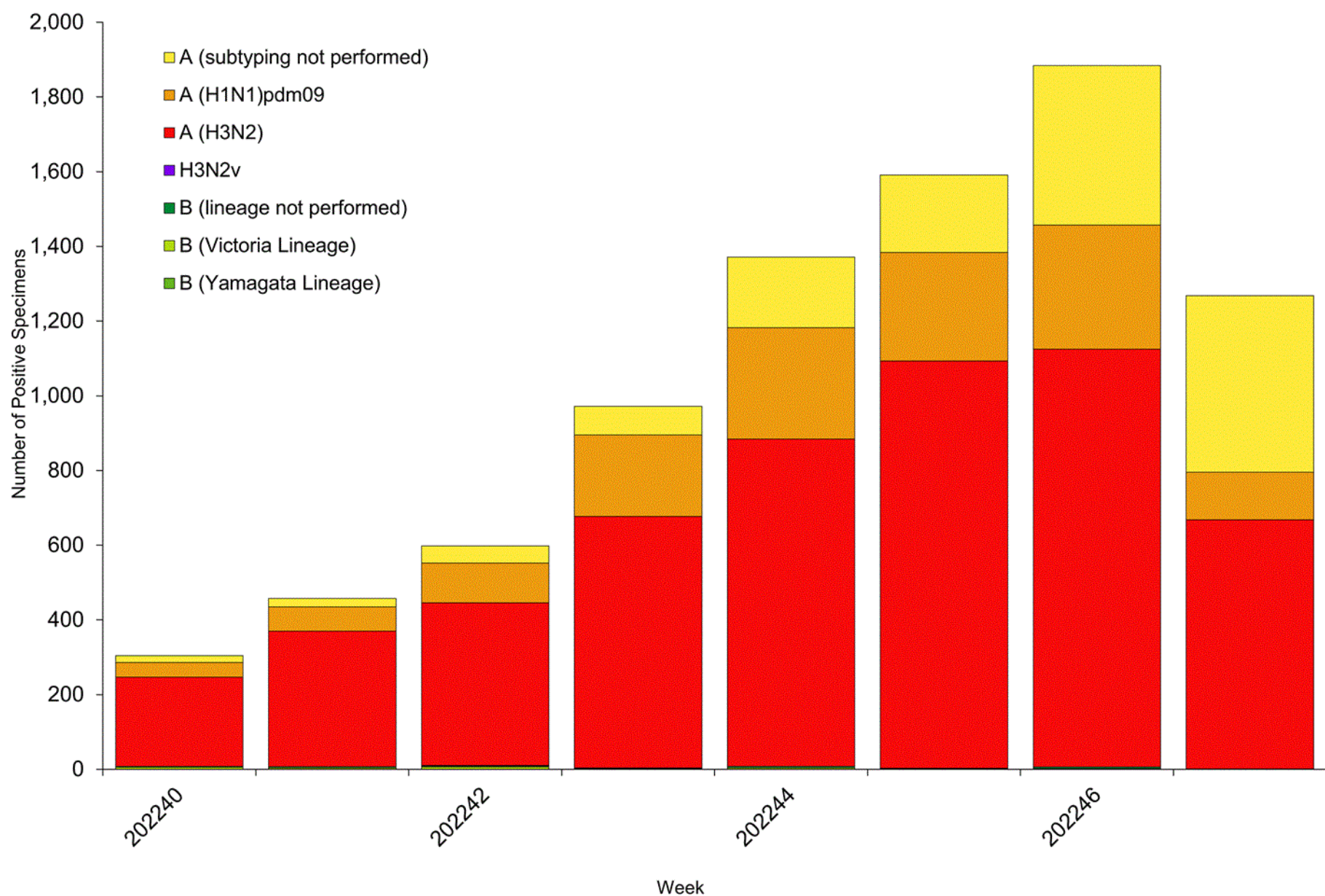
The results of tests performed by public health laboratories nationwide are summarized below. Data from public health laboratories are used to monitor the proportion of circulating viruses that belong to each influenza subtype/lineage.

	Week 47	Data Cumulative since October 2, 2022 (Week 40)
No. of specimens tested	7,447	73,201
No. of positive specimens	1,264	8,437
<i>Positive specimens by type/subtype</i>		
Influenza A	1,263 (99.9%)	8,391 (99.5%)
(H1N1)pdm09	123 (15.6%)	1,469 (21.2%)
H3N2	667 (84.4%)	5,463 (78.8%)
H3N2v	0	1 (<0.1%)
Subtyping not performed	473	1,458



	Week 47	Data Cumulative since October 2, 2022 (Week 40)
Influenza B	1 (0.1%)	46 (0.5%)
Yamagata lineage	0	0
Victoria lineage	0	25 (100%)
Lineage not performed	1	21

### Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories, National Summary, October 2, 2022 – November 26, 2022



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

[View Chart Data \(/flu/weekly/weeklyarchives2022-2023/data/whoAllregt\\_ph147.html\)](/flu/weekly/weeklyarchives2022-2023/data/whoAllregt_ph147.html) | [View Full Screen \(/flu/weekly/weeklyarchives2022-2023/WhoPHL47.html\)](/flu/weekly/weeklyarchives2022-2023/WhoPHL47.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) and [antigenic](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 genetically characterized 788 influenza viruses collected since May 1, 2022.

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)
<b>A/H1</b>	135				
		6B.1A	135 (100%)	5a.1	5 (3.7%)
				5a.2	130 (96.3%)
<b>A/H3</b>	643				
		3C.2a1b	643 (100%)	1a	0
				1b	0
				2a	0
				2a.1	1 (0.2%)
				2a.2	642 (99.8%)
		3C.3a	0	3a	0
<b>B/Victoria</b>	10				
		V1A	10 (100%)	V1A	0
				V1A.1	0
				V1A.3	0
				V1A.3a	0
				V1A.3a.1	0
				V1A.3a.2	10 (100%)
<b>B/Yamagata</b>	0				
		Y3	0		

CDC antigenically characterizes [influenza viruses](https://www.cdc.gov/flu/about/professionals/antigenic.htm) by [hemagglutination inhibition \(HI\)](https://www.cdc.gov/flu/about/professionals/antigenic.htm) (H1N1pdm09, B/Victoria, and B/Yamagata viruses) or neutralization-based [HINT](https://www.cdc.gov/flu/spotlights/2018-2019/new-lab-method-test-flu.html) (H3N2 viruses) using antisera that ferrets make after being infected with reference viruses representing the 2022-2023 Northern Hemisphere recommended egg-based and 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 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:** Forty-eight A(H1N1)pdm09 viruses were antigenically characterized by HI, and 46 (96%) were well recognized (reacting at titers that were within 4-fold of the homologous virus titer) by ferret antisera to cell-grown A/Wisconsin/588/2019-like reference viruses representing the A(H1N1)pdm09 component for the cell- and recombinant-based influenza vaccines and 46 (96%) were well recognized by ferret antisera to egg-grown A/Victoria/2570/2019-like reference viruses representing the A(H1N1)pdm09 component for the egg-based influenza vaccines.
- **A (H3N2):** Sixty A(H3N2) viruses were antigenically characterized by HINT; all were well-recognized (reacting at titers that were within 8-fold of the homologous virus titer) 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 and 58 (97%) were well-recognized by ferret antisera to egg-grown A/Darwin/9/2021-like reference viruses representing the A(H3N2) component for egg-based influenza vaccines.

### Influenza B Viruses

- **B/Victoria:** One influenza B/Victoria-lineage virus was antigenically characterized by HI; it was 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 and by ferret antisera to egg-grown B/Austria/1359417/2021-like reference viruses representing the B/Victoria component for the egg-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 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 \(https://www.cdc.gov/flu/weekly/overview.htm\)](https://www.cdc.gov/flu/weekly/overview.htm).

Viruses collected in the U.S. since October 2, 2022, were tested for antiviral susceptibility as follows:

Antiviral Medication			Total Viruses	A/H1	A/H3	B/Victoria	B/Yamagata
Neuraminidase Inhibitors	Oseltamivir	Viruses Tested	337	106	223	8	0
		Reduced Inhibition	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
		Highly Reduced Inhibition	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

Antiviral Medication		Total Viruses	A/H1	A/H3	B/Victoria	B/Yamagata	
	Peramivir	Viruses Tested	337	106	223	8	0
		Reduced Inhibition	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
		Highly Reduced Inhibition	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	Zanamivir	Viruses Tested	337	106	223	8	0
		Reduced Inhibition	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
		Highly Reduced Inhibition	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
PA Cap-Dependent Endonuclease Inhibitor	Baloxavir	Viruses Tested	331	101	221	9	0
		Reduced Susceptibility	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

## Outpatient Respiratory Illness Surveillance

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

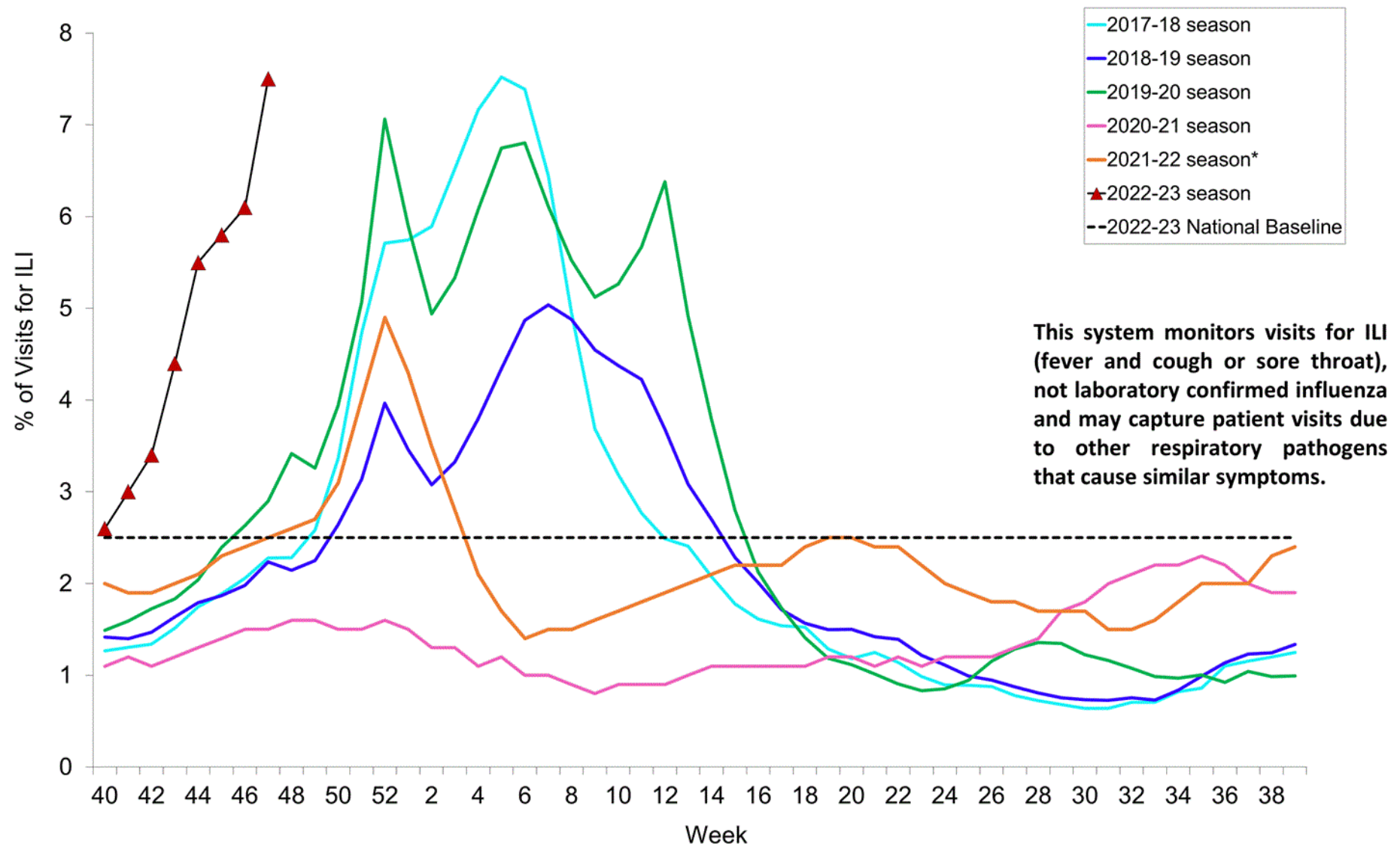
The U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) monitors outpatient visits for respiratory illness referred to as influenza-like illness [ILI (fever plus cough or sore throat)], not laboratory-confirmed influenza, and will therefore capture respiratory illness visits due to infection with any pathogen that can present with similar symptoms, including influenza, SARS-CoV-2, and RSV. Due to the COVID-19 pandemic, health care-seeking behaviors have changed, and people may be accessing the health care system in alternative settings not captured as a part of ILINet or at a different point in their illness than they might have before the pandemic. Therefore, it is important to evaluate syndromic surveillance data, including that from ILINet, in the context of other sources of surveillance data to obtain a complete and accurate picture of influenza, SARS-CoV-2, and other respiratory virus activity. CDC is tracking the COVID-19 pandemic in a weekly publication called [COVID Data Tracker Weekly Review](https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/index.html) (<https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/index.html>). 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 47, 7.5% 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 is above the national baseline of 2.5%. All 10 HHS regions are above their respective baselines. The percent of patient visits for respiratory illness remained stable (change of  $\leq .1$  percentage points) in Region 6, and increased in all other regions during week 47 compared to week 46. Multiple respiratory viruses are co-circulating, and the relative contribution of influenza virus infection to ILI varies by location.



## Percentage of Outpatient Visits for Respiratory Illness Reported By The U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, 2022-2023\* and Selected Previous Seasons



(<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.”

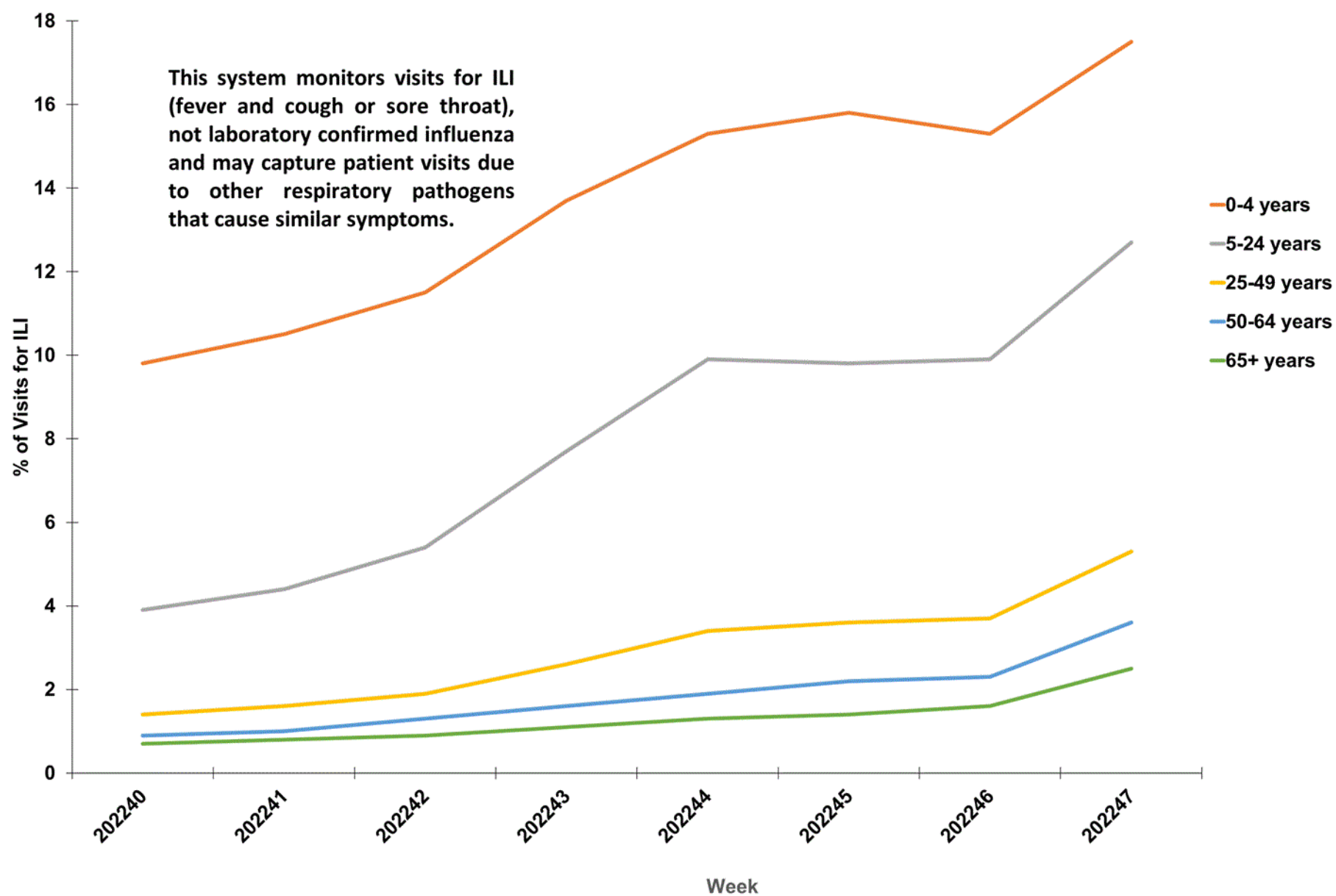
[View Chart Data \(current season only\) \(/flu/weekly/weeklyarchives2022-2023/data/senAllregt47.html\)](/flu/weekly/weeklyarchives2022-2023/data/senAllregt47.html) | [View Full Screen \(/flu/weekly/weeklyarchives2022-2023/ILI47.html\)](#)

## Outpatient Respiratory Illness Visits by Age Group

More than 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 increased in all age groups (0-4 years, 5-24 years, 25-49 years, 50-64 years, and 65+ years).

**Percentage of Outpatient Visits for Respiratory Illness by Age Group  
Reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet),  
Weekly National Summary, October 2, 2022-November 26, 2022\***



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

[View Chart Data \(/flu/weekly/weeklyarchives2022-2023/data/iliage47.html\)](/flu/weekly/weeklyarchives2022-2023/data/iliage47.html) | [View Full Screen \(/flu/weekly/weeklyarchives2022-2023/ILIAge47.html\)](/flu/weekly/weeklyarchives2022-2023/ILIAge47.html)

## Outpatient Respiratory Illness Activity Map

Data collected in ILINet are used to produce a measure of ILI activity\*

[https://www.cdc.gov/flu/weekly/overview.htm#anchor\\_1633697504110](https://www.cdc.gov/flu/weekly/overview.htm#anchor_1633697504110) by state/jurisdiction and Core Based Statistical Areas (CBSA).

Activity Level	Number of Jurisdictions		Number of CBSAs	
	Week 47 (Week ending Nov. 26, 2022)	Week 46 (Week ending Nov. 19, 2022)	Week 47 (Week ending Nov. 26, 2022)	Week 46 (Week ending Nov. 19, 2022)
Very High	31	19	107	66
High	16	17	201	173
Moderate	2	9	122	112
Low	4	5	130	135
Minimal	2	5	117	206
Insufficient Data	0	0	252	237

\*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.

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**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>)

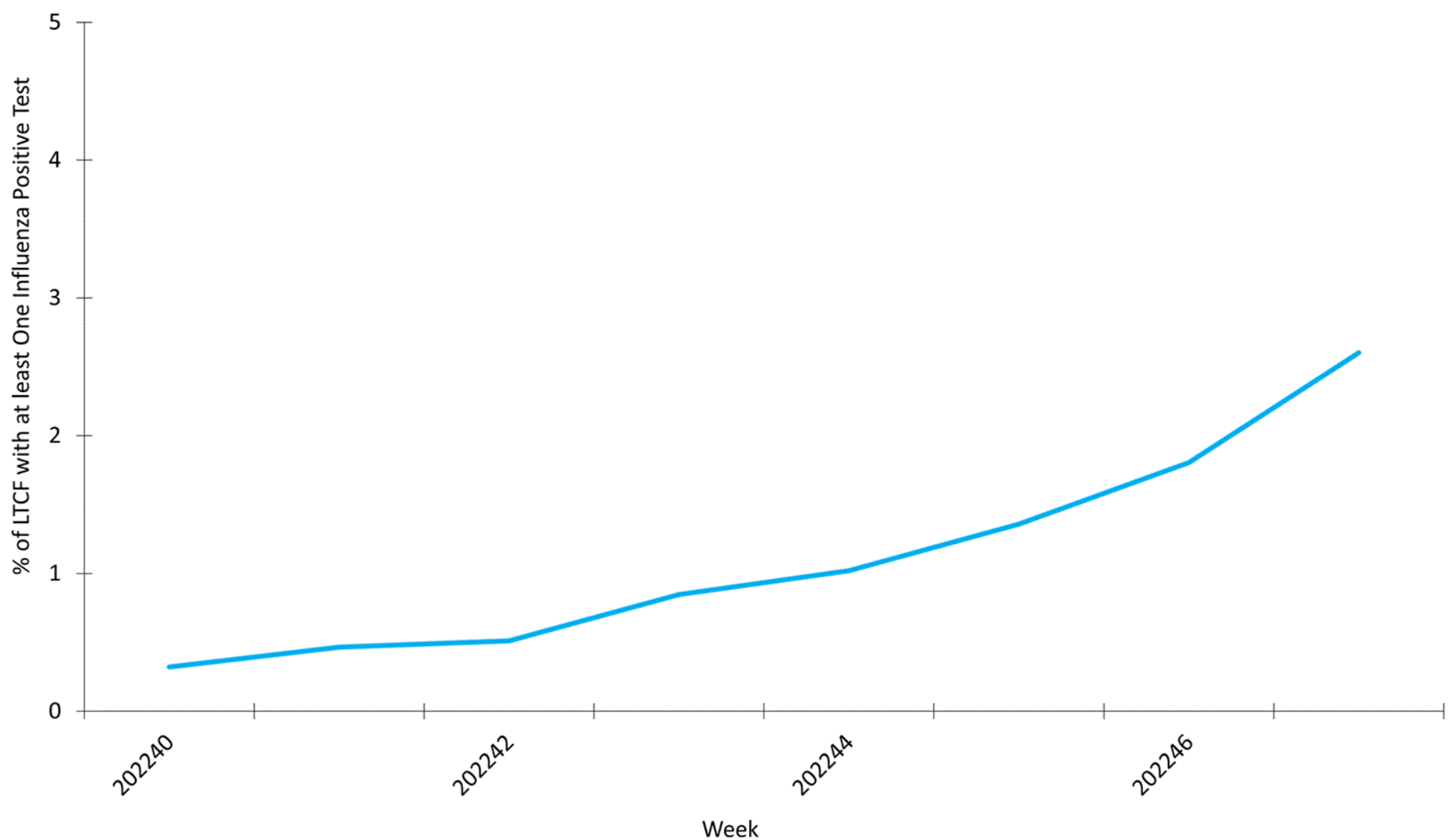
## Long-term Care Facility (LTCF) Surveillance

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

LTCFs (e.g., nursing homes/skilled nursing, long-term care for the developmentally disabled, and assisted living facilities) from all 50 states and U.S. territories report data on influenza virus infections among residents through the [National Healthcare Safety Network \(NHSN\) Long-term Care Facility Component](#) (<https://www.cdc.gov/nhsn/lc/index.html>). During week 47, 364 (2.6%) of 13,991 reporting LTCFs reported at least one influenza positive test among their residents.

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## Percent of Long-term Care Facilities (LTCF) with at Least One Confirmed Influenza Positive Test among Residents, Reported to CDC National Healthcare Safety Network (NHSN), National Summary, October 3, 2022 – November 27, 2022



</flu/weekly/weeklyarchives2022-2023/LTCF47.html> View Chart Data  </flu/weekly/weeklyarchives2022-2023/data/LTCFData47.csv> | View Full Screen </flu/weekly/weeklyarchives2022-2023/LTCF47.html>

### Additional information about long-term care facility surveillance:

[Surveillance Methods \(/flu/weekly/overview.htm#LongTermCare\)](/flu/weekly/overview.htm#LongTermCare) | [Additional Data !\[\]\(e78f798d4ea5c530c9db49e7d26e6b95\_img.jpg\) \(https://data.cms.gov/covid-19/covid-19-nursing-home-data\)](https://data.cms.gov/covid-19/covid-19-nursing-home-data)

## 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 13 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 4,863 laboratory-confirmed influenza-associated hospitalizations were reported by FluSurv-NET sites between October 1, 2021, and November 26, 2022. The overall cumulative hospitalization rate was 16.6 per 100,000 population. This cumulative hospitalization rate is higher than the cumulative in-season hospitalization rate observed in week 47 during previous seasons going back to 2010-2011, which ranged from 0.1 to 2.0.

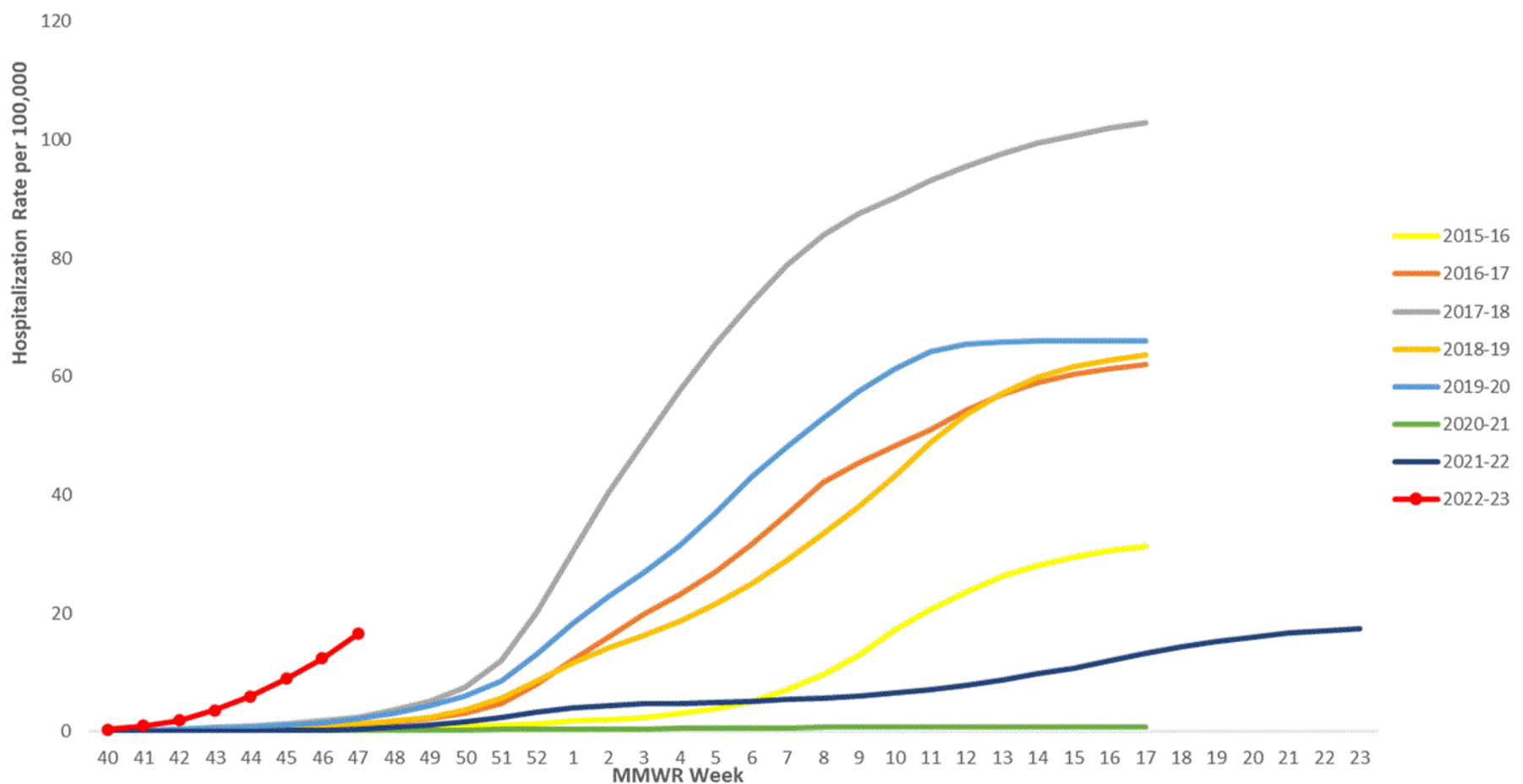
When examining rates by age, the highest rate of hospitalization per 100,000 population was among adults aged 65 and older (39.9). Among adults aged 65 and older, rates were highest among adults aged 85 and older (71.3). Among persons aged <65 years, hospitalization rates per 100,000 population were highest among children aged 0-4 years (28.4) followed by adults aged 50-64 years (16.6). When examining rates by race and ethnicity, the highest rate of hospitalization per 100,000 population was among non-Hispanic Black persons (30.2), followed by non-Hispanic American Indian or Alaska Native persons (16.7), followed by Hispanic/Latino persons (9.9), followed by non-Hispanic White persons (9.6), followed by non-Hispanic Asian/Pacific Islander persons (6.7).



Among 4,863 hospitalizations, 4,676 (96.2%) were associated with influenza A virus, 96 (2%) with influenza B virus, 9 (0.2%) with influenza A virus and influenza B virus co-infection, and 82 (1.7%) with influenza virus for which the type was not determined. Among 715 hospitalizations with influenza A subtype information, 556 (77.8%) were A(H3N2), and 159 (22.2%) were A(H1N1)pdm09. Based on preliminary data, of the 555 laboratory-confirmed influenza-associated hospitalizations with more complete data, 4.32% (95% CI: 2.79%-6.37%) also tested positive for SARS-CoV-2.

Among 522 hospitalized adults with information on underlying medical conditions, 96.7% had at least one reported underlying medical condition; the most commonly reported were hypertension, cardiovascular disease, metabolic disorder, chronic lung disease, and obesity. Among 99 hospitalized children with information on underlying medical conditions, 73.7% had at least one reported underlying medical condition; the most commonly reported was asthma.

### Cumulative Rate of Laboratory-Confirmed Influenza Hospitalizations among cases of all ages, 2015-16 to 2022-23, MMWR Week 47



\*\*In this figure, cumulative rates for all seasons prior to the 2022-23 season reflect end-of-season rates. For the 2022-23 season, rates for recent hospital admissions are subject to reporting delays. As hospitalization data are received each week, prior case counts and rates are updated accordingly.

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

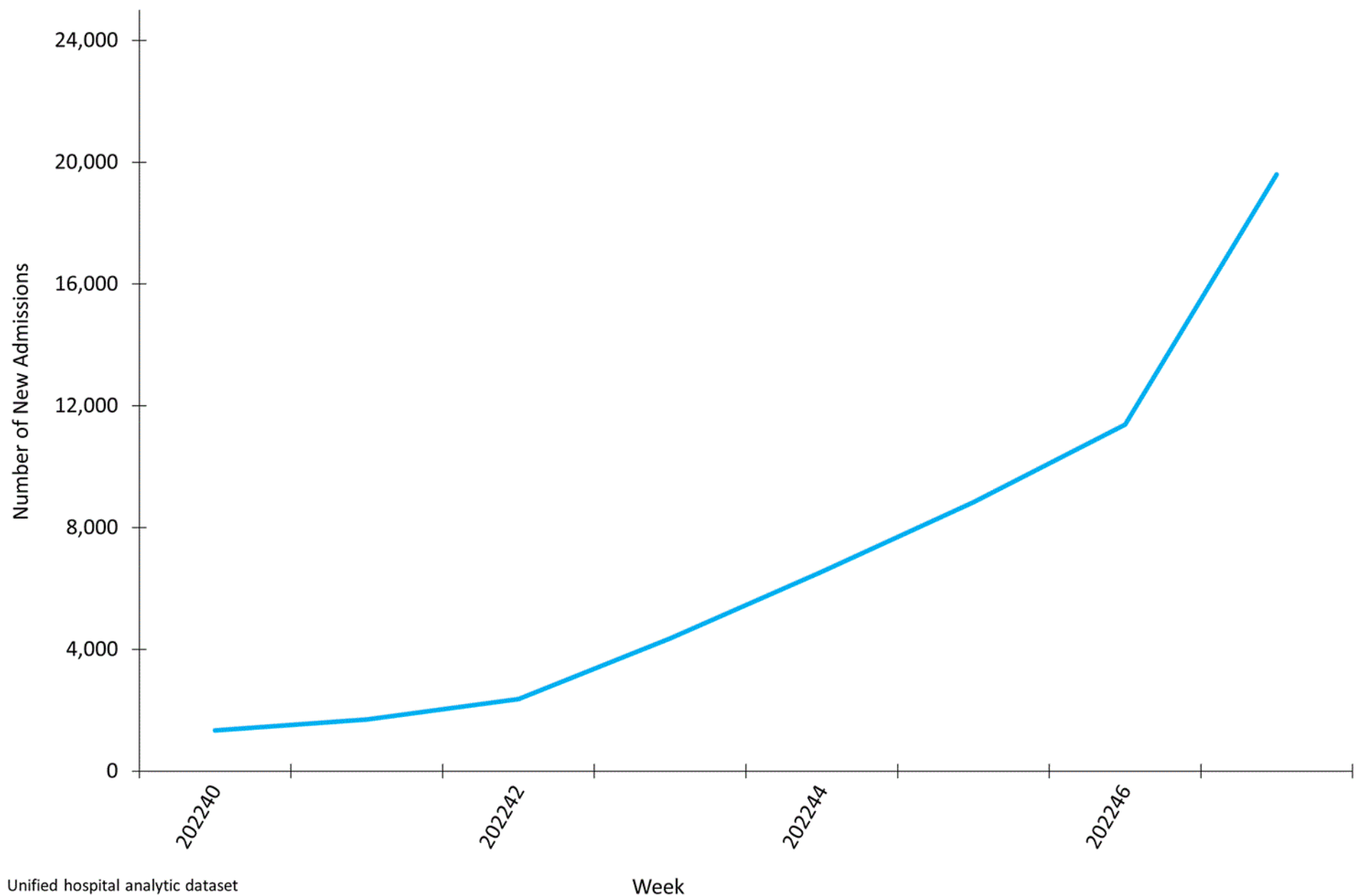
[View Full Screen \(/flu/weekly/weeklyarchives2022-2023/EIPRates47.html\)](/flu/weekly/weeklyarchives2022-2023/EIPRates47.html)

**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>)

## HHS Protect Hospitalization Surveillance

Hospitals report to HHS Protect the number of patients admitted with laboratory-confirmed influenza. During week 47, 19,593 patients with laboratory-confirmed influenza were admitted to a hospital.

## New Influenza Hospital Admissions Reported to HHS Protect, National Summary, October 2, 2022 – November 26, 2022



Unified hospital analytic dataset

Week

[View Chart Data](/flu/weekly/weeklyarchives2022-2023/Protect47.html) [View Full Screen](/flu/weekly/weeklyarchives2022-2023/data/ProtectData47.csv) [View Full Screen](/flu/weekly/weeklyarchives2022-2023/Protect47.html)

### Additional HHS Protect hospitalization surveillance information:

[Surveillance Methods](https://www.cdc.gov/flu/weekly/overview.htm#HHSProtect) | [Additional Data](https://healthdata.gov/Hospital/COVID-19-Reported-Patient-Impact-and-Hospital-Capa/anag-cw7u)

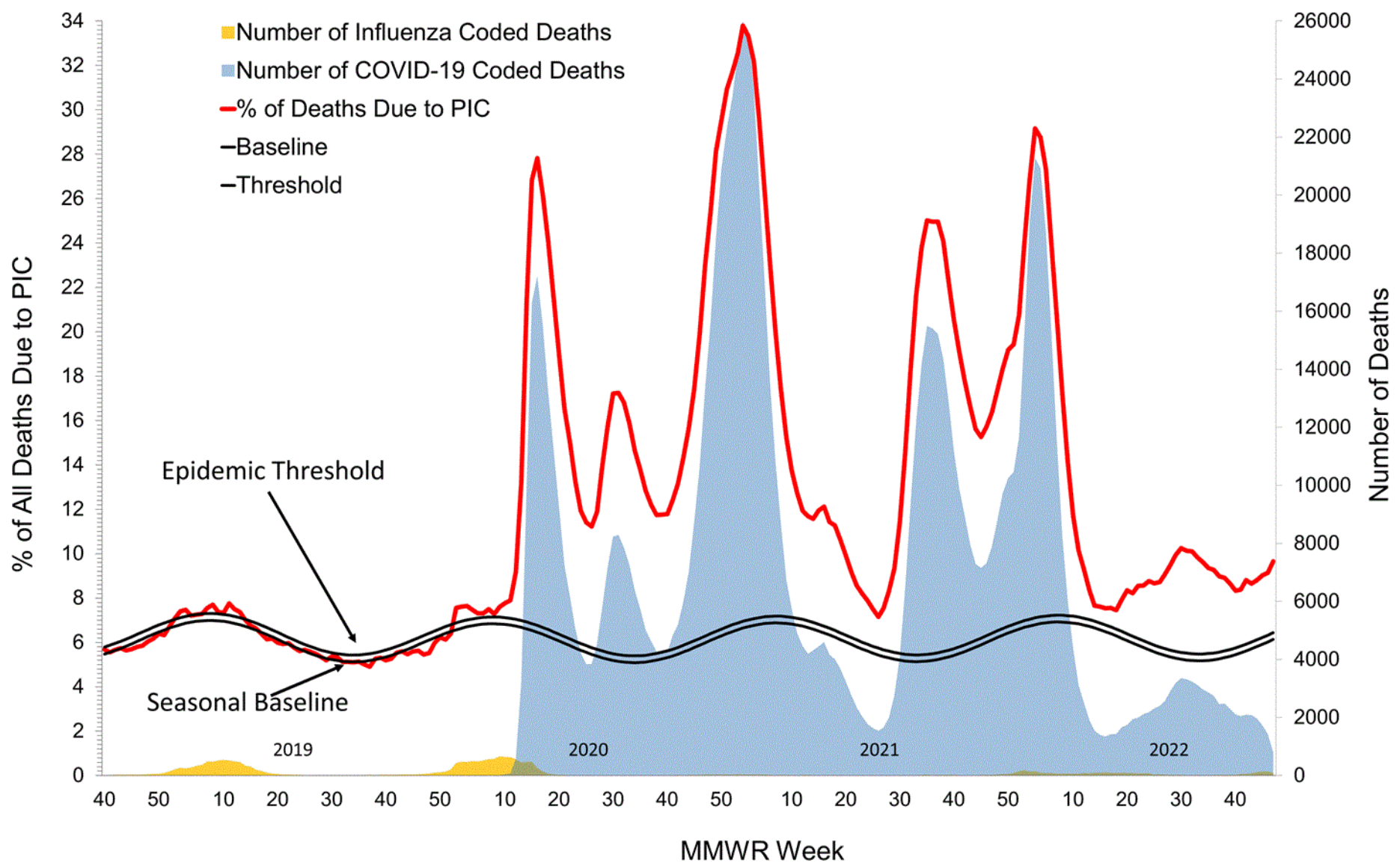
## Mortality Surveillance

<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 December 1, 2022, 9.7% of the deaths that occurred during the week ending November 26, 2022 (week 47), were due to pneumonia, influenza, and/or COVID-19 (PIC). This percentage is above the epidemic threshold of 6.4% for this week. Among the 1,801 PIC deaths reported for this week, 792 had COVID-19 listed as an underlying or contributing cause of death on the death certificate, and 99 listed influenza. While current PIC mortality is due primarily to COVID-19, the proportion due to influenza is increasing. The data presented are preliminary and may change as more data are received and processed.

## Pneumonia, Influenza, and COVID-19 Mortality from the National Center for Health Statistics Mortality Surveillance System Data as of December 1, 2022



(<http://gis.cdc.gov/GRASP/Fluview/mortality.html>)

View Chart Data (</flu/weekly/weeklyarchives2022-2023/data/NCHSData47.csv>) | View Full Screen (</flu/weekly/weeklyarchives2022-2023/NCHS47.html>)

**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>)

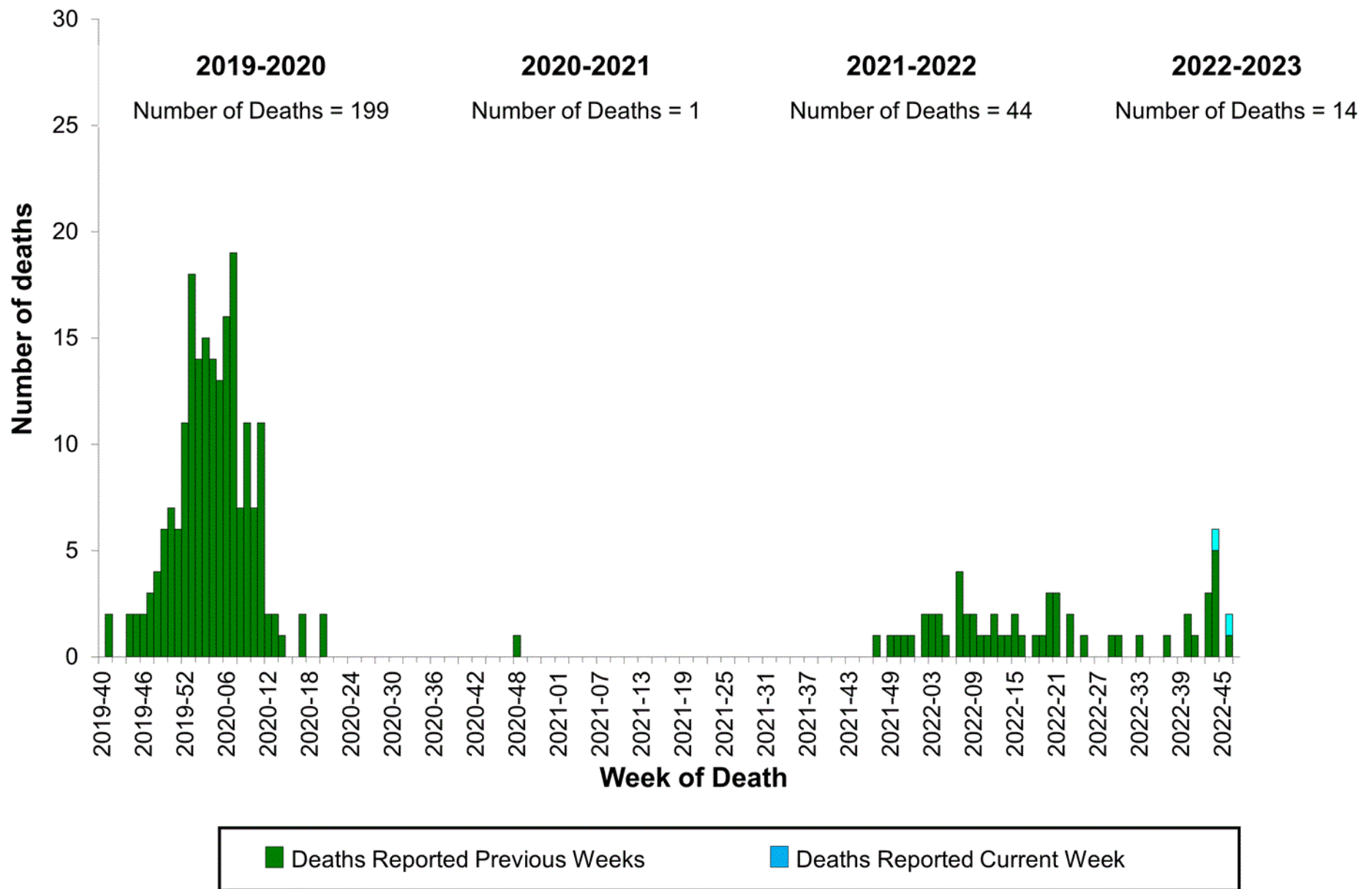
### Influenza-Associated Pediatric Mortality

Two influenza-associated pediatric deaths occurring during the 2022-2023 season were reported to CDC during week 47. One death was associated with an influenza A(H1N1)pdm09 virus and occurred during week 46 (the week ending November 19, 2022). The other death was associated with an influenza A virus for which no subtyping was performed and occurred during week 44 (the week ending November 5, 2022).

A total of 14 influenza-associated pediatric deaths occurring during the 2022-2023 season have been reported to CDC.



# Influenza-Associated Pediatric Deaths by Week of Death, 2019-2020 season to 2022-2023 season



<http://gis.cdc.gov/GRASP/Fluview/PedFluDeath.html>

[View Full Screen \(/flu/weekly/weeklyarchives2022-2023/PedFlu47.html\)](/flu/weekly/weeklyarchives2022-2023/PedFlu47.html)

**Additional pediatric mortality surveillance information for current and past seasons:**

[Surveillance Methods \(https://www.cdc.gov/flu/weekly/overview.htm#PediatricMortality\)](https://www.cdc.gov/flu/weekly/overview.htm#PediatricMortality) | [FluView Interactive](#)

<https://gis.cdc.gov/GRASP/Fluview/PedFluDeath.html>

## 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> 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>.

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

[Alabama \(http://adph.org/influenza/\)](http://adph.org/influenza/)

[Alaska](#)

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

[Colorado \(https://www.colorado.gov/pacific/cdphe/influenza\)](https://www.colorado.gov/pacific/cdphe/influenza)

[Connecticut \(https://portal.ct.gov/DPH/Epidemiology-and-Emerging-Infections/Influenza-Surveillance-and-Statistics\)](https://portal.ct.gov/DPH/Epidemiology-and-Emerging-Infections/Influenza-Surveillance-and-Statistics)



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

#### 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](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 [↗](http://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.

