



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

Weekly U.S. Influenza Surveillance Report

Updated December 9, 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/>)

Key Updates for Week 48, ending December 3, 2022

Seasonal influenza activity remains high across the country.

Viruses

Clinical Lab

24.8%
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 and antiviral
susceptibility are summarized in
this report.

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

Illness

Outpatient Respiratory Illness

7.2%
of visits to a health care provider this week were for respiratory illness
(above baseline).

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

Outpatient Respiratory Illness: Activity Map

This week, 4 jurisdictions experienced moderate activity and 46 jurisdictions experienced high or very high activity.

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

Long-term Care Facilities

5.4%

of facilities reported
≥ 1 influenza-positive test
among residents this week.

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

Severe Disease

FluSurv-NET

26.0 per 100,000

cumulative hospitalization rate

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

HHS Protect Hospitalizations

25,906

patients admitted to hospitals with influenza
this week.

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

NCHS Mortality

10.3%

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

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

Pediatric Deaths

7

deaths were reported this week for a total of 21 so far
this season.

[\(/flu/weekly/index.htm#PedMortality\)](/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 across the country.
- Of influenza A viruses detected and subtyped during week 48, 76% have been influenza A(H3N2) and 24% have been influenza A(H1N1).
- Seven influenza-associated pediatric deaths were reported this week, for a total of 21 pediatric flu deaths reported so far this season.
- CDC estimates that, so far this season, there have been at least 13 million illnesses, 120,000 hospitalizations, and 7,300 deaths from flu.
- The cumulative hospitalization rate in the FluSurv-NET system is higher than the rate observed in week 48 during every previous season since 2010-2011.
- The number of flu hospital admissions reported in the HHS Protect system increased during week 48 compared to week 47.
- 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. It's very important that flu antiviral drugs are started as soon as possible to treat patients who are hospitalized with flu, people who are very sick with flu

but who do not need to be hospitalized, and people with flu who are at higher risk of serious flu complications (<https://www.cdc.gov/flu/highrisk/index.htm>) based on their age or health.

- Multiple respiratory viruses are currently co-circulating with influenza. Testing is important to determine appropriate treatment.

U.S. Virologic Surveillance

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

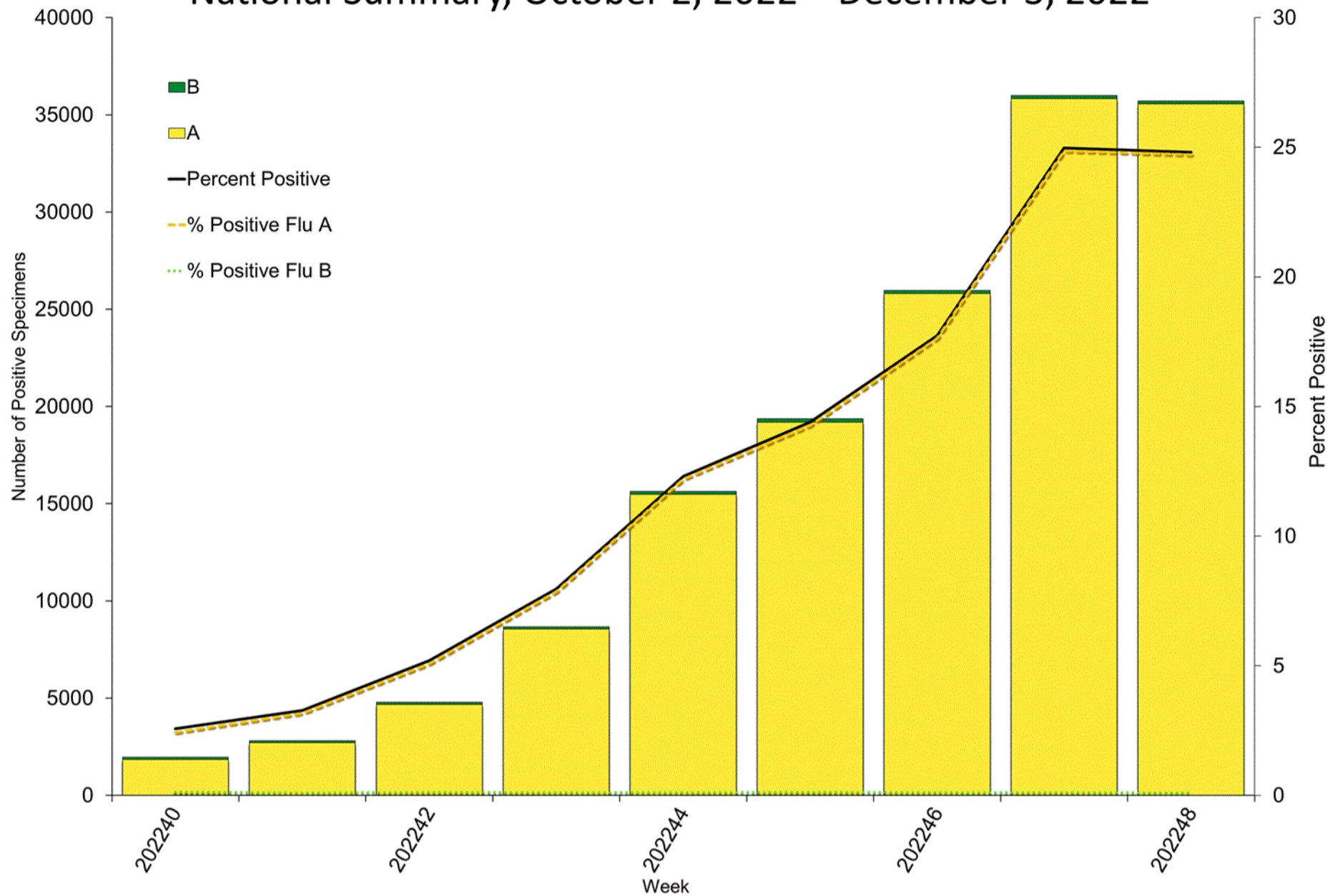
Nationally, the percentage of specimens testing positive for influenza in clinical laboratories is increasing. Percent positivity increased ≥ 0.5 percentage points this week in regions 1, 2, 8, and 9, and remained stable or decreased in all remaining regions. For regional and state level data and age 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 48	Data Cumulative since October 2, 2022 (Week 40)
No. of specimens tested	143,924	1,058,393
No. of positive specimens (%)	35,704 (24.8%)	150,865 (14.3%)
<i>Positive specimens by type</i>		
Influenza A	35,568 (99.6%)	149,704 (99.2%)
Influenza B	136 (0.4%)	1,161 (0.8%)

Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, October 2, 2022 – December 3, 2022



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

[View Chart Data \(/flu/weekly/weeklyarchives2022-2023/data/whoAllregt_cl48.html\)](/flu/weekly/weeklyarchives2022-2023/data/whoAllregt_cl48.html) |
 [View Full Screen \(/flu/weekly/WeeklyArchives2022-2023/WHONPHL48.html\)](/flu/weekly/WeeklyArchives2022-2023/WHONPHL48.html)

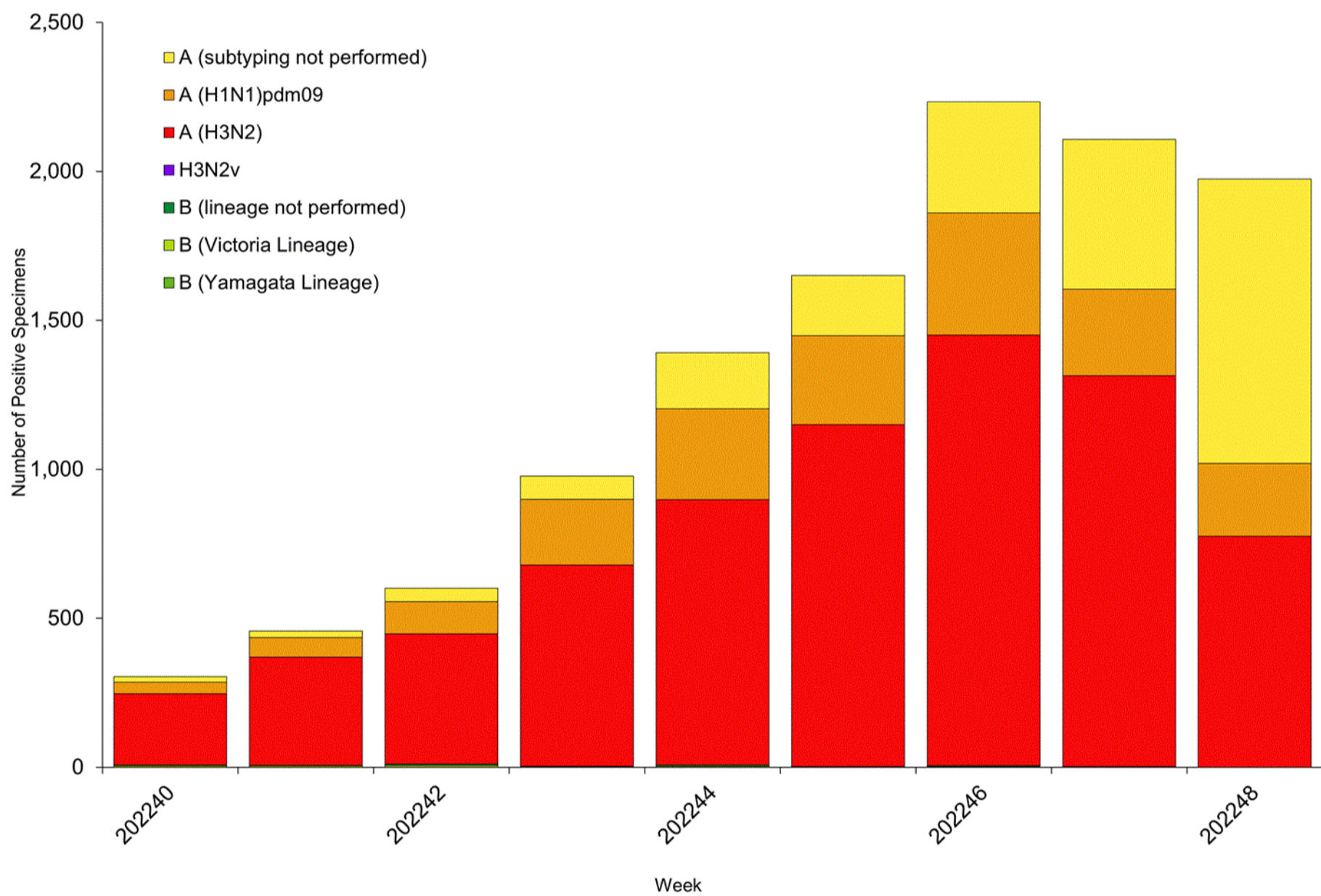
Public Health Laboratories

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 48	Data Cumulative since October 2, 2022 (Week 40)
No. of specimens tested	9,844	84,961
No. of positive specimens	1,974	11,695
<i>Positive specimens by type/subtype</i>		
Influenza A	1,974 (100%)	11,646 (99.6%)
(H1N1)pdm09	244 (23.9%)	1,980 (21.4%)
H3N2	776 (76.1%)	7,284 (78.6%)
H3N2v	0	1 (<0.1%)
Subtyping not performed	954	2,381

	Week 48	Data Cumulative since October 2, 2022 (Week 40)
Influenza B	0 (0%)	49 (0.4%)
Yamagata lineage	0	0
Victoria lineage	0	27 (100%)
Lineage not performed	0	22

Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories, National Summary, October 2, 2022 – December 3, 2022



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

[View Chart Data \(/flu/weekly/weeklyarchives2022-2023/data/whoAllregt_phl48.html\)](/flu/weekly/weeklyarchives2022-2023/data/whoAllregt_phl48.html) | [View Full Screen \(/flu/weekly/weeklyarchives2022-2023/WhoPHL48.html\)](/flu/weekly/weeklyarchives2022-2023/WhoPHL48.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 887 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)
A/H1	171				
		6B.1A	171 (100%)	5a.1	5 (2.9%)
				5a.2	166 (97.1%)
A/H3	704				
		3C.2a1b	704 (100%)	1a	0
				1b	0
				2a	0
				2a.1	1 (0.1%)
				2a.2	703 (99.9%)
		3C.3a	0	3a	0
B/Victoria	12				
		V1A	12 (100%)	V1A	0
				V1A.1	0
				V1A.3	0
				V1A.3a	0
				V1A.3a.1	0
				V1A.3a.2	12 (100%)
B/Yamagata	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:** Fifty-four A(H1N1)pdm09 viruses were antigenically characterized by HI, and 52 (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 52 (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	397	128	260	9	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%)
	Peramivir	Viruses Tested	397	128	260	9	0

Antiviral Medication			Total Viruses	A/H1	A/H3	B/Victoria	B/Yamagata
		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	397	128	260	9	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	379	119	251	9	0
		Reduced Susceptibility	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

Outpatient Respiratory Illness Surveillance

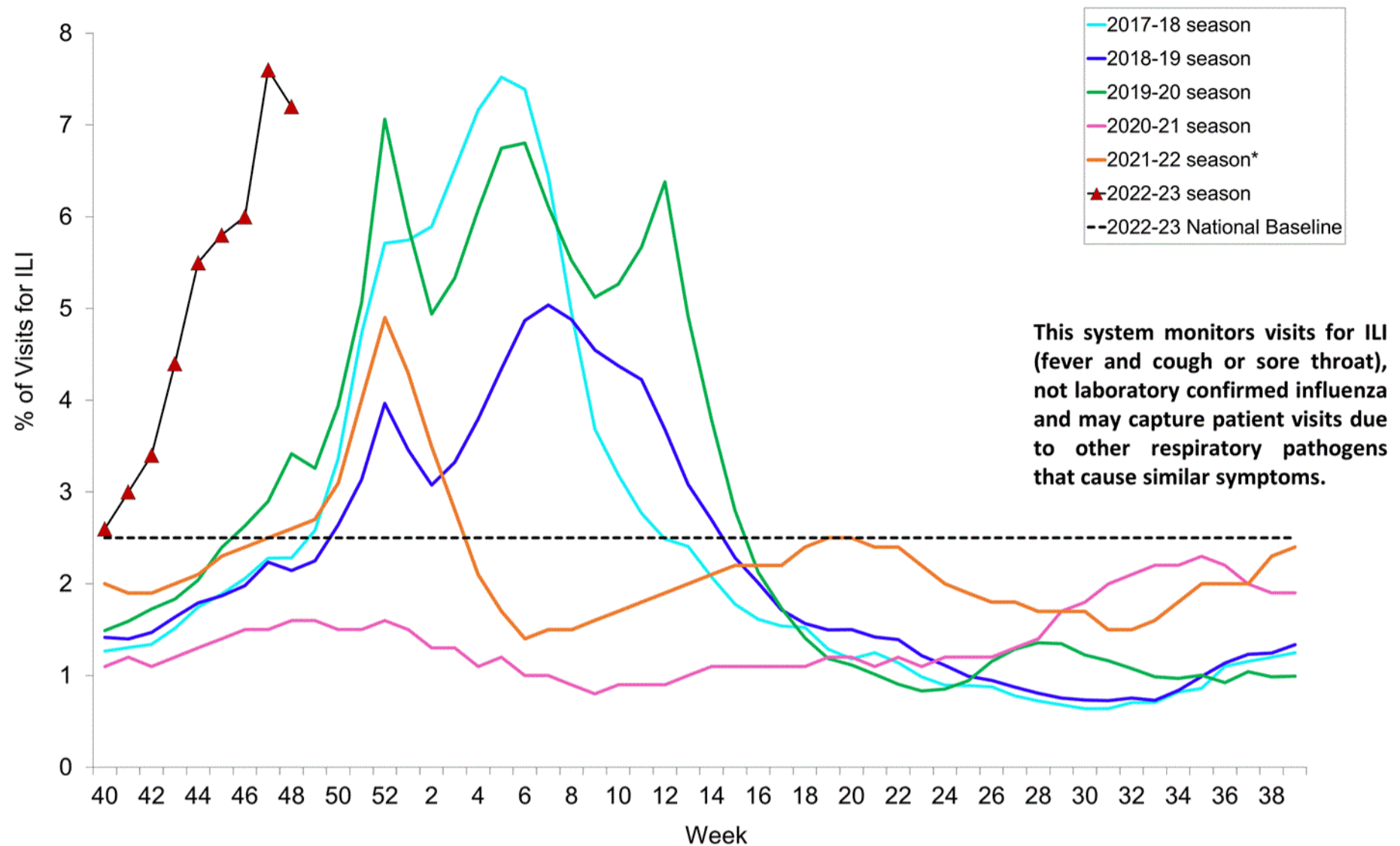
(<https://www.cdc.gov/flu/weekly/overview.htm#ILINet>)

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 48, 7.2% 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 increased in regions 1 and 2, and decreased in all other regions during week 48 compared to week 47. 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.”

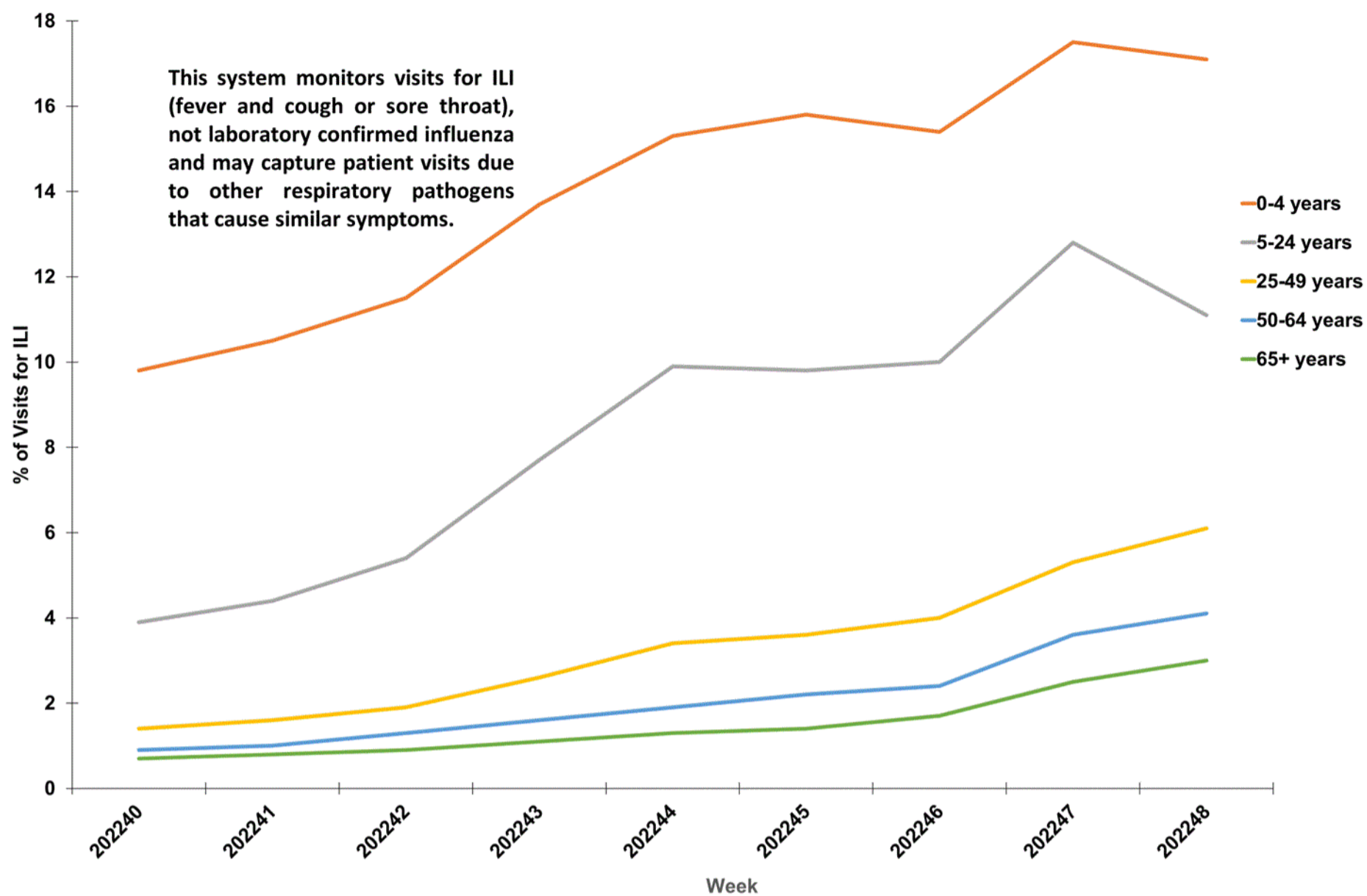
[View Chart Data \(current season only\) \(/flu/weekly/weeklyarchives2022-2023/data/senAllregt48.html\)](/flu/weekly/weeklyarchives2022-2023/data/senAllregt48.html) | [View Full Screen \(/flu/weekly/weeklyarchives2022-2023/ILI48.html\)](/flu/weekly/weeklyarchives2022-2023/ILI48.html)

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 decreased in the 0-4 years and 5-24 years age groups and increased in the 25-49 years, 50-64 years, and 65+ years age groups.

**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-December 3, 2022***



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

[View Chart Data \(/flu/weekly/weeklyarchives2022-2023/data/iliage48.html\)](/flu/weekly/weeklyarchives2022-2023/data/iliage48.html) | [View Full Screen \(/flu/weekly/weeklyarchives2022-2023/ILIAge48.html\)](/flu/weekly/weeklyarchives2022-2023/ILIAge48.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 by state/jurisdiction and Core Based Statistical Areas (CBSA).

Activity Level	Number of Jurisdictions		Number of CBSAs	
	Week 48 (Week ending Dec. 3, 2022)	Week 47 (Week ending Nov. 26, 2022)	Week 48 (Week ending Dec. 3, 2022)	Week 47 (Week ending Nov. 26, 2022)
Very High	30	31	114	110
High	16	16	219	202
Moderate	4	2	115	120
Low	2	4	123	131
Minimal	3	2	118	123
Insufficient Data	0	0	240	243

*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:

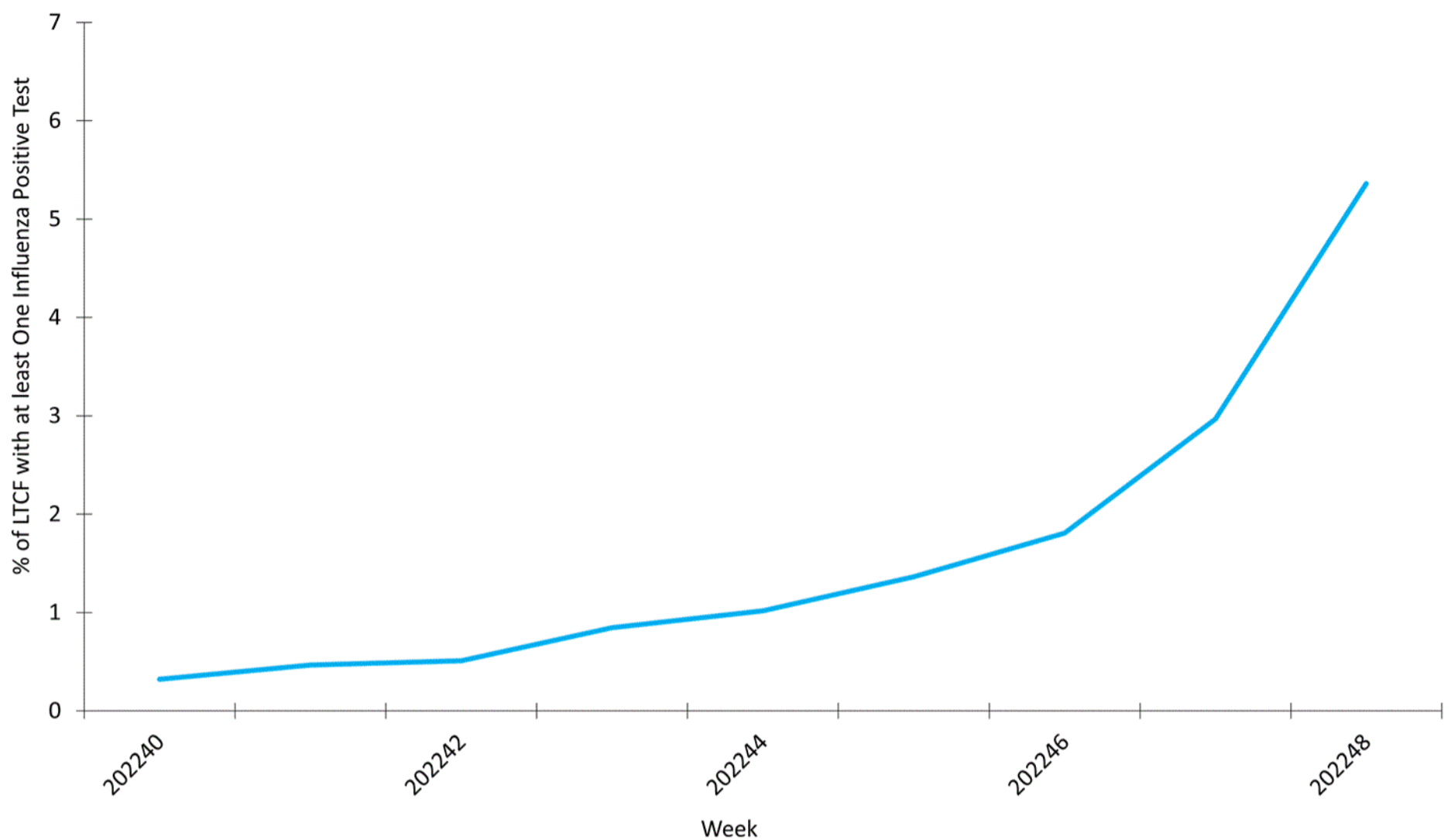
Surveillance Methods (</flu/weekly/overview.htm#ILINet>) | FluView Interactive: National, Regional, and State Data (<http://gis.cdc.gov/grasp/fluview/fluportaldashboard.html>) or ILI Activity Map (<https://gis.cdc.gov/grasp/fluview/main.html>)

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 48, 768 (5.4%) of 14,321 reporting LTCFs reported at least one influenza positive test among their residents.

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 – December 4, 2022



</flu/weekly/weeklyarchives2022-2023/LTCF48.html> View Chart Data  </flu/weekly/weeklyarchives2022-2023/data/LTCFData48.csv> | View Full Screen </flu/weekly/weeklyarchives2022-2023/LTCF48.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 7,598 laboratory-confirmed influenza-associated hospitalizations were reported by FluSurv-NET sites between October 1, 2021, and December 3, 2022. The weekly hospitalization rate observed in week 48 was 5.9 per 100,000 population. The weekly rate observed during week 47 is the third highest peak weekly rate observed during all seasons going back to 2010-2011 following the 2014-15 and 2017-18 seasons.

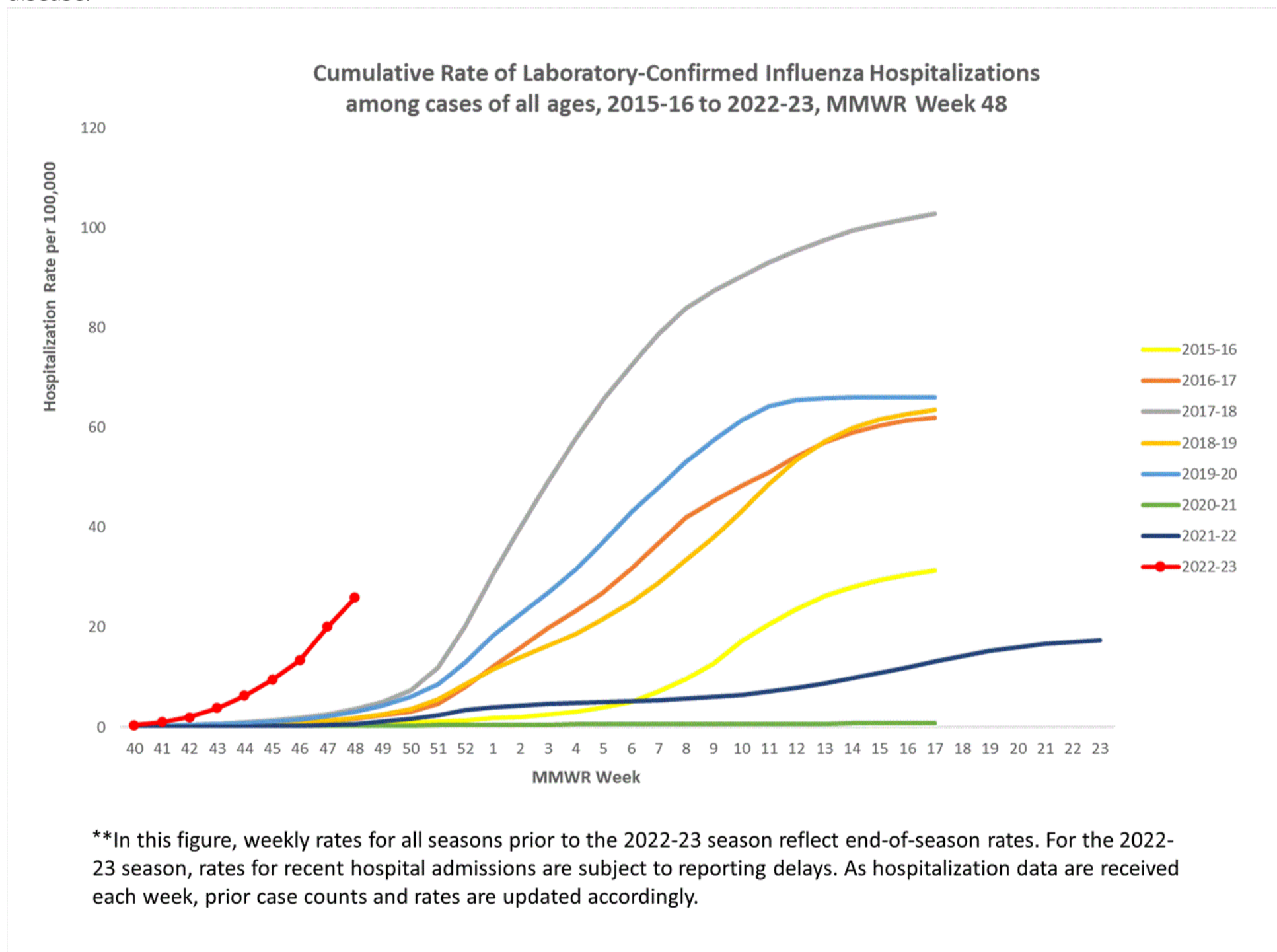
The overall cumulative hospitalization rate was 26.0 per 100,000 population. This cumulative hospitalization rate is 9.6 times higher than the highest cumulative in-season hospitalization rate observed in week 48 during previous seasons going back to 2010-2011 (prior season rates ranged from 0.2 per 100,000 to 2.7 per 100,000).

When examining rates by age, the highest rate of hospitalization per 100,000 population was among adults aged 65 and older (67.3). Among adults aged 65 and older, rates were highest among adults aged 85 and older (119.9). Among persons aged <65 years, hospitalization rates per 100,000 population were highest among children aged 0-4 years (42.3) followed by adults aged

50-64 years (26.2). When examining rates by race and ethnicity, the highest rate of hospitalization per 100,000 population was among non-Hispanic Black persons (43.9), followed by non-Hispanic American Indian or Alaska Native persons (29.0), followed by non-Hispanic White persons (16.5) and Hispanic/Latino persons (16.5), followed by non-Hispanic Asian/Pacific Islander persons (10.7).

Among 7,598 hospitalizations, 7,264 (95.6%) were associated with influenza A virus, 135 (1.8%) with influenza B virus, 10 (0.1%) with influenza A virus and influenza B virus co-infection, and 189 (2.5%) with influenza virus for which the type was not determined. Among 1268 hospitalizations with influenza A subtype information, 1016 (80.1%) were A(H3N2), and 252 (19.9%) were A(H1N1)pdm09. Based on preliminary data, of the 798 laboratory-confirmed influenza-associated hospitalizations with more complete data, 3.76% (95% CI: 2.55%-5.32%) also tested positive for SARS-CoV-2.

Among 699 hospitalized adults with information on underlying medical conditions, 96.9% had at least one reported underlying medical condition, the most commonly reported were hypertension, cardiovascular disease, metabolic disorder, and obesity. Among 163 hospitalized children with information on underlying medical conditions, 71.2% 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>

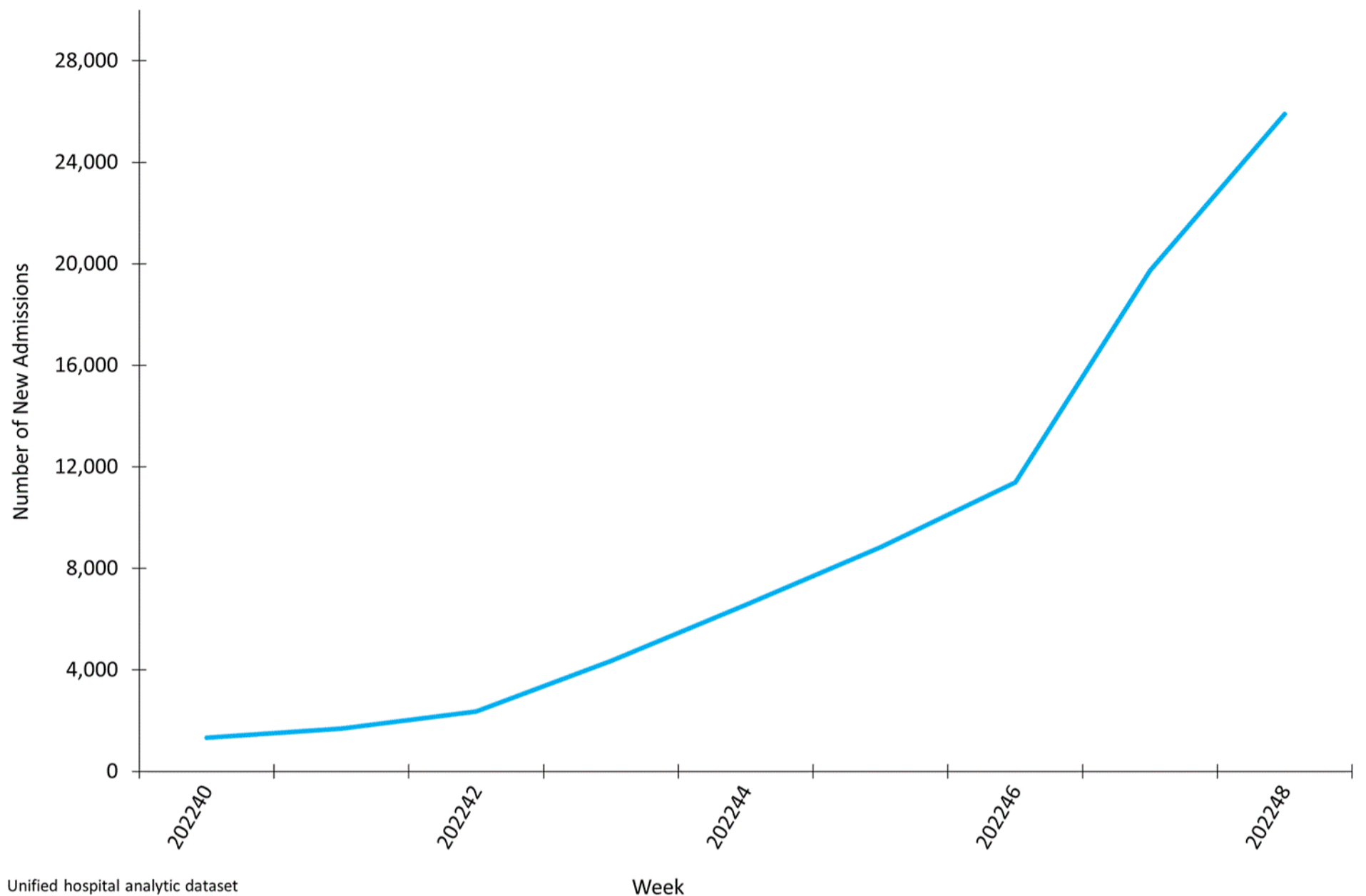
[View Full Screen \(/flu/weekly/weeklyarchives2022-2023/EIPRates48.html\)](/flu/weekly/weeklyarchives2022-2023/EIPRates48.html)

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 48, 25,906 patients with laboratory-confirmed influenza were admitted to a hospital.

New Influenza Hospital Admissions Reported to HHS Protect, National Summary, October 2, 2022 – December 3, 2022



Unified hospital analytic dataset

Week

[View Chart Data](/flu/weekly/weeklyarchives2022-2023/Protect48.html) [View Full Screen](/flu/weekly/weeklyarchives2022-2023/data/ProtectData48.csv) [View Full Screen](/flu/weekly/weeklyarchives2022-2023/Protect48.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

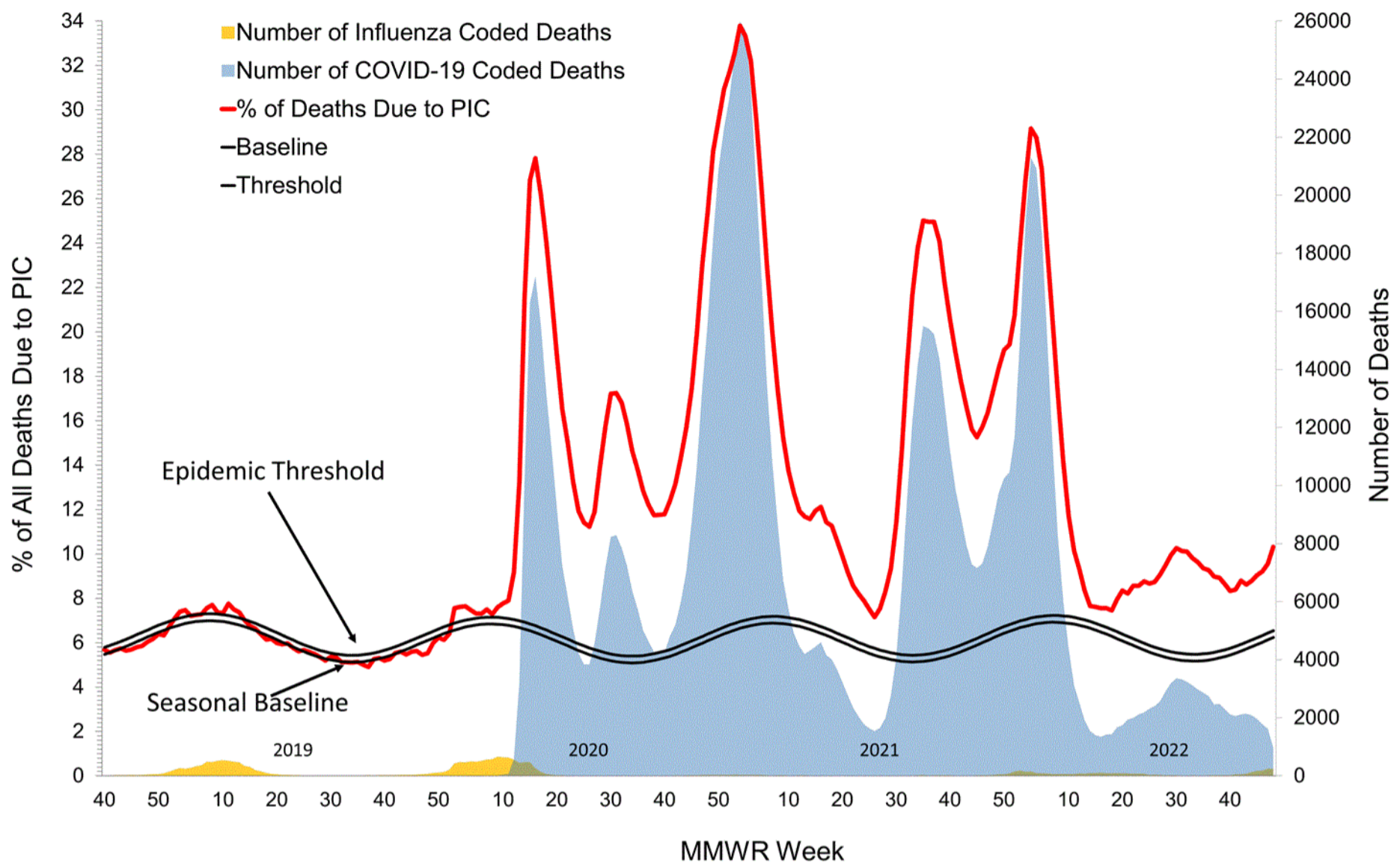
<https://www.cdc.gov/flu/weekly/overview.htm#MortalitySurveillance>

National Center for Health Statistics (NCHS) Mortality Surveillance

Based on NCHS mortality surveillance data available on December 8, 2022, 10.3% of the deaths that occurred during the week ending December 3, 2022 (week 48), were due to pneumonia, influenza, and/or COVID-19 (PIC). This percentage is above the epidemic threshold of 6.5% for this week. Among the 2,484 PIC deaths reported for this week, 968 had COVID-19 listed as an underlying or contributing cause of death on the death certificate, and 246 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 8, 2022



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

[View Chart Data](#) (</flu/weekly/weeklyarchives2022-2023/data/NCHSData48.csv>) | [View Full Screen](#) (</flu/weekly/weeklyarchives2022-2023/NCHS48.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](#)

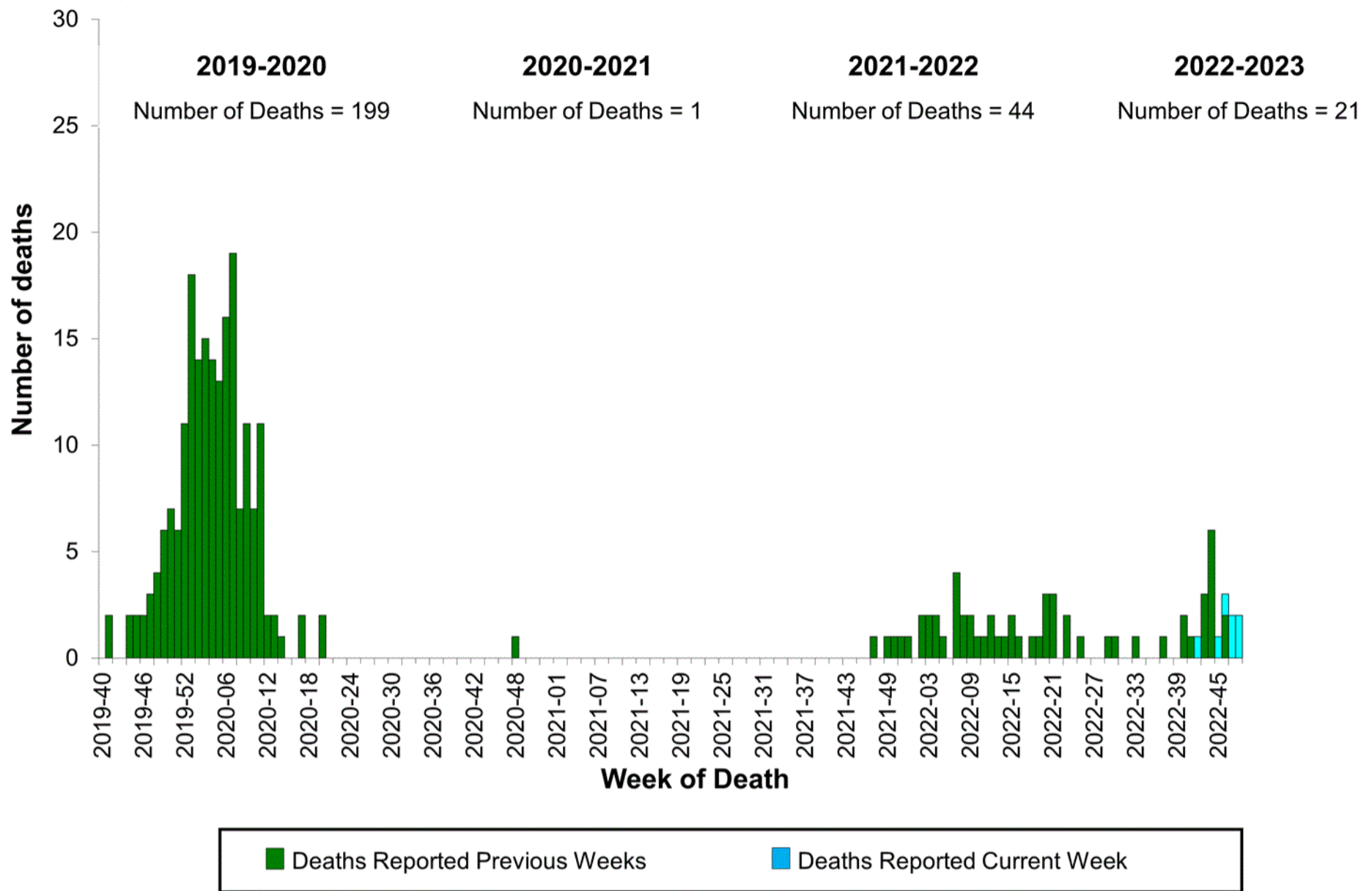
(<https://gis.cdc.gov/grasp/fluview/mortality.html>)

Influenza-Associated Pediatric Mortality

Seven influenza-associated pediatric deaths occurring during the 2022-2023 season were reported to CDC during week 48. The deaths occurred between week 42 (the week ending October 22, 2022) and week 48 (the week ending December 3, 2022). All seven deaths were associated with influenza A viruses. Four of the influenza A viruses had subtyping performed; all four were A(H3) viruses.

A total of 21 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 \(/flu/weekly/weeklyarchives2022-2023/PedFlu48.html\)](/flu/weekly/weeklyarchives2022-2023/PedFlu48.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 (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/influenza)
Missouri (http://health.mo.gov/living/healthcondiseases/communicable/influenza/reports.php)	Montana (https://dphhs.mt.gov/publichealth/cdepi/diseases/influenza/in)
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/diseases/infectious/flu/surveillance.aspx)
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/health-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 [↗](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.

