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

Weekly U.S. Influenza Surveillance Report

Updated March 31, 2023

Note: CDC is also tracking the impact of other respiratory viruses, including COVID-19. Data comparing the impact of these viruses can be found in two new dashboards: RESP-NET (https://www.cdc.gov/surveillance/resp-net/dashboard.html) and NSSP's Emergency Department Visits for COVID-19, Influenza and Respiratory Syncytial Virus (https://www.cdc.gov/ncird/surveillance/respiratory-illnesses/index.html).

Key Updates for Week 12, ending March 25, 2023

Seasonal influenza activity remains low nationally.

Viruses

Clinical Lab

0.9% (Trend →)
positive for influenza this week

(/flu/weekly/index.htm#ClinicalLaboratories)

Public Health Lab

The most frequently reported viruses this week were influenza A(H3N2).

(/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

2.3% (Trend →)
of visits to a health care provider this week were for respiratory illness *(below baseline).*

(/flu/weekly/index.htm#ILINet)

Outpatient Respiratory Illness: Activity Map

This week 3 jurisdictions experienced moderate activity and 2 jurisdictions experienced high activity.

(/flu/weekly/index.htm#ORIAM)

Long-term Care Facilities

0.4% (Trend ➡)
of facilities reported
≥ 1 influenza-positive test
among residents this week.

(/flu/weekly/index.htm#LTCF)

FluSurv-NET

60.8 per 100,000
cumulative hospitalization rate

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

HHS Protect Hospitalizations

1,222 (Trend ⬇)
patients admitted to hospitals with influenza
this week.
(/flu/weekly/index.htm#HHSProtect)

NCHS Mortality

8.3% (Trend ➡)
of deaths attributed to pneumonia, influenza, or COVID-19 this week (***above threshold***).
(/flu/weekly/index.htm#NCHSMortality)

Pediatric Deaths

4
deaths were reported this week for a total of
138 so far this season
(/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 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 low nationally.
- Nationally, outpatient respiratory illness is below baseline, and eight of 10 HHS regions are below their respective baselines.
- The number and weekly rate of flu hospital admissions remain low.
- During week 12, 67.2% of viruses reported by public health laboratories were influenza A and 32.8% were influenza B. Of the 34 influenza A viruses detected and subtyped during week 12, 58.8% were influenza A(H3N2) and 41.2% were influenza A(H1N1).
- Four influenza-associated pediatric deaths that occurred during the 2022-2023 season were reported this week, for a total of 138 pediatric flu deaths reported so far this season.
- CDC estimates that, so far this season, there have been at least 26 million illnesses, 290,000 hospitalizations, and 18,000 deaths from flu.
- 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 the influenza antivirals peramivir, zanamivir, and baloxavir, and all viruses except for one (> 99.9%) have been susceptible to the influenza antiviral oseltamivir.
- CDC continues to recommend that everyone ages 6 months and older get an annual flu vaccine as long as flu activity continues.
- 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

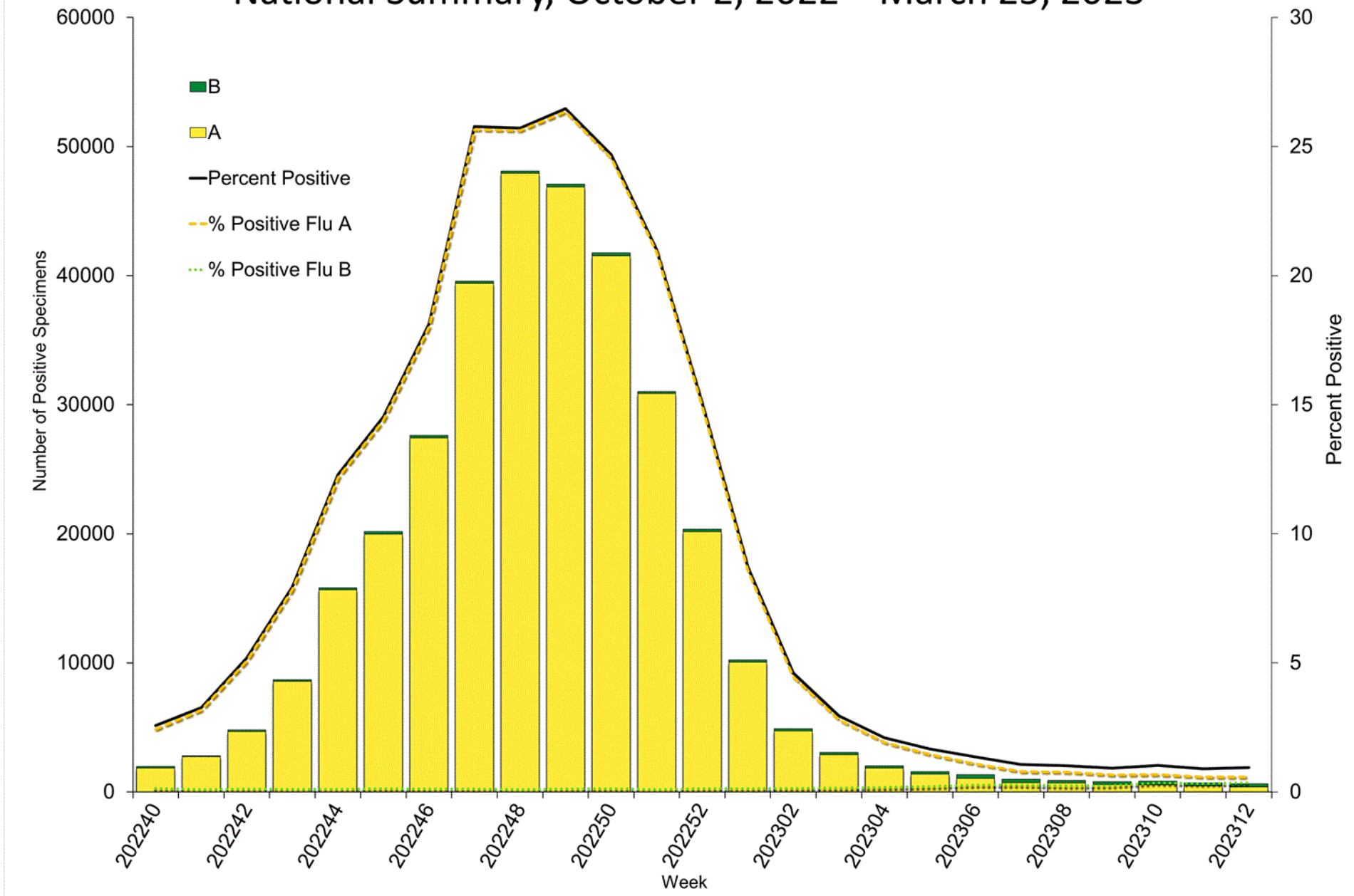
(https://www.cdc.gov/flu/weekly/overview.htm#LabSurveillance)

Nationally, the percentage of specimens testing positive for influenza in clinical laboratories remained stable (change of <0.5 percentage points). For regional and state level data and age group distribution, please visit FluView Interactive (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 12	Data Cumulative since October 2, 2022 (Week 40)
No. of specimens tested	66,542	2,864,095
No. of positive specimens (%)	626 (0.9%)	337,643 (11.8%)
Positive specimens by type		
Influenza A	386 (61.7%)	333,076 (98.6%)
Influenza B	240 (38.3%)	4,567 (1.4%)



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

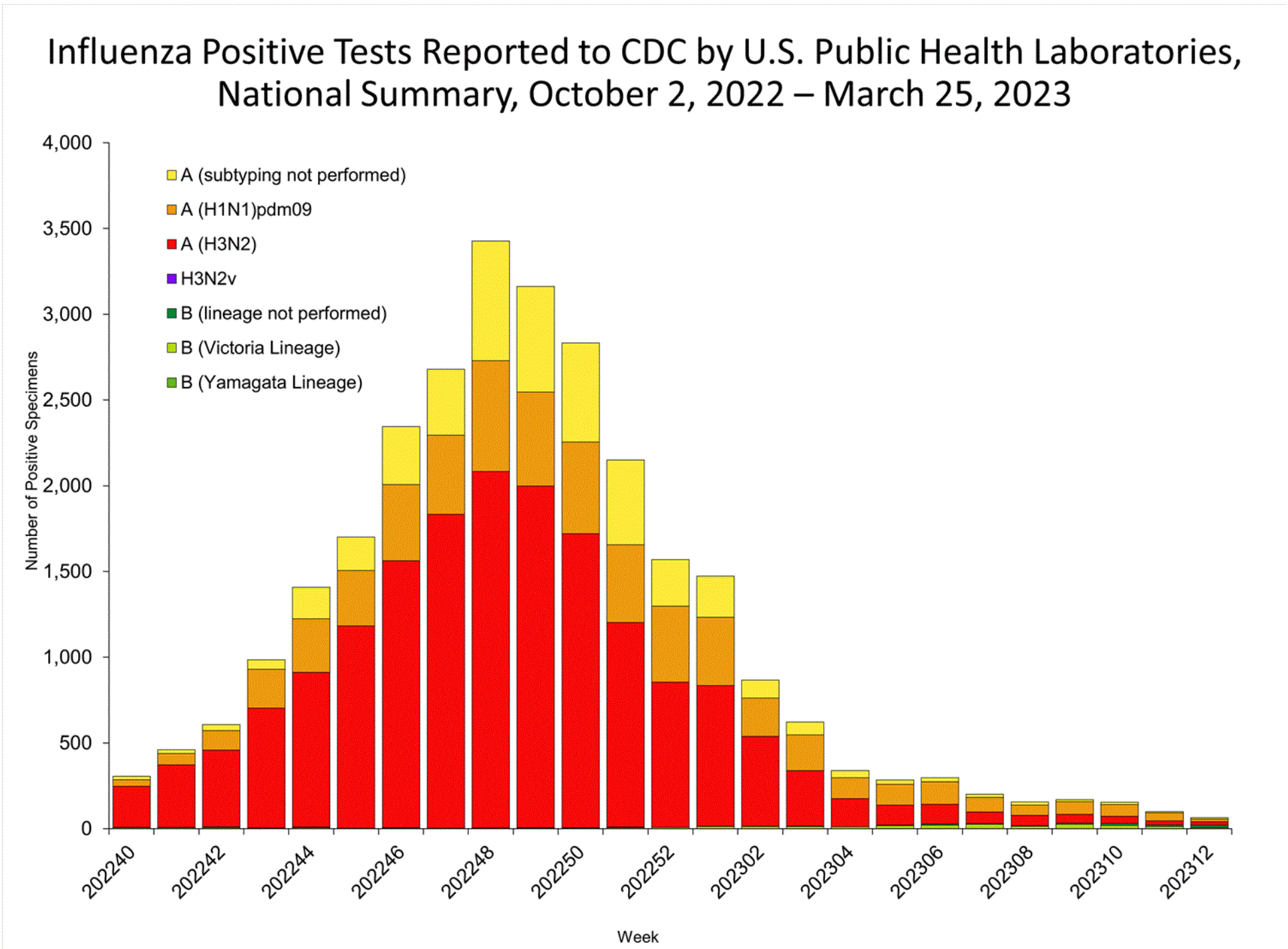
View Chart Data (/flu/weekly/weeklyarchives2022-2023/data/whoAllregt_cl12.html) | View Full Screen (/flu/weekly/WeeklyArchives2022-2023/WHONPHL12.html)

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 12	Data Cumulative since October 2, 2022 (Week 40)
No. of specimens tested	5,686	214,894
No. of positive specimens	64	28,345
Positive specimens by type/subtype		
Influenza A	43 (67.2%)	28,009 (98.8%)
(H1N1)pdm09	14 (41.2%)	6,153 (26.1%)
H3N2	20 (58.8%)	17,380 (73.9%)
H3N2v	0	1 (<0.1%)
Subtyping not performed	9	4,475

	Week 12	Data Cumulative since October 2, 2022 (Week 40)
Influenza B	21 (32.8%)	336 (1.2%)
Yamagata lineage	0	0
Victoria lineage	6 (100%)	242 (100%)
Lineage not performed	15	94



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

View Chart Data (/flu/weekly/weeklyarchives2022-2023/data/whoAllregt_phl12.html) | View Full Screen (/flu/weekly/weeklyarchives2022-2023/WhoPHL12.html)

Additional virologic surveillance information for current and past seasons:

Surveillance Methods (/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)

Influenza Virus Characterization

(/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 2,560 influenza viruses collected since October 2, 2022. To reflect the genetic diversity of the HA genes in recent A(H1N1)pdm09 and A(H3N2) viruses, new subclades have been designated. The vast majority of A(H1N1)pdm09 viruses collected in the U.S. this season express HA genes belonging to 6B.1A.5a.2 but this clade has been split into the 2a and 2a.1 subclades. All A(H3N2) viruses collected thus far in the U.S. this season express HA genes belonging to clade 3C.2a1b.2a.2 and this clade has been split into multiple subclades. The new subclade designations improve the ability to track the evolution and co-circulation of multiple groups of influenza viruses.

	Genetic Characterization				
Virus Subtype or Lineage	Total No. of Subtype/Lineage Tested	HA Clade	Number (% of subtype/lineage tested)	HA Subclade	Number (% of subtype/lineage tested)
A/H1	925				
		6B.1A.5a	925 (100%)	1	5 (0.6%)
				2a	139 (15.0%)
				2a.1	781 (84.4%)
A/H3	1,542				
		3C.2a1b.2a	1,542 (100%)	2a	25 (1.6%)
				2a.1	179 (11.6%)
				2a.1b	115 (7.5%)
				2a.2c	0 (0%)
				2a.3	46 (3.0%)
				2a.3a	3 (0.2%)
				2a.3a.1	47 (3.0%)
				2a.3b	10 (0.6%)
				2b	1,117 (72.4%)
B/Victoria	93				
		V1A	93 (100%)	3	4 (4.3%)
				3a.2	89 (95.7%)

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/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) (http://www.cdc.gov/flu/professionals/laboratory/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 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:** Ninety-eight A(H1N1)pdm09 viruses were antigenically characterized by HI, and 96 (98%) 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.
- **A (H3N2):** One hundred and eighty A(H3N2) viruses were antigenically characterized by HINT, and 168 (93%) 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.

Influenza B Viruses

- **B/Victoria**: Thirteen 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 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).

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

Antiviral Medication			Total Viruses	A/H1	A/H3	B/Victoria	B/Yamagata
Neuraminidase Inhibitors	Oseltamivir	Viruses Tested	2,542	923	1,538	81	0
		Reduced Inhibition	1 (<0.1%)	1 (0.1%)	0 (0%)	0 (0%)	0 (0%)
		Highly Reduced Inhibition	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	Peramivir	Viruses Tested	2,542	923	1,538	81	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	2,542	923	1,538	81	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	2,476	883	1,502	91	0
		Reduced Susceptibility	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

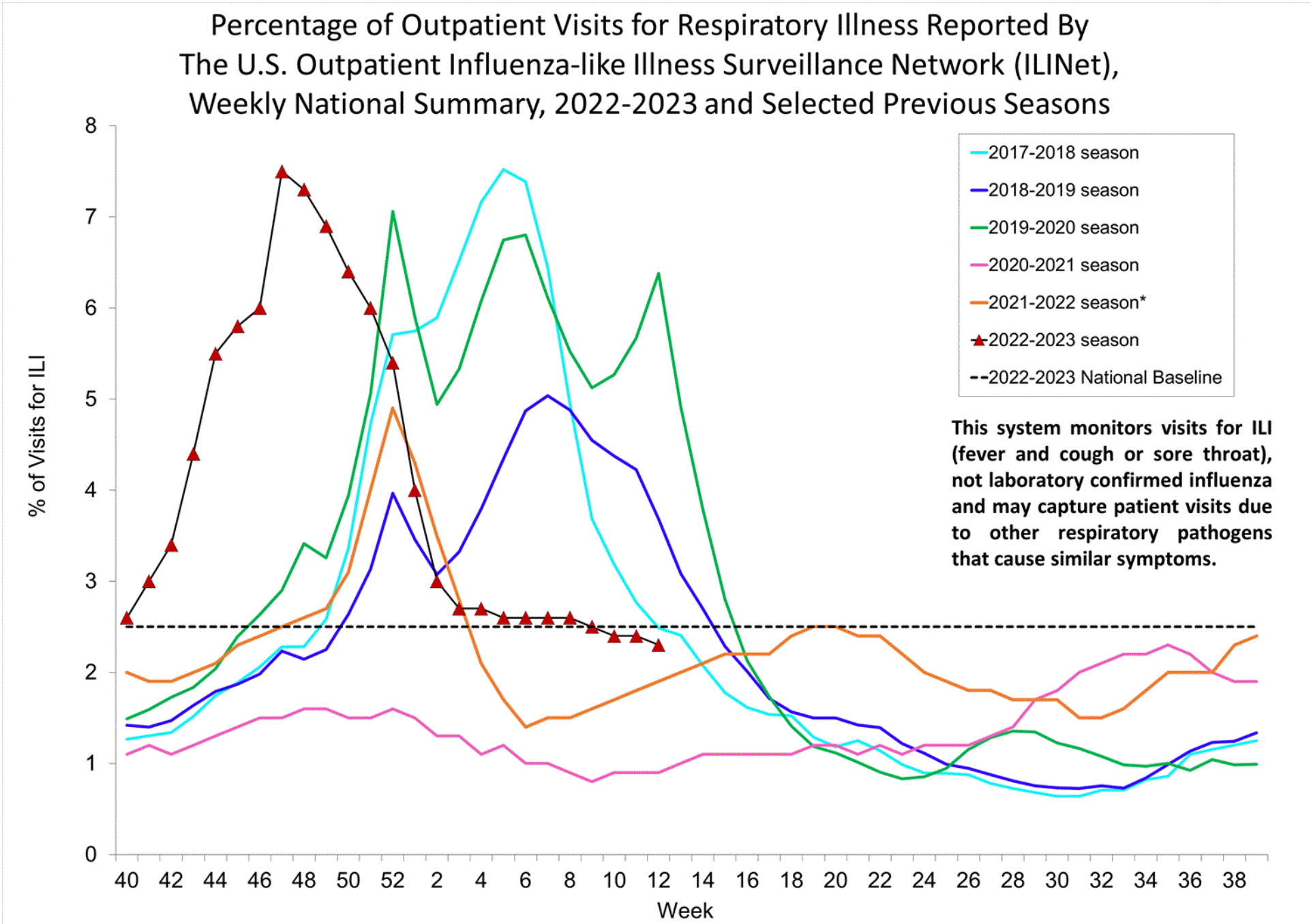
One A(H1N1)pdm09 virus had NA-S247G amino acid substitution and showed reduced inhibition by oseltamivir.

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). 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).

Outpatient Respiratory Illness Visits

Nationwide during week 12, 2.3% 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 remained stable compared to week 11 and is below the national baseline of 2.5%. Eight of the 10 HHS regions are below their respective baselines; regions 2 and 9 are at or above their respective 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)

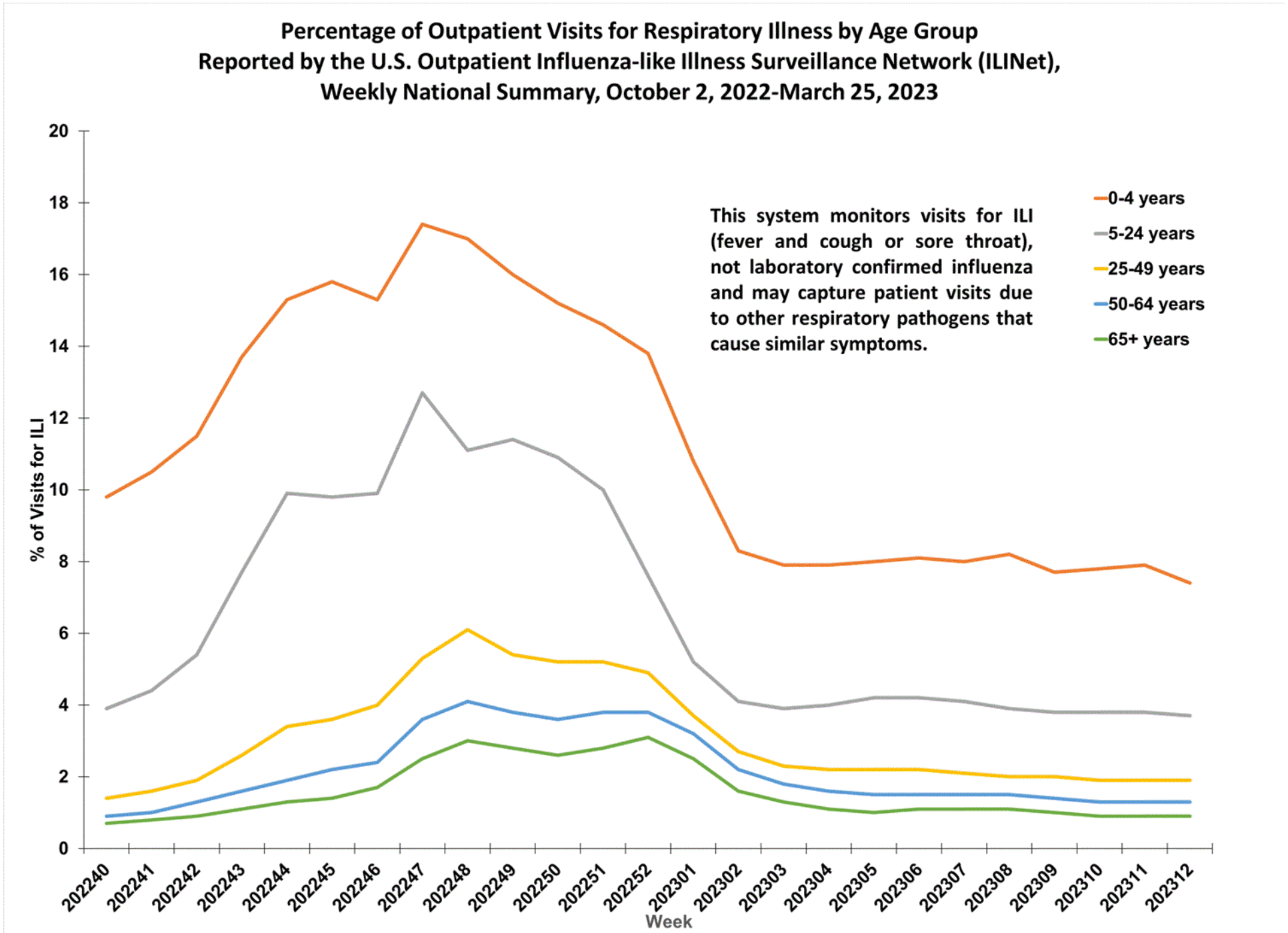
* Effective October 3, 2021 (week 40), the ILI definition (fever plus cough or sore throat) no longer includes “without a known cause other than influenza.”

View Chart Data (current season only) (/flu/weekly/weeklyarchives2022-2023/data/senAllregt12.html) | View Full Screen (/flu/weekly/weeklyarchives2022-2023/ILI12.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 for one age group (0-4 years) and remained stable (change of ≤ 0.1 percentage points) for the remaining age groups (5-24 years, 25-49 years, 50-64 years, 65+ years) in week 12 compared to week 11.



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

View Chart Data (/flu/weekly/weeklyarchives2022-2023/data/iliage12.html) | View Full Screen (/flu/weekly/weeklyarchives2022-2023/ILIAge12.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).

	Number of Jurisdictions		Number of CBSAs	
Activity Level	Week 12 (Week ending Mar. 25, 2023)	Week 11 (Week ending Mar. 18, 2023)	Week 12 (Week ending Mar. 25, 2023)	Week 11 (Week ending Mar. 18, 2023)
Very High	0	0	1	2
High	2	3	18	23
Moderate	3	3	30	29
Low	4	6	85	94
Minimal	45	43	535	548
Insufficient Data	1	0	260	233

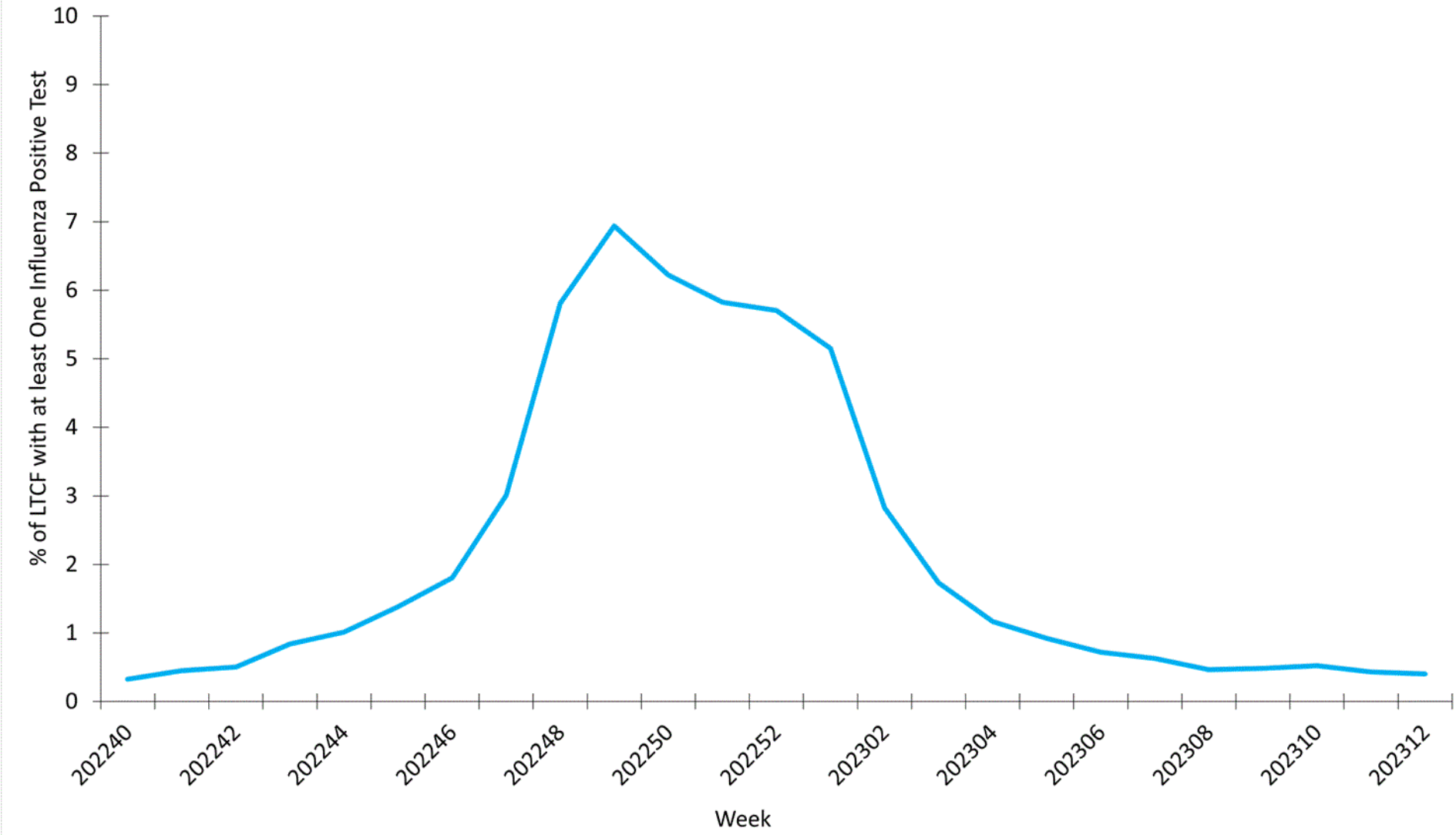
*Data collected in ILINet may disproportionally represent certain populations within a jurisdiction or CBSA, and therefore, may not accurately depict the full picture of influenza activity for the entire jurisdiction or CBSA. Differences in the data presented here by CDC and independently by some health departments likely represent differing levels of data completeness with data presented by the health department likely being the more complete.

Additional information about medically attended visits for ILI for current and past seasons:
Surveillance Methods (/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/ltc/index.html). During week 12, 58 (0.40%) of 14,345 reporting facilities reported at least one influenza positive test among their residents. This percentage remained stable compared to week 11.

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 – March 26, 2023



(/flu/weekly/weeklyarchives2022-2023/LTCF12.html)View Chart Data (/flu/weekly/weeklyarchives2022-2023/data/LTCFData12.csv) | View Full Screen (/flu/weekly/weeklyarchives2022-2023/LTCF12.html)

Additional information about long-term care facility surveillance:

Surveillance Methods (/flu/weekly/overview.htm#LongTermCare) | Additional 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 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.

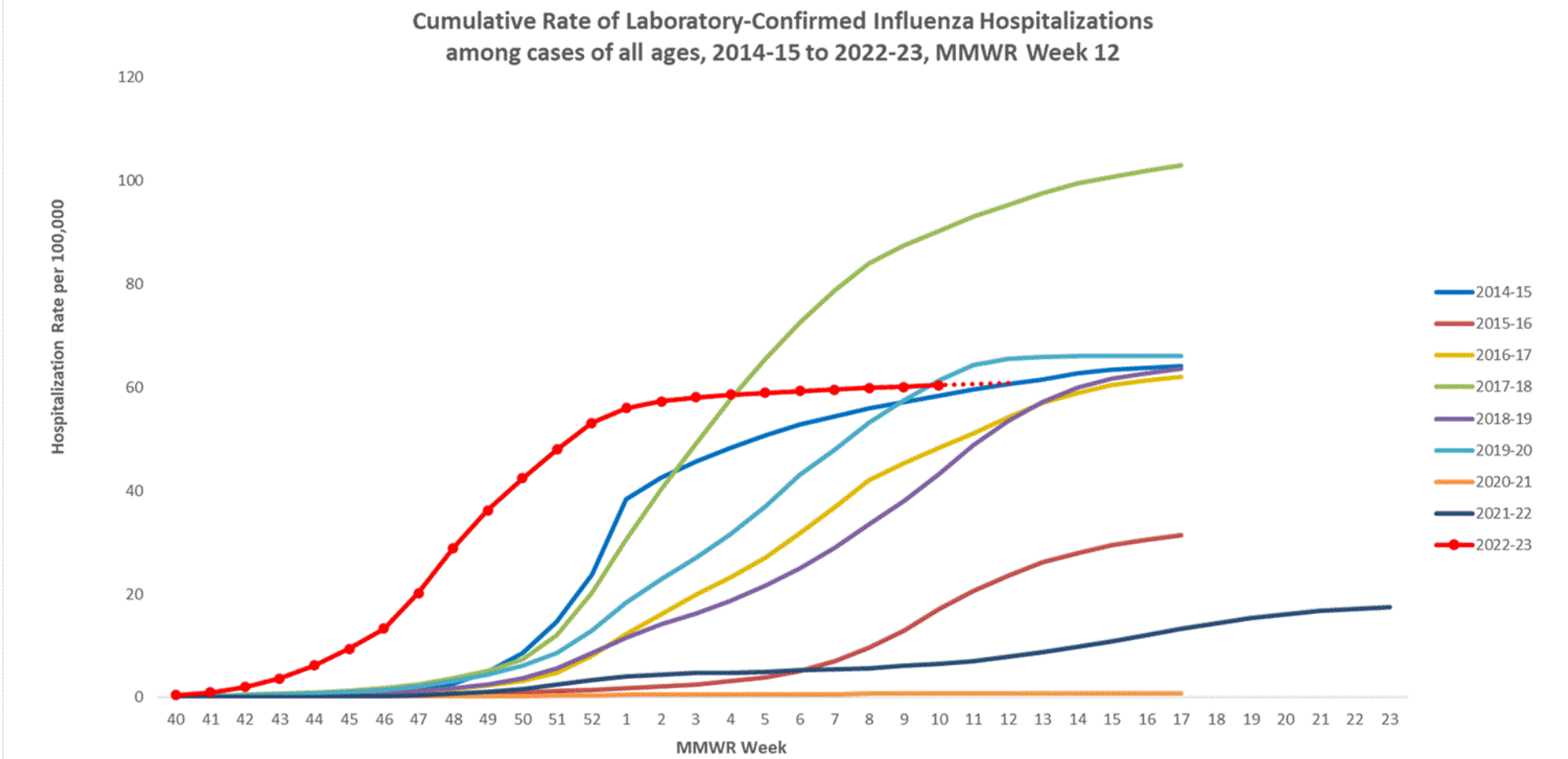
A total of 17,788 laboratory-confirmed influenza-associated hospitalizations were reported by FluSurv-NET sites between October 1, 2022, and March 25, 2023. The weekly hospitalization rate observed in week 12 was 0.2 per 100,000 population. The weekly rate observed during week 48 (week ending December 3, 2022) is the third highest peak weekly rate observed during all seasons going back to 2010-2011; this follows the 2017-2018 season which peaked during week 1 (week ending January 6, 2018) and the 2014-2015 season which peaked during week 52 (week ending December 27, 2014).

The overall cumulative hospitalization rate was 60.8 per 100,000 population. This cumulative hospitalization rate is the second highest cumulative in-season hospitalization rate observed in week 12 during previous seasons going back to 2010-2011, following the 2017-2018 season. However, this in-season cumulative hospitalization rate is similar to the end-of-season hospitalization rates for 4 seasons (2014-2015, 2016-2017, 2018-2019, and 2019-2020 seasons) and lower than the end-of-season hospitalization rate for the 2017-2018 season, going back to 2010-2011.

When examining rates by age, the highest rate of hospitalization per 100,000 population was among adults aged 65 and older (180.7). Among adults aged 65 and older, rates were highest among adults aged 85 and older (332.1). Among persons aged <65 years, hospitalization rates per 100,000 population were highest among children aged 0-4 years (79.6) followed by adults aged 50-64 years (65.6). When examining rates by race and ethnicity, the highest rate of hospitalization per 100,000 population was among non-Hispanic Black persons (85.9), followed by non-Hispanic American Indian or Alaska Native persons (76.8), Hispanic/Latino persons (52.1), non-Hispanic White persons (51.7), and non-Hispanic Asian/Pacific Islander persons (26.5).

Among 17,788 hospitalizations, 17,131 (96.3%) were associated with influenza A virus, 485 (2.7%) with influenza B virus, 29 (0.2%) with influenza A virus and influenza B virus co-infection, and 143 (0.8%) with influenza virus for which the type was not determined. Among 4,332 hospitalizations with influenza A subtype information, 3,258 (75.2%) were A(H3N2), and 1,074 (24.8%) were A(H1N1)pdm09. Based on preliminary data, of the 14,717 laboratory-confirmed influenza-associated hospitalizations with more complete data, 3.8% (95% CI: 3.1%-4.5%) also tested positive for SARS-CoV-2.

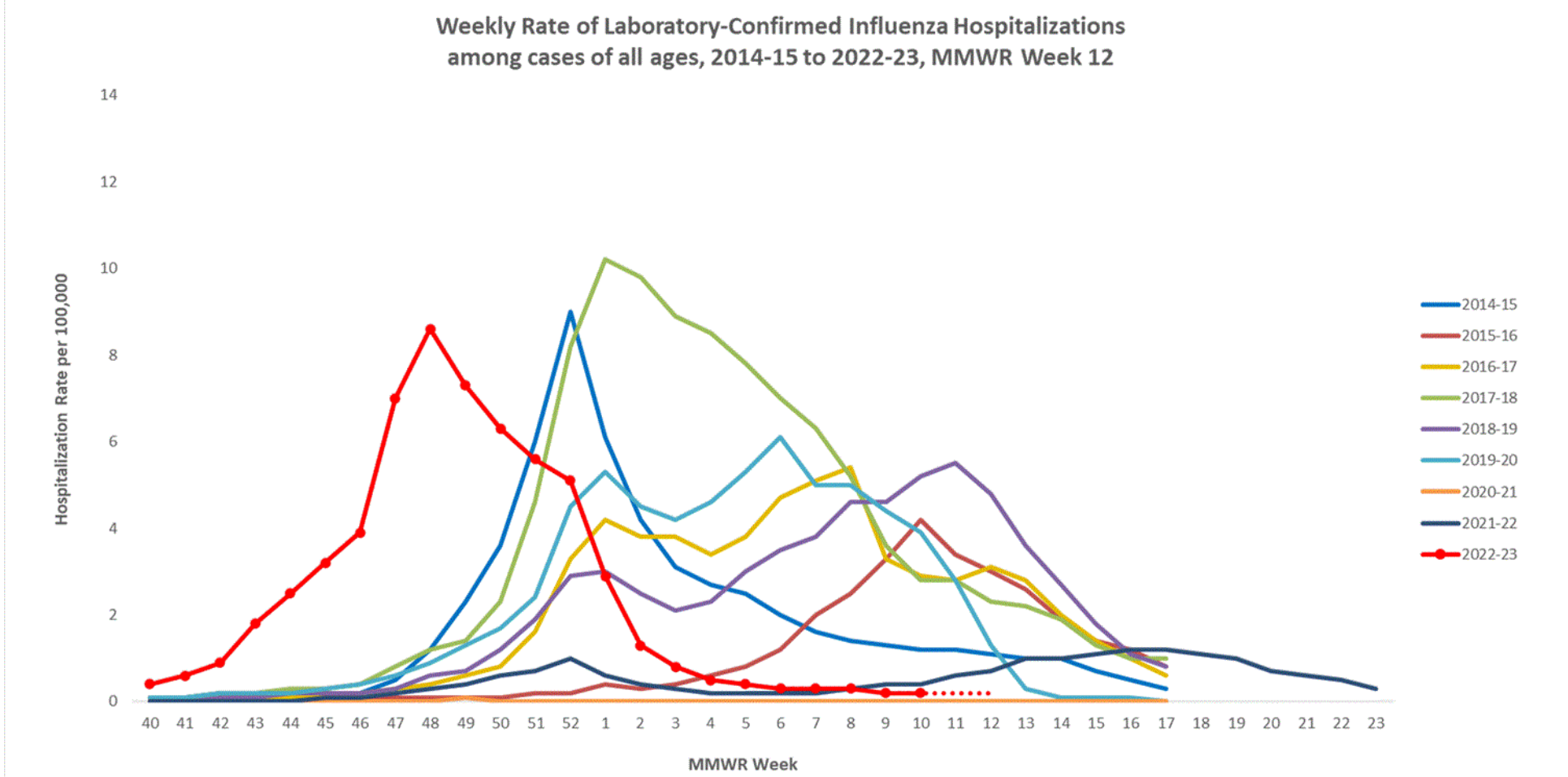
Among 3,481 hospitalized adults with information on underlying medical conditions, 97.0% had at least one reported underlying medical condition, the most commonly reported were hypertension, cardiovascular disease, metabolic disorder, and obesity. Among 1,210 hospitalized women of childbearing age (15-49 years) with information on pregnancy status, 36.7% were pregnant. Among 1,263 hospitalized children with information on underlying medical conditions, 65.8% had at least one reported underlying medical condition; the most commonly reported was asthma, followed by neurologic disease, and obesity.



**In this figure, weekly 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 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.

(https://gis.cdc.gov/grasp/fluview/FluHospRates.html)

View Full Screen (/flu/weekly/weeklyarchives2022-2023/EIPRates12.html)



**In this figure, weekly 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 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.

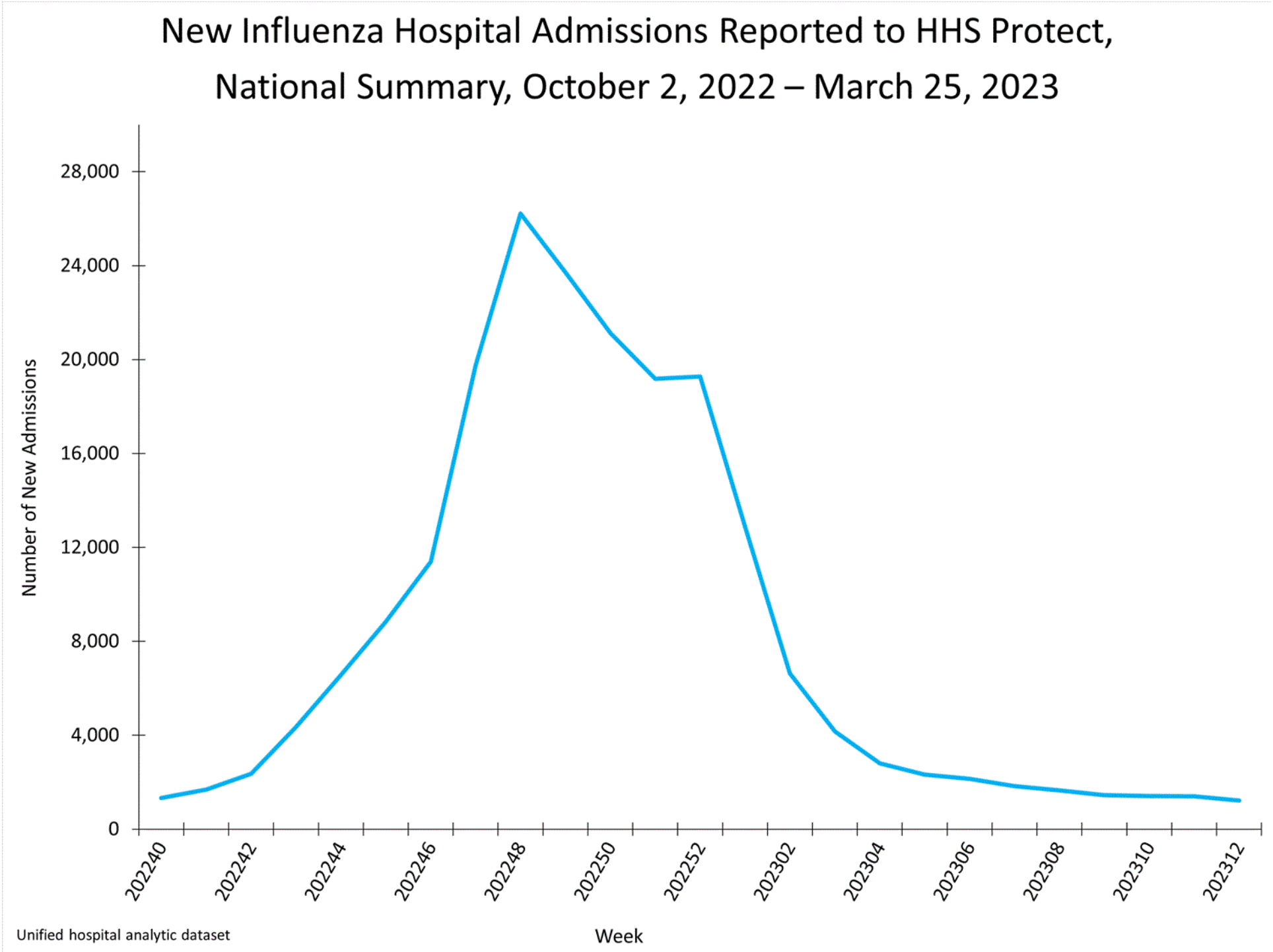
(https://gis.cdc.gov/grasp/fluview/FluHospChars.html)

View Full Screen (/flu/weekly/weeklyarchives2022-2023/EIPConditions12.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) | RESP-NET Interactive (https://www.cdc.gov/surveillance/resp-net/dashboard.html)

HHS Protect Hospitalization Surveillance

Hospitals report to HHS Protect the number of patients admitted with laboratory-confirmed influenza. During week 12, 1,222 patients with laboratory-confirmed influenza were admitted to a hospital. This was a decrease of > 5% compared to week 11.



(/flu/weekly/weeklyarchives2022-2023/Protect12.html)View Chart Data (/flu/weekly/weeklyarchives2022-2023/data/ProtectData12.csv) | View Full Screen (/flu/weekly/weeklyarchives2022-2023/Protect12.html)

Additional HHS Protect hospitalization surveillance information:

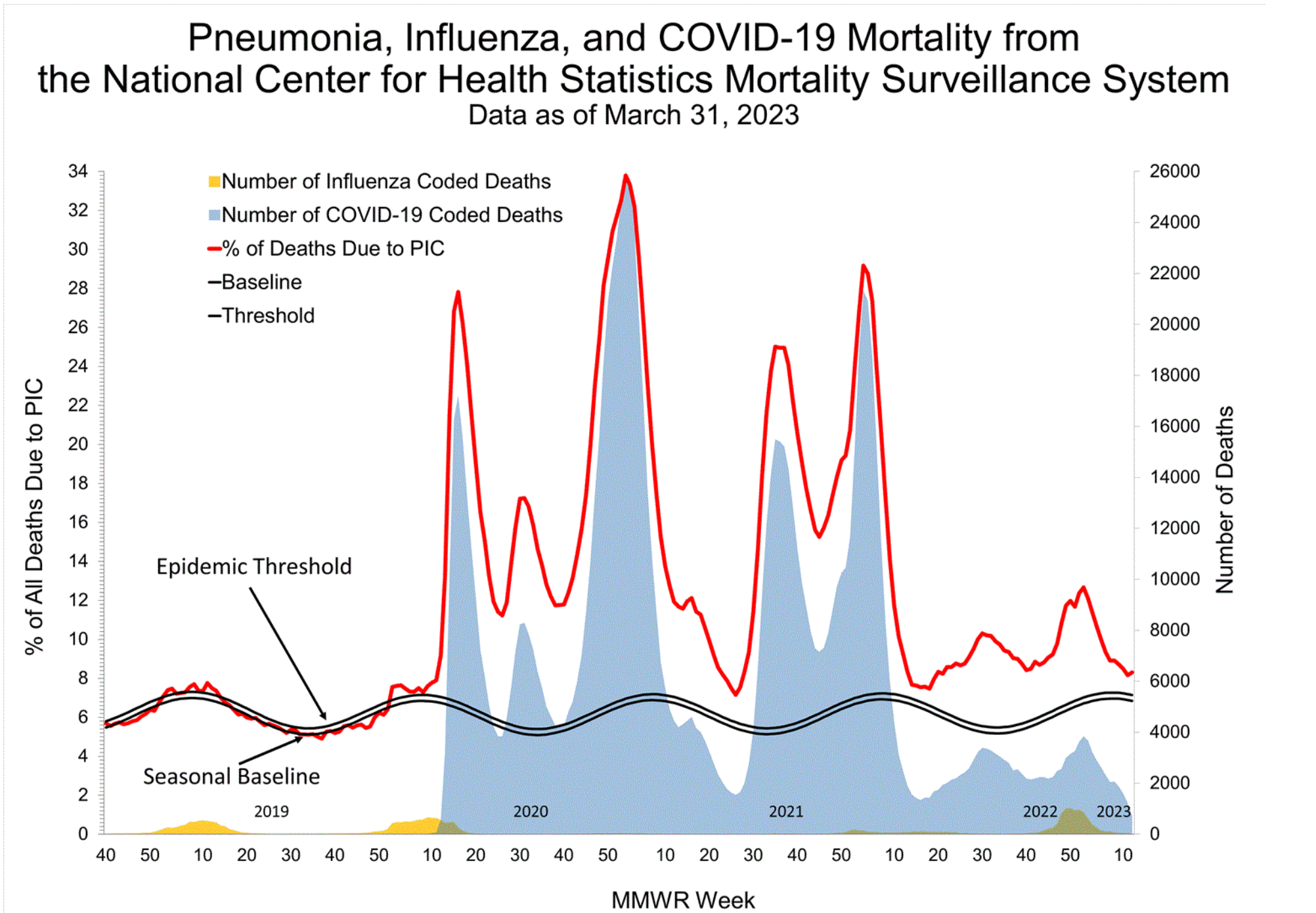
Surveillance Methods (https://www.cdc.gov/flu/weekly/overview.htm#HHSProtect) | Additional Data (https://healthdata.gov/Hospital/COVID-19-Reported-Patient-Impact-and-Hospital-Capa/anag-cw7u)

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 March 30, 2023, 8.3% of the deaths that occurred during the week ending March 25, 2023 (week 12), were due to pneumonia, influenza, and/or COVID-19 (PIC). This percentage remained stable (< 0.3 percentage point change) compared to week 11 and is above the epidemic threshold of 7.1% for this week. Among the 2,004 PIC deaths reported for this week, 710 had COVID-19 listed as an underlying or contributing cause of death on the death certificate, and 21 listed influenza. While current PIC mortality is due primarily to COVID-19, the proportion due to influenza increased from October through mid-December, decreased for eight weeks, and has been stable at low levels for the past seven weeks. The data presented are preliminary and may change as more data are received and processed.



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

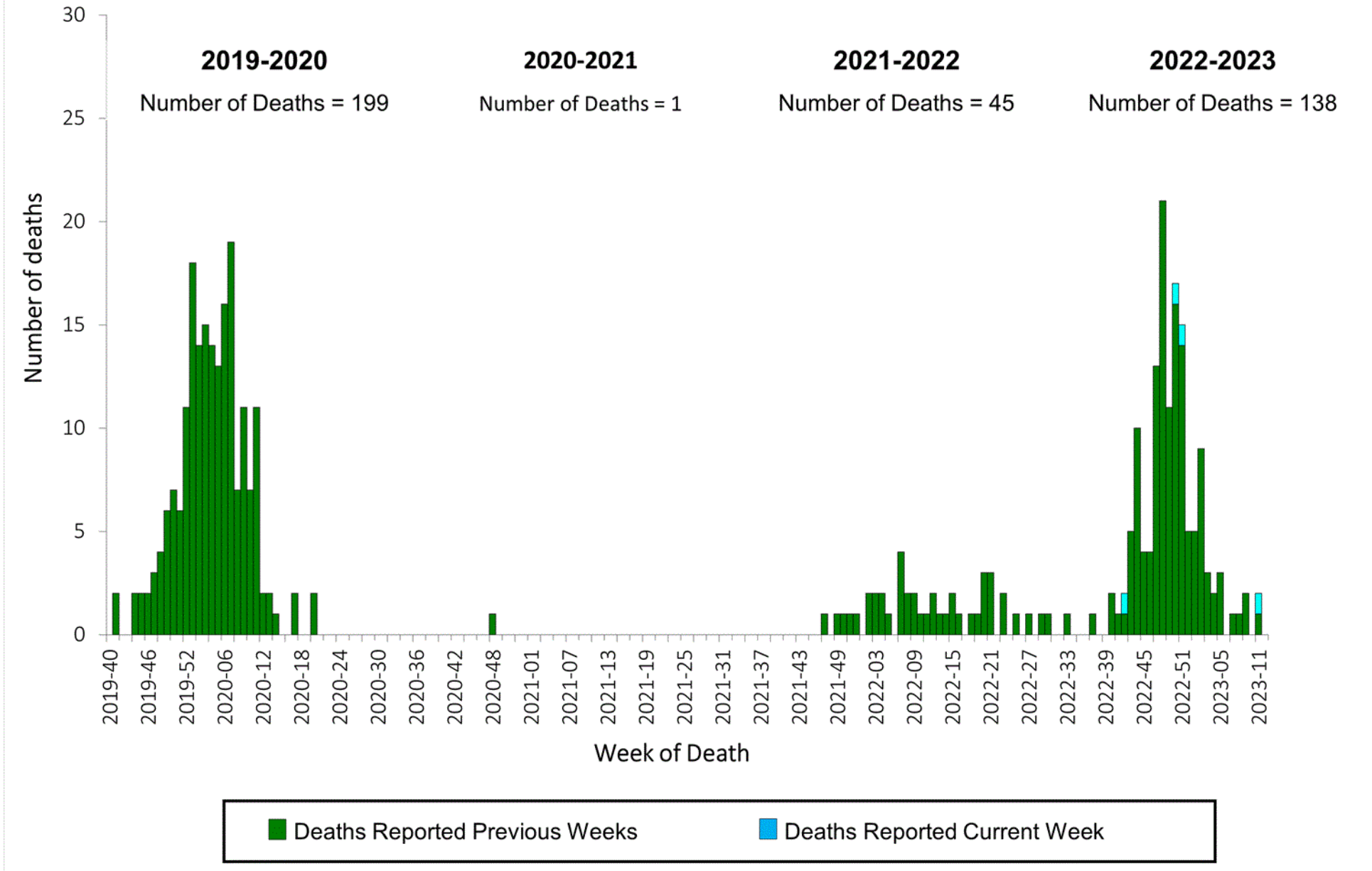
View Chart Data (/flu/weekly/weeklyarchives2022-2023/data/NCHSData12.csv) | View Full Screen (/flu/weekly/weeklyarchives2022-2023/NCHS12.html)

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) | FluView Interactive (https://gis.cdc.gov/grasp/fluview/mortality.html)

Influenza-Associated Pediatric Mortality

Four influenza-associated pediatric deaths occurring during the 2022-2023 season were reported to CDC during week 12. The deaths occurred during weeks 42, 50, and 51 of 2022 (the weeks ending October 22, December 17, and December 24 of 2022), and during week 11 of 2023 (the week ending March 18, 2023). All four deaths were associated with influenza A viruses. Two of the influenza A viruses had subtyping performed; one was an A(H1) virus, and one was an A(H3) virus.

A total of 138 influenza-associated pediatric deaths occurring during the 2022-2023 season have been reported to CDC.



(http://gis.cdc.gov/GRASP/Fluview/PedFluDeath.html)

View Full Screen (/flu/weekly/weeklyarchives2022-2023/PedFlu12.html)

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.

Long-term Care Facilities: Up or down arrows indicate change of greater than or equal to 5% of the percent of facilities reporting at least one influenza positive test among their residents compared to the previous week.

HHS Protect 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 0.3 percentage points of the percent of deaths due to PIC compared to the previous week.

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/)	Alaska (http://dhss.alaska.gov/dph/Epi/id/Pages/influenza/fluinfo.aspx)
Colorado (https://www.colorado.gov/pacific/cdphe/influenza)	Connecticut (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-i 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/heal 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) and the Global Epidemiology Reports. (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), China (http://www.chinaivdc.cn/cnic/), Japan (http://idsc.nih.go.jp/index.html), the United Kingdom (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/).

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/).

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/).

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) page.

Last Reviewed: March 31, 2023, 11:00 AM