**CDC** Centers for Disease Control and Prevention
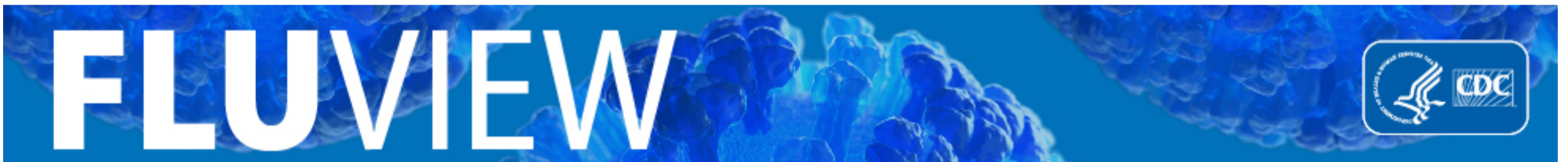
Influenza (Flu) (/flu/index.htm)

# Weekly U.S. Influenza Surveillance Report

Updated January 13, 2023

**FLUVIEW**

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 1, ending January 7, 2023 |
| --- |
| Seasonal influenza activity continues but is declining in most areas. |

## Viruses

| Clinical Lab | Public Health Lab | Virus Characterization |
| --- | --- | --- |
| **8.6%** positive for influenza this week (/flu/weekly/index.htm#ClinicalLaboratories) | The most frequently reported viruses this week were influenza A(H3N2). (/flu/weekly/index.htm#PublicHealthLaboratories) | Genetic and antigenic characterization and antiviral susceptibility are summarized in this report. (/flu/weekly/index.htm#VirusCharacterization) |

## Illness

| Outpatient Respiratory Illness |
| --- |
| **4.0%** of visits to a health care provider this week were for respiratory illness *(above baseline).* (/flu/weekly/index.htm#ILINet) |

| Outpatient Respiratory Illness: Activity Map |
| --- |
| This week, 14 jurisdictions experienced moderate activity and 23 jurisdictions experienced high or very high activity. (/flu/weekly/index.htm#ORIAM) |

| Long-term Care Facilities |
|:---:|
| **5.1%**<br>of facilities reported<br>≥ 1 influenza-positive test<br>among residents this week.<br><br>(/flu/weekly/index.htm#LTCF) |

## Severe Disease

| FluSurv-NET | HHS Protect Hospitalizations |
|:---:|:---:|
| **54.4 per 100,000**<br>cumulative hospitalization rate<br><br>(/flu/weekly/index.htm#FluSurvNet) | **12,409**<br>patients admitted to hospitals with influenza<br>this week.<br>(/flu/weekly/index.htm#HHSProtect) |

| NCHS Mortality | Pediatric Deaths |
|:---:|:---:|
| **13.1%**<br>of deaths attributed to pneumonia, influenza, or COVID-19 this week (*above threshold*).<br>(/flu/weekly/index.htm#NCHSMortality) | **5**<br>deaths were reported this week for a total of 79 so far this season.<br>(/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) 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 continues but is declining in most areas.
- Of influenza A viruses detected and subtyped during week 1, 72% were influenza A(H3N2) and 28% were influenza A(H1N1).
- Five influenza-associated pediatric deaths were reported this week, for a total of 79 pediatric flu deaths reported so far this season.
- CDC estimates that, so far this season, there have been at least 24 million illnesses, 260,000 hospitalizations, and 16,000 deaths from flu.
- The cumulative hospitalization rate in the FluSurv-NET system was 1.8 times higher than the highest cumulative in-season hospitalization rate observed for week 1 during previous seasons going back to 2010-2011. However, this in-season rate is still lower than end-of-season hospitalization rates for all but 4 pre-COVID-19-pandemic seasons going back to 2010-2011.
- The number of flu hospital admissions reported in the HHS Protect system decreased compared to week 52.
- 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 oseltamivir, peramivir, zanamivir, and baloxavir.
- 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 continues to recommend that everyone ages 6 months and older get an annual flu vaccine as long as flu activity continues.
- CDC issued Interim Guidance for Clinicians to Prioritize Antiviral Treatment of Influenza in the Setting of Reduced Availability of Oseltamivir (https://emergency.cdc.gov/han/2022/han00482.asp) through the Health Alert Network (HAN) on December 15, 2022.

# 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 declined compared to the previous week. Percent positivity decreased in all HHS regions. 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 1 | Data Cumulative since October 2, 2022 (Week 40) |
|---|---|---|
| No. of specimens tested | 96,123 | 1,791,474 |
| No. of positive specimens (%) | 8,281 (8.6%) | 300,365 (16.8%) |
| *Positive specimens by type* |  |  |
| Influenza A | 8,169 (98.6%) | 298,392 (99.3%) |
| Influenza B | 112 (1.4%) | 1,973 (0.7%) |

Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, October 2, 2022 – January 7, 2023

(http://gis.cdc.gov/grasp/fluview/fluportaldashboard.html)
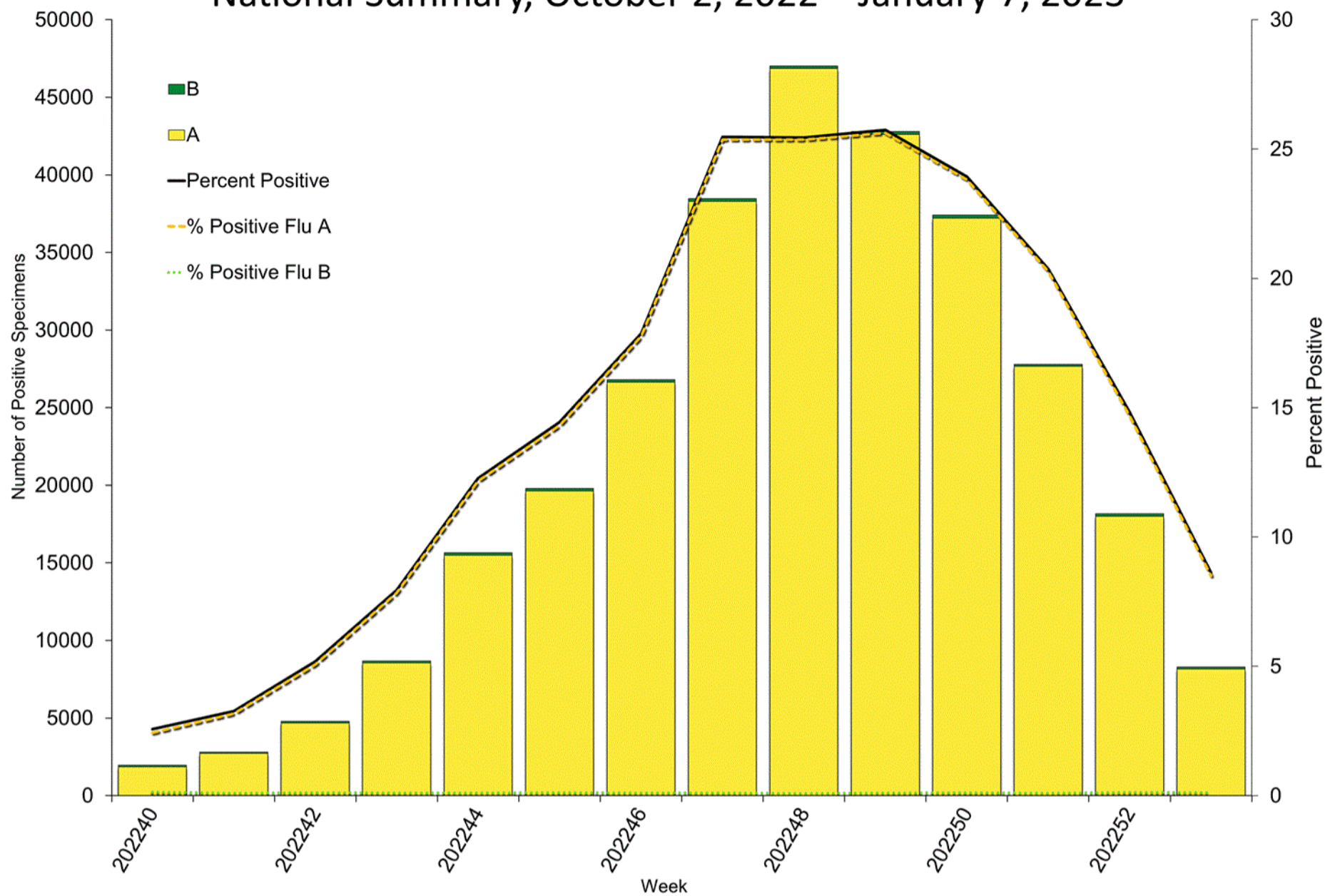
View Chart Data (/flu/weekly/weeklyarchives2022-2023/data/whoAllregt_cl01.html) | View Full Screen (/flu/weekly/WeeklyArchives2022-2023/WHONPHL01.html)

## 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 1 | Data Cumulative since October 2, 2022 (Week 40) |
|---|---|---|
| No. of specimens tested | 6,724 | 132,276 |
| No. of positive specimens | 743 | 22,902 |
| *Positive specimens by type/subtype* | | |
| Influenza A | 736 (99.1%) | 22,818 (99.6%) |
| (H1N1)pdm09 | 130 (28.4%) | 4,245 (22.9%) |
| H3N2 | 328 (71.6%) | 14,278 (77.1%) |
| H3N2v | 0 | 1 (<0.1%) |
| Subtyping not performed | 278 | 4,294 |

|  | Week 1 | Data Cumulative since October 2, 2022 (Week 40) |
|---|---|---|
| Influenza B | 7 (0.9%) | 84 (0.4%) |
| Yamagata lineage | 0 | 0 |
| Victoria lineage | 6 (100%) | 53 (100%) |
| Lineage not performed | 1 | 31 |



Influenza Positive Tests Reported to CDC by U.S. Public Health Laboratories, National Summary, October 2, 2022 – January 7, 2023

(http://gis.cdc.gov/grasp/fluview/fluportaldashboard.html)
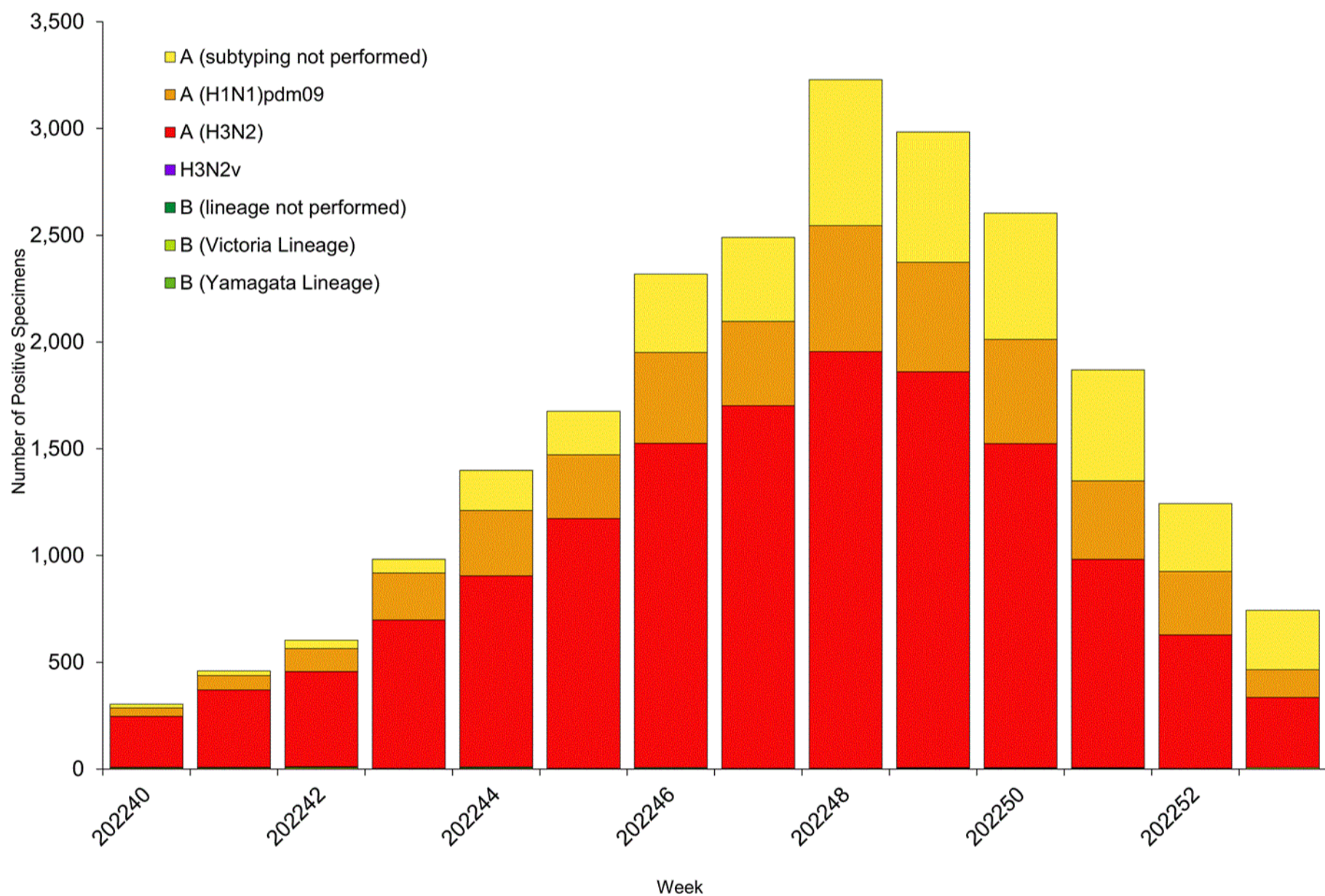
View Chart Data (/flu/weekly/weeklyarchives2022-2023/data/whoAllregt_phl01.html) | View Full Screen (/flu/weekly/weeklyarchives2022-2023/WhoPHL01.html)

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

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 1,634 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** | 431 | | | | |
| | | 6B.1A | 431 (100%) | 5a.1 | 6 (1.4%) |
| | | | | 5a.2 | 425 (98.6%) |
| **A/H3** | 1,184 | | | | |
| | | 3C.2a1b | 1,184 (100%) | 1a | 0 |
| | | | | 1b | 0 |
| | | | | 2a | 0 |
| | | | | 2a.1 | 1 (0.1%) |
| | | | | 2a.2 | 1,183 (99.9%) |
| | | 3C.3a | 0 | 3a | 0 |
| **B/Victoria** | 19 | | | | |
| | | V1A | 19 (100%) | V1A | 0 |
| | | | | V1A.1 | 0 |
| | | | | V1A.3 | 1 (5.3%) |
| | | | | V1A.3a | 0 |
| | | | | V1A.3a.1 | 0 |
| | | | | V1A.3a.2 | 18 (94.7%) |
| **B/Yamagata** | 0 | | | | |
| | | Y3 | 0 | | |

CDC [antigenically characterizes](https://www.cdc.gov/flu/about/professionals/antigenic.htm) influenza viruses 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:** Eighty-nine A(H1N1)pdm09 viruses were antigenically characterized by HI, and 87 (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 and 87 (98%) 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**: Eleven influenza B/Victoria-lineage virus were antigenically characterized by HI; 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 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).

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 | 1,193 | 410 | 765 | 18 | 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 | 1,193 | 410 | 765 | 18 | 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 | 1,193 | 410 | 765 | 18 | 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 | 1,147 | 387 | 743 | 17 | 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). 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 1, 4.0% 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%. The percent of patient visits for respiratory illness decreased for all regions during week 1 compared to week 52 but remains above their region-specific baselines in all regions. 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)
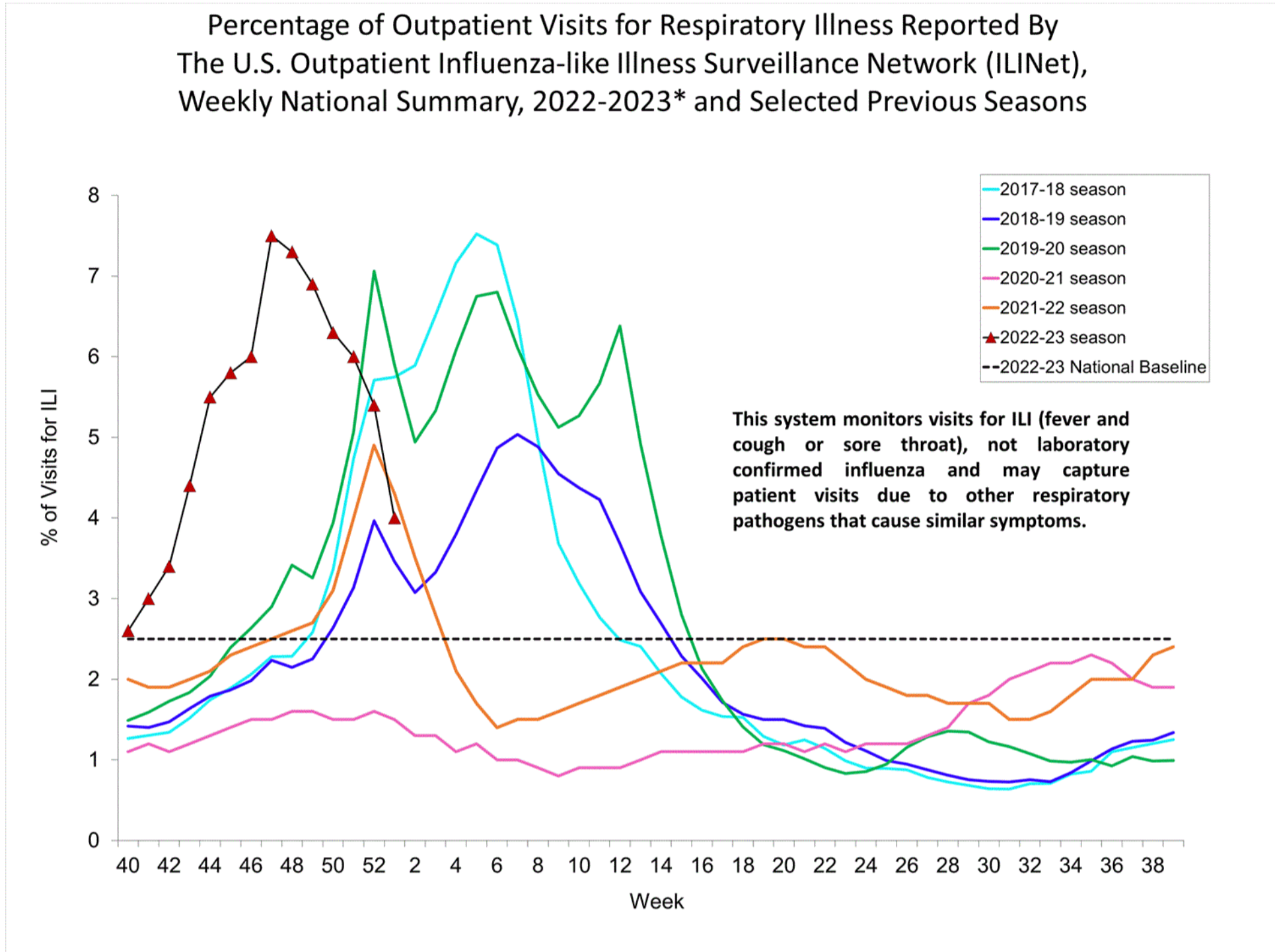
\* Effective October 3, 2021 (week 40), the ILI definition (fever plus cough or sore throat) no longer includes "without a known cause other than influenza."

View Chart Data (current season only) (/flu/weekly/weeklyarchives2022-2023/data/senAllregt01.html) | View Full Screen (/flu/weekly/weeklyarchives2022-2023/ILI01.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 all age groups (0-4 years, 5-24 years, 25-49 years, 50-64 years, and 65+ years) in week 1 compared to week 52.

**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-January 7, 2023**

This system monitors visits for ILI (fever and cough or sore throat), not laboratory confirmed influenza and may capture patient visits due to other respiratory pathogens that cause similar symptoms.
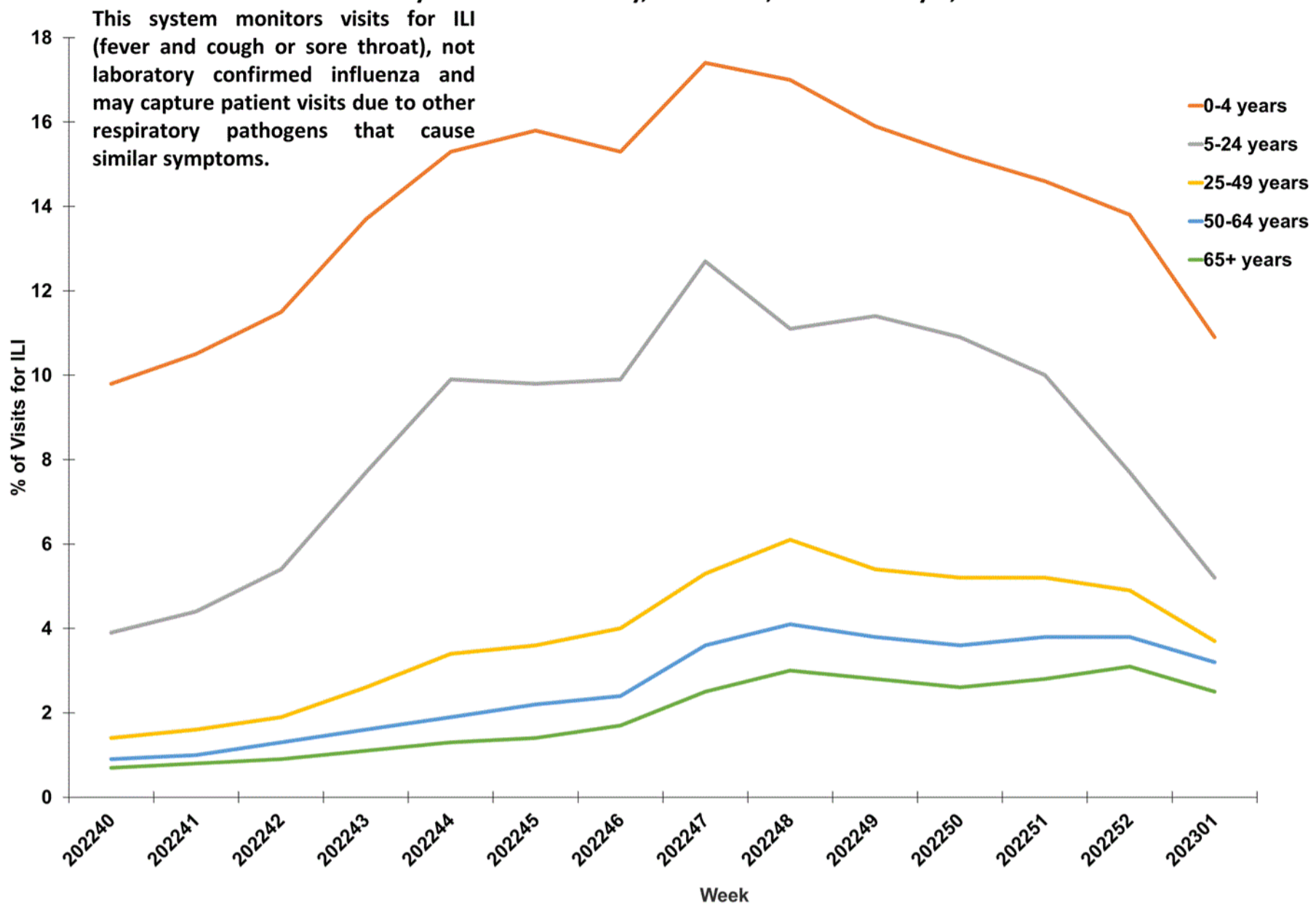
# Outpatient Respiratory Illness Activity Map
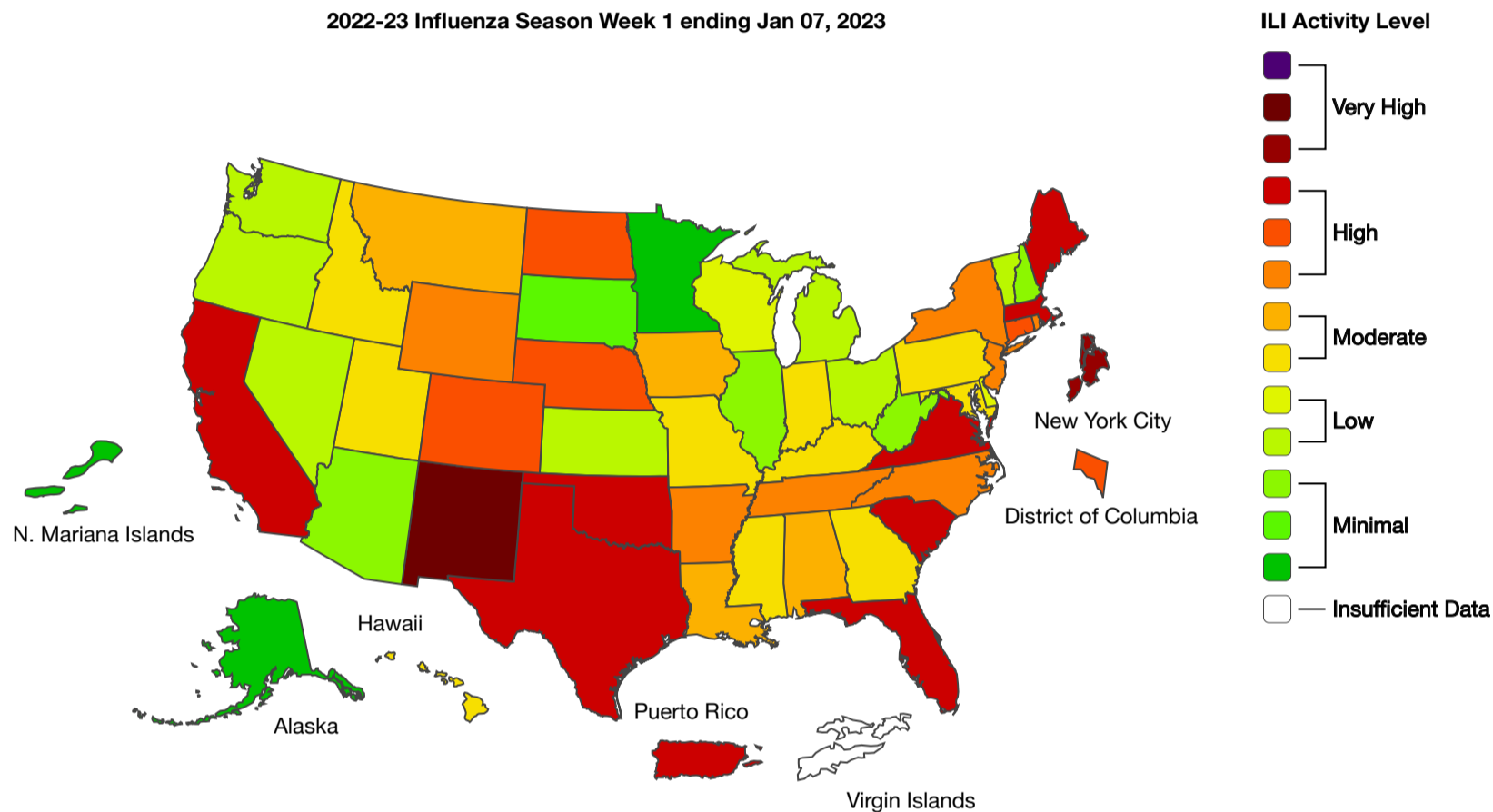
Data collected in ILINet are used to produce a measure of ILI activity* (https://www.cdc.gov/flu/weekly/overview.htm#anchor_1633697504110) by state/jurisdiction and Core Based Statistical Areas (CBSA).

| | Number of Jurisdictions | | Number of CBSAs | |
|---|---|---|---|---|
| Activity Level | Week 1 (Week ending Jan. 7, 2023) | Week 52 (Week ending Dec. 31, 2022) | Week 1 (Week ending Jan. 7, 2023) | Week 52 (Week ending Dec. 31, 2022) |
| Very High | 2 | 12 | 19 | 38 |
| High | 21 | 31 | 93 | 158 |
| Moderate | 14 | 5 | 102 | 145 |
| Low | 9 | 2 | 184 | 169 |
| Minimal | 8 | 5 | 275 | 169 |
| Insufficient Data | 1 | 0 | 256 | 250 |

# A Weekly Influenza Surveillance Report Prepared by the Influenza Division

## Outpatient Respiratory Illness Activity Map Determined by Data Reported to ILINet

This system monitors visits for respiratory illness that includes fever plus a cough or sore throat, also referred to as ILI, not laboratory confirmed influenza and may capture patient visits due to other respiratory pathogens that cause similar symptoms.

prev | Play | Pause | next

40          50          1

weeks

**State          CBSA**

**2022-23 Influenza Season Week 1 ending Jan 07, 2023**



ILI Activity Level

- Very High
- High
- Moderate
- Low
- Minimal
- Insufficient Data

N. Mariana Islands
New York City
District of Columbia
Hawaii
Alaska
Puerto Rico
Virgin Islands

**Season:** 2022-23 ▲                    Download Image | Download Data

(https://www.cdc.gov/flu/weekly/flureport.xml)View Full Screen (http://gis.cdc.gov/grasp/fluview/main.html )

*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.

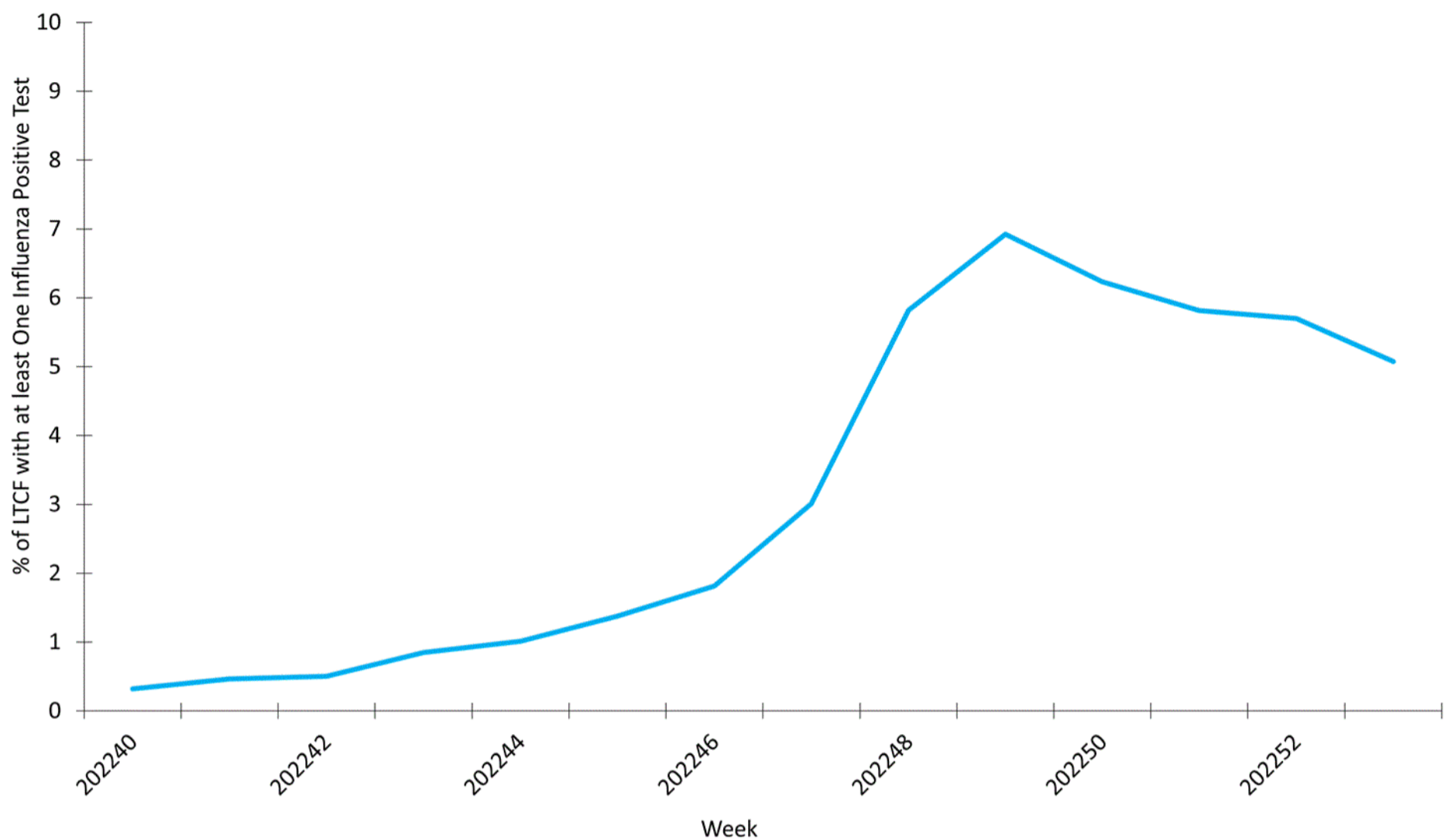Additional information about medically attended visits for ILI for current and past seasons:

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 1, 724 (5.1%) of 14,269 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 – January 8, 2023



(/flu/weekly/weeklyarchives2022-2023/LTCF01.html)View Chart Data ⊞ (/flu/weekly/weeklyarchives2022-2023/data/LTCFData01.csv) | View Full Screen (/flu/weekly/weeklyarchives2022-2023/LTCF01.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 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 15,910 laboratory-confirmed influenza-associated hospitalizations were reported by FluSurv-NET sites between October 1, 2022, and January 7, 2023. The weekly hospitalization rate observed in week 1 was 2.0 per 100,000 population. The weekly rate observed during week 48 (week ending December 3) is the third highest peak weekly rate observed during all seasons going back to 2010-2011; this follows the 2017-18 season which peaked during week 1 (week ending January 6) and the 2014-15 season which peaked during week 52 (week ending December 27).

The overall cumulative hospitalization rate was 54.4 per 100,000 population. This cumulative hospitalization rate is 1.8 times higher than the highest cumulative in-season hospitalization rate observed in week 1 during previous seasons going back to 2010-2011 (prior season rates ranged from 0.4 per 100,000 to 30.0 per 100,000). However, this in-season cumulative hospitalization rate is still lower than end-of-season hospitalization rates for all but 4 pre-COVID-19-pandemic seasons (2015-16, 2013-14, 2011-12, 2010-11 seasons).

When examining rates by age, the highest rate of hospitalization per 100,000 population was among adults aged 65 and older (159.2). Among adults aged 65 and older, rates were highest among adults aged 85 and older (291.2). Among persons aged <65 years, hospitalization rates per 100,000 population were highest among children aged 0-4 years (74.0) followed by adults aged 50-64 years (57.3). When examining rates by race and ethnicity, the highest rate of hospitalization per 100,000 population was among non-Hispanic Black persons (77.5), followed by non-Hispanic American Indian or Alaska Native persons (65.4), non-Hispanic White persons (44.7), Hispanic/Latino persons (41.1), and non-Hispanic Asian/Pacific Islander persons (23.5).

Among 15,910 hospitalizations, 15,426 (97.0%) were associated with influenza A virus, 260 (1.6%) with influenza B virus, 20 (0.1%) with influenza A virus and influenza B virus co-infection, and 204 (1.3%) with influenza virus for which the type was not determined. Among 2,881 hospitalizations with influenza A subtype information, 2,248 (78.0%) were A(H3N2), and 633 (22.0%) were A(H1N1)pdm09. Based on preliminary data, of the 1,997 laboratory-confirmed influenza-associated hospitalizations with more complete data, 3.1% (95% CI: 2.3%-3.9%) also tested positive for SARS-CoV-2.

Among 1,452 hospitalized adults with information on underlying medical conditions, 96.3% had at least one reported underlying medical condition, the most commonly reported were hypertension, cardiovascular disease, metabolic disorder, and obesity. Among 622 hospitalized women of childbearing age (15-49 years) with information on pregnancy status, 252 (40.5%) were pregnant. Among 511 hospitalized children with information on underlying medical conditions, 66.7% had at least one reported underlying medical condition; the most commonly reported was asthma, followed by obesity and neurologic disease.



Cumulative Rate of Laboratory-Confirmed Influenza Hospitalizations among cases of all ages, 2014-15 to 2022-23, MMWR Week 01

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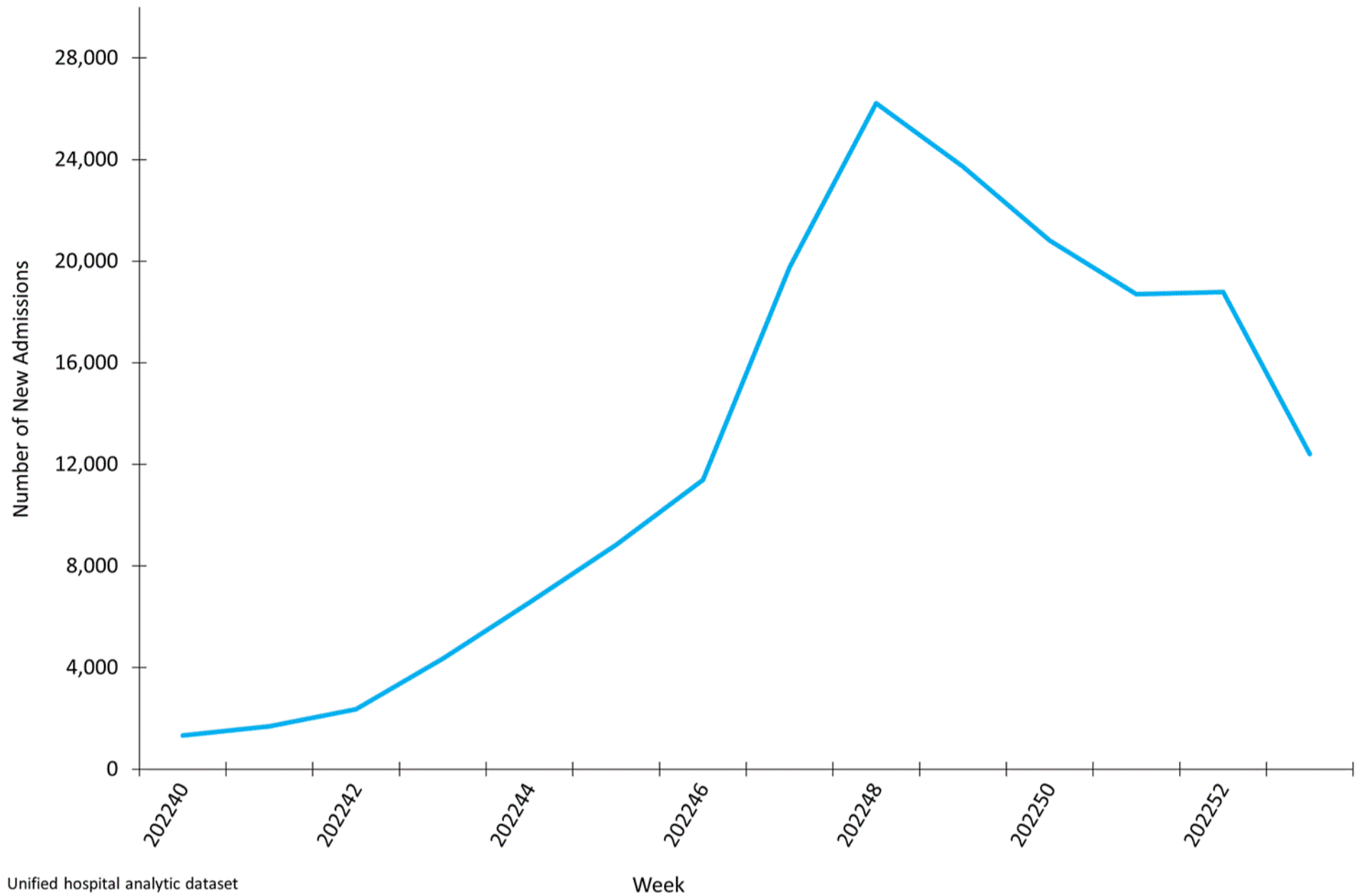
(https://gis.cdc.gov/grasp/fluview/FluHospRates.html)

View Full Screen (/flu/weekly/weeklyarchives2022-2023/EIPRates01.html)
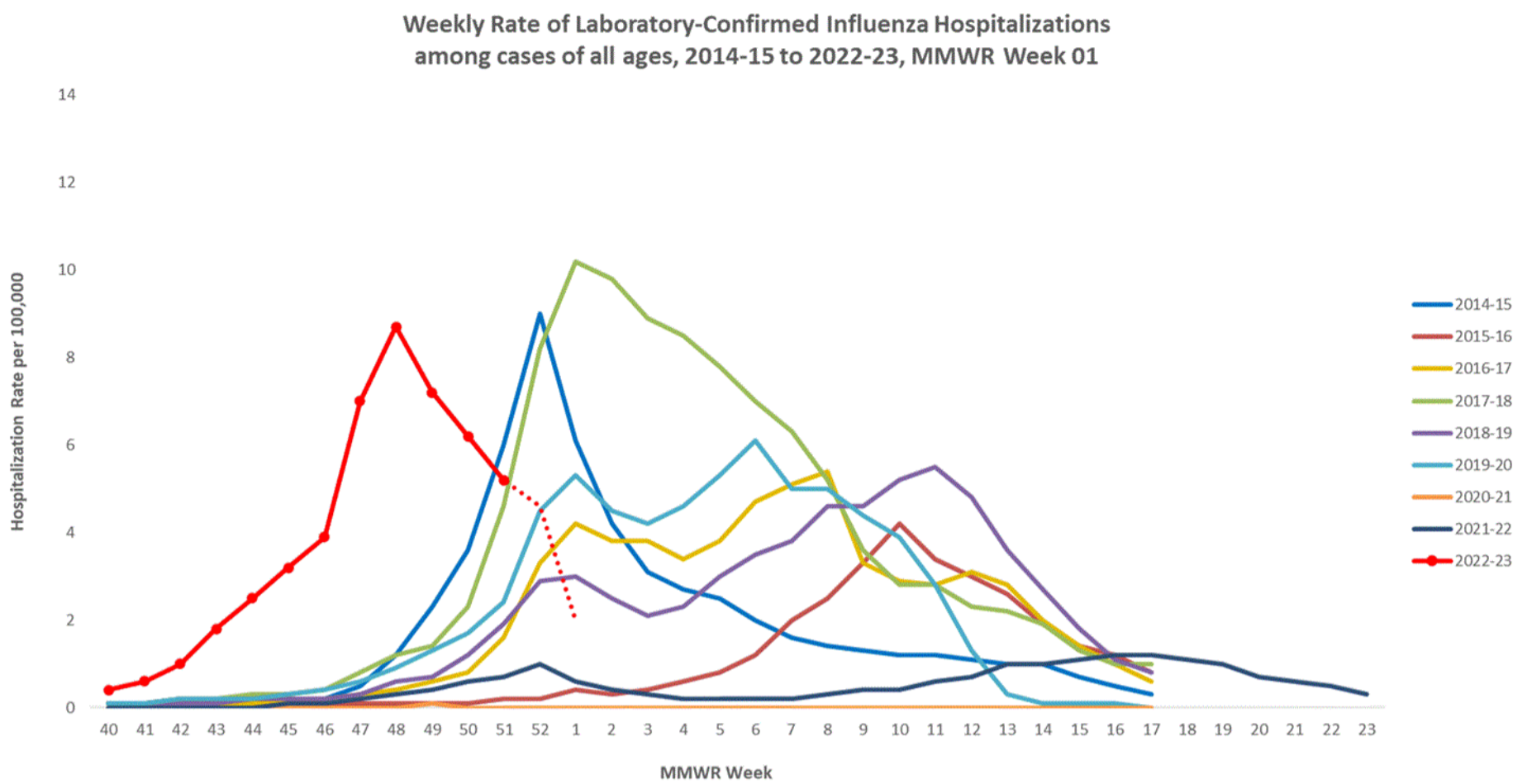
Weekly Rate of Laboratory-Confirmed Influenza Hospitalizations among cases of all ages, 2014-15 to 2022-23, MMWR Week 01

**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/EIPConditions01.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 1, 12,409 patients with laboratory-confirmed influenza were admitted to a hospital.

## New Influenza Hospital Admissions Reported to HHS Protect, National Summary, October 2, 2022 – January 7, 2023



Unified hospital analytic dataset

(/flu/weekly/weeklyarchives2022-2023/Protect01.html)View Chart Data 📊 (/flu/weekly/weeklyarchives2022-2023/data/ProtectData01.csv) | View Full Screen (/flu/weekly/weeklyarchives2022-2023/Protect01.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 January 12, 2023, 13.1% of the deaths that occurred during the week ending January 7, 2023 (week 1), were due to pneumonia, influenza, and/or COVID-19 (PIC). This percentage is above the epidemic threshold of 7.0% for this week. Among the 3,151 PIC deaths reported for this week, 1,433 had COVID-19 listed as an underlying or contributing cause of death on the death certificate, and 353 listed influenza. While current PIC mortality is due primarily to COVID-19, the proportion due to influenza increased from October through early December and has remained at similar levels for the past four weeks. 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 January 12, 2023
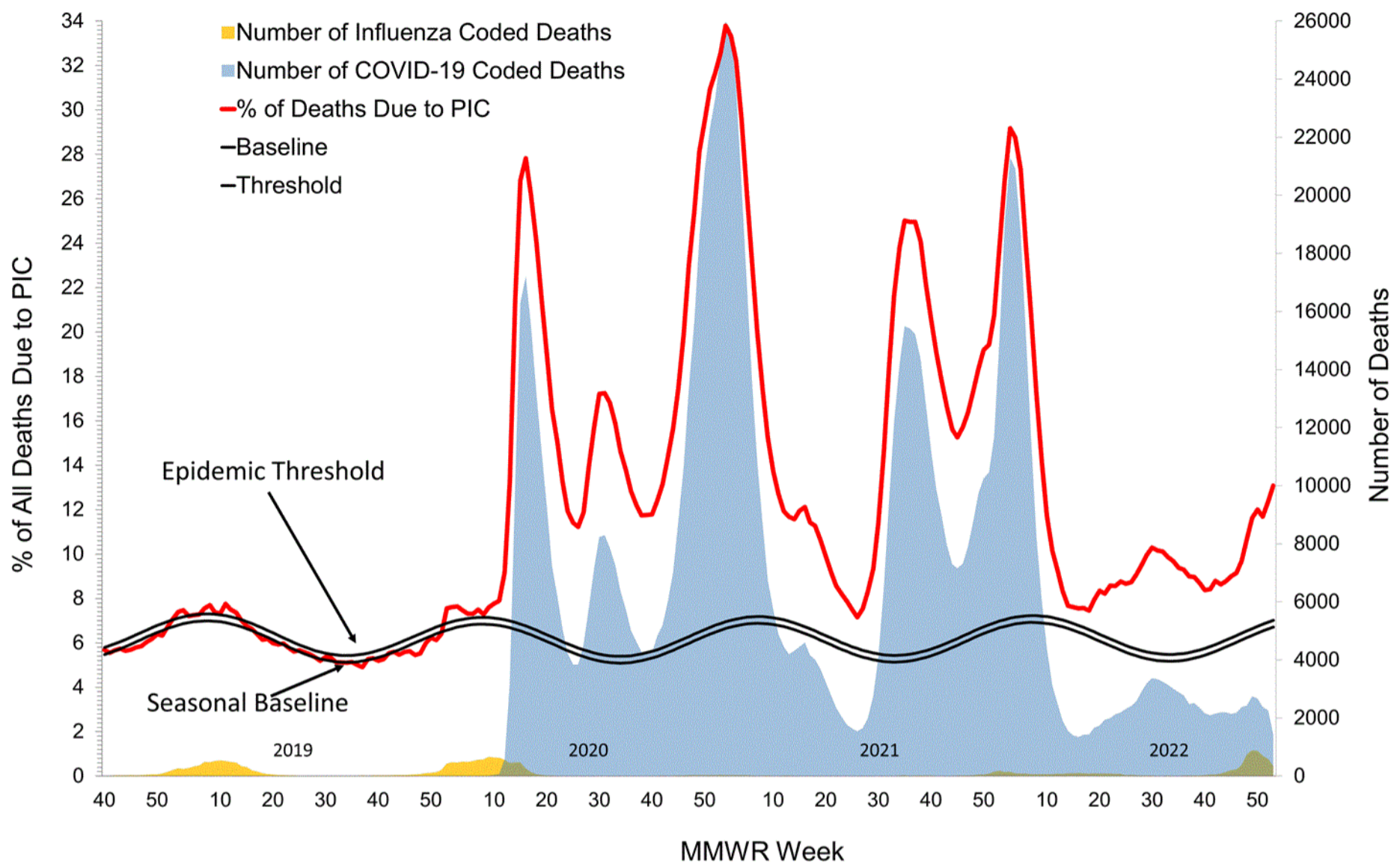
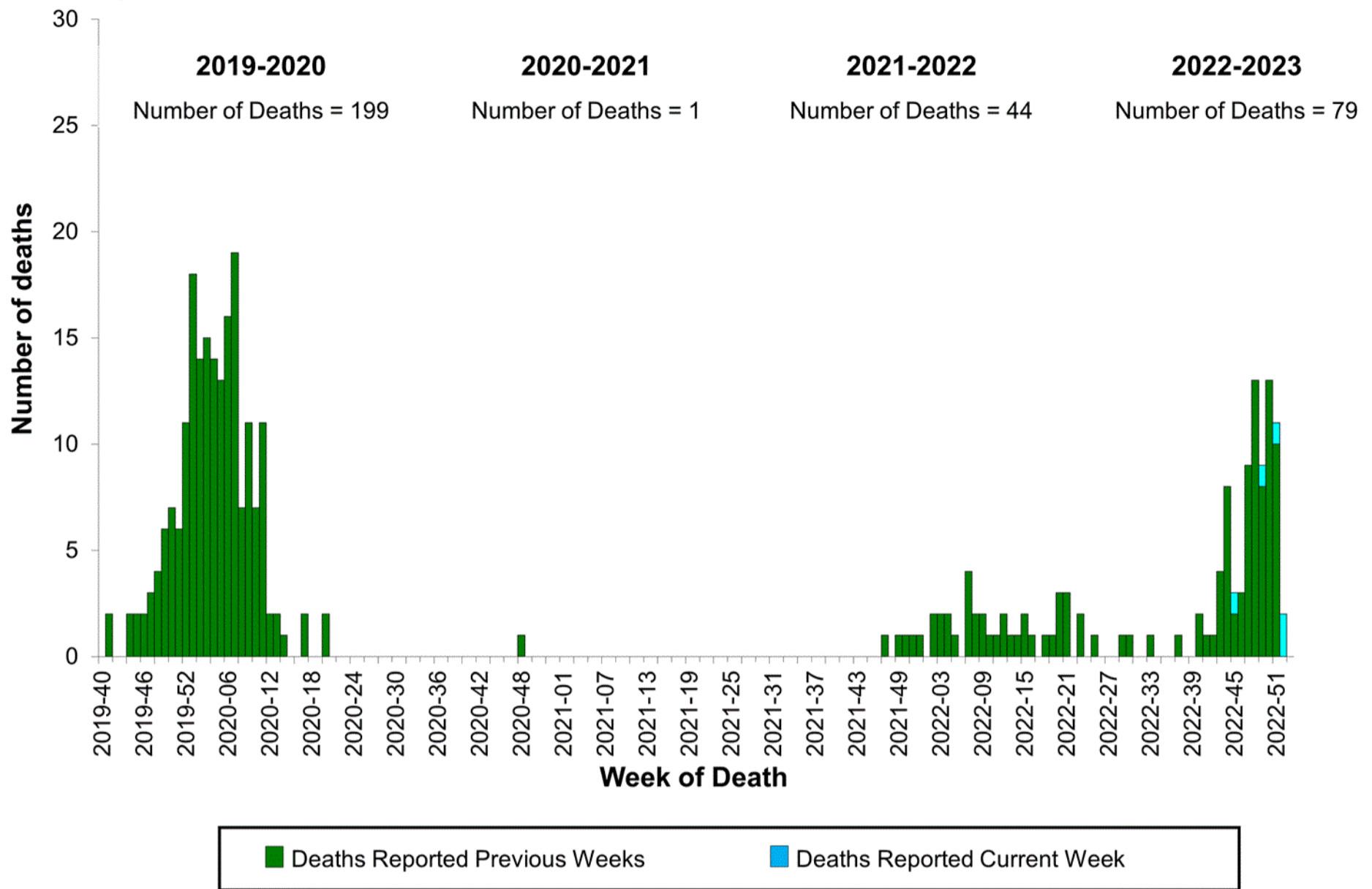Additional pneumonia, influenza and COVID-19 mortality surveillance information for current and past seasons:

# Influenza-Associated Pediatric Mortality

Five influenza-associated pediatric deaths occurring during the 2022-2023 season were reported to CDC during week 1. The deaths occurred during weeks 45, 49, 51, and 52 of 2022 (the weeks ending November 12, December 10, December 24, and December 31, respectively). All five deaths were associated with influenza A viruses. Subtyping was performed on two of the influenza A viruses; both were A(H3) viruses.

A total of 79 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



**2019-2020**
Number of Deaths = 199

**2020-2021**
Number of Deaths = 1

**2021-2022**
Number of Deaths = 44

**2022-2023**
Number of Deaths = 79

Legend: ■ Deaths Reported Previous Weeks   ■ Deaths Reported Current Week

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

View Full Screen (/flu/weekly/weeklyarchives2022-2023/PedFlu01.html)

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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)

# 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.

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

Alaska
(http://dhss.alaska.gov/dph/Epi/id/Pages/influenza/fluinfo.aspx)

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

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

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| 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/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: January 13, 2023, 11:00 AM