



Influenza (Flu)

2023-2024 U.S. Flu Season: Preliminary In-Season Burden Estimates

CDC estimates* that, from October 1, 2023 through March 2, 2024, there have been:

28 – 51 million
flu illnesses



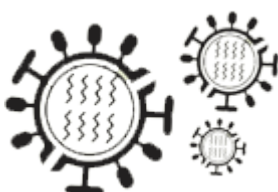
13 – 24 million
flu medical visits



310,000 – 640,000
flu hospitalizations



20,000 – 57,000
flu deaths



*Because influenza (flu) surveillance does not capture all cases of flu that occur in the U.S., CDC provides these estimated ranges to better reflect the larger burden of flu. These estimates are calculated based on data collected through CDC’s Influenza Hospitalization Surveillance Network (FluSurv-NET) and are **preliminary**. This web page provides weekly, preliminary estimates of the cumulative in-season numbers of flu illnesses, medical visits, hospitalizations, and deaths in the United States. It is not possible to know the exact number of people who have experienced flu illness in the United States because not everyone who gets sick with flu will seek medical care or be tested for influenza.

Given this, not all flu illnesses will be identified through our surveillance systems. This is why we use mathematical models to estimate the impact of flu on the population. CDC has estimated the burden of flu since 2010 using a mathematical model that is based on data collected through the [Influenza Hospitalization Surveillance Network \(FluSurv-NET\)](#), a network that covers approximately 9% of the U.S. population. Additionally, CDC assesses the current season’s severity each week and information about this season’s severity assessment can be found at [United States Flu Season: Preliminary In-Season Severity Assessment](#).

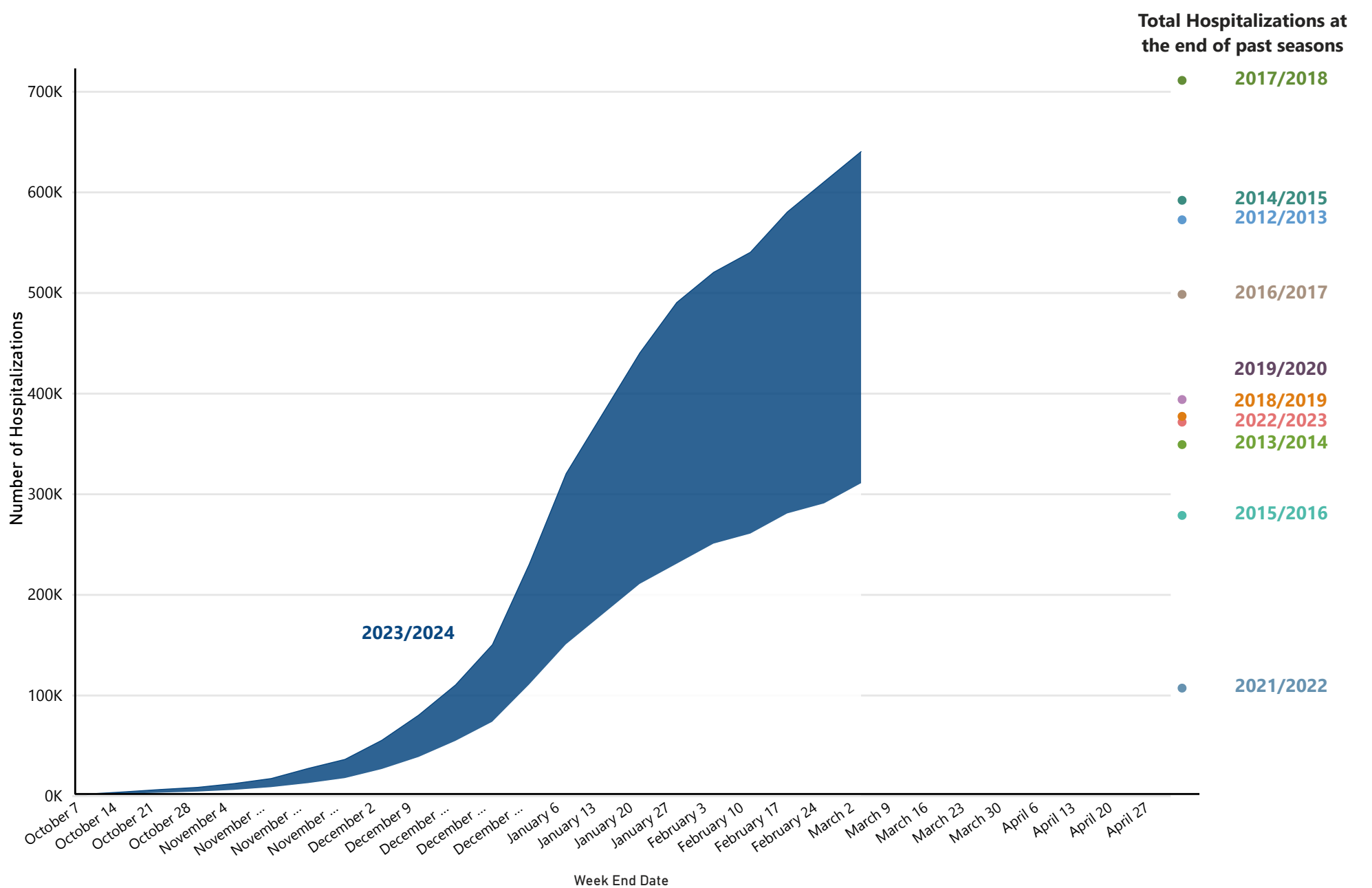


Figure. Preliminary Upper and Lower Estimates of Cumulative Flu-Related Hospitalizations by Week for the 2023-2024 Flu Season Compared to Total Hospitalizations from Past Seasons

[Microsoft Power BI](#)

Each week CDC calculates a lower estimate and an upper estimate of flu-related hospitalizations that have occurred since the beginning of the season (October 1, 2023). These are updated each week and are compared to end-of-season estimates of flu-related hospitalizations from previous flu seasons.

Limitations

The estimates of the preliminary, cumulative burden of seasonal influenza are subject to several limitations:

1. The cumulative rate of lab-confirmed flu-related hospitalizations reported during the season may be an underestimate of the rate at the end of the season because of identification and reporting delays.
2. Rates of lab-confirmed flu-related hospitalizations are adjusted for the frequency of flu testing and the sensitivity of flu diagnostic assays. However, data on testing practices during the current flu season are not available in real-time. To make these estimates, CDC uses data on testing practices from the past flu seasons as a proxy. If more testing is being done compared to past flu seasons, these estimates may be inflated. Preliminary in-season burden estimates are finalized when data on contemporary testing practices become available, and the estimates may decrease if testing has increased.
3. Estimates of medical visits for flu-like illnesses are based on data from prior seasons, which may not be accurate if the severity of illness or patterns of health behavior have changed.

Frequently Asked Questions

How to interpret the cumulative burden of flu

The cumulative burden of flu is an estimate of the number of people who have been sick, seen a health care provider for, been hospitalized with, or died as a result of flu within a certain timeframe. The **in-season** preliminary burden estimates are provided weekly during flu season when sufficient data are available to make an estimate, and **end-of-season** preliminary estimates are given at the end of each flu season. End-of-season preliminary estimates will be updated year-to-year and are considered final when all data are available (usually within two years of the preliminary estimate).

How CDC estimates the cumulative burden of seasonal flu

Preliminary estimates of the cumulative burden of seasonal flu are based on crude rates of lab-confirmed flu-related hospitalizations, reported through the [Influenza Hospitalization Surveillance Network \(FluSurv-NET\)](#), which are adjusted for the frequency of flu testing during recent prior seasons and the sensitivity of flu diagnostic tests. Rates of hospitalization are then multiplied by the previously estimated ratio of hospitalizations to symptomatic illnesses, and the frequency of patients seeking medical care to calculate symptomatic illnesses, medical visits, hospitalizations, and deaths associated with seasonal flu, respectively.

How preliminary, in-season estimate of flu burden change each week

The in-season estimates of flu burden are preliminary and change week-by-week as new flu hospitalizations are reported to CDC. New reports include both new admissions that have occurred during the reporting week and also patients admitted in previous weeks that have been newly reported to CDC.

How the number of flu hospitalizations estimated so far this season compares with previous end-of-season hospitalization estimates

The estimates on this page are preliminary, cumulative and will increase as the season progresses. [Past end-of-season estimates of flu-related hospitalizations](#) (2010-2023) have ranged from 100,000-710,000.

Last Reviewed: March 8, 2024