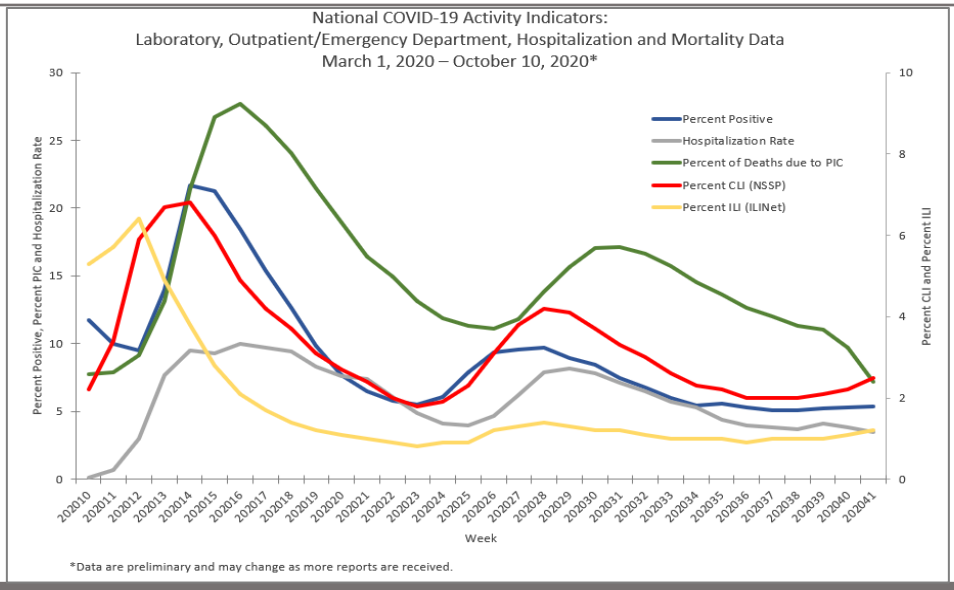
# COVIDView

A Weekly Surveillance Summary of U.S. COVID-19 Activity

## Key Updates for Week 41, ending October 10, 2020

Nationally, the percentage of specimens testing positive for SARS-CoV-2 and the percentage of visits to emergency departments (ED) or outpatient providers for COVID-like illness (CLI) and influenza-like illness (ILI) have increased slightly in recent weeks. COVID-19 related hospitalizations and mortality attributed to COVID-19 remained stable or declined but this may change as more data are received.




## Virus: Public Health, Commercial and Clinical Laboratories

Nationally, the overall percentage of respiratory specimens testing positive for SARS-CoV-2, the virus causing COVID-19, increased from 5.3% during week 40 to 5.4% during week 41. Percent positivity decreased slightly among those 18-49 years but increased among the other age groups. Regionally, the percentages of respiratory specimens testing positive for SARS-CoV-2 increased in Regions 5 (Midwest), 6 (South Central), 7 (Central) and 10 (Pacific Northwest) and decreased in the remaining six regions.

## Mild/Moderate Illness: Outpatient and Emergency Department Visits

Nationally, the overall percentage of visits to outpatient providers or emergency departments (EDs) for ILI or CLI has been increasing slowly since mid-September. In ILINet, this increase can be seen among all age groups. The percentages of visits to EDs for ILI or CLI have increased in all ten regions in recent weeks. Seven regions have reported increases in the percentages of visits for ILI to ILINet providers in recent weeks; the percentages have remained stable in the remaining three regions.

## Severe Disease: Hospitalizations and Deaths

Nationally, weekly COVID-19-associated hospitalization rates reported through COVID-NET have remained steady for all age groups in recent weeks; however, rates have increased in 7 of 14 COVID-NET sites during this time period. Based on death certificate data, the percentage of deaths attributed to pneumonia, influenza, or COVID-19 (PIC) for week 41 was 7.2% and, while declining, remains above the epidemic threshold. Hospitalization and mortality data for the most recent weeks may change as additional data are reported.

*All data are preliminary and may change as more reports are received. A description of the surveillance systems summarized in COVIDView, including methodology and detailed descriptions of each data component, is available on the surveillance methods page.*

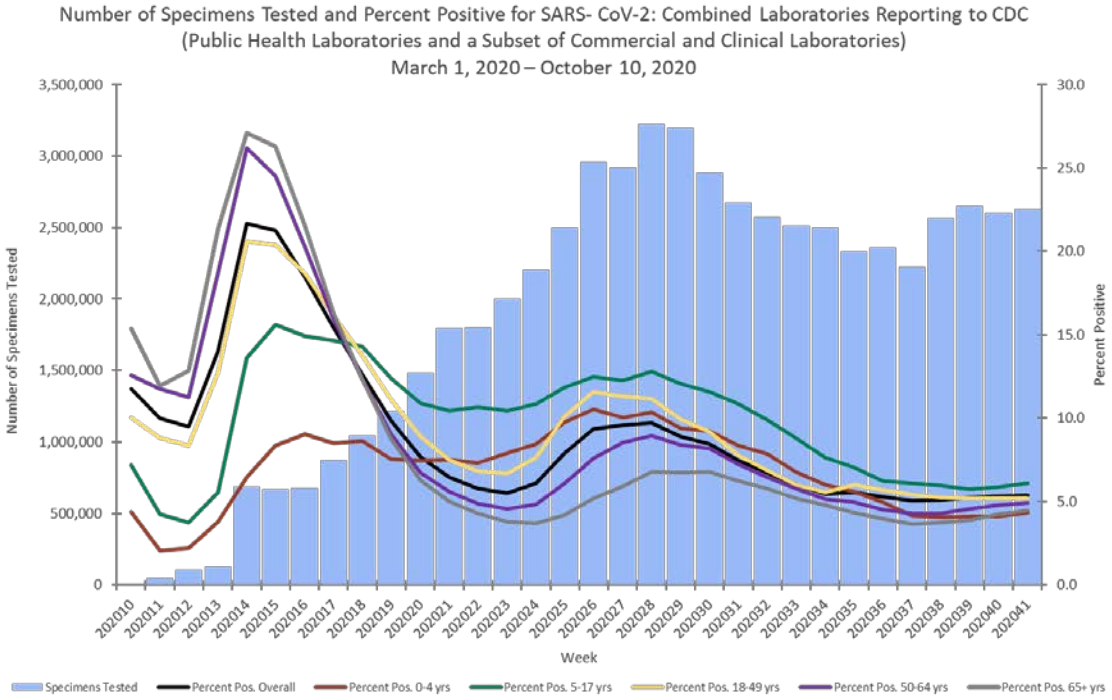
## Key Points

- Nationally, the percentage of deaths due to pneumonia, influenza, or COVID-19 (PIC) have continued to decline since early September; other COVID-19 activity indicators included in this report (the percentage of specimens testing positive for SARS-CoV-2, the percentages of visits to EDs or outpatient providers for ILI and CLI, and COVID-19-associated hospitalization rates) have increased or remained stable in recent weeks.
- At least one indicator used to monitor COVID-19 activity is increasing in all ten HHS regions and many regions are reporting increases in multiple indicators.
    - The percentages of specimens testing positive for SARS-CoV-2 increased in four regions.
    - The percentages of visits for ILI, CLI or both increased in all ten regions.
    - For some indicators and regions, the increases have been small from week to week but have continued over several weeks while other indicators have increased more sharply in some regions.
- The overall cumulative COVID-19-associated hospitalization rate through the week ending October 10, 2020 was 188.2 per 100,000 population.
    - Following an initial decline in hospitalization rates between the weeks ending July 25 (MMWR week 30) and August 22 (MMWR week 34), weekly hospitalization rates for all sites combined have remained steady for all age groups. However, since the week ending September 19 (MMWR Week 38), overall weekly hospitalization rates have increased in 7 of 14 COVID-NET sites. Data for the most recent weeks may change as additional admissions occurring during those weeks are reported.
    - The age-adjusted hospitalization rate for Hispanic or Latino persons was approximately 4.5 times that of non-Hispanic White persons. Age-adjusted hospitalization rates for both non-Hispanic Black persons and non-Hispanic American Indian or Alaska Native persons were approximately 4.4 times those of non-Hispanic White persons.
- All surveillance systems aim to provide the most complete data available. Estimates from previous weeks are subject to change as data are updated with the most complete data available.

## U.S. Virologic Surveillance

Based on data reported to CDC by public health laboratories and a subset of clinical and commercial laboratories in the United States, 61,120,152 specimens have been tested for SARS-CoV-2 using a molecular assay since March 1, 2020. The percentages of specimens testing positive for SARS-CoV-2 each week, based on week of specimen collection, are summarized below.

Nationally, during week 41, 2,632,222 specimens were tested for SARS-CoV-2 for diagnostic purposes and 141,317 (5.4%) were positive. This is slightly increased compared with week 40, during which 5.3% of specimens tested were positive. The percentages of specimens testing positive increased slightly in those 0–4 years, 5–17 years, 50-64 years and 65 years and older while remaining stable in those 18–49 years.




*The different laboratory types came on board with testing during different weeks. This graph includes public health laboratory data beginning in week 10, clinical laboratory data beginning in week 11 and commercial laboratory data beginning in week 14.

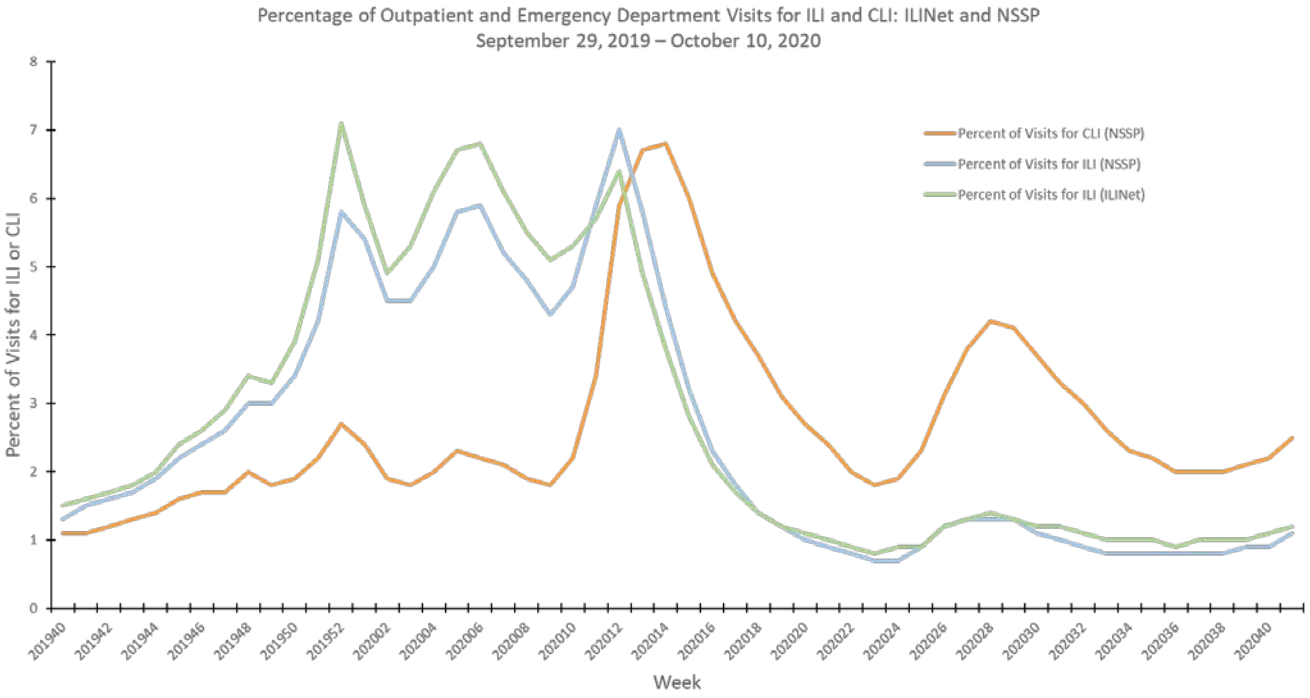
The national increase in percent positivity was driven by increases in Regions 5 (Midwest), 6 (South Central), 7 (Central) and 10 (Pacific Northwest). The increase was reported among all age groups in Regions 6, 7, and 10 and among those 5 years of age and older in Region 5. The highest percentages of specimens testing positive for SARS-CoV-2 were seen in Regions 4 (Southeast, 6.5%), 6 (South Central, 8.0%), 7 (Central, 10.1%) and 8 (Mountain, 7.0%).

**Additional virologic surveillance information:** Surveillance Methods

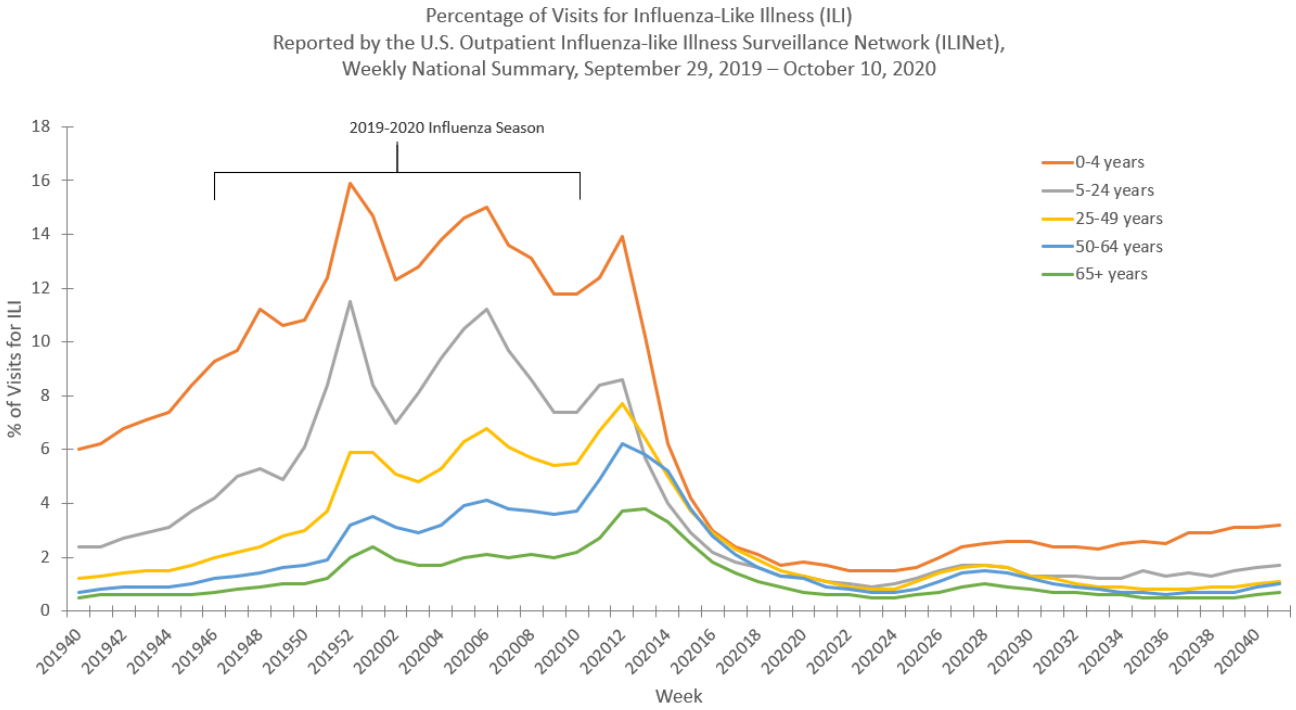
## Outpatient/Emergency Department Illness

Two syndromic surveillance systems, the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) and the National Syndromic Surveillance Project (NSSP), are being used to monitor trends in outpatient and emergency department (ED) visits that may be associated with COVID-19 illness. Each system monitors activity in a slightly different set of providers/facilities. ILINet provides information about visits to outpatient providers or emergency departments for influenza-like illness (ILI; fever plus cough and/or sore throat) and NSSP provides information about visits to EDs for ILI and COVID-like illness (CLI; fever plus cough and/or shortness of breath or difficulty breathing). Some EDs contribute ILI data to both ILINet and NSSP. Both systems are currently being affected by changes in health care seeking behavior, including increased use of telemedicine and increased social distancing. These changes affect the numbers of people seeking care in the outpatient and ED settings and their reasons for doing so.

Nationally, the overall percentage of visits to outpatient providers or EDs for ILI or CLI has been increasing since mid-September, with 2.5% and 1.1% of ED visits captured in NSSP being for CLI and ILI, respectively, and 1.2% of visits reported through ILINet being for ILI. The percentage of ILI visits to ILINet providers remains below the national baseline (2.4% October 2019 through September 2020; 2.6% since October 2020) for the 25th consecutive week and is at levels that are typical for this time of year.



The increase in percentage of ILI visits to ILINet providers in recent weeks ha been reported among all age groups.



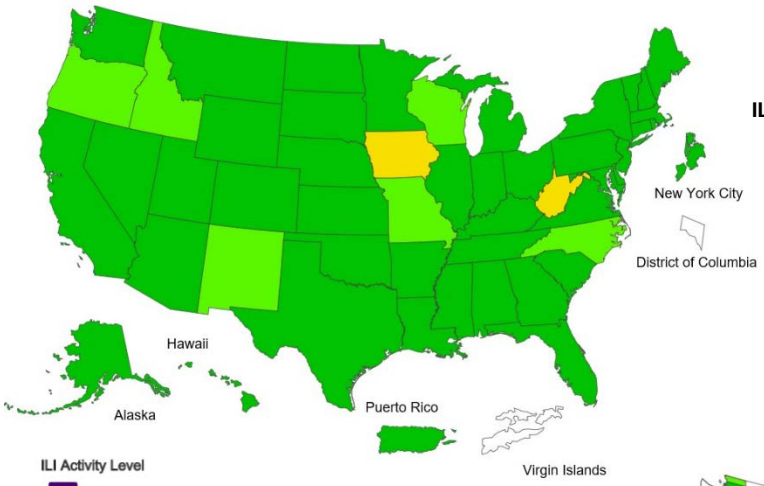

On a regional level, the percentages of visits to EDs for ILI or CLI have been increasing in recent weeks in all ten regions. The largest increases during week 41 compared with week 40 were for CLI in Regions 5 (Midwest, 0.4%) and 8 (Mountain, 0.6%). The percentage of visits for ILI to ILINet providers have been increasing in recent weeks in seven regions (Regions 1 [New England], 2 [New Jersey/New York/Puerto Rico], 3 [Mid-Atlantic], 4 [Southeast], 7 [Central], 8 [Mountain], and 9 [South/West Coast] and stable in Regions 5 (Midwest), 6 (South Central) and 10 (Pacific Northwest). The percentage remained below the region-specific baseline in all 10 regions.

**ILI Activity Levels**

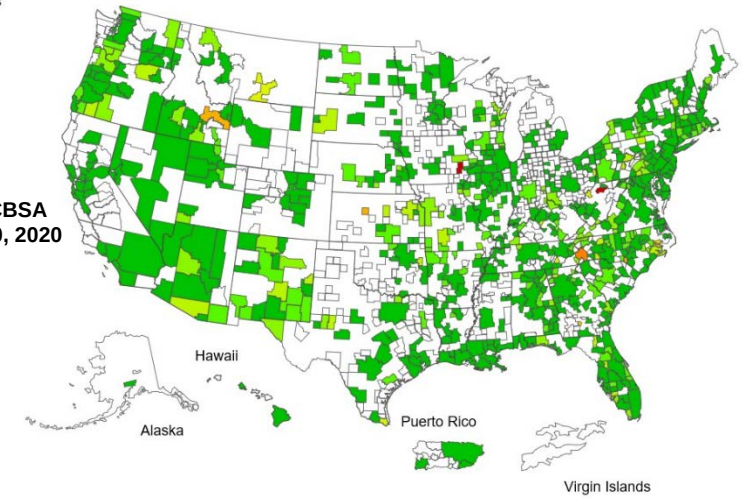
Data collected in ILINet are used to produce a measure of ILI activity for all 50 states, Puerto Rico, the U.S. Virgin Islands, the District of Columbia, and New York City and for each core-based statistical area (CBSA) where at least one provider is located. The mean reported percentage of visits due to ILI for the current week is compared with the mean reported during non-influenza weeks, and the activity levels correspond to the number of standard deviations below, at, or above the mean.

The number of jurisdictions at each activity level during week 41 and the previous week are summarized in the table below.

| Activity Level | Number of Jurisdictions | | Number of CBSAs | |
|---|---|---|---|---|
| | Week 41 (Week ending Oct. 10, 2020) | Week 40 (Week ending Oct. 3, 2020) | Week 41 (Week ending Oct. 10, 2020) | Week 40 (Week ending Oct. 3, 2020) |
| **Very High** | 0 | 0 | 0 | 0 |
| **High** | 0 | 0 | 3 | 2 |
| **Moderate** | 2 | 0 | 5 | 4 |
| **Low** | 0 | 1 | 30 | 16 |
| **Minimal** | 50 | 52 | 534 | 577 |
| **Insufficient Data** | 2 | 1 | 357 | 330 |




**ILI Activity Level Map by Jurisdiction**
**Week 41, ending October 10, 2020**




**ILI Activity Level Map by CBSA**
**Week 41, ending October 10, 2020**

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

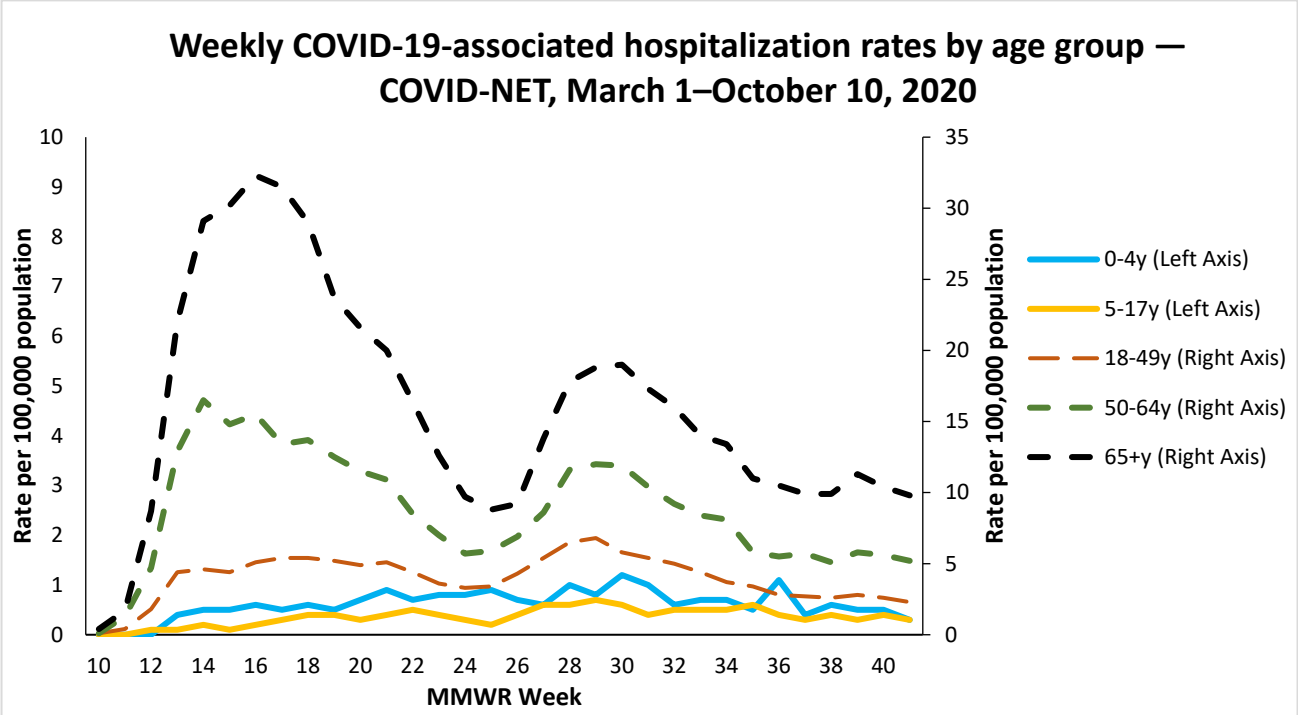
**Additional information about medically attended outpatient and emergency department visits for ILI and CLI:** Surveillance Methods

## Hospitalizations

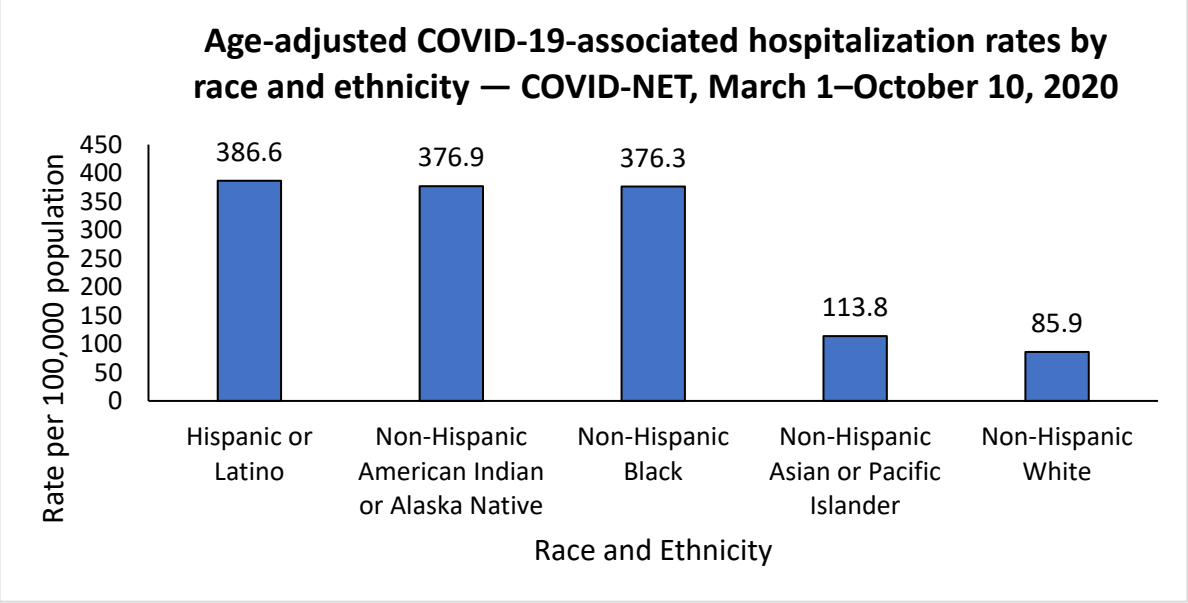
The COVID-19-Associated Hospitalization Surveillance Network (COVID-NET) conducts population-based surveillance for laboratory-confirmed COVID-19-associated hospitalizations in select counties participating in the Emerging Infections Program (EIP) and the Influenza Hospitalization Surveillance Project (IHSP).

A total of 61,364 laboratory-confirmed COVID-19-associated hospitalizations were reported by sites between March 1, 2020 and October 10, 2020. The overall cumulative hospitalization rate was 188.2 per 100,000 population.

Overall weekly hospitalization rates among all ages combined first peaked during the week ending April 18 (MMWR week 16), followed by a second peak during the week ending July 18 (MMWR week 29). Following an initial decline in hospitalization rates between the weeks ending July 25 (MMWR week 30) and August 22 (MMWR week 34), weekly hospitalization rates among all sites combined remained steady for each age group. However, since the week ending September 19 (MMWR Week 38), overall weekly hospitalization rates have increased in 7 of 14 COVID-NET sites (Colorado, Michigan, Minnesota, New Mexico, Oregon, Tennessee and Utah). Data for the most recent weeks may change as additional admissions occurring during those weeks are reported.




Among the 61,364 laboratory-confirmed COVID-19-associated hospitalizations, 58,134 (94.7%) had information on race and ethnicity, while collection of race and ethnicity was still pending for 3,230 (5.3%) cases. When examining overall age-adjusted rates by race and ethnicity, the rate for Hispanic or Latino persons was approximately 4.5 times the rate among non-Hispanic White persons. Rates for both non-Hispanic American Indian or Alaska Native persons and non-Hispanic Black persons were approximately 4.4 times the rate among non-Hispanic White persons.




When examining age-stratified crude hospitalization rates by race and ethnicity, compared with non-Hispanic White persons in the same age group, crude hospitalization rates were 7.1 times higher among Hispanic or Latino persons aged 0–17 years; 8.0 times higher among Hispanic or Latino persons aged 18–49 years; 6.0 times higher among non-Hispanic American Indian or Alaska Native persons aged 50–64 years; and 3.5 times higher among non-Hispanic Black persons aged ≥65 years.

**Hospitalization rates per 100,000 population by age and race and ethnicity — COVID-NET, March 1, 2020–October 10, 2020**

| Age Category | Non-Hispanic American Indian or Alaska Native | | Non-Hispanic Black | | Hispanic or Latino | | Non-Hispanic Asian or Pacific Islander | | Non-Hispanic White | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Rate[1] | Rate Ratio[2,3] | Rate[1] | Rate Ratio[2,3] | Rate[1] | Rate Ratio[2,3] | Rate[1] | Rate Ratio[2,3] | Rate[1] | Rate Ratio[2,3] |
| 0–17 years | 11.7 | 3.1 | 19.9 | 5.2 | 27.1 | **7.1** | 8.1 | 2.1 | 3.8 | 1 |
| 18–49 years | 284.8 | 7.6 | 205.8 | 5.5 | 299.0 | **8.0** | 60.7 | 1.6 | 37.4 | 1 |
| 50–64 years | 688.6 | **6.0** | 575.5 | 5.0 | 643.1 | 5.6 | 177.9 | 1.5 | 115.3 | 1 |
| 65+ years | 769.7 | 2.4 | 1130.7 | **3.5** | 850.3 | 2.7 | 348.2 | 1.1 | 319.5 | 1 |
| Overall rate[4](age-adjusted) | 376.9 | 4.4 | 376.3 | 4.4 | 386.6 | **4.5** | 113.8 | 1.3 | 85.9 | 1 |

[1] COVID-19-associated hospitalization rates by race and ethnicity are calculated using COVID-NET hospitalizations with known race and ethnicity for the numerator and NCHS bridged-race population estimates for the denominator.
[2] For each age category, rate ratios are the ratios between crude hospitalization rates within each racial and ethnic group and the crude hospitalization rate among non-Hispanic White persons in the same age category.
[3] The highest rate ratio in each age category is presented in **bold**.
[4] Overall rates are adjusted to account for differences in age distributions within race and ethnicity strata in the COVID-NET catchment area; the age strata used for the adjustment include 0–17, 18–49, 50–64, and 65+ years.

Non-Hispanic Black persons and non-Hispanic White persons represented the highest proportions of hospitalizations reported to COVID-NET, followed by Hispanic or Latino, non-Hispanic Asian or Pacific Islander, and non-Hispanic American Indian or Alaska Native persons. However, some racial and ethnic groups are disproportionately represented among hospitalized cases as compared with the overall population of the catchment area. Prevalence ratios were highest among non-Hispanic American Indian or Alaska Native persons, followed by non-Hispanic Black persons and Hispanic or Latino persons.

**Comparison of proportions of COVID-19-associated hospitalizations by race and ethnicity, COVID-NET, March 1–October 10, 2020**

| | Non-Hispanic American Indian or Alaska Native | Non-Hispanic Black | Hispanic or Latino | Non-Hispanic Asian or Pacific Islander | Non-Hispanic White |
|---|---|---|---|---|---|
| Proportion of COVID-NET hospitalizations[1] | 1.3% | 32.4% | 23.1% | 5.2% | 32.7% |
| Proportion of population in COVID-NET catchment area | 0.7% | 17.9% | 14.1% | 8.9% | 58.5% |
| Prevalence ratios[2] | 1.9 | 1.8 | 1.6 | 0.6 | 0.6 |

[1] Persons of multiple races (0.3%) or unknown race and ethnicity (5.0%) are not represented in the table but are included as part of the denominator.
[2] Prevalence ratio is calculated as the ratio of the proportion of COVID-NET hospitalizations over the proportion of population in COVID-NET catchment area.

For underlying medical conditions, data were restricted to cases reported during March 1–May 31, 2020, due to delays in reporting. During this time frame, sampling was conducted among hospitalized adults; therefore, weighted percentages are reported. No sampling was conducted among hospitalized children. Among 7,989 sampled adults hospitalized during March 1–May 31 with information on underlying medical conditions, 90.8% reported at least one underlying medical condition. The most reported underlying medical conditions were hypertension, obesity, metabolic disease, and cardiovascular disease. Among 248 children hospitalized during March 1–May 31 with information on underlying conditions, 50.8% reported at least one underlying medical condition. The most reported underlying medical conditions were obesity, asthma, and neurologic disease.

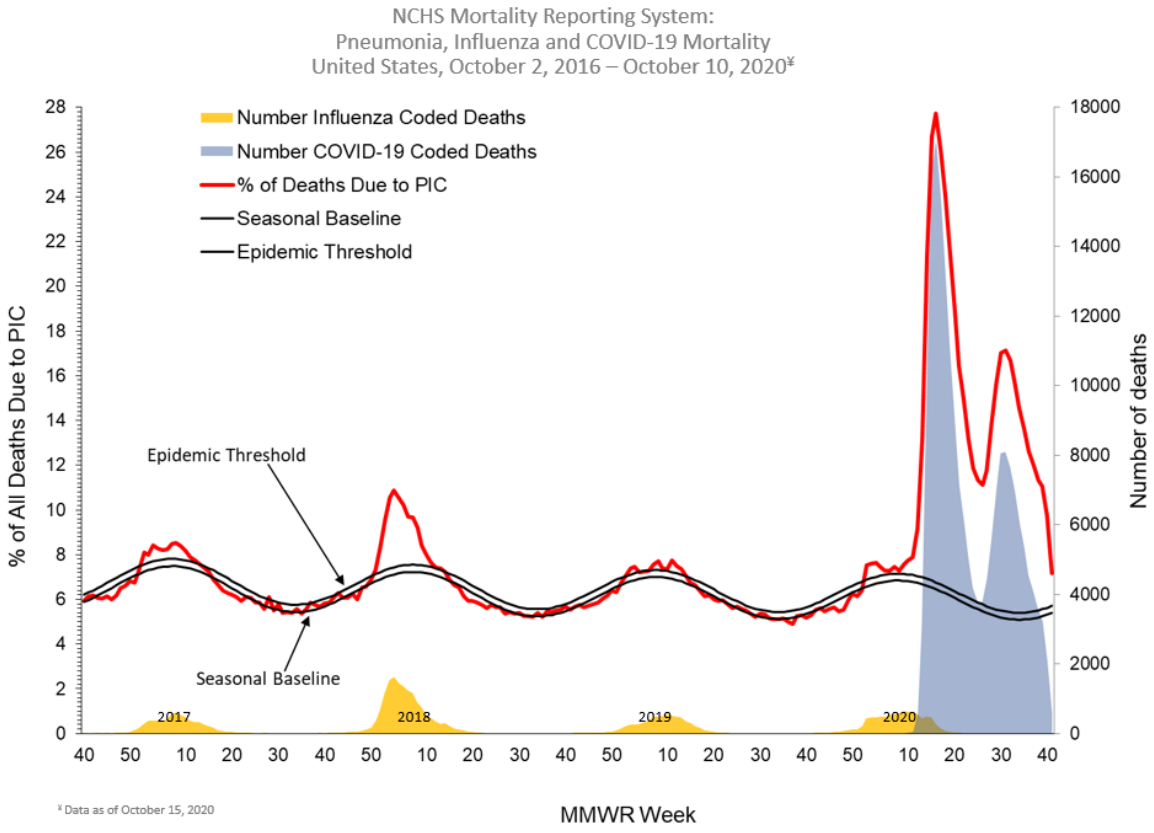
Additional data on demographics, signs and symptoms at admission, underlying conditions, interventions, outcomes and discharge diagnoses, stratified by age, sex and race and ethnicity, are available.

**Additional hospitalization surveillance information:**
Surveillance Methods | Additional rate data | Additional demographic and clinical data

## Mortality Surveillance

The National Center for Health Statistics (NCHS) collects death certificate data from vital statistics offices for all deaths occurring in the United States. Based on death certificate data available on October 15, 2020, the percentage of deaths attributed to pneumonia, influenza, or COVID-19 (PIC) for week 41 was 7.2% and, while declining, remains above the epidemic threshold. Percentages for recent weeks will likely increase as more death certificates are processed.

Weekly mortality surveillance data include a combination of machine coded and manually coded causes of death collected from death certificates. The percentage of deaths due to PIC is higher among manually coded records than more rapidly available machine coded records. Due to the additional time needed for manual coding, the initially reported PIC percentages may be lower than percentages calculated from final data.




¥Data during recent weeks are incomplete because of the lag in time between when the death occurred and when the death certificate is completed, submitted to NCHS and processed for reporting purposes. It is possible that a death certificate includes both influenza and COVID as a cause of death therefore, the number of influenza and COVID coded deaths may not be mutually exclusive.

**Additional NCHS mortality surveillance information:** Surveillance Methods | Provisional Death Counts for COVID-19

Report prepared: October 15, 2020

Detailed data tables are available on the COVIDView page