

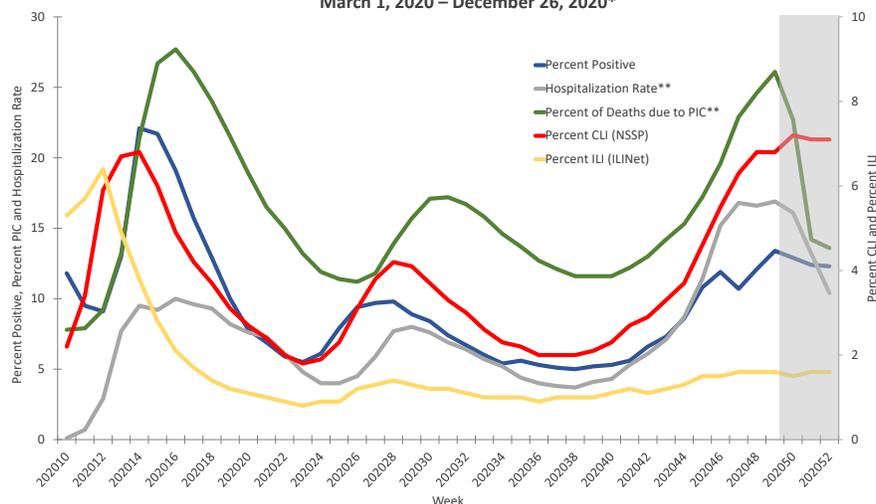
# COVIDView

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

## Key Updates for Week 52, ending December 26, 2020

Nationally, surveillance indicators tracking levels of SARS-CoV-2 circulation and associated illnesses declined or remained stable during the week ending December 26, 2020; however, there were regional differences. The percentage of deaths due to pneumonia, influenza and COVID-19 (PIC) has been increasing since early October. Both COVID-19-associated hospitalizations and PIC mortality for the most recent weeks are expected to increase as more data are received.

National COVID-19 Activity Indicators:  
Laboratory, Outpatient/Emergency Department, Hospitalization and Mortality Data  
March 1, 2020 – December 26, 2020\*



\*Data are preliminary and may change as more reports are received.

\*\*The percentage of deaths due to PIC and the hospitalization are expected to increase for the most recent weeks as additional 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, decreased slightly from 12.4% during week 51 to 12.3% during week 52. Percent positivity increased among two age groups (0–4 years and 5–17 years). Regionally, the percentage of respiratory specimens testing positive for SARS-CoV-2 increased in five of the ten [Health and Human Services \(HHS\) regions](#).

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

Nationally, the percentage of visits to outpatient providers or emergency departments (EDs) for COVID-like illness (CLI) and influenza-like illness (ILI) remained stable (change of  $\leq 0.1\%$ ) during week 52 compared with week 51. Three of ten surveillance regions reported an increase in at least one indicator of mild/moderate illness (CLI and ILI) this week while the remaining regions reported a stable or declining level of mild/moderate illness.

## Severe Disease: Hospitalizations and Deaths

In early December, the overall weekly hospitalization rate reached its highest point since the beginning of the pandemic and remains elevated. Rates in recent weeks have declined but these rates are likely to change as additional data are reported. Based on death certificate data, the percentage of deaths attributed to PIC for week 52 was 13.6% and remains above the epidemic threshold. The percentage of deaths due to PIC increased during October through early December and is expected to increase for the most recent weeks 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.

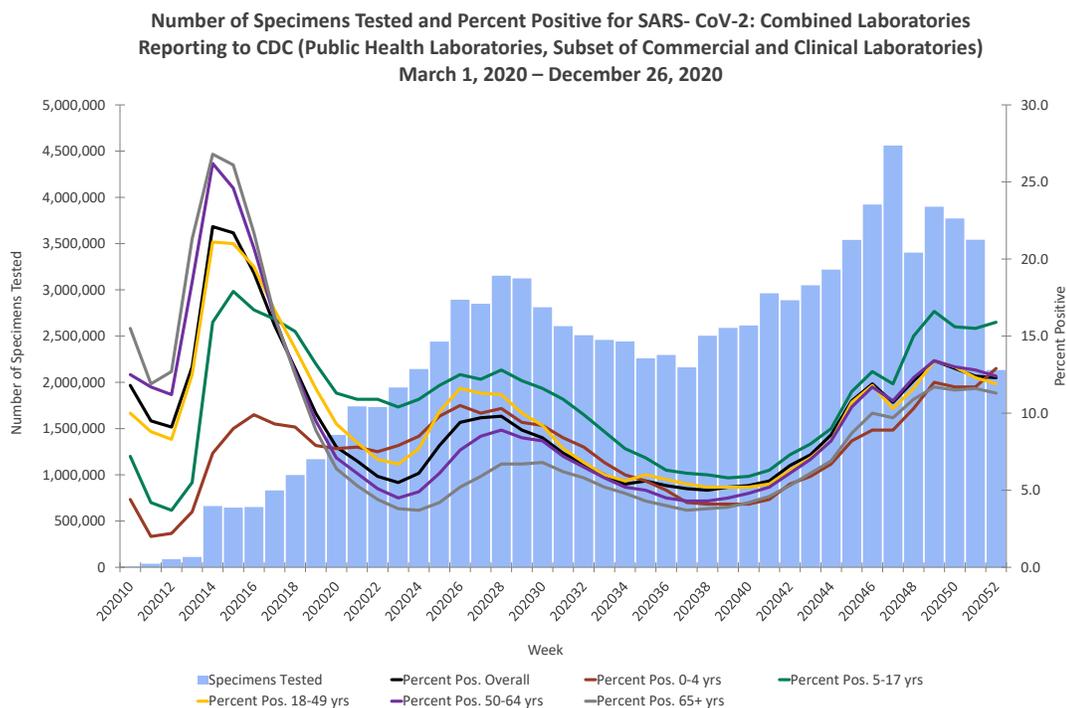
## Key Points

- Nationally, surveillance indicators tracking levels of SARS-CoV-2 circulation and associated illnesses declined or remained stable during week 52 compared with week 51; however, there were regional differences.
  - Five regions (Regions 2 [New Jersey/New York/Puerto Rico], 3 [Mid-Atlantic], 4 [Southeast], 6 [South Central] and 7 [Central]) reported an increase in percentage of specimens testing positive for SARS-CoV-2 during week 52 compared with week 51.
  - Three regions (Regions 2 [New Jersey/New York/Puerto Rico], 4 [Southeast] and 6 [South Central]) reported an increase in at least one indicator of mild/moderate respiratory illness during week 52 compared with week 51. These three regions and Region 9 [South/West Central] have also reported an increasing trend in the percentage of visits for CLI and/or ILI since October. The remaining six regions have reported a stable or declining trend in the percentage of visits for CLI and ILI.
- The overall cumulative COVID-19-associated hospitalization rate through the week ending December 26, 2020, was 326.7 hospitalizations per 100,000 population.
  - The overall weekly hospitalization rate reached its highest point at 16.9 per 100,000 during the week ending December 5, 2020 (Week 49) and remains elevated. Rates in recent weeks have declined but these rates are likely to change as additional data are reported.
  - The cumulative age-adjusted hospitalization rate for both Hispanic or Latino persons and non-Hispanic American Indian or Alaska Native persons was 3.5 times that of non-Hispanic White persons, and the rate for non-Hispanic Black persons was approximately 3.1 times that of non-Hispanic White persons.
- The percentage of deaths due to PIC has been increasing since the beginning of October and has exceeded the percentage of deaths due to PIC observed during the summer peak.
  - Data for the most recent three weeks currently show a decline, but that is likely to change as additional death certificates are processed. Due to the large number of deaths reported in recent weeks and the holidays, the change in recent weeks may be larger than usual.
- 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, 97,827,956 specimens were tested for SARS-CoV-2 using a molecular assay since March 1, 2020. The percentage of specimens testing positive for SARS-CoV-2 each week, based on week of specimen collection, are summarized below.

Nationally, during week 52, of 2,133,153 specimens tested for SARS-CoV-2 for diagnostic purposes, 263,316 (12.3%) were positive. This is a decrease compared with week 51, during which 12.4% of specimens tested were positive. The percentage of specimens testing positive increased among persons 0–4 years and 5–17 years but decreased among all other age groups (18-49 years, 50-64 years, and 65+ years).



\*Note: 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.

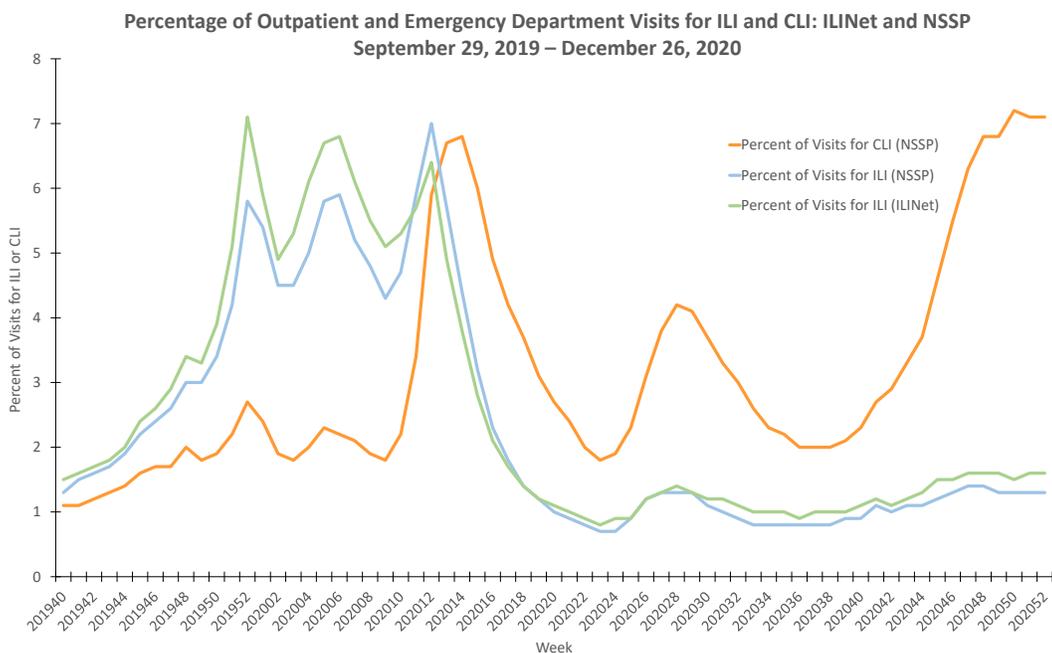
The percentage of specimens testing positive for SARS-CoV-2 increased in five regions (Region 2 [New Jersey/New York/Puerto Rico], Region 3 [Mid-Atlantic], Region 4 [Southeast], Region 6 [South Central] and Region 7 [Central]) during week 52 compared with week 51. The remaining five regions reported a decrease in the percentage of specimens testing positive.

**Additional virologic surveillance information:** [Surveillance Methods](#)

## Outpatient/Emergency Department Illness

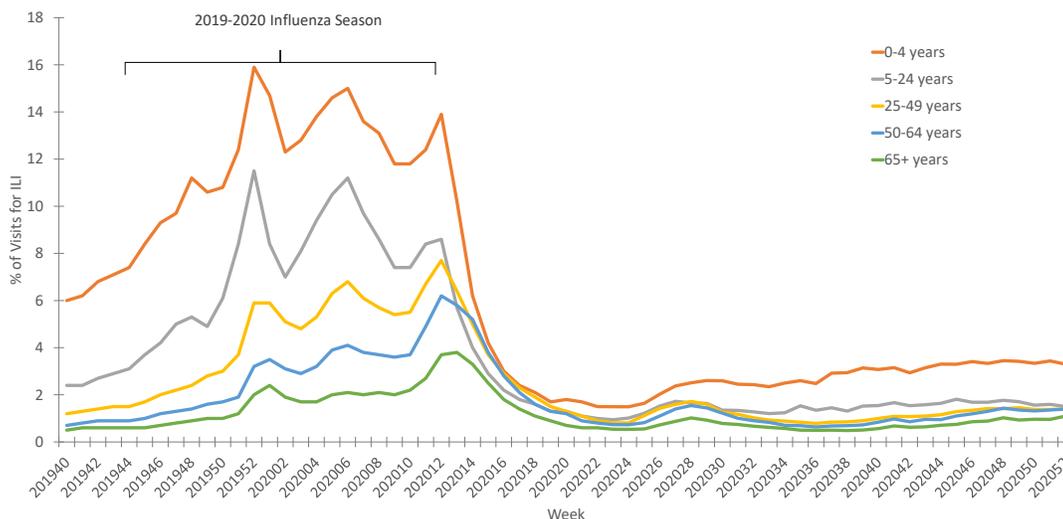
Two syndromic surveillance systems, the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) and the National Syndromic Surveillance Project (NSSP), are being used to monitor trends in outpatient and emergency department (ED) visits that may be associated with COVID-19 illness. Each system monitors activity in a slightly different set of providers/facilities and uses a slightly different set of symptoms that may be associated with SARS-CoV-2 virus infection. 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. Syndromic data, including CLI and ILI, should be interpreted with caution and should be evaluated in combination with other sources of surveillance data, especially laboratory testing results, to obtain a complete and accurate picture of respiratory illness.

Nationally, the overall percentages of visits to outpatient providers or EDs for ILI and CLI remained stable (change of  $\leq 0.1\%$ ) during week 52 compared with week 51. During week 52, the percentages of ED visits captured in NSSP for CLI and ILI were 7.1% and 1.3%, respectively. In ILINet, 1.6% of visits reported during week 52 were for ILI, also remaining stable (change of  $\leq 0.1\%$ ) compared with week 51 and below the [national baseline](#) (2.4% for October 2019 through September 2020; 2.6% since October 2020) for the 37<sup>th</sup> consecutive week. This level of ILI is lower than is typical for ILINet during this time of year.



The percentages of visits for ILI reported in ILINet in week 52 remained stable (change of  $\leq 0.1\%$ ) compared with week 51 for all age groups (0–4 years, 5–24 years, 25–49 years, 50–64 years, 65 years and older). During the past four weeks, the percentage of visits for ILI decreased slightly among those 5–24 years and increased slightly among those 65 years and older.

Percentage of Visits for Influenza-Like Illness (ILI)  
Reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet),  
Weekly National Summary, September 29, 2019 – December 26, 2020



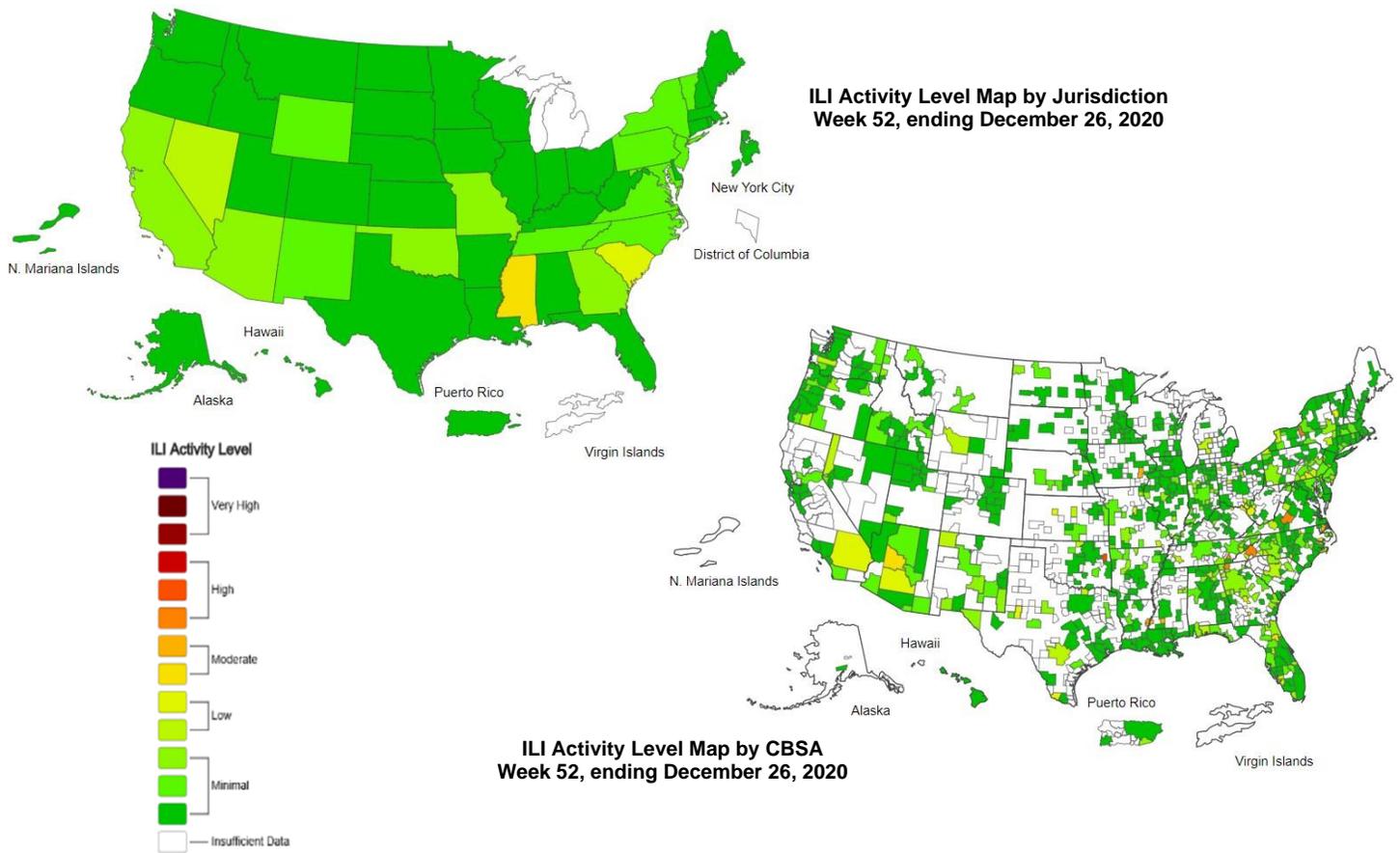
On a [regional level](#), three regions (Region 2 [New Jersey/New York/Puerto Rico], Region 4 [Southeast], Region 6 [South Central]) reported an increase in at least one indicator of mild to moderate illness (CLI and/or ILI) during week 52 compared with week 51; the remaining seven regions reported a stable (change of  $\leq 0.1\%$ ) or decreasing level of mild to moderate illness. The percentage of visits for ILI to ILINet providers remained below [the region-specific baseline](#) in all 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, 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 52 and the previous week are summarized in the table below.

Activity Level	Number of Jurisdictions		Number of CBSAs	
	Week 52 (Week ending Dec. 26, 2020)	Week 51 (Week ending Dec. 19, 2020)	Week 52 (Week ending Dec. 26, 2020)	Week 51 (Week ending Dec. 19, 2020)
Very High	0	0	0	1
High	0	0	3	5
Moderate	1	1	9	8
Low	2	0	49	50
Minimal	49	54	531	554
Insufficient Data	3	0	337	311



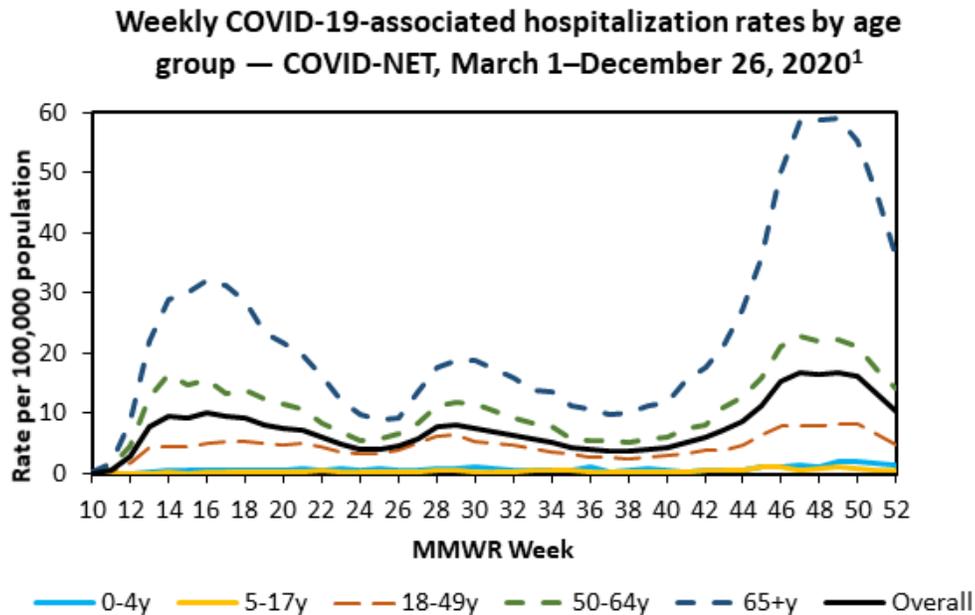
\*Note: Data collected in ILINet may disproportionately represent certain populations within a state and may not accurately depict the full picture of respiratory disease activity for the whole state. Differences in the data presented here by CDC and independently by some state health departments likely 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).

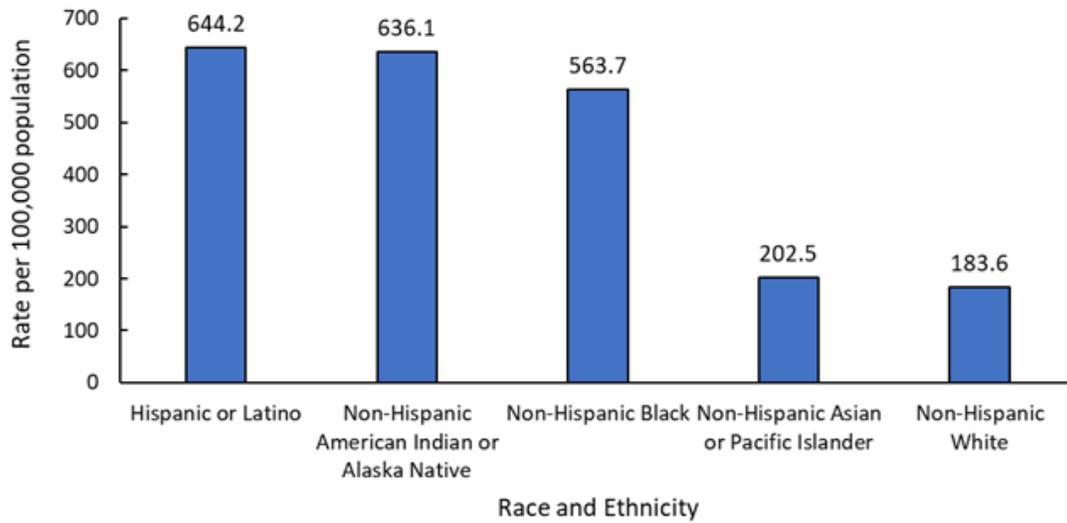
A total of 106,532 laboratory-confirmed COVID-19-associated hospitalizations were reported by sites between March 1, 2020 and December 26, 2020. The overall cumulative hospitalization rate was 326.7 per 100,000 population. The overall weekly hospitalization rate reached its highest point at 16.9 per 100,000 during the week ending December 5, 2020 (Week 49) and remains elevated. Rates in recent weeks have declined but these rates are likely to change as additional data are reported for those weeks.



<sup>1</sup>[Additional hospitalization rate data](#) by age group are available.

Among the 106,532 laboratory-confirmed COVID-19-associated hospitalizations, 103,104 (96.8%) had information on race and ethnicity, while collection of race and ethnicity was still pending for 3,428 (3.2%) cases. When examining overall cumulative age-adjusted rates by race and ethnicity, the rate for Hispanic or Latino persons and non-Hispanic American Indian or Alaska Native persons was 3.5 times that of non-Hispanic White persons, and the rate for non-Hispanic Black persons was approximately 3.1 times that of non-Hispanic White persons.

### Age-adjusted COVID-19-associated hospitalization rates by race and ethnicity — COVID-NET, March 1–December 26, 2020



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 4.7 times higher among Hispanic or Latino persons aged 0–17 years; 6.2 times higher among non-Hispanic American Indian or Alaska Native or Latino persons aged 18–49 years; 4.4 times higher among non-Hispanic American Indian or Alaska Native persons aged 50–64 years; and 2.4 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–December 26, 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 <sup>1</sup>	Rate Ratio <sup>2,3</sup>	Rate <sup>1</sup>	Rate Ratio <sup>2,3</sup>	Rate <sup>1</sup>	Rate Ratio <sup>2,3</sup>	Rate <sup>1</sup>	Rate Ratio <sup>2,3</sup>	Rate <sup>1</sup>	Rate Ratio <sup>2,3</sup>
0–17 years	29.2	3.2	31.5	3.5	42.9	<b>4.7</b>	13.4	1.5	9.1	1.0
18–49 years	463.4	<b>6.2</b>	304.4	4.1	442.1	5.9	102.3	1.4	75.1	1.0
50–64 years	1042.2	<b>4.4</b>	864.7	3.6	1035.5	4.3	305.4	1.3	238.7	1.0
65+ years	1497.2	2.1	1700.2	<b>2.4</b>	1630.5	2.3	652.9	0.9	705.0	1.0
Overall rate <sup>4</sup> (age-adjusted)	636.1	3.5	563.7	3.1	644.2	<b>3.5</b>	202.5	1.1	183.6	1.0

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> The highest rate ratio in each age category is presented in **bold**.

<sup>4</sup> 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, 65–74, 75–84 and 85+ years.

Non-Hispanic White persons and non-Hispanic Black 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 hospitalizations 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–December 26, 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 <sup>1</sup>	1.2%	27.3%	20.9%	5.2%	39.5%
Proportion of population in COVID-NET catchment area	0.7%	17.9%	14.1%	8.9%	58.5%
Prevalence ratios <sup>2</sup>	1.7	1.5	1.5	0.6	0.7

<sup>1</sup> Persons of multiple races (0.3%) or unknown race and ethnicity (5.6%) are not represented in the table but are included as part of the denominator.

<sup>2</sup> 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–September 30, 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 15,401 sampled adults hospitalized during March 1–September 30 with information on underlying medical conditions, 90.0% had at least one reported underlying medical condition. The most reported underlying medical conditions were hypertension (56.3%), obesity (48.2%), metabolic disease (42.0%), and cardiovascular disease (32.7%). Among 808 children hospitalized during March 1–September 30 with information on underlying medical conditions, 51.5% had at least one reported underlying medical condition. The most reported underlying medical conditions were obesity (38.4%), neurologic disease (12.9%), and asthma (10.9%).

[Additional data](#) on demographics, signs and symptoms at admission, underlying medical 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](#)

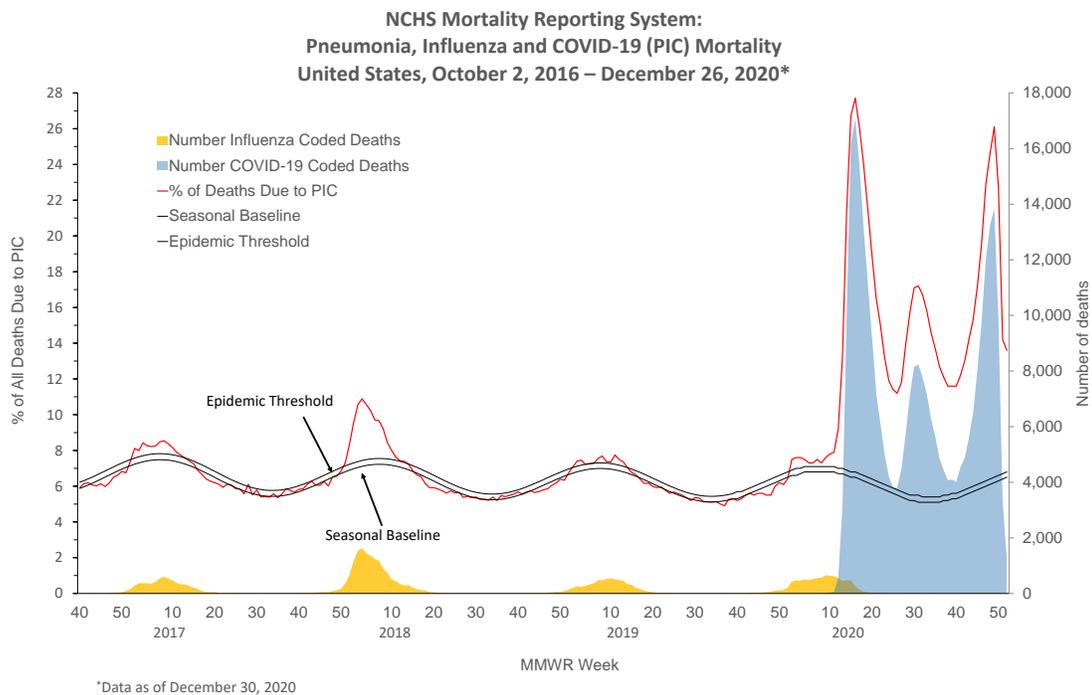
**Mortality Surveillance**

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 December 30, 2020, the percentage of deaths attributed to pneumonia, influenza, or COVID-19 (PIC) for week 52 was 13.6% and, while it declined compared with the percentage during week 51 (14.2%), it remains above the epidemic threshold of 6.8% and is expected to increase as more death certificates are processed. Among the 1,848 PIC



deaths reported for week 52, 1,215 had COVID-19 listed as an underlying or contributing cause of death on the death certificate and three listed influenza, indicating that the current increase in PIC mortality is due primarily to COVID-19 and not influenza.

The weekly percentage of deaths due to PIC increased for nine weeks from early October through the beginning of December to a level that is higher than the July peak. Data for the most recent three weeks currently show a decline, but 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. Because of the large number of deaths reported in recent weeks and the holidays, the delay in availability of manually coded records may be longer than usual.



\*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: December 31, 2020

Detailed data tables are available on the [COVIDView page](#).

