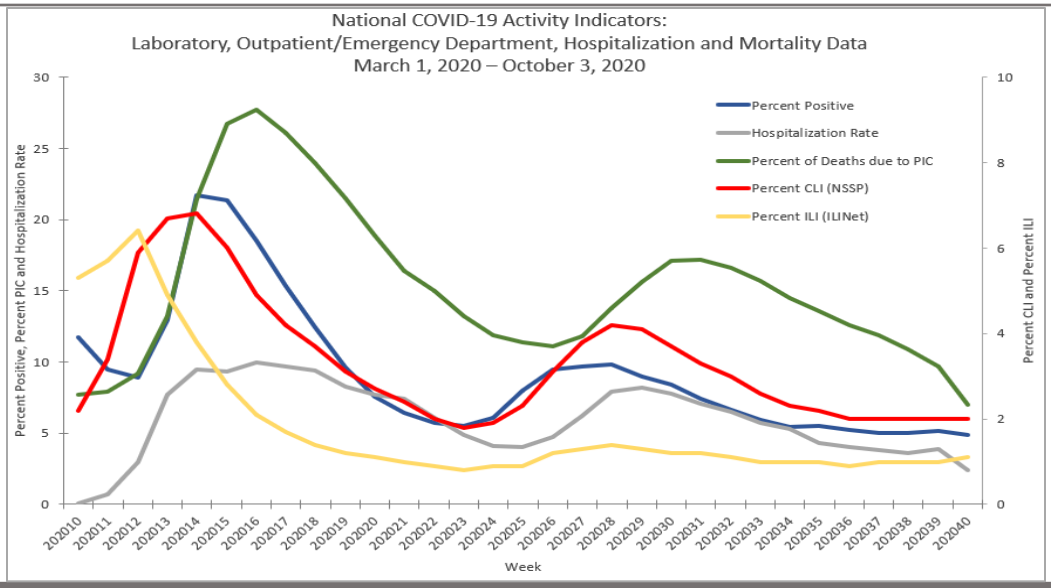
COVIDView

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

Key Updates for Week 40, ending October 3, 2020

Nationally, indicators that track COVID-19 activity continued to decline or remain stable (change of ≤0.1%). However, one region reported a slight increase in the percentage of specimens testing positive for SARS-CoV-2 and four regions reported slight increases in the percentage of visits for influenza-like illness (ILI). Mortality attributed to COVID-19 declined but remains above the epidemic threshold.



Virus: Public Health, Commercial and Clinical Laboratories

Nationally, the percentage of respiratory specimens testing positive for SARS-CoV-2, the virus causing COVID-19, decreased from 5.2% during week 39 to 4.9% during week 40. Percent positivity increased slightly among those aged 5-17 years and those 65 years and older; percent positivity in the other age groups remained stable or declined. Regionally, the percentage of respiratory specimens testing positive for SARS-CoV-2 increased slightly in Region 4 (Southeast) and remained stable or decreased in the remaining nine 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 remained stable (change or ≤0.1%) from week 39 to week 40; however, the percentage of visits for ILI to ILINet providers increased in those 50-64 years while remaining stable among the other age groups. Compared to week 39, the percentage of visits to EDs for ILI or CLI remained stable or declined in all ten regions. However, three regions reported slight increases in the percentage of visits for ILI to ILINet providers.

Severe Disease: Hospitalizations and Deaths

The weekly COVID-19-associated hospitalization rate reported through COVID-NET has remained steady among all age groups in recent weeks. Based on death certificate data, the percentage of deaths attributed to pneumonia, influenza, or COVID-19 (PIC) for week 40 is 7.0% 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.

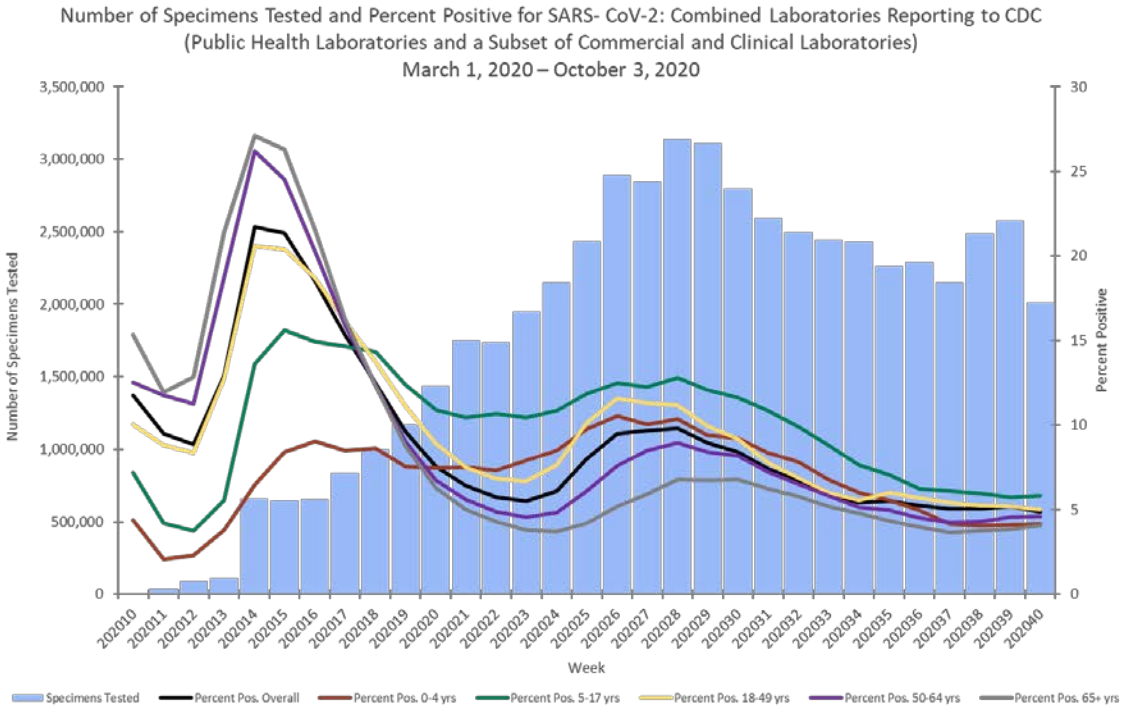
Key Points

- Nationally, the percentage of deaths due to pneumonia, influenza, or COVID-19 (PIC) has 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 percentage of visits to EDs or outpatient providers for ILI and CLI, and COVID-19-associated hospitalization rates) have remained stable during this same period. In contrast, there was a decreasing trend in all these COVID-19 indicators from mid-July through August.
- Peak COVID-19 activity and trends have varied regionally with three general patterns:
    i. The Northeast (Region 1), New Jersey/New York/Puerto Rico (Region 2), the Mid-Atlantic (Region 3) and the Midwest (Region 5) regions, reported the highest levels of COVID-19 activity in April. Activity declined through June and July and remained stable until recent weeks when some indicators have shown slight increases.
    ii. The Central (Region 7), Mountain (Region 8) and Pacific Northwest (Region 10) regions also reported the highest levels of COVID-19 activity in April. After several weeks of decline, these regions reported increases in activity during the summer but relatively stable activity recently. The exception is the Pacific Northwest which reported some recent increases in activity.
    iii. The Southeast (Region 4), South Central (Region 6) and the South/West Coast (Region 9) regions experienced a different pattern of COVID-19 activity with the highest levels occurring in July. Activity has declined since the July peak and has been primarily stable for the past several weeks; however, during the most recent weeks, some indicators are showing a slight increase.
- The overall cumulative COVID-19-associated hospitalization rate through the week ending October 3, 2020 was 183.2 per 100,000 population.
    - Following an initial decline of hospitalization rates between the weeks ending July 25 (MMWR week 30) and August 22 (MMWR week 34), weekly hospitalization rates have remained steady among all age groups. 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 4.6 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 4.5 times that 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, 56,235,035 specimens have been 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 40, 2,014,912 specimens were tested for SARS-CoV-2 for diagnostic purposes and 98,338 (4.9%) were positive. This is decreased compared with week 39, during which 5.2% of specimens tested were positive. The percentage of specimens testing positive increased slightly in those aged 5-17 years and those 65 years and older while remaining stable or decreasing in all other age groups.



*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.

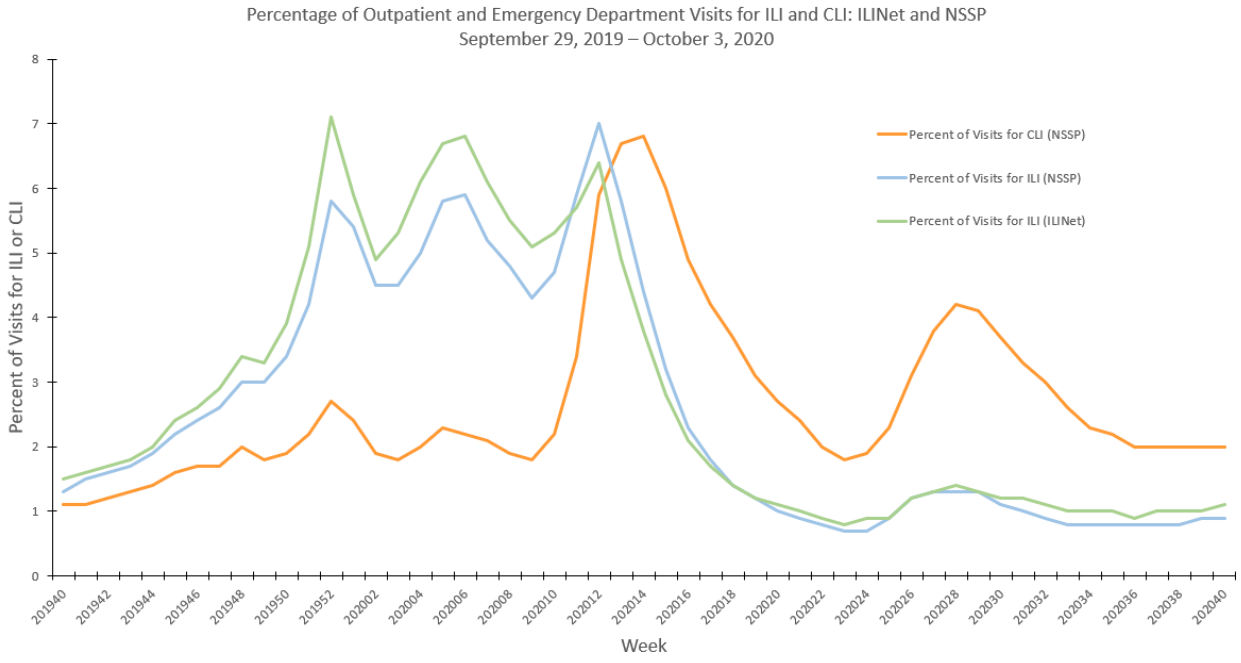
Despite the overall national decline in percent positivity, the percentage of specimens testing positive increased in Region 4 (Southeast). This increase was reported among those 5-17 years, 50-64 years and 65 years and older. The highest percentage of specimens testing positive for SARS-CoV-2 were seen in Regions 4 (Southeast, 6.7%), 6 (South Central, 7.7%), 7 (Central, 9.0%) and 8 (Mountain, 7.2%) and is decreasing in the latter three regions.

Additional virologic surveillance information: Surveillance Methods

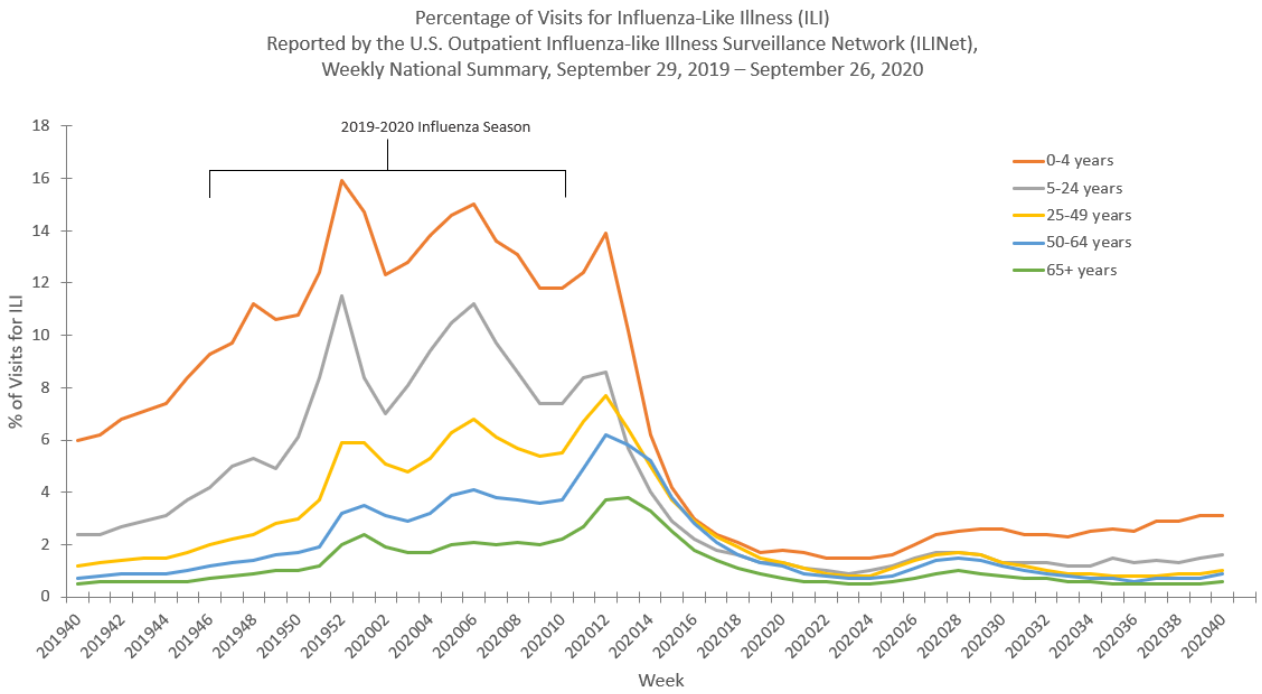
Outpatient/Emergency Department Illness

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 remained stable (change of ≤0.1%) from week 39 to week 40, with 2.0% and 0.9% of ED visits captured in NSSP being for CLI and ILI, respectively and 1.1% 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 24th consecutive week and is at levels that are typical for this time of year.



Compared with week 39, the percentage of ILI visits to ILINet providers increased in those 50-64 years while remaining stable (change of ≤0.1%) among other age groups.



On a regional level, the percentage of visits to EDs for ILI or CLI remained stable (change of ≤0.1%) from week 39 to week 40 in all ten regions. The percentage of visits for ILI to ILINet providers increased slightly from week 39 to week 40 in four regions (Regions 2 [New Jersey/New York/Puerto Rico], 6 [South Central], 9 [South/West Coast] and 10 [Pacific Northwest]) but remained below the region-specific baseline in all 10 regions. When compared to the percentage of visits to EDs or outpatient providers two weeks ago, an additional five regions (Regions 1 [New England], 3 [Mid-Atlantic], 4 [Southeast], 7 [Central] and 8 [Mountain]) reported an increase in the percentage of visits for CLI or ILI during week 40.

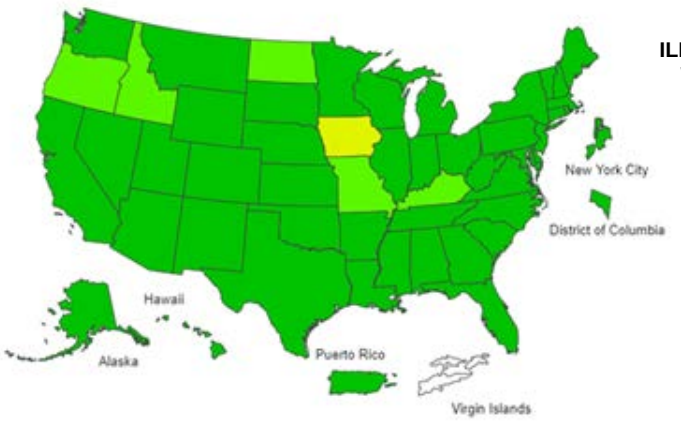
ILI Activity Levels

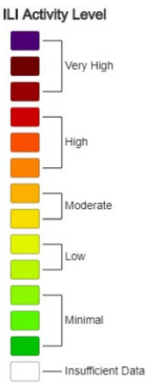
Data collected in ILINet are used to produce a measure of ILI activity for all 50 states, Puerto Rico, the U.S. Virgin Islands, the District of Columbia, and New York City and for each core-based statistical area (CBSA) where at least one provider is located. The mean reported percentage of visits due 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 40 and the previous week are summarized in the table below.

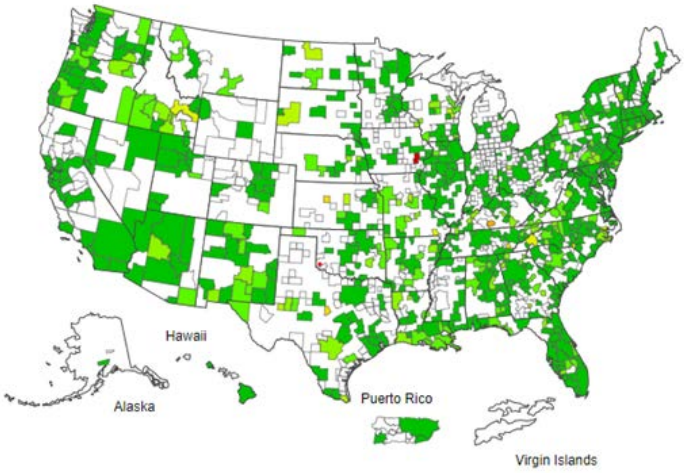
Activity Level	Number of Jurisdictions		Number of CBSAs	
	Week 40 (Week ending Oct. 3, 2020)	Week 39 (Week ending Sept. 26, 2020)	Week 40 (Week ending Oct. 3, 2020)	Week 39 (Week ending Sept. 26, 2020)
Very High	0	0	0	0
High	0	1	1	2
Moderate	0	1	4	3
Low	1	0	14	20
Minimal	52	49	569	523
Insufficient Data	1	3	341	381

ILI Activity Level Map by Jurisdiction
Week 40, ending October 3, 2020





ILI Activity Level Map by CBSA
Week 40, ending October 3, 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.

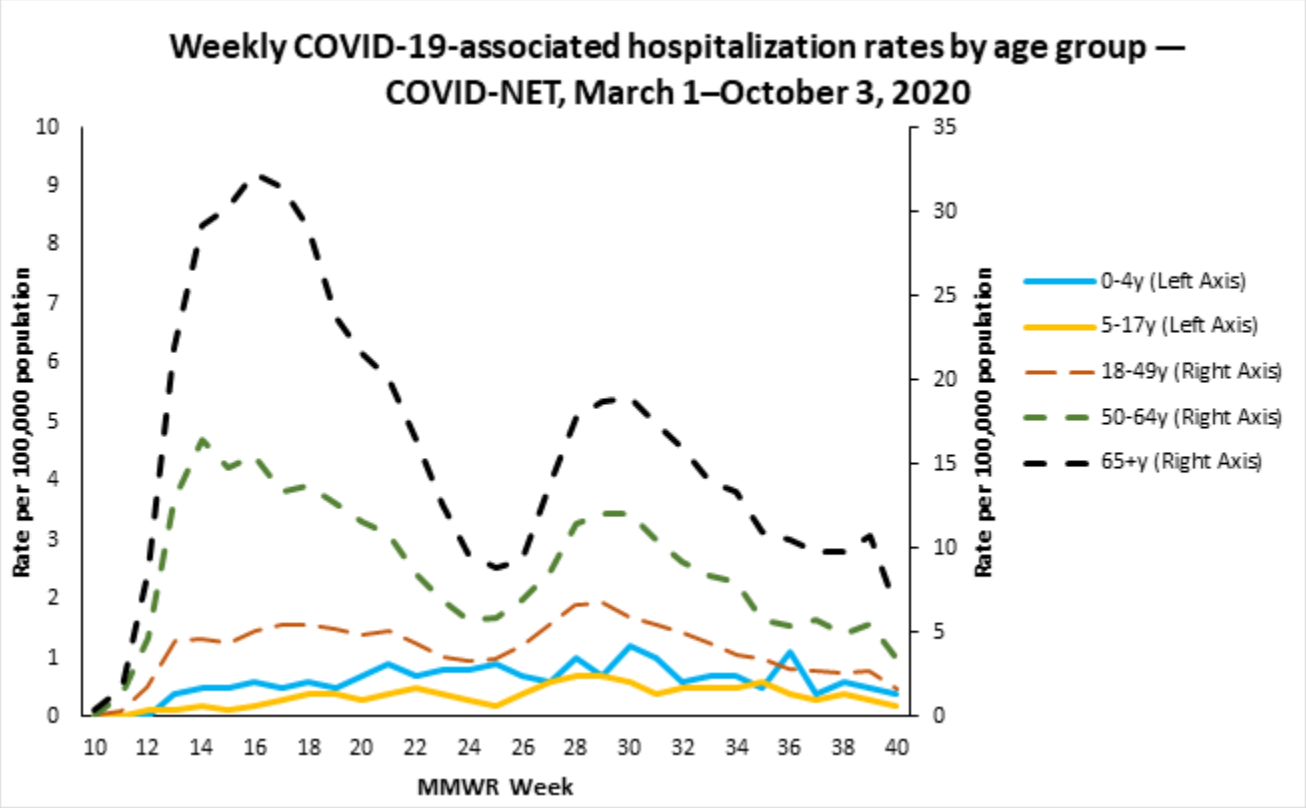
Additional information about medically attended outpatient and emergency department visits for ILI and CLI: Surveillance Methods

Hospitalizations

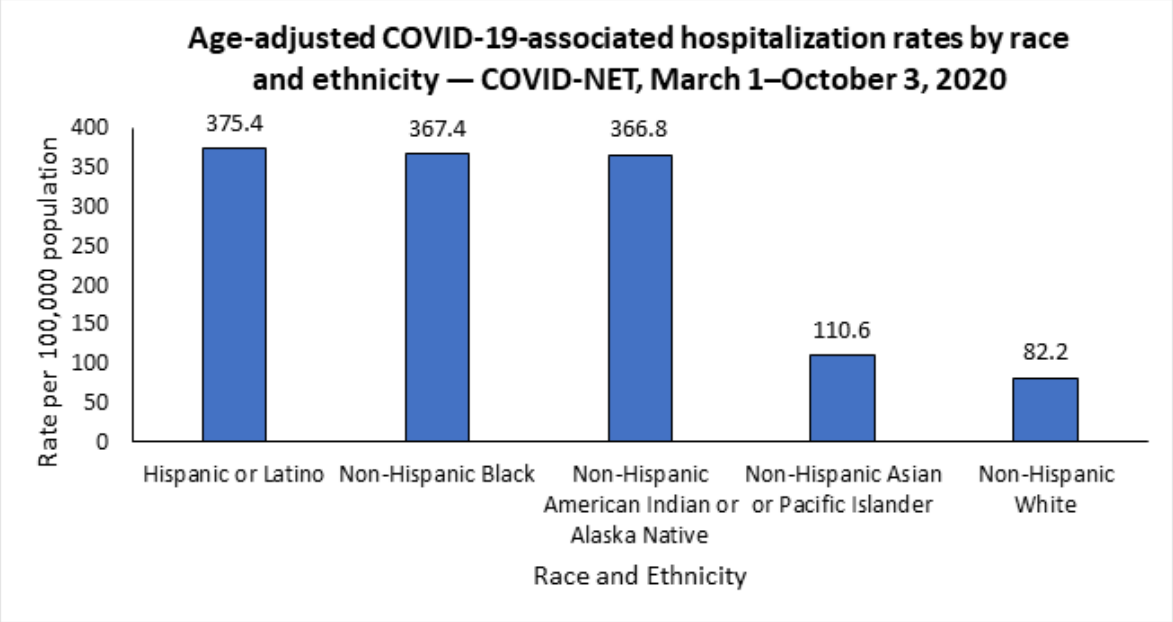
The COVID-19-Associated Hospitalization Surveillance Network (COVID-NET) conducts population-based surveillance for laboratory-confirmed COVID-19-associated hospitalizations in select counties participating in the Emerging Infections Program (EIP) and the Influenza Hospitalization Surveillance Project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

A total of 59,728 laboratory-confirmed COVID-19-associated hospitalizations were reported by sites between March 1, 2020 and October 3, 2020. The overall cumulative hospitalization rate was 183.2 per 100,000 population.

Overall weekly hospitalization rates among all ages 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 have remained steady for all age groups. Data for the most recent weeks may change as additional admissions occurring during those weeks are reported.



Among the 59,728 laboratory-confirmed COVID-19-associated hospitalizations, 56,327 (94.3%) had information on race and ethnicity, while collection of race and ethnicity was still pending for 3,401 (5.7%) cases. When examining overall age-adjusted rates by race and ethnicity, the rate for Hispanic or Latino persons was approximately 4.6 times the rate among non-Hispanic White persons. Rates for both non-Hispanic Black persons and non-Hispanic American Indian or Alaska Native persons were approximately 4.5 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 7.3 times higher among Hispanic or Latino persons aged 0–17 years; 8.2 times higher among Hispanic or Latino persons aged 18–49 years; 6.1 times higher among non-Hispanic American Indian or Alaska Native persons aged 50–64 years; and 3.6 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 3, 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	3.3	19.4	5.4	26.1	**7.3**	7.0	1.9	3.6	1
18–49 years	276.1	7.8	200.9	5.6	290.6	**8.2**	58.8	1.7	35.6	1
50–64 years	677.9	**6.1**	561.0	5.1	623.9	5.6	175.0	1.6	110.6	1
65+ years	740.2	2.4	1104.9	**3.6**	826.3	2.7	338.1	1.1	305.7	1
Overall rate[4](age-adjusted)	366.8	4.5	367.4	4.5	375.4	**4.6**	110.6	1.3	82.2	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 hospitalizations 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 3, 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%	32.6%	23.1%	5.2%	32.3%
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 (5.1%) 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 7,897 sampled adults hospitalized during March 1–May 31 with information on underlying medical conditions, 91.0% reported at least one underlying medical condition. The most reported underlying medical conditions were hypertension, obesity, metabolic disease, and cardiovascular disease. Among 247 children hospitalized during March 1–May 31 with information on underlying conditions, 53.0% reported at least one underlying medical condition. The most reported underlying medical conditions were obesity, asthma, and neurologic disease.

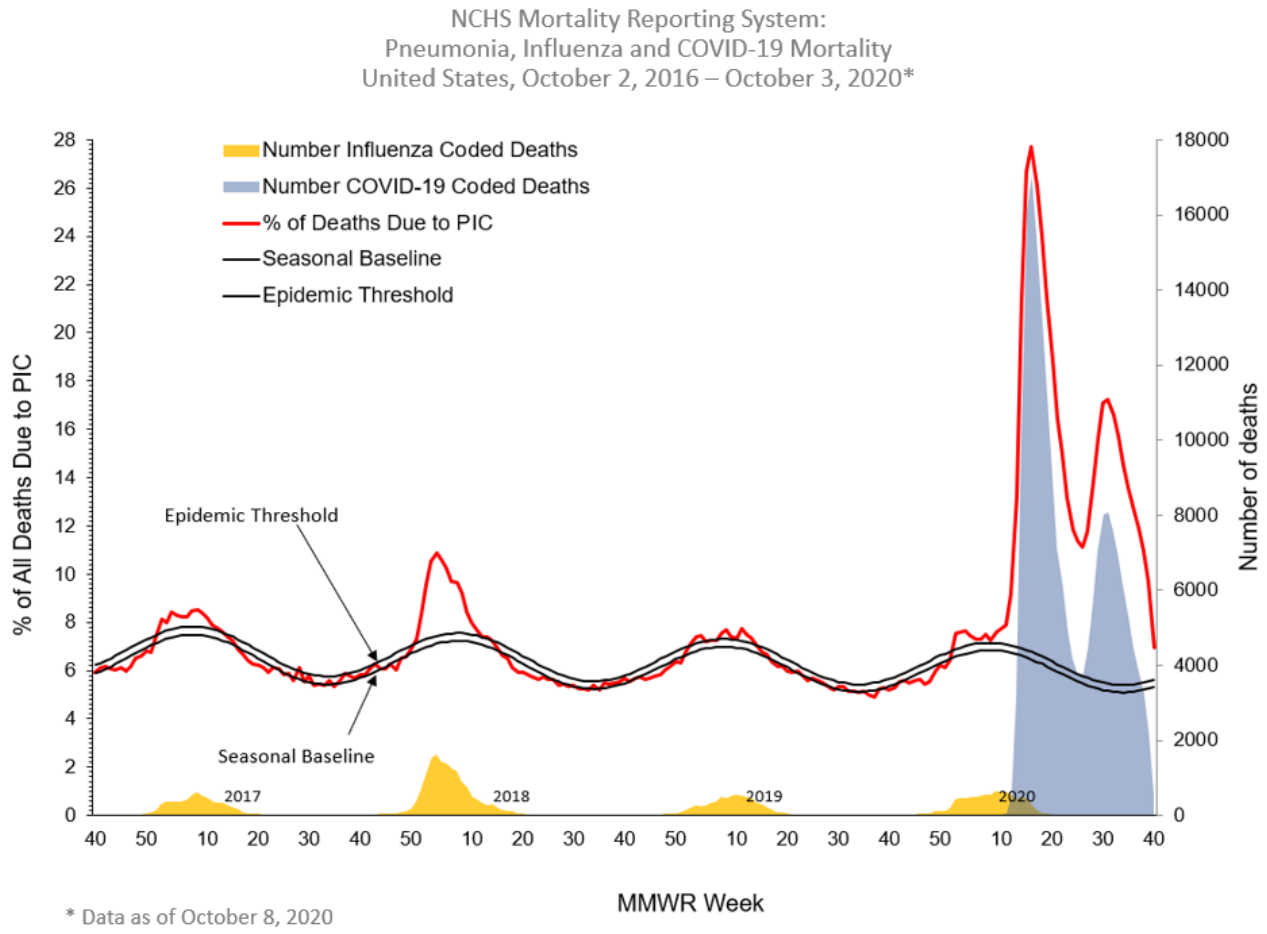
Additional data on demographics, signs and symptoms at admission, underlying conditions, interventions, outcomes and discharge diagnoses, stratified by age, sex and race and ethnicity, are available.

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 8, 2020, the percentage of deaths attributed to pneumonia, influenza, or COVID-19 (PIC) for week 40 is 7.0% and, while lower than the percentage during week 39 (9.7%), 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. Percentages of deaths due to PIC are 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 8, 2020

Detailed data tables are available on the COVIDView page