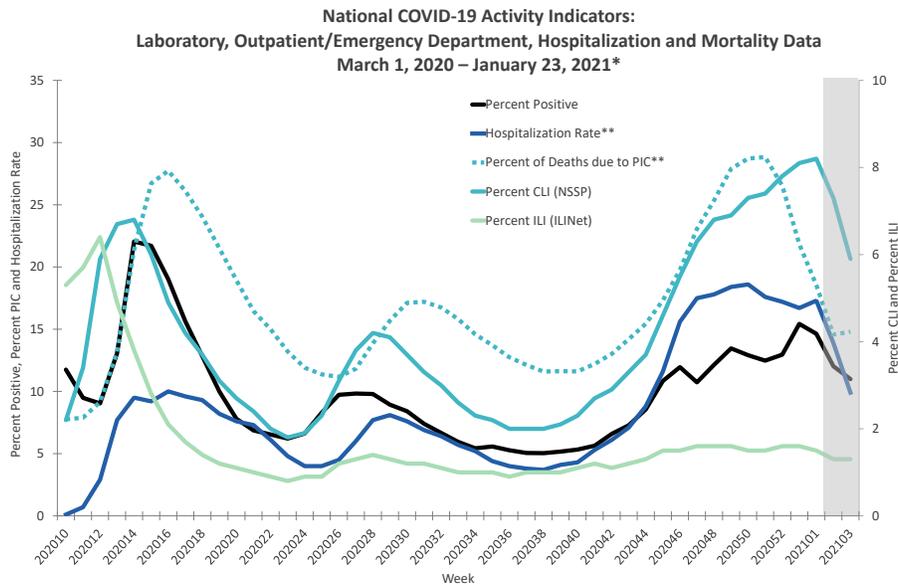# COVIDView
A Weekly Surveillance Summary of U.S. COVID-19 Activity

Key Updates for Week 3, ending January 23, 2021

Nationally, surveillance indicators tracking levels of SARS-CoV-2 circulation, associated illnesses, and hospitalizations remain elevated but show decreasing trends in recent weeks. However, recent declines in these indicators should be interpreted with caution as reporting delays increased due to the holidays and a rise in the number of COVID-19 illnesses. Both COVID-19-associated hospitalizations and pneumonia, influenza and COVID-19 (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 – January 23, 2021*

*Data are preliminary and may change as more reports are received.
**The percentage of deaths due to PIC and the hospitalization rate 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 from 12.0% during week 2 to 11.0% during week 3. Percent positivity decreased in all ten Health and Human Services (HHS) regions and decreased among all age groups.

Mild/Moderate Illness: Outpatient and Emergency Department Visits

Nationally, the percentage of visits to outpatient providers or emergency departments (EDs) decreased for COVID-like illness (CLI) and remained stable (change ≤0.1%) for influenza-like illness (ILI) during week 3 compared with week 2. All ten HHS regions reported a decreasing level of CLI and a low level of ILI.

Severe Disease: Hospitalizations and Deaths

For the past two months, the overall weekly hospitalization rate has remained in an elevated plateau above earlier peaks in the pandemic. Rates in recent weeks are likely to increase as additional data are reported. Based on death certificate data, the percentage of deaths attributed to pneumonia, influenza or COVID-19 (PIC) for week 3 was 14.8%, and it remains above the epidemic threshold. Longer delays in reporting of hospitalization and mortality data may occur due to the holidays and the large number of COVID-19 illnesses occurring in recent weeks.

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.
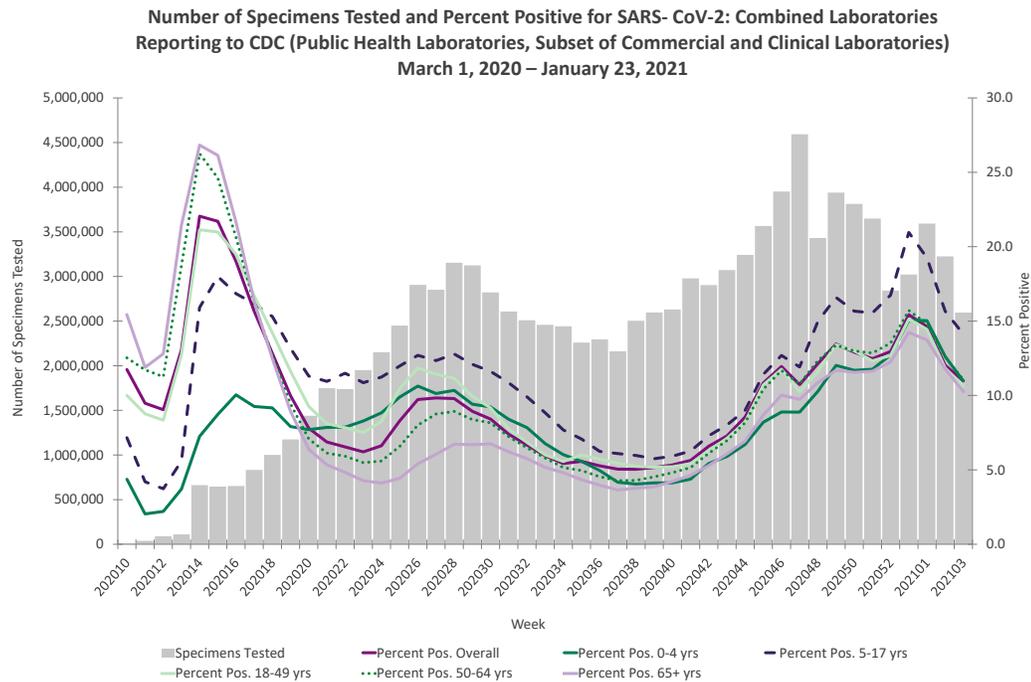
Key Points

o The holidays at the end of 2020 coupled with the large number of COVID-19 illnesses during that time likely affected data reporting and health care seeking behavior with continued effects on data reporting and processing during recent weeks. Data from recent weeks should be interpreted with caution because they may change more than usual as additional data are received.

o Nationally, the overall percentage of respiratory specimens testing positive for SARS-CoV-2 decreased during week 3 (11.0%) compared with week 2 (12.0 %). Percent positivity decreased in all ten HHS regions.

   o Percent positivity decreased among all age groups in nine of ten HHS regions; for Region 2 (New Jersey/New York/Puerto Rico) the percent positivity increased slightly for one age group (5-17 years).

   o For nine of ten HHS regions, (Regions 2 [New Jersey/New York/Puerto Rico], 3 [Mid-Atlantic], 4 [Southeast], 5 [Midwest], 6 [South Central], 7 [Central], 8 [Mountain], 9 [South/West Central] and 10 [Pacific Northwest]), percent positivity decreased over the past three weeks.

   o Percent positivity in Region 1 [New England] is showing a 2 week decline.

o Surveillance indicators of mild to moderate illness at the national level declined or remained stable (<0.1% change) during recent weeks. CLI decreased during the past two weeks after increasing from late September 2020 through early January 2021. ILI increased from late September through November 2020, remained stable through December, and has shown a decreasing trend during January.

   o All ten HHS regions reported a decrease in at least one indicator of mild to moderate illness (CLI and/or ILI) during week 3 compared with week 2 and six HHS regions (Regions 1 [New England], 3 [Mid-Atlantic], 4 [Southeast], 5 [Midwest], 9 [South/West Coast], and 10 [Pacific Northwest]) have reported a decreasing trend in all three indicators for at least two weeks.

o The overall cumulative COVID-19-associated hospitalization rate through the week ending January 23, 2020, was 403.0 hospitalizations per 100,000 population.

   o For the past two months, the overall weekly hospitalization rate has remained in an elevated plateau above earlier peaks in the pandemic. Rates in recent weeks are likely to increase as additional data are reported.

   o When examining age-adjusted hospitalization rates by race and ethnicity, compared with non-Hispanic White persons, cumulative hospitalization rates were 3.6 times higher among non-Hispanic American Indian or Alaska Native persons; 3.2 times higher among Hispanic or Latino persons; and 2.9 times higher among non-Hispanic Black persons.

o The percentage of deaths due to PIC increased from the beginning of October through the week ending December 19, 2020 (28.8%). Mortality attributed to PIC exceeded the percentage of deaths due to PIC observed at any other point during the pandemic for three consecutive weeks in December.

   o Nationally, the trend in the weekly percentage of deaths due to PIC increased from week 2 (14.6%) to week 3 (14.8%) after decreasing since mid-December. Data for these weeks are expected to increase as additional death certificates are processed. Due to the large number of deaths reported in recent weeks and during the holidays, the change may be larger than usual.

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, 111,632,386 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, 285,251 (11.0%) of 2,595,553 specimens tested for SARS-CoV-2 for diagnostic purposes were positive during week 3. This is a decrease compared with week 2, during which 12.0% of specimens tested were positive. The percentage of specimens testing positive decreased among all age groups.

Number of Specimens Tested and Percent Positive for SARS- CoV-2: Combined Laboratories Reporting to CDC (Public Health Laboratories, Subset of Commercial and Clinical Laboratories) March 1, 2020 – January 23, 2021

*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.

During week 3 compared with week 2, the percentage of specimens testing positive for SARS-CoV-2 decreased in all HHS regions.
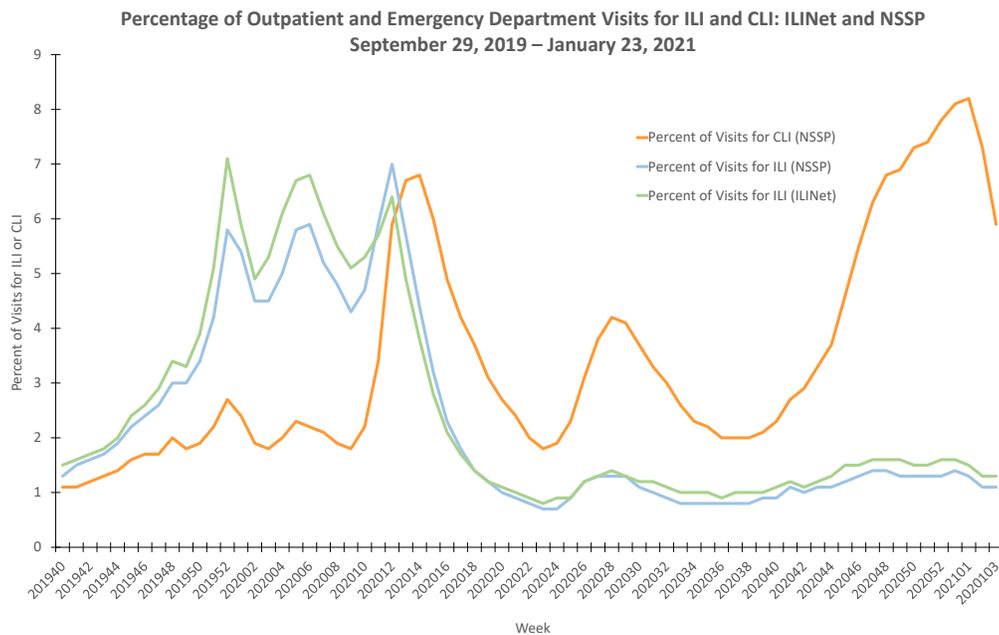
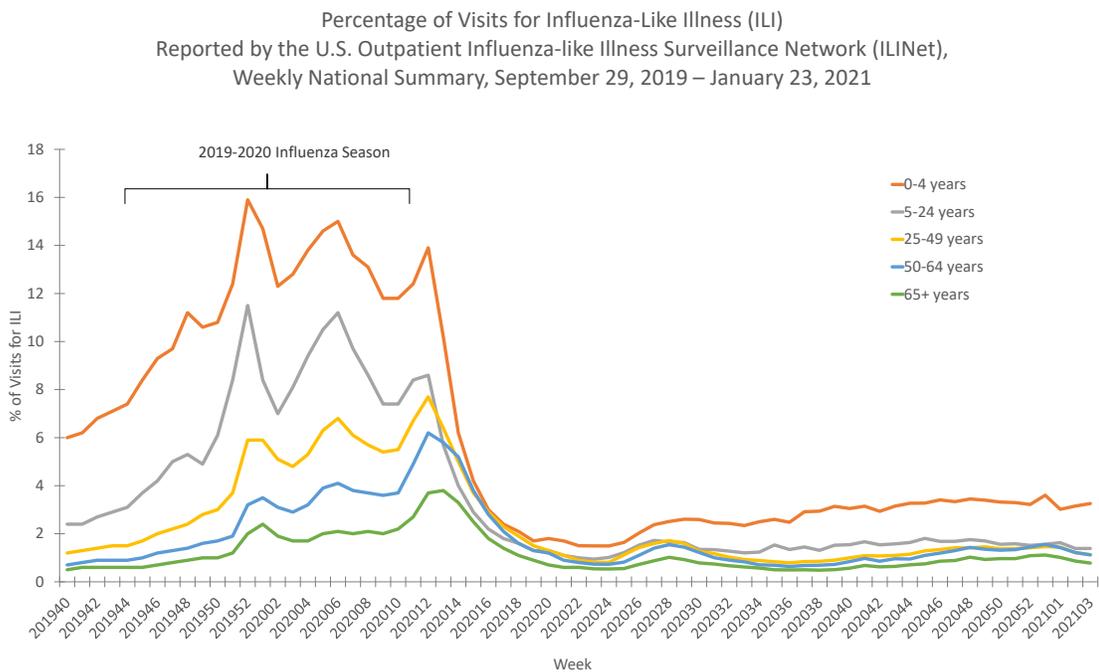**Additional virologic surveillance information:** Surveillance Methods

Outpatient/Emergency Department Illness

Two syndromic surveillance systems, the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) and the National Syndromic Surveillance Program (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 currently are 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. 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 decreased for CLI and remained stable (change ≤0.1%) for ILI during week 3 compared with week 2. During week 3, the percentages of ED visits captured in NSSP for CLI and ILI were 5.9% and 1.1%, respectively. In ILINet, 1.3% of visits reported during week 3 were for ILI, remaining stable compared with week 2 and below the national baseline for the 41st consecutive week. This level of ILI is lower than is typical for ILINet during this time of year.

Percentage of Outpatient and Emergency Department Visits for ILI and CLI: ILINet and NSSP
September 29, 2019 – January 23, 2021

The percentages of visits for ILI reported in ILINet in week 3 remained stable (change of ≤0.1%) for all age groups (0–4 years, 5–24 years, 25–49 years, 50–64 years, and 65 years and older) compared with week 2.

Percentage of Visits for Influenza-Like Illness (ILI)
Reported by the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet),
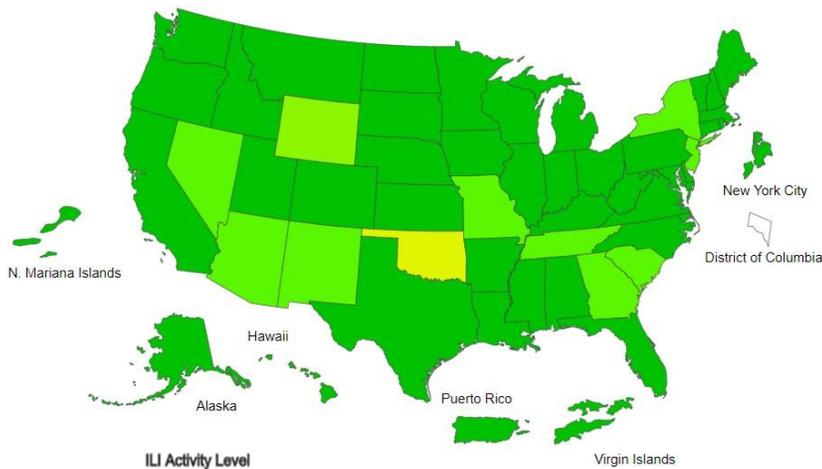Weekly National Summary, September 29, 2019 – January 23, 2021

On a regional level, during week 3 compared with week 2, all ten regions reported a decreasing level of CLI and eight regions (Regions 1 [New England], 3 [Mid-Atlantic], 4 [Southeast], 5 [Midwest], 7 [Central], 8 [Mountain], 9 [South/West Coast], and 10 [Pacific Northwest]) reported a stable (change of ≤0.1%) or decreasing level or ILI.
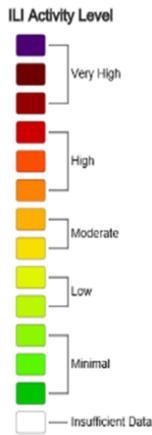
ILI Activity Levels
Data collected in ILINet are used to produce a measure of ILI activity for all 50 states, Puerto Rico, the U.S. Virgin Islands, the District of Columbia, New York City and for each core-based statistical area (CBSA) where at least one provider is located. The mean reported percentage 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 3 and the previous week are summarized in the table below.

Activity Level	Number of Jurisdictions		Number of CBSAs	
	Week 3 (Week ending Jan. 23, 2021)	Week 2 (Week ending Jan. 16, 2021)	Week 3 (Week ending Jan. 23 2021)	Week 2 (Week ending Jan. 16, 2021)
Very High	0	0	0	0
High	0	0	3	2
Moderate	0	0	4	5
Low	1	0	26	31
Minimal	53	54	584	588
Insufficient Data	1	1	312	303

ILI Activity Level Map by Jurisdiction
Week 3, ending January 23 ,2021

ILI Activity Level Map by CBSA
Week 3, ending January 23, 2021
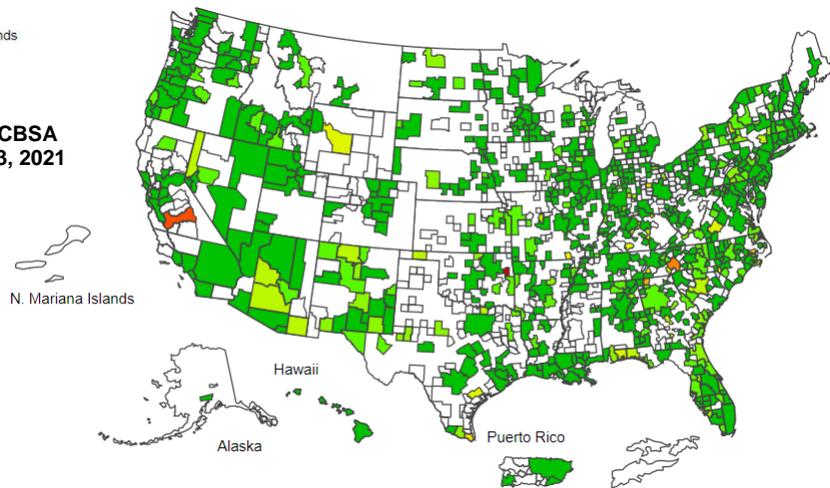
*Note: Data collected in ILINet may disproportionally represent certain populations within a state and may not accurately depict the full picture of respiratory disease activity for the whole state. Differences in the data presented here by CDC and independently by some state health departments likely 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 131,384 laboratory-confirmed COVID-19-associated hospitalizations were reported by sites between March 1, 2020, and January 23, 2021. The overall cumulative hospitalization rate was 403.0 per 100,000 population. For the past two months, since the week ending November 7, 2020 (MMWR Week 45), the overall weekly hospitalization rate has remained in an elevated plateau above earlier peaks in the pandemic. The hospitalization rates for the most recent weeks are expected to be higher as additional data are reported.

Weekly COVID-19-associated hospitalization rates by age group — COVID-NET, March 1, 2020–January 23, 2021[1]
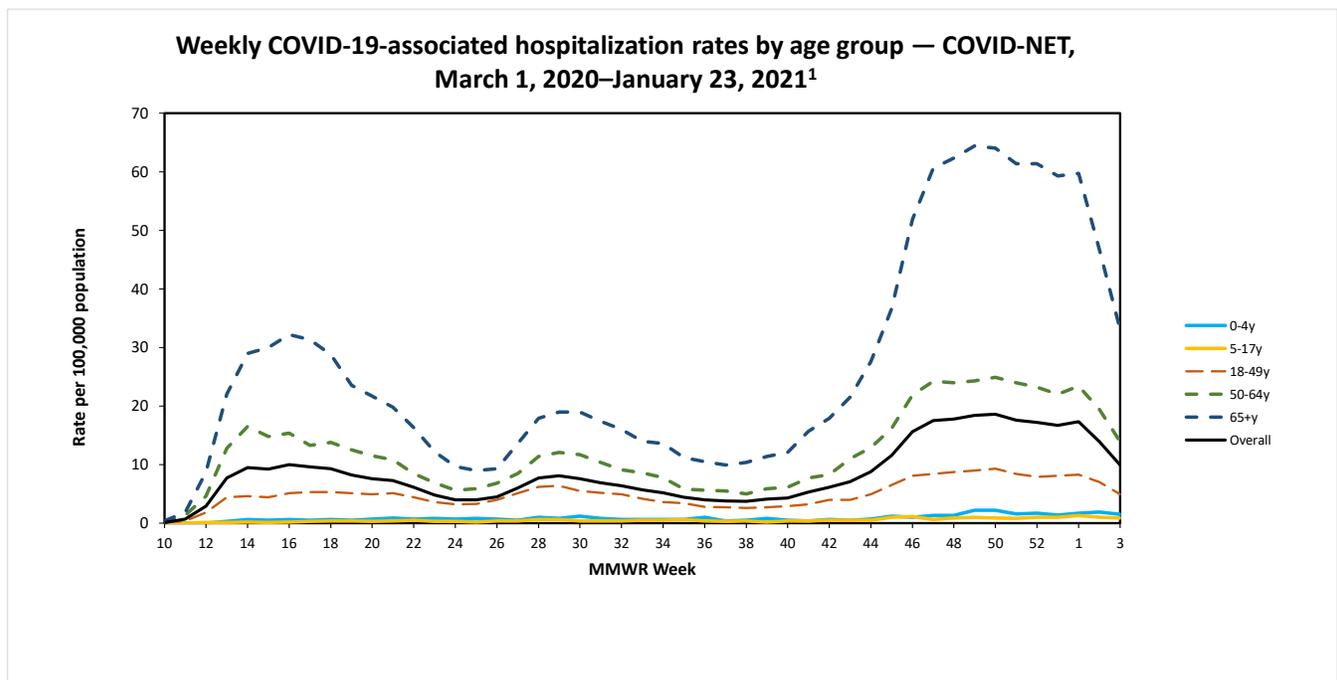
[1]Additional hospitalization rate data by age group are available.

Among the 131,384 laboratory-confirmed COVID-19-associated hospitalizations, 129,041 (98.2%) had information on race and ethnicity, while collection of race and ethnicity was still pending for 2,343 (1.8%) cases. When examining age-adjusted hospitalization rates by race and ethnicity, compared with non-Hispanic White persons, cumulative hospitalization rates were 3.6 times higher among non-Hispanic American Indian or Alaska Native persons; 3.2 times higher among Hispanic or Latino persons; and 2.9 times higher among non-Hispanic Black persons.

Age-adjusted COVID-19-associated hospitalization rates by race and ethnicity — COVID-NET, March 1–January 23, 2021
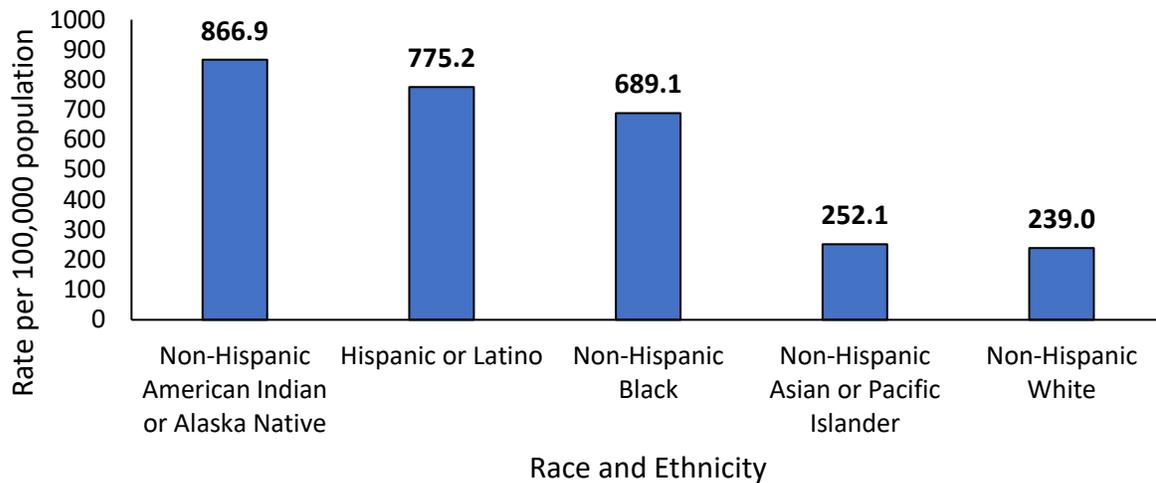
When examining age-stratified crude hospitalization rates by race and ethnicity, compared with non-Hispanic White persons in the same age group, crude hospitalization rates were 4.1 times higher among Hispanic or Latino persons aged 0–17 years; 6.4 times higher among non-Hispanic American Indian or Alaska Native persons aged 18–49 years; 4.5 times higher among non-Hispanic American Indian or Alaska Native persons aged 50–64 years; and 2.3 times higher among non-Hispanic American Indian or Alaska Native persons and non-Hispanic Black persons aged >65 years.

Hospitalization rates per 100,000 population by age and race and ethnicity - COVID-NET,

March 1, 2020-January 23, 2021

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	35.1	2.9	38.7	3.1	50.2	**4.1**	17.6	1.4	12.3	1.0
18-49 years	613.6	**6.4**	363.6	3.8	509.8	5.4	120.6	1.3	95.2	1.0
50-64 years	1398.4	**4.5**	1051.0	3.4	1230.6	4.0	378.4	1.2	308.7	1.0
65+ years	2123.9	**2.3**	2111.3	**2.3**	2048.3	2.2	833.7	0.9	927.8	1.0
Overall rate[4] (age-adjusted)	866.9	**3.6**	689.1	2.9	775.2	3.2	252.1	1.1	239.0	1.0

[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, 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, 2020–January 23, 2021

	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%	26.6%	19.8%	5.1%	41.2%
Proportion of population in COVID-NET catchment area	0.7%	17.9%	14.1%	8.9%	58.5%
Prevalence ratios[2]	1.9	1.5	1.4	0.6	0.7

[1] 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.

[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–October 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 16,006 sampled adults hospitalized during March 1–October 31 with information on underlying medical conditions, 90.5% had at least one reported underlying medical condition. The most reported underlying medical conditions were hypertension (55.8%), obesity (48.5%), metabolic disease (41.3%), which includes diabetes, and cardiovascular disease (32.5%). Among 996 children hospitalized during March 1–October 31,2020 with information on underlying conditions, 52.0% had at least one reported underlying medical condition. The most reported underlying medical conditions were obesity (37.6%), neurologic disease (13.3%), and asthma (11.1%).

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.

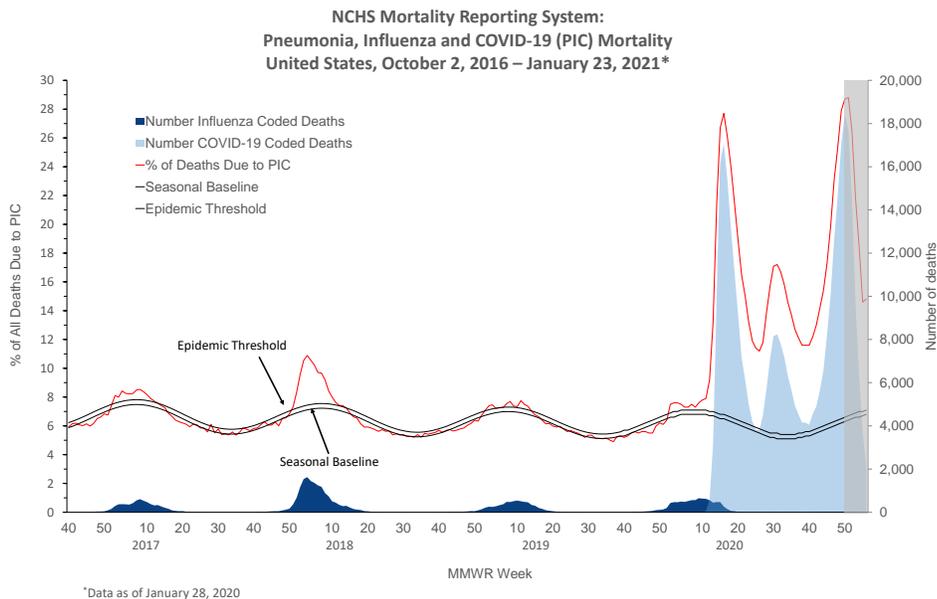**Additional hospitalization surveillance information:**

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 January 28, 2021, the percentage of deaths attributed to pneumonia, influenza, or COVID-19 (PIC) during week 3 was 14.8%; it remains above the epidemic threshold of 7.1%, and this percentage is expected to increase as more death certificates are processed. Among the 3,043 PIC deaths reported for week 3, 2,102 had COVID-19 listed as an underlying or contributing cause of death on the death certificate and seven listed influenza, indicating that the recent increase in PIC mortality is due primarily to COVID-19 and not influenza.

The weekly percentage of deaths due to PIC reached the highest point in the pandemic during the week ending December 19, 2020 (28.8%) and exceeded both previous peaks observed during April and August for three consecutive weeks. Data for the past five weeks show a declining trend in the percentage of deaths due to PIC compared to the December peak, but this percentage is expected to change as additional 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. Because of additional time needed for manual coding, the initially reported PIC percentages are likely to increase as more data are received and processed. The lag in availability of manually coded data increased during the holiday weeks at the end of 2020, and because of the large numbers of deaths reported during recent weeks, delays in availability of manually coded data are expected to increase. Weeks for which this lag is expected to cause the largest changes in the percentage of deaths due to PIC are highlighted in gray in the figure below and should be interpreted with caution.

NCHS Mortality Reporting System:
Pneumonia, Influenza and COVID-19 (PIC) Mortality
United States, October 2, 2016 – January 23, 2021*

*Data as of January 28, 2020

*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: January 28, 2021

Detailed data tables are available on the COVIDView page.