Health Disparities

Provisional Death Counts for Coronavirus Disease 2019 (COVID-19)

Contents —

COVID-19 Mortality Overview

Daily Updates of Totals by Week and State

Weekly Updates by Select Demographic and Geographic Characteristics

Health Disparities

Excess Deaths Associated with COVID-19

Index of Available Data Files

Technical Notes

> *i* Note: Provisional death counts are based on death certificate data received and coded by the National Center for Health Statistics as of October 27, 2021. Death counts are delayed and may differ from other published sources (see Technical Notes). Counts will be updated every Wednesday by 5pm. Additional information will be added to this site as available.

List of Topics

1. Race and Hispanic origin
2. Race and Hispanic origin and age
3. Urban/rural status
4. Social Vulnerability Index
5. County-level data on race and Hispanic origin
6. Education
7. Notes

For the Index of Provisional COVID-19 Mortality Surveillance and Ad-hoc Data files, click here.

The provisional counts for coronavirus disease 2019 (COVID-19) deaths are based on a current flow of mortality data in the National Vital Statistics System. National provisional counts include deaths occurring within the 50 states and the District of Columbia that have been received and coded as of the date specified. It is important to note that it can take several weeks for death records to be submitted to National Center for Health Statistics (NCHS), processed, coded, and tabulated. Therefore, the data shown on this page may be incomplete, and will likely not include all deaths that occurred during a given time period, especially for the more recent time periods. Death counts for earlier weeks are continually revised and may increase or decrease as new and updated death certificate data are received from the states by NCHS. COVID-19 death counts shown here may differ from other published sources, as data currently are lagged by an average of 1–2 weeks.

Race and Hispanic origin

The figures and tables presented on this page contain the following indicators that can be used to illustrate potential differences in the burden of deaths due to COVID-19 according to race and Hispanic origin:

- **Count of COVID-19 deaths:** Number of deaths due to COVID-19 reported for each race and Hispanic origin group
- **Distribution of COVID-19 deaths (%):** Deaths for each group as a percent of the total number of COVID-19 deaths reported
- **Unweighted distribution of population (%):** Population of each group as a percent of the total population
- **Weighted distribution of population (%):** (*shown in Table 1 only*) Population of each group as percent of the total population after accounting for how the race and Hispanic origin population is distributed in relation to the geographic areas impacted by COVID-19. See the Notes section for more information.

For more information about the definitions for race and Hispanic origin categories, methods for calculating population distributions, and for adjusting percent distributions by age, see the Notes sections below the interactive charts.

To download the data, [⟳ Click here to download].

The count of COVID-19 deaths, distribution of COVID-19 deaths, and unweighted distribution of the population are also displayed in a set of interactive charts.
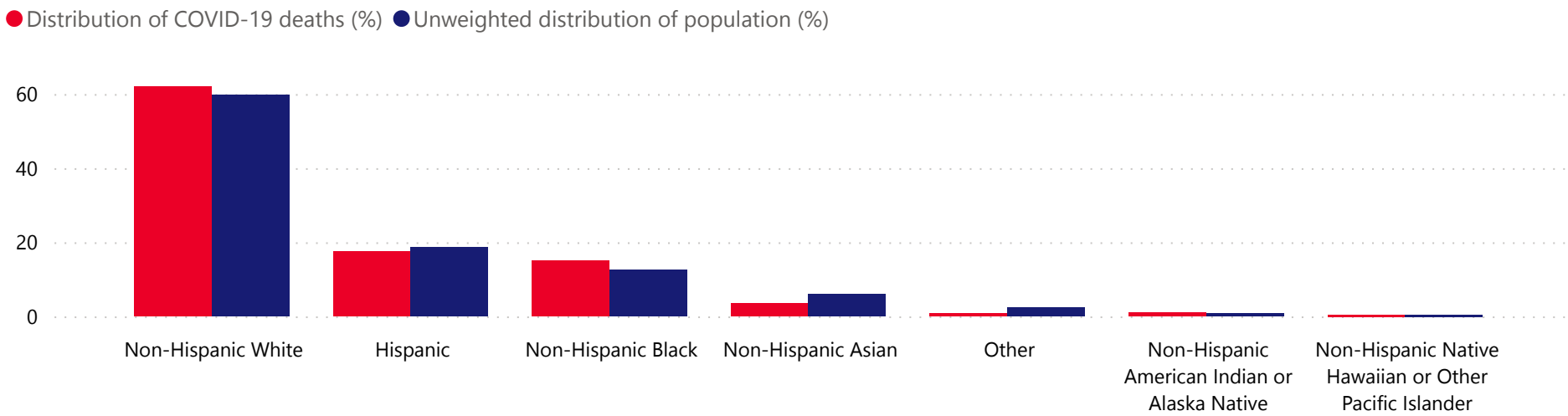
Figure 1. Crude and age-adjusted percents of COVID-19 deaths and unweighted population distributions by race and Hispanic origin

Select a jurisdiction:

United States ⌄

Unadjusted for age

● Distribution of COVID-19 deaths (%) ● Unweighted distribution of population (%)
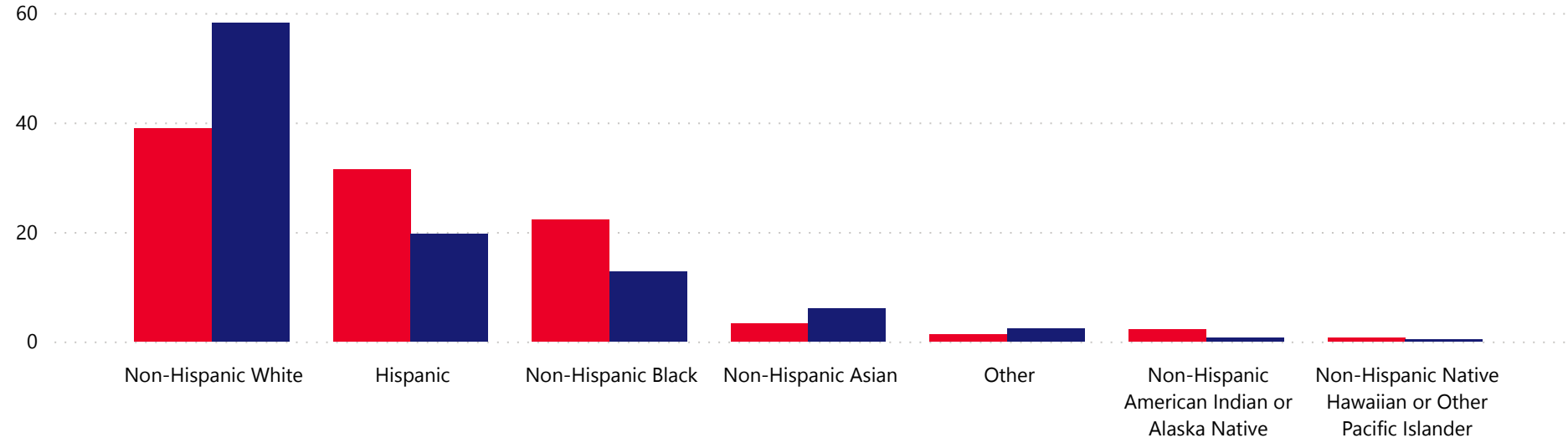
Age-standardized

Table 1. Count and percent distribution of deaths involving coronavirus disease 2019 (COVID-19) with distribution of the weighted and unweighted percent population by race and Hispanic origin group, time-period, and jurisdiction of occurrence.

Data as of:
10/27/2021

State	Indicator
All ▾	Multiple selections ▾

Year in which death occurred ▾	State ▴	Indicator ▴	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic American Indian or Alaska Native [1]	Non-Hispanic Asian [2]	Non-Hispanic Native Hawaiian or Other Pacific Islander	Non-Hispanic More than one race	Hispanic ^

Microsoft Power BI

NOTE: Empty data cells represent counts between 1-9 that have been suppressed in accordance with NCHS confidentiality standards. The count and percent of deaths reported in this table represent all deaths received and coded as of the date of analysis and may not represent all deaths that occurred in that period. Counts of deaths occurring before or after the reporting period are not included in the table. Data during recent periods 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. This delay can range from 1 week to 8 weeks or more, depending on the jurisdiction and cause of death. United States death counts include the 50 states, plus the District of Columbia and New York City. New York state estimates exclude New York City. All deaths involving COVID-19 are defined as having confirmed or presumed COVID-19, and are coded to ICD–10 code U07.1. Unweighted and weighted population percentages are based on the Single-Race Population Estimates from the U.S. Census Bureau, for the year 2020 (available from: https://wonder.cdc.gov/single-race-population.html). Weighted population percentages are computed by multiplying county-level population counts by the count of COVID-19 deaths for each county, summing to the state-level, and then estimating the percent of the population within each racial and ethnic group. These weighted population distributions therefore more accurately reflect the geographic locations where COVID-19 outbreaks are occurring. Race and Hispanic origin categories are based on the 1997 Office of Management and Budget (OMB) revised standards, for the collection and reporting of race. For more information on race and Hispanic origin classification, see Notes section below.
[1] Includes persons having origins in any of the original peoples of North and South America.
[2] Includes person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent.

Race and Hispanic origin and age

The interactive charts contain the following additional indicators to illustrate potential differences in the burden of deaths due to COVID-19 by race and Hispanic origin and age:

- **Figure 2 shows differences between the percent of COVID-19 deaths and the percent of the population represented by each race and Hispanic origin group, unadjusted and adjusted for age.** This chart illustrates whether certain race or Hispanic origin groups represent a higher or lower share of COVID-19 deaths compared to how these groups are distributed within the population adjusting for age differences across the groups.

- **Figures 3a and 3b show age-specific differences between the percent of COVID-19 deaths and the percent of the unweighted population represented by each race and Hispanic origin group.** These charts illustrate whether certain race or Hispanic origin groups represent a higher or lower share of COVID-19 deaths compared with how these groups are distributed within the population, both across and within age groups.

- Figure 3a groups the horizontal axis by race and Hispanic origin to show disparities by age within each race and Hispanic origin group.
- Figure 3b groups the horizontal axis by age to show disparities by race and Hispanic origin within each age group.

For more information about the methods for calculating population distributions, and for adjusting percent distributions by age, see the Notes section below the interactive charts.

How to interpret figures 2 and 3:

Bars above 0 suggest that a given race/ethnicity group is experiencing a **disproportionately high** percent of COVID-19 deaths relative to their percent of the population. The higher the bar, the larger the disparity.

Bars near 0 indicate that there is little or no disparity for a given race/ethnicity group. The percent of COVID-19 deaths experienced by that group is similar to their percent of the population.

Bars below 0 indicate that the percent of COVID-19 deaths experienced by a specific race/ethnicity group is **smaller** than their percent of the population.

For each race and Hispanic origin group and/or ag the difference between the percent of COVID-19 d population.
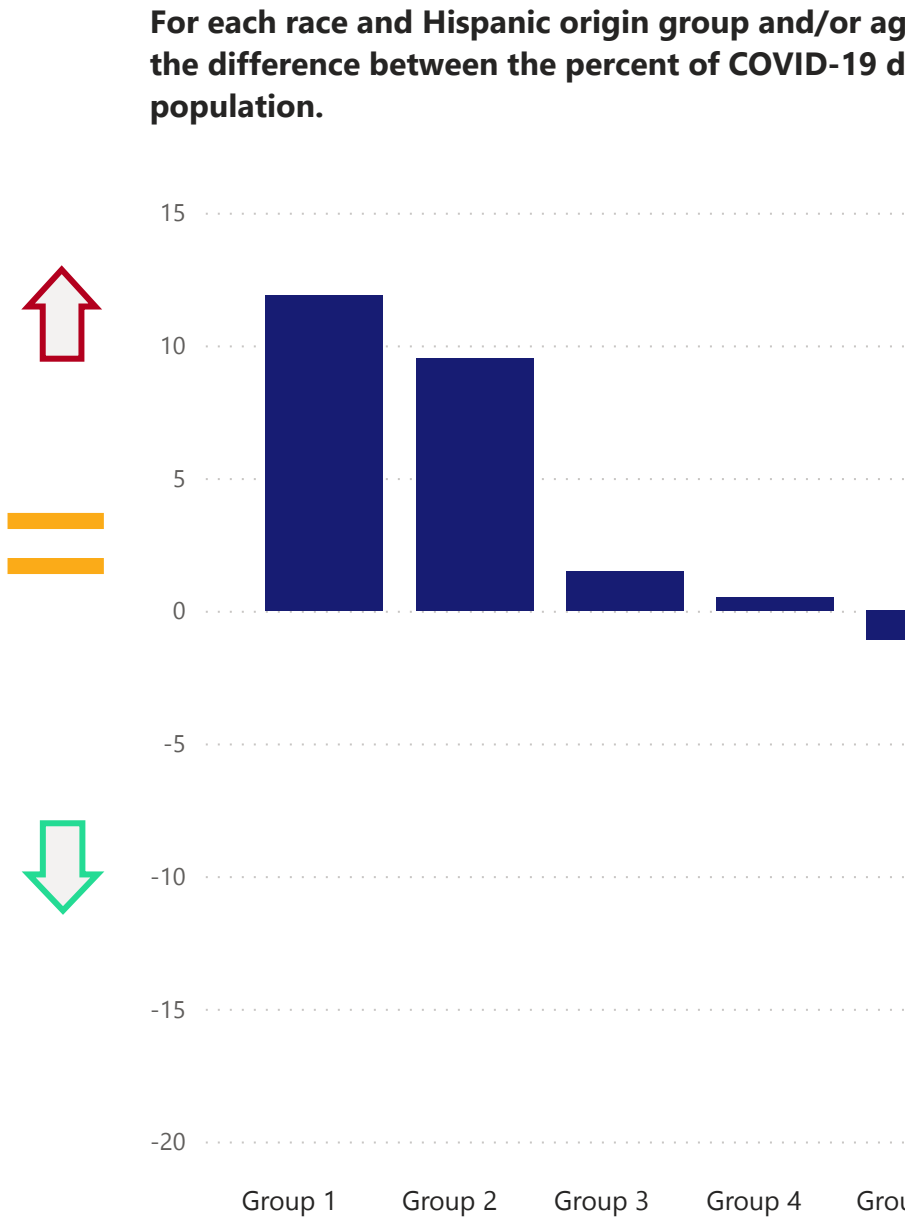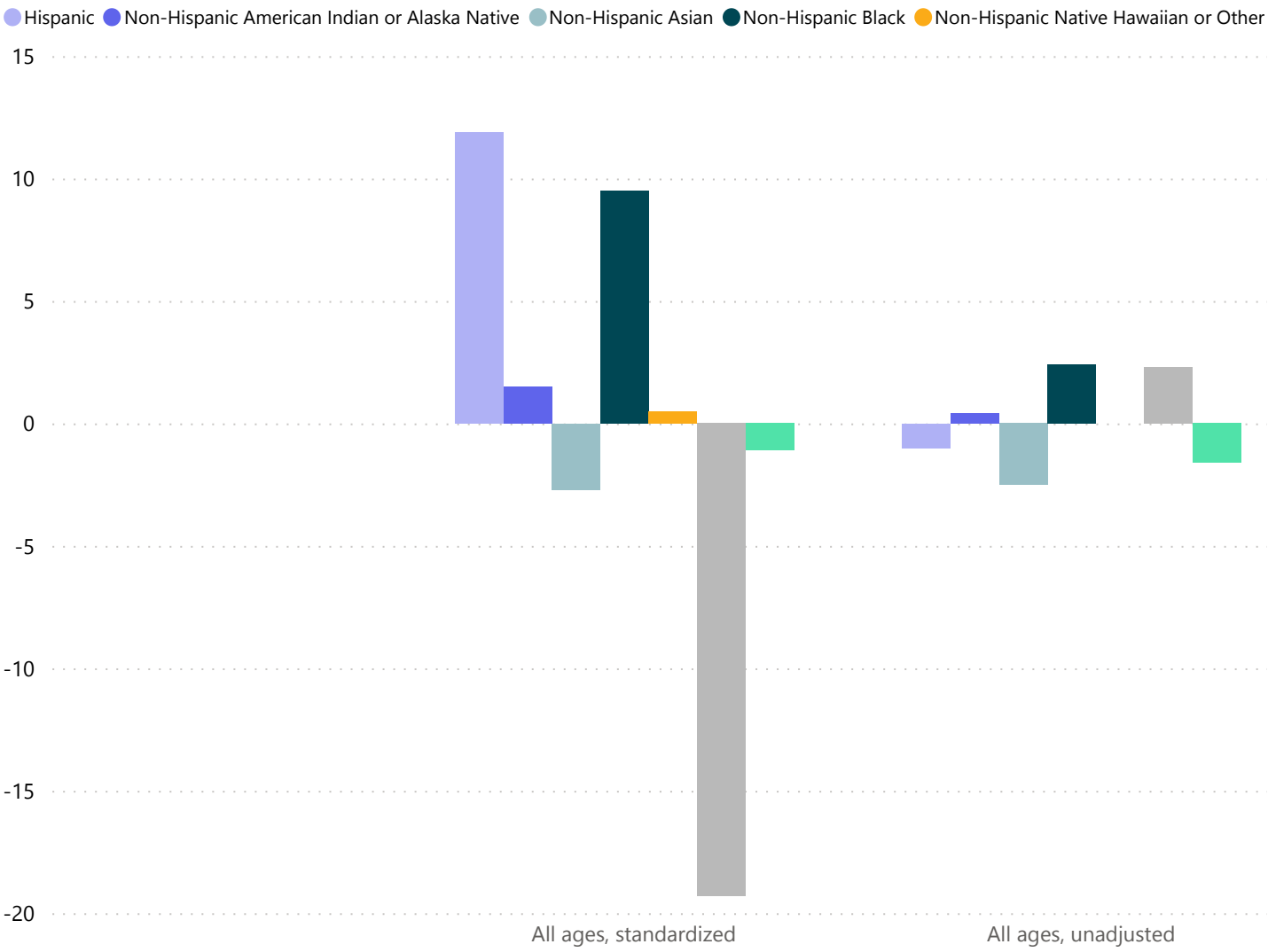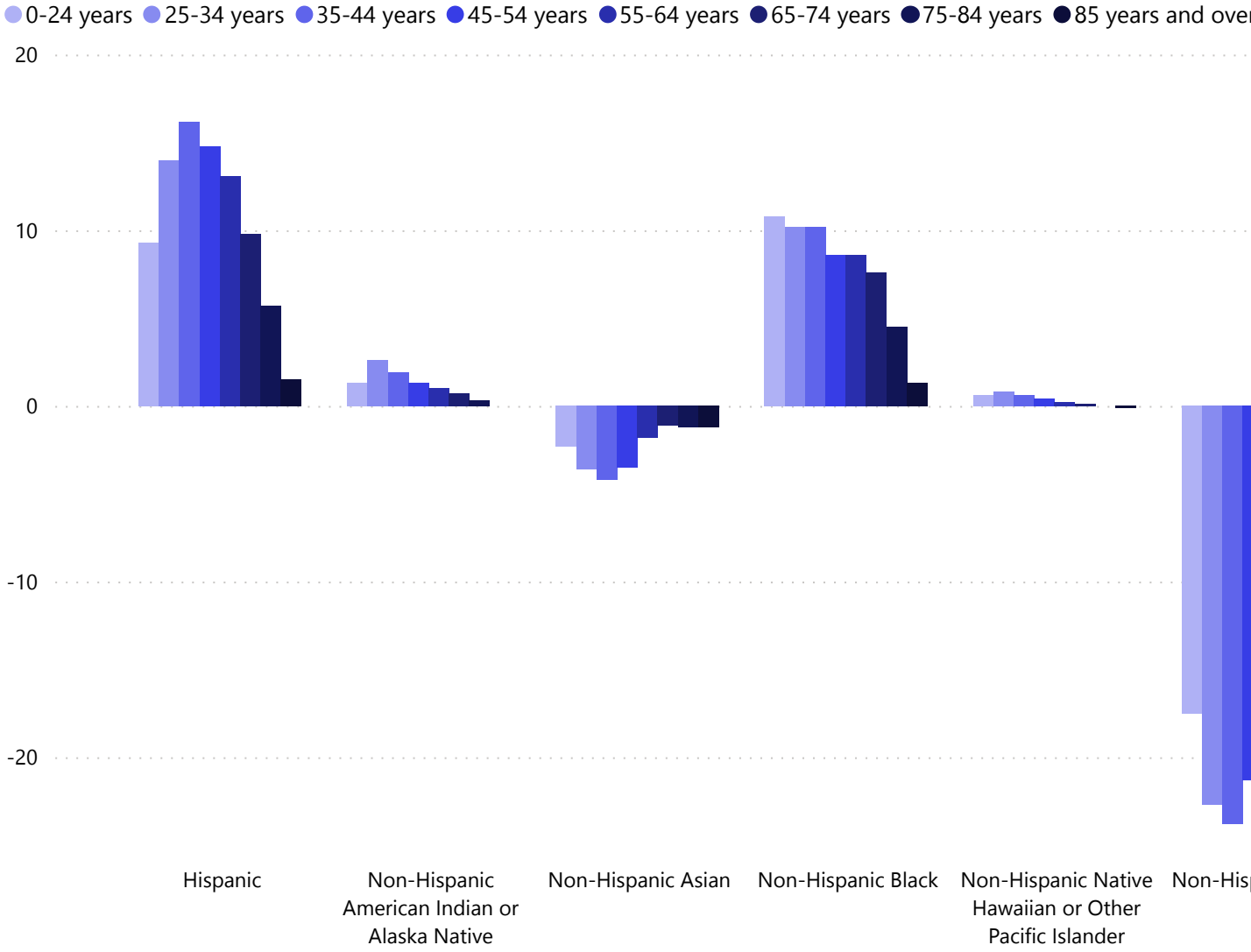
Figure 2. Difference between the percent of COVID-19 deaths and the population distributions by race and Hispanic origin: the impact of adjusting for age
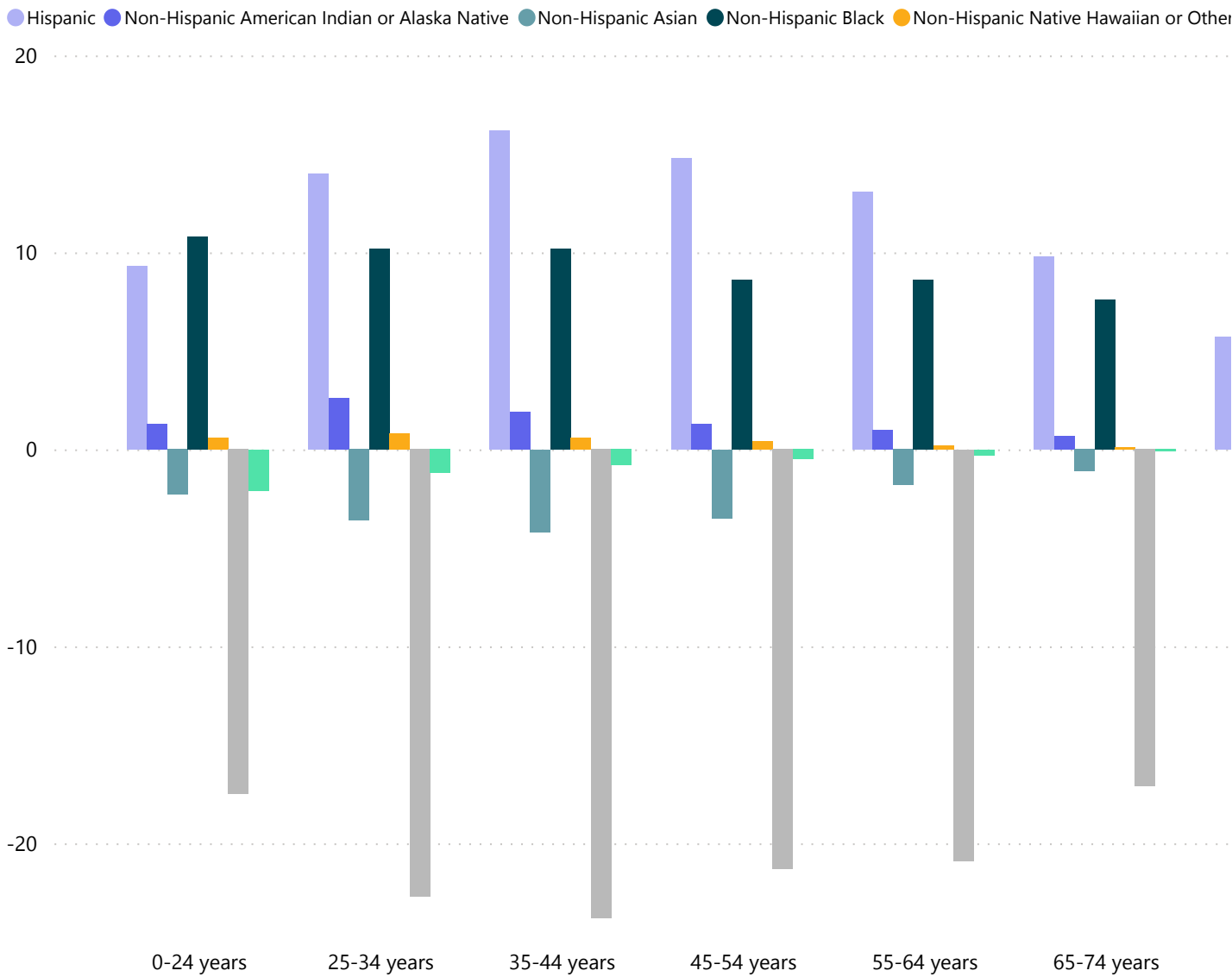
● Hispanic ● Non-Hispanic American Indian or Alaska Native ● Non-Hispanic Asian ● Non-Hispanic Black ● Non-Hispanic Native Hawaiian or Other

All ages, standardized   All ages, unadjusted

Data Table

Figure 3a. Age-specific differences between the percent of COVID-19 deaths and the population distribution, grouped by race and Hispanic origin

0-24 years ● 25-34 years ● 35-44 years ● 45-54 years ● 55-64 years ● 65-74 years ● 75-84 years ● 85 years and over

Hispanic   Non-Hispanic American Indian or Alaska Native   Non-Hispanic Asian   Non-Hispanic Black   Non-Hispanic Native Hawaiian or Other Pacific Islander   Non-His

Data Table

Figure 3b. Differences by race and Hispanic origin between the percent COVID-19 deaths and the population distribution, grouped by age

Hispanic ● Non-Hispanic American Indian or Alaska Native ● Non-Hispanic Asian ● Non-Hispanic Black ● Non-Hispanic Native Hawaiian or Other

Data Table

For unadjusted and adjusted estimates of disparities, ⟳ Click here to download .

Table 2 contains counts of deaths involving COVID-19 by time-period in which the death occurred, and by U.S. Department of Health and Human Services (HHS) region, race and Hispanic origin, and age group. For data on deaths involving COVID-19 by time-period, HHS region, race and Hispanic origin, and age-group, ⟳ Click here to download . For data on race and Hispanic origin by age at the state level, ⟳ Click here to download . This data file contains two sets of age groups: (1) age-groups consistent with those used across CDC COVID-19 surveillance pages, and (2) age groups that are routinely included in NCHS morality reports. When analyzing the file, the user should make sure to select only the desired age groups. Summing across all age categories provided will result in double counting deaths from certain age groups.

Table 2. Deaths involving coronavirus disease 2019 (COVID-19) reported to NCHS by period, jurisdiction of occurrence, race and Hispanic origin group, and age-group.

HHS Region

United States ▾

Age Group

All ▾

Year in which death occurred	Age Group	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic American Indian or Alaska Native [1]	Non-Hispanic Asian [2]	Non-Hispanic Native Hawaiian or Other Pacific Islander

Microsoft Power BI

NOTE: Empty data cells represent counts between 1-9 that have been suppressed in accordance with NCHS confidentiality standards. All deaths involving COVID-19 deaths are defined as having confirmed or presumed COVID-19 and are coded to ICD–10 code U07.1. Number of deaths reported in this table are the total number of deaths received and coded as of the date of analysis and may not represent all deaths that occurred in that period. Counts of deaths occurring before or after the reporting period are not included in the table. Data during recent periods 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. This delay can range from 1 week to 8 weeks or more, depending on the jurisdiction and cause of death. United States death counts include the 50 states, plus the District of Columbia and New York City. The ten (10) United States Department of Health and Human Services (HHS) regions include the following jurisdictions. Region 1: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont; Region 2: New Jersey, New York, New York City, Puerto Rico; Region 3: Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia; Region 4: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee; Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin; Region 6: Arkansas, Louisiana, New Mexico, Oklahoma, Texas; Region 7: Iowa, Kansas, Missouri, Nebraska; Region 8: Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming; Region 9: Arizona, California, Hawaii, Nevada; Region 10: Alaska, Idaho, Oregon, Washington. Race and Hispanic origin categories are based on the 1997 Office of Management and Budget (OMB) standards revised, for the collection and reporting of race. For more information on race and Hispanic Origin classification, see Notes section below.

[1] Includes persons having origins in any of the original peoples of North and South America.

[2] Includes persons having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent.

[3] Unknown includes race unknown and Hispanic origin unknown.

Urban/rural status

Figure 4 contains the weekly rate of death by metropolitan status. Metropolitan status is based on the 2013 National Center for Health Statistics (NCHS) Urban-Rural Classification Scheme for Counties (https://www.cdc.gov/nchs/data_access/urban_rural.htm). Counties are classified as "metropolitan" if they are large central metro, large fringe metro, medium metro or small metro; and "non-metropolitan" if micropolitan or non-core.
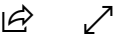
To access the data ⟳ Click here to download .

Figure 4. Provisional COVID-19 death rate per 100,000 population by w metropolitan status

NOTE: Provisional death counts are based on death certificate data received and coded by NCHS as of the dat that occurred in that period. Data for the most recent 5 weeks (shown in the gray shaded area) are typically les completeness in more recent weeks. Death counts are updated as additional deaths are received and coded.
SOURCE: NCHS, National Vital Statistics System. Estimates are based on provisional data.

Microsoft Power BI

Social Vulnerability Index

Social vulnerability refers to the potential negative effects on communities caused by external stresses on human health. Such stresses include natural or human-caused disasters, or disease outbreaks. Reducing social vulnerability can decrease both human suffering and economic loss.

Provisional data on deaths involving COVID-19 by week and county Social Vulnerability Index are available, Click here to download . The CDC Social Vulnerability Index (SVI) uses 15 variables from the U.S. census to help officials identify communities that may need support before, during, or after disasters. The SVI scores range from zero (0) to one (1). SVI scores are categorized into three (3) groups: scores from 0 to 0.333 are categorized as "low"; scores from 0.334 to 0.666 are "moderate"; and scores from 0.667 to 1 are "high" vulnerability. For more information on SVI, please visit the CDC/ATSDR's Geospatial Research, Analysis & Service Program website.

County-level data on race and Hispanic origin

County data on race and Hispanic origin is available for counties with more than 100 COVID-19 deaths. This data file contains counts of death for COVID-19 and all deaths, the percentage of deaths due to COVID-19 by race and Hispanic origin group, the percentage of all deaths by race and Hispanic origin group, and the percentage of the population by race and Hispanic origin group. Urban-rural classification is also included, based on the 2013 National Center for Health Statistics Urban-Rural Classification Scheme for Counties (https://www.cdc.gov/nchs/data_access/urban_rural.htm). Deaths are cumulative from January 1, 2020 to the most recent reporting week Click here to download .

Education

Data on deaths involving COVID-19 and education attainment in the United States by race and Hispanic origin from 2020 to 2021 is available, ⟳ Click here to download . Data on deaths involving COVID-19 and education attainment in the United States is available by race and Hispanic origin, sex, and age group, for 2020-2021 ⟳ Click here to download , and for 2019-2020 ⟳ Click here to download .

Notes

Race and Hispanic Origin Classification:

Race and Hispanic-origin categories are based on the 1997 Office of Management and Budget (OMB) revised standards for the collection and reporting of race. Race and Hispanic origin are two distinct attributes and are reported separately on the death certificate. Therefore, data shown by Hispanic origin and race are based on a combination of the two attributes for the non-Hispanic population. Data shown for the Hispanic population include persons of any race. The race and Hispanic-origin groups shown —non-Hispanic single-race white, non-Hispanic single-race black or African American, non-Hispanic single-race American Indian or Alaska Native (AIAN), and non-Hispanic single-race Asian—differ from the bridged-race categories shown in reports using mortality data for years prior to 2018.

Race and Hispanic origin data from death certificates are not available for 0.3% of all deaths and 0.7% of deaths involving COVID-19. Death data for Hispanic, non-Hispanic American Indian or Alaska Native (AIAN), and non-Hispanic Asian or Pacific Islander (API) persons should be interpreted taking into account inconsistencies in reporting Hispanic origin or race on the death certificate compared with censuses, surveys, and birth certificates. The latest research on race and Hispanic origin misclassification on death certificates shows that deaths are underreported by 33% for non-Hispanic AIAN, 3% for non-Hispanic API, and 3% for Hispanic decedents. See Technical Notes for additional information.

Crude (unadjusted) estimates of disparities:

Unweighted population distributions along with comparison between the distribution of deaths and each of the population distributions are provided. The unweighted distributions show the observed percent of the population that falls into each race and Hispanic origin group, either for a given state or in the United States overall. These unweighted distributions can be used to obtain a crude (unadjusted) estimate of the percent of COVID-19 deaths experienced by some groups relative to their observed percent of the population.

Example: The unweighted population distribution shows that 13% of the total U.S. population is non-Hispanic black. This percentage can be compared to the distribution of deaths by race and Hispanic origin, which shows that nearly 25% of COVID-19 deaths in the U.S. have occurred among the non-Hispanic black population (data as of July 22, 2020).

Adjusted estimates of disparities:

Adjustments to the population distributions: In April and May 2020, the majority of COVID-19 deaths in the U.S. occurred in urban areas that have a larger percentage of their populations that are non-Hispanic black, non-Hispanic Asian, or Hispanic, and a smaller percentage that are non-Hispanic white. *Weighted population distributions* use county-level data to more closely align the population distributions with the specific areas where COVID-19 deaths were occurring. To account for the geographic clustering of COVID-19 deaths, weighted population distributions, which more closely matched the areas initially most affected by COVID-19 deaths, were provided in order to reflect differential risk within the areas most affected by COVID-19 deaths. As the pandemic has become more widespread across the U.S., there is less need to align the population distributions with the specific geographic areas experiencing COVID-19 outbreaks and mortality. While weighted estimates are no longer included in the data visualization, the estimates can still be found in Table 1 and in the downloadable data file.

Adjustments for age distributions: Another important factor that can be adjusted for is age. As death due to COVID-19 varies by age, the distribution of deaths across race and Hispanic origin groups will be affected by the age distribution of each of the groups. Differences between the percent of deaths among each race and Hispanic origin group and their corresponding percent of the weighted or unweighted population are shown by age group in order to provide information about how disparities in deaths vary by age. The age-specific distributions are shown in two charts. One chart groups the horizontal axis by race and Hispanic origin, to more easily show disparities across all of the age groups within race and Hispanic origin

groups. The second chart shows the horizontal axis grouped by age, which more easily shows disparities by race and Hispanic origin within each of the age groups. Additionally, age-standardized differences between a given group's share of COVID-19 deaths and share of the population are shown. These age-standardized distributions show what disparities would look like if the age distribution was the same across all race and Hispanic origin groups for both COVID-19 deaths and the population.

For both age and geographic data, the magnitude of the differences between crude and adjusted estimates will differ by state, and will also vary over time as the geographic pattern of COVID-19 mortality changes (i.e., if the pattern shifts from deaths occurring in more urban areas to more suburban or rural areas, or from older to younger age groups).

See Technical Notes for the methods used to calculate weighted percentages and age-standardized distributions.

Understanding the Numbers: Provisional Death Counts and COVID-19

Provisional death counts deliver the most complete and accurate picture of lives lost to COVID-19. They are based on death certificates, which are the most reliable source of data and contain information not available anywhere else, including comorbid conditions, race and ethnicity, and place of death.

How it Works
The National Center for Health Statistics (NCHS) uses incoming data from death certificates to produce provisional COVID-19 death counts. These include deaths occurring within the 50 states and the District of Columbia.

NCHS also provides summaries that examine deaths in specific categories and in greater geographic detail, such as deaths by county and by race and Hispanic origin.

COVID-19 deaths are identified using a new ICD–10 code. When COVID-19 is reported as a cause of death – or when it is listed as a "probable" or "presumed" cause — the death is coded as **U07.1**. This can include cases with or without laboratory confirmation.

Why These Numbers are Different
Provisional death counts may not match counts from other sources, such as media reports or numbers from county health departments. Counts by NCHS often track 1–2 weeks behind other data.

- **Death certificates take time to be completed.** There are many steps to filling out and submitting a death certificate. Waiting for test results can create additional delays.
- **States report at different rates.** Currently, 63% of all U.S. deaths are reported within 10 days of the date of death, but there is significant variation between states.
- **It takes extra time to code COVID-19 deaths.** While 80% of deaths are electronically processed and coded by NCHS within minutes, most deaths from COVID-19 must be coded by a person, which takes an average of 7 days.
- **Other reporting systems use different definitions or methods for counting deaths.**

Things to know about the data
Provisional counts are not final and are subject to change. Counts from previous weeks are continually revised as more records are received and processed.

Provisional data are not yet complete. Counts will not include all deaths that occurred during a given time period, especially for more recent periods. However, we can estimate how complete our numbers are by looking at the average number of deaths reported in previous years.

Death counts should not be compared across states. Some states report deaths on a daily basis, while other states report deaths weekly or monthly. State vital record reporting may also be affected or delayed by COVID-19 related response activities.

For more detailed technical information, visit the Provisional Death Counts for Coronavirus Disease 2019 (COVID-19) Technical Notes page.