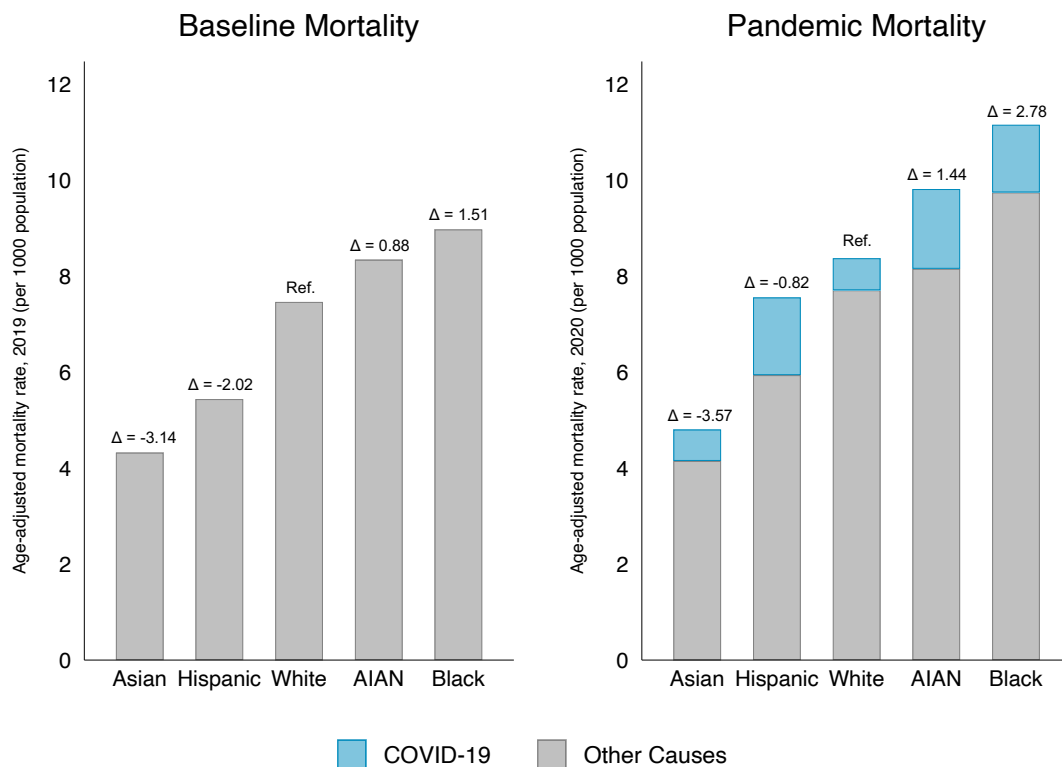


Appendix



Appendix Figure 1: All-Cause Mortality by Race/Ethnicity, 2019 and 2020

Source: Authors' calculations from National Center for Health Statistics (2020a, 2020e, 2021a) and United States Census Bureau (2020a).

Note: Figure plots age-standardized mortality rates from COVID-19 and other causes for non-Hispanic Asian, Hispanic, non-Hispanic White, non-Hispanic American Indian and Alaska Native (AIAN), and non-Hispanic Black Americans during 2019 and 2020. This figure expands on Figure 1, which displays age-standardized mortality rates in 2019 and 2020 for non-Hispanic White and Black individuals. Labels above each bar indicate the difference in the age-standardized rate of mortality in the given year between the racial/ethnic group of interest and non-Hispanic Whites. Area shaded blue denotes recorded mortality from the pandemic disease, while area shaded grey denotes mortality from other causes.

Appendix Table 1: Missing Elements in the CDC Case Surveillance Datafile

	(1) Age	(2) Sex	(3) Race/Ethnicity	(4) Comorbidities	(5) Any
Cases (%)	114,238 (0.69)	180,080 (1.09)	6,198,330 (37.50)	14,603,487 (88.35)	14,938,556 (90.38)
Hospitalizations (%)	400 (0.05)	2,070 (0.27)	125,967 (16.24)	572,170 (73.76)	598,599 (77.17)
Deaths (%)	21 (0.01)	774 (0.26)	52,573 (17.34)	233,414 (76.98)	239,672 (79.04)

Source: Authors' calculations from Centers for Disease Control and Prevention, COVID-19 Response (2020).

Note: Table shows the number and percent of missing elements indicated as column headers in the CDC COVID-19 case surveillance database. Of cases, hospitalization, and deaths reported to the CDC, Columns 1 to 4 show the number and percent of missing age, sex, race/ethnicity, and comorbidities data, respectively. Column 5 shows the number and percent of missing data on any of the four elements. Percentages are reported in parentheses. Note that we do not investigate the extent to which cases are missing entirely from this data source, relative to the counts present in other standard sources of COVID-19 data.

Appendix Table 2: COVID-19 Case-Fatality Rates (CFRs)

	(1)	(2)	(3)	(4)	(5)
Panel A: Age Groups					
Panel A: Age Groups					
	Age 0 to 39	Age 40 to 49	Age 50 to 59	Age 60 to 69	Age 70+
Case Fatality Rate	0.126	0.705	1.885	5.759	24.307
Percent of Deaths	1.81%	2.92%	7.63%	16.68%	70.97%
Percent of Population	52.08%	12.28%	12.90%	11.58%	11.15%
Panel B: Race/Ethnicity					
	White	Black	Hispanic/Latino	Asian	American Indian
Case Fatality Rate (Crude)	5.196	5.534	2.373	4.574	4.538
Case Fatality Rate (Age-adjusted)	2.919	4.627	3.377	3.967	4.687
Percent of Deaths	60.98%	14.18%	19.57%	4.35%	0.92%
Percent of Population	61.21%	13.17%	18.45%	6.32%	0.84%

Source: Authors' calculations from Centers for Disease Control and Prevention, COVID-19 Response (2020) and National Center for Health Statistics (2020a, 2020b, 2020e, 2021a).

Note: Table reports COVID-19 related case-fatality rates (CFRs) by age groups (Panel A) and race/ethnicity (Panel B). Population and death shares by race/ethnicity are computed as shares of population and deaths with race/ethnicity recorded as non-Hispanic White, non-Hispanic Black, Hispanic/Latino, non-Hispanic Asian, or non-Hispanic American Indian. For clarity of presentation, Alaska Natives are included in the American Indian category, whereas Pacific Islanders are included in the Asian category. Of the 303,211 deaths recorded in the CDC COVID-19 case surveillance database, 3.20% are among individuals of races/ethnicities other than those noted above, while 17.34% do not contain information on race/ethnicity.