No Evidence for COVID-19 Death Inequality between the White and Black US Populations

by Petr Chylek (June 2022)

Gathering of Sages, Lluïsa Simón i Gispert

The CDC (Centers for Disease Control and Prevention) official website says (as of April 25, 2022): "Public health officials have long noted the disparities in care between the wealthy and indigent, between white and non-white Americans … The COVID-19 pandemic and its disproportionate impact on people from some racial and ethnic groups is a stark example of these

enduring health disparities. COVID-19 data shows that Black/African American, Hispanic/Latino, American Indian and Alaska Native persons in the United States experience higher rates of COVID-19-related hospitalization and death compared with non-Hispanic White populations. These disparities persist even when accounting for other demographic and socioeconomic factors." This CDC statement has been translated into directives to give preference to non-white people when deciding who would get COVID medication that was in short supply.

We are now in the third year of the COVID pandemic, and sufficient data has now been collected to test the above CDC statement. Using two years of data on the number of COVID cases and COVID deaths, we can get a better idea of how COVID has been distributed racially among the US population. During that time we have gained some knowledge that was missing at the beginning. Because of that shortcoming there were some mistakes made in handling the pandemic, and different nations followed different protocols in an effort to control the spread.

The COVID data are collected and some are made available by the CDC. Unfortunately the format of CDC data that is available to the public is not easy to navigate. The statistical data are surrounded by a large number of articles concerning masks, vaccination, etc. In addition, many essential data are not downloadable. In the following we provide a brief analysis of accumulated COVID death data as partitioned according to the races of the US population. All data used were downloaded from the CDC website without any adjustments or modifications. On the other hand, the CDC-provided information suggests that the CDC experts have subjected the statistical data to various undefined demographic and socioeconomic adjustments.

There are three basic kinds of COVID data: The number of cases, the number of hospitalizations, and the number of

deaths related to COVID. Of these three, the number of deaths is the most objective and very likely the most accurate. The number of cases or even a number of hospitalizations depends on subjective decisions to get tested, to report the case of a positive result, to go to see medical help, and to make a decision concerning hospitalization. Such subjective decisions do not enter the picture in case of death, as there is no subjective decision involved in reporting actual deaths. Therefore, the number of deaths is likely to be a more reliable indicator of the impact of COVID then the other available COVID data.

Graphical representations of the CDC data concerning the number of deaths, and its distribution along the races and gender are shown in the following figure. All data needed to obtain the presented results were downloaded on May 10, 2022 from the CDC website [CDC COVID Data Tracker: Home](#).

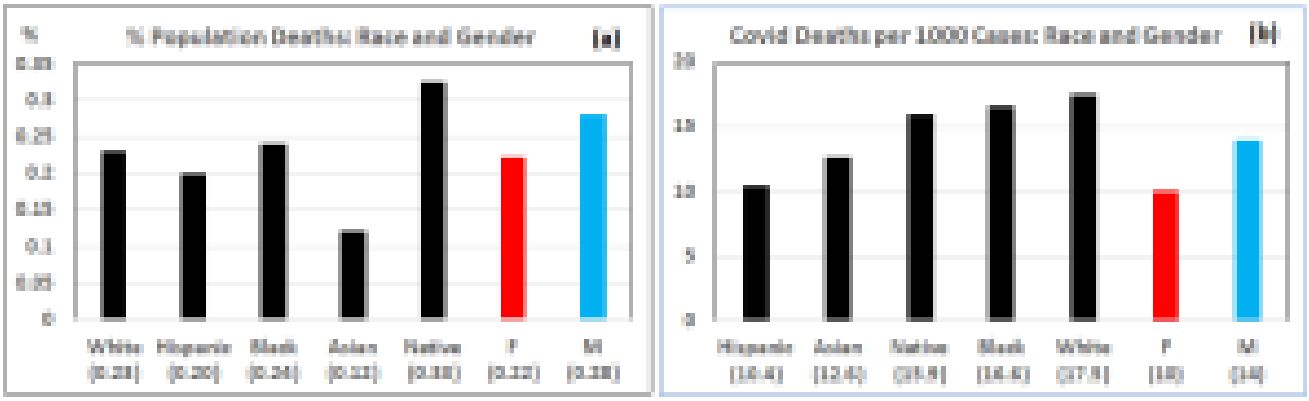

Fig.1: (a) Percent of US population of a given race/ethnicity (black columns) or gender (red column for females and blue column for males) that died due to COVID between March 2020 and April 2022. (b) Number of COVID deaths (numbers in parenthesis) per thousand of infected individuals of a given race/ethnicity or gender.

Figure 1a shows the percent of individual races that died due to COVD-19 (black columns). We see that the American Natives have the highest percentage of people that died due to

COVID-19, namely 0.33%. In contrast, the Asian American population shows the smallest fraction of about 0.12% that died. There are likely many factors responsible for this difference, and the level of healthcare may be one of them. In addition, there are differences in genetic factors, life style, diet, extent of compliance with COVID regulations, and other factors that no doubt play a role.

The death rate of White non-Hispanic, Hispanic and Black-African Americans are quite close to each other, at 0.20%, 0.23% and 0.24% of their respective populations. We note that the fraction of deaths of Hispanics is smaller than the fraction for White and Black Americans. Assuming according to the CDC that the fraction of deaths is dominated by the level of health care that individual races/ethnicities received, we conclude that Hispanic Americans received slightly better health care than did White and Black Americans. However, the difference between the death rate of Black (0.24%) and White (0.23%) Americans is so small that this is likely within the uncertainty of the data, due to such factors as incomplete reporting and errors in determination of causes of death, plus additional errors in reporting and in assembling the data sets.

The alternative, and probably more correct, interpretation of the data is that the death rates of the three groups, White, Hispanic and Black Americans, are about the same given the uncertainty of the data. With this interpretation, no difference between the health care levels received by these racial groups can be deduced. Only the Asian Americans can be assigned a slightly better, and Native Americans a slightly worse, health care than the general population

This alternative interpretation is further confirmed by considering the death rate of American men and women. The data show that the death rate of men 0.28% (blue column) is considerably higher than the death rate of women 0.22% (red column). If we apply the same CDC invoked hypothesis that the

differences in death rate are due to health care, we have to conclude that men experience a much lower level of health care than women. Can we claim that? Is this in agreement with our health care system? I don't think so. Thus, there must be other causes of the observed differences in death rate, in addition to or instead of health care. The gender and genetic differences, rather than the level of health care, must be dominant among those causes.

If the difference between death rate of females and males (between 0.22% and 0.28%) cannot be considered as due to level of medical care, then for sure the much smaller difference between the death rate of White and Black Americans (between 0.23% and 0.24%) cannot be taken as an indicator of different levels of medical care. Thus the hypothesis that a small differences in death rates between various groups are caused by level of health care has to be rejected. No science can support it.

In science, if you have a hypothesis for the explanation of observed data, and if one single piece of data disagrees with your hypothesis, the whole hypothesis has to be abandoned and you have to look for other explanation of the data. Here it means that we have to reject the hypothesis that the difference in death rates between the groups is due to differences of health care that the groups have received. Thus, I find no justification for the above CDC statements that Black/African American, Hispanic/Latino in the United States experience higher rates of COVID-19-related death compared with non-Hispanic White populations due to the substandard level of health care these minority groups have received.

Figure 1b shows the death rate of people who got infected by COVID. It shows the number of people who died per 1000 people infected. It varies from 10.4 for Hispanic to 17.5 for White Americans per 1000 infected people. The death rate per 1000 infected people of white and black Americans and of American

natives is about the same. The death rate of Hispanics and Asian Americans is considerably lower than the death rate of other racial groups. These results rely on the CDC-provided number of COVOD infections, which have a larger uncertainty than the number of deaths. Thus a larger weight should be assigned to the results shown in the left panel (Fig. 1a).

To summarize, both results seen in Fig.1 show that the death rate of White and Black Americans is about the same, while the death rates of Hispanic and Asian Americans are slightly lower (possibly due to genetic differences), and the death rate of Native American (Fig. 1a) is higher than that of White and Black Americans. The CDC data do not support their own statement that "COVID-19 data shows that Black/African American, Hispanic/Latino, American Indian and Alaska Native persons in the United States experience higher rates of COVID-19-related death compared with non-Hispanic White populations". We must say that the science does not support the CDC COVID race-related statement, and so it also does not support any instructions for preferential distribution of COVID medication in short supply to definite racial groups. Unfortunately, this incorrect CDC statement has been often repeated by some news outlets. A recent (May1, 2022) article republished on the Yahoo website even exaggerated the CDC statement by claiming: "Black people continue to die from COVID-19 at a rate nearly double the white population…. ". Two reverends and two doctors were among five authors of this statement.

One may ask why the CDC makes such statement that is not supported by their own data? Are emotions more important than facts? The answer to these questions I leave to each individual to answer him/herself.

I thank Dr. James D. Klett for discussions of topics related to this article and for his many useful suggestions.

Note: If you want to verify results shown or update the data

for future changes, go to *CDC COVID Data Tracker: Home*, select "*CDC COVID Data Tracker*" from many selections available find and select "*Case &Death Demographic Trends.*" Now select *"Total Cases and Death by Race/Ethnicity, Age, and Sex."* Select "*Death by Race/Ethnicity,*" select "*Download,*" select "*Data,*" and you will get a table with the death data. Now go back and instead of *Death by Race/Ethnicity* select "*Cases by Race/Enthicity*" and "*Download*" and" *Data.*" Now you have data concerning the death and the cases. This is all you need to calculate the results shown in Fig. 1. The CDC data are often updated. Thus, you may wish to check future changes.

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Petr Chylek is a theoretical physicist. He was a professor of physics and atmospheric science at several US and Canadian universities. He is the author of over 150 publications in scientific journals. For his contributions to science he was elected a fellow of the Optical Society of America and a Fellow of the American Geophysical Union. In 2017, he was awarded an international Van de Hulst prize for his original contributions to theory of electromagnetic scattering. He currently works and lives with his family in the US Southwest.