

Excess Deaths and the Great Pandemic of 2020

Howard Bauchner, MD; Phil B. Fontanarosa, MD, MBA

Two new reports in JAMA provide updated estimates regarding the mortality associated with the coronavirus disease 2019 (COVID-19) pandemic in the US. In a research letter by Woolf and colleagues, the authors update their analysis of the number of “excess” deaths in the US related to COVID-19 and other causes from March 1 through August 1, 2020.^{1,2} The authors report that during this 5-month period, a total of 1 336 561 deaths occurred in the US, an estimated 20% increase compared with the number of expected deaths, and representing 225 530 excess deaths.² Approximately 67% of these excess deaths were attributable directly to COVID-19, whereas excess deaths attributed to other causes also could have been related to the pandemic in general.

A second research letter, by Bilinski and Emanuel,³ compared the US to Organisation for Economic Co-operation and Development countries with populations exceeding 5 million. The authors found that since the beginning of the pandemic, among the countries with moderate mortality

(n = 8; COVID-19 deaths, 5-25/100 000) or high mortality (n = 7; COVID-19 deaths, >25/100 000), the US ranked third, with 71.6 deaths/100 000.

The importance of the estimate by Woolf et al—which suggests that for the entirety of 2020, more than 400 000 excess deaths will occur—cannot be overstated, because it accounts for what could be declines in some causes of death, like motor vehicle crashes, but increases in others, like myocardial infarction. These deaths reflect a true measure of the human cost of the Great Pandemic of 2020. As depicted in the illustration, these deaths far exceed the number of US deaths from some armed conflicts, such as the Korean War and the Vietnam War, and deaths from the 2009 H1N1 (Swine flu) pandemic, and approach the number of deaths from World War II.

In the report by Bilinski and Emanuel,³ the authors note that the US experienced high COVID-19-associated mortality and excess all-cause mortality into September 2020. After the initial peak in early spring, US death rates from COVID-19 and from all causes remained higher than rates in countries with high COVID-19 mortality.



In addition, 3 Viewpoints and an Editorial in *JAMA* reflect on the mental health, financial, and disparities issues related to the pandemic.

Simon and colleagues⁴ suggest that it is critical to consider that for every death, an estimated 9 family members are affected, such as with prolonged grief or symptoms of post-traumatic stress disorder. In other words, approximately 3.5 million people could develop major mental health needs. This does not account for the thousands of health care workers in hospitals and nursing homes who have been witness to the unimaginable morbidity and mortality associated with COVID-19.

Cooper and Williams⁵ comment on the unrelenting and seemingly intractable and embedded disparities that exist in the US and within the US health care system. They call for restorative justice. This issue is not new, but rather the COVID-19 pandemic has once again highlighted and further compounded the health, social, and economic disparities inherent in communities of color.^{5,6}

Cutler and Summers⁷ suggest that the COVID-19 pandemic represents the greatest threat to prosperity and well-

being that the US has encountered since the Great Depression that began in 1929. The authors estimated the total financial cost of the pandemic—related to lost economic output and losses related to health—at \$16 trillion, or approximately 90% of the annual US gross domestic product (GDP). The estimated economic loss from COVID-19 is a staggering number, but was largely preventable, and will reverberate through society for years to come.

In an accompanying Editorial, Fineberg underscores the key ideas of the Viewpoints by Simon et al, Cooper and Williams, and Cutler and Summers, and summarizes the findings of the report by Woolf et al highlighting that the data on excess deaths related to COVID-19 are “sufficiently mortifying and motivating.”⁸ He also emphasizes that “an intense, persistent, multipronged, and coherent response must be the order of the day and an urgent priority for the nation.”⁸

Few people will forget the Great Pandemic of 2020, where and how they lived, how it substantially changed their lives, and for many, the profound human toll it has taken.

ARTICLE INFORMATION

Author Affiliations: Dr Bauchner is Editor in Chief and Dr Fontanarosa is Executive Editor, *JAMA*.

Corresponding Author: Howard Bauchner, MD, *JAMA* (Howard.Bauchner@jamanetwork.org).

Published Online: October 12, 2020.
doi:10.1001/jama.2020.20016

Conflict of Interest Disclosures: None reported.

REFERENCES

1. Woolf SH, Chapman DA, Sabo RT, Weinberger DM, Hill L. Excess deaths from COVID-19 and other causes, March-April 2020. *JAMA*. 2020;324(5):510-513. doi:10.1001/jama.2020.11787

2. Woolf SH, Chapman DA, Sabo RT, et al. Excess deaths from COVID-19 and other causes, March-July 2020. *JAMA*. Published online October 12, 2020. doi:10.1001/jama.2020.19545

3. Bilinski A, Emanuel EJ. COVID-19 and excess all-cause mortality in the US and 18 comparison countries. *JAMA*. Published online October 12, 2020. doi:10.1001/jama.2020.20717

4. Simon NM, Saxe GN, Marmar CR. Mental health disorders related to COVID-19-related deaths. *JAMA*. Published online October 12, 2020. doi:10.1001/jama.2020.19632

5. Cooper LA, Williams DR. Excess deaths from COVID-19, community bereavement, and restorative justice for communities of color. *JAMA*.

Published online October 12, 2020. doi:10.1001/jama.2020.19567

6. Wadhera RK, Wadhera P, Gaba P, et al. Variation in COVID-19 hospitalizations and deaths across New York City boroughs. *JAMA*. 2020;323(21):2192-2195. doi:10.1001/jama.2020.7197

7. Cutler DM, Summers LH. The COVID-19 pandemic and the \$16 trillion virus. *JAMA*. Published online October 12, 2020. doi:10.1001/jama.2020.19759

8. Fineberg HV. The toll of COVID-19. *JAMA*. Published online October 12, 2020. doi:10.1001/jama.2020.20019