

Study provides new insights into COVID-19 pandemic death rates

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A multi-institutional team of researchers led by the White River Junction Veterans Administration (VA), and including the West Haven VA and Palo Alto VA, has analyzed electronic health record data from more than

5.9 million veterans—spanning both pre-pandemic (March 2018–February 2020) and pandemic (March 2020–February 2022) periods—to discover nuanced insights from COVID-19's impact on mortality rates.

While former studies have primarily relied on aggregate data, this research—published in the *International Journal of Epidemiology*—offered a [unique perspective](#) by focusing on individual-level data to provide valuable information that can better prepare the U.S. for future pandemics.

Researchers compared the difference between expected and observed [death rates](#), known as "[excess mortality](#)," as well as the actual (or absolute) rates of excess mortality between groups to determine relative differences.

While [older adults](#) and those with multiple medical conditions experienced the highest rate of deaths beyond what would normally be predicted, the absolute numbers of deaths was higher in younger age groups and healthier individuals than in the older adult age group. This is because more of the U.S. population is younger and healthier.

In comparing excess [mortality rates](#) in vulnerable populations, researchers found that patients with dementia showed the highest relative rates of mortality, but the highest number of deaths were in those who had diabetes. Again, this is because there are a large number of people who have diabetes. In contrast, patients with metastatic cancer showed no excess mortality during the initial pandemic years, possibly due to protective measures taken by this group or due to the large-scale masking that was employed, which protected them from infectious disease more broadly.

Researchers also found that fully vaccinated individuals experienced no

greater mortality, further supporting the protective impact of vaccination.

There was evidence of excess mortality even after COVID-19 cases were removed from analysis. This suggests that factors beyond COVID-19, such as disruptions in care, contributed to excess mortality during the pandemic.

By analyzing both absolute and relative measures of excess mortality, the findings can assist policymakers, health care providers, and researchers in determining how to allocate resources in a health crisis to provide the best protection for different population segments.

More information: Daniel M Weinberger et al, Excess mortality in US Veterans during the COVID-19 pandemic: an individual-level cohort study, *International Journal of Epidemiology* (2023). [DOI: 10.1093/ije/dyad136](https://doi.org/10.1093/ije/dyad136)

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