



Survey Research Center, Institute for Social Research, University of Michigan, MI, USA

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Declining US life expectancy since covid-19—structural inequities foreshadow future fallout

The latest data on US life expectancy form part of a larger pattern of languishing population health, say **Grace Noppert and colleagues**

Grace A Noppert, Kate A Duchowny, Philippa J Clarke

In August 2022, the US Centers for Disease Control and Prevention (CDC) released a report showing how life expectancy for the US population had fallen for the second consecutive year.¹ The declines are alarming, but they are not surprising.

Life expectancy is both an indicator of the current health of a population and a harbinger of what might come. For social epidemiologists, the latest CDC data provide real time evidence of the power and pervasiveness of structural influences on health. These forces systematically place people from certain populations at higher risk of infectious diseases, while providing them with fewer resources to mitigate the negative long term social, economic, and health consequences arising from illness.

In 2021, US life expectancy stood at 76.1 years, declining by 0.9 years since 2020 and by 2.7 years since 2019. These new data show how drops in life expectancy have had the most severe effect on people from historically marginalised groups. The American Indian or Alaskan Native population experienced the greatest decline, with life expectancy at birth falling from 67.1 years in 2020 to 65.2 years in 2021, which is equivalent to the life expectancy for the overall US population in 1944.¹ The largest contributor to these reductions in life expectancy was an increasing number of deaths from covid-19, followed closely by unintentional injuries, which largely comprised drug overdose deaths. These trends not only reflect the extraordinary and inequitable loss of life caused by covid-19, but also the stress and despair left in the pandemic's wake.

The figures we have are likely not capturing the full story of how the health of American Indian or Alaskan Native people, or other marginalised groups, has been affected by the events of the past two years. Months into the pandemic, large portions of covid-19 case and death data were still missing race and ethnicity identifiers.^{2,3} Even when this information is included on death certificates, accurate reporting is still a major problem, with the CDC advising that data derived from death certificates be assessed with caution given systemic inconsistencies in how race and ethnicity are noted down.^{4,5} According to the CDC, deaths in the American Indian or Alaskan Native population are under-reported by at least 33%—but the true magnitude of the underestimation is unknown.⁴ Even in epidemiological analyses that aim to understand trends throughout the population, information on these groups is often overlooked or misused; small sample sizes often mean that the data in this group are aggregated with larger

subpopulations. This has the unintended consequence of further marginalising historically disadvantaged groups.

Part of an ongoing problem

Even before the pandemic, life expectancy in the US was lagging behind other high income countries that spend notably less money on healthcare.⁶ If life expectancy is an indicator of the underlying structural health of a population, then pre-pandemic trends could have told us that the US was particularly vulnerable to a global pandemic. Indeed, falls in life expectancy since covid-19 have been far worse in the US than in other high income countries. From 2019 to 2020 US life expectancy decreased by 1.8 years; other high income countries lost an average of 0.5 years.⁷ Many of these same countries recovered life expectancy in 2021, while the US continued to experience a decline in the number of years its population could expect to live.⁸

The latest trends in life expectancy among different racial and ethnic groups also raises questions about the role of political affiliation as a determinant of health. Political partisanship is strongly linked to race and ethnicity in the US; non-Hispanic white people comprise upwards of 80% of the Republican party, for example.⁹ Examining covid-19 infection and death rates by political affiliation of US states helps contextualise racial and ethnic trends in life expectancy. One analysis of data from March 2020 to December 2020 found that, as the pandemic progressed, the burden of covid-19 became increasingly concentrated in Republican led states.¹⁰ Similar patterns were documented throughout the pandemic.^{11,12} This might partially explain why, next to the American Indian or Alaskan Native population, non-Hispanic white people experienced the second greatest loss in overall life expectancy between 2020 and 2021, and why 54.1% of their decline in life expectancy was attributable to covid-19—more than any other group.¹

Examining life expectancy trends across different racial and ethnic groups over time also hints at what might be happening to entire communities and neighbourhoods. Structurally disadvantaged neighbourhoods—which, owing to forces like structural racism, are comprised disproportionately of people with a low socioeconomic status or people of colour—are facing a substantially greater fallout from covid-19, in terms of illness, death, and economic hardship. These losses will exacerbate the ongoing economic crises that these neighbourhoods have experienced.¹³⁻¹⁶ Although the neighbourhood

might be the site of ongoing fallout, it might also be one of the most powerful intervention targets we have for mitigating the consequences of current population health trends. Neighbourhoods with wide ranging and stable resources can provide a buffer against the short and long term effects of covid-19—including its socioeconomic consequences—by providing much needed social and recreational opportunities, clean air, access to telemedicine, and economic stability.^{17 18}

For those of us in population health research, the trends in US life expectancy were worrying even before the emergence of SARS-CoV-2, but these latest data are a resounding wake-up call. Looking at these data as epidemiologists, we see not only declines in life expectancy, but also who is most vulnerable and the lives that have been cut short due to systemic failures in safeguarding the health of populations.

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