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Conflicting COVID-19 excess mortality estimates

A study¹ by the COVID-19 Excess Mortality Collaborators estimates more than 18 million COVID-19 deaths globally by the end of 2021—three times those reported. The COVID-19 Excess Mortality Collaborators claim that under-ascertainment is especially severe in sub-Saharan Africa, with actual deaths 14 times higher than the 150 000 reported—more than 2 million excess deaths across the region in 2020–21.

Although we welcome efforts to quantify the burden of the pandemic, we consider this level of under-reporting of deaths implausible. There is no evidence of such a huge death toll and COVID-19 particularly affected large cities where spikes in the mortality rate would be readily visible.² We note the modelling approach in the study¹ assumes a homogeneous Africa, well represented by a few, atypical locations, leading to unreliable out-of-sample extrapolations. For example, the estimates for Kenya equate to an increase of more than 50% from a baseline of 280 000 deaths annually and imply that a country with alert health services and a mandatory death registration system identified only 3% of COVID-19-related deaths.

Although the COVID-19 pandemic has undoubtedly been a substantial public health problem in Africa, no regional estimates suggest such a high death toll.³ The WHO African region's own estimates suggest a seroprevalence of more than 50% and 430 000 COVID-19 deaths, corresponding to one in three deaths being reported in 2020–21,⁴ an under-reporting rate comparable with the rest of the world. The focus should be on understanding the mechanisms responsible for this outcome,⁵ rather than creating narratives suggesting that African health authorities were uniquely incompetent.

We declare no competing interests.

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- 1 COVID-19 Excess Mortality Collaborators. Estimating excess mortality due to the COVID-19 pandemic: a systematic analysis of COVID-19-related mortality, 2020–21. *Lancet* 2022; **399**: 1513–36.
- 2 Zhang F, Karamagi H, Nsenga N, et al. Predictors of COVID-19 epidemics in countries of the World Health Organization African region. *Nat Med* 2021; **27**: 2041–47.
- 3 Cabore JW, Karamagi HC, Kipruto H, et al. The potential effects of widespread community transmission of SARS-CoV-2 infection in the World Health Organization African region: a predictive model. *BMJ Glob Health* 2020; **5**: e002647.
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Although the global review of excess deaths from the COVID-19 pandemic might seem to give authorities in some countries encouragement for their policies,¹ it seems unfortunate that a key vulnerable group was missing from discussion in the paper.

Older people living in nursing homes were particularly affected by the pandemic, with very elevated levels of deaths, morbidity, and deprivation of civil liberties through restriction of movement and visiting. Countries with apparently successful strategies for avoiding excess deaths among the whole population, such as Ireland and

Sweden, had very high levels of deaths in nursing homes.² If these deaths had occurred among children or in children's residential settings, there probably would have been outrage and urgent remedial and preventive action taken for both present and future pandemics. The health-care community needs to develop a similar sense of focus and action for this most vulnerable, and yet neglected, group of citizens,³ and consider the determinants of this troubling disparity of equity of support and care.⁴

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- 1 COVID-19 Excess Mortality Collaborators. Estimating excess mortality due to the COVID-19 pandemic: a systematic analysis of COVID-19-related mortality, 2020–21. *Lancet* 2022; **399**: 1513–36.
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To estimate the COVID-19 death toll, the COVID-19 Excess Mortality Collaborators¹ have presented excess mortality estimates for 2020–21 for all countries in the world. We argue that for many countries, these estimates are implausible because they imply an unrealistic number of expected deaths, inconsistent with trends before the pandemic. A case in point is Japan, where the authors estimated 111 000 (95% CI 103 000–116 000) excess deaths from Jan 1, 2020, to Dec 31, 2021—an order of magnitude higher than the estimate² (*The Economist*² (12 000) and qualitatively different from the World Mortality Dataset's³ negative estimate (–13 100). The COVID-19 Excess Mortality Collaborators define excess mortality as “the difference between reported



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