BMJ Global Health

Response to critique of: 'Understanding the impact of lockdowns on short-term excess mortality in Australia' by Gigi Foster and Sanjeev Sabhlok

Philip Clarke ,[1,2] Andrew Leigh[3]

To cite: Clarke P, Leigh A. Response to critique of: 'Understanding the impact of lockdowns on short-term excess mortality in Australia' by Gigi Foster and Sanjeev Sabhlok. *BMJ Glob Health* 2023;**8**:e013595. doi:10.1136/bmjgh-2023-013595

Received 1 August 2023
Accepted 14 August 2023

Linked

► http://dx.doi.org/10.1136/bmjgh-2023-012741

Check for updates

[1]Nuffield Department of Population Health, University of Oxford, Oxford, UK
[2]MSGPH, The University of Melbourne - Parkville Campus, Melbourne, Victoria, Australia
[3]Parliament of Australia, Canberra, Australian Capital Territory, Australia

Correspondence to
Dr Philip Clarke;
Philip.Clarke@NDPH.ox.ac.uk

Our paper[1] studies the impact of lockdowns in Australia on short-term mortality. Our study finds that, compared with the period 2015–2019, the standardised mortality rate in 2020–2021 fell by 5.9%. This finding is contrary to some (such as the authors of the Great Barrington Declaration) who had predicted that lockdowns policies would have devastating short-term effects.[2]

Our study goes on to analyse the reduction in Australian mortality rates by cause of death and finds declines across both communicable and non-communicable causes of death, including respiratory diseases, cancer and heart disease. We observe a reduction in mortality for both men and women. Analysing Google mobility data, we find that the drop in deaths tracked reductions in movement outside the home.

Our paper then:

- Reviews possible explanations for the decline, such as the link between infectious disease and cardiovascular mortality.
- Makes clear the limited nature of a study focusing on short-term mortality.
- Highlights some evidence of the negative impacts of lockdowns.
- Proposes ways to capture the broader effects of lockdowns (eg quality-adjusted life-years).
- Suggests the need for a randomised experiment to understand whether allowing greater working from home may impact mortality, particularly during winter months.

Given the straightforward nature of our analysis and the careful caveats that accompany it, we are surprised by Foster and Sabhlok's (hereafter FS) fervent critique.[3] After carefully reviewing each of the points they raise, we conclude that little of its content relates to our paper. Their so-called critique is a polemic on lockdowns rather than a scientific contribution.

SUMMARY BOX

⇒ Our study reports and analyses the fall in Australian mortality rates during the lockdowns of 2020 and 2021.
⇒ Foster and Sabhlok's criticisms of our paper are either irrelevant or inaccurate.
⇒ Evidence from our study, alongside a wide range of other information, can help inform planning to deal with future pandemics.

In the interest of completeness, we provide brief responses to each of the major points they raise:

CRITIQUE 1: ASKING THE WRONG QUESTION

It is ultimately up to the authors of a paper to define the research question and for readers, including peer-reviewers and journal editors, to determine its scientific value. No reasonable reader would have been surprised to learn that a paper titled 'Understanding the impact of lockdowns on short-term excess mortality in Australia' did not reach a firm conclusion on the overall merits of lockdowns, but instead focused on the issue summarised in its title. FS's critique is akin to asking why a study of India did not consider Indonesia, why a study of measles failed to analyse mumps, or why a study of sugar neglected to consider salt.

CRITIQUE 2: SHORT-RUN MORTALITY DEATHS IS AN INCOMPLETE MEASURE OF HUMAN WELFARE LOSSES IN 2020–2021

This is self-evidently correct, but hardly a critique of our paper. Our study included caveats such as 'we are considering only the impact on mortality and do not capture the impact on morbidity from poor mental health

or from family, domestic and sexual violence.' We also write 'additional impacts of lockdowns such as disruption to economic activity and schooling also need to be considered.'

Notwithstanding this, mortality is a very common health metric. A search of the *BMJ* database returns more than 2130 articles with 'mortality' in the title.

CRITIQUE 3: LONG-RUN WELFARE COSTS (AND OTHER COSTS) OF LOCKDOWNS ARE IGNORED

It should surprise no-one that an article with 'short term' in the title did not analyse long-term effects. Equally, it should be unsurprising that an article published in 2022 could only quantify mortality in prior years. Notwithstanding this, we made clear the need to quantify longer-term impacts. We noted 'It will be important to continue track mortality in countries such as Australia to see if there are long-run mortality impacts of lockdowns, for example, from the disruption of breast cancer screening services or declining levels of physical exercise both of which may lead to an increase in mortality rates over the longer term.'

CRITIQUE 4: THE LINK BETWEEN MOBILITY AND MORTALITY CANNOT BE DUE TO REDUCTIONS IN COVID-19 DEATHS

This is less a critique than a description of the paper. The very point of studying Australia was to observe the effect of lockdowns in a country which was comparatively COVID-free. As our paper noted, in 2020 and 2021, 'Australia is unusual in having both a low death rate from COVID-19 and stringent lockdowns.' We chose Australia as a case study in order to see what could be learnt about the effects of movement restrictions on mortality. We find declines in mortality across both communicable and non-communicable causes of death, including respiratory diseases, cancer and heart disease.

CRITIQUE 5: OTHER MISLEADING STATEMENTS AND REPRESENTATIONS

FS claim that we misrepresent the Great Barrington Declaration. It is difficult to see how this can be the case, given that the declaration states 'current lockdown policies are producing devastating effects on short-term and long-term public health'. Our study explicitly does not consider long-term effects, but provide important evidence on the declaration's claim of 'devastating' short-term effects of lockdowns, at least in terms of mortality.

FS point to the increase in COVID infections in 2022, after lockdowns were lifted. This increase surprised no-one, and we scratch our heads to see how it is relevant to an analysis of the effect of lockdowns.

FS refer to the 'embarrassing ineffectualness of the COVID-19 vaccines', a claim that is at odds with the mainstream public health literature and echoes the disinformation spread by the populist antivaccination movement. A recent study estimated that COVID-19 vaccines prevented 14.4 million (95% credible interval 13.7–15.9) deaths globally in the first year of use.[4]

COST–BENEFIT OF LOCKDOWNS

We did not attempt to conduct such a cost–benefit analysis in our original study, and we do not propose to do so in this reply. We do feel it necessary to highlight that FS's cost–benefit analysis, published by a press best known for its books on climate change denial, is at odds with other evaluations. For example, legal scholar Eric Posner, a proponent of cost–benefit analysis in public policy-making, used a cost–benefit analysis early in the pandemic to argue for the continuation of lockdowns in the USA.[5] More recent evaluations of a variety of public health strategies that involved lockdowns in the UK and Australia concluded that the benefits outweighed the costs.[6 7]

Finally, two observations relating to the mortality impacts of lockdowns captured in their cost–benefit analysis are warranted:

First, FS's cost–benefit analysis is based on an assumption that lockdowns produce 7940 additional non-COVID deaths in 2020 and 2021. Our analysis, based on actual data, shows that mortality rates in these years were lower than expected, not higher. As FS at no point challenge this central finding of our paper, they should amend their calculation to account for these benefits.

Second, the majority of FS's costs are based on an estimate that lockdowns created a long-term mortality loss. Specifically, they estimate that lockdowns reduced average Australian life expectancy by about 1 week and this effect continues for the next 50 years. FS's analysis uses Sweden (a country which did not have stringent lockdowns) as a policy 'counterfactual'. It is therefore interesting to examine international comparisons of excess mortality, for example, see figure 1 based on data from Our World in Data.[8] It shows that Australia and Sweden as at March 2023 have similar levels of cumulative excess mortality. Prior to this time, Australia's excess mortality was lower than Sweden. To date, the data do not appear consistent with the assumptions underlying FS's cost-benefit analysis.

Understanding the health impacts of lockdowns is a complex exercise, and we acknowledge that our research represents only one piece of the puzzle. However, it is instructive to know that in 2020 and 2021, lockdowns in Australia had a positive short-term impact on mortality. This evidence, with the other findings and caveats in our paper, helps inform planning to deal with future pandemics.

Contributors PC and AL cowrote and approved the final manuscript.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

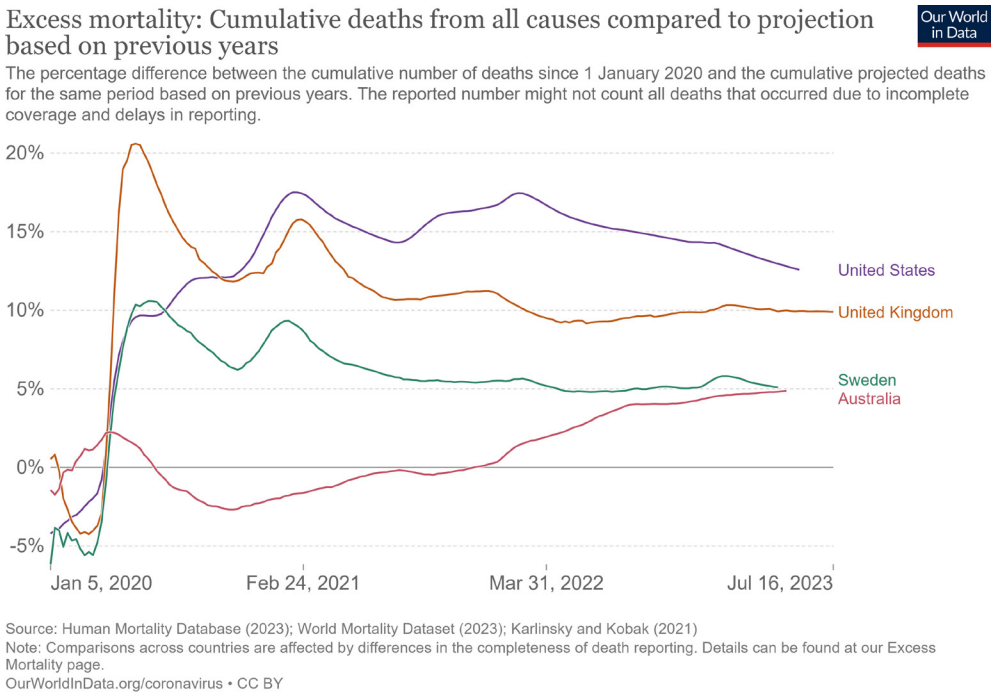

Figure 1 Cumulative excess mortality during the pandemic for Australia and three selected countries.

Patient consent for publication Not applicable.

Provenance and peer review Not commissioned; internally peer reviewed.

Data availability statement Data used to produce Figure 1 can be downloaded from the Our World in Data (www.ourworldindata.org) website.

ORCID iD
Philip Clarke http://orcid.org/0000-0002-7555-5348

REFERENCES

1 Clarke P, Leigh A. Understanding the impact of lockdowns on short-term excess mortality in Australia. *BMJ Glob Health* 2022;7:e009032.
2 Great Barrington declaration [online]. 2020. Available: https://gbdeclaration.org/ [Accessed 20 Aug 2023].
3 Foster G, Sabhlok S. Response to "understanding the impact of lockdowns on short-term excess mortality in Australia" by Philip Clarke and Andrew Leigh. *BMJ Glob Health* 2023.
4 Watson OJ, Barnsley G, Toor J, *et al*. Global impact of the first year of COVID-19 vaccination: a mathematical modelling study. *Lancet Infect Dis* 2022;22:1293–302.
5 Masur J, Posner E. Cost-benefit analysis supports continuing the National shutdown, the regulatory review [online]. 2023.
6 Sandmann FG, Davies NG, Vassall A, *et al*. The potential health and economic value of SARS-CoV-2 vaccination alongside physical distancing in the UK: a transmission model-based future scenario analysis and economic evaluation. *Lancet Infect Dis* 2021;21:962–74.
7 Blakely T, Thompson J, Bablani L, *et al*. Association of simulated COVID-19 policy responses for social restrictions and lockdowns with health-adjusted life-years and costs in Victoria, Australia. *JAMA Health Forum* 2021;2:e211749.
8 Our world in data cumulative excess mortality. Available: https://ourworldindata.org/grapher/cumulative-excess-mortality-p-scores-projected-baseline?tab=chart&country=AUS~USA~GBR~SWE [Accessed 30 Jul 2023].