

# COVID-19 information in news media: room for greater transparency

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Access to accurate scientific information is of paramount importance, particularly amid a global pandemic. We access scientific information through various platforms, including social media, news outlets (print and video), Twitter, magazines, peer-reviewed journal articles and more recently, through preprints. However, following some high-profile retractions of influential COVID-19 scientific articles, there is much mistrust and confusion around what news is accurate.<sup>1</sup> In situations like this, there is an even higher premium on ensuring that the data underlying scientific findings are publicly accessible. Thus, news outlets that continuously deliver COVID-19 related scientific information to the public should be held to similar standards as scientific journal articles, that is, to share anonymised datasets they are curating and reporting in their news articles.

One such place where underlying data are needed is the data on 'excess mortality', which has dominated the COVID-19 pandemic news cycle for months. 'Excess mortality' or 'excess deaths'<sup>2</sup> refers to the number of deaths above expected levels, regardless of the reported cause of death, and it is one measure of assessing the severity or impact of pandemics and public health emergencies. This measure is generally calculated with statistical models (code, which should also be shared) that first estimate the 'expected' deaths in a given period and compare these estimates against the actual deaths that occurred.

In the United States of America (USA), the Centers for Disease Control and Prevention (CDC) provides excess death data publicly available on

their website.<sup>3</sup> Excess deaths have also appeared in various articles from different scientific journals. And during the pandemic, news media have become active in conducting their own excess mortality estimates, frequently highlighting them in their reporting—for example, in the New York Times<sup>4</sup> and the Washington Post.<sup>5</sup> Table 1 provides a glimpse into the landscape of data and code availability among a sample of news outlets that reported on excess deaths.

As outlined in table 1, it is encouraging to note that some news media like the New York Times, the Los Angeles Times, and the Financial Times have all deposited their excess death data in the GitHub data depository. Particularly, the Washington Post and the Economist have also shared code used to calculate excess death data. However, it is concerning that some news media that health-care professionals, policy-makers, and the general public often rely on do not share data and code used to calculate COVID-19 excess death estimates.

A good example of data and code transparency among other outlets is from a journal article published in the *Journal of American Medical Association* (JAMA) that reported an estimation of excess deaths associated with the COVID-19 pandemic in the USA from March to May 2020.<sup>6</sup> The authors provide links to GitHub, where they store data and code used to report findings in their original investigation.<sup>7</sup> Although the article is not news media, Weinberger *et al* illustrate research conduct towards data and code transparency amid the COVID-19 pandemic that is applicable to news media reporting their own

**Table 1** Data and code availability among a sample of news outlets that reported on COVID-19 excess deaths

| Publication         | Data availability | Code availability | Main article URL  |
|---------------------|-------------------|-------------------|---|
| The New York Times  | Yes               | No                | <a href="https://www.nytimes.com/interactive/2020/04/21/world/coronavirus-missing-deaths.html">https://www.nytimes.com/interactive/2020/04/21/world/coronavirus-missing-deaths.html</a>   |
| The Financial Times | Yes               | No                | <a href="https://www.ft.com/content/a2901ce8-5eb7-4633-b89c-cbdf5b386938">https://www.ft.com/content/a2901ce8-5eb7-4633-b89c-cbdf5b386938</a>   |
| The Washington Post | Yes               | Yes               | <a href="https://www.washingtonpost.com/graphics/2020/investigations/coronavirus-excess-deaths-heart/">https://www.washingtonpost.com/graphics/2020/investigations/coronavirus-excess-deaths-heart/</a>   |
| Los Angeles Times   | Yes               | No                | <a href="https://www.latimes.com/projects/california-coronavirus-cases-tracking-outbreak/">https://www.latimes.com/projects/california-coronavirus-cases-tracking-outbreak/</a>   |
| BBC                 | No                | No                | <a href="https://www.bbc.com/news/world-53073046">https://www.bbc.com/news/world-53073046</a>   |
| The Chicago Tribune | No                | No                | <a href="https://www.chicagotribune.com/coronavirus/ct-dataviz-coronavirus-covid-excess-deaths-illinois-20200828-llxjzrnxnc5hjptuudce2t7ty-story.html">https://www.chicagotribune.com/coronavirus/ct-dataviz-coronavirus-covid-excess-deaths-illinois-20200828-llxjzrnxnc5hjptuudce2t7ty-story.html</a> |
| The Economist       | Yes               | Yes               | <a href="https://www.economist.com/graphic-detail/2020/07/15/tracking-covid-19-excess-deaths-across-countries">https://www.economist.com/graphic-detail/2020/07/15/tracking-covid-19-excess-deaths-across-countries</a>   |
| Star Tribune        | No                | No                | <a href="https://www.startribune.com/pandemic-leads-to-20-increase-in-overall-deaths-in-minnesota/570896072/">https://www.startribune.com/pandemic-leads-to-20-increase-in-overall-deaths-in-minnesota/570896072/</a>   |



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excess death estimates, as also exemplified by the Washington Post and the Economist.

Accordingly, it is clear that transparency in news outlets is just as important as transparency in journal articles. Without such data or code, it is challenging to replicate excess mortality estimates. Therefore, the reliability and validity of current reports on COVID-19 become questionable, considering there is always the possibility of data errors and incorrect calculations. Providing access to data and code used to calculate COVID-19 excess death estimates opens up opportunities for other stakeholders such as third-party researchers and other health policymakers to ascertain the reliability and validity of those findings. Further, from a societal perspective, accurate evaluation of the pandemic's current status is essential for future policies to reduce the pandemic's continuing burden.

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