Check for updates

Oxford PharmaGenesis

Cite this as: *BMJ* 2021;375:n2913
http://dx.doi.org/10.1136/bmj.n2913
Published: 26 November 2021

Open access for human—and planetary—health

At the beginning of the covid-19 pandemic, many scientific publishers chose to make their articles on covid-19 open access, likely strengthening the world's response to the pandemic. Caitlin Edgell argues that we should open up research on the climate crisis with the same sense of urgency

Caitlin Edgell *medical writer*

In the early weeks of the covid-19 pandemic, many scientific publishers across the world made an admirable commitment to make all research relating to the virus published in their journals openly available.[1] This decision was made in line with a 2016 joint statement on data sharing in public health emergencies issued by Wellcome[2] that had previously been used to encourage information sharing during the Zika and Ebola outbreaks.[3]

Later, in March 2020, the national science and technology advisers of 12 countries, including Germany, the UK, and the US, released an open letter to scientific publishers asking them to make all their articles related to the covid-19 pandemic publicly accessible.[4] Within days, 30 publishers had pledged to make their content related to covid-19 openly available.[5] Many others quickly followed suit.

As a result of these decisions from publishers, more than 75% of papers on covid-19 published between January and November 2020 were open access, compared with less than 50% on other biomedical subjects.[6] This likely strengthened and accelerated the world's response to the pandemic, but it may have also changed the scientific publishing landscape permanently. This has left some wondering whether other global emergencies could be dealt with more effectively if we opened up other areas of research with the same sense of urgency. For example, could we tackle one of the biggest threats to human and planetary health: the climate crisis?

When many people think about the effects of the climate crisis, they picture extreme weather events—the floods, heatwaves, wildfires, and storms. However, the climate crisis is also a health emergency. The potential health related impacts of the climate crisis include increases in heat related illnesses; increases in cardiovascular and pulmonary diseases due to air pollution; poorer nutrition and decreased food safety due to food insecurity; increases in waterborne diseases due to water insecurity; and increases in the spread of vector borne and zoonotic diseases due to changes in the geographical distribution of animal species.[7] In short, the prognosis is poor.

In the face of such a complex problem, many organisations—from universities[8] to businesses[9] and even entire countries[10]—have already made climate emergency declarations to signal their commitment to preventing the worst effects of the climate crisis. More recently, the editors of more than 200 medical journals across the world added their voices to this urgent call to action against the climate crisis and the destruction of nature in a recent joint editorial.[11]

Co-written by the editors in chief of 18 medical journals—including *The BMJ*, *The Lancet*, and *NEJM*—and simultaneously published in 229 medical journals, the editorial calls for urgent action to keep average global temperature increases below 1.5°C and to stop biodiversity loss for the protection of both human and planetary health.

The authors also consider how health institutions, including medical journals, could do more to help the world face the climate crisis by educating people about the health risks of global heating and biodiversity loss, developing environmentally sustainable health systems, and divesting from fossil fuel assets. While these are all worthy goals, there may be a much simpler way that the publishers of medical journals—and publishers across all research disciplines—could help. They could make all research relating to the climate crisis and its broader health impacts published in their journals open access immediately.

Research that is published open access has a greater impact than research that is locked behind a paywall. It is read more and cited more, and it can be built upon, reproduced, validated, or refuted by other researchers much more easily. It can also be used by members of the public, educators, clinicians, journalists, and policy makers to spread awareness of pressing issues.

What's more, open access publishing benefits researchers in low and middle income countries who may not be covered by institutional subscriptions or be able to afford to buy the articles they need to support their research. By making articles about the climate crisis freely available, these researchers would be able to access research from across the world. This could be vitally important in the fight against the climate crisis given that global heating disproportionately affects people in low income communities.

The covid-19 crisis has shown that, when pressed by a public health emergency, scientific publishers can make large amounts of research open access, and they can do so rapidly. Now that over 200 medical journals have publicly acknowledged that the climate crisis is a significant threat to human health, will they make the same commitment for climate research?

After all, UN climate experts predict that we have less than 10 years to prevent the most dangerous effects of global heating.[12] If this isn't a health emergency, what is?

BMJ: first published as 10.1136/bmj.n2913 on 26 November 2021. Downloaded from http://www.bmj.com/ on 17 April 2024 by guest. Protected by copyright.

Competing interests: CE is an employee of Oxford PharmaGenesis, which founded and supports Open Pharma.

1 Sharing research data and findings relevant to the novel coronavirus (COVID-19) outbreak. Wellcome. 31 January 2020. https://wellcome.org/

2 Statement on data sharing in public health emergencies. Wellcome. 1 February 2016. https://wellcome.org/press-release/statement-data-sharing-public-health-emergencies

3 Sharing research findings and data relevant to the Ebola outbreak in the Democratic Republic of Congo. Wellcome. 22 May 2018. https://wellcome.org/press-release/sharing-research-findings-and-data-relevant-ebola-outbreak-democratic-republic-congo

4 Finley K. Global Officials Call for Free Access to Covid-19 Research. Wired. 13 March 2020. https://www.wired.com/story/global-officials-call-free-access-covid-19-research/

5 Publishers make coronavirus (COVID-19) content freely available and reusable. Wellcome. 16 March 2020. https://wellcome.org/press-release/publishers-make-coronavirus-covid-19-content-freely-available-and-reusable

6 The pandemic has triggered an unprecedented mobilisation of the scientific community. OECD. https://www.oecd.org/sti/science-technology-innovation-outlook/crisis-and-opportunity/thepandemichastriggeredanunprecedentedmobilisationofthescientificcommunity.htm

7 Haines A, Ebi K. The imperative for climate action to protect health. *N Engl J Med* 2019;380:263-73. doi: 10.1056/NEJMra1807873.

8 University of Bristol declares a climate emergency. University of Bristol. 17 April 2019. http://bristol.ac.uk/news/2019/april/climate-emergency-.html

9 Business leaders declare a climate emergency. Centre for Climate Safety. 17 July 2019. https://climatesafety.info/business-leaders-declare-a-climate-emergency/

10 UK Parliament declares climate change emergency. BBC News. 1 May 2019. https://www.bbc.co.uk/news/uk-politics-48126677

11 Atwoli L, Baqui AH, Benfield T, etal. Call for emergency action to limit global temperature increases, restore biodiversity, and protect health. *BMJ* 2021;374:n1734. doi: 10.1136/bmj.n1734.

12 Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. IPCC. 2018. https://www.ipcc.ch/sr15/

BMJ: first published as 10.1136/bmj.n2913 on 26 November 2021. Downloaded from http://www.bmj.com/ on 17 April 2024 by guest. Protected by copyright.