Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Furthermore, regarding natural resolution, we would point out that data in the appendix of the Article[1] confirm that there was no real improvement in the Oxford Shoulder Score between randomisation and start of treatment. Although some natural resolution could be anticipated, such would have been similar in all three groups of the trial. Similarly, if any of the interventions were clearly superior, this would have been evident, despite any natural resolution that might have occurred alongside the treatment effects.

AR, SB, AK, and BC report grants from the National Institute for Health Research (NIHR)–Health Technology Assessment Programme. AR also reports grants from the NIHR, Orthopaedic Research UK, and Horizon 2020; and grants and personal fees from DePuy Synthes Johnson & Johnson, unrelated to this Correspondence.

*Amar Rangan, Stephen Brealey, Ada Keding, Belen Corbacho
amar.rangan@york.ac.uk

York Trials Unit, Department of Health Sciences, University of York, York Y010 5DD, UK (AR, SB, AK, BC); Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, Botnar Research Centre, University of Oxford, Oxford, UK (AR); James Cook University Hospital, South Tees Hospitals National Health Service Foundation Trust, Middlesbrough, UK (AR)

1 Rangan A, Brealey SD, Keding A, et al. Management of adults with primary frozen shoulder in secondary care (UK FROST): a multicentre, pragmatic, three-arm, superiority randomised clinical trial. *Lancet* 2020; **396:** 977–89.
2 Maund E, Craig D, Suekarran S, et al. Management of frozen shoulder: a systematic review and cost-effectiveness analysis. *Health Technol Assess* 2012; **16:** 1–264.

Preparing for a COVID-19 resurgence in the WHO African region

The emergence of COVID-19 in January, 2020, has led to the largest pandemic in recent history. With fragile health systems, limited testing capacities, and potentially vulnerable populations, Africa was projected to be the worst affected continent.[1] However, as of Dec 31, 2020, the African region, with 14% of the global population and 47 member states, remains among the least affected of the WHO regions, accounting for 2·4% of confirmed cases and 2·4% of deaths globally. In 2020, following substantial increases in June and July, COVID-19 cases declined in August and September, before plateauing in October and steadily increasing again in November and December.

Although several countries in Europe are experiencing second waves of the pandemic,[2] there is rising fear of a COVID-19 resurgence in the African region. The recent upsurge seen in South Africa, Nigeria, and Senegal indicates possible resurgence, with notable signs of reduced adherence to public health and social measures (PHSM). As a result, transmission in households, schools, prisons, and other close settings has increased. This increase in transmission might force member states to reinstate lockdown measures with the associated negative socio-economic consequences.

Three interventions are crucial to prepare for and respond to a possible COVID-19 resurgence. First, communities should be empowered as first responders. The experiences during recurrent Ebola outbreaks, and the HIV pandemic, suggest that member states should invest more in engaging the community in the COVID-19 response by involving community leaders as partners, so improving buy-ins for PHSM, and mitigating harm from misinformation. Member states are urged to form local committees responsible for community dialogues on preventive measures with tailored messaging based on feedback around COVID-19 risk perceptions. Second, the risk of continued spread at subnational levels should be assessed to inform tailored responses. We recommend WHO's new guidance on implementing and adjusting PHSM in the context of COVID-19,[3] which uses a risk–benefit approach at the lowest administrative level, with transmission intensity and health systems' response capacity used to assign a risk level to each area. Third, member states should plan for the worst-case scenario by anticipating when health system capacity might be overwhelmed, developing contingency plans aimed at improving and adjusting testing strategy and capacity,[4] scaling up active case finding in areas with widespread community transmission, increasing capacity to isolate all cases, and maximising the current health workforce including redeploying health workers to high-need areas.

Sustainable and rapidly implemented interventions require strengthened response coordination to reduce transmission to levels that allow economic activity to continue across the region.

We declare no competing interests. The views expressed in this Correspondence are those of the authors and do not necessarily represent the official position of WHO.

*Benido Impouma, Franck Mboussou, Francis Kasolo, Zabulon Yoti, Matshidiso R Moeti
impoumab@who.int

WHO Health Emergencies Programme, WHO Regional Office for Africa, Brazzaville BP 06, Congo (Brazzaville)

1 The Lancet. COVID-19 in Africa: no room for complacency. *Lancet* 2020; **395:** 1669.
2 Looi MK. Covid-19: is a second wave hitting Europe? *BMJ* 2020; **371:** m4113.
3 WHO. Considerations for implementing and adjusting public health and social measures in the context of COVID-19. Nov 4, 2020. https://www.who.int/publications/i/item/considerations-in-adjusting-public-health-and-social-measures-in-the-context-of-covid-19-interim-guidance (accessed Nov 7, 2020).
4 Seidu AA, Hagan JE Jr, Ameyaw EK, Ahinkorah BO, Schack T. The role of testing in the fight against COVID-19: current happenings in Africa and the way forward. *Int J Infect Dis* 2020; **98:** 237–40.

SOS Brazil: science under attack

As of Jan 21, 2021, Brazil ranks second in number of deaths from COVID-19 and third in number of cases seen in any single country. As a scientist, I tend not to believe in coincidence. In March, 2020, President Jair Bolsonaro


Simon Maina/Getty Images

Published **Online**
January 20, 2021
https://doi.org/10.1016/S0140-6736(20)32725-2

Published **Online**
January 22, 2021
https://doi.org/10.1016/S0140-6736(21)00141-0

referred to COVID-19 as a "*gripezinha*",[1] a little flu. In April, 2020, he declared there were signs the pandemic was coming to an end. A month later, when asked by journalists about the increasing numbers of COVID-19 cases, Bolsonaro responded "So what? What do you want me to do?"[2] In response, the Editors[3] suggested that "perhaps the biggest threat to Brazil's COVID-19 response is its president, Jair Bolsonaro". More recently, Bolsonaro was, to the best of my knowledge, the only head of state worldwide to say he would not get vaccinated. He even discouraged the population from taking the vaccine by saying: "If you turn into a crocodile, it's your problem".[4]

See **Online** for appendix

Although these statements are outrageous, Brazil's response to the pandemic is much worse. Testing rates are far below the world average.[5] No national policy on contact tracing has been implemented. Social distancing has been discredited. In 4 weeks, Brazil had three ministers of health. Despite Brazilian scientists and research institutes, such as Butantan and Fiocruz, being heavily involved in the global vaccine run, supplies of syringes and needles were insufficient to start the immunisation campaign.[6]

Since the beginning of Bolsonaro's presidency in 2019, science has been attacked with budget cuts and negationism. Ricardo Galvão, director of the National Spatial Research Institute, was fired after presenting and commenting on data on deforestation. Former ministers of health, Luiz Henrique Mandetta and Nelson Teich, publicly disagreed with Bolsonaro by defending scientific recommendations to fight COVID-19. I never thought I would be next.

I am the principal investigator of EPICOVID-19, the largest epidemiological study of COVID-19 in Brazil. In its first three rounds of this countrywide study, we found marked regional, ethnic, and socioeconomic disparities in the COVID-19 pandemic in Brazil, as well as a six-fold difference between official statistics and estimates on the real number of infected people.[7] These findings were not well received by the ministry of health, and funding for the study was discontinued in July, 2020. Fortunately, EPICOVID-19 has received funding from other institutions and continued to provide information on the burden of COVID-19 in Brazil.

In 2020, I was summoned to Brasília on three separate occasions for meetings with the ministry of health. Four days after my last visit to Brasília, in December, 2020, I started presenting with COVID-19 symptoms. My severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection was revealed to the public by the media, and I was accused of hypocrisy and a "do as I say, not as I do" attitude.[8] On Jan 11, 2021, in a radio interview, I was criticised by a congressman and by a journalist: the reason being that if I had been infected with SARS-CoV-2, it meant I did not follow the very advice I disseminate. On Jan 14, 2021, Bolsonaro tweeted[9] the link to the specific segment of the radio interview in which my infection was mentioned.

Coincidentally or not, Bolsonaro's attack occurred exactly when the pandemic reached unprecedented numbers in Brazil. Manaus, in the Amazon region, is experiencing chaos as oxygen supplies are being depleted. The minister of health flew to Manaus and, after a 3-day visit, announced the city would be supplied with chloroquine, ivermectin, and other drugs to fight the situation. At the same time, politicians, businessmen, and other supporters of Bolsonaro were fighting against an announced (and urgently needed) lockdown in Manaus. Unbelievably, on Jan 16, 2021, a publication from the ministry of health was flagged by Twitter as violating its publication rules for disseminating misleading and potentially harmful information related to COVID-19.

Brazil's tragic COVID-19 policy comes with a price. With 211 million people, the Brazilian population represents 2·7% of the world's population. If Brazil accounted for 2·7% of global COVID-19 deaths (ie, performing as the global average in fighting the pandemic), 56 311 people would have died. However, by Jan 21, 2021, 212 893 people have died from COVID-19. In other words, 156 582 lives were lost in the country because of underperformance. Attacking scientists will definitely not help solve the problem.

I declare no competing interests. A Portuguese version of this Correspondence is in the appendix.

Pedro C Hallal
prchallal@gmail.com

Universidade Federal de Pelotas, Pelotas 96083-466, Brazil

1 BBC. 2 momentos em que Bolsonaro chamou covid-19 de 'gripezinha', o que agora nega. Nov 27, 2020. https://www.bbc.com/portuguese/brasil-55107536 (accessed Jan 18, 2021).

2 Garcia G, Henrique Gomes P, Viana H. 'E daí? Lamento. Quer que eu faça o quê?', diz Bolsonaro sobre mortes por coronavírus; 'Sou Messias, mas não faço milagre'. April 28, 2020. https://g1.globo.com/politica/noticia/2020/04/28/e-dai-lamento-quer-que-eu-faca-o-que-diz-bolsonaro-sobre-mortes-por-coronavirus-no-brasil.ghtml (accessed Jan 18, 2021).

3 The Lancet. COVID-19 in Brazil: so what? *Lancet* 2020; **395:** 1461.

4 AFP. Brazil's Bolsonaro warns virus vaccine can turn people into 'crocodiles'. Dec 18, 2020. https://www.france24.com/en/live-news/20201218-brazil-s-bolsonaro-warns-virus-vaccine-can-turn-people-into-crocodile (accessed Jan 18, 2021).

5 Hasell J, Mathieu E, Beltekian D et al. A cross-country database of COVID-19 testing. *Sci Data* 2020; **7:** 345.

6 Jornal Nacional. Brasil pode não ter agulhas e seringas suficientes para vacinar contra Covid, alerta conselho. Dec 30, 2020. https://g1.globo.com/jornal-nacional/noticia/2020/12/30/brasil-pode-nao-ter-agulhas-e-seringas-suficientes-para-vacinar-contra-covid-alerta-conselho.ghtml (accessed Jan 18, 2021).

7 Hallal PC, Hartwig FP, Horta BL, et al. SARS-CoV-2 antibody prevalence in Brazil: results from two successive nationwide serological household surveys. *Lancet Glob Health* 2020; **8:** e1390–98.

8 Vasconcellos H. Deputado critica ex-reitor que contraiu covid-19: 'Moral de cuecas'. Jan 14, 2021. https://noticias.uol.com.br/politica/ultimas-noticias/2021/01/14/deputado-critica-ex-reitor-que-contraiu-covid-19-moral-de-cuecas.htm (accessed Jan 18, 2021).

9 @jairbolsonaro. Jan 14, 2021. https://twitter.com/jairbolsonaro/status/1349659482251526152 (accessed Jan 18, 2021).