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.

restored precisely because they are not a threat to the greater good. Indeed, with their liberties restored, individuals are empowered to contribute to the common good. This appears compatible with communitarian thinking, and the assumption that a defence of immunity passports must be motivated by a commitment to liberal individualism is unwarranted.

It is also worth noting that nearly all of Baylis and Kofler's arguments apply equally to vaccine-induced and infection-induced immunity, suggesting they would object to any lightening of restrictions for vaccinated individuals until herd immunity is established, or some other scenario in which the risks from COVID-19 become minimal. Although we very much hope such a situation will be achieved swiftly, we fear this stance could commit entire populations, including millions of immune people, to prolonged restrictions with little benefit.

Disagreement about appropriate policy responses to COVID-19 is inevitable, and debate is valuable. However, imprecise speculation about "increasing risks for discrimination" and "stratifying society across a novel biological divide" is unhelpful. It is insufficient to simply state that there is a risk while offering no indication of how large, likely, or damaging that risk is. It also neglects the clear harm done (to both individuals and communities) by restricting people's freedoms unnecessarily.

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Cyber harassment of female scientists will not be the new norm

We read with interest the articles by Estella Ektorp[1] and Nathan Peiffer-Smadja and colleagues,[2] which reported receipt of death threats and cyber harassment in Brazil, France, and Switzerland after publication of studies that did not demonstrate clinical efficacy for chloroquine and hydroxychloroquine in COVID-19.

We fully support our colleagues and feel concerned by what they report, having been victims ourselves—female professors of medicine—to varying degrees of threats of all kinds, including violent defamatory statements, stalking, and misogynistic and gender-oriented attacks. These attacks were exclusively linked to public interventions in the media, in which we attempted to rationally explain the current state of knowledge on the effectiveness and safety of hydroxychloroquine in the treatment and prevention of COVID-19. We believe it is essential to provide unbiased information to anyone who requests it—be it media, colleagues, patients, or politicians—without making false promises, while respecting the principles of evidence-based medicine and aiming to apply the best clinical practices. There is no excuse for shortcuts, even in the middle of a worldwide pandemic.

We also believe that it is essential to be accountable for our research and work in a public institutions, and therefore we agree to speak out whenever the questions fall within our fields of expertise (clinical pharmacology and toxicology and infectious diseases). Researchers and clinicians are brought to speak in the media in their areas of competence upon request by journalists through their institutions. However, we often have to assume alone the consequences of our speeches. All threats directed at researchers and clinicians must be clearly and unanimously rejected and denounced by the scientific community and the institutions for which the researchers work. Faced with the feelings of fear and destabilisation generated by these threats, the first reaction of researchers might be to avoid future intervention in the media and to leave social networks to protect themselves from online threats. This forced silence might leave room in the media for conspiratorial theories or for self-proclaimed experts promulgating bad science. We believe it is important to better prepare physicians for public interventions in their curriculum and to give them guarantees of unfailing support should they feel threatened.

Female scientists have little presence in the media,[3,4] and this lack of representation has been particularly true during the COVID-19 pandemic. Furthermore, studies have shown that women have been less represented in first and senior authorship positions during the pandemic.[5,6] However, beyond the observation of this under-representation of women, it seems to us particularly worrying that "harassment in science is real", as highlighted in a 2017 editorial in *Science*.[7] Women may be more prone than men to cyberbullying,[8] which aims to denigrate their probity and scientific competence. Comments are often directed against their physical characteristics or intended to judge and harm them.

The image of women in scientific roles has to be normalised, and role models should be heard to inspire younger generations and create a virtuous circle to counteract the silencing of womens' voices in science.

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Multiple testing and the effect of NPIs on the spread of SARS-CoV-2

You Li and colleagues[1] estimate average associations between imposing and lifting eight non-pharmaceutical interventions (NPIs) and the reproduction number (*R*) of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in the first half of 2020 across 131 countries through a regression analysis with daily data. Since changes in the status of different NPIs often occurred either jointly or in close temporal proximity within each country, their individual associations are generally difficult to disentangle from observational data and are naturally subject to substantial statistical uncertainty.[2] This uncertainty is unfortunately not adequately captured by the 95% CIs reported by Li and colleagues.[1] In particular, they do not reflect the fact that multiple NPIs are considered simultaneously, and they do not account for possible temporal and spatial dependence between datapoints.

To see the scope of the simultaneity issue, consider the association between NPI-status changes and the percentage shift in *R* after 28 days. With lengths between 30 and 72 percentage points, the corresponding 95% CIs reported in the right column of table 1 in the Article are quite wide to begin with. But with 16 estimates to account for in this case alone, a simple Bonferroni correction[3] would further widen each 95% CI by about half. Although there are other statistical adjustments that might not result in quite as much stretch, it is safe to predict that 95% CIs that correctly account for multiple comparisons would be much wider than the ones presented in table 1, would all cover a zero change in *R*, and would overlap substantially.

It is therefore not possible to deduce from this kind of data with conventional levels of statistical certainty that imposing or lifting any particular NPI is associated with a non-zero change in *R* after 28 days, or that any particular NPI works better than any of the others under consideration (analogous comments apply to estimates for other timepoints). Given the substantial statistical uncertainty, individual point estimates should also not be interpreted as precise predictions of the effect of future interventions.

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Why development of outbreak analytics tools should be valued, supported, and funded

The COVID-19 pandemic has brought infectious disease modelling to the forefront, with mainstream media uncovering the good, the bad, and sometimes, the ugly in a field of research that is being used more than ever to inform public health decision-making. A dramatic example is the code release of Imperial College London's COVID-19 simulations, which sparked waves of criticisms for its poor coding practices, although the results themselves were later found to be reproducible.[1]

Does good coding matter in science? If by good coding we mean using practices that make the code clear and easy to reuse, maintain, expand on, and test—in short, reliable—then the answer is yes. And it matters even more when the corresponding piece of software is used to inform public health operations. Unfortunately, scientific software development has struggled to gain recognition,[2,3] and there has been little incentive so far