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.

Spike protein subunit vaccine, have also been approved for clinical trials in China and could soon be available for emergency use. The next challenge will be to enhance the communication between the health-care providers and the public to overcome the vaccine hesitancy and make the vaccination service accessible to all people, the older and vulnerable people in particular. Moreover, the production of effective anti-SARS-CoV-2 drugs and preparation of sufficient medical resources, including intensive care units and teams for severe diseases and training of grassroots-level health-care workers capable of last-mile services of disease control and prevention are on the way. We believe that China will win the fight against the COVID-19 pandemic in joint efforts with other members of the international community in the not too distant future.

XZ declares funding from the Science and Technology Commission Shanghai Municipality. WZ declares funding from the National Natural Science Foundation of China. SC declares no competing interests. We thank the Shanghai Public Health Clinical Center for contributing to the viral sequence data analysis.

*Xinxin Zhang, Wenhong Zhang, *Saijuan Chen*
sjchen@stn.sh.cn

Department of Infectious Diseases, Research Laboratory of Clinical Virology (XZ) and State Key Laboratory of Medical Genomics, Shanghai Institute of Hematology (SC), National Research Center for Translational Medicine, Shanghai, China; Ruijin Hospital, Shanghai Jiao Tong University School of Medicine, Shanghai 200025, China (XZ, SC); Department of Infectious Diseases, Shanghai Key Laboratory of Infectious Diseases and Biosafety Emergency Response, Huashan Hospital, Fudan University School of Medicine, Shanghai, China (WZ)

1 Cheung PH, Chan CP, Jin DY. Lessons learned from the fifth wave of COVID-19 in Hong Kong in early 2022. *Emerg Microbes Infect* 2022; **11:** 1072-78.

2 Hong Kong Centre for Health Protection of the Department of Health, and the Hospital Authority. Statistics on 5th wave of COVID-19. May 4, 2022. https://www.covidvaccine.gov.hk/pdf/5th_wave_statistics.pdf (accessed May 5, 2022).

3 Shanghai Municipal Health Commission. Sun Chunlan: Continue to attack the fortress, expand the results, and work hard to achieve social zero. May 1, 2022. https://wsjkw.sh.gov.cn/xwfb/20220501/ca9c63e8dc9a46d4add419eebfc55cf4.html (accessed May 5, 2022).

4 Chinese National Health Commission. The number of people over the age of 60 covered by the COVID-19 vaccine reaches 226 million. April 28, 2022. https://content-static.cctvnews.cctv.com/snow-book/index.html?item_id=14509763387649260051&toc_style_id=feeds_default&share_to=qq&track_id=248988cf-1061-4761-ba82-7952cdc2d727 (accessed May 5, 2022).

Violence against health-care workers in the Philippines

Filipino health-care workers have not been immune to the growing violence and impunity in the country since President Duterte took office in 2016. Since 2017, at least ten doctors have been violently killed in various regions of the Philippines. Six were killed in 2017 alone.[1] In 2020, Mary Rose Sancelan, a city health officer in Negros Oriental, and the only doctor serving in the province's COVID-19 pandemic response, was shot dead with her husband. She was previously red-tagged by a local anti-communist vigilante group. In December, 2021, Raul Andutan, a surgeon and medical director in Cagayan De Oro, was killed in broad daylight for a reported bounty of US$3000.[2]

Both the Anti-Terrorism Act of 2020 and a militarised COVID-19 response have enabled and exacerbated this violence. The Alliance of Health Workers, a local health-care worker union, was accused of fronting the Communist Party of the Philippines.[3] Amid the pandemic, nurses were evicted for fears of spreading the virus,[4] and an ambulance driver accused of endangering the community was shot for parking in a residential area.[5] The escalation of offences eventually prompted the creation of the Mandatory Protection of Health Workers, Frontliners, and Patients Act.[6]

The accumulation of such incidents causes insecurity—real or perceived—with consequences that are far-reaching. The absence of security creates medical deserts, depriving entire communities of health care, and causing severe and lasting disruptions to public health across the archipelago. The indirect consequences of violence against health-care workers are thus diffuse and insidious, but might assume disastrous proportions.

All forms of harm maliciously inflicted upon health-care workers are abhorrent and unacceptable, especially when they result in the irreversible termination of a life. Beyond being seen as human resources, health-care workers deserve dignity, safety, and security; to only call them heroes or appeal to their patriotism is paltry lip service and simply does not do enough. Although national and international communities have condemned these senseless attacks, very few cases have been resolved, and even fewer influential institutions have gone beyond issuing statements of condemnation. More so, the enabling environment for health-care workers to organise themselves to seek redress for even the most basic of grievances, much less actively pursue justice for fallen colleagues, leaves much to be desired.

We call on our leaders to act with commensurate urgency in serving justice for our health-care workers, and in safeguarding health-care workers against both explicit and surreptitious harm. The murder of a life spent in service of the underserved should be unsettling, and should lead to concrete reform, accountability, and justice, especially by people and institutions in power. We ask the international health community for solidarity in support of this call.

We declare no competing interests.

**Michelle Ann B Eala, Ethan Angelo S Maslog, Janine Patricia G Robredo, Raymond Joshua L San Pedro, Paolo Victor N Medina, Edelina P De la Paz, Gideon Lasco*
mbeala1@up.edu.ph

Department of Family and Community Medicine (PVNM, EPDlP), and Social Medicine Unit (GL), College of Medicine (MABE, EASM), University of the Philippines Manila, Manila 1000, Philippines; School of Medicine and Public Health, Ateneo de Manila University, Pasig City, Philippines (JPGR); Council for

Health and Development, Manila, Philippines (RJLSP); Development Studies Program, Ateneo de Manila University, Quezon City, Philippines (GL); Department of Anthropology, University of the Philippines Diliman, Quezon City, Philippines (GL)

1 Felongco GP. Group slams continued killing of doctors. Sep 17, 2017. https://www.thefreelibrary.com/Group + slams+continued + killing + of + doctors - a0504950186 (accessed Jan 18, 2022).
2 Lasco G. Justice for Dr Raul Andutan. Dec 10, 2021. https://opinion.inquirer.net/147376/justice-for-dr-raul-andutan (accessed Feb 3, 2022).
3 Gavilan J. Groups slam "dangerous" red-tagging of health workers. April 11, 2019. https://www.rappler.com/nation/227930-groups-slam-red-tagging-harassment-health-workers/ (accessed Jan 18, 2022).
4 Santos AP. Attacked & underpaid: medics in Philippines battle stigma, virus. April 2, 2020. https://www.aljazeera.com/news/2020/4/2/attacked-underpaid-medics-in-philippines-battle-stigma-virus (accessed Jan 18, 2022).
5 Talabong R. Frontliner attacked in Quezon for parking ambulance inside subdivision. April 3, 2020. https://www.rappler.com/nation/256888-frontliner-attacked-quezon-coronavirus-fears/ (accessed Jan 18, 2022).
6 Senate of the Philippines. Hontiveros files bill to protect health workers from discrimination, amid COVID-19 crisis (press release). April 16, 2020. http://legacy.senate.gov.ph/press_release/2020/0416_hontiveros1.asp (accessed Jan 18, 2022).

The Biden administration's unfulfilled promise of humane border policies

Under Donald Trump's Migrant Protection Protocols (MPPs)—colloquially known as Remain in Mexico—over 70 000 non-Mexican asylum seekers, mostly from central America, were forced to await their asylum hearings in often dangerous border towns in Mexico. After being shunted to Tijuana, Mexico, a father of two was brutally killed there—one of 1544 MPP victims known to have been murdered, raped, tortured, or kidnapped;[1] 84% of asylum seekers ejected from the USA under the MPPs have developed post-traumatic stress disorder, their ordeal at the border compounding trauma experienced in their home countries.[2]

Joe Biden, as a candidate, vowed to dismantle the MPPs and Trump's other restrictive immigration policies, and Biden's administration terminated these in June, 2021. However, a Texas judge reinstated the MPPs, at least temporarily. Other migrants have been denied the chance to even make asylum claims. Since the early days of the COVID-19 pandemic, an obscure public health law (Title 42), widely decried by public health professionals, has served as the pretext to empower border agents to expel migrants without assessing their asylum claims.[3] Although the administration plans to terminate such expulsions—a move that Republicans and some Democrats are trying to block in the courts and Congress[4]—more stringent application of the MPPs might take its place.

My (JEM) observations while performing medical examinations in Matamoros and Reynosa, Mexico, indicate that the Trump-era suffering persists. Several patients I examined had experienced sexual and other violent assaults while living in the makeshift encampments, which sometimes did not have adequate food, water, and shelter.

The re-imposition of the MPPs and uncertainty regarding Title 42 signal the broader difficulty of reversing punitive immigration policies that, although exacerbated by Trump, were promoted by Bill Clinton and solidified under George W Bush in the wake of the attacks on Sept 11, 2001. The selective, racist application of these policies is highlighted by the welcome accorded to Ukrainian refugees—a move we support—even as gravely endangered refugees of colour are turned away.

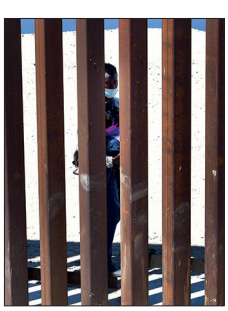
Ensconcing humane border policies that comply with international asylum law and human rights standards will require more than merely dismantling Trump's immigration policies.[5] Border enforcement strategies must be re-envisioned, including changes that guarantee the right to pursue asylum claims in a safe environment, and immigration laws and procedures reformed to assure fairness and timely adjudication. The medical community must document the health harms of current policies and join in demanding that the Biden administration implement policies recognising (in the words of one-time refugee Hannah Arendt[6]) migrants' right to have rights.

AS reports grants (paid to his employer) from the National Science Foundation, Russel Sage Foundation, American Academy of Neurology, and the Rappaport Foundation. JEM declares no competing interests.

*Juliana E Morris, Altaf Saadi
jmorris9@mgh.harvard.edu

Department of Medicine (JEM) and Department of Neurology (AS), Massachusetts General Hospital, Harvard Medical School, Boston, MA 02115, USA

1 Human Rights First. Delivered to danger. 2021. https://www.humanrightsfirst.org/campaign/remain-mexico (accessed March 14, 2022).
2 Physicians for Human Rights. Forced into danger: human rights violations resulting from the US migrant protection protocols. Jan 19, 2021. https://phr.org/our-work/resources/forced-into-danger/ (accessed March 6, 2022).
3 Beckett AG, Viaud L, Heisler M, Mukherjee J. Misusing public health as a pretext to end asylum—Title 42. *N Engl J Med* 2022; published online March 23. https://doi.org/10.1056/NEJMp2200274.
4 Aguilera J. Biden faces Republican outrage over immigration after announcing end of Title 42. April 7, 2022. https://time.com/6164735/title-42-border-immigration-biden-republicans/ (accessed April 12, 2022).
5 Physicians for Human Rights Asylum Policy Working Group. Re-imagining the asylum system: recommendations from asylum medicine experts. May 12, 2021. https://www.healthaffairs.org/do/10.1377/forefront.20210510.133971 (accessed March 6, 2022).
6 Arendt H. The origins of totalitarianism, new edn. Orlando, FL: Harcourt Brace, 1958.



Frederic J. Brown/AFP/Getty Images

Adverse pregnancy outcomes: biological essentialism versus embodied biology

We welcome Jennifer Jardine and colleagues' Article[1] documenting the ethnic inequities in adverse pregnancy outcomes, and their recommendations for systemic changes to address these inequities. However, we strongly caution against theorising that innate physiological differences between patients of different race or ethnicities in the study might be