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.

focus towards the health literacy of the US population. During the COVID-19 pandemic, a well equipped public health system would have ensured greater availability of testing facilities and universal implementation of preventive measures. By acting as the front-line barrier, it would have buffered the clinical health-care delivery system by substantially decreasing the burden placed on it. Failure to do so has cost the USA in terms of deaths and illness related to COVID-19 and the cost of the stimulus package and the vaccines.

The country's leadership in the development of the COVID-19 vaccines is yet another testament to the USA as a powerhouse for medical research and innovative technology. It is not enough. The Biden administration provides an opportune time for improvement in planning and deployment.

We declare no competing interests.

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For **Get Us PPE** see https://getusppe.org/

UK guidelines for managing long-term effects of COVID-19

Robin Gorna and colleagues[1] state that people with lived experience should have been involved in developing the National Institute for Health and Care Excellence (NICE), the Scottish Intercollegiate Guidelines Network (SIGN), and the Royal College of General Practitioners (RCGP) guideline on managing the long-term effects of COVID-19. The expert advisory panel for developing the NICE–SIGN–RCGP guideline had 23 members who contributed substantial clinician and patient experience to discussions.[2] Two stakeholder consultations were held and the guideline was adapted in response to feedback from patient-led, health, and care organisations. This adaptation included the addition of a table of commonly reported symptoms.

The panel heard evidence from clinicians and patients who felt that symptoms were not taken seriously. A need for detailed assessment of all symptoms and their overall effect on a patient was emphasised. We stressed the need for timely referral and investigation and for the development of individualised treatment plans. We reject Gorna and colleagues'[1] suggestion that we overly focus on self-management.

The panel's rationale for the term post-COVID-19 syndrome is to reflect that the acute phase of the illness has ended, and that the ongoing illness includes a wide range of symptoms that might not have been evident during the initial infection. Patient feedback raised the concern that the term long COVID implied ongoing infectivity, for which there is no evidence. The panel did not consider that there was adequate existing evidence to propose underlying mechanisms for post-COVID-19 syndrome at this time.

Research recommendations were made relating to the urgent need for mechanistic studies and clinical research into best investigative and treatment approaches. The guideline will be continually updated as such evidence becomes available.

WS is chair of the Independent Advisory Expert panel of the NICE–SIGN–RCGP rapid guideline Managing the Long-term Effects of COVID-19, and is a general practitioner. MH and SO are expert panel members for the NICE–SIGN–RCGP guidelines. SO is also the lay representative for the NICE–SIGN–RCGP guidelines.

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Effective supply chain surveillance for PPE

Control of the COVID-19 pandemic has been hampered by reported shortages of personal protective equipment (PPE) and other crucial supplies for health-care providers across the USA.[1] A key impediment to increasing the supply to meet this demand is reliable data on nationwide needs.[2] Reliable forecasting models could help provide information to more accurately scale PPE production, set expectations for health-care facilities on bidding and pricing, and enable appropriate deployment of resources, such as funds from the Coronavirus Aid, Relief, and Economic Security Act (2021).[3] However, predictive modelling of needs for key necessities during public health disasters are largely non-existent. To the best of our knowledge, the most comprehensive publicly available data has been the Get Us PPE shortage index, but it is an incomplete and non-representative picture of national PPE needs within the USA.[4] We recommend the following framework to better inform crisis response for inevitable future public health disasters.

First, there is a need to aggregate demand data. Similar to a strategy to estimate incidence of injuries in emergency departments, data should be collected from a representative sample of health-care institutions (eg, acute and non-acute care facilities and clinics) where PPE is necessary.[5] Key data elements and a comprehensive humanitarian data dictionary should

be developed and redeployed in future scenarios (appendix).

Second, there is a need to aggregate supply data through periodic reporting by manufacturers and incentivised by a federal procurement commitment when a crisis occurs. The Drug Supply Chain Security Act (2013) provides a template for a track and trace programme using a unique serial number that can then be used to develop aggregated estimates.

Third, we recommend using the collected data to project supply and demand trends over time. Integration of COVID-19 incidence rates, use of PPE by institution type, and supply available at representative institutions will help us forecast gaps. Integration of susceptibility indices that include socioeconomic and racial equity indicators ensures that the groups who are at high risk of being exposed to COVID-19 are prioritised for PPE distribution.

Finally, we need to drive action. Forecasts should have a clear call to action with predetermined benchmarks for supply chain preparedness and response, including activating the Defense Production Act (1950), offering large contractual commitments for PPE, and activating a designated national digital clearing house for PPE similar to how Get US PPE currently functions.

To our knowledge, no model currently fulfills this framework. Our framework enables the collection of appropriate data and the development of relevant live models that can inform PPE allocation during any future public health crises.

SH, RB, and MLR are unpaid volunteers and executive board members of Get Us PPE. SH is an unpaid lawyer for the American College of Emergency Physicians PPE Supply Chain Task Force. SH is on the advisory board for COVID Act Now and the Safeter app, cofounder of ConductScience, and a committee member for the American College of Emergency Physician PPE Supply Chain Task Force; receives research funding from the Foundation for Opioid Response Efforts, and reports personal fees from MazeEngineers, Withings, Boston Globe, and the American College of Emergency Physicians. RA is a member of the board of the US Global Health of the National Academies. MLR reports grants from National Institutes of Health (NIH) and the US Centers for Disease Control and Prevention, speaker fees from Medscape for talks about COVID-19 testing, and travel fees from the American College of Emergency Physicians and Society for Academic Emergency Medicine. MLR has participated on the Data Safety Monitoring Board for NIH Clinical Trials Network, was a former board member of the Society for Academic Emergency Medicine and American Foundation for Firearm Injury Reduction in Medicine, and is a current board member of the NonViolence Institute.

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No-fault compensation schemes for COVID-19 medical products

No-fault compensation schemes for severe adverse events can help build confidence in vaccine safety after marketing.[1] 25 of the 194 WHO member states have implemented such no-fault vaccine injury compensation programmes.[2] Although the USA is covering COVID-19 vaccine-associated adverse events with the US Countermeasures Injury Compensation Program (CICP) for the duration of the public health emergency declaration, the country is having challenging issues as CICP does not have the ease of access to, and levels of compensation provided by the US National Vaccine Injury Compensation Program available at normal times, exacerbating long-standing inequities based on income, race, and ethnicity.[3]

See **Online** for appendix

For the **National Injury Compensation Program** see https://www.hrsa.gov/cicp/cicp-vicp

Japan has a long-established no-fault compensation scheme for people who have adverse drug reactions from vaccines or drugs. The vaccine health damage relief system (a no-fault compensation scheme authorised by the Immunisation Act of 1976 is managed by the Japanese Ministry of Health, Labour and Welfare (MHLW) and prefectural governments.[4] Between February, 1977, and December, 2019, 3419 people were certified by the MHLW.[5] In fiscal year 2019, the MHLW received 134 health damage relief claims of which 88 were certified; the annual MHLW budget for these claims in 2019 was US$10·8 million.[5]

For **relief claims** see https://www.mhlw.go.jp/topics/bcg/other/6.html

Japan is unique in that it has a no-fault compensation scheme for drugs financed mainly by contribution from pharmaceutical companies. France, Germany, New Zealand, Taiwan, Denmark, Norway, Sweden, and Finland have similar systems.[6] In Japan, the scheme for drugs was introduced in 1979 and is authorised by the Pharmaceuticals and Medical Devices Agency (PMDA).[7] In fiscal year 2019, the PMDA received 1590 relief claims, 1285 of which were certified, and US$22·6 million was paid within the same fiscal year.[8]

The COVID-19 pandemic presents an opportunity not only for vaccines, but also for covering drugs under no-fault compensation schemes.

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For the **Countermeasures Injury Compensation Program** see https://www.hrsa.gov/cicp