

The UK needs a sustainable strategy for COVID-19

Gurdasani D¹, Bear L², Bogaert D³, Burgess RA⁴, Busse R⁵, Cacciola R⁶, Charpak Y⁷, Colbourn T⁴, Drury J⁸, Friston K⁴, Gallo V⁹, Goldman LR¹⁰, Greenhalgh T¹¹, Hyde Z¹², Kuppalli K¹³, Majumder MS¹⁴, Martin-Moreno JM¹⁵, McKee M^{16,17}, Michie S^{4,17}, Mossialos E¹⁸, Nouri A¹⁹, Pagel C^{4,17}, Pimenta D²⁰, Popescu S²¹, Priesemann V²², Rasmussen AL²³, Reicher S^{24,17}, Ricciardi W²⁵, Rice K³, Silver J¹¹, Smith TC²⁶, Wenham C², West R⁴, Yamey G²⁷, Yates C^{28,17}, Ziauddeen H²⁹

¹ Queen Mary University of London, UK

² London School of Economics and Political Science, London, UK

³ University of Edinburgh, UK

⁴ University College London, UK

⁵ Technische Universität Berlin, Germany

⁶ Department of Surgical Sciences, Università Di Tor Vergata, Rome, Italy

⁷ Fondation Charpak, L'esprit des Sciences

⁸ University of Sussex, UK

⁹ University of Groningen, Campus Fryslân, The Netherlands

¹⁰ George Washington University Milken Institute School of Public Health, USA

¹¹ University of Oxford, UK

¹² University of Western Australia, Perth, Australia

¹³ Medical University of South Carolina, Charleston, SC, USA

¹⁴ Harvard Medical School, Boston Children's Hospital, Boston, MA USA

¹⁵ Preventive Medicine and Public Health, University of Valencia, Spain

¹⁶ London School of Hygiene and Tropical Medicine, UK

¹⁷ Independent SAGE, UK

¹⁸ London School of Economics, UK

¹⁹ Federation of American Scientists, USA

²⁰ Healthcare Workers' Foundation, UK

²¹ George Mason University, Arlington, VA, USA

²² Max Planck Institute for Dynamics and Self-Organization, Göttingen, Germany

²³ Columbia Mailman School of Public Health, New York, NY USA

²⁴ University of St. Andrews, UK

²⁵ Università Cattolica del Sacro Cuore, Rome, Italy

²⁶ Kent State University, Kent, OH USA

²⁷ Duke University, Durham, NC, USA

²⁸ University of Bath, UK

²⁹ University of Cambridge, UK

The UK is well into the second wave of COVID-19 with 60,051 lives lost to SARS-CoV-2, to date.¹ Cases have been rising exponentially since late August² with increases across all regions in England in recent weeks.^{3,4} As of 4th November, the UK had 25,177 confirmed daily cases². These are almost certainly under-estimates as between 17th-23rd October, England alone had 52,000 estimated daily cases.⁵ Estimates of the effective reproduction number in England vary between 1.1-1.6^{3,6}.

Daily deaths have doubled every fortnight¹ since early September, with 2,067 COVID-19 deaths in the last week² and around 12,000 more likely in the next month - the majority amongst those who have already been infected. With 12,000 patients currently hospitalised with COVID-19, health services are close to capacity in many regions.² We are seeing >1,400 daily admissions in England,² a single doubling period away from the April peak of 3,000, which could be reached within 2-3 weeks.

On the 21st September, SAGE advised the UK government to institute a circuit breaker in England to suppress the epidemic. Instead, the government opted for several weeks of ineffective local tiered restrictions and cases continued to rise exponentially. Finally, on the 31st October, the government announced a 4-week national 'lockdown' commencing on the 5th November.

Lockdowns are last resort measures that reflect a failure of the pandemic control strategy. They have massive impacts on the population and the economy. To avoid repeated lockdowns and their impacts, we need a sustainable COVID-19 public health strategy. Here, we make seven evidence-based recommendations for this (**Figure 1**).

First, we need urgent reform of the ineffective, private sector run find, test, trace, isolate and support (FFTIS) system. As recommended by Independent SAGE, the current system in England must be integrated with and led by NHS England, with leadership from local Directors of Public Health, so that local knowledge can facilitate prompt contact tracing.⁷ To ensure prompt testing, we recommend bringing together all current test providers in a national COVID testing consortium, under the oversight and management of NHS England.⁷ To make this system effective, people should be supported to isolate when required ('supported isolation') with accommodation, domestic assistance, financial support, and greater resourcing for mutual-aid groups.⁷

We urge the government to cease extravagant promises about aspirational technologies.⁸ Technologies only deliver health care or save lives when integrated into clinical practice in an adequately resourced healthcare system. Focusing on the potential of a technology that does not yet exist, or is not yet widely used in the NHS, may undermine trust in the government and hamper the pandemic response.

Second, we need to support and protect health services so that they can cope with COVID-19, deliver routine care, and manage the significant morbidity from Long COVID. Reducing community transmission will be critical for this but following a decade of underfunding and a

huge hit from the pandemic, health services need urgent financial support, adequate PPE and measures to increase staff recruitment and retention.

Third, we need to ensure continued and uninterrupted education for children of all ages. For this, we need to control community transmission and transmission in educational settings. Schools need clear guidance and support packages including better ventilation/air filtration, particularly through winter.^{9,10} We recommend use of face coverings for staff and secondary school children (with exemptions), and encourage mask use among primary school children. Empty facilities could be repurposed to allow face-to-face education with smaller class sizes to minimise transmission. Additional teachers could be recruited, or as SAGE has suggested, a blended teaching system adopted (50% students attend, 50% are taught online in a given week), as has been implemented in other countries.¹¹ For the latter, children must be provided with access to laptops/tablets and broadband internet. If school closures become necessary to control transmission, schools must be supported to move to online teaching to ensure all children can continue their education, and families provided with practical and financial support. Universities have been a major hub of community transmission and should move to online teaching where possible, with students supported to return home safely with government support and guidance.

Fourth, we need comprehensive economic support packages for the population over the coming month, especially for deprived communities. Ethnic minority groups will need targeted support as they are at higher risk due to racism, stigma, poor housing, key worker roles and multigenerational households. Specific measures are required to protect children and women living in poverty and those at risk of domestic violence.

Fifth, we need a robust regulatory system and financial support to help employers and businesses make their facilities safe, and to ensure that facilities meet the necessary safety standards to remain open.¹² Occupational safety regulations need to be supported by anti-racism and equality laws robustly applied to employers. This will require the restoration of an adequate Health and Safety Inspectorate.

Sixth, we need coordination across the UK and with continental Europe. The regional governments of Scotland, Wales and Northern Ireland have attempted to lead with more effective responses, but have been hampered by poor national strategy. We need a joint strategy with Europe, including coordinated travel restrictions, data sharing, interoperability of COVID-19 tracing apps and use of EU passenger locator forms. The UK would benefit from joint development, procurement, and validation of rapid tests, medical kits and fair vaccine allocation protocols.

Finally, we need clear and consistent public health messaging. The lack of this has allowed mis- to thrive. The government needs to urgently restore public trust and confidence. It must reinstate daily briefings and be open, honest and transparent about where we are. It must admit to and learn from mistakes, not overstate its capabilities and achievements and treat the public as equal partners, working with communities to develop effective health promotion strategies. The government must clearly communicate that protecting school education, routine health care

provision, and the economy are all inextricably tied to controlling COVID-19¹³, and must stop conveying these as competing objectives.

Controlling the spread of COVID-19 is possible. We need to learn from the mistakes of the last 9 months, lest we find ourselves here yet again.

While this letter is about the UK situation, COVID-19 is a global pandemic and our collective responsibility. We are therefore writing as a concerned group of international scientists from the UK and other countries and regardless of our current country of residence, many of us have strong personal connections to the UK.

References

1. Dataset: Deaths registered weekly in England and Wales, provisional: Office for National Statistics, 2020.
2. Coronavirus (COVID-19) in the UK. 2020. <https://coronavirus.data.gov.uk/>.
3. Riley S, Ainslie KEC, Eales O, Walters CE, Wang H, Atchison C, Fronterre C, Diggle PJ, Ashby D, Donnelly CA, Cooke G, Barclay W, Ward H, Darzi A, Elliot P. High prevalence of SARS-CoV-2 swab positivity and increasing R number in England
4. Public Health England. Weekly Coronavirus Disease 2019 (COVID-19) surveillance report: Week: 40, 2020.
5. Office for National Statistics. Coronavirus (COVID-19) Infection Survey, UK: 23 October 2020, 2020.
6. SAGE. The R number and growth rate in the UK. 2020. <https://www.gov.uk/guidance/the-r-number-in-the-uk> (accessed 30/10/2020).
7. Independent SAGE. A blueprint to achieve an excellent Find, Test, Trace, Isolate and Support System. 2020.
8. McKee, M. Martin McKee: Will Boris Johnson's "Moonshot" become lost in space? British Medical Journal. 2020
9. World Health Organisation. Coronavirus disease (COVID-19): Ventilation and air conditioning in public spaces and buildings: World Health Organisation, 2020.
10. Centre for Disease Control. Community work and school: COVID-19 Employer Information for Office Buildings.
11. Ministry of Education. Guide to reopening Ontario's schools, 2020. <https://www.ontario.ca/page/guide-reopening-ontarios-schools#section-4>
12. Independent SAGE. Independent SAGE Report 10: The COVID-19 Safe Workplace Charter and briefing document on ending work lockdowns in GB. 2020
13. Joe Hasell. Which countries have protected both health and the economy in the pandemic? Our World in Data. 2020. <https://ourworldindata.org/covid-health-economy>