
February 12, 2021

The Independent Scientific Advisory Group for Emergencies (SAGE)

The Independent SAGE Report 35

How to achieve global vaccine roll out

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Submitted to The UK Government and the People of Great Britain
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How to achieve global vaccine roll-out

Independent SAGE

Recommendations

1. Create a UK Global Pandemic Strategy Board to advise on long term response, consistency and fairness in border controls, and suppression of community transmission
2. Ensure UK funding to diagnostics, vaccine and drug development is linked to a tangible commitment for equitable global distribution.
3. Reinstate the UK commitment of 0.7% GDP funding for international aid, to support this initiative
4. The G20 leaders should meet urgently to agree a global strategy and finance for equitable vaccine and drug supplies.

BACKGROUND

Viruses know no borders. Some, like SARS CoV-2 viruses, responsible for COVID-19, spread very effectively. As long as border controls are lax, they can establish themselves in countries prior to detection through national surveillance or testing programmes. Indeed, during February 2020—when UK infection control focused on those entering UK from Wuhan—large numbers of infected individuals were returning from half-term holidays in Spain, Italy and France. Similarly, when UK borders were closed to Portugal, Brazil and South Africa in January 2021, to prevent importation of specific variants, those variants were already prevalent in other parts of the world. Indeed, 77 cases with the “South African” variant were identified in the UK in January.

(<https://www.bbc.co.uk/news/uk-55786409>) and have recently been detected in 8 areas of England. (<https://www.theguardian.com/world/2021/feb/01/south-african-variant-of-covid-found-in-eight-areas-of-england>) Equally, the UK is also a threat to other countries, as people leave the UK to travel elsewhere especially with the more virulent Kent variant. This highlights the need for global consistency in border controls.

Immunisation against COVID requires global reach to effectively limit international spread and to aim for global elimination of SARS-CoV-2. There has been stimulation of vaccine development through multi-lateral agencies such as the Coalition for Epidemic Preparedness Innovations (CEPI), The Global Vaccine Alliance (GAVI) and the World Health Organization (WHO), and widespread advocacy for access to vaccines for Low- and Middle-Income Countries (LMIC). Despite this, we are in the midst of a vaccine nationalism crisis. WHO and GAVI are co-leading the COVAX programme, which aims to ensure a global risk-sharing mechanism for pooled vaccine procurement, and equitable distribution of vaccines. Without it, we face a serious risk that the majority of people in the world will not be protected against COVID, and that this will allow the virus—and its impact—to continue unabated. The inability to curb governments’ prioritisation of their own populations has meant that huge swathes of the world are unlikely to see vaccine until 2022.

THE THREAT OF MUTANT VARIANTS

The longer COVID can circulate among millions of people globally, the more likely new variants are to emerge which might resist existing vaccines. Such variants would then threaten new epidemic waves even in countries with near full vaccination. Indeed, this

is now becoming apparent, through the convergent evolution of the E484K spike protein mutation in a number of circulating lineages, as well as early indications of a reduced efficacy of vaccines in the face of these new variants (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/957504/Variant_of_Concern_VOC_202012_01_Technical_Briefing_5_England.pdf). COVAX also state “Even though recent news on effectiveness of the AstraZeneca/Oxford vaccine against the B.1.351 variant is based on a limited study size which focused on low-risk participants and used interval doses that were not optimized for immunogenicity, these results confirm we must do everything possible to reduce the circulation of the virus, prevent infections and reduce the opportunities for the SARS-CoV-2 to evolve resulting in mutations that may reduce the efficacy of existing vaccines.”

COVAX SUPPLY OF VACCINES TO LOW- AND MIDDLE-INCOME COUNTRIES

92 low and lower middle-income economies are eligible to have their participation in the COVAX Facility. COVAX predicts that they can currently supply two billion doses by the end of 2021, sufficient for only 20% of these populations to receive two doses, while most high-income countries are on track to vaccinate their entire populations by the end of 2021. And progress is slow. Under the latest COVAX distribution forecast (Feb 3, 2021), indicative distribution of 240 million doses of the AstraZeneca/Oxford vaccine, licensed to Serum Institute of India (SII) and 96 million doses of the AstraZeneca/Oxford vaccine, have been committed under the advance purchase agreement between Gavi, the Vaccine Alliance and AstraZeneca for Q1 & Q2 2021. They also have a first-round allocation of 1.2 million doses of the WHO Emergency Use Listing (EUL)-approved Pfizer-BioNTech vaccine.

The UK, to its credit, is a major contributor to COVAX. Current delays in production and vaccine supply look likely to exacerbate the already existing unequal distribution. Further, despite the well-publicised commitment of Oxford University to make their vaccine available at cost around the world, this has so far failed to materialise. Meanwhile, UK has also recently closed their Department for International Development and slashed the aid budget from 0.7 to 0.5% GDP.

COSTS OF THE PANDEMIC

Failure to vaccinate in poorer countries not only is hugely unequal but will also stifle more post-pandemic recovery. In October 2020 International Monetary Fund warned that the final bill for the pandemic would total \$28 trillion (£21.5tn) in lost output. (<https://www.theguardian.com/business/2020/oct/13/imf-covid-cost-world-economic-outlook>). That represents a staggering 32% of global GDP.

In the UK the Institute of Government has laid out how borrowing in 2020/21 is forecast to be affected by the coronavirus pandemic.

(<https://www.instituteforgovernment.org.uk/explainers/cost-coronavirus>). The costs of coronavirus in 2020 caused increased borrowing of over £300 billion or 11% of GDP. But if the Covid-19 pandemic leads to long-term economic damage (for example because unemployed people lose skills or good businesses go under or cancel investment, creating permanent economic scarring), this will result in an ongoing annual cost. The OBR central forecast anticipates even in 2025, when the public health impacts of the pandemic have passed, the economy will be 3% smaller than they otherwise would have expected. The cost to the public finances of the economy being permanently smaller by 3% per year is around £40bn per year (in today's terms), mainly due to lower tax receipts. The cost to the economy and society would be even bigger: the 3% reduction in economic output equates to £70bn annual reduction in national income.

OTHER EFFECTIVE THERAPIES

We must not overlook other essential requirements for countries dealing with the pandemic. For instance, only around 50% of hospitals and health centres in Africa have access to piped oxygen, and ventilators are rare due to cost and need for importation. The WHO goal of a COVID diagnostic test at \$1 per assay has yet to be reached. And the range of other COVID treatments demonstrating efficacy, such as antiviral monoclonal antibodies or host modifier such as tocilizumab, are well out of the financial reach of the majority of countries. Even cheaper effective drugs such as dexamethasone are not available in many hospitals of low-income countries.

INTELLECTUAL PROPERTY RIGHTS

India, and in Africa, South Africa, Kenya and Eswatini, have asked the World Trade Organisation for intellectual property rights to COVID-19 vaccines to be removed. They argue that this is essential for equity, to broaden production, and for technology transfer. India has its own vaccine and are also manufacturing the AZ vaccine so they are not defending their self-interest. Duke University analysis suggests the COVAX Facility has reserved only 700m vaccine doses so far. By comparison, high-income countries have reserved 6 billion doses for themselves through bilateral deals with pharmaceutical companies. Low-income countries, meanwhile, with a combined population of 1.7 billion people, have not yet signed a single bilateral vaccine deal. Of the 2 billion vaccine doses that the COVAX programme aims to deliver, fewer than 1 billion would go to the low-income countries. If most vaccines require two doses, as GAVI assumes, this amount will be enough for fewer than 500 million people. This is also only achieving short term protection as data on longer term immunity through vaccinations is not known.

Pharmaceutical companies are strongly opposed to this proposal and say that removal of IP will stifle innovation, and inhibit new inventions of vaccines, diagnostics, and treatments.

John-Arne Røttingen, who chairs the WHO Solidarity Trial of COVID-19, says voluntary agreements are better. Individual companies should be pressured by G20 countries to allow non-exclusive licences and technology transfer of their products, along the lines of the agreements that AstraZeneca and Novavax have established with the Serum Institute of India for vaccines, now making 50m doses.

CONCLUSION

The pandemic has affected the lives and economies of every country. We need a global response and solidarity across all nations—as recently emphasised by the WHO call for countries to support and prioritise vaccinations of the vulnerable everywhere, above vaccinating entire populations of nations at the expense of others. We recognise that individual governments have a primary concern for their own citizens; however, even a national vaccination strategy requires an international framework. The quickest route to normality is to achieve excellent uptake of vaccination and a strong local elimination strategy alongside global solidarity to ensure access to vaccines globally to reduce risk of emergence of new strains and cross-border infections.

We call upon leaders of the G20 countries to develop a global strategy for vaccination of all populations, and to enhance support for the COVAX facility as soon as possible. The costs of such a strategy will be far outweighed by the economic costs of allowing the pandemic to sweep through unvaccinated populations.

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