

COVID-19 Daily Briefing: June 16th

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1. Summary

AFRICA

- **SUB-SAHARAN AFRICA:** For now, sub-Saharan African countries account for a small fraction of worldwide COVID-19 cases. However, there has recently been a rapid uptick in cases across parts of the developing world, particularly Yemen and South Africa. Early action has helped slow the spread of COVID-19 in Africa, although shutdowns have taken considerable socioeconomic tolls. The WHO states that constant vigilance is needed to stop COVID-19 from overwhelming health systems.
- **VIRAL HEPATITIS:** Sub-Saharan Africa accounts for more than a fifth of the global viral hepatitis burden and chronic liver disease has been identified as a risk factor for severe COVID-19. Nevertheless, people with new viral hepatitis are likely to remain undiagnosed during the pandemic, those with already identified cases face disruptions of treatment, and pressures on health systems will reduce the capacity for core intervention. Innovative implementation strategies and novel financing mechanisms will be required to deal with this.
- **STOPPING THE SPREAD:** Only gradual rises (rather than peaks) in the number of detected cases are raising concerns across Africa about symptomatic individuals not presenting to health services due to fears about the fragility of health systems, social stigma, and quarantine in suboptimal facilities. Given the fragile health systems in most sub-Saharan African countries it is imperative that African scientists work together to slow and eventually stop the spread of COVID-19 across the continent.

PUBLIC HEALTH

- **HOSPITAL CAPACITY:** The NHS faces the challenge of bringing back routine procedures for non-COVID-19 patients while maintaining the ability to respond to potential future increases in demand for COVID-19 care. The authors suggest that, if interventions (e.g. redeployment of staff and resources or cancelling elective surgeries) are not maintained, 10% of elective critical care cases can be treated once COVID-19 cases in England have fallen below 1,210. All cases could be treated once the numbers have fallen below 320.
- **UNDERLYING HEALTH CONDITIONS:** It is estimated that 1.7 billion people (22% of the global population) have at least one underlying condition that could increase their risk of severe COVID-19 if infected. Overall, 4% of the global population are at high risk of severe COVID-19 and would require hospital admission if infected. Increased risk is highest in countries with older populations, African countries with high HIV/AIDS prevalence, and small island nations with high diabetes prevalence. Underlying health conditions of relevance are generally of chronic nature, for example chronic kidney disease, diabetes, cardiovascular disease and chronic respiratory disease. Identifying at-risk groups can inform “shielding” strategies, aimed at minimising interactions between these groups and others, as well as targeted vaccination interventions, should a vaccine become available.
- **VACCINATION HESITANCY:** A study of 572 UK adults indicated that people are more reluctant to vaccinate their children compared to themselves, whilst the stated high effectiveness of the vaccine against COVID-19 led to an increase in vaccine acceptance. Citizens with previous vaccination hesitancy and communities less affected by the virus also report a lower willingness to accept the COVID-19 vaccine.

IMMUNOLOGY AND VIROLOGY

- **EPITOPES**: A study of antibody-producing cells extracted from a single patient three years after surviving a 2003 SARS-CoV infection showed a range of the antibodies could also react to the SARS-CoV-2 spike protein. Therefore, infection with a human SARS-like coronavirus has the potential to provide some cross-immunity to related coronaviruses. Better understanding the target of these antibodies may inform present and future treatment, multi-target vaccine design, and prevention of infections from existing or future emerging coronaviruses.
- **VIRAL STRAINS**: The D614G strain of SARS-CoV-2 has quickly become more prevalent and widespread than the original strain from Wuhan. These authors found that the D614G strain is 8 times more effective at transduction (therefore infection) than the wild-type virus in cell cultures. This has implications for the design of vaccines that target the spike protein.
- **ANTIBODY COCKTAILS & ESCAPE MUTANTS**: Due to the rapid mutation of viruses, it is important that vaccination or antibody transfer generate a cocktail of different antibodies to prevent viruses from evading treatment through mutation. The authors identified 4 potential escapee strains *in vitro* and tested them against different antibody cocktails. The best results were yielded when the antibodies did not overlap in terms of target (thus were non-competitive). This has implications for the sustainability of some classes of vaccines and treatments of COVID-19 patients.

2. Key Questions

- Has the government evaluated the efficacy of PrivyTRAC as a component of its contact tracing app?
- What steps is the government taking in advance of a vaccine for SARS-CoV-2 becoming available to ensure that poor health literacy does not reduce the uptake of said vaccine?

3. Quick Summaries

[COVID-19 and the other pandemic: populations made vulnerable by systemic inequity](#)

- **INEQUITY**: *Comment article*. Systemic racism and inequities in social determinants of health has led to unequal health outcomes for BAME and other minority patients compared to white patients. The healthcare system needs to educate itself on implicit biases that influence patient-provider communications and treatment decisions. This will lead to better care of BAME patients; simultaneously discriminatory policies and practices need to be eliminated.

[COVID-19: Cases still rising in at least 23 US states as health officials warn against gatherings](#)

- **UNITED STATES**: *Journal news article*. There has been an increase in the number of COVID-19 cases reported in 23 states of the US. While in some places this increase may be due to more testing, other states with increasing numbers reopened from lockdown early. Health officials continue to stress the need for people to wear face coverings and warn against public gatherings.

[Drinking alone: COVID-19, lockdown, and alcohol-related harm](#)

- **ALCOHOL**: *Editorial*. Lockdown has resulted in increased alcohol consumption by around a fifth of people surveyed, with anecdotal evidence suggesting an increase in hospital admissions for liver disease. There is evidence for greater alcohol misuse over the course of this pandemic, which is beginning to manifest itself in health outcomes. Greater support needs to be provided to alcoholics and to individuals developing alcohol-related problems in this pandemic.