

ACCESS DENIED

**BIG
BROTHER
WATCH**



**THE CASE AGAINST A TWO-TIER
BRITAIN UNDER COVID CERTIFICATION**

About

Big Brother Watch is a civil liberties and privacy campaigning organisation, fighting for a free future. We're determined to reclaim our privacy and defend freedoms at this time of enormous technological change.

We're a fiercely independent, non-partisan and non-profit group who work to roll back the surveillance state and protect rights in parliament, the media or the courts if we have to. We publish unique investigations and pursue powerful public campaigns. We work relentlessly to inform, amplify and empower the public voice so we can collectively reclaim our privacy, defend our civil liberties and protect freedoms for the future.

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ANNEX: COVID-status certification: legal issues, by Charlotte Kilroy QC et al

Introduction

The Government's consideration of COVID-status certificates puts Britain on the precipice of one of the greatest civil liberties battles we have faced in modern times. The prospect of internal health passports signals a grave unbalancing of the relationship between not only citizens and the state but citizens and employers, business owners, managers, marshals, and anyone else dressed with authority.

It is the first policy for decades that could see segregation imposed throughout the population. The effect of the scheme would be to create a two-tier society where the poorest, the most marginalised, and anyone who does not comply with unprecedented demands for medical interventions could be denied basic socio-economic opportunities and afforded fewer liberties than their neighbours, colleagues and fellow citizens.

The country has endured enormous hardship over the past year. Millions have lived under draconian measures, complied with extraordinary rules, and gone above and beyond to protect themselves and their communities. A year since the nation was put into a lockdown, rather than emerging from this hardship with renewed hope and liberty, instead we risk emerging under the shadow of deeper injustice, division and discrimination.

Freedom is not a reward for compliance. Freedom is not a gift to be meted out by the state according to the performance of its policies or public institutions. Freedom is innate in each of us, and our constitution. There is a common goal for the country to be healthy, safe and free – but we cannot arrive at freedom through compulsion.

There will be strong pushes for ever-inflating controls on individuals from industries that stand to profit, whether from the growing digital infrastructure those controls rely on, or the short-term boost in consumer 'confidence' – but the long-term impact on the economy, equality, social cohesion and the liberties that define our country cannot be under-estimated.

It would be an irrecoverable mistake to give in to these authoritarian impulses and allow our society to be divided. We urge the Government to bring the country together rather than drive groups apart – to protect citizens, prevent discrimination and safeguard our freedoms – to reject COVID-status certification.

Reccomendations

Recommendation 1: We are concerned about the extent to which the review is a genuinely open inquiry. Ministers should put forward a realistic time frame to read, assess and report on the evidence submitted to the CSC review before publishing any proposals, which should be subject to further specific public consultation.

Recommendation 2: The Government should appoint a new committee comprising diverse expertise to develop a stable, objective and publicly accessible risk framework to help guide COVID public health policy.

Recommendation 3: Absent conclusive evidence on the impact of vaccinations on transmissibility, vaccination status is not a reliable indicator of coronavirus risk in public settings. Aside from the profound legal and ethical issues, at this time there is insufficient evidence for the utility of vaccination status for access control or segregation.

Recommendation 4: In the context of the current risk profile, coerced mass medical testing of people without symptoms or exposure would not be medically justifiable and could generate as many or more false positive than true positive test results. This would incur a severe cost to the rights of those wrongly required to quarantine as well as their families, colleagues, and social contacts who would also be wrongly denied rights, falsely denied work, travel or paid-for products, services, or events.

Recommendation 5: Immunity data must not be used for CSCs. Whilst immunity can be high after a COVID infection, there is no evidence that it prevents an individual transmitting the virus. Whilst unable to provide a useful role in reducing community risk, the incentivisation to develop immunity to COVID could create a serious risk of increased transmission.

Recommendation 6: CSCs should not be used to open the economy as there is insufficient evidence to suggest that they could meaningfully reduce risk. On the contrary, the policy would likely result in excess false positive tests and risk shutting down businesses and sections of the economy. It would be morally and factually wrong to introduce CSCs to instill 'confidence', as well as short-termist, as the long-term effect of CSCs could be to cultivate excess anxiety about COVID risks. CSCs would also risk businesses inviting controversy, workers' rights breaches and discrimination claims.

Concluding recommendation: The Government should legislate to prohibit COVID-status certification being used to segregate or exclude individuals from general businesses, events, services or jobs.

Report Summary

The risk of COVID-19 to our society is rapidly diminishing. With the most vulnerable groups vaccinated, the cost of COVID-status certificates to civil liberties, let alone economically, socially and politically, can hardly be explained let alone justified. Big Brother Watch finds it is **unfeasible** that CSCs could be proven strictly necessary or proportionate.

Effective contact tracing, testing for exposed or symptomatic individuals, and isolation support is vital to mitigate the remaining risk of COVID-19 to public health.

The Government's three proposed COVID statuses do not indicate reduced risks to the community, only reduced risks to the individual.

1: There is insufficient evidence that vaccinations prevent transmission of the virus.

2: There is no evidence to support the use of mass testing in people without symptoms or exposure to an infectious person. Mass testing would produce a significant number of false positive compared to true positive test results, which would hamper public health efforts and unfairly exclude healthy individuals from public life. As Health Minister Lord Bethell put it, "Widespread asymptomatic testing could undermine the value of testing, as there is a risk of giving misleading results. Rather, only people with COVID-19 symptoms should get tested".¹

3: There is insufficient evidence that natural immunity prevents transmission of the virus. Further, the use of immunity as a condition for work, travel or leisure rights raises serious legal and ethical issues and would risk incentivising healthy people to contract the virus in attempt to access equal socio-economic opportunities.

As COVID-status certificates do not reduce community risks, they should not play a role in reopening the economy.

COVID-status certificates would create a two-tier society and a subclass of citizenry, in which minority ethnic groups, migrants, poorer people and people with lower education would be disproportionately represented. The policy would likely result in unlawful discrimination against pregnant women, disabled people, young people and, potentially, religious groups. The best way to ensure marginalised groups are included in public health measures is to create an enabling, not a punitive, environment.

COVID-status certificates would turn the UK into a checkpoint society and mark a serious break from our long-guarded democratic traditions, of which respect for privacy, particularly medical privacy and bodily autonomy, is key.

¹ Letter from Health Minister Lord Bethell, Department of Health and Social Care – 11th December 2020, published via BMJ: https://www.bmj.com/content/bmj/suppl/2020/12/21/bmj.m4916.DC1/DHSCreply_Redacted.pdf

The COVID-status certificate review

On 22nd February 2021, the Prime Minister announced his 'roadmap' for exiting lockdown restrictions. The roadmap includes four reviews: one assessing how long to maintain social distancing and masks; a second review into the resumption of international travel; a third review into 'COVID-status certification'; and a fourth review into the return of major events.

On the COVID-status certification review, the Prime Minister said:

"The third review will consider the potential role of COVID-status certification in helping venues to open safely but mindful of the many concerns surrounding exclusion, discrimination and privacy."²

The Government has signaled interest in COVID-status certificates for three, inter-linked purposes: "reopening the economy," "reducing restrictions on social contact" and "improving safety."³

Definition of COVID-status certificates

The Government has used two definitions for COVID-status certification. The definition used in the terms of reference for the CSC review is:

"using testing and vaccination data to confirm in different settings that people have a lower chance of transmitting COVID-19 to others."⁴

The Cabinet Office's press release for the call for evidence uses the same definition.⁵

However, the actual call for evidence webpages contain a small but important difference to the definition used in terms of reference, describing CSC as:

"the use of testing or vaccination data to confirm in different settings that individuals have a lower risk of getting sick with or transmitting COVID-19 to others."⁶ (emphasis added)

A certificate outlining individuals' risk of getting sick with COVID-19 is a very

2 PM statement to the House of Commons on roadmap for easing lockdown restrictions in England – 22 February 2021: <https://www.gov.uk/government/speeches/pm-statement-to-the-house-of-commons-on-roadmap-for-easing-lockdown-restrictions-in-england-22-february-2021>

3 COVID-Status Certification Review – Call for evidence – Cabinet Office, 15th March 2021: <https://www.gov.uk/government/consultations/covid-status-certification-review-call-for-evidence>

4 Terms of Reference: COVID-status Certification Review – Cabinet Office, 15th March 2021: <https://www.gov.uk/government/publications/covid-19-response-spring-2021-reviews-terms-of-reference>

5 Press release: Government asks for views on Covid-19 certification – Cabinet Office, 15th March 2021: <https://www.gov.uk/government/news/government-asks-for-views-on-covid-19-certification>

6 COVID-Status Certification Review – Call for evidence and questions – Cabinet Office, 15th March 2021: <https://www.gov.uk/government/consultations/covid-status-certification-review-call-for-evidence/covid-status-certification-review-call-for-evidence>; see also, COVID-Status Certification Review – Call for evidence – Cabinet Office, 15th March 2021: <https://www.gov.uk/government/consultations/covid-status-certification-review-call-for-evidence>

different endeavour to one outlining their risk of transmitting the disease. A multitude of risk factors including age, medical information, health behaviours, social contacts etc. would have to be taken into account. Ministers have not made the case, or even alluded to a case, as to why this would be necessary or desirable.

Therefore, for the purposes of this response, the former definition of CSCs as an indicator of transmission risk will be used.

However, in addition to vaccination and testing data, this paper will also briefly consider 'immunity' data. This is because on 25th March 2021, the Prime Minister told journalists that there are "three basic components" to a certification scheme: vaccine data, "immunity that you might have after you've had covid", and test data.⁷

Call for evidence

Three weeks after the Prime Minister announced the CSC review, on 15th March 2021, the Cabinet Office published the terms of reference for the review⁸ and a public call for evidence.⁹ Evidence is to be accepted over a two-week period, closing on 29th March 2021.

The review invites respondents' assessments of the "key considerations, including opportunities and risks" associated with a COVID-status certificate (CSC) scheme, welcoming reference to

- a) clinical / medical considerations
- b) legal considerations
- c) operational / delivery considerations
- d) considerations relating to the operation of venues that could use a potential COVID-status certification scheme
- e) considerations relating to the responsibilities or actions of employers under a potential COVID-status certification scheme
- f) ethical considerations
- g) equalities considerations
- h) privacy considerations¹⁰

The terms of reference for the review set out two primary areas of inquiry: first,

7 Covid: Jab passports possible 'after all offered vaccine' – BBC News, 25th March 2021

8 Terms of Reference: COVID-status Certification Review – Cabinet Office, 15th March 2021: <https://www.gov.uk/government/publications/covid-19-response-spring-2021-reviews-terms-of-reference>

9 COVID-Status Certification Review - Call for evidence – Cabinet Office, 15th March 2021: <https://www.gov.uk/government/consultations/covid-status-certification-review-call-for-evidence>

10 Ibid.

whether there is a case for CSCs, including a consideration of legal, ethical, privacy and discrimination issues; second, the mechanics and operation of CSCs. The review also seeks international evidence and best practice.

We will respond to each point in the terms of reference in turn.

Concerns about the review

We are concerned about the extent to which the review is a genuinely open inquiry.

Four days after this call for evidence was opened, the Culture Secretary said he was planning the “testing” of COVID-status certificates for large stadium events this summer.¹¹ Days before the call for evidence was due to close, the Prime Minister told journalists “there is going to be a role for certification” and that an announcement would be made on either 5th or 12th of April¹² – just one or two weeks after the call for evidence closes, with Easter in the interim, indicating a time-frame in which it would be impossible to seriously consider all the evidence submitted.

It would be deeply concerning if the Prime Minister, the Chancellor of the Duchy of Lancaster, the Minister for COVID-19 Vaccine Deployment among others misled parliament and the public by not only issuing multiple assurances that there was no intention to use vaccine passports at all, but by later planning their use just days after opening a review to consider whether their use would be lawful, ethical or effective.

Recommendation: 1 We are concerned about the extent to which the review is a genuinely open inquiry. Ministers should put forward a realistic time frame to read, assess and report on the evidence submitted to the CSC review before publishing any proposals, which should be subject to further specific public consultation.

Is there a case for introducing COVID-status certification?

Would CSCs reduce risk?

The risk question raised in the terms of reference is “the extent to which certification would be effective in reducing risk, including evidence on the likely clinical and behavioural impacts in different settings taking consideration of emerging evidence on vaccine efficacy, effectiveness, and effect on transmission”.

Assessing risk

Before exploring severe measures to reduce risk, first it is important to measure the risks and set some objective risk thresholds at which measures of varying

¹¹ UK to pilot COVID-19 certificates to reopen sports events – Reuters, 19th March 2021: <https://www.reuters.com/article/us-health-coronavirus-britain-certificat-idUSKBN2BBOLN>

¹² Boris says there ‘will be a role’ for vaccine certificates as scheme finalised – Tom Williams, the Metro, 25th March 2021: <https://metro.co.uk/2021/03/25/covid-vaccine-passports-will-have-a-role-says-boris-johnson-14303155/>

degrees of severity may or may not be considered proportionate to that risk. In our view, public health policies have suffered over the past year from a lack of objective, measurable goals. Quantifiable measures have varied from infections, cases, all deaths, excess deaths, hospitalisations, R-rate, NHS capacity and more.

To manage risks in a stable and foreseeable manner going ahead, a stable risk framework must be used. Common formulae to assess risk account for the threat, vulnerability and consequences. Subsequently, in formulae accounting for risk reduction, the various costs of control must also be measured.

Recommendation 2: The Government should appoint a new committee comprising diverse expertise to develop a stable, objective and publicly accessible risk framework to help guide COVID public health policy.

The UK's current risk

At this point, it is important to account for the impact of the UK's vaccination programme. To date (late March 2021), over 50% of adults in England have received their first dose of a coronavirus vaccination.¹³ Every person in the four groups most at risk – those aged 70 and over, care home residents, healthcare workers and people required to shield, which collectively are associated with 88% of deaths – has been offered a vaccination.¹⁴ Furthermore, uptake is remarkably high: in England, 85% of people aged 55 years and over have received a first dose of a vaccination,¹⁵ and uptake was 93% for over 75s.¹⁶

The most recent studies appear to show that the available vaccinations are also remarkably effective. AstraZeneca recently reported that its vaccination has 79% efficacy at preventing symptomatic COVID-19 and 100% efficacy against severe disease and hospitalisation, in a large study of over 32,000 participants in which 20% of participants were 65 years and over and 60% had co-morbidities associated with increased risk of severe COVID-19.¹⁷ Pfizer reports that its vaccine is 97% effective at preventing symptomatic disease, severe disease and death two weeks after the second vaccine dose.¹⁸

The availability of effective vaccines means that those most vulnerable to coronavirus, and soon everyone who is medically eligible and would like a vaccine, will have a high level of protection from the virus. This means the severe consequences associated with the risk of transmission, such as hospitalisations and deaths, will drastically fall.

13 COVID-19: Half of UK adults have received first vaccine dose, government says – Philip Whiteside, Sky News, 20th March 2021: <https://news.sky.com/story/covid-19-half-of-uk-adults-have-received-first-vaccine-dose-health-secretary-says-12247856>

14 Ibid.

15 Ibid.

16 Covid vaccine: Over-70s urged to get vaccine as UK nears target – BBC News, 13th February: <https://www.bbc.co.uk/news/uk-56048771>

17 AZD1222 US Phase III trial met primary efficacy endpoint in preventing COVID-19 at interim analysis – AstraZeneca, 22nd March 2021: <https://www.astrazeneca.com/media-centre/press-releases/2021/astrazeneca-us-vaccine-trial-met-primary-endpoint.html>

18 Real-World Evidence Confirms High Effectiveness of Pfizer-BioNTech COVID-19 Vaccine and Profound Public Health Impact of Vaccination One Year After Pandemic Declared – Pfizer, 11th March 2021: <https://www.pfizer.com/news/press-release/press-release-detail/real-world-evidence-confirms-high-effectiveness-pfizer>

With the most vulnerable groups vaccinated, the cost of COVID-status certificates to civil liberties, let alone economically, socially and politically, can hardly be explained let alone justified. Big Brother Watch finds it is unfeasible that in such circumstances CSCs should be proven strictly necessary or proportionate.

Reducing risk

The extent that CSCs could, in any context, reduce risk would rely on CSCs indicating an individual has low to no risk of transmitting the virus. This status would then be used to segregate society, protecting those with low to no risk of transmitting the virus from those with either an unacceptable or unknown risk status. Therefore, to examine whether it is feasible that CSCs could reduce risk, it is necessary to examine three factors: first, the extent to which vaccination status indicates risk of transmission; two, the extent to which test status indicates risk of transmission; three, the extent to which it is possible to segregate a democratic society according to this risk status.

Vaccination status

On the first factor, vaccination status for access control cannot confidently be expected to reduce risk as there is currently no conclusive, peer-reviewed evidence on the effect of the COVID vaccines on transmission of the virus. There is insufficient evidence on the impact of vaccines on COVID transmission among older, vulnerable age groups in particular,¹⁹ where the effect is most critical.

The insufficiency of evidence on the impact of COVID vaccines on transmission of the virus is one of the reasons that the WHO advises against vaccine requirements as a condition of international travel.²⁰ The WHO points out “a number of scientific unknowns (...) concerning the effectiveness of COVID-19 vaccines” including:

“efficacy in preventing disease and limiting transmission, including for variants of SARS-CoV-2; duration of protection offered by vaccination; timing of booster doses; whether vaccination offers protection against asymptomatic infection; age and population groups that should be prioritized for vaccination, specific contraindications, how long before travel vaccines should be offered; and possible exemption of people who have antibodies against SARS-CoV-2.”²¹

However, if it is proven that the vaccines do significantly reduce transmission, we can have more confidence that infection rates and thus deaths will reduce even faster than they otherwise would. In such circumstances, CSCs would be even more a disproportionate measure compared to the shrinking risk.

¹⁹ Effect of vaccination on transmission of COVID-19: an observational study in healthcare workers and their households - Anoop Shah, Ciara Gribben, Jennifer Bishop, Peter Hanlon, David Caldwell, Rachael Wood, Martin Reid, Jim McMenamin, David Goldberg, Diane Stockton, Sharon Hutchinson, Chris Robertson, Paul M McKeigue, Helen M Colhoun, David McAllister, medRxiv 2021.03.11.21253275; doi: <https://doi.org/10.1101/2021.03.11.21253275>

²⁰ Interim position paper: considerations regarding proof of COVID-19 vaccination for international travellers – the WHO, 5th February 2021: <https://www.who.int/news-room/articles-detail/interim-position-paper-considerations-regarding-proof-of-covid-19-vaccination-for-international-travellers>

²¹ Ibid.

Recommendation 3: Absent conclusive evidence on the impact of vaccinations on transmissibility, vaccination status is not a reliable indicator of coronavirus risk in public settings. Aside from profound legal and ethical issues, at this time there is insufficient evidence for the utility of vaccination status for access control or segregation.

Test status

The second factor to consider is whether the role of test results for access control would reduce risk. According to the Government's definition of CSCs, the certificates would display recent test data in addition to vaccination data. It is important to note that individuals are already required to quarantine if they show symptoms and test positive for COVID-19. However, the CSC proposal implies a strategy of frequent mass testing for people without symptoms up to a population level. This is despite the "absence of strong evidence that asymptomatic people are a driver of transmission"²² and the serious problems with mass testing of healthy people, which we explore below.

It is clear that readily available tests for those who develop symptoms of COVID-19 are an important measure to confirm infections, trigger quarantine support and thereby reduce the risk of onward transmission. Further, readily available tests for those who have been exposed to someone with COVID-19 and effective contact tracing are important to reduce risk, even if they have not yet developed symptoms, owing to their heightened risk of infection and the risk of pre-symptomatic transmission.²³

Wider, general testing at a community or population level could be problematic. Mass use of COVID tests can only usefully indicate infections when the true infection rate in the general population is relatively high. At the time of writing, the current rate of infection in the UK is approximately 0.3%, or 1 in every 333 people.²⁴ Mass testing for CSCs would most likely via rapid Lateral Flow Tests (LFTs). This is because LFTs return rapid results, are relatively cheap and can be self-administered. Government guidance requires that LFTs are now taken twice-weekly for all secondary school children and staff. As the Royal Statistical Society stated, "while the usual concern with LFTs is false negatives, when infection-prevalence is low there is also a risk that the majority of 'positive' tests could be false positives."²⁵

22 Asymptomatic transmission of covid-19 – Allyson M Pollock, BMJ, 21st December 2020: <https://www.bmj.com/content/371/bmj.m4851>

23 Transmission of COVID-19 - European Centre for Disease Prevention and Control, updated 10th August 2020: <https://www.ecdc.europa.eu/en/covid-19/latest-evidence/transmission>

24 Current prevalence in the England is approximately 0.3% (Coronavirus (COVID-19) Infection Survey, UK: 26 March 2021 - ONS: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveypilot/26march2021>).

25 Royal Statistical Society COVID-19 Taskforce: Statement on the need for transparency about information on secondary pupils' uptake of Lateral Flow Testing, PCR-corroboration, cycle-threshold-values (proxy for viral load) & genomic analyses - 5th March 2021: <https://rss.org.uk/RSS/media/File-library/News/2021/RSS-statement-on-surveillance-in-schools-5-March-2021.pdf>

False negatives

There are two important measures by which to assess the impact of LFTs: sensitivity, which is the proportion of people with the disease that have a positive test, and specificity, which is the proportion of people without the disease that have a negative test. Specificity is particularly important in the context of mass testing where a test result determines the suspension of individuals' liberties.

The recent Cochrane review, carried out by an international, independent team of experts, concluded that there is "virtually no evidence for mass screening of asymptomatic individuals using rapid antigen tests in people with no known exposure."²⁶ The systematic review analysed 64 studies involving rapid antigen and molecular tests across Europe and North America and found antigen tests have an average of 72% sensitivity for people with symptoms but only 58% for people without symptoms; and 99.5% specificity in people with symptoms compared to 98.9% in people without.

This means that, among a population without COVID symptoms, there is little more than 50:50 chance of identifying an asymptomatic person who is infected, whilst false positives will also be generated. However, these averages are worse for the Innova brand of LFTs widely used in the UK which correctly identify 58% of positive cases in general, but only 40% of infections among people without symptoms.

False positives

An analysis by Public Health England and the University of Oxford estimated the probability that a person without COVID will get a false-positive result with LFTs at 0.39% for field tests, or 0.06% for laboratory-based tests;²⁷ whilst a more recent Public Health England and NHS Test and Trace study estimated false-positive rates at 0.03% overall during a period of relatively high prevalence, although false-positive rates were as high as 1.88% in some subsets (this assumed accuracy of comparator PCR tests).²⁸ Whilst these low percentages may sound reassuring, in the context of 0.3% prevalence of infections, mass testing could produce a significant number of false positive compared to true positive test results, which would unfairly exclude healthy individuals from public life.

The conclusions of the more comprehensive and more recent Cochrane review pose even more serious problems for mass testing. In this large scale review, the Innova LFTs widely used in the UK do not meet the acceptable standards set by the World Health Organisation for confirming or ruling out COVID-19 in people with symptoms.²⁹ Furthermore, the review indicates that mass testing of people without

26 A. Rapid, point-of-care antigen and molecular-based tests for diagnosis of SARS-CoV-2 infection. Cochrane Database of Systematic Reviews 2021, Issue 3 – J. Dinnes, J.J. Deeks, S. Berhane et al., 24th March 2021: <https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD013705.pub2/full>

27 Preliminary report from the joint PHE Porton Down & University of Oxford SARS-CoV-2 LFD test development and validation cell – 8th November 2020: https://www.ox.ac.uk/sites/files/oxford/media_wysiwyg/UK%20evaluation_PHE%20Porton%20Down%20%20University%20of%20Oxford_final.pdf

28 Lateral flow device specificity in phase 4 (post marketing) surveillance – A. Wolf, J. Hulmes, S. Hopkins, 10th March 2021: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/968095/lateral-flow-device-specificity-in-phase-4.pdf

29 Estimating the extent of asymptomatic COVID-19 and its potential for community transmission: Systematic review and meta-analysis – K. Bell, O. Byambasuren, M. Cardona et al., Official Journal of

symptoms, even with the most accurate LFT brand, would result in far more false positive results than true positives at current or even much higher prevalence rates.

Take, for example, a population of 10,000 people with no symptoms, where 0.5% of the sample (i.e. 50 people) had asymptomatic COVID-19 – which is up to five times the current prevalence of asymptomatic COVID in England.³⁰ Even using the more accurate SD Biosensor STANDARD Q test rather than the less accurate Innova that the UK uses widely, 125 people would test positive for COVID-19, of which 35 people would correctly have a true positive result, but 90 people (72% of positive tests) would not actually have COVID-19; whilst 15 people (30% of people with asymptomatic infections) would receive a negative result despite actually having COVID-19.³¹

This shows that, even using far more accurate LFTs than those currently used in the UK, and even if actual prevalence of COVID-19 were five times the rate it currently is in the UK, mass testing of people with LFTs of people with no COVID symptoms would produce unacceptably high false positive results.

A high false positive rate would not only make for inefficient public health policy, it would make for a counter-productive public health policy. It would be likely to undermine confidence and deter individuals from seeking tests. Moreover, the cost would be severe to the rights of those wrongly required to quarantine as well as the rights of their friends, families colleagues, and anyone else they have come into contact with who could be wrongly denied rights, falsely denied work, travel or paid-for products, services, or events. In addition, needless panic could be caused which would be harmful to public confidence in public health measures, the reopening of the economy and to individuals' rights.

Objective thresholds for high true prevalence rates and test accuracy rates could be set at which mass voluntary LFT testing could be expected to reduce risks by surfacing presymptomatic or asymptomatic cases in the community during, for example, a particularly serious outbreak. However, confirmatory PCR tests, which take a day or more to process,³² must be used to mitigate the risks of false

the Association of Medical Microbiology and Infectious Disease Canada, 11th December 2020: <https://jammi.utpjournals.press/doi/10.3138/jammi-2020-0030>

30 Using the Government's estimates, up to 0.1% of the population could currently have an asymptomatic COVID infection in England. Current prevalence in the England is approximately 0.3% (Coronavirus (COVID-19) Infection Survey, UK: 26 March 2021 – ONS: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveypilot/26march2021>). The UK Government estimates up to 1 in 3 infections are asymptomatic, though it is not clear what research this is drawn from (see for example DHSC guidance as of 11th February 2021: <https://www.gov.uk/government/publications/types-and-uses-of-coronavirus-covid-19-tests/types-and-uses-of-coronavirus-covid-19-tests>); whilst a meta-analysis estimates that 17% of overall infections could be asymptomatic (Estimating the extent of asymptomatic COVID-19 and its potential for community transmission: Systematic review and meta-analysis – K. Bell, O. Byambasuren, M. Cardona et al., Official Journal of the Association of Medical Microbiology and Infectious Disease Canada, 11th December 2020: <https://jammi.utpjournals.press/doi/10.3138/jammi-2020-0030>)

31 A. Rapid, point-of-care antigen and molecular-based tests for diagnosis of SARS-CoV-2 infection. Cochrane Database of Systematic Reviews 2021, Issue 3 – J. Dinnes, J.J. Deeks, S. Berhane et al., 24th March 2021: <https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD013705.pub2/full>

32 Press release: 9 in 10 test results returned next day by NHS Test and Trace – DHSC, 28th January 2021: <https://www.gov.uk/government/news/9-in-10-test-results-returned-next-day-by-nhs-test-and-trace>

positives and false negative results.³³ This is a further practical reason that test results cannot be used as a condition on which to grant or suspend liberties of healthy people.

PCR tests

An alternative to LFTs would be a PCR test requirement for any healthy person who is not vaccinated or immune, in order to have a valid CSC. One problem is that PCR tests take a day or more to process,³⁴ meaning this would impose illogical and unfair limitations on healthy individuals' rights and freedoms pending a test result.

PCR tests have limited utility in determining infectiousness in individuals without symptoms. This is because, as stated in the Cochrane review, "PCR-positives define those who had detectable viral particles on their swab, which will include most of those who are or will become infectious, but also include individuals post-infection with residual viral particles." An individual who may have been infected, whether symptomatically or not, but is no longer infectious, may still test positive with a PCR test. As Professor Carl Heneghan has warned, mass testing could do more harm than good, since PCR tests can produce positive results in individuals who have not been infectious for many weeks or even months.³⁵ It would be unnecessary and wrong to limit the rights and freedoms of healthy people on the basis of a test that cannot accurately diagnose infectiousness.

Combination testing

It has been reported that one option the Government is considering would be to require repeat tests over 2 to 3 days in order to give an individual a valid CSC lasting for one day.³⁶ No further details are available, but it is possible that this policy would require initial screening via a LFT, followed by self-isolation if the result is positive, pending a confirmatory PCR test. This would be a reasonable policy for individuals exhibiting symptoms of COVID-19, or potentially even for individuals who have been recently exposed to an infected individual. However, amongst the general population this would be a particularly onerous, draconian and unnecessary limitation on the lives of healthy people. It would also erode trust and compliance with public health measures. As outlined above, LFTs in the general population will produce more false positives than true positives, meaning the majority of individuals (and their close contacts) who were forced into self-isolation following a LFT required by this policy, incurring a loss of income, freedom and social contact, would later receive a negative PCR test result and rightly feel the restrictions were unjustified.

33 Ibid. See conclusions 3 and 4.

34 Press release: 9 in 10 test results returned next day by NHS Test and Trace – DHSC, 28th January 2021: <https://www.gov.uk/government/news/9-in-10-test-results-returned-next-day-by-nhs-test-and-trace>

35 Could mass testing for Covid-19 do more harm than good? – Prof. Carl Heneghan and Tom Jefferson, The Spectator, 27th March 2021: <https://www.spectator.co.uk/article/could-mass-testing-for-covid-19-do-more-harm-than-good-/>

36 The 3 ways you'll get a Covid 'freedom pass' to go to the pub – Jonathan Reilly, Harry Cole, Kate Ferguson, The Sun, 26th March 2021 – <https://www.thesun.co.uk/news/14458730/covid-freedom-pass-go-to-pub/>

Testing for general screening

Samples of individuals without symptoms could be voluntarily tested for health surveillance purposes, and there are very good reasons, including public health management and research, for health authorities to do so.³⁷ However, voluntary surveillance testing should not be confused with compulsory access control testing whereby rights and freedoms can be restricted based upon uncertain results.

We have set out a clear case against generalised, mass testing for CSCs and access control. We also understand that the Government's policy has, until recently, been developed with the same understanding of the risks we have outlined above. The Health Minister Lord Bethell wrote as recently as December 2020:

"We are not currently planning mass asymptomatic testing; swab testing people with no symptoms is not an accurate way of screening the general population, as there is a real risk of giving false reassurance. **Widespread asymptomatic testing could undermine the value of testing, as there is a risk of giving misleading results.** Rather, only people with COVID-19 symptoms should get tested (...)"³⁸

CSCs would mark a significant change from this position which, in absence of any corresponding evidence change, would require a compelling explanation.

Coercion vs consent

If mass testing were to be pursued, the secondary question would be whether mass testing with freely given consent or mass testing with coercion (i.e. for CSCs and/or as a condition of work or access to events or services) would be most effective.

We may be able to draw inferences about compelled medical testing from research on compelled medical treatment, namely vaccination. EU-funded research found that compelling people to take vaccines does not necessarily result in higher uptake of vaccines in Europe.³⁹ Further, our analysis of recent statistics produced for the European Commission show that the top five European nations for positive attitudes towards vaccinations all have voluntary vaccination policies, whereas the European nations with the most negative attitudes are disproportionately those with mandatory vaccination policies: Hungary, Slovakia and Croatia.⁴⁰

It has long been recognised that medical coercion, aside from being unethical and often unlawful, can be counter-productive as it lowers trust and raises suspicions.

37 Simulation of pooled-sample analysis strategies for COVID-19 mass testing – T. Baerighausen, A. Deckert & N. NA Kyei, WHO Bulletin, 2020: <https://www.who.int/bulletin/volumes/98/9/20-257188.pdf>

38 Letter from Health Minister Lord Bethell, Department of Health and Social Care – 11th December 2020, published via BMJ: https://www.bmj.com/content/bmj/suppl/2020/12/21/bmj.m4916.DC1/DHSCreply_Redacted.pdf

39 Compulsory vaccination and rates of coverage immunisation in Europe – ASSET (Action plan on Science in Society related issues in Epidemics and Total pandemics), 6th September 2016: <http://www.asset-scienceinsociety.eu/reports/page1.html>

40 State of Vaccine Confidence in the EU +UK 2020 – A. de Figueiredo, E. Karafillakis, and H. J. Larson, Vaccine Confidence Project, 2020.

Further, the Government's repeated U-turns and 'review' into CSCs has done little to foster trust. Many people are now anxious about how COVID passes could affect their employment and are worried about the threat of social exclusion rather than building a positive association with their free choices over the available medical interventions. Warranted distrust in proposals for an unprecedented system of COVID checkpoints could rapidly blend into distrust of wider public health measures and the vaccination programme.

The practicalities of coerced medical testing in the context of CSCs could be very invasive indeed. If a test result is the condition of basic activities such as travel, events and employment, this means those affected (particularly those who are not vaccinated) may need to undertake an invasive swab test, potentially twice a week or more, for as many months or years as CSC requirements stay in place.

Self-administered tests

If mass testing were undertaken, whether voluntary, coerced or mandatory, an important question to consider would be whether the tests are self-administered or administered by a health professional. As described previously, research indicates there is a significant difference in accuracy between the two modes of testing: in the PHE/University of Oxford analysis, LFT false-positive rates among people who did not have COVID were 0.39% for field tests compared to 0.06% for laboratory-based tests.⁴¹ At scale, this could be the difference between many thousands of healthy people wrongly receiving a positive test. If a test is deemed strictly necessary as an access control method, it would be arguable that the most accurate test methodology is necessary. However, frequent professional tests would be more invasive, time-consuming and therefore costly both to the individual and the public purse.

Furthermore, self-administered tests would be open to misreporting and fakery. This would be incredibly difficult to eliminate. Therefore, it is arguable that if tests for CSCs are to be self-administered, the CSC scheme would be largely performative, whilst incurring a serious infringement on citizens' rights and freedoms.

Risk

As outlined in this section, the evidence does not support the use of mass testing among general populations who do not present with symptoms and have not been exposed to an infectious person.

It is important in the context of examining extreme 'risk reduction' policy measures to remain mindful of the initial risk analysis underpinning the search for mitigating measures. It is now the case that 90%+ vulnerable adults are vaccinated with up to 97% protection from serious disease and 100% protection from death, meaning the remaining risk of transmission and infection will carry few serious consequences – i.e. hospitalisations and deaths. Extreme measures should only be pursued in the context of extreme risk, and can only be justified by an analysis whereby the consequences of the risk far outweigh the costs of the control mechanism.

⁴¹ Preliminary report from the joint PHE Porton Down & University of Oxford SARS-CoV-2 LFD test development and validation cell – 8th November 2020: https://www.ox.ac.uk/sites/files/oxford/media_wysiwyg/UK%20evaluation_PHE%20Porton%20Down%20%20University%20of%20Oxford_final.pdf

Recommendation 4: In the context of the current risk profile, coerced mass medical testing of people without symptoms or exposure would not be medically justifiable and could generate as many or more false positive than true positive test results. This would incur a severe cost to the rights of those wrongly required to quarantine as well as their families, colleagues, and social contacts who would also be wrongly denied rights, falsely denied work, travel or paid-for products, services, or events.

Immunity status

Research is ongoing as to whether, and for how long, a prior COVID infection may result in immunity to the disease.

As recently as December 2020, the WHO's ethics group on immunity passports advised against 'immunity certificates', expressing concerns that "the extent and duration of antibody-mediated immunity to protect against SARS-CoV-2 reinfection have not been scientifically established" and concerns as to the suitability of available serological tests for this purpose.⁴² The WHO group not only advises against immunity certification but warns "they have the potential to increase the risk of continued transmission" owing to false confidence in one's immunity status.

The Prime Minister's interest in immunity certification appears to derive from the SIREN study. The UK Government-funded study of over 20,000 healthcare workers reported in January 2021 that people infected with COVID-19 in the past had 83% lower risk of infection compared to those who had no prior infection, and that this lasted for five months.⁴³ However, the Department of Health and Social Care and Public Health England pointed out that a positive antibody test result "does not mean you are guaranteed to be immune (protected) from further infection. You might get the virus again, even without symptoms, and may spread the virus to others."⁴⁴

The SIREN study is positive news that could mean that the 15%⁴⁵ of the population thought to have been infected with COVID-19 may already have a level of protection from the disease not dissimilar, at least in the short term, to that provided by the vaccinations. However, like vaccination status, antibody status primarily gives the individual an indication of their own protection level. There is insufficient evidence to conclude that an individual's antibody status puts them at lower risk

42 Immunity certification for COVID-19: ethical considerations – J. Beca, E. Emanuel, N. Gobat et al., Bulletin of the World Health Organization 2021;99:155-161, 1st December 2020: <https://www.who.int/bulletin/volumes/99/2/20-280701/en/>

43 Do antibody positive healthcare workers have lower SARS-CoV-2 infection rates than antibody negative healthcare workers? Large multi-centre prospective cohort study (the SIREN study), England: June to November 2020 – A. Atti, A Charlett, MJ Cole et al., 15th January 2021: <https://www.medrxiv.org/content/10.1101/2021.01.13.21249642v1.article-info>

44 Coronavirus (COVID-19): antibody testing – Department of Health and Social Care, updated 24 February 2021: <https://www.gov.uk/government/publications/coronavirus-covid-19-antibody-tests/coronavirus-covid-19-antibody-tests>; see also, Press Release: Past COVID-19 infection provides some immunity but people may still carry and transmit virus – Public Health England, 14th January 2021: <https://www.gov.uk/government/news/past-covid-19-infection-provides-some-immunity-but-people-may-still-carry-and-transmit-virus>

45 COVID-19: 15.3% of England's population estimated to have had coronavirus by mid-January – Sky News, 3rd February 2021: <https://news.sky.com/story/covid-19-15-3-of-englands-population-estimated-to-have-had-coronavirus-by-mid-january-12207328>

of transmitting the virus. As such, there is insufficient evidence that immunity status would reduce risks to the community via CSCs.

Furthermore, the use of immunity as a condition for certain work, travel or leisure rights raises profound legal and ethical issues. A lack of immunity or prior infection could see individuals treated as potentially infectious and subject to the sharp end of health segregation. A scheme in which “immune” people enjoy liberties and socio-economic advantages that others do not would risk incentivising healthy people to contract the virus in attempt to develop such immunity.

Recommendation 5: Immunity data must not be used for CSCs. Whilst immunity can be high after a COVID infection, there is no evidence that it prevents an individual transmitting the virus. Whilst unable to provide a useful role in reducing community risk, the incentivisation to develop immunity to COVID could create a serious risk of increased transmission.

Would CSCs help to open the economy?

The second question raised in the review is “the extent to which certification would be effective in reopening parts of the economy and society more quickly and more safely than otherwise”.

The extent to which certification can help to reopen the economy relies primarily on the answer to the former question – the extent to which CSCs could reduce risk. As we have demonstrated in reviewing the WHO guidance and the latest available evidence concerning vaccination, immunity and mass testing, there is insufficient evidence to suggest that CSCs would reduce the risk of transmission. In fact, as outlined, additional risks would be introduced by the use of CSCs.

If the nation were a year into a pandemic of a high-fatality, airborne disease for which there were no medical treatments or vaccinations, an extreme measure such as disease status certification may be considered necessary to enable some economic functions to continue. However, with all those most vulnerable to the disease now having been offered a vaccination, the majority of adults generally now highly protected via vaccination, a significant portion of the public protected via immunity, rapidly progressing treatments, widespread testing and quarantine rules for infectious people and a Test and Trace system, the economy should be opening with confidence.

False consumer confidence

Since there is insufficient medical evidence to support the use of CSCs for access control, the only other economic incentive could be the belief that CSCs will instill confidence in the eligible division of customers. Similarly, for a brief period of time, airports trialled infrared thermal surveillance to instill “confidence” among travelers but soon had to desist as more and more authoritative research and guidance emerged warning against the severe limitations of this screening method and the dangers of promoting false confidence, as well as threats of litigation under privacy laws. In our view, this idea that CSCs would help to open the economy by instilling confidence in consumers is, similarly, a fallacy.

First, it is morally and factually wrong to seek to build confidence among consumers on the basis of a policy that is not supported by scientific evidence. As discussed, there is insufficient evidence to support the notion that vaccines or natural immunity prevent transmission of the virus; tests of people without symptoms will generate more false than true positives whilst missing a significant portion of positive infections; and, thanks to widespread vaccinations and natural immunity, the overall risks of disease are now low, especially in the younger population. Further, the policy of mass testing of healthy individuals would generate false positives that would not only unduly reduce CSC operators' customer base but could risk unnecessarily shutting down parts of the economy again.

Second, the use of CSCs as a condition of reopening large events and the leisure and hospitality sectors will increase, or at the very least maintain, heightened anxiety about COVID among the public. There are vanishingly few, if any, access control or security measures that have been introduced in an emergency and subsequently removed, even if unsupported by evidence – biosecurity would be no different. Rather, the general trend is to entrench and expand exceptional measures and this can maintain a disproportionate perception of risk and anxiety (see, for example, the banning of 100ml+ liquids and nail files at airports). Against the backdrop of maintained anxiety, venues that do not operate, or improperly operate, CSC schemes across the business as a whole, including among all customers, staff, deliveries, cleaners and so on, will be at risk of biosecurity complaints.

Government support for CSCs would maintain irrational anxiety too, at a time when evidence-based confidence is needed. As the Prime Minister has previously remarked, exiting lockdown can be almost as difficult as entering it. The public looks for confidence, backed by facts and evidence, from leaders who benefit from the evidence and expertise – not from an app. It is important to remember that until schools reopened on 8th March 2021, half of parents remained anxious and did not support their children going back to school.⁴⁶ However, the decision to reopen schools was a safe decision and the right decision to make.

Controversy, securitisation and liability

Third, the use of CSCs will invite controversy, boycotts from civil liberties campaigners, tension from unions, workers' rights issues and the potential for discrimination claims which will harm businesses and the Government alike.

Employers cannot unlawfully discriminate against current or potential employees. Even if an employer believes they are able to lawfully offer a general service (e.g. a cruise) to exclusively vaccinated individuals, it would be wrong and potentially unlawful to demand that current or prospective staff undergo medical treatment or testing as a condition of their employment. These issues merit serious consideration, and are expanded on in Part 3 of this report.

COVID-status certification would be burdensome for venues that would not only be liable to legal challenges from customers and staff, but that would have to verify

⁴⁶ School's out — but for how long? - Patrick Maguire, The Times, 12th February 2021: <https://www.thetimes.co.uk/article/schools-out-but-for-how-long-m2pl2s5r6>

a genuine COVID-status and deny entry to individuals without one. In most public environments such as supermarkets, shopping centres, entertainment venues and restaurants etc. there are no access control mechanisms meaning venues would have to create checkpoints for customers and staff to enter and install security staff to enforce requirements. This would not only lead to increased costs for venues but the likelihood of conflict and altercations, creating an increasingly oppressive environment for citizens.

When the vaccination rollout is complete, only those who are either vaccinated, immune and/or tested but unwilling to use a CSC, and those who are unvaccinated, not immune (or untested for immunity) and untested for infection with a CSC would be excluded from places where a valid CSC is a condition of entry. It remains the case that those who are unvaccinated will seek a test if they develop symptoms and self-isolate if they test positive for COVID or have been recently exposed to someone else who has. It would be irrational to treat those individuals as permanently infectious and thus incurring onerous requirements and a loss of liberty. It is implausible that the exclusion of this minority would help to reopen the economy in any meaningful way.

Recommendation 6: CSCs should not be used to open the economy as there is insufficient evidence to suggest that they could meaningfully reduce risk. On the contrary, the policy would likely result in excess false positive tests and risk shutting down businesses and sections of the economy. It would be morally and factually wrong to introduce CSCs to instill 'confidence', as well as short-termist, as the long-term effect of CSCs could be to cultivate excess anxiety about COVID risks. CSCs would also risk businesses inviting controversy, workers' rights breaches and discrimination claims.

Ethical and legal issues

The third question raised in the review is "the ethical, equalities, privacy, legal and operational aspects of COVID-status certification". We take these issues particularly seriously. We have commissioned an expert legal paper to explore this policy area in depth, which is attached as an annex to this report. In this section, we wish to outline some of the major issues.

The effect of COVID-status certification would be to socially and economically exclude people without a COVID vaccine, natural immunity or a recent test result and deny them basic freedoms. In doing so, all citizens would be treated as potentially infectious and some of the most marginalised in society would suffer either direct or indirect discrimination.

Protected characteristics

It is unlawful and wrong to discriminate against people with 'protected characteristics', many of which are engaged by COVID-status certificate proposals, including age, disability, pregnancy and religion or belief. Article 14 of the European Convention on Human Rights and the Equality Act 2010 protect individuals from unlawful discrimination.

If the Government were to allow society to be segregated according to vaccination status:

- Young people would be discriminated against, since there will be lower and slower vaccine uptake as young people are both generally at a low risk of serious illness from COVID and last in line to be offered a vaccination. Children are not eligible for vaccines as trials are ongoing, and moreover, they are at particularly low risk of serious illness from COVID. Further, if vaccines are required annually/periodically, young people could be discriminated against on a corresponding cycle as they will always be last in line to receive vaccines. Older people could also be affected on a cycle, as over-70s have already been told they will require booster vaccines this year.⁴⁷
- Disabled people could be discriminated against as some medical conditions prevent individuals from being able to receive a vaccination.
- Pregnant women would be discriminated against, as COVID vaccines are not routinely advised for them and whilst clinical trials are ongoing, women may be cautious about vaccines whilst pregnant, breastfeeding or trying to conceive.
- Some people with religious or other beliefs may be discriminated against, if those beliefs deter them from receiving a vaccine.

Poor and marginalised groups

Discrimination, inequality and unfairness would be caused not only by medical eligibility for vaccination but by accessibility of vaccinations. Research indicates that people from ethnic minority groups, people with lower levels of education and people on lower incomes are the most 'hesitant' or unlikely to receive COVID vaccines.⁴⁸ It would be unfair and counter-productive to burden these groups with extra testing demands, and wrong to exclude them from sections of society based on vaccination status.

Further, many of the estimated 1 million undocumented migrants in the UK are fearful of accessing health services due to punitive data sharing as part of hostile environment policies and may be more apprehensive still if COVID-status certificates, akin to internal passports, become an everyday requirement. We cannot simply erase histories and experiences of discrimination and hostility that have created distrust. The best way to ensure marginalised groups are included in public health measures is to create an enabling, not a punitive, environment. Health certificate segregation would only deepen discrimination and alienate people even more. This would be disastrous for trust in public health authorities when trust is critical for successful pandemic management.

⁴⁷ Exclusive: Over-70s to get booster Covid vaccines from September – Ben Riley-Smith, Hannah Boland, Laura Donnelly, The Telegraph, 26th March 2021: <https://www.telegraph.co.uk/politics/2021/03/26/exclusive-over-70s-get-booster-covid-vaccines-september/>

⁴⁸ Anti-vaccine attitudes and risk factors for not agreeing to vaccination against COVID-19 amongst 32,361 UK adults: Implications for public health communications – D. Fancourt, E. Paul, A. Steptoe, medRxiv, 23rd October 2020: <https://www.medrxiv.org/content/10.1101/2020.10.21.20216218v1>

International impact

Finally, there are billions of citizens of the world who are not expected to have access to COVID vaccines for years to come. More than 85 less economically developed countries in Africa, Asia and South America will not have widespread access to COVID vaccines until at least 2023.⁴⁹ To restrict so many people's freedom of movement based on unrealistic vaccination expectations, or expensive testing and quarantine requirements, would be unfair and unnecessary particularly given that the vulnerable population in the UK is already vaccinated and the general public has a high level of protection against the disease. As we emerge from the pandemic, disproportionate vaccine requirements should not unfairly impede the rights, family reunions, work and study opportunities and freedom of movement of individuals from lower-income countries.

Privacy issues

COVID-status certificates present an unprecedented privacy intrusion. Never before have individuals needed to demonstrate their health status or indeed any medical information to enjoy day to day freedoms. The requirement to use an app or, for individuals without a smart phone, a QR code, or possibly even to submit to a facial biometric check⁵⁰ to convey sensitive medical information would engage Article 8 privacy rights, GDPR and the Data Protection Act 2018 (DPA). This privacy intrusion would be particularly serious and change not only long-held expectations of medical confidentiality but the way that society operates as a whole.

Facial biometric data

As explored in Part 2 of this report, many health data apps are accessed via biometric facial recognition. The requirement to use facial recognition engages GDPR/DPA rights and individuals must have a right to refuse. Further, facial recognition algorithms suffer from inaccuracy and have particular issues accurately recognising women and people of colour.⁵¹ The use of facial recognition would likely compound discrimination issues and may wrongly obstruct some individuals with a valid CSC from enjoying their rights and freedoms, due to their gender or ethnicity.

Exemption data

It has been suggested that exemptions could be created to allow certain people with protected characteristics into spaces governed by COVID-status certificates and/or where only vaccinated people are permitted. Aside from the significant legal and ethical issues with such controls as a whole, there could be serious privacy issues raised by such exemptions too. Others may deduce that exempt or unvaccinated individuals have health problems, are pregnant or trying to conceive,

49 More than 85 poor countries will not have widespread access to coronavirus vaccines before 2023 – The Economist Intelligence Unit, 27th January 2021: <https://www.eiu.com/n/85-poor-countries-will-not-have-access-to-coronavirus-vaccines/>

50 Face-scanning at pubs could offer key to vaccine passports – Henry Zeffman, The Times, 27th March 2021: <https://www.thetimes.co.uk/article/face-scanning-tech-covid-vaccine-certificates-mcppsddfp>

51 Face Recognition Vendor Test (FRVT) Part 3: Demographic Effects – P. Grother, M. Ngan, K. Hanaoka, NIST, December 2019: <https://nvlpubs.nist.gov/nistpubs/ir/2019/NIST.IR.8280.pdf>

or have a certain belief system. This invasion of medical privacy could also lead to disadvantageous treatment, particularly in an employment context where privacy on these health matters, particularly pregnancy, have been fought for over decades.

Bodily autonomy

Bodily autonomy is an important aspect of the right to privacy. Compulsory vaccination, as an involuntary medical treatment, amounts to an interference with the right to a private life (*Solomakhin v Ukraine*). Individuals have the right to make their own choices about their own bodies. UK laws generally respect medical consent and mandatory vaccines are prohibited under the Public Health Act.

However, COVID-status certificates would clearly cause people to feel coerced into receiving vaccines to avoid the onerous alternative of constant medical tests or, worse, reduced freedoms. They would have a similar effect to mandatory vaccine policies, which are typically imposed by exclusion or penalties for those who decline vaccines. The penalty of reduced liberties for otherwise healthy individuals who decline a certain medical treatment or test would mark a grave change in our public health system and rights record as a whole.

The UK has a proud history of opposition to identity systems and personal checks. COVID-status certificates would turn the UK into a two-tier, checkpoint society and mark a serious break from our long-guarded democratic traditions, of which respect for privacy is key. The combination of apps with sensitive health data and the subversion of everyday businesses and events into checkpoints could constitute the biggest expansion of surveillance ever seen in the UK.

Compulsory medical interventions

In the UK, vaccinations have not been mandatory since Victorian Britain. In 1853, the Vaccination Act made smallpox vaccinations of infants compulsory; in 1867, vaccinations were made compulsory for all under-14s. The new laws resulted in fines, prosecutions, court challenges and mass protests. Mandatory vaccinations also sparked an anti-vaccination movement and the emergence of the National Anti-Vaccination League. Eventually, in 1898, the law was changed so that vaccines were no longer mandatory and the anti-vaccination movement subsided. Today, the Public Health Act 1984 specifically prohibits forced vaccinations and the UK has some of the highest vaccine uptake rates in Europe. It would be backwards and counter-productive for the UK to make the same mistakes of coercive Victorian medicine policies.

The alternative to vaccination evidence, which is a recent test result, also carries legal and ethical problems. Firstly, under even the extreme Coronavirus Act 2020, required medical testing is only possible if an individual is known to be potentially infectious. Further, the pre-existing Health and Social Care Act 2008 only allows a medical examination to be ordered by a magistrate if a person is believed to be infected or contaminated. However, COVID-status certificates would effectively make medical testing compulsory, particularly for those with protected characteristics who are unable to receive a vaccination, treating citizens as potentially infectious by default. The onerous burden of healthy people having to undergo frequent, invasive, de facto compulsory medical testing to determine their

access to basic rights raises profound legal and ethical issues, could also lead to a loss of earnings and, if or when tests are no longer free, may incur financial penalties.

PART 2: The mechanics of how COVID-status certification would work

The Technology

The second part of the CSC review's terms of reference is regarding the "mechanics" of how COVID-status certification would work, including "how COVID status would be conferred", how "COVID-status could be demonstrated", the "technological and non-technological options", the "limits, if any" that should be placed on organisations using CSCs and how long CSCs may be relevant.

In response to the latter questions, we had made clear above that organisations should be banned from using CSCs and that there is no evidence base to support even a temporary role for CSCs to confer public benefits.

Our response in Part 2 focuses on the technological development for CSCs.

In our monthly Emergency Powers and Civil Liberties reports, we have detailed the Health Secretary's support for health certification from as early as April 2020, up to QR code development and "freedom pass" plans in November 2020. However, the Government's mandate for such an extraordinary policy has never been clear, and other Ministers have claimed, repeatedly, that no plans were in place for vaccine passports.

Whilst Ministers proceeded to claim there were no plans for vaccine passports throughout winter 2020, the UK Government had been funding at least eight iterations of COVID passes since 2020 via Innovate UK, a funding body that works at arm's length from government.⁵² Innovate UK is part of UK Research and Innovation, a non-departmental public body funded by a grant-in-aid from the UK government. Around £700,000 in state funding, either from the Department of Health and Social Care or Innovate UK, has been spent on COVID certification during the pandemic.

We will briefly analyse each of these projects.

Identification

The technical systems underpinning the various COVID certificates vary widely but all aim to show unforgeable proof of COVID status that corresponds to the individual presenting it. Introducing COVID certificates would mean that individuals would need to both make claims about their health status, and then verify them with personal data, in order to go about their daily lives. Some technology options rely on strong binding to biometrics whereas others use technologies such as blockchain and verifiable credentials frameworks. Every proposed system for verifying someone's COVID status relies on the certificate being bound to an individual's sensitive medical data and verified via a photograph, biometric data or a link to a physical form of ID. This would be a necessary function of CSCs as if there is a chance they could be used by more than one person their utility collapses. If CSCs could be passed from person to person without verification, the purported benefits

⁵² Government funds eight vaccine passport schemes despite 'no plans' for rollout – Hannah Boland, The Telegraph, 24th January 2021: <https://www.telegraph.co.uk/technology/2021/01/24/government-funds-eight-vaccine-passport-schemes-despite-no-plans/>

of allowing only those validated by a CSC into a venue would disappear.

It is because of this function – the combination of a digital identifier with sensitive personal health records – that COVID certificates would become de facto identity cards if they were introduced, and would likely be retained and expanded in purpose and data over time. The mass use of such technology would have a profound impact on citizens' right to privacy in the modern context. Some of the proposed systems make significant claims about "protecting privacy" but this appears to only extend to the secure storage of certain fields of data and does not address the severely intrusive nature of health status certification as a whole.

Mvine/iProov

Received £74,270 in funding from Innovate UK.⁵³

Trials ongoing in two unnamed NHS hospitals, ongoing until March 31st.

Binding method: Facial recognition

How it works

The joint project between Mvine, an IT consultancy, and iProov, a biometrics company, claims to work "without you having to give away personally identifiable information"⁵⁴ with certificates being issued in a three-step process:

1. Proof of vaccination certificate is created by the vaccinator or other trusted person with a random long number as an identifier.
2. At the same time, the holder's facial biometric is enrolled in the iProov system and is bound to that unique certificate number.
3. The certificate is then stored in the cloud and a QR code is issued to help any checkers identify the certificate.

The company said that the QR code is a way of storing and retrieving the long, random identification number and it contains no other information. These QR codes can be issued on the app or a paper copy could be carried for those without mobile devices. The steps to then check a certificate are:

1. The QR code is scanned and the certificate linked to the identification number is found in the cloud.
2. Whoever is presenting the QR code then has their face scanned by the Mvine/iProov app which verifies whether the biometric matches the one that was enrolled and bound to that certificate. This can happen on the holder's device or the checker's, allowing people without a phone to still hold a COVID pass.

In its corporate marketing iProov says that its facial verification can check both for a biometric identity and offer assurances that the person in front of the camera is real and present. Rather than just capturing an image, iProov's system records

⁵³ Covid-19 test status digital passport, with privacy protection for adults and children – Mvine, UKRI: <https://gtr.ukri.org/projects?ref=64901>

⁵⁴ Ibid.

around 2.5 seconds of video which is then transmitted to the company's servers and is automatically checked.

A GDPR position paper authored by iProov in 2018 states that the company retains details of failed but genuine attempts to use their biometric recognition for up to three months, while "fraudulent" attempts are recorded for a year. Authentication decisions are "fully automated" and iProov concedes this meets the threshold for a significant effect in respect of Article 22.2.⁵⁵

When challenged about the potential for hostile actors to steal images of the faces of people using the app, Mr Bud said that faces alone are anonymous and are not linked to any other identifying features, comparing it to taking photos of strangers in the street. However, of course, the system proposed would link people's faces to highly sensitive medical records.

Company backgrounds

iProov and Mvine have longstanding commercial interests in national ID schemes and facial recognition.⁵⁶

iProov's facial biometrics are already used by the NHS App⁵⁷ to give access to medical records, and the company also provided facial recognition software for the Home Office's EU Settled Status Scheme app, which reportedly had problems recognising individuals from minority ethnic groups and people with disabilities.⁵⁸ Andrew Bud, iProov's CEO, told Big Brother Watch that he was not aware of the anecdotal reports of these problems and that iProov monitors its performance to tackle any issues that show up in the statistics.

Further afield iProov works with the US Department of Homeland Security⁵⁹ and is involved in developing national digital identity schemes in Singapore (SingPass)⁶⁰ and Estonia's mandatory digital ID scheme,⁶¹ regarded as one of the most advanced in the world.

Mr Bud appears to favour domestic use of vaccine passports, both in the public and private sector, including schools, saying in February: "Think how much safer you will make communities of people if only vaccinated people are allowed to

55 GDPR Compliance of iProov Services: An iProov Position Paper, V2.3 20th March 2018: <https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RE36VLS>

56 Recent campaigns: Digital Identity for All Walks of Life – Mvine [last accessed 29th March 2020]: <https://www.mvine.com/recent-campaigns.html>

57 iProov Now Providing Facial Authentication for NHS Login Across Android and iOS – iProov, 20th May 2020: <https://www.iproov.com/press/iproov-providing-facial-authentication-for-nhs-log-in-across-android-and-ios>

58 Unsettling: A report on the experiences of EEA nationals and their families in the EU Settlement Scheme – Migrant Voice, 2019, p.39: https://barrowcadbury.org.uk/wp-content/uploads/2019/11/Unsettling-Migrant_Voice_Settled_Status_Report.pdf

59 Department of Homeland Security Awards iProov \$198K to Pilot Genuine Presence Detection – iProov, 9th November 2020: <https://www.iproov.com/press/dhs-border-travel-award>

60 Singapore Government Extends National Digital Identity programme with iProov – iProov, 22nd September 2020: <https://www.iproov.com/press/singapore-government-digital-identity>

61 iProov to Provide Biometric Technology for Estonia's Digital Identity Program – iProov, 28th February 2020: <https://www.iproov.com/press/iproov-provide-biometric-technology-for-estonias-digital-identity-program>

physically mix with those communities.”⁶² However, speaking to Big Brother Watch he indicated that the ethical issues are for the government not his company to decide.

Mvine also has a track record in pushing a digital identity agenda, providing a framework for the failing GOV.UK Verify platform to expand into private sector use. It was intended to allow companies to use the GOV.UK Verify service as an ID check, rather than setting up their own ID infrastructure.⁶³

That both iProov and MVine have prior involvements with centralised digital identity services is concerning, as is the biometric binding of the COVID pass claim to an individual.

NHS App

Binding method: facial recognition

The NHS App, which uses iProov software, has been mooted as a possible host for CSCs in the UK. Currently, the app can be used to book appointments, order repeat prescriptions and view health records among other things. It has been confirmed that the NHS App is being prepared to be used for proof of vaccination.⁶⁴

How it works

Users of the NHS App can verify their identity to one of three levels after registering, with higher levels providing access to more sensitive data.⁶⁵ The lowest level only provides access to generic NHS health advice, while medium verification allows someone to contact their GP. Only the top-level allows somebody to access their medical records, which would include vaccine records.

Medium verification matches several data points entered into the system with either a NHS number combined with a date of birth or a full name alongside a postcode required – however, this does not allow access to sensitive information.⁶⁶

High-level verification requires photo identification. This can happen offline at a GP's office whereby the practice links an individual's registration with GP Online and the NHS App. It can also be done online through the NHS App, using iProov's facial recognition technology. A user is required to photograph their driving license or passport and then undertake a live face scan, which is biometrically matched

62 Firms could demand staff have Covid vaccine passports – Henry Zeffman, The Times, 13th February 2021: <https://www.thetimes.co.uk/article/firms-could-demand-staff-coronavirus-vaccine-passports-h69lmh9gc>

63 Verify Sandbox Service for Private Sector Identity solutions – Mvine [last accessed 29th March 2021]: <https://www.mvine.com/gov-uk-verify/sandbox.html>

64 NHS app to be converted for vaccine passports – Chris Symth and Henry Zeffman, The Times, 24th February 2021: <https://www.thetimes.co.uk/article/nhs-app-to-be-converted-for-vaccine-passports-r0xx0mflp>

65 Your privacy on NHS login, v 2.6 – NHS, December 2020: <https://access.login.nhs.uk/privacy#what-personal-info>

66 Medium (P5) to high (P9) verification step-up journey – NHS [last accessed 29th March 2021]: <https://nhsconnect.github.io/nhslogin/step-up-p5-p9/>

against the ID. This is a fully automated process, which the NHS says is only referred for a human check if the automation fails.⁶⁷ ID verification evidence is stored for six months, whether or not verification is successful or if an account remains open; whilst audit events data, such as the details of a person verified, are stored for eight years.⁶⁸ In addition to recording facial biometrics for authentication the system also records a user's ethnicity, which iProov claims in its GDPR white paper is to use for equalities monitoring – although only data from successful authentications is stored.⁶⁹

Big Brother Watch understands that it is still undecided whether medium or high-level verification would be required for proof of vaccination.

It is not yet known how an individual could prove their certificate belongs to them if they cannot use the in-app facial verification. It could be that they will have to present a second form of identification to be matched against the details on the certificate.

The NHS App CSC would be even more intrinsically linked to individuals' identities than the Mvine/iProov approach, as NHS records contain a wealth of identifiable, sensitive information including NHS numbers. Using the NHS App for proof of a vaccine comes with a significant further privacy risk due to the wealth of other personal information available within it, from prescriptions to addresses, and these issues are yet to be addressed.

Preparation for vaccine passports

Sources have told Big Brother Watch said that hundreds of outsourced workers are set to be recruited to help expand the team who verify people signing up to the NHS App in anticipation of its use for vaccine passports. It is thought there are plans to use some of these workers to staff in-person verification stations where people can either get verified on the NHS App to enable access to the vaccine passport or be given a physical alternative to the smartphone app if they do not use a mobile device.

A likely source for the workers is thought to be TLSConnect, an outsourcing company that specialises in identity-related services for governments around the world, including managing the UK Immigration Health Surcharge programme worldwide.⁷⁰

67 Your privacy on NHS login, v 2.6 – NHS, December 2020: <https://access.login.nhs.uk/privacy#what-personal-info>

68 Your privacy on NHS login, v 2.6 – NHS, December 2020: <https://access.login.nhs.uk/privacy#what-personal-info>

69 GDPR Compliance of iProov Services: An iProov Position Paper, V2.3 20th March 2018: <https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RE36VLS>, p.7

70 Our Government Clients – TLScontact [accessed 29th March 2021]: <https://www.tlscontact.com/our-clients/>

Covid Passport MVP - Netcompany

Received £42,000 in funding from the Department of Health and Social Care.⁷¹
Binding method: Separate identification

How it works

The project details in the commercial agreement offer only a vague outline of how Netcompany's COVID passport, initially proposed as a proof-of-test rather than proof-of-vaccine certificate, would work. The sample use case provided suggests:⁷²

1. At an in-person COVID test, the individual's name and photograph is taken of them by a supervisor, along with the testing box QR code.
2. The individual takes the test, the supervisor validates the result, and a negative COVID test status is issued possibly as a QR code.
3. The individual is able to obtain evidence of their negative COVID test status, e.g. as a QR code that can be scanned by other individuals or organisations to verify the test status.

Although the concept is for a test-and-release style COVID passport, the logic could work in the same manner for vaccination.

Netcompany, which is owned by a Danish company of the same name, provides much more detail about the 'Corona Passport' on its website,⁷³ though it is not certain this is its proposed UK system. The certificate contains a host of personal data, including name, date of birth, a photograph and the time and type of vaccine. Binding the certificate to a national ID system is proposed as a further security measure.

Potential uses

The 'Corona Passport' is envisioned as integrating with other IT systems and Netcompany says its API could be used to automatically share COVID status data with employers or border security. A potential use could include a workplace passcard system identifying who has or has not been vaccinated and only permitting keycards to be activated for vaccinated or tested staff members.⁷⁴

Netcompany even speculates that its Corona Passport API could be integrated with online ticket sales for events, allowing for health-status segregation in seating. In a promotional video, Netcompany envisages a football stadium with a vaccinated section, a tested section and an untested section with those who have been vaccinated sitting closer together than those only tested, and the untested being required to spread out further still.⁷⁵ In the same video, Netcompany even

71 Covid-19 Certification/passport – Minimum viable product commercial agreement, 2nd November 2020, p.9: https://atamis-1928.cloudforce.com/sfc/p/#00000000nwim/a/4J000000kEtb/q_ZPcsZCX0JVR6pw7pflyhyUAL7FowwFrt3S2AQfrQk

72 Ibid., pp.4-5

73 Netcompany Corona Passport for a safe and efficient reopening of society – Netcompany [last accessed 29th March 2021]: <https://www.netcompany.com/int/Coronapas>

74 Ibid.

75 Netcompany Corona Passport - Examples of use – Netcompany, YouTube, 12th February 2021: <https://www.youtube.com/watch?v=vq2hA7z4y4g>

imagines requirements that family members must check one another's health status in order for private family gatherings to be permitted.

MyVaccine Register - Tricerion

Received £74,768 in funding from Innovate UK.⁷⁶

How it works

Offered as a "real-time, verified database"⁷⁷ of people who have been vaccinated, ImmucheX⁷⁸, the Tricerion project, is ill-defined. The project seems to rely on a national identity backbone, as it is "designed to work within a government's health/citizen identity systems"⁷⁹ raising the prospects of co-ordination with NHS numbers.

Tricerion states its digital vaccination passport uses a "privacy first design" and allows both for individuals to prove their immunity and "for secure access for vaccine records, to be accessed by healthcare professionals only with an audit trail."⁸⁰

However, the company's main product is SafeLogin, an image-based 'neurographic' password – clearly, a product that bears no relation to health certification.

Company background

The CEO of Tricerion, Schehrezade Davidson, spent more than a decade working for the Conservative Party-supporting investment company RAB Capital between 1999 and 2010, sitting on the board from 2001 to 2007.⁸¹ RAB Capital has given £70,000 to the Conservative Party since 2000, and from 2004-2011, former Conservative Chancellor Lord Norman Lamont was a non-executive director. Schehrezade first invested in Tricerion whilst at RAB Capital, via the RAB Innovations Fund.⁸²

Integrated Mobile Indemnity Passport - Logifect

Received £62,209 in funding from Innovate UK.⁸³

Binding method: photograph

76 MyVaccineRegister - App/Portal to declare an individual's vaccination against and immunity to COVID-19 – UKRI: <https://gtr.ukri.org/projects?ref=60715>

77 Ibid.

78 <https://www.tricerion.com/immuchex/>

79 MyVaccineRegister - App/Portal to declare an individual's vaccination against and immunity to COVID-19 – UKRI: <https://gtr.ukri.org/projects?ref=60715>

80 ImmucheX receives its second round of funding from Innovate UK – Tricerion, 8th January 2021: <https://www.tricerion.com/immuchecx-receives-its-second-round-of-funding-from-innovate-uk/>

81 Schehrezade Davidson, LinkedIn: <https://www.linkedin.com/in/schehrezade-davidson/?originalSubdomain=uk>

82 Our Team – Tricerion [last accessed 29th March 2021]: <https://www.tricerion.com/team/>

83 Integrated mobile indemnity passport platform, Logifect Limited – UKRI: <https://gtr.ukri.org/projects?ref=64691>

Offering a 'single clinical repository' initially for both test and trace data, and immunity certification – but latterly, for post-vaccination immunity – the Logifect project is a mobile "indemnity" passport. The company's resulting proof-of-immunity system, CheckMeNow, is an app and cloud-based QR-code system.⁸⁴

How it works

An access code from an individual's GP allows them to link their health records with the app, which integrates NHS data and generates a QR code once they are fully vaccinated.⁸⁵ A photograph of the person is included within the certificate to show it belongs to the person presenting it.⁸⁶

Logifect's privacy policy states that if individuals access their app using NHS login details, NHS Digital manages the identity verification and therefore is the controller for the identity data, whereas Logifect is the processor.⁸⁷

Company background

Logifect, which was only incorporated in February 2020 but claims years of health tech experience through its founders, has a long privacy policy on its corporate website.⁸⁸ Beyond proof-of-vaccine data, the company has ambitions to develop a substantial telecare app that contains a wealth of health data and could act as a virtual GP service, much like Babylon. Personal information could be used to "recommend content, products and services" to users and this could include special category data, which the company claims it is legally able to do since healthcare providers only share data where there is a legal basis to.

Logifect's Chief Medical Officer is Harriet Leyland who previously spent two and a half years working in the civil service.⁸⁹ Dr Leyland has worked for several other HealthTech firms since leaving the government in May 2019.

She was a 'Healthcare Specialist' working for Healthcare UK, an agency that is part of NHS England, the Department for International Trade and the Department of Health and Social Care. The agency works to facilitate UK healthcare providers doing business abroad. Dr Leyland specialised in promoting UK health companies in China and claims to have been responsible for deals worth more than £350 million.⁹⁰

84 CheckMeNow – Logifect: <https://www.checkmenow.co.uk/>

85 Ibid.

86 Vaccinated Brits could be given scannable QR codes that allow them to travel abroad as soon as NEXT MONTH as part of Covid 'vaccine passport' schemes funded by the taxpayer – Connor Boyd, Mail Online: <https://www.dailymail.co.uk/news/article-9240653/Vaccinated-Brits-given-scannable-QR-codes-allow-travel-abroad.html>

87 Privacy Notice – Logifect: https://www.logifect.com/privacy_notice.pdf

88 Privacy Notice – Logifect: https://www.logifect.com/privacy_notice.pdf

89 Dr Harriet Leyland – LinkedIn: <https://www.linkedin.com/in/hmlhealth/?originalSubdomain=uk>

90 Meet the team – Logifect [last accessed 29th March 2021]: <https://www.logifect.com/#-meet-the-team>

Standardised COVID-19 Immunity Test Certificate – Verifiable Credentials

Received £73,897 of funding from Innovate UK.⁹¹

Binding method: “preferably biometric”

This project is for Verifiable Credentials Limited to develop device or paper stored certificates with security based on verifiable credential technology that can prove either test or vaccine status. The project is headed by Dr David Chadwick, an academic from the University of Kent.⁹²

How it works

Dr Chadwick told Big Brother Watch that biometrics are the most likely way that the certificates would be ‘bound’ to an individual because there would be limited trust in them if non-identifiable data like a phone password were used, which can be shared with anyone.

As well as COVID status the certificates contain names, date of birth, NHS numbers and an address. It is claimed that someone can choose what information to send to a third party but it appears that all of the information is visible for a physical presentation.⁹³ Certificates are issued by a trusted party, such as an NHS worker, and can also be revoked if necessary.

Although most of Dr Chadwick’s demonstrations relate to testing, his later videos show that the COVID status certificate can include vaccine status as well.⁹⁴ Within the mobile app a certificate is stored in a wallet and this can either be presented in person or sent, with Dr Chadwick’s example seeing him send proof of vaccination to a hospital rostering system.

Verifiable Credentials has stated that for those without digital devices, the company plans to offer a paper certificate featuring a cryptographic key containing QR code that can be scanned through the VC app verified in that way.

Verifiable Credentials’ technology works through a trusted data registry that stores a copy of a certificate with a cryptographic signature [key] when it is issued. When the certificate is presented a checker can communicate with the registry to check it is legitimate by validating the key (see the image below).

Dr Chadwick presents the technology as an alternative to blockchain-based verifiable credential vaccine passports which are based on decentralised identifiers (DIDs). DIDs are necessarily public quasi-ID numbers which an individual then shows their private cryptographic key to verify belongs to them and unlock the information within.⁹⁵ It is claimed that the DID functions as a unique identifier that

91 Standardised COVID-19 Immunity Test Certificates – Verifiable Credentials Ltd., UKRI: <https://gtr.ukri.org/projects?ref=54473>

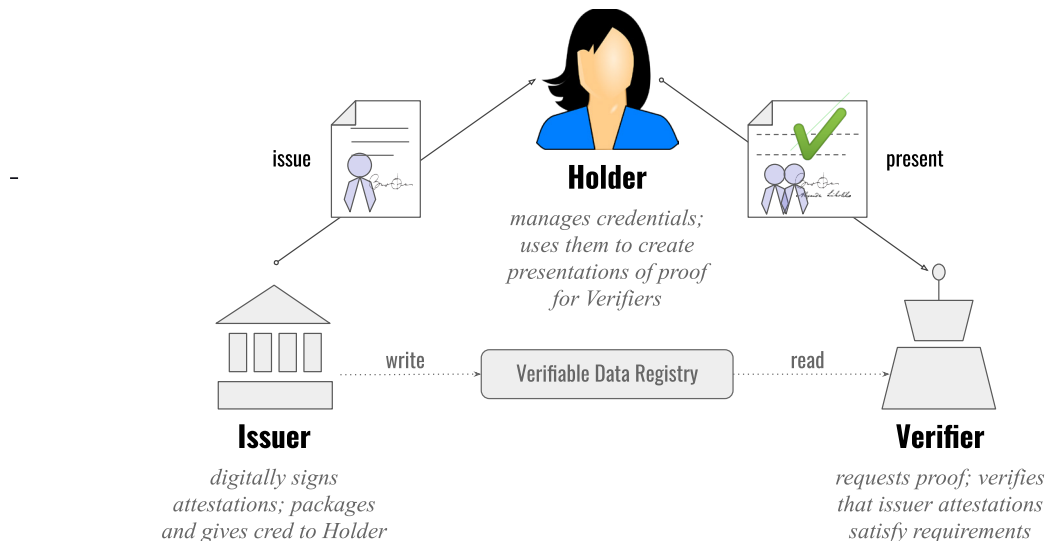
92 About – Verifiable Credentials: <https://verifiablecredentials.info/about>

93 COVID-19 Certificates for Everyone – David Chadwick, YouTube, 14th August 2020: <https://www.youtube.com/watch?v=7h1wPn78-Lo&t=109s>

94 Demo of COVID-19 Certificate on iPhone – David Chadwick, YouTube, 17th February 2021: <https://www.youtube.com/watch?v=rBeY7sCdQ18>

95 Intro to Decentralized Identity Technology: How Does Blockchain Cryptography Work?

becomes a potential public link to an individual, whereas by not using DIDs and instead just verifying the keys within a registry that public link is less of a privacy risk.⁹⁶ However, without DIDs trust must be placed in a third party to operate the registry which may be a risk, whereas a distributed ledger can be verified much more widely.



Fraud Resistant COVID-19 Immunity Certificates - Billon Group

Received £49,966 in funding from Innovate UK.⁹⁷

Binding method: Other identification

Polish firm Billon Group and British software company CCube received funding to develop a distributed ledger technology (DLT) based vaccine passport. The product was initially pitched for health workers to prove their immunity.⁹⁸ However, updates on Billon Group's website suggest the passport progressed to handle a "wide range" of "medical test documents".⁹⁹

- Finextra, 20th August 2020: <https://www.finextra.com/blogposting/19221/intro-to-decentralized-identity-technology-how-does-blockchain-cryptography-work>

96 I Want COVID-19 Certificates but I don't want a DID – David Chadwick, YouTube, 12th May 2020: <https://www.youtube.com/watch?v=yqSrOxKcG18>

97 Fraud-Resistant Covid-19 Immunity and Back-to-Work Certificates on DLT – Billon Group Ltd. UKRI: <https://gtr.ukri.org/projects?ref=62881>

98 CCube Solutions, Billon Group and The Gekko Group partner to launch a COVID-19 Ready-to-Work app in Q2 2021 – Billon Group, 18th January 2021: <https://billongroup.com/en/ccube-solutions-billon-group-and-the-gekko-group-partner-to-launch-a-covid-19-ready-to-work-app-in-q2-2021/>

99 Billon launches a Verifiable Certificate platform on distributed ledger, a milestone for the rollout of coronavirus immunization certificates – Billon Group, 23rd December 2020: <https://billongroup.com/en/billon-launches-a-verifiable-certificate-platform-on-distributed-ledger-a-milestone-for-the-roll-out-of-coronavirus-immunization-certificates/>

Billon Group emphasises it is necessary to bind a vaccine passport to formal identification:

“Integrating personal identity with immunization documents in a compliant and tamper-proof manner on an accessible digital platform is key to the success of implementing immunity certificates. The immunity certificate brings together biometric data (for confirmation of identity) and vaccination verification (for confirmation of immunity).”¹⁰⁰

How it works

The companies’ vaccine passport works as follows:

1. An individual creates an account in the app and binds it to their identification.
2. After vaccination, a credential is then issued to the app and is noted on the distributed ledger, so it cannot be tampered with in the future.
3. A key is then stored by the DLT that can be used to verify the legitimacy of the certificate, while the integrated identification proves who it belongs to.
 - a. Biometrics, such as fingerprints, can be used instead of passwords to access the vaccine passport on the device.
4. A QR code is generated and can be scanned by someone who wants to check the credential, with the checker’s device communicating with the ledger to verify the certificate.

The issuer of the certificate can revoke it, or put an expiry date in it.

Accredit-GO - EAS Technologies

Received £173,876 in funding from Innovate UK.¹⁰¹

Accredit-GO is a workplace focussed COVID certificate that is aimed at integrating with the company’s existing business of providing accreditation to companies and events. The company wants to add health data to its usual product of allowing certain people into certain areas or events, which the company already provides for professional sports clubs.¹⁰²

How it works

This proposal looks to integrate COVID status certification in already existing accreditation for venues and similar.

The company proposes a huge amount of data gathering including temperature readings, prior international travel, health symptoms and vaccine records all as potential information fields gathered for the accreditation. A pre-set rulebook could be used to only allow access to space to those who have given enough

100 Ibid.

101 Accredit-GO – Eas Technologies Ltd., UKRI: <https://gtr.ukri.org/projects?ref=80043>

102 <https://www.accredit-solutions.com/pages/accredit-covid-19-tools>

correct health data to prove they are eligibled.¹⁰³

The credential consists of a card with a photo and a barcode which could be used to see who has been where within a venue to aid with contact tracing.¹⁰⁴ The company claims that the need to protect staff outbalances the right to privacy in a blase manner¹⁰⁵ but places the duty on clients to make sure their data practices are up to date.

Apollo mobile COVID-19 Passport ID platform - The Hub

Received £74,448 funding from Innovate UK¹⁰⁶ and £34,000 from the Department of Health and Social Care.¹⁰⁷

Binding method: certificate with photograph

The Hub Company Ltd. received funding to create a proof of concept for general COVID certificates by the DHSC.

The Hub's Innovate UK bid focussed on getting people back to work but its proof-of-concept with DHSC was a wider testing certificate that could easily be converted to a proof-of-vaccine model.

How it works

The proof of concept documents were similar to Netcompany's with the proposed model being:

1. At an in-person COVID test, the individual's name is entered into the app and a photograph is taken of them by the tester or someone at the testing centre.
2. After the test is done, its barcode or QR code is stored in the app and linked to the name and photograph.
3. The app updates when the test result is known and a QR code is generated that can be scanned to verify the test status.

It was confirmed in late December 2020 that the testing certificate model was

103 Vaccine passports: An investment for the future?
- Accredit Solutions, 20th January 2020: <https://www.accredit-solutions.com/media/blog/january-2021/vaccine-passports-an-investment-for-the-future>

104 Accredit Solutions wins funding to roll out pandemic response software to major events industry – Accredit Solutions, 18th December 2020: <https://www.accredit-solutions.com/media/releases/accredit-solutions-wins-funding-to-roll-out-pandemic-response-software-to-major-events->

105 FAQs: Accreditation data and COVID-19 - Accredit Solutions, 5th August 2020: <https://www.accredit-solutions.com/media/blog/august-2020/faqs-accreditation-data-and-covid-19>

106 Apollo mobile COVID -19 Passport ID platform – The Hub Company Ltd., UKRI: <https://gtr.ukri.org/projects?ref=70092>

107 Covid-19 Certification/Passport MVP, 18th December 2020: <https://www.contracts->

equally applicable to vaccine passports.¹⁰⁸ The Hub also said it is working with the transport company Go-Ahead to trial COVID status technology, but it is not clear whether that is for passengers or staff.

Digital-Mobile Proof of Immunity Certificate - Blockmark Technologies

Received £74,075 of funding from Innovate UK.¹⁰⁹
Binding method: photograph

This funding was awarded for Blockmark to develop a digital credential that proves coronavirus vaccination, relying on distributed ledger technology (DLT) to store and verify certificates on the ethereum blockchain.

How it works

The process is:

1. An individual sets up an account with the Blockmark registry, with the accounts on the demo featuring full names and photographs.¹¹⁰
2. An issuer chooses which credential to issue and enters the name and contact details linked to the account holder being given a COVID certificate.
3. The certificate details are hashed and then stored on the ethereum blockchain so that they can be verified by a third party and cannot be altered.
4. An email and/or SMS is sent with a QR code that contains the details to allow the certificates to be verified.
5. A third party uses the Blockmark tech to scan the QR code and check the certificate is valid on the blockchain

Certificates can be revoked by the issuers and can be given an expiration date. It is unclear if the photo in the demo video binds the passport or if a separate form of ID will be needed.

Blockmark has already created a digital version of the ICVP (Yellow Fever certificate) and its registry is being built so it “pulls from a plethora of certificates and credentials connected to a person’s medical history”.¹¹¹

Company background

Despite ministers denying there were any plans for vaccine passports during November and December 2020, Blockmark boasted that in November 2020 the

108 New COVID Test and Vaccine Passport Ready for Rapid Deployment – The Hub, 29th December 2020: <https://www.thehub.co.uk/news/press-release-c19/#more-637>

109 Digital-Mobile Proof of Immunity Certificates (Verifiable Credentials & Verifiable Presentations) – Blockmark Technologies Ltd.: <https://gtr.ukri.org/projects?ref=62644>

110 Immunity / vaccination certificate demonstration – BlockMark Technologies, YouTube, 26th November 2020: <https://www.youtube.com/watch?v=hZyAzd2DxXM>

111 BLOCKMARK TECHNOLOGIES SECURES INNOVATE UK FUNDING – Blockmark Technologies, 17th June 2020: <https://www.blockmarktech.com/blockmark-funding-covid-19-certificate/>

company met with Test and Trace officials at DHSC and presented their concept, all to win a funding extension.¹¹² However, the NHS and DHSC denied having any record of the meeting in a reply to a FOI request sent by Big Brother Watch.

IATA Travel Pass

Received no state funding - developed by international aviation body, International Air Transport Association (IATA).

Building on the IATA's prior attempts to bring in a digital travel credential, the body now wants to create a digital proof of test or vaccine to help rebuild confidence in the aviation industry.¹¹³

How it works

As it is meant for travel, the pass is strongly bound to an existing passport or another identification document.¹¹⁴ Within the pass, travelers can store their travel documents, itinerary, test results and vaccine status. This health data can then be shared digitally with border guards or airlines to verify their health status.

Consent is trumpeted as a key part of the IATA travel pass but of course, consent cannot be considered freely given if possession of the Travel Pass and/or the vaccination or test data is a condition of traveling with an airline.

Background

This new Travel Pass is a spinoff of the IATA OneID which sought to establish a digital, contactless way to travel. Incorporating a selfie and biometric passport data, an individual could stroll through an airport without presenting themselves to security.¹¹⁵ A glance at a facial recognition camera would replace traditional passport control. A liveness selfie, taken before travel, is used to ensure the person is present. Much of this sensitive, biometric data could potentially be shared with airlines or state border guards, further eroding privacy rights in international travel.

112 BLOCKMARK WIN INNOVATE UK AWARD EXTENSION FOR IMMUNITY PASS-PORT – Blockmark Technologies, 3rd December 2020: <https://www.blockmarktech.com/blockmark-win-innovate-uk-award-extension-for-immunity-passport/>

113 IATA Travel Pass Initiative – IATA [last accessed 29th March 2021]: <https://www.iata.org/en/programs/passenger/travel-pass/>

114 IATA Travel Pass Briefing – IATAtv, YouTube, 21st January 2021: <https://www.youtube.com/watch?v=Zx3otZ63wFw&>

115 OneID – IATA [last accessed 29th March 2021]: <https://www.iata.org/en/programs/passenger/one-id/>

ANNEX

COVID STATUS CERTIFICATES: LEGAL ISSUES

SECTION 1: OVERVIEW

I: SUMMARY

1. We are asked by Big Brother Watch to identify the legal issues which may arise out of the introduction by the Government of COVID-Status Certification (“CSC”).

2. CSC is said by the Government to be:

“...the use of testing or vaccination data to confirm in different settings that individuals have a lower risk of getting sick with or transmitting COVID-19 to others. Such certification would be available both to vaccinated people and to unvaccinated people who have been tested.”¹

3. The issue has arisen in a context which could not be more important to the lives and livelihoods of all UK residents: the gradual re-opening of ordinary life after several months of being required to ‘stay at home’ save in specified circumstances². Thus on 22 February 2021, the Government published “COVID-19 Response – Spring 2021” (“**the Spring Response**”). The Spring Response sets out Government plans to protect and support citizens across the UK from the COVID-19 pandemic, provides a roadmap out of the third ‘lockdown’ in England, and states that CSC is being considered alongside that roadmap.³
4. On 15 March 2021 the Cabinet Office published a Consultation on CSC (“**the Consultation**”) which states:

“The government is reviewing whether COVID-status certification could play a role in reopening our economy, reducing restrictions on social contact and improving safety.”⁴

5. The purpose of the consultation is said to be to inform i) the Government’s review of “*to what extent certification would be effective in reducing risk, and its potential uses in enabling access to settings or relaxing COVID-secure mitigations*” and ii) its consideration

¹ COVID-Status Certification Review, Open Consultation published by the Cabinet Office, 15 March 2021. (<https://www.gov.uk/government/consultations/covid-status-certification-review-call-for-evidence/covid-status-certification-review-call-for-evidence>, last accessed on 29 March 2021).

² The restrictions on everyday activities made since the start of the pandemic have been set out in numerous pieces of legislation. Many of the current restrictions are provided for in the Health Protection (Coronavirus, Restrictions) (All Tiers) (England) Regulations 2020, the Health Protection (Coronavirus, Restrictions) (No. 2) Regulations (Northern Ireland) 2020, the Health Protection (Coronavirus Restrictions) (No. 5) (Wales) Regulations 2020 and the Health Protection (Coronavirus) (Restrictions and Requirements) (Local Levels) (Scotland) Regulations 2020.

³ Government Guidance, “COVID-19 Response - Spring 2021”, published on 22 February 2021 (<https://www.gov.uk/government/publications/covid-19-response-spring-2021/covid-19-response-spring-2021>, last accessed on 22 March 2021).

⁴ See footnote 1.

of “the ethical, equalities, privacy, legal and operational aspects of a potential certification scheme, and what limits, if any, should be placed on organisations using certification.”⁵

6. Neither the Consultation nor the Spring Response provide any other details on CSC. They do not:
 - (1) Specify the settings in which CSC might be introduced. The multitude of potential settings includes:
 - (a) Essential services or shops,
 - (b) Non-essential services or shops,
 - (c) Employment of all types,
 - (d) Public or private transport,
 - (e) Entertainment and leisure venues,
 - (f) Public buildings and spaces,
 - (g) Sports venues,
 - (h) Educational settings,
 - (i) Healthcare settings.
 - (2) Detail the mechanics of any scheme being considered, whether a Government-administered smart app, using centralised data, or a paper-based certificate, and in either case, the nature and extent of the data which would be shared, and what safeguards would apply to such data sharing.
 - (3) Explain whether the Government is considering a mandatory CSC regime, imposed by the Government on businesses or institutions (“**Mandatory CSC**”), or a permissive scheme which might be used by various businesses or institutions by choice (“**Permissive CSC**”), or a combination of both.
 - (4) Address whether the Government is contemplating a scheme where CSC (whether Mandatory or Permissive) would be compulsory for individuals, imposed as a condition of their access to various settings (“**Compulsory CSC**”), or voluntary, used as means of encouraging vaccination, targeting lockdown measures and monitoring the control and spread of the COVID-virus (“**Voluntary CSC**”).
 - (5) Set out any exemptions or safeguards it is considering to ensure that certain groups of individuals are not unfairly disadvantaged by CSC (for example, pregnant women, who are not routinely advised to be vaccinated, or those aged 18 and under for whom the vaccine is also not currently advised).
7. As for the goals which CSC seeks to achieve, these are said by the Consultation to be threefold:
 - (1) Re-open the economy
 - (2) Reduce restrictions on social distancing
 - (3) Improve safety.
8. No explanation is given, or evidence cited, as to why CSC is thought likely to achieve any of these goals.

⁵ See footnote 1.

9. Although the Consultation contains no details of the proposals under consideration, a paper leaked to the media on 22 March 2021 suggested the Prime Minister and Health Secretary had already agreed to a plan to make vaccinations compulsory by law for care home staff⁶; and on 24 March 2021 the Prime Minister told a House of Commons committee that he was sympathetic to publicans being permitted to use CSC as a condition of entry to pubs, so as to enable social distancing rules to be relaxed.⁷ These two examples reveal the diverse forms of CSC which might be adopted (one Mandatory and Compulsory, the other Permissive and Compulsory), and the diverse aims and settings of CSC (one aimed primarily at protecting the health of care home residents, and the other primarily aimed at reducing restrictions on social distancing in the leisure industry).
10. By contrast, on 25 March 2021, it was reported that the Curzon cinema chain was considering a Permissive, Voluntary model, with separate film screenings for those with proof of vaccination, and for those without.⁸ Other businesses have suggested they will introduce Permissive, Compulsory schemes for their employees.⁹
11. The absence of proposals, and the diversity of CSC schemes which could be adopted, mean that it is not possible to advise on the legality of introducing CSC, or to identify all the legal issues which may arise, and we do not do so.
12. Whichever type of CSC scheme is under consideration, however, and whether it is intended to apply in the employment sphere (as a condition of employment), the public or private sphere (to control access to goods and services), or the sports and entertainment industry (to control access to leisure venues or participate in leisure activities), it is clear, as we explain further below, that:
 - (1) Constitutional liberties and fundamental rights will be engaged;
 - (2) The scheme will need to be properly justified as necessary and proportionate as an essential pre-condition to lawfulness.
13. Also clear is that the more stringent and wide-ranging the scheme, the greater the chance that it will be unjustified and unlawful. Thus the adoption in the UK of a CSC scheme which is Mandatory and Compulsory, and furthermore applied in a wide range of settings, would have significant constitutional consequences, and severely curtail individual rights.

⁶ 'Exclusive: Care home staff to face compulsory Covid vaccination', The Telegraph, 22 March 2021 (<https://www.telegraph.co.uk/politics/2021/03/22/care-home-staff-face-compulsory-covid-vaccination/>, last accessed on 27 March 2021).

⁷ 'Covid-19: Pubs could require vaccine passports - Boris Johnson', BBC News, 25 March 2021 (<https://www.bbc.co.uk/news/uk-politics-56517486>, last accessed on 27 March 2021).

⁸ 'Curzon cinema looks into vaccine-only and no-jab-only screenings', The Guardian, 25 March 2021 (<https://www.theguardian.com/film/2021/mar/25/curzon-cinema-looks-into-vaccine-only-and-no-jab-only-screenings>, last accessed on 27 March 2021).

⁹ 'Covid Vaccinations: Nobody will be forced to have a vaccination by Pimlico', Pimlico Plumbers, 14 January 2021 (<https://www.pimlicoplumbers.com/blog/covid-vaccinations-nobody-will-be-forced-to-have-a-vaccination-by-pimlico>, last accessed on 27 March 2021).

In a democracy, ‘*the people own the Government, and not the Government the people*’.¹⁰ A system in which government monitors and controls people’s movements and their access to the amenities of ordinary life, giving preferential treatment to some and not others, would profoundly alter the nature of the relationship between the citizen and the state, jeopardise liberties which have defined English common law and citizenship for centuries, and risk discrimination against groups of individuals. A Permissive, Voluntary scheme applied in a limited number of settings, by contrast, would have fewer consequences for individual rights, although its implications for data protection, privacy and equality would still require careful consideration.

14. In this paper we set out the background to the Government’s consideration of CSC, identify the constitutional liberties and fundamental rights engaged, and analyse the considerations which are relevant to ensuring lawfulness. We also set out in separate sections of the paper relevant aspects of the legal framework most likely to apply to any such schemes, namely employment law, data protection law and equality law.
15. As will become apparent, the introduction of CSC is likely to be fraught with complexity and legal difficulties. It is likely to result in interferences with a number of fundamental rights. Unless such a scheme is supported by cogent and well-evidenced justifications, there is a risk that it will contravene those rights and breach other legal obligations, as discussed below.

II: FACTUAL BACKGROUND

COVID-19 and the third lockdown

16. On 4 January 2021, the Prime Minister announced a third national ‘lockdown’ in an attempt to control a new surge or wave of COVID-19 infections. The surge was attributed to a new variant of the virus which was between 50 and 70% more transmissible. The entire population was instructed to ‘stay at home’ and only permitted to leave for limited reasons permitted in law, such as to shop for essentials, to work if working from home was not possible and for exercise. Schools were closed and those who were ‘clinically extremely vulnerable’ were advised to ‘shield’, meaning they should not leave home at all if possible, and keep a distance from those in their own household. By 26 March 2021, 126,515 people were recorded to have died from COVID-19 since the pandemic began in early 2020.
17. Since COVID-19’s arrival in the UK, it has become apparent that:
 - (1) Certain groups of individuals (principally the elderly and those with underlying health conditions) are at increased risk of serious illness and death;
 - (2) The disease spreads asymptotically as well as symptomatically;
 - (3) COVID-19 mutates rapidly, with new variants displaying qualities such as enhanced transmissibility.

¹⁰ Winston S Churchill, Speech to Congress of Europe, May, 1948, Vol. 1 Plenary Sessions.

The vaccination programme

18. In an attempt to control the virus the Government commissioned the mass production of vaccines. The first vaccination was delivered on 8 December 2020. On 11 January 2021 a plan was published to vaccinate the following nine groups by order of priority, starting with those judged at increased risk of serious illness or death:
- (1) all residents in a care home for older adults and their carers;
 - (2) all those 80 years of age and over and frontline health and social care workers;
 - (3) all those 75 years of age and over;
 - (4) all those 70 years of age and over and clinically extremely vulnerable individuals;
 - (5) all those 65 years of age and over;
 - (6) all individuals aged 16 years to 64 years with underlying health conditions which put them at higher risk of serious disease and mortality;
 - (7) all those 60 years of age and over;
 - (8) all those 55 years of age and over;
 - (9) all those 50 years of age and over.
19. Those in these groups represented 99% of deaths as at 13 January 2021.¹¹ The goal was to offer vaccination (in two doses) to all those in these groups by 15 April 2021. As at 26 March 2021, vaccine take up has reached 29,316,130 million people and second doses 3,009,863. The percentage of those over 50 years old who have now received a first dose is 87% in England, 82% in Scotland, 77% in Wales, and 53% in Northern Ireland. The percentage of adults overall is 56%, 53%, 52% and 49% respectively.¹² Best practice is to vaccinate 75% of total population cohorts.¹³
20. Once vaccines have been offered to the nine priority groups, vaccinations will be offered to the remainder of the adult population in the following order of priority¹⁴:
- (1) all those aged 40 to 49 years;
 - (2) all those aged 30 to 39 years;
 - (3) all those aged 18 to 29 years.
21. The goal is to complete vaccination of these groups by the end of July 2021.¹⁵ There are no current plans to vaccinate children.¹⁶ Pregnant women are only advised to have the vaccine

¹¹ 'UK COVID-19 vaccines delivery plan', Table 2 (<https://www.gov.uk/government/publications/uk-covid-19-vaccines-delivery-plan/uk-covid-19-vaccines-delivery-plan>, last accessed on 27 March 2021).

¹² 'Covid vaccine: How many people in the UK have been vaccinated so far?', BBC News, 26 March 2021 (<https://www.bbc.co.uk/news/health-55274833>, last accessed on 27 March 2021).

¹³ 'UK COVID-19 vaccines delivery plan', Prioritisation (<https://www.gov.uk/government/publications/uk-covid-19-vaccines-delivery-plan/uk-covid-19-vaccines-delivery-plan>, last accessed on 27 March 2021).

¹⁴ 'JCVI interim statement on phase 2 of the COVID-19 vaccination programme' (<https://www.gov.uk/government/publications/priority-groups-for-phase-2-of-the-coronavirus-covid-19-vaccination-programme-advice-from-the-jcvi/jcvi-interim-statement-on-phase-2-of-the-covid-19-vaccination-programme>, last accessed on 27 March 2021).

¹⁵ 'Covid vaccine: How many people in the UK have been vaccinated so far?', BBC News, 26 March 2021 (<https://www.bbc.co.uk/news/health-55274833>, last accessed on 27 March 2021).

¹⁶ 'JCVI interim statement on phase 2 of the COVID-19 vaccination programme', 26 February 2021 (<https://www.gov.uk/government/publications/priority-groups-for-phase-2-of-the-coronavirus-covid-19->

if they are at high risk of getting coronavirus because of where they work or have a health condition that means they are at high risk of serious complications of coronavirus.¹⁷

Vaccine efficacy

22. Neither of the two vaccines being widely used in the UK, Astra-Zeneca or Pfizer, provides complete protection against COVID-19. The NHS advises people that there is a chance you might still get or spread coronavirus even if you have the vaccine, that social distancing advice should still be followed and masks should be worn where it is hard to stay away from other people.¹⁸ The vaccines principally work by providing a high level of protection against serious disease or symptomatic disease, rather than infection. Thus Astra-Zeneca reports that its vaccination has 79% efficacy at preventing symptomatic COVID-19 and 100% efficacy against severe disease and hospitalisation.¹⁹ Pfizer reports that its vaccine is 97% effective at preventing symptomatic disease, severe disease and death two weeks after the second vaccine dose.²⁰ There is emerging evidence that the vaccines also provide protection against infection, and thus against transmission, but the evidence suggests lower levels of such protection²¹ (one study showed a 75% reduction in risk of infection from the Pfizer vaccine).²²

Vaccine hesitancy

23. Vaccine hesitancy, or reluctance to be vaccinated, is known to be particularly high in BAME communities,²³ with barriers to vaccine uptake including a perception of risk, low confidence in the vaccine, distrust, access barriers, inconvenience, and socio-demographic

[vaccination-programme-advice-from-the-jcvi/jcvi-interim-statement-on-phase-2-of-the-covid-19-vaccination-programme](#), last accessed on 27 March 2021).

¹⁷ 'Coronavirus (COVID-19) vaccine', NHS Website (<https://www.nhs.uk/conditions/coronavirus-covid-19/coronavirus-vaccination/coronavirus-vaccine/>), last accessed on 27 March 2021).

¹⁸ 'Coronavirus (COVID-19) vaccine', NHS Website (<https://www.nhs.uk/conditions/coronavirus-covid-19/coronavirus-vaccination/coronavirus-vaccine/>), last accessed on 27 March 2021).

¹⁹ 'AZD1222 US Phase III trial met primary efficacy endpoint in preventing COVID-19 at interim analysis', AstraZeneca, 22nd March 2021 (<https://www.astrazeneca.com/media-centre/press-releases/2021/astrazeneca-us-vaccine-trial-met-primary-endpoint.html>), last accessed on 26 March 2021).

²⁰ 'Real-World Evidence Confirms High Effectiveness of Pfizer-BioNTech COVID-19 Vaccine and Profound Public Health Impact of Vaccination One Year After Pandemic Declared', Pfizer, 11 March 2021 (<https://www.pfizer.com/news/press-release/press-release-detail/real-world-evidence-confirms-high-effectiveness-pfizer>), last accessed on 26 March 2021).

²¹ 'By how much has UK's vaccine progress reduced Covid risk?', The Guardian, 26 March 2021 (<https://www.theguardian.com/society/2021/mar/26/by-how-much-has-uks-vaccine-progress-reduced-covid-risk>), last accessed on 27 March 2021).

²² 'Single dose of Pfizer BioNTech vaccine reduces asymptomatic infections and potential for SARS-CoV-2 transmission', 26 February 2021 (<https://www.cam.ac.uk/research/news/single-dose-of-pfizer-biontech-vaccine-reduces-asymptomatic-infections-and-potential-for-sars-cov-2#:~:text=New%20data%20from%20Addenbrooke's%20Hospital,SARS%2DCoV%2D2%20infections,> last accessed on 26 March 2021).

²³ 'Factors influencing COVID-19 vaccine uptake among minority ethnic groups', Scientific Advisory Group for Emergencies (SAGE), 17 December 2020 (published 15 January 2021) (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/952716/s0979-factors-influencing-vaccine-uptake-minority-ethnic-groups.pdf), last accessed 27 March 2021).

issues. BAME communities are also at higher risk from COVID-19.²⁴ This increased risk is thought in large part to be due to increased prevalence of underlying health conditions, and societal factors such as occupation, household size, deprivation, and access to healthcare.²⁵

COVID-19 testing

24. There are two types of testing for current COVID-19 infection, lateral flow tests and polymerase chain reaction (“PCR”) tests. Lateral flow tests are currently used for those without symptoms, and PCR tests for those with.²⁶ In neither case does a negative test guarantee that an individual is not infected. Lateral flow tests have in the past been found to have a false negativity rate of between 25-60%²⁷, depending on which type is used, although some evaluations indicate higher rates of sensitivity. PCRs have a much lower false negativity rate in laboratory settings (less than 5%) but that is likely to be higher where tests are self-administered.²⁸ In addition, an individual may become infected shortly after a test, which is why those who have come into close contact with someone who has tested positive for COVID-19 are still required to self-isolate.²⁹
25. Government guidance for individuals who are being asked to use lateral flow tests, e.g. households and bubbles of pupils, students and staff of schools, nurseries and colleges, is that the lateral flow tests should be taken twice a week (every 3 or 4 days apart), and that results should be reported to NHS Test and Trace on the same day the test is taken.³⁰ PCR tests are sent to a lab to be checked. Most people using the NHS service are expected to receive the results of their PCR test the next day, but it may take up to three days. In practice, it can take longer depending on volumes of tests being processed.³¹

²⁴ ‘Disparities in the risk and outcomes of COVID-19’, Public Health England, published August 2020 (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/908434/Disparities_in_the_risk_and_outcomes_of_COVID_August_2020_update.pdf, last accessed 27 March 2021).

²⁵ ‘Joint Committee on Vaccination and Immunisation: advice on priority groups for COVID-19 vaccination, 30 December 2020’ (<https://www.gov.uk/government/publications/priority-groups-for-coronavirus-covid-19-vaccination-advice-from-the-jcvi-30-december-2020/joint-committee-on-vaccination-and-immunisation-advice-on-priority-groups-for-covid-19-vaccination-30-december-2020>, last accessed on 27 March 2021).

²⁶ ‘Your coronavirus test result’, NHS Website (<https://www.nhs.uk/conditions/coronavirus-covid-19/testing-and-tracing/what-your-test-result-means/>, last accessed on 27 March 2021).

²⁷ ‘Mass testing for COVID-19: January update on lateral flow tests’, UK Parliament Post (<https://post.parliament.uk/mass-testing-for-covid-19-january-update-on-lateral-flow-tests/>, last accessed on 27 March 2021).

²⁸ ‘Impact of false-positives and false-negatives in the UK’s COVID-19 RT-PCR testing programme’, Carl Mayers & Kate Baker, 3 June 2020 (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/895843/S0519_Impact_of_false_positives_and_negatives.pdf, last accessed on 27 March 2021).

²⁹ ‘Your coronavirus test result’, NHS Website (<https://www.nhs.uk/conditions/coronavirus-covid-19/testing-and-tracing/what-your-test-result-means/>, last accessed on 27 March 2021).

³⁰ ‘Households and bubbles of pupils, students and staff of schools, nurseries and colleges: get rapid lateral flow tests’ (<https://www.gov.uk/guidance/rapid-lateral-flow-testing-for-households-and-bubbles-of-school-pupils-and-staff#take-a-test-at-a-rapid-lateral-flow-test-site>, last accessed on 28 March 2021).

³¹ ‘Your coronavirus test result’, NHS Website ([https://www.nhs.uk/conditions/coronavirus-covid-19/testing-and-tracing/what-your-test-result-means/#:~:text=Polymerase%20chain%20reaction%20\(PCR\)%20tests,your%20result%20when%20it's%20ready,](https://www.nhs.uk/conditions/coronavirus-covid-19/testing-and-tracing/what-your-test-result-means/#:~:text=Polymerase%20chain%20reaction%20(PCR)%20tests,your%20result%20when%20it's%20ready,) last accessed on 28 March 2021).

III: CONSTITUTIONAL LIBERTIES AND FUNDAMENTAL RIGHTS

A: The Common law

Civil liberty

26. In his Commentaries on the Laws of England, William Blackstone, writing in 1765, described the '*natural liberty of mankind*' as consisting of '*the power of choosing those measures which appear to him to be most desirable*' and '*of acting as one thinks fit without any restraint or control*'. '*Civil liberty*' meanwhile is natural liberty '*so far restrained by human laws (and no farther) as is necessary and expedient for the general advantage of the public*'. (Blackstone's Commentaries, Book 1, Ch 1, p121-122 (1765)). '*[E]very wanton and causeless restraint of the will of the subject, whether practised by a monarch, a nobility or a popular assembly, is a degree of tyranny.*' (Commentaries, Book 1, Ch 1, p121-122).
27. As Blackstone put it, '*the idea and practice of.... civil liberty flourish in their highest vigour in these kingdoms....*' because the legislature, and the laws of England are '*peculiarly adapted*' to preserving it. This was '*[v]ery different from the modern constitutions of other states, on the continent of Europe*', and from '*imperial law; which in general are calculated to vest an arbitrary and despotic power of controlling the actions of the subject in the prince, or in a few grandees.*' (Commentaries, Book 1, Ch 1, p123).
28. The '*spirit of liberty is... deeply implanted in our constitution, and rooted in our very soil*'. (Commentaries, Book 1, Ch 1, p123).
29. Blackstone's description of civil liberty is an important recognition that the content of laws can be tyrannical, even if they are enacted by a democratically elected government. Thus '*[t]he democratic credentials of an elected government cannot justify its enjoyment of a right to abolish fundamental freedoms.... [I]ts elective base cannot immunise it from playing the tyrant's role.*' (Sir John Laws, Public Law, 1995, Spring 72-93)

Absolute rights: Personal liberty

30. Personal liberty is one of three 'absolute rights',³² given special protection by the common law. While freedom from imprisonment and exile is a critical aspect of personal liberty,³³ it also includes personal autonomy, and the '*power of locomotion*'. Blackstone's Commentaries on the Laws of England, accordingly, state as follows:

³² Alongside the right of personal security (the right to life and limb), and the right to private property (free use, enjoyment and disposal of all his acquisitions).

³³ Clause 39 of Magna Carta, issued in 1215, provided that '*No free man should be arrested or imprisoned, or disseised or outlawed or exiled or in any way molested; nor will we go upon him, nor will we send upon him, except upon a legal judgment of his peers or by the justice of the King in cases in which this has been the common procedure, the law of the land in effect everywhere and accepted as such.*' Magna Carta, as issued in 1297, contains a similar provision at clause 29 which remains in force today.

“Next to personal security, the law of England regards, asserts, and preserves the personal liberty of individuals. This personal liberty consists of the power of locomotion, of changing situation, or moving one’s person to whatsoever place one’s own inclination may direct, without imprisonment or restraint, unless by due course of law. Concerning which we may make the same observations as upon the preceding article, that it is a right strictly natural; that the laws of England have never abridged it without sufficient cause” (Commentaries, Book I, Ch 1, p130)

31. This ‘*perfect liberty of locomotion*’ – i.e. the right to go where one chooses, without restraint except by due course of law – has been described as one of the ‘*dearest rights of citizens*’.³⁴ The importance of the principle is not only in enabling the free movement of persons, but also in safeguarding individual autonomy. Thus, Dicey, for example, recognised that the right of personal liberty ensured a ‘*person’s right not to be subjected to imprisonment, arrest or other physical coercion in any manner that does not admit legal justification*’.³⁵ Similarly, Ridges’ *Constitutional Laws of England* is clear that ‘*the right to personal freedom means simply that the person may do what he likes or go where he likes provided he breaks no law and does not infringe the rights of others*’. See also, more recently, Baron Lloyd of Hampstead, *The Idea of Law*, 1964: ‘*Freedom of travel, both within and outside the confines of the territory of the State, raises important issues of personal freedom. This type of freedom has largely been regarded as axiomatic in modern times...*’.
32. Those principles have been recognised by the Courts. In *Bird v Jones* [1845] 7 QB 742, for example, Coleridge J. recognised that ‘*it is one part of the definition of freedom to be able to go whithersoever one pleases*’. They have also been enshrined in various international human rights instruments. In addition to the European Convention on Human Rights (“**ECHR**”) – the provisions of which are considered below – Article 13(2) of the Universal Declaration on Human Rights recognises that ‘*Everyone has the right to freedom of movement and residence within the borders of each State*’. Article 12(1) of the International Covenant on Civil and Political Rights similarly provides that ‘*Everyone lawfully within the territory of a State shall, within that territory, have the right to liberty of movement and freedom to choose his residence*’.

Privacy

33. Privacy, described as ‘*a legal principle drawn from the fundamental value of personal autonomy*’ (*Douglas v Hello! Ltd* (No.1) [2001] QB 967, at §126), is a fundamental value that is recognised by the common law, which underpins the long-standing cause of action for breach of confidence, as developed by application of principles under Article 8 ECHR

³⁴ See further, the Parliamentary Debates in the Legislative Assembly of the Victorian Colonial Parliament, 6 December 1888, at 2357, per the speech given by William Shiels, citing Blackstone’s Commentaries on the Laws of England.

³⁵ Dicey on Constitutional Law, 9th Ed, pp.207 – 208.

(see *Campbell v MGN Ltd* [2004] 2 AC 457). Privacy also underlies common law torts including trespass, nuisance, defamation and malicious falsehood; and statutory remedies under the Protection from Harassment Act 1997 and under data protection law (see *Wainwright v Home Office* [2004] 2 AC 406, per Lord Hoffmann at §18). As Lord Reed noted at §55 of *R (Osborn) v Parole Board* [2014] AC 1115, the right to respect for a private life is fulfilled primarily through rules and principles found in many areas of domestic law, such as the law of tort and constitutional law, in accordance with the proposition that in UK law the protection of human rights ‘*is not a distinct area of the law, based on the case law of the European Court of Human Rights, but permeates our legal system*’. That values which have found expression in the common law were enshrined in the ECHR is perhaps unsurprising since one of its ‘*inspirers*’ in the aftermath of the Second World War was Winston Churchill, and its draftsmen included former Attorney-General, Sir David Maxwell-Fyfe MP (see Lord Steyn, *Brown v Stott* [2003] 1 AC 681, 707E-G).

B: The ECHR

Article 8: Right to respect for private and family life

34. Article 8(1) ECHR provides that ‘*Everyone has the right to respect for his private and family life, his home and his correspondence.*’
35. Article 8 ECHR concerns rights of central importance to the individual’s identity, self-determination, physical and moral integrity, maintenance of relationships with others and a settled and secure place in the community (*Connors v UK* (2005) 40 EHRR 9 at §82)).
36. It thus includes:
 - (1) Personal autonomy (echoing the English common law), and with it the right to conduct one’s life in a manner of one’s own choosing (*Pretty v United Kingdom* (2002) 35 EHRR 1 at §61-2).
 - (2) A right to personal development or fulfilment, which includes the right to have relationships with other human beings and the outside world (*Niemitz v Germany* (1992) 16 EHRR 97 at §29), social ties with the community (*Uner v Netherlands* (2007) 45 EHRR 14 at §59) and relationships in the sphere of employment (*Sidabras v Lithuania* (2006) 42 EHRR 6 at §47-8):
 - (3) The right to physical integrity (*X v Y v Netherlands* (1985) 8 EHRR 235 at §22), including freedom from compulsory blood tests (*X v Austria* (1979) 18 DR 154) or non-consensual medical treatment (*Glass v United Kingdom* (2004) 39 EHRR 15 at §70);
 - (4) The protection of personal information, including medical data (*Z v Finland* (1997) 25 EHRR 71).

37. While the primary purpose of Article 8 is the prevention of interference by the state with the rights protected (i.e. a negative obligation),³⁶ Article 8 also imposes positive obligations on the state to take steps to facilitate the enjoyment by individuals of those rights (see *Marckx v Belgium* (1979) 2 EHRR 330 at §31).
38. The rights protected by Article 8(1) ECHR are not absolute, but qualified. Interferences can be justified under Article 8(2) ECHR as long as they are ‘*in accordance with the law*’ and ‘*necessary in a democratic society in the interests of national security, public safety or the economic wellbeing of the country, for the preservation of order or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others*’.
39. The question of whether a measure interfering with a right is justified under Article 8(2) ECHR:
- ‘*depends on an exacting analysis of the factual case advanced in defence of the measure, in order to determine (i) whether its objective is sufficiently important to justify the limitation of a fundamental right; (ii) whether it is rationally connected to the objective; (iii) whether a less intrusive measure could have been used; and (iv) whether, having regard to these matters and to the severity of the consequences, a fair balance has been struck between the rights of the individual and the interests of the community.*’ (*Bank Mellat v HM Treasury* [2014] AC 700 at §20, per Lord Sumption).

Article 9: Freedom of thought, conscience and religion

40. Article 9 provides that ‘*everyone has the right to freedom of thought, conscience and religion*’ and that ‘*this right includes freedom to change his religion or belief and freedom, either alone or in community with others and in public or private, to manifest his religion or belief, in worship, practice and observance*’.³⁷
41. The safeguards in Article 9(1) not only apply to major world religions, but have also been recognised as protecting various coherent and sincerely-held philosophical convictions (see *R (Williamson) v Secretary of State for Education and Employment* [2005] 2 AC 246 at §23-4). For example, opposition to abortion has been recognised as a ‘belief’ for the purpose of Article 9 (*Knudsen v Norway* (1986) 8 EHRR CD63), as has a doctor’s opinions on alternative medicine (*Nyssonen v Finland* (Application No. 30406/96)). Article 9 protects those acts motivated by a religion or belief where they communicate the substance of the belief, but only where the religion or belief requires a particular form of manifestation (*Sahin v Turkey* (2007) 44 EHRR 5 at §105).

³⁶ See, for example, the *Belgian Linguistics Case* (Application No. 1474/62 & Ors), judgment of 23 July 1968.

³⁷ The right to freedom of thought, conscience and religion is also recognised by other international human rights instruments, including, for example, the International Covenant on Civil and Political Rights.

42. The first strand of Article 9 – the right to *hold* a belief – is absolute and unconditional. Accordingly, the state cannot take coercive steps to change those beliefs (*Ivanova v Bulgaria* (2008) 47 EHRR 54 at §79). In contrast, under Article 9(2) the freedom to manifest one’s beliefs is ‘*subject only to such limitations as are prescribed by law and are necessary in a democratic society in the interests of public safety, for the protection of public order, health or morals, or for the protection of the rights and freedoms of others.*’

Article 14: Prohibition of discrimination

43. Article 14 of the ECHR enshrines the prohibition on discrimination. It provides:

‘The enjoyment of the rights and freedoms set forth in the Convention shall be secured without discrimination on any ground such as sex, race, colour, language, religion, political or other opinion, national or social origin, association with a national minority, property, birth or other status.’

44. Article 14 has no independent existence, but instead prohibits discrimination in the enjoyment of another Convention right, such as Article 8 or 9 ECHR. Equally, however, it is not necessary to show a breach of that other substantive right; if a state chooses to legislate in an area which engages another Convention right it must not do so in a discriminatory manner (see *Ghaidan v Godin-Mendoza* [2004] 2 AC 557 at §§6 and 35).
45. Discrimination under Article 14 means treating differently, without an objective and reasonable justification, persons in relevantly similar situations. Discrimination can occur not only when those with protected characteristics are directly targeted by state action but also if that measure has a disproportionately discriminatory effect on them (*DH v Czech Republic* (2008) 47 EHRR 3 at §175).
46. Article 14 does not prohibit all differences in treatment, but only those based on an identifiable, objective or personal characteristic, or ‘status’ by which persons are distinguishable from one another. Article 14 includes a non-exhaustive list of protected characteristics, which precludes discrimination on grounds including sex, race, religion, and political or other opinion. The Strasbourg Court has recently recognised that pregnancy discrimination amounts to discrimination on the grounds of sex: *Napotnik v Romania* (Application No. 33139/13), judgment of 20 October 2020.
47. The ECHR also protects against unlawful discrimination on the grounds of an ‘*other status*’ (i.e. a status other than those listed in the wording of Article 14 itself). Those words have been given a wide meaning (*Carson and Others v the United Kingdom* (2010) 51 EHRR 13). Age has been repeatedly recognised as constituting an ‘*other status*’ for the purpose of Article 14: see, for example, *Schwizgebel v Switzerland* (Application No. 25762/07), judgment of 10 June 2010 at §85. Similarly, Article 14 precludes discrimination based on disability, medical conditions or genetic features under the ‘*other status*’ limb (*Glor v*

Switzerland (Application No. 13444/04), judgment of 30 April 2009 at §80). Accordingly, the Strasbourg Court has recognised an obligation of ‘reasonable accommodation’ of persons with disabilities (see for example, *GL v Italy* (Application No. 59751/15), judgment of 10 September 2020 at §§60-66). The margin of appreciation in disability cases is significantly reduced (*Glor v Switzerland* at §84).

48. A difference in treatment has no objective and reasonable justification if it does not pursue a legitimate aim, or if there is not a reasonable relationship of proportionality between the means employed and the aim sought to be realised (*Kuric and others v Slovenia* (2013) 56 EHRR 20 at §386).

Article 3: Prohibition of torture and inhuman and degrading treatment

49. Article 3 ECHR provides that ‘No one shall be subjected to torture or inhuman or degrading treatment or punishment.’ Article 3 ECHR is an absolute right, and ill-treatment must reach a minimum level of severity if it is to amount to inhuman or degrading treatment. Degrading treatment is treatment that humiliates or debases, which ‘is such as to arouse in the victims feelings of fear, anguish and inferiority capable of humiliating and debasing them’ (*Iliascu v Moldova and Russia* (2004) 40 EHRR 1030 at §425). Racial discrimination can amount to degrading treatment (*East African Asians v United Kingdom* (1981) 3 EHRR 76).

Article 1 Protocol 1: Protection of property

50. Article 1 Protocol 1 states that:

‘Every natural or legal person is entitled to the peaceful enjoyment of his possessions. No one shall be deprived of his possessions except in the public interest and subject to the conditions provided for by law and by the general principles of international law.

The preceding provisions shall not, however, in any way impair the right of a state to enforce such laws as it deems necessary to control the use of property in accordance with the general interest or to secure the payment of taxes or other contributions or penalties.’

51. Possessions includes the goodwill in a business and clientele, but not future income (see *Van Marle v Netherlands* (1986) 8 EHRR 483 at §41).

IV: WOULD CSC ENGAGE FUNDAMENTAL RIGHTS?

52. As indicated above, the Government appears to be considering an extremely wide range of CSC schemes. The extent of interference with fundamental rights will depend on which are ultimately adopted. The following is, however, clear.
53. First, all the schemes under contemplation appear to involve the Government facilitating access to personal healthcare data collected by bodies such as the NHS, and stored in central databases. For that reason alone it engages privacy rights under Article 8 ECHR, and the protections of the Data Protection Act 2018 (“**DPA 2018**”) and the UK GDPR (the provisions of which are addressed in Section 4 of the paper).
54. Secondly, a scheme in which the Government mandates or permits public or private providers to make access to their services, employment, entertainment or goods conditional on demonstrating vaccination or test status also engages the right to private life under Article 8 ECHR (as well as data protection rights), because i) it requires individuals to reveal private information about themselves to others, ii) the consequences of failing to do so are that they are prevented from engaging in activities which to varying degrees form part of their private lives, iii) because they may also be prevented from participating in those activities if they do not have the correct vaccination or testing status and iv) because they are thereby pressurised to undergo vaccination or testing.
55. Thirdly, there are a range of diverse reasons why particular individuals or groups of individuals may not be able to demonstrate the right vaccination or test status, such as, for example, that they are not in priority groups for the vaccine, the vaccine is not advised on medical grounds, socio-economic factors make it more difficult for them to access testing or vaccination, or as a result of their ethnicity or beliefs they are reluctant to be vaccinated. In consequence, such schemes are likely also to engage the prohibition against discrimination in Article 14 ECHR, and in some cases Article 9, the right to freedom of thought, conscience and belief.
56. Fourthly, depending on the circumstances, the impact of the most intrusive and wide-ranging versions of the scheme on certain individuals or groups of individuals may be severe enough to amount to inhuman and degrading treatment within the meaning of Article 3 ECHR. That could be for example as a result of the public stigma and social exclusion that may result from individuals or groups of individuals being barred from accessing parts of society on grounds of vaccine or test status, or where the loss of long-held or cherished employment status leads to extreme consequences for an individual and/or their family.
57. Fifthly, although CSC schemes may appear to benefit some businesses (but see section on Justification below), they may have adverse consequences for other businesses, for example in terms of losing custom and goodwill from those who cannot provide the correct status. That may infringe their property rights under Article 1 Protocol 1.

58. Last (but not least) anything other than a permissive, voluntary scheme would seriously interfere with the fundamental common law right of the citizen to ‘*go whithersoever one pleases.*’

V: JUSTIFICATION

59. Given the interferences with fundamental rights which would be occasioned by a CSC scheme, the key question will be whether it can be justified as strictly necessary and proportionate. Extreme measures can be justified in a pandemic where there is clear public health advice that they are necessary to meet the legitimate aim of protecting public health, as the Court made clear in *R (Dolan) v Secretary of State for Health and Social Care* [2021] 1 All ER 780 at §97. Indeed in certain circumstances the Government may have positive obligations under Article 2 ECHR (the right to life) and/or Article 8 ECHR to take steps to protect individuals at risk of death or serious illness from COVID-19.
60. Whether a CSC scheme is justified will depend on the exacting four-stage analysis set out in *Bank Mellat* at §20 recited in §39 above.
61. The Consultation identifies three goals of a CSC scheme: opening the economy, easing social distancing measures and public safety. As we understand it, what this means is that CSC is being considered as a way of opening the economy and easing social distancing measures without compromising public safety.
62. The key question therefore is the extent to which CSC would protect public safety. The Consultation does not explain how CSC would achieve this. In particular it does not explain who CSC is intended to protect and how.
63. We consider, first, schemes which make access conditional on vaccination status. This envisages that all those permitted to congregate in a workplace or venue would have had a vaccine (the “**Vaccinated**”). As explained above, however, the available evidence suggests that:
- (1) The Vaccinated are considered to have a very high level of protection against serious illness or death (see above at §22). The vast majority of these individuals do not therefore need protecting against serious illness or death.
 - (2) It is correct that the Vaccinated do not have quite so high a level of protection against infection and transmission. But if the Vaccinated transmitted the illness to someone else who was Vaccinated they would be very unlikely to suffer serious illness or death.
 - (3) It is also correct that there is still a chance of serious illness and death in the Vaccinated, but the evidence suggests it is very low.
64. If the purpose of CSC is to protect the Vaccinated, it is not clear how this could justify the serious intrusion on people’s fundamental rights which a CSC scheme could entail.

65. If the purpose is to protect those who have not been vaccinated (the “Unvaccinated”), this too seems hard to justify on the available evidence:

- (1) Vaccination levels for the high risk or priority categories are high. At the date of writing, for example, England has vaccinated 87% of those aged 50 and above.³⁸
- (2) Those within high risk categories who have not been vaccinated can make the choice to protect their own health rather than be forced to do so by a CSC scheme preventing them and other Unvaccinated individuals generally from accessing goods and services, employment, entertainment and other venues.
- (3) In environments where particular sensitivities arise, such as care homes or hospitals, it seems likely that special arrangements could be made to ensure that the relatively small percentage of high risk categories who are Unvaccinated are cared for by those who have been Vaccinated.
- (4) Unvaccinated individuals in the lower priority categories represent a very small percentage of those who will become seriously ill or die. Many of these suffer mild or asymptomatic illness. Preventing these individuals from accessing any or all of the settings listed above at §6(1) does not appear necessary to protect their own health.
- (5) Even if a CSC scheme could in principle assist in the protection of the Unvaccinated, there are significant doubts about whether such protection would be sufficient to justify the consequential interference in circumstances where less intrusive measures may be capable of reducing the risk of transmission to a significant or comparable degree.

66. We consider next the possibility that the purpose of CSC is to prevent the circulation of COVID-19 among the Unvaccinated because of the risk of the development of new variants which might be resistant to the vaccine or more deadly to the Unvaccinated. While this is undoubtedly an important goal, it seems likely that it could equally be achieved by other measures such as maintaining social distancing. In this regard the following are relevant:

- (1) The risk to health is not immediate, but will arise over time.
- (2) In the meantime, the vaccine programme continues so that it is likely that large numbers of lower priority groups who are currently unvaccinated will steadily become vaccinated.
- (3) The available evidence suggests that once vaccinated, transmission will significantly decrease.
- (4) Within a relatively short period of time, therefore, the circulation of the virus should decrease.
- (5) Unless it is proposed that CSC are used in all settings outside the home, in which case the intrusion into fundamental rights would be very significant, its use in a few settings will not have a significant effect on transmission overall so that the intrusion on fundamental rights would be for minimal gain.

³⁸ ‘Covid vaccine: How many people in the UK have been vaccinated so far?’, BBC News, 28 March 2021 (<https://www.bbc.co.uk/news/health-55274833>, last accessed 28 March 2021).

67. Finally we note that the CSC scheme does not only envisage conditional access to settings for the Vaccinated, but also for those with a negative COVID-19 test. As explained above, testing negative may not always be a reliable indicator of whether an individual has the disease, particularly if lateral flow tests are used, and is an even less reliable indicator of whether they will contract it in the following days. There may also be considerable practical barriers to the reliability and suitability of testing in this context, including where tests are self-administered and self-reported, as is currently the position with lateral flow tests and where there are delays in receiving results, as can occur with PCRs. In any case, the same considerations as above apply: it is not currently clear what the purpose of requiring the CSC is, and who it is designed to protect. The Vaccinated have a high level of protection from serious illness or death, and the Unvaccinated do not appear to need the same level of protection, and if they wish to achieve it, can choose to protect themselves by choosing not to frequent the relevant settings, rather than have the protection imposed on them.

VI: CONCLUSION

68. As indicated above, the Government has not explained the proposed mechanics, scope or nature of the CSC scheme or on what basis they consider that CSC could be necessary to protect public safety. In our view, this should be done in advance of its introduction, so that the factual justification for what would undoubtedly be a serious intrusion on fundamental rights can properly be scrutinised, as required at common law (see Blackstone's Commentaries³⁹), under the ECHR (see *Bank Mellat* at §20) and under all the likely applicable schemes of law (see subsequent sections of this paper on the Equality Act 2010 ("EA 2010"), employment law and the DPA 2018 / UK GDPR). In the event that scrutiny does not occur prior to the introduction of CSC, there is a risk that the fundamental rights set out above will be unjustifiably interfered with, and unnecessary damage done both to individuals and to the constitutional fabric of the state.

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29 March 2021

³⁹ Book 1, Chapter 1, p122, p130.