



Are vaccine passports and covid passes a valid alternative to lockdown?

¹ Tony Blair Institute for Global Change, London

² Ada Lovelace Institute, London

³ Centre for Science and Policy, University of Cambridge

Correspondence to: K Innes
K.Innes@institute.global, I Parker
iparker@adalovelaceinstitute.org

Cite this as: *BMJ* 2021;375:n2571
<http://dx.doi.org/10.1136/bmj.n2571>

Published: 03 November 2021

As countries reopen while the pandemic continues, “passports” indicating a person’s covid or vaccination status are the only obvious way to leave lockdowns behind, say **Kirsty Innes** and **Daniel Sleat**. But the risks are big—and if we start down that road we may struggle to go back, argues **Imogen Parker**

Daniel Sleat,¹ Kirsty Innes,¹ Imogen Parker^{2,3}

Yes—Daniel Sleat, Kirsty Innes

Covid passes are a tool enabling individuals to prove that they are either fully vaccinated against the coronavirus, have immunity from a previous infection, or have recently tested negative for covid-19. Asking people to prove their health status before entering a crowded or enclosed environment potentially reduces the risk of covid being spread, by restricting entry to people with a reduced risk of having covid.

Properly implemented “covid passes” can provide reassurance to the public, and especially to vulnerable people, that all reasonable steps have been taken to ensure that the people they are mingling with are free of the virus. These passes are the most accurate tool at our disposal for limiting transmission and avoiding further blanket lockdowns.

Definitions of covid passes

Articles on this subject use many different terms such as health pass, covid pass, vaccine passport, or green pass, and they often conflate different types of passes/passports.

In this debate we distinguish between a “vaccine passport,” which is a document or app showing evidence of vaccination status only; and a “covid pass,” a document or app showing evidence that a person has either a lower risk covid status based on their vaccination record, a recent negative lateral flow or PCR test, or a positive antibody test (showing that they had the infection previously and have some level of immunity).

The implications of relying on vaccine status alone are different from allowing all three of the above measures or a combination.

The UK government’s Events Research Programme,¹ while limited in some respects, provides grounds for optimism that tools such as a covid pass will help to limit transmission at mass events: in phase I of the programme, only 28 cases of covid-19 were detected in 7764 participants who completed the full testing requirements.

At the Tony Blair Institute for Global Change we carried out an analysis² based on a June 2021 model of the virus’s spread, created by researchers at Imperial College London for the UK’s Scientific Advisory Group for Emergencies (SAGE). This showed that if the government had opted to make covid passes mandatory for crowded indoor and mass attendance settings in England after the lifting of restrictions on 19 July, this could have reduced cases

and deaths over the subsequent weeks by as much as 30%.

As with all public policy interventions, safeguards are needed if covid passes are to be used widely. In some settings it may be justifiable to require individuals to have been fully vaccinated against covid, such as those caring for vulnerable people. For others, proof of a reduced risk of covid due to one or more factors (prior infection, vaccination, or a recent negative test) may be sufficient. Including these factors as relevant indicators of health status will help ensure that people who are unable to get vaccinated are not unduly excluded. Indeed, phases II and III of the Events Research Programme in England allowed participants to show either evidence of vaccination or a negative lateral flow test result to gain entry to a venue.

In addition, if passes are legally required, legislation should clearly limit their use to managing the current covid pandemic and should include a “sunset” clause so that the order expires automatically if it is not renewed, as in Denmark and Israel.³ The requirement to use a pass can also be “switched off” when prevalence of the virus drops below an agreed threshold.

Protecting data

In the longer term, a much wider and more detailed debate is needed about how democratic societies can make the best use of health data to benefit the common good while protecting individuals’ privacy,⁴ but we need rapid action now if we hope to get the coronavirus under control globally.

It’s essential that covid passes are designed and implemented in such a way as to protect personal health data and maximise privacy. Existing technology allows users to prove their health status without disclosing any further details (such as the date or type of vaccination) to the verifying party. Data amassed by health authorities should be managed and stored in compliance with high standards of protection, while the pass itself could exist as a credential on the user’s phone, updated periodically.

To be most useful, covid passes need to be internationally interoperable, where the pass a citizen uses to enter a sports stadium or cinema in their home country can also be used to board a flight or pass through border controls. The *Good Health Pass Blueprint*⁵ provides a road map for achieving this,

and national governments should make delivering this a top priority as part of their strategy for beating the pandemic.

In the context of rising cases or, worse, a new and more dangerous variant, a covid pass is the best mechanism we have to target restrictions and avoid the need for another hard lockdown. Ultimately, faced with further spikes, we either force everyone to stay at home or we require only those with the virus to do so.

No—Imogen Parker

Support for covid passes has been building since early in the pandemic,⁶ and it's easy to understand the attraction: if you could have a more precise understanding of risk you could engineer a better balance between restrictions to control the pandemic, as well as freedoms for personal liberty and economic recovery.

Unfortunately, it's not that simple. Communicating vaccination or test status tells us something about risk, but it doesn't prove that people are free or safe from the virus. In August 2021 the outdoor Boardmasters Festival in Cornwall used vaccine passports with additional testing but still became a "superspreader" event, incubating almost 5000 cases.⁷ Given the variants and the heterogeneity of immune response, vaccine passports can't give a perfect assessment of risk at an individual level.

Indeed, some experts have warned that the move towards a system of personal risk scoring could undermine public health by treating a collective problem as an individual one: giving someone a green light to social participation could encourage them to ignore the common and contextual risk and potentially reduce compliance.⁸ Of course, this might need to be weighed against incentivising uptake by requiring compliance.³

Like more traditional public health measures such as mask wearing or distancing, passports may reduce risk but can't guarantee safety. Unlike masks or social distancing, however, they introduce profound risks into society.

Three risks

The most obvious risk arises through segregation, which could introduce barriers to economic and social participation. If a pass were to be based on vaccination status some people may find it hard to prove this to the required standards, perhaps because they were unwilling to be vaccinated, but they may also be unable to have the vaccine or may have been vaccinated abroad, as part of a trial or with a brand that may not be covered by the standard. A pass based on access to covid testing comes with its own barriers, including availability and cost.

Second, normalising third party policing of individuals' status could contribute to additional barriers for minority ethnic people, who already face over-policing, or for people with insecure citizenship who may be concerned about being co-opted into an identity system. This plays out at a global scale: if countries start using passports for normal participation in events, activities, and travel, only those people who are willing and able and have access to jobs or tests accepted in different countries will be allowed to take part—exacerbating inequalities of access, from testing and vaccines to economic recovery.

A third risk is the creation of enduring surveillance technology in response to what we hope will be a timebound crisis. Technology justified for emergencies has a habit of becoming normalised, as one member of the Ada Lovelace Institute's expert deliberation on the subject put it: "Once the road has been built, good luck not using it."⁸

Digital tools make data easy to share, and this benefits health research, but it could also allow personal information to be shared with police or insurance companies. And the tools are easy to adapt: systems that include tests and vaccinations could be expanded to incorporate other risk factors or conditions, from blood pressure to mental health, or to move beyond health to incorporate ethnicity or sexuality. We should consider not just how such tools are used now but how they might be used in the future, by different political regimes.

No such thing as risk-free

The covid pandemic doesn't offer risk-free interventions, and our institute's research doesn't rule out passports as a valid tool to help transition from lockdowns.⁹ But it does call for transparent scientific foundations, including models on their public health effects in comparison with other tools and in the context of current infection rates and variants; technical design standards; and a clear, specific, and limited purpose.

Beyond the tool itself, any scheme needs the right sociotechnical design: the legal regime, including "sunset" clauses to shut systems down if they're not renewed; ethical considerations and policy structures to govern and mitigate potential harms; and the means to enable rights and redress.

To create the technical, operational, legal, and policy infrastructure that would be required, policy makers should pause to calculate whether these are a justified health measure or whether investment in passports might prove to be a technological distraction—what some have dubbed "technology theatre"^{10 11}—from the best mechanism available for us to reopen societies safely and equitably: global vaccination.

Competing interests: We have read and understood BMJ policy on declaration of interests and have no relevant interests to declare.

Provenance and peer review: Commissioned, externally peer reviewed.

- 1 Department for Digital, Culture, Media & Sport. Events Research Programme: Phase I findings. Updated 1 Jul 2021. <https://www.gov.uk/government/publications/events-research-programme-phase-i-findings/events-research-programme-phase-i-findings>
- 2 Tony Blair Institute for Global Change. Pass time: Quantifying the public-health benefits of a covid pass. 6 Jul 2021. <https://institute.global/policy/pass-time-quantifying-public-health-benefits-covid-pass>
- 3 How France tackled vaccine hesitancy. *Economist* 2021 Sep 18. <https://www.economist.com/europe/2021/09/18/how-france-tackled-vaccine-hesitancy>. (Login needed)
- 4 Fingerhut H. Building real-time data infrastructure into the heart of public health. 8 Apr 2021. <https://institute.global/policy/building-real-time-data-infrastructure-heart-public-health>
- 5 Good Health Pass. The Good Health Pass Collaborative. <https://www.goodhealthpass.org/>
- 6 Ada Lovelace Institute. International monitor: vaccine passports and COVID status apps. 22 Jun 2020. <https://www.adalovelaceinstitute.org/project/international-monitor-vaccine-passports-covid-status-apps/>
- 7 Morris S. Almost 5000 Covid cases linked to Cornish music and surf festival. *Guardian* 2021 Aug 23. <https://www.theguardian.com/uk-news/2021/aug/23/almost-5000-covid-cases-linked-to-cornish-music-and-surf-festival-boardmasters>
- 8 Ada Lovelace Institute. Rapid expert deliberation: What place should COVID-19 vaccine passports have in society? 17 Feb 2021. <https://www.adalovelaceinstitute.org/wp-content/uploads/2021/02/COVID-19-vaccine-passports-rapid-expert-deliberation.pdf>
- 9 Ada Lovelace Institute. Checkpoints for vaccine passports: requirements for governments and developers. 10 May 2021. https://www.adalovelaceinstitute.org/wp-content/uploads/2021/05/Checkpoints-for-vaccine-passports_requirements-for-governments-and-developers_Ada.pdf
- 10 McDonald S. Technology Theatre. 13 Jul 2020. <https://www.cigionline.org/articles/technology-theatre/>
- 11 Milan S, Veale M, Taylor L, Gürses S. Promises made to be broken: performance and performativity in digital vaccine and immunity certification. *Eur J Risk Regul* 2021;12:382-92. <https://www.cambridge.org/core/journals/european-journal-of-risk-regulation/article/promises-made-to-be-broken-performance-and-performativity-in-digital-vaccine-and-immunity-certification/87428F2D73E84C437271E515433E45E5doi:10.1017/err.2021.26>

This article is made freely available for use in accordance with BMJ's website terms and conditions for the duration of the covid-19 pandemic or until otherwise determined by BMJ. You may use, download and print the article for any lawful, non-commercial purpose (including text and data mining) provided that all copyright notices and trade marks are retained.