How would COVID status certificates work – and who would be eligible?

*Many people are keen to able to prove that they have been vaccinated or had a negative COVID test. But status certificates raise numerous ethical and practical questions. **Edgar Whitley (LSE)** sets out the decisions the government needs to make.*

This week's announcement that the British government will be reviewing whether COVID status certification could play a role in reopening our economy is likely to draw on recent academic reports by the Royal Society and the Ada Lovelace Institute (full disclosure, I was part of the expert deliberation for the Ada Lovelace Institute report). These reports suggest caution at this time about the practical effectiveness of such certification, as well as broader concerns about inequality and discrimination. At the same time there are news stories claiming that proof of vaccination will be required for new employees of a plumbing firm as well as by employees in the Vatican. Countries like Greece are also urging the rollout of vaccine passports to allow vaccinated British citizens to holiday in Greece.

Despite their intuitive appeal, there are a number of key policy and practical choices that still need to resolved if proof of COVID status is to play a meaningful role in reopening economies.

The starting point for any such deliberations should be a focus on what question COVID status certification is the answer to. I find it helpful to approach this issue from the perspective of what digital identity systems call the "relying party" and the (risk based) decisions they need to make. For example, an international holiday destination like Greece needs to assess the risks associated with allowing large numbers of (vaccinated) travellers into the country. Whilst the benefits of vaccination to the vaccinated individual are increasingly clear (i.e. a significantly reduced risk of severe illness or hospitalisation) knowledge about their role in limiting transmission of the virus (particularly genetic variants) is (currently) still a matter of scientific perplexity. Vaccinated Britons might not end up in Greek hospitals, but there is a possibility that they increase the presence of COVID-19 variants in Greek society with significant consequence for the management of the Greek healthcare system.

> There are limited economic benefits to only opening up hospitality venues to those members of society who have already been vaccinated.

Similarly, when the relying party is a UK hospitality venue such as a pub, restaurant or theatre, there is still a risk of transmission to others at the venue from vaccinated individuals and the relying party (venue owner) needs to assess that risk. In particular, in the short term the rollout of COVID vaccines in the population typically prioritises those at greatest risk of mortality and those working in health and social care. There are limited economic benefits to only opening up hospitality venues to those members of society who have already been vaccinated. This probably explains the UK government's emphasis on COVID status certification rather than just vaccination certification, as this would allow individuals who are not yet eligible for a vaccine to provide alternative evidence of a COVID status instead.

The most likely form of this alternative evidence would be some form of COVID-19 test result. However, there are different forms of tests provide different kinds of information, with important distinctions between "red light" tests, which indicate that a person is potentially infectious and must self-isolate, and "green light" tests where a negative result means the person is not infectious. The relying party will therefore need to know which test was used (and probably how long ago the test was taken) when making its decisions.

> Decisions by relying parties are unlikely to be based on a simple "Yes/No" as to whether a person has received a vaccine in their arm

A third form of potential COVID status relates to the presence of antibodies arising from previous COVID-19 infection, although this idea was generally rejected in the early stages of the pandemic as too little was known about how long antibodies exist for and the extent to which they protect against future infection. It is unclear whether presence-of-antibody test results are being considered in the government's plans, and how relying parties would be advised to interpret those results.

With different vaccines potentially offering different levels of effectiveness to genetic variants of the virus or different limits on transmissibility, decisions by relying parties are unlikely to be based on a simple "Yes/No" as to whether a person has received a vaccine in their arm. Instead, they may need to take into consideration how long ago the vaccine was administered, whether the administered vaccine is effective against variants that are present in the local economy, whether the person has received any second/booster jab etc. Similarly, decisions based on test results will need to include details of which test was performed and when.

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In the context of vaccines the kinds of information that might need to be recorded (and shared) with the relying party are indicated in an EU guidance document, although there is no equivalent for test results at this time.
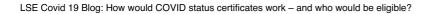
An important element of that specification is the inclusion of a link to the person's identity. Linking the COVID status attributes to the person they belong to can be challenging, especially if the benefits of being vaccinated/tested incentivise individuals to consider buying fake test certificates and fake proofs of vaccination. Equally, the UK's hostile environment means that those with unofficial or uncertain status in the UK may fear that their identity details for vaccination status might end up being used for immigration purposes. Proposals to use the NHS app (which is NOT the NHS COVID-19 "track and trace" app) are likely to require individuals to prove who they are and link this to their NHS number. Relying solely on the NHS app will limit its usefulness for foreign tourists, who will not be able to link vaccines administered overseas to the NHS app.

Even if the test result or confirmation of vaccination is genuine, the relying party needs confidence that the status belongs to the person who's claiming it. Whilst digital apps can simplify this process by using on-device authentication (e.g. fingerprint or face unlock), not all potential users have such devices and alternative, lower-tech solutions will also need to be acceptable.

All this points to the need for clear and detailed government guidance about how any such status checking needs to be implemented including clarity about questions of liability if they allow individuals into their premises by relying on COVID status information, what checks they undertake about the link between the COVID status and the person presenting the status and whether an audit trail of such checks will need to be recorded.

Given all these uncertainties, it might also be helpful for government to consider how proof of vaccination (or other COVID status) will allow changes to the way these venues operate over and above the steps outlined in the roadmap for reopening the economy more generally. For example, if venues will not be permitted to operate with reduced social distancing requirements there is a significant risk that COVID status certification will end up being just another example of "COVID theatre" – measures that look good on television and in the popular press, but which don't actually add anything and can cause more damage than good.

This post represents the views of the author and not those of the COVID-19 blog, nor LSE. It first appeared at the LSE Management blog.

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