



Covid passports

Key questions for the government

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Introduction

When the government published its [lockdown exit strategy](#) in February, it announced a review into the use of 'Covid status certificates', often referred to as vaccine passports,^{*} to be led by the Cabinet Office minister, Michael Gove.

The government said the certificates could allow people to prove they had been vaccinated, or either had a recent negative Covid test or a positive test in the last six months (and so had some natural immunity), so they can take part in certain activities. Certification is already set to become a feature of international travel, given different rates of infection and vaccination schedules around the world.

But so far the utility of Covid passports in domestic settings is less clear. They may have benefits in improving safety and enabling other restrictions to be lifted more quickly, but there are concerns about how their implementation, as well as about the risk of discrimination and potential breaches of privacy. Israel, which has vaccinated a greater proportion of its population than any other country, has introduced a scheme, but other countries are still debating whether to do so.

The UK government's review is not due to report until June but in April it published an update indicating it was in favour of some domestic use of Covid passports, while confirming that no measures would be implemented until June.

^{*} The term "vaccine passports" has been used widely, but it is inaccurate given the government's proposals include testing. Equally, the government's term does not capture the fact that the system will not only certify status, but act as a "passport" to certain activities. We therefore use "Covid passports", except where we are quoting a source.

They will be piloted for mass events, including football matches and concerts. They could also be used in theatres and nightclubs, and the government would not rule out their use in pubs, bars and restaurants. Boris Johnson called this the “right approach”, but he faces opposition from the Labour Party, the Scottish National Party, the Liberal Democrats and some on his own backbenchers.

The government was right to open up a discussion on what is a complex and sensitive issue. But now that it has given a sense of the direction in which it is moving (if not the final destination), it should set out a clearer rationale for its approach. This is needed not only to win votes in parliament, but to inform and reassure the public and businesses about the role Covid passports will play in UK’s exit from lockdown – and beyond. This short paper sets out eight questions the government needs to answer.

1. Why is the government introducing Covid passports?

The key question the government will need to answer is what problem it thinks Covid passports can solve.

The main rationale the government has emphasised is that a passport scheme could help it to meet its aim of releasing all restrictions, including social distancing, from 21 June. This was the date given in the February roadmap, but calculations have since been altered by a surge of the virus in Europe and modelling suggesting that, even with high vaccine uptake, the UK is likely to experience a third wave. This led SAGE to recommend in March that some social distancing should remain in place beyond June – even with the government still on target to vaccinate all adults by the end of July.¹

If the government believes widespread use of Covid passports will make it possible to remove the need for any restrictions after June, it will need to be clear about how this could be done safely. The resurgence of cases in Chile shows even countries with high levels of vaccination are vulnerable to further outbreaks, while Israel has not used its ‘green pass’ passports to remove all social distancing. The government would need to make a case for how it (and the businesses that would need to implement the scheme) would overcome major difficulties around implementation and mitigate risks of exclusion of marginalised people.

And it would need to explain why implementing a scheme to meet its own target is preferable to other options, such as waiting for further progress on vaccinations at home and the control of outbreaks abroad, strengthening contact tracing or tightening up border quarantine.

There are two other possible rationales for introducing the scheme. First, some suggest it would boost vaccine uptake: requiring passports for entry to pubs or nightclubs, for example, could act as an incentive for those otherwise at little personal risk. But evidence from Israel suggests this argument is weak: the incentive is poorly targeted and requiring passports may in fact further harm vaccine confidence among

those groups least likely to take up the vaccine, who often already distrust the government and health authorities.*

In the UK, vaccine uptake has generally been high, but it remains lower in some groups.** Scientists have warned that threatening exclusion from core activities could undermine efforts to boost uptake, recommending instead a focus on building vaccine confidence.

Second, developing at least some capability around Covid passports may be a sensible insurance policy against the risk of the emergence of vaccine-resistant variants. The evidence so far suggests that the vaccines used in the UK do work against the variants that have emerged abroad, although their effectiveness against some may be slightly reduced.² But future variants remain a big threat to the UK's (and others') plans. If a vaccine-resistant variant were to emerge and updated vaccines were needed to protect against it, it could become much more beneficial to know – and be able to prove – who had received a booster and who had not. Building some technical capability and piloting approaches may be sensible, even if the government did not decide to introduce a widespread scheme immediately.

2. In what settings does the government think Covid passports would be feasible?

Beyond international travel where some form of Covid passports are inevitable, there are multiple domestic settings in which these could be used. The calculation of the potential risks and benefits, and the difficulty of implementing a scheme safely, will differ in each.

The most obvious domestic use is allowing large events to be organised more safely. Sporting events and large concerts are already ticketed; organisers could require a Covid certificate alongside ticket purchase and may have the ability to check a certificate digitally or on entry. There would be questions raised by the way testing was incorporated into any scheme – tests would need to be easily available, certifiable and used in a way deemed safe by scientists. The government's decision to run pilots was sensible, and will help it to test different solutions.

More contentious is whether the scheme could be used much more widely to enable pubs and restaurants to operate without 'Covid-secure' measures such as social distancing – allowing them to run at (or closer to) full capacity. Israel has introduced a Covid passport, called a 'green pass', for indoor hospitality, but venues still have social distancing requirements³ – and there have been concerns about the scheme furthering exclusion and harming vaccine uptake, as well as reports of weak enforcement.⁴

* Vaccination rates among the Israeli Arab population have been much lower than for the wider population. Medical experts have warned that the introduction of vaccine passports for essential activities, which makes vaccination appear an act of compulsion, has undermined, not improved, vaccine confidence in these groups. Reicher S and Drury J, 'How to lose friends and alienate people? On the problems of vaccine passports', *BMJ Opinion*, 1 April 2021, <https://blogs.bmj.com/bmj/2021/04/01/how-to-lose-friends-and-alienate-people-on-the-problems-of-vaccine-passports>

** An ONS study in March 2021 found the following rates of vaccine take up for over 70s in England: White British, 91.3%; Black African, 58.8%; Black Caribbean, 68.7%; Bangladeshi, 72.7%; Pakistani, 74%, Office for National Statistics, 'Coronavirus and vaccination rates in people aged over 70', 29 March 2021, <https://bit.ly/3daKxKm>

The UK government has implied that pubs may want to implement a scheme in return for being able to operate at full capacity, but so far appetite appears low amid questions about implementation and the period for which the scheme would operate.

In other settings, attitudes appears to be mixed. Some in the theatre industry are open to the use of passports while others have questioned the evidence base and raised similar concerns of exclusion and implementation.⁵ The government has not yet announced pilots in indoor hospitality, theatres or shops, and while the initial pilot of large events may provide some useful lessons, it is not clear that it would produce evidence to support implementation in these areas.

The government will need to make the case for how and why a scheme should be introduced in each setting. While some of its thinking will be influenced by the ongoing review and pilots, it should start to explain why it believes Covid passports are worth considering in settings for which it is actively exploring them now.

3. How will the Covid passports system work?

The government will need to overcome technical and logistical hurdles if it is to get a Covid passports system to work.

Ministers have indicated that they plan to incorporate Covid certification into the existing NHS app, though this has not been officially confirmed.⁶ Whether it was newly produced or adapted, the app would need to keep track of vaccine status and time-sensitive test results taken in many different locations. It would need to integrate a wide range of data sources securely, all while ensuring privacy and guarding against fraud. This would be a major technological challenge.

The government's record so far during the pandemic does not inspire confidence. The NHS Covid-19 contact tracing app was meant to take two months to develop, but ultimately took six. The initial version was abandoned after attempts to work around Apple and Google smartphone privacy protections led to unreliable results. The government eventually launched a new app using the companies' own toolkit.⁷ Even this second version was beset with teething issues, including a flaw in the settings that meant that for the first month it was in operation it failed to send alerts to thousands of people who had potentially been exposed to Covid-19.⁸ Research suggests it may be having a small positive impact on infections, but it is used regularly by less than a third of the population.⁹

It is not clear that Israel's green pass, the only system currently being used domestically, provides much of a model. It is easy to use: Israelis can simply download a form from the government's website or use the government's app. But it uses very basic technology and appears insecure: researchers found several security flaws in the first version of the system. It also does not incorporate rapid testing, which has been promised in any UK app to ensure access for those unable or unwilling to get vaccinated.¹⁰

The EU 'digital green certificate', the other example cited in the UK government's April update, is still under discussion and may be used only for border crossing. The International Air Transport Association (IATA) is developing an app for travel, which is being piloted by airlines.¹¹ But with domestic use, there will be difficult questions to untangle including the extent to which people are willing to share private medical information with other third parties (that may be less trusted).

There are concerns that the data collected, by public authorities or venues requiring Covid passports for entry, will be put to other uses. This has happened in other countries when temporary schemes have been introduced: the Singaporean government, for example, used data from its contact tracing app for policing, having said it would be used for no other purpose than tracing.¹²

Technological fixes could allay some of these concerns. Some providers have discussed 'privacy-preserving' systems that share only the minimum information necessary with third parties – for example, a 'yes' or 'no' answer to whether someone has the requisite Covid status. But a complex system is likely to be more difficult and time-consuming to design and implement. Venues may also need technology, such as scanners, to check passports, and this would require additional resources and training.

The government has said the NHS is also working on a "non-digital route".¹³ Paper alternatives are important for avoiding digital exclusion and will naturally be more straightforward – potentially as simple as a GP's letter. But they are easy to forge and hard to verify and secure.¹⁴ Eligibility would also need to be considered: if paper versions were open to all and a Covid passports app did not work smoothly, more people than expected might choose to go down the paper route, leaving a less secure (and potentially unsafe) system.

The government needs to be clear about how difficult developing a Covid passport app will be, whether it has the requisite capability and what timeframe is realistic. It must explain how privacy will be protected and fraud prevented. It should lay out in advance details of how the system would work to allow time for scrutiny by parliament and expert bodies.

4. How will test results be incorporated into Covid passports?

Including testing is important to make Covid passports less exclusionary, but raises questions about safety and verifiability, as well as the supply of different types of test.

The government has said Covid passports could include:

"a negative lateral flow or PCR test taken at a test site on the same day or the day before their admission to a venue; or by proof of natural immunity, such as through a previous positive PCR for a time limit of 180 days from the date of the positive test and following completion of the self-isolation period".¹⁵

Lateral flow tests are useful in that they provide results in around half an hour. They are also much cheaper than PCR tests, which must be analysed in a lab and typically take a day or more to return. The government has invested more than £1 billion in acquiring a large volume of rapid tests as part of its plan to allow people to test themselves twice weekly.¹⁶

However, it is not clear that rapid tests would provide a suitable basis for a large number of people to gather indoors without social distancing. They are much less sensitive than PCR tests, which means that while they probably pick up the most infectious individuals, they may miss some infectious cases (there is debate among scientists about how many, and more evaluations are needed to improve the evidence).¹⁷ They have so far been used successfully for seeking out asymptomatic cases, but SAGE has not recommended them for use as a 'test and release' measure to enable activities that would not otherwise be undertaken. Nor has it discussed their use in reducing social distancing requirements.¹⁸ Allowing rapid tests to be completed at home and the results self-reported online has increased access for rural communities, but it makes fraud or error more likely.

If rapid tests were not deemed sufficiently safe, the widespread use of Covid passports would raise questions about the supply and availability of PCR tests. But these have weaknesses too – the delay in getting a result and a higher number of false positives – which would pose problems if used to determine access to venues, for example. Using them widely as part of a scheme would also impose costs and could restrict their availability elsewhere. The government has also not yet said how it would treat people who have had only a first dose of a vaccine (with some vaccines this offers a slightly lower level of protection than both doses). Requiring a second dose for certification would also add to demand for testing.

The government will need to decide what an acceptable level of risk is for using rapid tests as part of a Covid passport scheme. This decision will need to factor in whether it has the supply of different types of test to support schemes to operate and avoid exclusion. Ministers will then need to communicate their approach clearly to the public; the use of Covid passports should not be presented as indicating that activities are risk-free.

5. How will businesses be expected to enforce measures?

Whatever form Covid passports take, their impact will depend on how well they are enforced. But the ability of some venues to check them may be limited, as would the ability of government to oversee enforcement.

Large sports venues have been a notable exception in saying they could implement a Covid passport scheme. But in public at least, the response of those representing pubs, bars and theatres has been sceptical. While many have already had to collect customers' details, checking passports as a basis for entry would be more difficult. Business owners have raised concerns about their capability to enforce a scheme, as well as the extra

administrative and financial burdens of doing so.¹⁹ Kate Nicholls, chief executive of UKHospitality, said a requirement for Covid passports in hospitality venues would be “simply unworkable”. Dave Turnbull, national officer for hospitality at Unite, Britain’s largest union, said the policy might result in an increased likelihood that pub staff were “exposed to violence”.²⁰

Given the increased costs associated with implementing such a scheme, businesses would need a strong incentive to do so. The government may think reduced social distancing (and therefore increased capacity and custom) is sufficient.

But it is difficult to see how the implementation of the scheme could be monitored. If enforcement is expensive and cumbersome, cash-strapped businesses may comply only in a limited way (as has happened in Israel). Venues operating without social distancing but lacking the staff, resources and training (or the desire) to enforce a scheme properly would be the worst of all worlds – and could lead to Covid outbreaks.

Any problems with an app would also make enforcement more difficult, while the government will need to be clear about how it would treat businesses or sectors that wanted to develop their own technology.

The available evidence supports the view that enforcement in pubs and bars would be problematic. Airport staff have struggled to effectively verify test results to enforce quarantine restrictions.²¹ Enforcement of the green pass in Israel has been patchy, with some bars and restaurants carrying out minimal checks.²² Venues in Israel have also reported struggling with the logistics and cost of giving customers rapid tests – a proposal that has been floated for UK nightclubs.²³

In each area the government is considering the use of Covid passports, it will need to establish the demand among businesses and what incentives and support might be needed to enable implementation. It will need to consult with businesses and give them sufficient time to prepare for any measures.

6. When does the government think Covid passports should be introduced, and for how long?

The government’s case for introducing Covid passports depends on when they could be operational, and for how long it thinks they will be needed.

Some have argued that the window in which the scheme would be most useful is likely to be narrow. The government has said that no changes will be introduced before June, which is only a month before all adults should have been offered their first vaccine dose (on the current timetable). Depending on infection numbers as further restrictions are released, it may decide by late summer or autumn that, for example, gathering indoors in hospitality venues can be done safely without the need for Covid passports at all. However the trajectory of the UK’s epidemic is highly uncertain, and the significant possibility of a third wave still makes it sensible to build some capability now.

There are also concerns about the duration of any scheme. The government has insisted that Covid passports would be a “temporary measure” and says this could be legislated for. However, it is unclear how it intends to legislate for them or what degree of say MPs will have over the provisions. Opponents in parliament from across the political spectrum are concerned that the scheme could easily become a permanent intrusion into people’s privacy and liberty if the government comes to see longer-term benefits of a bio-identity system. Even if it intends them to be short-lived, the government may find getting rid of them difficult.

If the government regards Covid passports as a bridging measure, it will need to set out how it envisages they will be phased out, and be clear about the factors that will determine this. If people are not going to regain the entirety of their pre-Covid freedom on 21 June, the government should set out a path to when they will.

7. How will the government mitigate wider ethical and equity concerns?

The biggest risk the government faces if it decides to introduce a widespread scheme is furthering exclusion. Ministers have so far been careful to emphasise that they will consider the impact of any decisions on “disproportionately impacted groups”. But they have said little about how they will do this, beyond offering a vague reassurance that any proposals will be consistent with equalities legislation.

The strongest opponents of Covid passports have warned they would create a two-tier society. For example, Stephen Reicher, a member of the government’s advisory group on behaviour, SPI-B, has warned of a “vaccine apartheid”, with “members of marginalised groups, who are less likely to be vaccinated... more likely to be excluded from everyday life”.²⁴

Testing is often cited as a way of mitigating equity concerns regarding those unwilling or unable to be vaccinated. However, the availability of testing across the country is highly variable, with many people citing cost, inability to get time off work and transport (particularly for those in rural areas) as factors inhibiting accessibility.²⁵

The government’s plan to offer free rapid testing at home may help with this. But the impact on marginalised groups will depend on take up, and patchy availability of PCR tests looks set to continue. Introducing Covid passports for everyday activities could undermine the progress made over the past months in building vaccine confidence, which studies show has grown in the UK over the course of the roll-out.²⁶

Ministers will need to convince the public and MPs of how they will address concerns about divisiveness. They should do so urgently, since discussion of Covid passports being used in everyday settings is already influencing public perceptions of the government’s approach.

8. How will the scheme work across the four UK nations?

Representatives of the four governments discussed Covid passports in early March, and the UK government has said that it is working with the devolved administrations in Scotland, Wales and Northern Ireland to seek a “consistent approach”.²⁷

However, the suggestion that Covid passports would be incorporated into the existing NHS app raises questions about co-ordination, given that the app is accessible only to those registered with a GP surgery in England. Experience with the NHS contact tracing app also provides reason to be concerned about co-ordination.

Both Scotland and Northern Ireland ended up developing different apps and although the English app is now compatible with these, the Scottish government has said it was not sufficiently involved in the development of the original NHSX app.²⁸

Nicola Sturgeon and Mark Drakeford, first ministers of Scotland and Wales respectively, have both suggested that there might be benefits to introducing Covid passports, and the Scottish government is looking into their use.²⁹ However, the SNP in Westminster has said it will oppose the UK government’s plans, criticising confusion and citing concern over ethics, equity and privacy. Northern Ireland’s health minister, Robin Swann, suggested after joint discussions in early March that he did not believe that Covid passports should be introduced domestically.³⁰

The UK and devolved governments will need to co-ordinate to ensure that the schemes introduced across the four nations work seamlessly together. If they do not, this could create significant problems for businesses and members of the public.

Conclusion

While the government’s review of Covid passports is ongoing, the prime minister has now offered his general support for their use domestically and refused to rule out their use in day-to-day activities such as visiting pubs and non-essential shops. But he has so far been evasive when pressed on his approach.

It is reasonable to argue that he will not be able to produce a complete strategy until the review and pilots are complete. But given that the direction of travel is clear, and businesses and the public are voicing concerns, he ought to set out the rationale behind the government’s approach now.

Those with concerns would not expect to see the exact workings of a system, but they do deserve clarity about why the government thinks Covid passports are worth considering, in what settings, and how it would address issues around equity and implementation. Some initial ‘kite-flying’ made sense, but a continuing refusal to engage with these issues substantively over the coming weeks would be damaging.

The government will also need to provide proper opportunity for scrutiny: the implications are too significant to be left to a 90-minute debate in parliament before an up-and-down vote on a piece of secondary legislation.

The discussion of Covid passports comes at a critical moment in the vaccine roll-out. The decision to recommend that under-30s be offered an alternative to the Oxford/AstraZeneca vaccine, following emerging evidence of dangerous blood clots in a tiny minority of cases, was right and well communicated. Nevertheless, it presents a major communications challenge. The UK's approach, up to and including that decision, has rested on the idea that, rather than compulsion, the best way to build vaccine confidence is to inform people about the risks and benefits and allow them to make their own judgments. A broad passport scheme would change that – and for that reason alone it should be weighed incredibly carefully.

Covid passports may have real benefits as a tool for helping countries around the world bridge the gap between current lockdowns and a 'new normal'. Piloting approaches and building some capability makes sense, given the uncertainties ahead. But there is a risk of the UK government seeing them as another 'moonshot', or a short-cut back to normality, while glossing over the difficulties and risks involved. A rushed or poorly thought through scheme could lead to Covid outbreaks and undermine vaccine confidence. Without compelling answers to the questions posed in this paper, it will be difficult for parliament – or the public – to have confidence in the government's plan.

References

- 1 Scientific Advisory Group for Emergencies, 'Eighty-fifth SAGE meeting on Covid-19, 31 March 2021', https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/975908/S1179_SAGE_85_minutes.pdf
- 2 University of Oxford, 'Antibody evasion by the Brazilian P.1 strain of SARS-CoV-2', (pre-print), bioRxiv, 15 March 2021, www.biorxiv.org/content/10.1101/2021.03.12.435194v1
- 3 Ministry of Health, 'Covid-19 Guidance', Israeli government, (no date), www.gov.il/en/Departments/Guides/ramzor-cites-guidelines
- 4 Keinon H, 'Coronavirus: Green passport won't work without enforcement – analysis', *The Jerusalem Post*, 9 March 2021, www.jpost.com/israel-news/the-green-pass-no-time-for-an-israbluff-analysis-661463
- 5 Patrick Gracey Productions, submission to Covid status certificate review (unpublished, shared with authors).
- 6 Kelion L and Cellan-Jones R, 'Covid-19: How would an NHS vaccine passport app work?', BBC News, 27 February 2021, www.bbc.co.uk/news/technology-56198552; Smyth C, 'NHS app to be converted for vaccine passports', *The Times*, 24 February 2021, www.thetimes.co.uk/article/nhs-app-to-be-converted-for-vaccine-passports-r0xx0mflp
- 7 Hughes L and Warrell H, 'NHS contact tracing app could be delayed until winter', *Financial Times*, 17 June 2020, www.ft.com/content/d33ec691-75e7-4cf5-889f-bd08c708cce9; Ball J, 'The UK's contact tracing app fiasco is a master class in mismanagement', *MIT Technology Review*, 19 June 2020, www.technologyreview.com/2020/06/19/1004190/uk-covid-contact-tracing-app-fiasco; Rapson J, 'Exclusive: "Wobbly" tracing app "failed" clinical safety and cyber security test', *HSJ*, 4 May 2020, www.hsj.co.uk/technology-and-innovation/exclusive-wobbly-tracing-app-failed-clinical-safety-and-cyber-security-tests/7027564.article
- 8 Calver T and Pogrud G, 'Software bungle meant NHS Covid app failed to warn users to self-isolate', *The Sunday Times*, 1 November 2020, www.thetimes.co.uk/article/software-bungle-meant-nhs-covid-app-failed-to-warn-users-to-self-isolate-6tzstqnr9
- 9 Lewis D, 'Contact-tracing apps help reduce COVID infections, data suggests', *Nature*, 26 February 2021, www.nature.com/articles/d41586-021-00451-y#ref-CR1; https://github.com/BDI-pathogens/covid-19_instant_tracing/blob/master/Epidemiological_Impact_of_the_NHS_COVID_19_App_Public_Release_V1.pdf
- 10 Ferguson C and Mitnick J, 'Israel's "green pass" is an early vision of how we leave lockdown', *MIT Technology Review*, 1 March 2021, www.technologyreview.com/2021/03/01/1020154/israels-green-pass-is-an-early-vision-of-how-we-leave-lockdown/; 'Are vaccine passports a good idea?', *The Economist*, 13 March 2021, www.economist.com/science-and-technology/2021/03/13/are-vaccine-passports-a-good-idea; 'Thousands reportedly attempt to obtain easily forged vaccinated certificate', *Times of Israel*, 12 February 2021, www.timesofisrael.com/thousands-reportedly-attempt-to-obtain-easily-forged-vaccinated-certificate
- 11 'IATA Travel pass initiative', IATA, (no date), www.iata.org/en/programs/passenger/travel-pass
- 12 Ferguson C and Mitnick J, 'Israel's "green pass" is an early vision of how we leave lockdown', *MIT Technology Review*, 1 March 2021, www.technologyreview.com/2021/03/01/1020154/israels-green-pass-is-an-early-vision-of-how-we-leave-lockdown/; 'Are vaccine passports a good idea?', *The Economist*, 13 March 2021, www.economist.com/science-and-technology/2021/03/13/are-vaccine-passports-a-good-idea
- 13 HM Government, *Roadmap reviews: update*, 5 April 2021, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/975919/20210405_Roadmap_Reviews_-_Update_-_standard_size_-_FINAL.pdf
- 14 'Europol warning on the illicit sale of false negative Covid-19 test certificates', Europol, 1 February 2021, retrieved 12 April 2021, www.europol.europa.eu/newsroom/news/europol-warning-illicit-sale-of-false-negative-covid-19-test-Covid-passports
- 15 HM Government, *Roadmap reviews: update*, 5 April 2021, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/975919/20210405_Roadmap_Reviews_-_Update_-_standard_size_-_FINAL.pdf
- 16 'UK government must urgently rethink lateral flow test roll out, warn experts', *BMJ*, 11 January 2021, www.bmj.com/company/newsroom/uk-government-must-urgently-rethink-lateral-flow-test-roll-out-warn-experts
- 17 Chivers T, 'What Covid tests can we trust?' *Unherd*, 20 January 2021, <https://unherd.com/2021/01/what-covid-tests-can-we-trust>
- 18 Scientific Advisory Group for Emergencies, 'Seventieth SAGE meeting on Covid-19, 26 November 2020', https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/945964/S0926_SAGE_70_minutes_redacted.pdf; University of Liverpool, 'Innova Lateral Flow SARS-CoV-2 Antigen test accuracy in Liverpool Pilot: Preliminary Data', 26 November 2020, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/943187/S0925_Innova_Lateral_Flow_SARS-CoV-2_Antigen_test_accuracy.pdf; Bunn S, 'Mass testing for COVID-19: January update on lateral flow tests', Parliamentary Office of Science and Technology, 29 January 2021, retrieved 12 April 2021, <https://post.parliament.uk/mass-testing-for-covid-19-january-update-on-lateral-flow-tests>

- 19 Saunders E, 'Covid passports: Entertainment venues air concerns over plans', BBC News, 7 April 2021, retrieved 12 April 2021, www.bbc.co.uk/news/entertainment-arts-56647673; Dodhia K, 'COVID-status certification: How to introduce vaccine and testing passports', CBI, 1 April 2021, retrieved 12 April 2021, www.cbi.org.uk/articles/covid-status-certification-how-to-introduce-vaccine-and-testing-passports; Parker G, Cameron-Chileshe J, Hancock A and Georgiadis P, 'Johnson on back foot as business questions Covid passport plan', *Financial Times*, 6 April 2021, retrieved 12 April 2021, www.ft.com/content/7992c618-9a74-4dd5-9860-4ded6d9c3d78; Walker P, Allegretti A and Partridge J, 'Ministers' plans for Covid status certificates run into growing opposition', *The Guardian*, 6 April 2021, retrieved 12 April 2021, www.theguardian.com/world/2021/apr/06/ministers-plans-for-covid-status-Covid-passports-run-into-growing-opposition
- 20 Skopeliti C, "'Simply unworkable": Hospitality industry rejects idea of Covid vaccine certificates for pubs', *The Independent*, 26 March 2021, retrieved 12 April 2021, www.independent.co.uk/news/uk/home-news/hospitality-pubs-covid-vaccine-Covid-passports-b1822172.html
- 21 Georgiadis P and Pickard J, 'UK airport staff warn they cannot enforce overseas travel curbs', *Financial Times*, 5 February 2021, retrieved 12 April 2021, www.ft.com/content/6d051fb3-5625-414b-97f7-4a355f709193
- 22 Kershner I, 'My Life in Israel's Brave New Post-Pandemic Future', *The New York Times*, 5 April 2021, retrieved 12 April 2021, www.nytimes.com/2021/04/05/world/middleeast/israel-vaccinations.html
- 23 *Ibid.*
- 24 Reicher S and Drury J, 'How to lose friends and alienate people? On the problems of vaccine passports', BMJ Opinion, 1 April 2021, retrieved 12 April 2021, <https://blogs.bmj.com/bmj/2021/04/01/how-to-lose-friends-and-alienate-people-on-the-problems-of-vaccine-passports>
- 25 Serhan Y, 'The futility of vaccine passports', *The Atlantic*, 7 April 2021, retrieved 12 April 2021, www.theatlantic.com/international/archive/2021/04/vaccine-passports-dont-solve-our-pandemic-problems/618521
- 26 'Covid-19 Behaviour Tracker', Imperial College London, retrieved 12 April 2021, <https://ichpanalytics.imperialcollegehealthpartners.com/t/BDAU/views/YouGovICLCOVID-19BehaviourTracker/4Allbehaviorsovertime?iid=1&isGuestRedirectFromVizportal=y&embed=y>
- 27 Cabinet Office, 'Chancellor of the Duchy of Lancaster and First Ministers Call: 4 March 2021', GOV.UK, retrieved 12 April 2021, www.gov.uk/government/publications/communiques-on-covid-19-engagement/chancellor-of-the-duchy-of-lancaster-and-first-ministers-call-4-march-2021; 'Covid passports: Certification is "one option", vaccines minister says', BBC News, 7 April 2021, retrieved 12 April 2021, www.bbc.co.uk/news/uk-56645208
- 28 'Covid-19 – Test, Trace, Isolate, Support', Scottish government, May 2020, <https://bit.ly/3wQ93bx>; Daly A and Mulvenna M, 'UK contact tracing apps: the view from Northern Ireland and Scotland', Ada Lovelace Institute, 24 September 2020, retrieved 12 April 2021, www.adalovelaceinstitute.org/blog/uk-contact-tracing-apps-the-view-from-northern-ireland-and-scotland
- 29 'Scottish Government COVID-19 Advisory Group minutes: 4 March 2021', Scottish government, 29 March 2021, retrieved 12 April 2021, www.gov.scot/publications/scottish-government-covid-19-advisory-group-minutes-4-march-2021; Horne M, 'Covid in Scotland: Nicola Sturgeon paves way for vaccine passports trial', *The Times*, 4 April 2021, retrieved 12 April 2021, www.thetimes.co.uk/article/covid-in-scotland-nicola-sturgeon-paves-way-for-vaccine-passports-trial-gcdzs8xl2; 'Covid in Scotland: Government considers digital vaccine certificates', BBC News, 6 April 2021, retrieved 12 April 2021, www.bbc.co.uk/news/uk-scotland-scotland-politics-56638188; 'Covid: Vaccine passports could help reopen society – Dowden', BBC News, 28 March 2021, retrieved 12 April 2021, www.bbc.co.uk/news/uk-politics-56555365; 'Covid vaccine passports ridiculous, say pub owners', BBC News, 2 April 2021, retrieved 12 April 2021, www.bbc.co.uk/news/uk-wales-56617199
- 30 'Coronavirus: Swann "uncomfortable" with vaccine certificates for hospitality', BBC News, 4 March 2021, retrieved 12 April 2021, www.bbc.co.uk/news/uk-northern-ireland-56277669

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