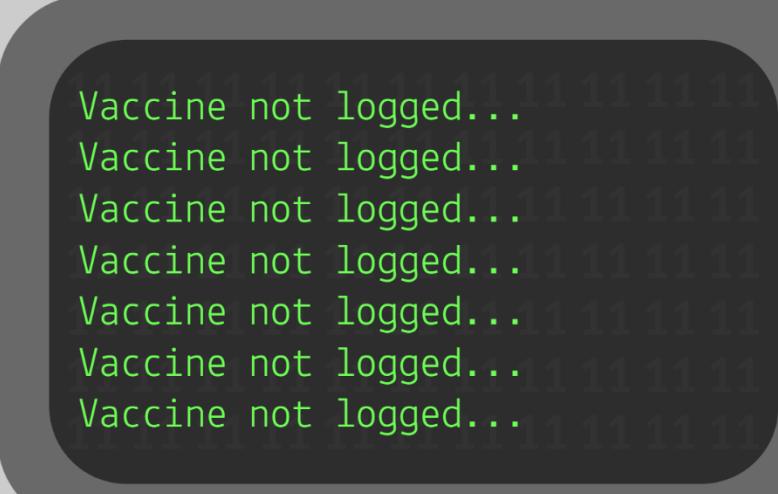


Computer says no

The issues with vaccine passports and NHS IT systems.

Briefing paper



Vaccine not logged...
Vaccine not logged...



11 Stranger Things

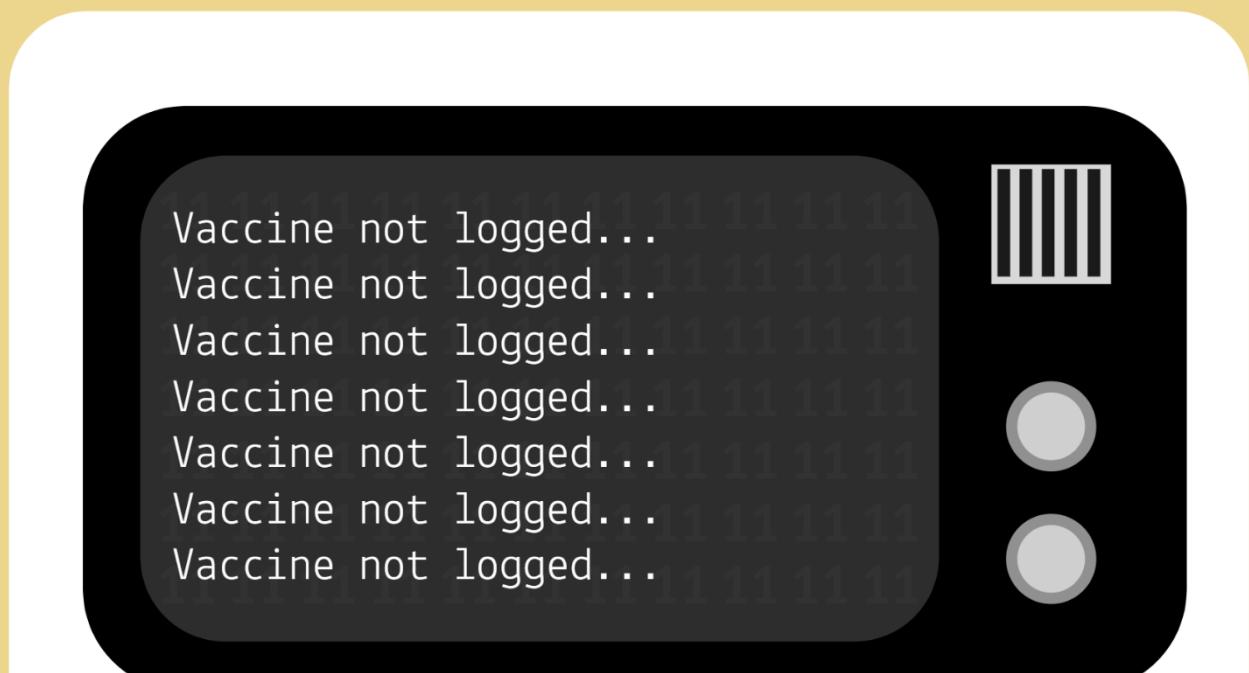


By Jasneet Samrai
September 7th 2021

About Centre Youth and Students:

Centre Youth and Students is the youth and students wing of Centre which is a Think Tank and a Pressure Group. Our role as a pressure group involves focusing on certain issues that we feel need attention and promoting different causes. We also act as a Think Tank and publish papers exploring different subjects in more depth. By doing this we hope to inform the public more on the different options available and to generate new policy ideas. Centre is also a registered company; its company number is 12406687 and it is registered as [CENTRETHINKTANKLTD](#).

Centre Think Tank registered office address: 20-22 Wenlock Road, London, England, N1 7GU



Centre
Progress 2.0



Contents:

Cover	Page 1
About Centre	Page 2
Contents	Page 3
Acknowledgements	Page 4
Executive summary	Page 5
Introduction	Page 6
What vaccine passports are and where they are used	Pages 7-8
Issues with groups missing out	Page 9
Students- Working out the true scale of the issue	Pages 10-12
Real-life case studies	Pages 13-15
Wider problems with communication between different NHS systems	Page 16-17
Policy recommendations	Page 18
Bibliography	Page 19-20
To reference this paper	Page 21
End cover	Page 22

About the author:



Jasneet Samrai – Jasneet is the Deputy Director for Centre. They have also worked as a campaign organiser, helping to elect 3 MEP's and they are the Safeguarding and Pastoral Care Officer for Centre.

Acknowledgements:

We would like to thank the members of Centre that proofread this paper and all mistakes are those of the author and the author alone.

Serial title and volume number:

Centre Think Tank, Vol 11.

Released: 06/09/2021



This work is shared under [Attribution-NonCommercial-NoDerivatives 4.0 International \(CC BY-NC-ND 4.0\)](#). Whilst you can share this work or any part of it, it must be correctly attributed. Any remixed, transformed, or built upon versions of this work may not be distributed. It may also not be used for commercial purposes if shared. A simplified version of this licence can be found here: <https://creativecommons.org/licenses/by-nc-nd/4.0/>.

Executive summary:



People who have moved between different nations such as Wales and England are having issues accessing and recording their vaccine doses. This is due to different IT systems being used in different areas.



Vaccine passports are being planned for usage domestically, however there are major issues with these as some people are unable to prove that they have had both doses through no fault of their own. We also oppose the usage of vaccine passports.



We need a new system that allows the transfer of vaccine data across all UK nations. This would be a temporary solution to solve the issues for those who would be impacted by vaccine passports.



Long term we want to implement a single IT system across the NHS, or alternatively, different systems that are compatible with each other and are able to transfer data properly.

Introduction:

As the lockdown has been lifted and the vaccine rollout continues the government is now looking towards other ways it can control the spread of COVID-19. Without reintroducing lockdown rules again, the government has moved towards vaccine passports as a way to ensure that people are doubly vaccinated before entering certain areas. Whilst this system initially sounds easy to run with individuals simply needing to get the vaccine and then receive a pass the reality is very different. This paper shows how building the vaccine system on NHS IT systems which have seen a long history of compatibility issues that vaccine passports will be far less smooth than the government will have hoped for. This paper explores how these issues have occurred, the real stories of those affected by the NHS IT systems and how we can solve these issues.

What vaccine passports are and where they are used.

Vaccine passports are a document which is issued by the government or official bodies to prove a person's vaccination status, with it being a way in which people are able to prove that they have had two vaccinations. In the UK, this is done by the NHS, with each nation having its own ways of producing and presenting these¹.

In Scotland, you can apply for these online through logging into the NHS Scotland website or over the phone. They will then send these out by post, with the person normally receiving them within 14 days². In Wales and England, you can get a NHS Covid Pass, which you can get via the NHS website and having a valid photographic ID³. Alternatively, you can request paper copies over the phone in both areas. Additionally in England, you're able to access your NHS Covid Pass through the NHS app⁵. In Northern Ireland, you can apply for the certificate online and over the phone⁶, yet there have been technical problems with accessing this service⁷.

These passports are important as they currently allow UK citizens to avoid some coronavirus measures that the Government have put in place. These vary in the different nations due to devolution and different rules by devolved governments, however such measures do include the right for fully vaccinated adults to avoid quarantine when having visited amber-list countries⁸ and to avoid self-isolation after having had contact with a person who has COVID⁹.

Although not currently a legal requirement, some nightclubs and other venues have started asking customers to confirm their vaccination status¹⁰ in order to gain entry. Moreover, the Governments within the UK are still looking at plans to increase their usage, making it a legal requirement for businesses and educational institutions to implement them. Recently, some UK governments have started to confirm that they

¹ BBC News. 'Covid passport: How to prove your vaccine status with the NHS Covid Pass'. 3 September 2021. Available at: <https://www.bbc.co.uk/news/explainers-55718553> [Accessed 4 September 2021].

² NHS inform. 'Get a record of your coronavirus (COVID-19) vaccination status'. Available at: <https://www.nhsinform.scot/covid19status> [Accessed 4 September 2021].

³ BBC News. 'Covid passport: How to prove your vaccine status with the NHS Covid Pass'. 3 September 2021. Available at: <https://www.bbc.co.uk/news/explainers-55718553> [Accessed 4 September 2021].

⁴ Llywodraeth Cymru Welsh Government. 'NHS COVID Pass: prove your vaccination status'. Available at: <https://gov.wales/nhs-covid-pass-prove-your-vaccination-status> [Accessed 4 September 2021].

⁵ NHS. 'About the NHS App'. Available at: <https://www.nhs.uk/nhs-app/about-the-nhs-app/> [Accessed 4 September 2021].

⁶ NI direct government services. 'Coronavirus (COVID-19): COVID certificate for NI residents'. Available at: <https://www.nidirect.gov.uk/services/coronavirus-covid-19-covid-certificate-ni-residents> [Accessed 4 September 2021].

⁷ BBC News. 'Covid passport: How to prove your vaccine status with the NHS Covid Pass'. 3 September 2021. Available at: <https://www.bbc.co.uk/news/explainers-55718553> [Accessed 4 September 2021].

⁸ GOV. UK. 'Red, amber, green lists: check the rules for travel to England from abroad'. Available at: [England from abroad - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/red-amber-green-lists-check-the-rules-for-travel-to-england-from-abroad) [Accessed 4 September 2021].

⁹ BBC News. 'Covid: Do I have to self-isolate if I'm fully vaccinated?' 27 August 2021. Available at: <https://www.bbc.co.uk/news/explainers-54239922> [Accessed 4 September 2021].

¹⁰ Bowden, George. 'Club night drops NHS Covid pass requirement'. BBC News, 30 July 2021. Available at: <https://www.bbc.co.uk/news/uk-58015800> [Accessed 4 September 2021].

are putting forward some legislation to extend their usage in certain sectors: with this being seen already in England and Scotland¹¹.

The current and widespread usage of vaccine passports, as well as the proposed extension of them, means that the policy has to be enactable in a way which does not disadvantage any particular groups of people through no fault of their own. This is due to them limiting the ability for individual people to access everyday activities and to travel because of the circumstances that they happen to find themselves in- with several groups being unable to record their vaccines and therefore have these documents.

¹¹ Burford, Rachel. 'Nicola Sturgeon: Vaccine passports planned for entry to nightclubs in Scotland'. *Evening Standard*, 1 September 2021. Available at: <https://www.msn.com/en-gb/news/scotland%20news/nicola-sturgeon-vaccine-passports-planned-for-entry-to-nightclubs-in-scotland/ar-AANZaPt?ocid=uxbndlbing#image=1> [Accessed 4 September 2021].

Issues with groups missing out

Currently, there have been major problems with the vaccine rollout and issuing vaccine passports, with this meaning that a number of different groups of people have been unable to gain access to these documents. The next section of this paper looks at these groups and the size of the issue.

The main group that is impacted by this policy decision is students, with many of them experiencing vaccine recording and access issues when travelling between their home and term-time addresses if they are in two different UK nations. However, other groups that are disadvantaged include anybody that has moved between two addresses in two different UK nations between their vaccine doses. Therefore, people who have missed out may also include people who have moved house permanently; people who have had to move due to domestic abuse and people who may have had to move due to family and financial reasons. This list is not exhaustive, but it clearly shows the huge scale of the problem and how anybody is able to easily slip through the net.

Students- Working out the true scale of the issue

When working out the true scale of the issue, and the number of students impacted, the first piece of data needed is the number of students who are moving between different nations of the UK. These can be found via the Higher Education Statistics Agency, through Figure 10¹², the data set of which is published below.

Domicile	Country of HE provider	Number	Percentage
England	England	645,490	96%
England	Wales	17,105	3%
England	Scotland	9,490	1%
England	Northern Ireland	1,560	0%
Wales	England	12,300	26%
Wales	Wales	33,775	73%
Wales	Scotland	330	1%
Wales	Northern Ireland	75	0%
Scotland	England	4,230	6%
Scotland	Wales	155	0%
Scotland	Scotland	67,845	94%
Scotland	Northern Ireland	115	0%
Northern Ireland	England	4,530	18%
Northern Ireland	Wales	180	1%
Northern Ireland	Scotland	1,175	5%

¹² Higher Education Statistics Agency. 'Higher Education Student Statistics: UK, 2019/20- Where students come from and go to study'. 27 January 2021. Available at: <https://www.hesa.ac.uk/news/27-01-2021/sb258-higher-education-student-statistics/location> [Accessed 4 September 2021].

Northern Ireland	Northern Ireland	19,330	77%
------------------	------------------	--------	-----

This data allows us to calculate the maximum number of students who may be negatively impacted with issues between different nations and their vaccine rollouts, and also therefore the number of students who may have had issues accessing and recording their vaccine doses.

The total number of students that this issue affects is 51,245. This is just under 6.3% of the total number of students within the UK. This can be worked out by the following method:

1. Working out the number of English students that are studying outside England:
 1. This can be found by adding the number of English students studying in Wales (17,105), the number of English students studying in Scotland (9,490) and the number of English students studying in Northern Ireland (1,560).
 2. This equals 28,155.
2. Working out the number of Welsh students that are studying outside Wales:
 1. This can be found by adding the number of Welsh students studying in England (12,300), the number of Welsh students studying in Scotland (330) and the number of Welsh students studying in Northern Ireland (75).
 2. This equals 12,705.
3. Working out the number of Scottish students that are studying outside Scotland:
 1. This can be found by adding the number of Scottish students studying in England (4,230), the number of Scottish students studying in Wales (330) and the number of Scottish students studying in Northern Ireland (115).
 2. This equals 4,500.
4. Working out the number of Northern Irish students that are studying outside Northern Ireland:
 1. This can be found by adding the number of Northern Irish students that are studying in England (4,530), the number of Northern Irish students that are studying in Wales (180) and the number of Northern Irish students that are studying in Scotland (1,175).
 2. This equals 5,885.
5. Then, to work out the total number of students who are impacted by this policy you add these four totals together, which equals 51,245. This is out of a total of 817,685 students.

With these workings, we know that at least 51,245 people may have issues accessing vaccine passports due to issues with communication between different UK nations. However, it is also important to note that the number may be and is probably higher. This is due to there being other groups that have had issues accessing and recording their vaccine doses, and these being hard to size due to the lack of data available about them.

Real-life case studies

The next section of the paper consists of real-life case studies that feature people who have found themselves either unable to access/record their vaccines after travelling between two nations, or have issues trying to do so. After these, the next part of this section looks at the commonalities of the case studies- and looks at why vaccine passports will disadvantage the people featured.

Case study: Tristan Wood



Tris ended up driving from Worcestershire to Aberystwyth to get a second dose, a distance of which is over 100 miles. This is because his local area said that they could not do it in England as it “messed up” the system, with this meaning that if it was given, it was not able to be recorded. Due to this, he was left with no choice but to make the journey back to Aberystwyth. This situation was also worsened as Tris suffers from Asthma, therefore it was important that he received his second dose as soon as possible without any delay.

When asked about his main concerns, he said that one of them was that not everybody could afford to make the journey back to Wales or their University town. He also said that as the number of walk-in doses available isn’t guaranteed, it caused him excess stress as there was no guarantee that he would be able to receive his second vaccine despite making the long journey.

Case study: Student A

Student A told us that they had issues accessing their second vaccine dose, having had their first dose in Wales and their second in England. They said that this is because NHS England operates under a different system to NHS Wales. In order to get round this, their GP surgery had to ring a vaccine centre to explain their situation.

They also said that “it was really annoying trying to organise my second [vaccine]” and that “it’s madness that there’s no communication between both systems.”

Case study: Student B

Student B said that they've been trying to book their second vaccine for around 4 weeks now and that they are failing to get anywhere. They said that they are constantly being passed between people and have contacted multiple phone numbers, yet have still gotten nowhere. They have also moved from Wales to England, citing a lack of communication and organisation between NHS Wales and NHS England being the reason that they have been unable to get their second jab organised.

Case study: Chloe Roulstone



Chloe is from Leek in Staffordshire and is going to study at Aberystwyth University in September. With her turning 18 soon, she has to book both of her doses at the same time, otherwise she is unable to get her first dose. However, with her moving to Wales at the time of her second dose, she is unable to book both.

She said that "it's really frustrating as I am eager to get vaccinated and this flaw in the system means I have to wait until September to book it."

Case study: Torrin Wilkins



I completed my time at university last year and recently went back to stay in the same town as I studied in. I also went and frequently visited my girlfriend who was at the University, and she let me know that the vaccination centre near to her was running walk-in sessions for vaccinations. As I wasn't registered with a GP due to moving back

home and then lockdown stopping me from registering, I decided this was the perfect chance to get vaccinated.

It was quick and easy to get vaccinated in Wales and everyone there was brilliant. Getting the second dose would be just as easy, or so I thought. When I was vaccinated in Wales, I was told to phone a number if I needed to be vaccinated in England but that it shouldn't be too difficult. My girlfriend phoned the number as she was in the same situation as me and we booked our second appointment in England. That's where things started to go wrong for us.

The vaccination clinic said that neither of us were on their system as being vaccinated in which we said that we had ours in Wales and proceeded to show them our cards. They gave us our vaccines but said that we needed the NHS in Wales to transfer our details over, but it turns out that was far more difficult in practice. The other issue they had was being unable to log our second doses onto the system without our first doses already being registered.

Once we had been vaccinated, we then phoned the number, and we were then asked to ring another who in turn asked us to ring another and so on. We quickly realised that no one knew what to do other than to send us to another health board or phone number. Since then, we have been unable to do anything. Our vaccines still aren't logged and with vaccine passports being introduced the system desperately needs to be fixed.

Commonalities between these case studies:

All of these case studies have one major thing in common: that people have struggled accessing and recording their vaccine doses if they needed to travel across two nations between their doses. They have all also spoken about communication between different NHS national systems being a problem and causing them issues when trying to sort this problem out.

One thing that is notable about Student A's case is that, unlike the other students, they managed to sort out their issues through their GP. Whilst this shows that it is possible to get round these issues, it also can create further problems for most students. This is because students at home, outside of term-time, may struggle to re-register at their home address with a local GP over the summer. This is due to them only being allowed to be registered at one GP surgery at a time¹³. Another problem of using GPs is that services, knowledge, and availability vary from surgery to surgery. This means that all people in this situation may not get the same level of care, or even get the problem sorted. When talking to students, one thing that was mentioned on one occasion was an email address that they were told to use, yet this is a service that not many students have been pointed to and that is not widely being advertised.

¹³ Higher Education Policy Institution, 'The invisible problem? Improving students' mental health' (Oxford, Oxuniprint, 2016), p. 39.

Wider problems with communication between different NHS systems

There are a lot of problems within the NHS and the communication between different systems that they use. This has been shown not only in terms of there being problems with vaccine access across different nations, but also in terms of vaccine access internal to one nation. This is demonstrated by Tom Mumford's experience, which is focused on below. The next part of this section then goes on to show that communication issues between different systems are not just unique to the vaccine rollout but also cause major problems in the everyday running of our NHS.

Case study: Tom Mumford



Tom said that he called up his local health board, Hywel Dda, when he was due for his second dose and that they refused to book him in even though he was due. He also tried by email and they were unhelpful- both times saying that they were fully booked.

Being unable to book his second dose, he instead decided to attend the vaccine centre anyway, to see if they could fit him in. He said that they were pleased to see him and that they said they were having to throw away doses as not enough people were turning up.

What Tom's case shows

Tom's case shows that even where NHS systems are operating within the same nation, there are still issues with communication. These issues can impact the speed of the vaccine rollout, and therefore also the availability and access of our vaccines.

Wider issues

The NHS currently operates off multiple computer systems which is especially problematic for vaccine passports. Those travelling between Scotland, Wales, Northern Ireland, and England for different doses of their vaccine have seen this issue with separate computer systems. Each has their details registered on separate computer systems which makes an easy transfer of data between different parts of the UK difficult to achieve.

This issue isn't restricted to the vaccine rollout as the NHS has seen multiple issues with its IT systems. Whether this was the outdated NHS systems meaning staff had to store 15 different logins¹⁴ or the WannaCry cyber security attack that was partly caused by "...unpatched, or unsupported Windows operating systems [being] susceptible to the ransomware"¹⁵ there are numerous issues with the NHS IT systems.

More specific to vaccine passports is the incompatible IT systems used in different parts of the UK. These issues are so large that under the last Labour government an attempt for an NHS patient records system cost £10 billion¹⁶. The system itself wasn't even completed despite the vast cost of developing it. NHSX was later set up to deal with the NHS digital updates with continuing issues with the system and no overarching solution for transferring patients' data. Even in Scotland there has been a move towards single NHS systems where they moved towards one system¹⁷, run by Microsoft.

To solve the issue with NHS systems in the short term for the vaccine rollout we need to set up a new service to transfer vaccine data between each of the systems. For the longer term either moving towards a single NHS IT system or compatibility between the separate IT systems is required. A single system would need to learn from the original failed attempt with a clear set of goals, functions, and an improved roadmap for delivery. However, such a system will require significant investment from the government so if it is possible, creating compatible replacements for the current NHS IT systems that can easily transfer patients' data between different areas of the UK may be a cheaper and easier alternative.

¹⁴ BBC News. 'Outdated' IT leaves NHS staff with 15 different computer logins'. 4 January 2020. Available at: <https://www.bbc.co.uk/news/health-50972123> [Accessed 4 September 2021].

¹⁵ National Audit Office. 'Investigation: WannaCry cyber attack and the NHS'. Available at: <https://www.nao.org.uk/report/investigation-wannacry-cyber-attack-and-the-nhs/> [Accessed 4 September 2021].

¹⁶ Syal, Rajeev. 'Abandoned NHS IT system has cost £10bn so far'. *The Guardian*, 18 September 2013. Available at: <https://www.theguardian.com/society/2013/sep/18/nhs-records-system-10bn> [Accessed 4 September 2021].

¹⁷ Government Computing. 'NHS Scotland to move to single healthcare digital system'. 2 November 2018. Available at: <https://www.governmentcomputing.com/business/news/nhs-scotland-move-single-healthcare-digital-system> [Accessed 4 September 2021].

Policy recommendations

Oppose the usage of vaccine passports for domestic usage- This is to be done across all of the nations of the UK as there are major issues with people being unable to access them despite having had both vaccines.

Set up a new service to transfer vaccine data between all of the different systems currently in operation- This would reduce the number of new individuals who encounter these problems when getting each vaccine dose in different parts of the UK. This would also ensure that there were no issues when it comes to registering third doses.

Allow GPs to access this system- This means that they would be able to log any doses that may have been missed, with them using vaccine cards or proof of vaccinations.

Set up a logging service as part of the National Booking Service- This would allow individuals to send off their jab details, meaning that their jab can be recorded centrally if they do not have access to a GP.

A single IT system, or compatible replacements for current NHS IT systems, if not possible- A single IT system will require significant government investment and therefore if not possible, it may be cheaper and easier to create compatible replacement for current NHS IT systems that can easily transfer patients' data between different areas of the UK.

Bibliography:

BBC News. 'Covid passport: How to prove your vaccine status with the NHS Covid Pass'. 3 September 2021. Available at: <https://www.bbc.co.uk/news/explainers-55718553> [Accessed 4 September 2021].

NHS inform. 'Get a record of your coronavirus (COVID-19) vaccination status'. Available at: <https://www.nhsinform.scot/covid19status> [Accessed 4 September 2021].

BBC News. 'Covid passport: How to prove your vaccine status with the NHS Covid Pass'. 3 September 2021. Available at: <https://www.bbc.co.uk/news/explainers-55718553> [Accessed 4 September 2021].

Llywodraeth Cymru Welsh Government. 'NHS COVID Pass: prove your vaccination status'. Available at: <https://gov.wales/nhs-covid-pass-prove-your-vaccination-status> [Accessed 4 September 2021].

NHS. 'About the NHS App'. Available at: <https://www.nhs.uk/nhs-app/about-the-nhs-app/> [Accessed 4 September 2021].

NI direct government services. 'Coronavirus (COVID-19): COVID certificate for NI residents'. Available at: <https://www.nidirect.gov.uk/services/coronavirus-covid-19-covid-certificate-ni-residents> [Accessed 4 September 2021].

BBC News. 'Covid passport: How to prove your vaccine status with the NHS Covid Pass'. 3 September 2021. Available at: <https://www.bbc.co.uk/news/explainers-55718553> [Accessed 4 September 2021].

GOV. UK. 'Red, amber, green lists: check the rules for travel to England from abroad'. Available at: [England from abroad - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/collections/covid-19-travel-advice) [Accessed 4 September 2021].

BBC News. 'Covid: Do I have to self-isolate if I'm fully vaccinated?' 27 August 2021. Available at: <https://www.bbc.co.uk/news/explainers-54239922> [Accessed 4 September 2021].

Bowden, George. 'Club night drops NHS Covid pass requirement'. *BBC News*, 30 July 2021. Available at: <https://www.bbc.co.uk/news/uk-58015800> [Accessed 4 September 2021].

Gillett, Francesca. 'Covid: University students could be told jabs are required- Raab'. *BBC News*, 29 July. Available at: <https://www.bbc.co.uk/news/uk-58009677> [Accessed 4 September 2021].

Owen, Cathy. 'Welsh government will consider vaccine passports if cases continue to rise'. *Wales Online*, 27 August 2021. Available at: <https://www.walesonline.co.uk/news/wales-news/coroanvirus-vaccine-passports-nightclubs-wales-21414549> [Accessed 4 September 2021].

Burford, Rachel. 'Nicola Sturgeon: Vaccine passports planned for entry to nightclubs in Scotland'. *Evening Standard*, 1 September 2021. Available at: <https://www.msn.com/en-gb/news/scotland%20news/nicola-sturgeon-vaccine-passports-planned-for-entry-to-nightclubs-in-scotland/ar-AANZaPt?ocid=uxbndlbing#image=1> [Accessed 4 September 2021].

Higher Education Policy Institution, 'The invisible problem? Improving students' mental health' (Oxford, Oxuniprint, 2016), p. 39.

Higher Education Statistics Agency. 'Higher Education Student Statistics: UK, 2019/20- Where students come from and go to study'. 27 January 2021. Available at: <https://www.hesa.ac.uk/news/27-01-2021/sb258-higher-education-student-statistics/location> [Accessed 4 September 2021].

BBC News. "Outdated' IT leaves NHS staff with 15 different computer logins'. 4 January 2020. Available at: <https://www.bbc.co.uk/news/health-50972123> [Accessed 4 September 2021].

National Audit Office. 'Investigation: WannaCry cyber attack and the NHS'. Available at: <https://www.nao.org.uk/report/investigation-wannacry-cyber-attack-and-the-nhs/> [Accessed 4 September 2021].

Syal, Rajeev. 'Abandoned NHS IT system has cost £10bn so far'. *The Guardian*, 18 September 2013. Available at: <https://www.theguardian.com/society/2013/sep/18/nhs-records-system-10bn> [Accessed 4 September 2021].

Government Computing. 'NHS Scotland to move to single healthcare digital system'. 2 November 2018. Available at: <https://www.governmentcomputing.com/business/news/nhs-scotland-move-single-healthcare-digital-system> [Accessed 4 September 2021].

Flaticons:

Icon made by [Freepik](#) from [www.flaticon.com](#)

Disclaimers:

This briefing paper is not meant to support any company or organisation.

Author Disclosure Statement

Nothing to disclose.

To reference this paper:

Reference as a Non-Governmental Organization (NGO):

Centre Think Tank, 'Computer says no' (London, Centre Think Tank, 2021)

Reference the website link:

Centre Think Tank, *Computer says no*. Available at: <https://centrethinktank.co.uk/computer-says-no> [Accessed 00/00/0000].

Reference as a journal article:

Wilkins, T. 'Computer says no', *Centre Think Tank*, 11 (2021) pp. 1-22.

If you indirectly reference or use the ideas from this paper, include a link to the paper and the name of our Think Tank.

Centre