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| TITLE | International COVID-19 Vaccine Certificates – Brief Insights Report |
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The following agencies were involved in the production of this report: the National Assessments Bureau, the Ministry of Transport, the Ministry of Health, the Ministry of Business, Innovation, and Employment, the Department of Internal Affairs, and the Ministry of Foreign Affairs and Trade.

Introduction

1. This report collates international insights related to international COVID-19 vaccine certificates. It is intended as an initial snapshot, canvassing insights from the countries who are using COVID-19 vaccine certificates, and how they have managed and implemented them. It also includes the World Health Organisation and International Civil Aviation Organisation contexts, and then poses operational and strategic considerations. The report is not intended to be comprehensive, and further analysis can be provided if required, particularly as this is a rapidly changing topic, with current work underway by working groups in New Zealand, and internationally.

What is a vaccine certificate?

2. A 'vaccine certificate' is a medical document that records a vaccination an individual has received.¹ It does not verify anything about the health status of an individual (unlike an 'immunity passport' which verifies that an individual has previously had and is now immune to a specific disease).²
3. Digital vaccination certificates are the same thing but held in digital format. Digital vaccination certificates can also be used to link to other information systems, and for reminders for further vaccine dosages.
4. A Smart Vaccination Certificate is also digital but stored on a smartphone app or in the cloud.³ A Smart Vaccination Certificate can be a way of mitigating the risk of fraud by creating a 'digital twin' to a paper certificate.⁴
5. The terms 'vaccine certificate' and 'vaccine passport' are commonly used interchangeably in the COVID-19 context. However, whilst a certificate provides proof, a passport traditionally holds authorisation for international travel or immigration purposes, and the latter is not usually what is meant in the COVID-19 context.⁵ Hence the term 'vaccine certificate' is preferred by many.

Which countries are using a vaccine certificate?

6. The following table outlines a list of some of the countries and organisations who are using a COVID-19 vaccine certificate, who they have been developed by, where information is stored and who the information is used by. The table includes domestic and international examples of vaccine certificate use by country.

| Country | Domestic use | International use |
|---------|---|--|
| Israel | Has implemented a 'Green Pass' app. This electronic 'pass' is issued to those who have been vaccinated, or who have recovered from infection. ⁶ A physical pass is | Greece and Israel have signed a deal allowing vaccinated citizens to travel between the countries, |

¹ Call for public comments: Interim guidance for developing a Smart Vaccination Certificate – Release Candidate 1. 19 Mar 21 <https://www.who.int/news-room/articles-detail/call-for-public-comments-interim-guidance-for-developing-a-smart-vaccination-certificate-release-candidate-1> (Accessed 8 Apr 21)

² Call for public comments: Interim guidance for developing a Smart Vaccination Certificate – Release Candidate 1. 19 Mar 21 <https://www.who.int/news-room/articles-detail/call-for-public-comments-interim-guidance-for-developing-a-smart-vaccination-certificate-release-candidate-1> (Accessed 8 Apr 21)

³ Call for public comments: Interim guidance for developing a Smart Vaccination Certificate – Release Candidate 1. 19 Mar 21 <https://www.who.int/news-room/articles-detail/call-for-public-comments-interim-guidance-for-developing-a-smart-vaccination-certificate-release-candidate-1> (Accessed 8 Apr 21)

⁴ Call for public comments: Interim guidance for developing a Smart Vaccination Certificate – Release Candidate 1. 19 Mar 21 <https://www.who.int/news-room/articles-detail/call-for-public-comments-interim-guidance-for-developing-a-smart-vaccination-certificate-release-candidate-1> (Accessed 8 Apr 21)

⁵ Calling proof of COVID-19 vaccination a 'vaccine passport' could be empowering conspiracy theorists. 9 Apr 21 <https://fortune.com/2021/04/08/calling-proof-of-covid-19-vaccination-a-vaccine-passport-could-be-empowering-conspiracy-theorists/> (Accessed 9 Apr 21)

⁶ What is Israel's green pass system and how does it work. 6 Apr 21 <https://www.independent.co.uk/news/world/middle-east/israel-green-pass-covid-passport-england-b1826771.html>, (Accessed 7 April 2021)



| Country | Domestic use | International use |
|-----------------------|---|---|
| | also available following presentation of identification. ⁷ The app is authorised by the Ministry of Health, which collects information from health maintenance organisations (HMO). ⁸ The Green Pass is used to access facilities such as hotels, gyms and theatres. ⁹ | after displaying evidence of a Green Pass. ¹⁰ Cyprus has also agreed to allow Green Pass holders to travel there. ¹¹ |
| Estonia | There is not currently a plan to allow different domestic freedoms on the basis of vaccination status, but this could be an option with the new digital app being developed with the WHO. | Is currently developing an app with the WHO and Estonian tech firm Guardtime. ¹² Individuals log in to the app using their Estonian e-ID and receive results from the patient portal. ¹³ ¹⁴ Information is then shared via a QR code. ¹⁵ |
| Denmark | A vaccine certificate, 'Coronapas' is available via secure app or in paper format to people who have been vaccinated, recovered from COVID-19 in the previous 2 to 12 weeks, or tested negative in the previous 72 hours. ¹⁶ This was implemented on April 6. ¹⁷ The pass is required for use until all citizens have been offered a vaccine. ¹⁸ Information is stored centrally, and protected by blockchain encryption. Coronapas is required to enter certain businesses, including hairdressers, beauty salons and driving schools. The Coronapas is not used for travel at this stage. ¹⁹ The app will remain in place until the entire adult population has had access to the COVID-19 vaccine. ²⁰ | The Coronapas may eventually be able to be used for travel. ²¹ |
| European Union | Poland has introduced a special QR code via its 'mObywatel' app that can be scanned to confirm a user has been fully vaccinated for COVID-19. It has not indicated if it will introduce a specific vaccination "passport", or how this could be used domestically. ²² | The EU has indicated it intends to implement a 'Digital Green Certificate' which will be a proof that a person has been vaccinated against COVID-19, received a negative test result or recovered from COVID-19. ²³ Each country will issue the certificate, which will be based on each nations' medical records. ²⁴ A QR code will be |

⁷ What is Israel's green pass system and how does it work. 6 Apr 21 <https://www.independent.co.uk/news/world/middle-east/israel-green-pass-covid-passport-england-b1826771.html>, (Accessed 7 April 2021)

⁸ What is a green pass <https://corona.health.gov.il/en/directives/green-pass-info/> (Accessed 8 Apr 21)

⁹ Covid passports: What are different countries planning? 26 Mar 21 <https://www.bbc.com/news/world-europe-56522408> (Accessed 7 Apr 21)

¹⁰ Greece agrees vaccine passport deal with Israel as 'trial run'. 8 Feb 21 <https://www.politico.eu/article/greece-agrees-coronavirus-vaccine-passport-deal-with-israel-as-trial-run/> (Accessed 9 Apr 21)

¹¹ Covid passports: What are different countries planning? 26 Mar 21 <https://www.bbc.com/news/world-europe-56522408> (Accessed 7 Apr 21)

¹² <https://www.adalovelaceinstitute.org/project/international-monitor-vaccine-passports-covid-status-apps/>

¹³ International monitor: vaccine passports and COVID status apps <https://www.adalovelaceinstitute.org/project/international-monitor-vaccine-passports-covid-status-apps/> (Accessed 7 Apr 21)

¹⁴ <https://news.err.ee/1608153679/official-estonia-will-have-digital-vaccine-certificate-ready-in-april>

¹⁵ International monitor: vaccine passports and COVID status apps <https://www.adalovelaceinstitute.org/project/international-monitor-vaccine-passports-covid-status-apps/> (Accessed 7 Apr 21)

¹⁶ <https://www.euronews.com/2021/04/06/covid-19-denmark-launches-coronapas-certificate-to-reopen-economy>

¹⁷ International monitor: vaccine passports and COVID status apps <https://www.adalovelaceinstitute.org/project/international-monitor-vaccine-passports-covid-status-apps/> (Accessed 7 Apr 21)

¹⁸ Denmark among first in Europe to introduce COVID pass scheme. 6 Apr 21 <https://www.euractiv.com/section/health-consumers/news/denmark-launches-corona-pass-to-facilitate-reopening/> (Accessed 7 Apr 21)

¹⁹ Denmark among first in Europe to introduce COVID pass scheme. 6 Apr 21 <https://www.euractiv.com/section/health-consumers/news/denmark-launches-corona-pass-to-facilitate-reopening/> (Accessed 7 Apr 21)

²⁰ Denmark among first in Europe to introduce COVID pass scheme. 6 Apr 21 <https://www.euractiv.com/section/health-consumers/news/denmark-launches-corona-pass-to-facilitate-reopening/> (Accessed 7 Apr 21)

²¹ Denmark among first in Europe to introduce COVID pass scheme. 6 Apr 21 <https://www.euractiv.com/section/health-consumers/news/denmark-launches-corona-pass-to-facilitate-reopening/> (Accessed 7 Apr 21)

²² A patchwork: Europe and COVID-19 vaccination passports 26 Feb 21 <https://www.reuters.com/article/us-health-coronavirus-europe-passports-f-idUSKBN2AP2GW> (Accessed 7 Apr 21)

²³ Coronavirus: Commission proposed a Digital Green Certificate 17 Mar 21. https://ec.europa.eu/commission/presscorner/detail/en/IP_21_1181 (Accessed 8 Apr 21)

²⁴ COVID-19: Digital Green Certificates https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/safe-covid-19-vaccines-europeans/covid-19-digital-green-certificates_en (Accessed 7 Apr 21)



| Country | Domestic use | International use |
|---------------------------------|---|---|
| | | <p>issued, which can also be printed.²⁵ This will be used to travel throughout EU member states.²⁶ The EU have indicated that there is potential that it could be used beyond the EU in the future.</p> <p>The Digital Green Certificate will be valid in all EU Member States and will be open for Iceland, Lichtenstein, Norway and Switzerland.</p> |
| United States of America | <p>Currently some states have a vaccine certificate that allows limited domestic freedoms for those who have been vaccinated but is not used for international travel. The White House has ruled out mandatory vaccination certification to access domestic services.²⁷</p> <p>In New York State, an app, the 'Excelsior Pass' is currently available on a voluntary basis. Some business may require proof of vaccination under New York State reopening guidelines.²⁸ Users are issued a QR code, this does not store medical or personal information and is valid for 180 days.²⁹ Information is retrieved from data in State immunisation and COVID-19 testing databases.³⁰</p> | <p>While there are a number of different vaccination 'passports' being developed, none of these have been used as a requirement for international travel.³¹</p> |
| Malaysia | <p>Malaysia does not differentiate public freedoms domestically on the basis of vaccination status. However, it does have an app for people to register for a vaccination.</p> | <p>Malaysia's 'Immunitie Health Passport' which is intended for use when travelling to other countries, has now been formally accepted in Singapore for entry.³² The Passport provides personal immunisation records and vaccine data using blockchain security. The intention of this passport is to facilitate travel between Malaysia and Singapore (although this may be extended to other countries in the future).</p> |
| Sweden | <p>Sweden has indicated they may require vaccination to take part in some activities, and this could involve individual businesses choosing to require proof of vaccination from customers.³³</p> | <p>Sweden has indicated they plan to launch a digital coronavirus vaccination certificate by summer.³⁴ It is intended to be used to travel abroad.</p> |
| Australia | <p>Australia make vaccination records available on the Australia Immunisation Register. This will be available by a website or app. However, it will be up to individual states and territories to determine whether they will have rules regarding access to services or places based</p> | <p>The Australian Government is still considering how the existing vaccination certificate would work for international travel, but have conceded it is highly likely people entering Australia (with the exception of the Quarantine Free Travel Zones) will need a vaccination certificate, or will be required to quarantine.³⁷</p> |

²⁵ International monitor: vaccine passports and COVID status apps <https://www.adalovelaceinstitute.org/project/international-monitor-vaccine-passports-covid-status-apps/> (Accessed 7 Apr 21)

²⁶ Questions and Answers – Digital Green Certificate. 17 Mar 21 https://ec.europa.eu/commission/presscorner/detail/en/qanda_21_1187 (Accessed 8 Apr 21)

²⁷ Covid: US rules out federal vaccine passports 8 Apr 21 <https://www.bbc.com/news/world-us-canada-56657194> (Accessed 8 Apr 21)

²⁸ Governor Cuomo Announces Launch of Excelsior Pass to Help Fast-Track Reopening of Businesses and Entertainment Venues Statewide. 26 Mar 21 Governor Cuomo Announces Launch of Excelsior Pass to Help Fast-Track Reopening of Businesses and Entertainment Venues Statewide. 26 Mar 21

<https://www.governor.ny.gov/news/governor-cuomo-announces-launch-excelsior-pass-help-fast-track-reopening-businesses-and-entertainment-venues-statewide> (Accessed 7 Apr 21)

²⁹ Excelsior Pass: Frequently Asked Questions. <https://covid19vaccine.health.ny.gov/excelsior-pass-frequently-asked-questions> (Accessed 7 Apr 21)

³⁰ Excelsior Pass: What You Need to Know. <https://covid19vaccine.health.ny.gov/excelsior-pass-what-you-need-know> (Accessed 7 Apr 21)

³¹ 'Vaccine passports' are on the way, but developing them won't be easy. 29 Mar 21 <https://www.washingtonpost.com/health/2021/03/28/vaccine-passports-for-work/> (Accessed 8 Apr 21)

³² Malaysia's first Health Passport, Immunitie formally accepted in Singapore. 1 Mar 21 <https://www.mobihealthnews.com/news/apac/malaysia-s-first-health-passport-immunitie-formally-accepted-singapore#:~:text=In%20collaboration%20with%20Affinidi%2C%20a,Affinidi's%20Unifier%20digital%20credential%20platform> (Accessed 8 Apr 21)

³³ Sweden to introduce digital 'vaccine passport'. 4 Feb 21 <https://www.thelocal.se/20210204/sweden-to-introduce-digital-vaccine-passport/>

³⁴ <https://www.thelocal.se/20210204/sweden-to-introduce-digital-vaccine-passport/> (Accessed 8 Apr 21)

³⁷ Australians to have proof of their coronavirus vaccination on their smartphone. 7 Feb 21 <https://www.abc.net.au/news/2021-02-07/covid-19-vaccine-certificates-to-be-on-australians-smartphones/13130350> (Accessed 8 Apr 21)



| Country | Domestic use | International use |
|-----------------------|--|--|
| | on vaccine status. To date these have not been required. ³⁵³⁶ | |
| United Kingdom | The United Kingdom have a vaccine certificate for those who have received COVID-19 vaccinations. ³⁸ A vaccine certificate may form part of the plan to re-open non-essential businesses but is still the subject of debate. A vaccination certificate will not be required for the reopening steps set out on 12 April and 17 May but could be considered in the future, particularly for large events. This will be trialled during April and May, including at the FA Cup final. ³⁹ | The Government have not announced a vaccine certification requirement for international travel; however it is likely to be required, particularly if the EU continue to require a Green Digital Certificate for travel within the EU area. ⁴⁰ |
| China | There is currently no domestic requirement for a vaccination certificate within China. However, some city authorities are incentivising residents with food or shopping vouchers for those who present proof of vaccination. ⁴¹ | Requires incoming passengers to carry health certificates, but these do not exempt travellers from quarantine. ⁴² China has also launched digital vaccination certificates for cross-border travel. It is not yet clear which countries China would want to recognise its certificate, or whether it would change quarantine requirements. ⁴³ However, multiple Chinese embassies have indicated China will facilitate entry for those who have been vaccinated with Chinese vaccines. ⁴⁴ |
| Bahrain | The country has launched an app called 'BeAware' (originally for contact tracing), and now used to manage digital vaccine bookings. The app confirms an individual's immunity status. ⁴⁵ Using this app, only fully vaccinated people are able to access services including restaurants, gymnasiums, cinemas, and sporting events. ⁴⁶ | While the BeAware app certification is recognised domestically, it is unclear whether it will be accepted as proof of vaccination when visiting other countries. No countries have currently agreed to easing travel restrictions using this certification. ⁴⁷ |

³⁵ National Assessments Bureau "COVID-19 Vaccines: Managing the Borders". 23 March 2021. [RESTRICTED].

³⁶ Australians to have proof of their coronavirus vaccination on their smartphone. 7 Feb 21. <https://www.abc.net.au/news/2021-02-07/covid-19-vaccine-certificates-to-be-on-australians-smartphones/13130350> (Accessed 8 Apr 21)

³⁸ National Assessments Bureau "COVID-19 Vaccines: Managing the Borders". 23 March 2021. [RESTRICTED].

³⁹ Covid passports: Certification is 'one option', vaccines minister say. 7 Apr 21 <https://www.bbc.com/news/uk-56645208> (Accessed 9 Apr 21)

⁴⁰ Questions and Answers – Digital Green Certificate. 17 Mar 21 https://ec.europa.eu/commission/presscorner/detail/en/qanda_21_1187 (Accessed 8 Apr 21)

⁴¹ China Boosts Covid Vaccine Rollout at Home as Local Infections Flare Up. 5 Apr 21 <https://www.barrons.com/articles/china-boosts-covid-vaccine-rollout-as-local-infections-flare-up-51617633553> (Accessed 8 Apr 21)

⁴² National Assessments Bureau "COVID-19 Vaccines: Managing the Borders". 23 March 2021. [RESTRICTED].

⁴³ China launches COVID-19 vaccination certificates for cross-border travel. 9 Mar 21 <https://www.reuters.com/article/us-health-coronavirus-china-certificates-idUSKBN2B10LO> (Accessed 8 Apr 21)

⁴⁴ Entering China is now easier for people who have a vaccine – but only if it's made in China. 17 Mar 21 <https://www.cnn.com/2021/03/17/china-relaxes-border-restrictions-for-those-who-received-china-made-vaccines.html> (Accessed 8 Apr 21)

⁴⁵ Bahrain launches digital COVID-19 'vaccine passport'. 18 Feb 21 <https://www.mobihealthnews.com/news/emea/bahrain-launches-digital-covid-19-vaccine-passport> (Accessed 18 Feb 21)

⁴⁶ Additional responses to be implemented starting from the first day of the Eid al-Fitr holiday. 6 Apr 21 <https://healthalert.gov.bh/en/article/the-national-medical-task-force-for-combatting-the-coronavirus-covid-19-06-04-2021> (Accessed 8 Apr 21)

⁴⁷ Bahrain launches digital COVID-19 'vaccine passport'. 18 Feb 21 <https://www.mobihealthnews.com/news/emea/bahrain-launches-digital-covid-19-vaccine-passport> (Accessed 18 Feb 21)



7. The following table details some of the international vaccine certification applications under development.

| App | Description |
|----------------------------|---|
| IATA Travel Pass | <p>IATA is developing the 'IATA Travel Pass,' a digital platform for passengers designed to give governments the confidence to open borders.⁴⁸</p> <p>The Travel Pass will include four modules:</p> <ul style="list-style-type: none"> • Registry of Health Requirements – to enable passengers to find information on travel, testing and vaccine requirements for their journey • Registry of testing/vaccination centres – to enable passengers to find testing centres and labs at their departure and/or arrival location that can conduct COVID-19 tests in accordance with the type of test required for their journey • Lab App – enables authorised labs and test centres to securely send test results or vaccination certificates to passengers • Travel Pass App – enables passengers to create a 'digital passport', verify their test/vaccination meets the required regulations, and share test or vaccination certificates with authorities to facilitate travel <p>Twenty-four airlines are in the process of trialling the IATA Travel Pass, including Air New Zealand and Qantas.⁴⁹ Air New Zealand has announced plans to trial the Travel Pass on flights between Auckland and Sydney in April.⁵⁰</p> <p>The Travel Pass is primarily based on smartphones, but there are intended to be paper-based alternatives for those without mobile phones, and also for families.</p> <p>The first full pilot of the pass was carried out on 15 March 2021 using a Singapore-London flight. The public App launch is expected in mid-April 2021.</p> <p>The Travel Pass has been designed without a central database to ensure that data privacy is maintained, with individual data stored only on an individual's phone and then submitted from them to the relevant third party as required.</p> <p>The Travel Pass is not intended to verify labs, vaccination certificates or testing centres, but only provides a registry of this information based on the requirements of countries a passenger is travelling to and from.</p> |
| Common Pass | <p>The 'CommonPass' has been used for COVID-19 testing (not vaccination) verification on some flights between New York, Boston, London, Singapore and Hong Kong with United, JetBlue, Lufthansa, Swiss International and Virgin Atlantic.⁵¹ The app already has the ability to hold vaccination status and could be used to facilitate vaccination information to airlines and border agencies. The CommonPass was created by The Commons Project in partnership with the World Economic Forum.⁵²</p> |
| Digital Health Pass | <p>Developed by IBM, this can be customised and used depending on individual organisations. An issuing organisation can generate a verifiable credential, sending it to an individual who can then share it with a verifying organisation.⁵³</p> |
| VeriFLY | <p>'VeriFLY' compiles real-time wellness information from self-certified health questionnaires and/or diagnostic COVID-19 test results from over 20,000 performing labs and provides digital badging, proof of test status for both antibody or viral testing, and (in the future) proof of vaccine.</p> |
| Health Pass | <p>The 'Health Pass' uses the 'CLEAR' app to integrate COVID-19 test results and labs. It will shortly be able to confirm and hold vaccination records also.⁵⁴ The app uses biometrics (iris and fingerprint technology) to identify individual and link to health and vaccination records.⁵⁵</p> <p>The CLEAR technology is already used in airports for security and customs. It will now be used at NBA games if testing or vaccination status confirmation is required.⁵⁶</p> |

⁴⁸ IATA Travel Pass Initiative. <https://www.iata.org/en/programs/passenger/travel-pass/> (Accessed 7 Apr 21)

⁴⁹ IATA Travel Pass Q&A. <https://www.iata.org/contentassets/2b02a4f452384b1fbae0a4c40e8a5d0c/travel-pass-faqs.pdf> (Accessed 7 Apr 21)

⁵⁰ Air New Zealand to trial IATA Travel Pass on Auckland-Sydney route. 22 Feb 21 <https://www.businessstraveller.com/business-travel/2021/02/22/air-new-zealand-to-trial-iata-travel-pass-on-auckland-sydney-route/> (Accessed 8 Apr 21)

⁵¹ Common Pass site <https://commonpass.org/> (Accessed 9 Apr 21)

⁵² Vaccine passports – a guide to the different options. 6 Apr 21 <https://www.businessstraveller.com/features/vaccine-passports-a-guide/> (Accessed 9 Apr 21)

⁵³ IBM Digital Health Pass. <https://www.ibm.com/products/digital-health-pass> (Accessed 9 Apr 21)

⁵⁴ ClearMe. Health Pass. <https://www.clearme.com/healthpass> (Accessed 9 Apr 21)

⁵⁵ ClearMe. Vaccine Validation. <https://www.clearme.com/vaccine-validation> (Accessed 9 Apr 21)

⁵⁶ NBA. NBA Clear. <https://www.nba.com/news/nba-clear-announce-new-partnership> (Accessed 9 Apr 21)



| App | Description |
|---------|--|
| AOKpass | 'AOKpass' was created by a private Singapore-based technology development firm, in partnership with the International Chamber of Commerce, International SOS and SGS Group. ⁵⁷ Air France are trialling this app on flights between Paris, Fan Francisco and Los Angeles to allow customers to record the results of COVID-19 tests carried out in some laboratories. The intent is that the app could be extended to include vaccination records for travel purposes. ⁵⁸ |

World Health Organisation and International Civil Aviation Organisation contexts

8. The following summarises the status of the most recent World Health Organisation ("WHO") and International Civil Aviation Organisation ("ICAO") positions and action relating to vaccine certificates.

World Health Organisation

9. In June 2007, the WHO-backed 'International Certificate for Vaccination and Prophylaxis'⁵⁹ replaced the 1969 international certificate of vaccination against yellow fever. The International Certificate for Vaccination Prophylaxis is in accordance with the International Health Regulations 2005. This is the most well recognised vaccination certificate in use globally.
10. On 5 February the WHO stated its position was that national authorities and conveyance operators should not introduce requirements of proof of COVID-19 vaccination to enable travel.⁶⁰ This position was to be reassessed in April. Instead, countries are being advised to take a risk-based approach to international travel. Proof of vaccination is not recommended to enable travel at this time due to the current critical unknowns regarding the efficacy of vaccination in reducing COVID-19 transmission, and the risk that preferential vaccination of those travelling could result in shortage of vaccines for at-risk populations who are not travelling.
11. In December 2020, the WHO called for nominations of experts to contribute to a Smart Vaccination Certificate ('SVC') Working Group. This Group is focused on establishing standards for a common architecture for a digital SVC that can be used for COVID-19 and all other relevant vaccines in time.⁶¹
12. In March 2021, the WHO SVC Working Group published interim guidance for developing an SVC.⁶² This guidance was developed in collaboration with a multi-disciplinary group of experts.
13. The guidance is being released in three separate releases. Release 1 (the current release) covers:
 - Business requirements for an SVC
 - Guidance for establishing national trust frameworks for issuing and validating SVCs
 - Business requirements for a global trust framework for validation and verification of SVCs
14. Release 2 (expected at the end of April 2021) will cover ethical and privacy considerations of an SVC, and further detail on the technical specifications for a global trust framework for verifying and validating SVCs.
15. Release 3 (expected at the end of May 2021) will include a further iteration of the technical specifications for a national SVC and a comprehensive specifications document for a global trust framework.

⁵⁷ AOK Pass. <https://www.aokpass.com/en/> (Accessed 9 Apr 21)

⁵⁸ Mark Caswell. Air France to trial AOKpass. <https://www.business traveller.com/business-travel/2021/03/23/air-france-to-trial-aokpass-on-routes-to-la-and-san-francisco/> (Accessed 9 Apr 21)

⁵⁹ Strengthening health security by implementing the International Health Regulations (2005) https://www.who.int/ihr/ports_airports/icvp/en/ (Accessed 8 Apr 21)

⁶⁰ Interim position paper: considerations regarding proof of COVID-19 vaccination for international travellers. 5 Feb 21 <https://www.who.int/news-room/articles-detail/interim-position-paper-considerations-regarding-proof-of-covid-19-vaccination-for-international-travellers> (Accessed 7 Apr 21)

⁶¹ Smart Vaccination Certificate Working Group. <https://www.who.int/groups/smart-vaccination-certificate-working-group> (Accessed 7 Apr 21)

⁶² Call for public comments: Interim guidance for developing a Smart Vaccination Certificate. 19 Mar 21 <https://www.who.int/news-room/articles-detail/call-for-public-comments-interim-guidance-for-developing-a-smart-vaccination-certificate-release-candidate-1> (Accessed 8 Apr 21)



International Civil Aviation Organisation

16. The ICAO is a United Nations Specialised Agency and serves as the global forum of States for international civil aviation.⁶³ The ICAO sets international standards and recommendations for practice, develops policies, undertakes compliance audits, performs studies and analyses, and builds capacity for civil aviation within the United Nations system.⁶⁴ The ICAO also prepares guidance to states across all facets of civil aviation; developed in collaboration with the WHO and industry bodies.⁶⁵
17. The ICAO has already established a recommended minimum dataset for testing certificates. This was to facilitate member countries to support recognition and harmonization of their use for air travel.⁶⁶ The recommended requested information includes; personal details, name and country of testing facility, date and time of test, type and result of test and sampling method.⁶⁷

Further Considerations

18. Implementation of international vaccine certification is likely to present challenges, some of which are listed below. Some of these have previously been provided in a report from the National Assessments Bureau, "COVID-19 Vaccines: Managing the Borders"⁶⁸ and are further summarised below.

Political considerations

19. Different countries' risk tolerances will differ, and some vaccines may be more or less acceptable to different countries, risking diplomatic tensions.⁶⁹
20. Many countries are likely to require some sort of COVID-19 certification to allow travel. New Zealand will likely need to consider whether to adopt a vaccine certification structure used by other countries, or to set its' own. An option is for New Zealand to be a 'fast follower', rather than a leader in the development of vaccine certification, given New Zealand is a relatively small country. It is also possible that the precedent will be set by other countries that are travel hubs.
21. Requiring people to get a vaccination certificate before international travel may incentivise some of those reluctant to get vaccines to get vaccinated.

Equitable considerations

22. Some people have limited access to technology which may be prohibitive for utilising digital vaccine passports.⁷⁰ Whilst many providers of digital options also offer a physical copy of the document, in some instances this requires the person to print it. For individuals with limited access to technology this may be prohibitive.
23. Communities and countries who do not have access to the vaccine will not be able to get the certification required to travel, as well as individuals who do not consent to, or for medical reasons cannot receive, the vaccine.⁷¹
24. The WHO has expressed concern that countries may favour vaccinating lower risk groups to enable them to travel, which may create supply shortages and delay vaccinating populations at higher risk from COVID-19.⁷²

⁶³ Briefing provided to Minister Hipkins from Ministry of Transport. [RESTRICTED] 26 March 21

⁶⁴ Briefing provided to Minister Hipkins from Ministry of Transport. [RESTRICTED] 26 March 21

⁶⁵ Briefing provided to Minister Hipkins from Ministry of Transport. [RESTRICTED] 26 March 21

⁶⁶ Briefing provided to Minister Hipkins from Ministry of Transport [RESTRICTED]. 26 March 21

⁶⁷ ICAO Council Aviation Recovery Task Force: Take-off: Guidance for Air Travel through the COVID-19 Public Health Crisis Third Edition. 10 Mar 21
https://www.icao.int/covid/cart/Documents/CART%20III_Take-off%20Guidance%20for%20Air%20Travel%20through%20the%20COVID-19%20Public%20Health%20Crisis.en.pdf (Accessed 9 Apr 21)

⁶⁸ National Assessments Bureau "COVID-19 Vaccines: Managing the Borders". 23 March 2021. [RESTRICTED]

⁶⁹ National Assessments Bureau "COVID-19 Vaccines: Managing the Borders". 23 March 2021. [RESTRICTED]

⁷⁰ National Assessments Bureau "COVID-19 Vaccines: Managing the Borders". 23 March 2021. [RESTRICTED]

⁷¹ National Assessments Bureau "COVID-19 Vaccines: Managing the Borders". 23 March 2021. [RESTRICTED]

⁷² World Health Organisation. Interim Position Paper. 5 Feb 2021. <https://www.who.int/news-room/articles-detail/interim-position-paper-considerations-regarding-proof-of-covid-19-vaccination-for-international-travellers> (Accessed 9 Apr 21).



25. Certification has the risk that it can effectively turn travel into a “haves” vs “have nots” activity, which risks entrenching inequities. This raises the question of whether it would fracture the “team of 5 million” narrative New Zealand has used in managing COVID-19.

Scientific considerations

26. As scientific understanding of COVID-19 and the vaccine increases, the requirements for vaccine certification will likely change. No vaccine is completely effective at protecting a person against infection or disease or breaking the chain of transmission. All vaccines have different levels of efficacy, and each vaccine’s efficacy varies depending on the virus variant in question. Additionally, the extent to which COVID-19 vaccines prevent transmission (as distinct from protecting against symptomatic disease) is yet to be resolved with high confidence. These scientific considerations will likely complicate any passporting system.⁷³
27. As further scientific understanding arises, changes to the length of time a vaccine certificate is valid may result in stranded or confused passengers.⁷⁴

Technological considerations

28. Different countries, companies, and organisations are creating their own vaccine certificate versions. This may create issues for interoperability and recognisability.
29. There are also risks of fake and forged documents.⁷⁵ Internationally, advertisements for fake COVID-19 vaccination documentation on the dark web have increased by approximately 300% since January (currently there are over 1,200).⁷⁶ For example, fake vaccination cards which fraudulently appear as if they have been issued by the Centers for Disease Control and Prevention (CDC) are available for purchase.⁷⁷ There have also been issues with early generations of the QR codes in Israel being forged.⁷⁸
30. Technological processes require systems to support them. There may be issues with system stability, for example, in Israel when their app was first rolled out, systems supporting it were unable to cope.⁷⁹

Privacy and data considerations

31. There are data security and privacy concerns. Analysis from internet advocacy website TOP10VPN showed that 82 percent of the COVID-19 certificate apps in operation globally have privacy policies considered inadequate, and 41 percent can monitor users’ precise location.⁸⁰
32. There are also concerns that vaccine certificates could normalise health surveillance.⁸¹ The Ada Lovelace Institute convened a panel which considered the risk of normalising health status surveillance by creating long-term infrastructure created to respond to a temporary crisis. The panel also expressed the view that digital identity systems could be introduced as part of an emergency infrastructure, but used for a different or expanded purpose, or what is known as “scope creep”.⁸²

⁷³ National Assessments Bureau “COVID-19 Vaccines: Managing the Borders”. 23 March 2021. [RESTRICTED]

⁷⁴ National Assessments Bureau “COVID-19 Vaccines: Managing the Borders”. 23 March 2021. [RESTRICTED]

⁷⁵ National Assessments Bureau “COVID-19 Vaccines: Managing the Borders”. 23 March 2021. [RESTRICTED]

⁷⁶ Cybercriminals are increasingly selling forged vaccination certificates on the darknet. 24 Mar 21
<https://fortune.com/2021/03/23/covid-vaccine-cards-fake-vaccination-certificates-darknet-cyber-criminals-selling/>
(Accessed 1 Apr 21)

⁷⁷ Hackers offering forged “official” COVID vaccination certificates and negative test results on dark net. 24 Mar 21
<https://securitybrief.co.nz/story/hackers-offering-forged-official-covid-vaccination-certificates-and-negative-test-results-on-dark-net> (Accessed 31 Mar 21)

⁷⁸ Building a Covid Travel Passport is a Serious Tech Challenge. 24 Mar 21 <https://www.bloomberg.com/news/articles/2021-03-24/covid-19-vaccine-passports-face-security-concerns-technical-glitches> (Accessed 8 Apr 21)

⁷⁹ What is Israel’s green pass system and how does it work. 6 Apr 21 <https://www.independent.co.uk/news/world/middle-east/israel-green-pass-covid-passport-england-b1826771.html>, (Accessed 7 April 2021)

⁸⁰ COVID-19 Digital Rights Tracker. 21 Mar 20 <https://www.top10vpn.com/research/investigations/covid-19-digital-rights-tracker/> (Accessed 8 Apr 21)

⁸¹ National Assessments Bureau “COVID-19 Vaccines: Managing the Borders”. 23 March 2021. [RESTRICTED]

⁸² Covid-19 vaccine passports not immune to privacy concerns. 1 Apr 21 <https://privacy.org.nz/blog/covid-19-vaccine-passports-not-immune-to-privacy-concerns/>
(Accessed 8 Apr 21)