

# A pragmatic approach to COVID-19 vaccine passport

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## INTRODUCTION

While COVID-19 vaccine roll-outs are gaining momentum globally, the issue of vaccine passports is generating debate among policy-makers and public health specialists. As lockdown measures to contain the spread of the virus has been crippling the economy, curtailing civil liberty and confining people to their homes, governments worldwide have been exploring the potential of vaccine passport to allow more freedom of domestic movements aiming at eventually allowing international travel.<sup>1</sup> However, this move has attracted concerns due to several challenges and perceived ethical issues.<sup>2,3</sup> Despite these, many governments are exploring strategies to find a balance between protecting public health and returning life to near normal.

A vaccine passport and other public health measures have been considered a tool for achieving the balance to minimise the impacts of repeated lockdowns and strict travel restrictions. The USA and the UK have been debating on the introduction of vaccine passports for domestic use. The European Union (EU) has already introduced one for international travel, while Australia is considering implementation strategies. Israel became the first country to introduce a 'green pass' allowing vaccinated people to access community activities, large gatherings and eating out in restaurants.<sup>4-7</sup> However, whether other countries will adopt the Israeli or EU models<sup>5</sup> for domestic use or international travel remains to be seen. As WHO is developing a governance framework and specifications of a digital vaccination certificate,<sup>8</sup> it is essential to devise appropriate stages of introducing such a certificate by addressing authenticity, ethical challenges, user-friendliness and individual country's need.

## Summary box

- ▶ COVID-19 outbreaks and the repeated lockdowns to control its spread have significantly impacted people's social life, physical and mental health, and the global economy.
- ▶ With the advent of safe and effective vaccines, a vaccine passport or certificate might be a potential tool to protect public health and returning life to as normal as possible.
- ▶ A graduated introduction of vaccine passport before full-scale use appears as a pragmatic approach using the latest evidence and safeguarding ethical concerns.
- ▶ The rights and privileges attached to a vaccine passport may motivate many individuals hesitant to get vaccinated and thus contribute to achieving herd immunity.

## A NEW VERSION OF AN OLD TOOL

Although the term 'vaccine passport' has been widely discussed since the advent of WHO approved COVID-19 vaccines, proof for immunisation as a requirement of accessibility is far from a new concept. The vaccine scar often served as proof of immunity, allowing screened access to train travel in some jurisdictions during the campaign for smallpox vaccination.<sup>9</sup> International Certificate of Vaccination exists under International Health Regulations, especially for yellow fever.<sup>10</sup> Similarly, compulsory meningococcal immunisation is required for Hajj pilgrims.<sup>11</sup> In Australia, childhood vaccination records are required to receive specific family tax benefits or school enrolments.<sup>12</sup> However, while developing strategies for vaccine passports, caution is needed to prevent its use as a tool for oppression by adopting appropriate safeguards.

## RATIONALE

Overall health and well-being of communities should be at the forefront in deciding and implementing public health measures,

especially periodic lockdowns which interrupt an individual's social life and health status. The scope and extent of such approaches vary and are based on risk–benefit trade-offs taking several criteria such as health risks, personal concerns, epidemiological factors, response capacities and socioeconomic variables into consideration.

The introduction of a vaccine passport needs to consider several uncertainties (e.g., duration of immunity, the possibility of reinfection).<sup>13</sup> Currently, there are no data on the level and duration of postinfection immunity in people recovered from COVID-19.<sup>14</sup> Introducing a vaccine passport for domestic and international travel might promote the further spread of the virus. Moreover, if the vaccine passport is based on an antibody test, it could be subjected to fraudulence due to the perceived social and economic benefit of a positive result.<sup>15</sup> Hence, a vaccine passport might be an incentive for returning to everyday life and eventually opening international travel as the approved vaccines are highly effective in preventing severe disease, hospitalisation and death and reducing transmission.<sup>16</sup> They remain largely efficacious against the highly transmissible Delta variant reinforcing ongoing usefulness.<sup>17</sup>

All this evidence gives confidence in these vaccines as appropriate tools for conferring immunity to the broader population for their unrestricted movement when combined with other public health measures, such as mask-wearing and social distancing. It is impractical for countries to remain in shutdown until herd immunity is achieved through mass vaccination. As there is widespread vaccine hesitancy in certain groups,<sup>18</sup> the introduction of a vaccine passport may play a pivotal role in incentivising vaccine-hesitant people to get vaccinated, as was evident in Israel.<sup>6</sup>

## PREVAILING TRENDS

Vaccine passports have been introduced in some countries allowing freedom of movement and returning to work without compromising the health-safety of individuals.<sup>19</sup> However, their approach varies in its application (e.g., solely for domestic purposes or international travel).<sup>6</sup> The introduction of Israel's 'Green Pass' has been followed by European Union's 'Digital COVID-19 Certificate' and Africa Centres for Disease Control and Prevention (CDC)'s 'My COVID-19 Pass'. While Israel's 'Green Pass' is aimed at allowing people to enjoy the benefit of attending large gatherings, sporting and cultural events, eating out in restaurants and accessing public venues, EU's digital COVID-19 certificate and Africa CDC's My COVID-19 Pass are aimed at allowing free movement of citizens within their member states.<sup>20 21</sup> The EU's digital COVID-19 certificate is issued to vaccinated people, those recovered from COVID-19 or returned a negative test result. However, a negative result doesn't preclude anyone from subsequently getting infected, and recovery from the infection is not confirmatory of a sustained immunity. France has also introduced a 'Health Pass'

to allow people to access restaurants, bars, planes and trains.<sup>6</sup>

## AN APPROACH TO GRADUATED IMPLEMENTATION

Amid the prevailing trends, emerging ideas, concerns and scepticism about the validity and utility of a vaccine passport, a carefully considered graduated implementation approach can instil enough confidence for its eventual widespread use. While countries like Australia have shut down their borders, residents can enjoy more freedom if vaccine passport holders can travel overseas and quarantine-free return as long as they test negative for COVID-19 on arrival.

A universal WHO framework agreed on by all members to allow quarantine-free international travel is warranted. Meanwhile, recommencing social life and economic activities within a country cannot wait for an ideal WHO recognised vaccine passport. Until such time, a vaccine passport may be accepted as a valid document among the countries within a particular region (e.g., the EU, the African Union) or under a quarantine free travel bubble agreement. However, such agreement, a graduated introduction of a vaccine passport for domestic use, appears more pragmatic and immediately implementable. Domestic use for exemption from lockdowns and unrestricted access to gatherings and public venues can be introduced as the first step of implementing a vaccine passport. The success of this first step can build confidence in this tool for facilitating the next step (e.g., its evolution to a universally accepted document for international travel).

Vaccine passports should be available in digital and paper versions for user-friendliness and contain only relevant information needed to protect users' privacy. The freedom of movement conferred by a vaccine passport should be subject to expiry, amendments and cancellation and be integrated with other measures such as physical distancing, mask-wearing and supported by ongoing scientific evidence. When implemented, it should be combined with a negative COVID-19 test result on departure and arrival for international travel.

## ETHICAL CONSIDERATIONS

The vaccine passport must be based on solid scientific evidence. Proof of recovery from infection or a negative test result should not be used as an immunity certificate due to a lack of scientific evidence. Moreover, a vaccine passport should only be issued after recommended waiting time following the second dose of a vaccine, for example, after 1 week of completing the second dose of Pfizer/BioNTech and 3 weeks of the second dose of the Oxford/AstraZeneca vaccine.<sup>22</sup> A vaccine passport can remain valid for a specific period with provision for further renewal as data on the vaccines' long-term effectiveness and the need for subsequent booster dose becomes available and while their ongoing efficacy against mutant variants is closely monitored.

There remains a wide gap and inequity in vaccination, especially in developing countries, that can create discrimination between the haves and have-nots and undermine global solidarity in the fight against the pandemic.<sup>2</sup> Concerns have also been raised about populations with limited vaccine access will be unable to obtain a vaccine passport and thus will be deprived of their civil rights.<sup>19</sup> A vaccine passport might widen the north-south divide by creating a situation where vaccinated people from affluent countries can travel while unvaccinated people from developing countries are barred.<sup>3</sup> Furthermore, the legality of access to vaccination data by the workplaces, travel operators and entertainment venues and technical challenges of issuing and using vaccine passports must be addressed.<sup>3</sup>

First, a vaccine passport is unlikely to widen the prevailing travel divide between the developed and developing nations. Only a small percentage of people from developing countries travel overseas, and businesspeople and overseas travellers from these countries are likely to get vaccinated first. Second, despite unequal distribution and access to vaccines, most countries already achieved some degree of coverage. A vaccine passport might help to address lockdowns effects and ultimately reopen the economy and trade. Not doing so will instead worsen those economies and reinforce inequity between the rich and the poor. Third, a vaccine certificate is unlikely to add a financial burden on people where vaccines are offered free. In countries where vaccines are not free, the cost of vaccination might still be cheaper than the loss of income attributed to remaining under lockdown. However, the WHO and international communities need to ensure fair and equitable access to vaccines for all people in countries where vaccines are not available to protect their citizens, starting with the most vulnerable who are most likely to be affected. Fourthly, as vaccinated people are less likely to get infected or transmit the virus as long as they abide by other public health measures,<sup>20 23</sup> suppressing their rights will rather be unethical. Fifth, while it takes a long time to achieve mass vaccination, the vaccinated people should not remain under lockdown. Finally, as there are growing discontents and resentments over repeated lockdowns, not allowing the vaccinated population, some exemptions will be counterproductive and add to that resentment.

## CONCLUSION

A vaccine passport might be a path to regaining freedom of movement that has been curtailed by repeated lockdowns and travel restrictions and a key to reinvigorating national economies. A graduated introduction of a vaccine passport appears to be the most logical approach that can safeguard credibility, ethical considerations and technical soundness while allowing for evolving for broader use. This approach will enable appropriate monitoring and addressing emerging challenges and shortcomings and guard against any false sense of security.

A vaccine passport should also be tailored according to each country's requirements, logistics and epidemiological determinants. Success in the domestic arena will help convince WHO and regulatory authorities to develop an internationally accepted framework for COVID-19 vaccine passport taking care of all ethical, legal and technical aspects.

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## REFERENCES

- Wilson K, Flood CM. Implementing digital passports for SARS-CoV-2 immunization in Canada. *CMAJ* 2021;193:E486–8.
- Voigt K, Nahimana E, Rosenthal A. Flashing red lights: the global implications of COVID-19 vaccination passports. *BMJ Glob Health* 2021;6:e006209.
- Osama T, Razai MS, Majeed A. Covid-19 vaccine passports: access, equity, and ethics. *BMJ* 2021;373:n861.
- Pavli A, Maltezou HC. COVID-19 vaccine passport for safe resumption of travel. *J Travel Med* 2021;28.
- How does Australia's new digital vaccination certificate work? Available: <https://www1.racgp.org.au/newsgp/clinical/how-does-australia-s-new-digital-vaccination-cert>
- Hall MA, Studdert DM. "Vaccine passport" certification — policy and ethical considerations. *N Engl J Med Overseas Ed* 2021;385:e32.
- Covid Passports: how do they work around the world? Available: <https://www.bbc.com/news/world-europe-56522408>
- WHO. Interim position paper: considerations regarding proof of COVID-19 vaccination for international travellers. Available: <https://www.who.int/news-room/articles-detail/interim-position-paper-considerations-regarding-proof-of-covid-19-vaccination-for-international-travellers>
- Keelan J. Risk calculus and theories of viral attenuation in debates over compulsory smallpox vaccination in Montreal, 1870–1877. In: *Crafting immunity: working histories of immunological practice (history of medicine in context)* Farnham (UK). Ashgate Publishing, 2008: 29–54.
- Organization WH. *International health regulations (2005)*. World Health Organization, 2008.
- Badahdah A-M, Alghabban F, Falemban W, et al. Meningococcal vaccine for hajj pilgrims: compliance, predictors, and barriers. *Trop Med Infect Dis* 2019;4:127.
- Families and children. Available: <https://www.dss.gov.au/our-responsibilities/families-and-children/benefits-payments/strengthening-immunisation-for-young-children>
- Chen LH, Freedman DO, Visser LG. COVID-19 immunity Passport to ease travel restrictions? *J Travel Med* 2020;27. doi:10.1093/jtm/taaa085. [Epub ahead of print: 20 Aug 2020].
- Brown RCH, Savulescu J, Williams B, et al. Passport to freedom? immunity passports for COVID-19. *J Med Ethics* 2020;46:652–9.

- 15 Bramstedt KA. Antibodies as currency: COVID-19's golden Passport. *J Bioeth Inq* 2020;17:687–9.
- 16 Doroftei B, Ciobica A, Ilie O-D, *et al.* Mini-review discussing the reliability and efficiency of COVID-19 vaccines. *Diagnostics* 2021;11:579.
- 17 Lopez Bernal J, Andrews N, Gower C, *et al.* Effectiveness of Covid-19 vaccines against the B.1.617.2 (delta) variant. *N Engl J Med Overseas Ed* 2021;385:585–94.
- 18 Dror AA, Eisenbach N, Taiber S, *et al.* Vaccine hesitancy: the next challenge in the fight against COVID-19. *Eur J Epidemiol* 2020;35:775–9.
- 19 Mbunge E, Dzinamarira T, Fashoto SG, *et al.* Emerging technologies and COVID-19 digital vaccination certificates and passports. *Public Health Pract* 2021;2:100136.
- 20 Brown RCH, Kelly D, Wilkinson D, *et al.* The scientific and ethical feasibility of immunity passports. *Lancet Infect Dis* 2021;21:e58–63.
- 21 Trusted Vaccines. Available: <https://africacdc.org/trusted-vaccines/>
- 22 Polack FP, Thomas SJ, Kitchin N, *et al.* Safety and efficacy of the BNT162b2 mRNA Covid-19 vaccine. *N Engl J Med* 2020;383:2603–15.
- 23 EU Digital Covid Certificate. Available: [https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/safe-covid-19-vaccines-europeans/eu-digital-covid-certificate\\_en](https://ec.europa.eu/info/live-work-travel-eu/coronavirus-response/safe-covid-19-vaccines-europeans/eu-digital-covid-certificate_en)