

Health Protocol and Certification for International Travelling

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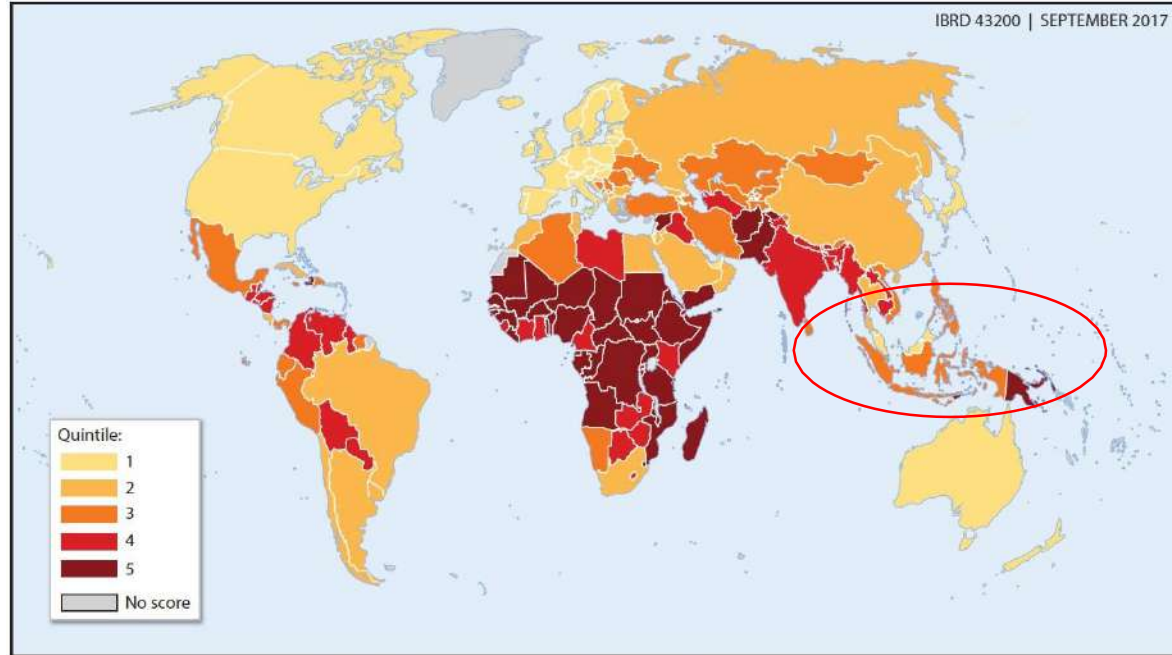
CENTER OF EXCELLENCE IN HIGHER EDUCATION
FOR PHARMACEUTICAL CARE INNOVATION
UNIVERSITAS PADJADJARAN

Disclaimer

- I have no potential conflicts of interest to report.
- The expressed opinions in the following slides are those of the individual presenter.

We are **(not)** ready for the pandemic

as predicted in The 2017 Global Distribution of Epidemic Preparedness



Note: Countries are grouped into quintiles of epidemic preparedness (1 = most prepared, 5 = least prepared).

Pandemic **mitigation** scenarios

Curtailing interactions
between infected and
uninfected populations



Patient isolation, quarantine,
social distancing practices,
and school closures

Reducing
infectiousness of
symptomatic patients



Infection control
practices, antiviral and
antibiotic treatment

Reducing susceptibility
of uninfected
individuals



Vaccination

Jamison, D. T., H. Gelband, S. Horton, P. Jha, R. Laxminarayan, C. N. Mock, and R. Nugent, editors. 2018. Disease Control Priorities: Improving Health and Reducing Poverty. Disease Control Priorities (third edition), Volume 9. Washington, DC: World Bank.

Presented during ASEAN - ITTP - COVID19 Webinar Series: "Establishing Health Certificate For Travelling Within ASEAN Countries" on 24th April 2021

The potential public health and economic value of a hypothetical COVID-19 vaccine in the United States: Use of cost-effectiveness modeling to inform vaccination prioritization

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Key points

Covid-19 vaccination can be considered to be **cost-effective**

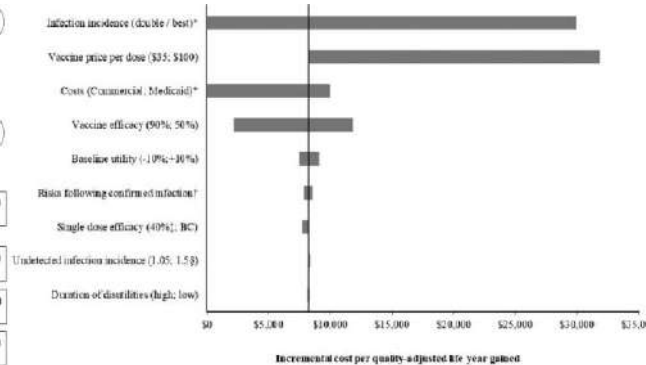
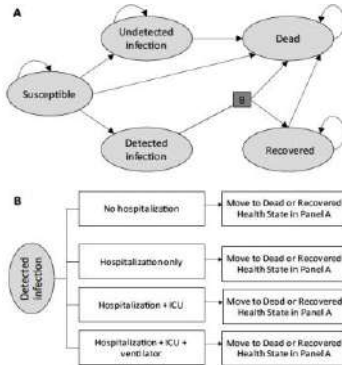
Covid-19 **vaccine availability** is critical on reducing morbidity and mortality rate

Infection incidence, vaccine price, vaccination cost and vaccine efficacy are the most influential parameters

im

Base case cost-effectiveness analysis results for the various tiers in each of the prioritization schemes.

| | Vaccination Tier | | | |
|---|--|---|---|-----------------|
| | 1 | 2 | 3 | 4 |
| Age-based prioritization scheme | | | | |
| Description ^a | 65+ yrs | 50-64 yrs | 18-49 yrs | n/a |
| # eligible for vaccination | 56,051,566 | 63,292,950 | 139,327,967 | - |
| Base case ICER ^{**} | Vaccination Dominates[†] | \$8,000 | \$94,000 | n/a |
| Risk-based prioritization scheme | | | | |
| Description ^a | <ul style="list-style-type: none"> Nursing homes 65+ yrs with or without serious medical condition | <ul style="list-style-type: none"> Serious medical condition, 18-64 years No serious medical condition, 50-64 yrs | <ul style="list-style-type: none"> No serious medical condition, 18-49 yrs | n/a |
| # eligible ICER for vaccination | 56,282,700 | 92,599,345 | 109,790,438 | - |
| Base case ^{**} | Vaccination Dominates[†] | \$10,000 | \$340,000 | n/a |
| Occupational-based prioritization scheme | | | | |
| Description ^a | Priority ^b and other critical occupations [‡] | 65+ yrs | 50-64 yrs | 18-49 yrs |
| # eligible for vaccination | 21,700,000 | 54,706,166 | 57,390,550 | 124,875,767 |
| Base case ICER ^{**} | \$20,000 | Vaccination Dominates[†] | \$8,000 | \$94,000 |



Kohli M, Maschio M, Becker D, Weinstein MC. The potential public health and economic value of a hypothetical COVID-19 vaccine in the United States: Use of cost-effectiveness modeling to inform vaccination prioritization. *Vaccine*. 2021 Feb 12;39(7):1157-1164.

Covid-19 **vaccination**: When will countries be **fully covered**?



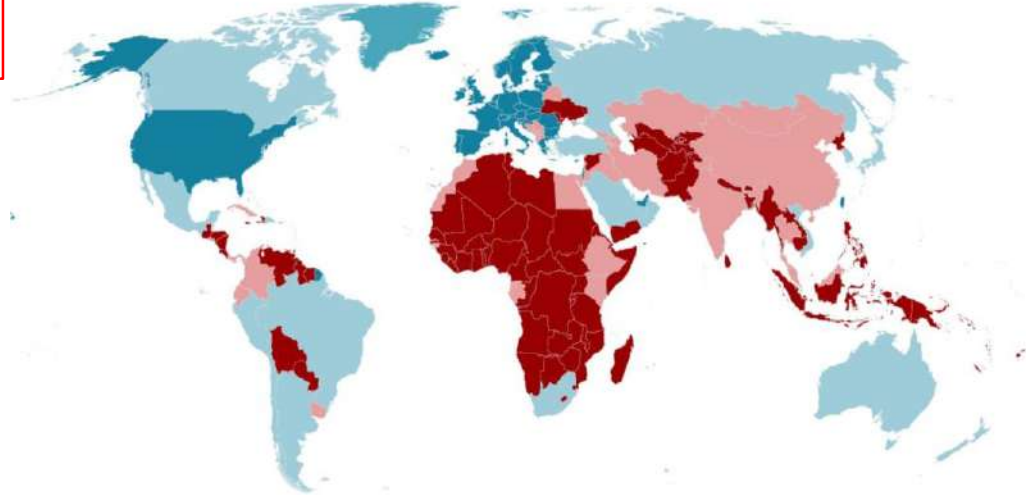
What's causing vaccine delays in some Asian countries?

8 March

Coronavirus pandemic



■ Late 2021 ■ Mid 2022 ■ Late 2022 ■ From early 2023



<https://www.bbc.com/news/world-asia-56150755>

Resuming **international travel**

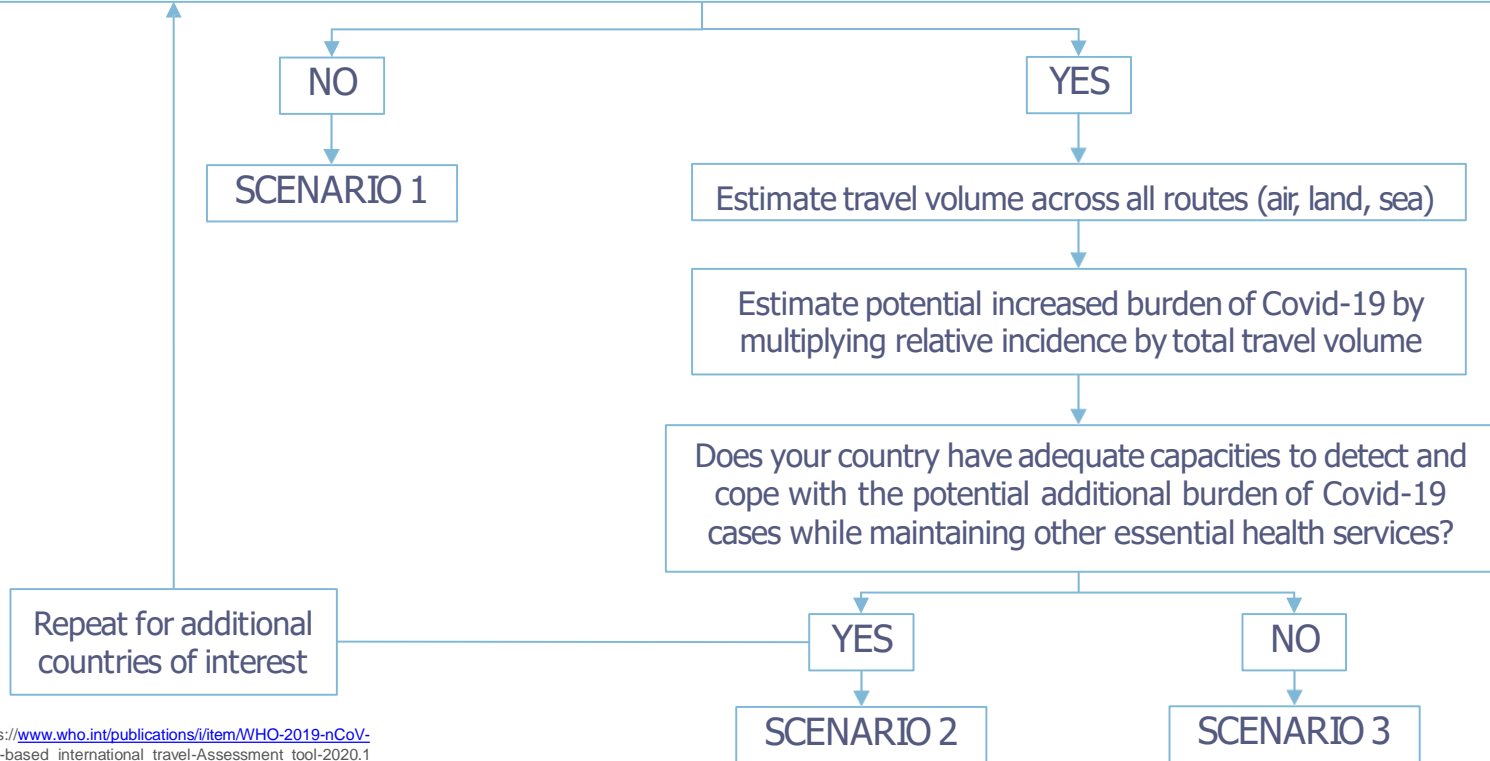
“There is **no zero risk** when considering the potential importation or exportation of cases in the context of international travel. Therefore, thorough and continuous **risk assessment** mitigate those risks, while balancing the **socio-economic consequences** of travel measures (or temporary restrictions) against potential adverse public health consequences.”

—World Health Organization

<https://www.who.int/news-room/articles-detail/public-health-considerations-while-resuming-international-travel>

Risk assessment for international travel

Is the projected 14-day incidence rate in the country of departure higher than the projected 14-day incidence rate in your country?
Assess it alongside other key indicators when they are available (e.g. mortality, testing positivity ratio, testing rates and testing strategy)



https://www.who.int/publications/item/WHO-2019-nCoV-Risk-based_international_travel-Assessment_tool-2020.1

Three **scenarios** in risk assessment

Scenario 1



The **country of departure** (or sum of multiple countries assessed) has a projected case incidence lower than or equal to that of **your country**

Scenario 2



The **country of departure** (or sum of multiple countries assessed) has a projected case incidence higher than **your country**, and **your country** has adequate capacities to cope with the increased burden

Scenario 3

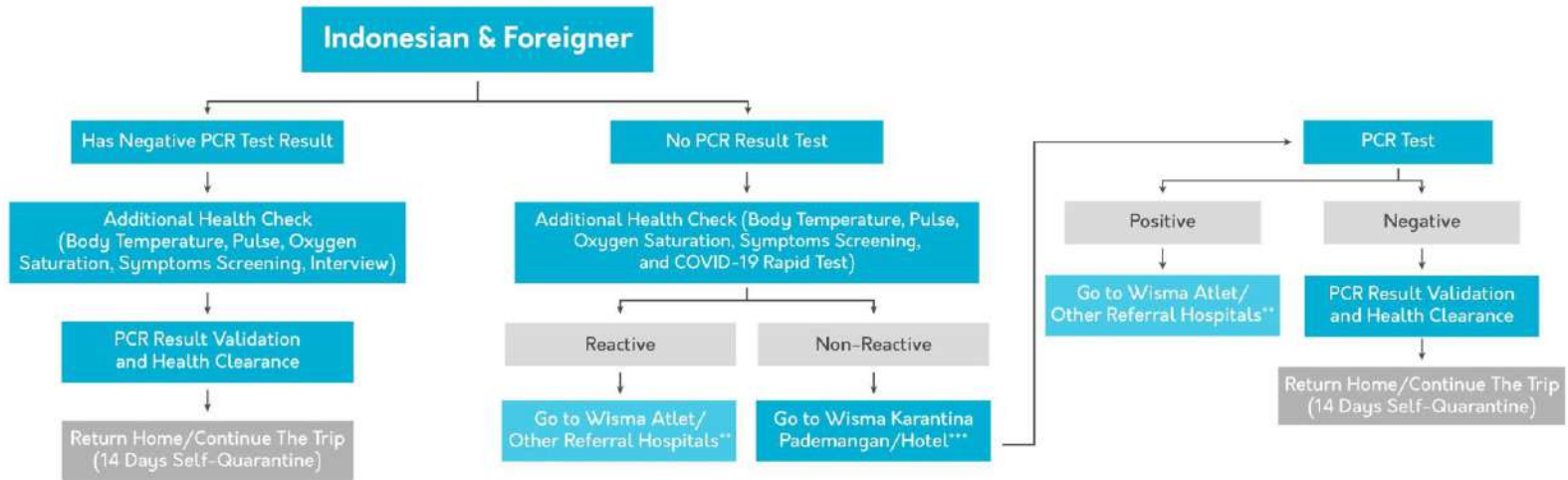


The **country of departure** (or sum of multiple countries assessed) has a case incidence higher than **your country**, and **your country** does not have adequate capacities to cope with an increased burden



Health protocol for international arrivals in Indonesia

Refer to Indonesia Ministry of Health letter SE No. HK.03.01/MENKES/338/2020 and COVID-19 Acceleration Task Force letter SE No. 7 of 2020



**This information is subject to change at any time according to local authorities' policies without prior notice*

*** Emergency COVID-19 Hospital for Reactive Patients*

**** Government quarantine facility for repatriated Indonesian citizens*

WHO's position paper regarding proof of COVID-19 vaccination for international travellers

“National authorities and conveyance operators should not introduce requirements of proof of Covid-19 vaccination for international travel as a condition for departure or entry, given that there are still **critical unknowns regarding the efficacy of vaccination** in reducing transmission. In addition, considering that there is **limited availability of vaccines**, preferential vaccination of travellers could result in **inadequate supplies of vaccines for priority populations** considered at high risk of severe Covid-19.”

<https://www.who.int/news-room/articles-detail/interim-position-paper-considerations-regarding-proof-of-covid-19-vaccination-for-international-travellers>



Certificate/Passport of Vaccination/Immunity

Certificate

A document describing the medical situation of the individuals who hold it (combination of electronic and paper-based methods)

Passport

Understood as being a one stop shop for all information to enable travel (e.g., test results, vaccinations and details of previous infection)

Vaccination Certificate

Proof of vaccination

Immunity Certificate

Proof of immunity or low risk of reinfection to Covid-19 (through serological test for antibodies)

Vaccination Passport

Proof of vaccination and negative PCR test

Immunity Passport

Proof of vaccination, antibodies following infection and negative PCR test



Smart vaccination certificate (SVC)



SPECIFICATIONS & GUIDANCE DOCUMENTATION

1. Specifications document for a **digital vaccination certificate** (Smart Vaccination Certificate, SVC) for **national** level adoption
2. Implementation guidance for establishing **national trust frameworks** for issuing and validating trusted SVC
3. Specifications document for an **international trust framework** for validation of SVC

COUNTRY SUPPORT

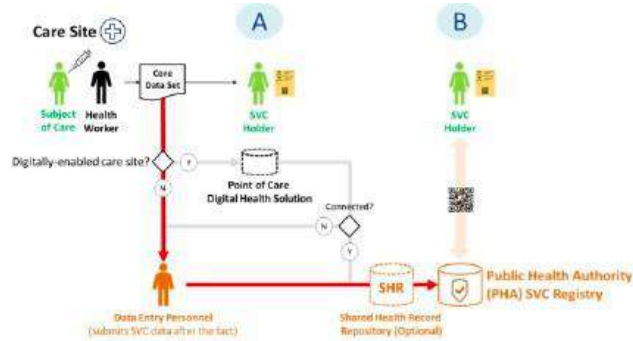
4. **White labelled applications** (reference implementations) for a digital vaccination certificate
5. **Community of practice** for sharing lessons learned in implementation of SVC across multiple countries
6. **Technical support to LMICs** at varying levels of immunization information system maturity through WHO, expert roster, and multi-agency support mechanisms
7. **Financing** to country-level implementation from COVAX mechanism

GLOBAL DIGITAL SERVICES

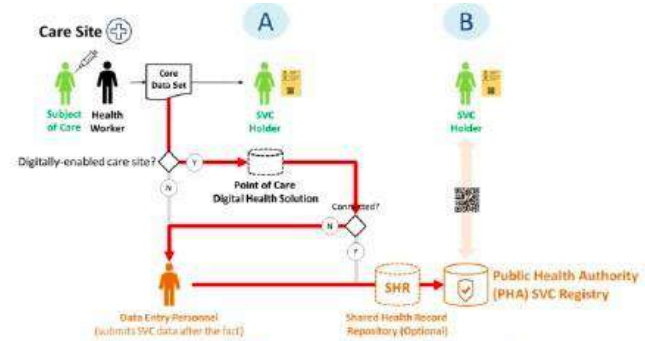
8. **WHO SMART Directory** of **public keys** for verifying and validating digital vaccine certificates
9. **Pre-qualified applications and verifiers** using Digital solutions clearing house mechanism
10. **Vaccine product registry**

<https://www.who.int/publications/m/item/interim-guidance-for-developing-a-smart-vaccination-certificate>

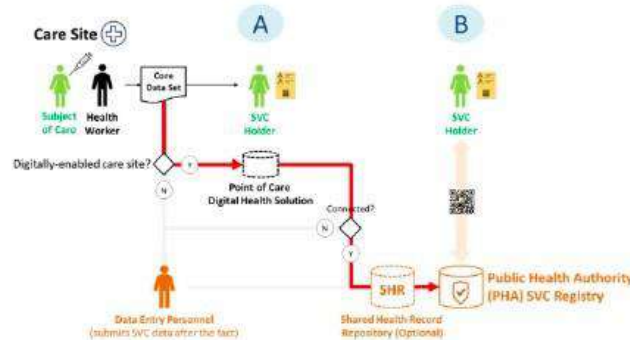
Continuity of SVC's care scenario variations



UC001 – “paper-first”



UC002 – offline digital health



UC003 – online digital health

<https://www.who.int/publications/m/item/interim-guidance-for-developing-a-smart-vaccination-certificate>

A scoping review of **global vaccine certificate** solutions for COVID-19

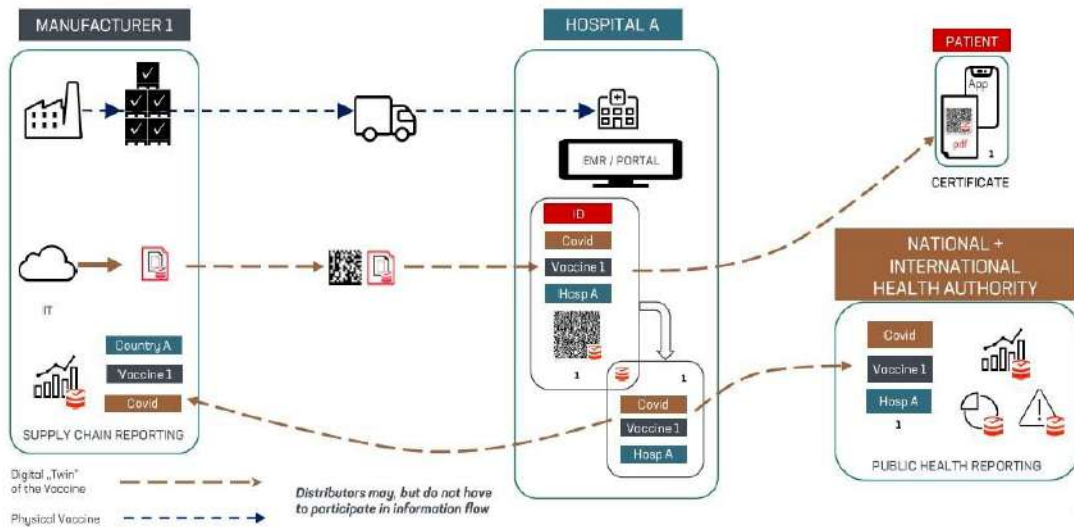
| Country | Status | Approach |
|---------------|----------------|--|
| Estonia | Implemented | In pilot stage Vaccine Guard developed in collaboration with the World Health Organization and Guardtime |
| Denmark | Implemented | It has launched its own Corona passport. The passport grants the privilege to vaccinated citizens to travel beyond country borders. Vaccinated citizens are able to download the certificate from a government website. The government will soon be issuing digital certificates for business travellers |
| USA | Considering it | Details are not yet released |
| UK | Considering it | The proposals are being discussed at the Cabinet's COVID operational committee. There is no final decision yet |
| Pakistan | Considering it | Work in progress Vaccify by Trust Net Pakistan |
| India | Considering it | Work in progress DigiLocker - A government platform for issuing and verifying documents and vaccine certificate digitally |
| Russia | Considering it | Work in progress Covid passports would possibly be in a digital form |
| Finland | Considering it | The vaccine certificate would be available on "My Kanta" which is a nation-wide service platform for accessing health records |
| Australia | Considering it | It will allow people to access digital proof of vaccination via the Express Plus Medicare app and MyGov accounts. Approval is expected by March A paper form will also be available through Services Australia or through the vaccine provider |
| Italy | Considering it | Details are not yet released |
| Sweden | Considering it | Details are not yet released |
| Canada | Considering it | Details are not yet released |
| Switzerland | Considering it | Details are not yet released |
| Spain | Considering it | Spain supports the creation of a European Union document favouring vaccine certificate |
| Israel | Implemented | Green pass provides both digital and downloadable paper certificates. It shows whether the user is vaccinated and/or has a recent negative test |
| EU Commission | Implemented | Officially introducing Digital Green Certificate which will be available in both digital and paper format. Vaccine certificate will show details of inoculation and brand used, negative test certificates, and medical certificates for people who have recovered from COVID-19 in the last 180 days. Intended for travel between all EU countries. |

<https://assets.researchsquare.com/files/rs-334258/v2/550a2986-b913-4a0d-ae2c-32801e1462f8.pdf>

Lessons learned from **Estonia**

HOW GUARDTIME VACCINEGUARD HELPS CURB COVID EPIDEMICS

VACCINEGUARD BY GUARDTIME LINKING VACCINATION RECORD WITH END-TO-END VACCINATION FLOW

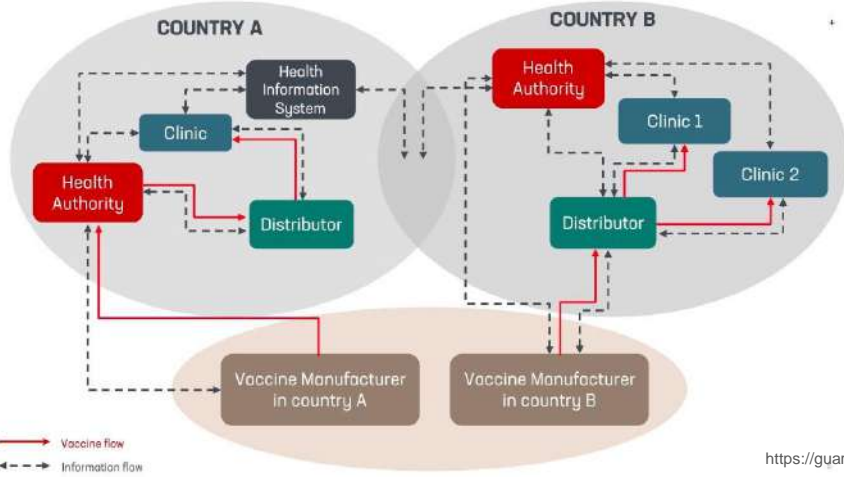
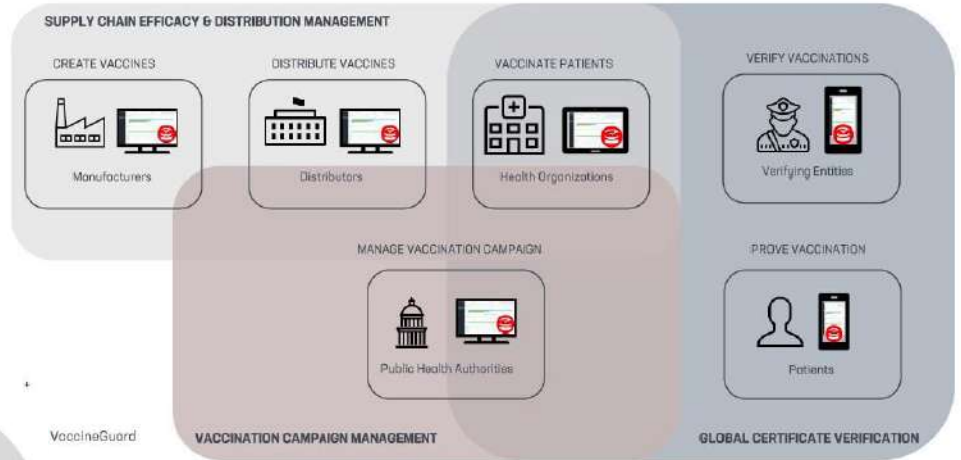


<https://guardtime.com/vaccineguard>

VACCINEGUARD

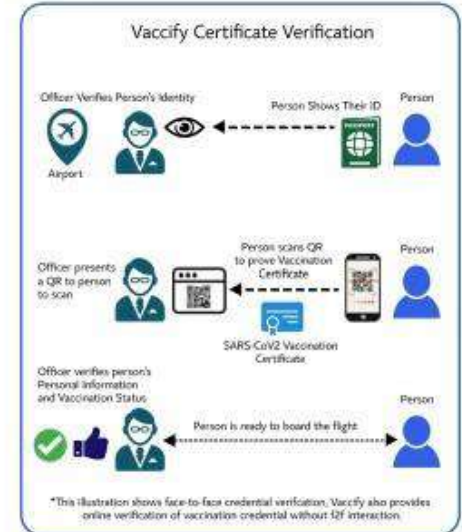
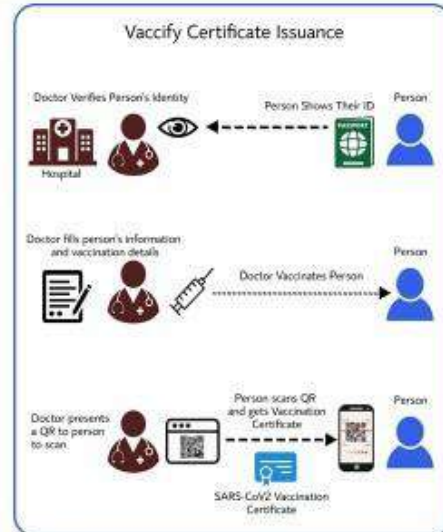
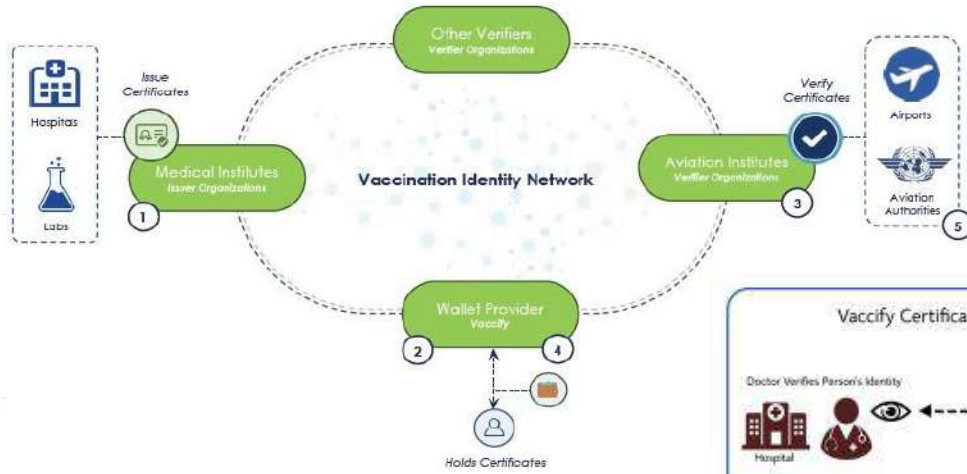
RELIABLE VACCINATION PROGRAMS

VACCINEGUARD CONNECTS WORKFLOWS OF DIFFERENT ROLES AND ACTORS



<https://guardtime.com/vaccineguard>

Vaccify: an initiative from Pakistan



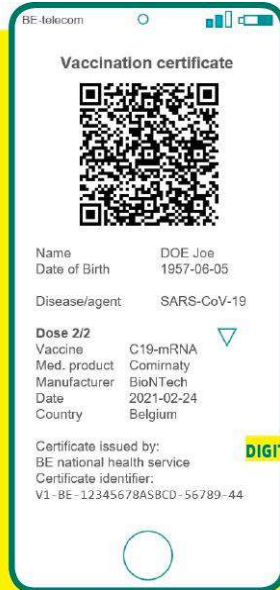
<https://vaccify.pk/>

Digital Green Certificate by the EU Commission

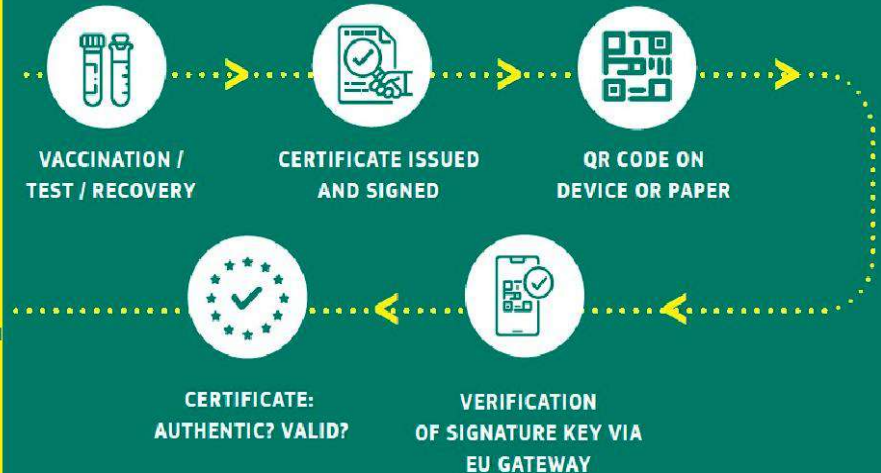
A Digital Green Certificate is a digital proof that a person:

- ✓ has been vaccinated against COVID-19, or
- ✓ has received a negative test result, or
- ✓ has recovered from COVID-19.

- › Digital and/or paper format
- › With QR code
- › Free of charge
- › In national language and English
- › Safe and secure
- › Valid in all EU countries



THE DIGITAL GREEN CERTIFICATE IN PRACTICE



Key Takeaways

Countrywide Covid-19 vaccination could take years. In the transition phase where population is partially vaccinated, an innovative ecosystem for faster socio-economic recovery



Mitigating the need of countless integrations among various stakeholders, saving time and funds while collaborating with existing identity infrastructure can impact post-COVID immunization phase to be faster and low-cost.

● ● Slow the spread of Covid-19,
stay home if you can

#AloneTogether

