



# Vaccine Credentials Design Criteria

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This report outlines possible use cases and designs for vaccine credential mobile services.

Information and regulations regarding COVID-19 may have changed from the time of this report's release.  
Please adhere to WHO, CDC, state, and federal guidelines when designing a vaccine credential app.

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# Design Criteria for a Vaccine Credential Mobile App

**This report is a living document.**

**As changes in state and federal regulations come into effect, the information in this report will change.**

Future revisions will include a more exhaustive use case service blueprint with potential third party integrations and paper credential use cases.

## Why is a vaccine credential important?

Vaccine credentials were first used during the Small Pox outbreak as a criteria for entering countries during international travel.<sup>1</sup> With the outbreak of COVID-19, many countries and states enforce mask wearing, yielding positive results.<sup>2</sup> Vaccine credentials are the next line of defense for containing the outbreak of COVID-19.

**Vaccine recipients already get a vaccination card.**

**Why can't those be used as credentials?**

Vaccination cards can be easily falsified. Furthermore, a vaccination card differs from a paper credential in that a paper credential can contain a picture and corresponding QR code for the vaccinated human.

<sup>1</sup>Ada Lovelace Institute, *The history and uses of vaccine passports and COVID status apps* February 2021

<sup>2</sup> Jeremy Howard, *An evidence review of face masks against COVID-19*, San Francisco: Proceedings of the National Academy of Science of the United States of America, January 2021

# Contents and Planned Revisions

This report contains the following:

## **1. Literature Review**

Many organizations have their own vaccine credential app. A literature review was performed of the apps currently in development. New apps emerge weekly.

## **2. Use Cases**

How people use vaccine credential services is useful in developing software, user experiences, and policy. Detailing how and what people do (or need to do) in specific environments shows product and policy teams how to better approach and think about creating digital services.

Plan revisions may include:

### **1. Paper Credential Design Criteria**

Not all users who need to show vaccine credentials will have access to a smart phone. For these users, a paper credential is necessary.

### **2. App Design Criteria**

Recommended features and information architecture of a vaccine credential app. These criteria will be determined as a result of user testing.

### **2. Back End and third party app integrations**



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# Literature Review

This literature review contains vaccine credential apps and health passports that are currently released or in development.

## Review Criteria

**Open or Closed:** Is this app code and design open source?

**Vaccine Credentials:** might delete if all health passes contain credentials

**COVID-19 Test Results:** Does the app also display COVID-19 test results?

**Symptom Screener:** Does the app prompt you to screen for symptoms? Some organizations may request you verify you have no COVID-19 symptoms in addition to receiving a negative test result and vaccination.

**Features:** A list of all available app features.

**Status:** Is the app currently in development? Has it been released to the public or to the necessary healthcare institutions?

	Open-Source	Vaccine Credentials	COVID-19 Test Results	Symptom Screener	Released to Public
UBirch		✓	✓		✓
CommonPass		✓	✓		
Digital Health Pass		✓	✓		
IATA Travel Pass		✓	✓		
HealthCheck			✓		
CanImmunize	✓				✓
VaxiGlobal		✓			✓
Accredify	✓	✓	✓		✓
Clear		✓	✓	✓	✓

# Digital Corona Test Certificate

UBirch

Open or Closed

Closed

Vaccine Credentials

Yes

COVID-19 Test Results

Yes

Symptom Screener

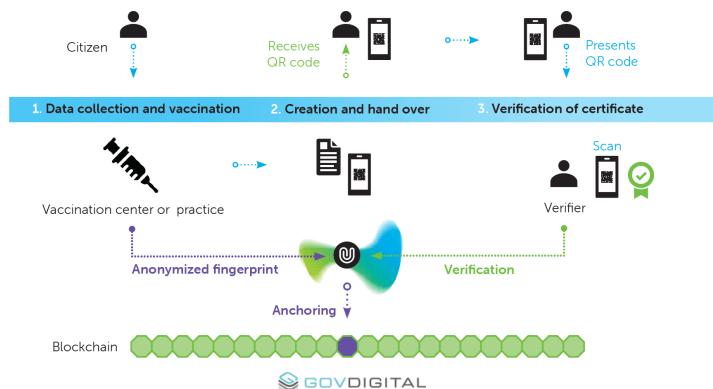
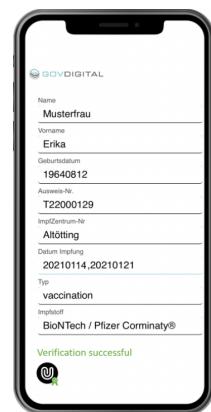
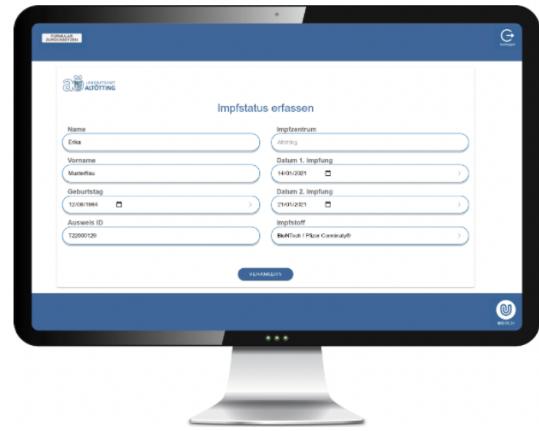
No

## Features

- COVID-19 vaccination is entered in patient data management system. This system links to the credential app.
- A QR code is produced which can be printed out or displayed on a phone
- System can be integrated into IATA travel pass or most other international tracking apps

Status

Released



Source

<https://ubirch.de/en/digital-vaccination-certificate>

# CommonPass

Open or Closed  
Closed

Vaccine Credentials  
Yes

COVID-19 Test Results  
Yes

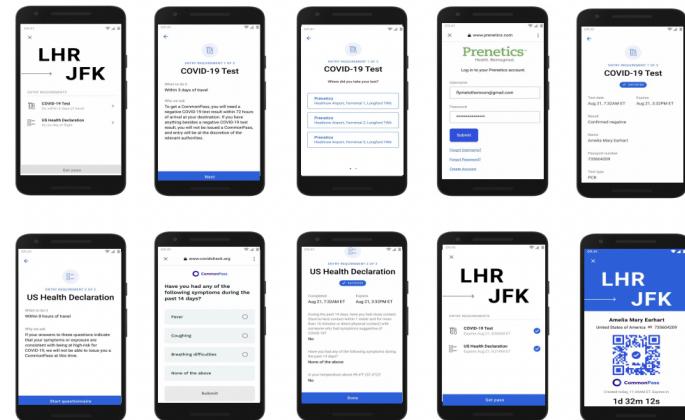
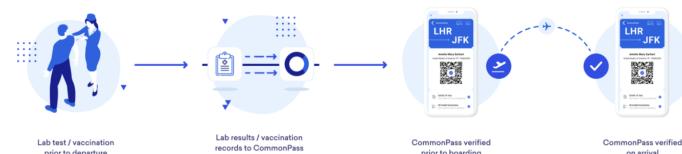
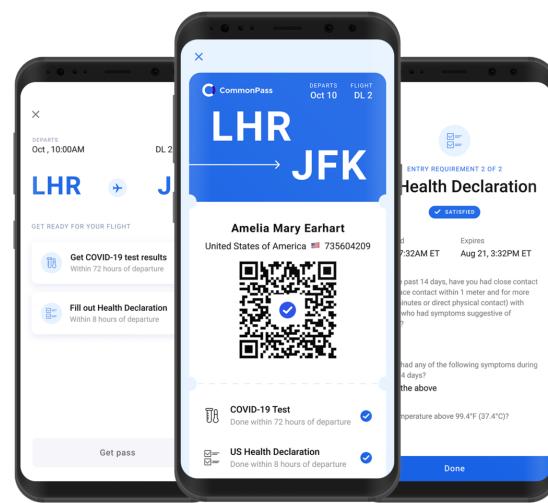
Symptom Screener  
No

## Features

- Shows entry requirements based on itinerary
- Traveler must complete required health declarations
- Pass generated when requirements are satisfied
- Can access labs and vaccination records

## Status

Not yet released to the public



## Sources

<https://commonpass.org/>

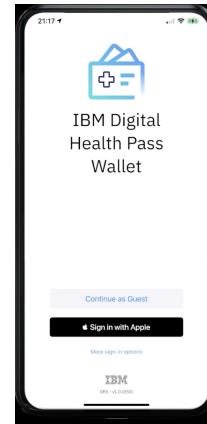
<https://static1.squarespace.com/static/5ed685211872ca0609188980/t/5fb699f8ee41b79ce846897/1606248871413/CommonTrust+Network+Overview+-+11.16.2020+%283%29.pdf>

# Digital Health Pass

IBM

## Open or Closed

Closed



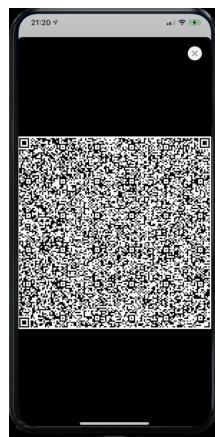
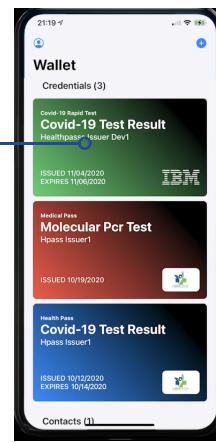
## Vaccine Credentials

Yes

## COVID-19 Test Results

Yes

Passes are separated based on which organization needs those credentials



## Symptom Screener

No

## Features

- Issuing organization generates a verifiable credential and sends it to individual
- Individual loads credential onto their phone
- Passes are separated based on which organization needs those credentials
- Powered by blockchain technology



## Status

Not yet released to the public

## Source

<https://www.ibm.com/products/digital-health-pass>

# IATA Travel Pass

## Open or Closed

Closed

## Vaccine Credentials

Yes

## COVID-19 Test Results

Yes

## Symptom Screener

No

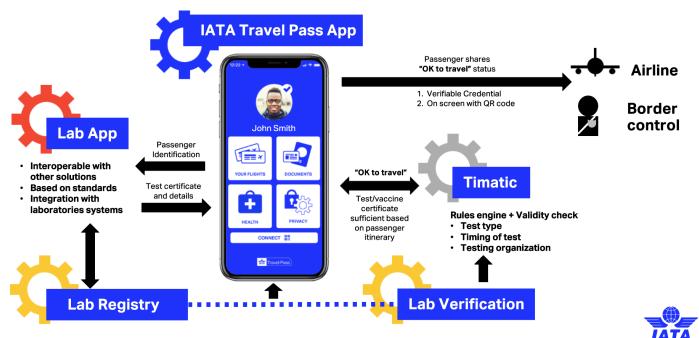
## Features

- Display info on the travel requirements for user's desired destination
- Helps users locate COVID-19 testing centers
- Users can verify that they have the appropriate information in accordance to their destination's regulations

## Status

Not yet released to the public

## Overview



## Source

<https://www.iata.org/en/programs/passenger/travel-pass/>

# HealthCheck

## SAFE Health Systems

### Open or Closed

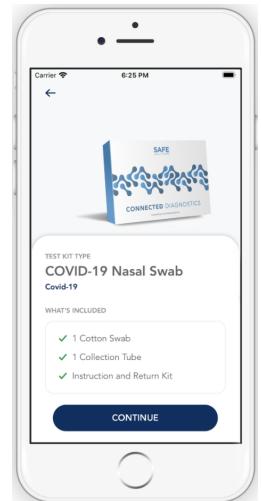
Closed

### Vaccine Credentials

No, but it appears that this can be integrated into the system.

### COVID-19 Test Results

Yes

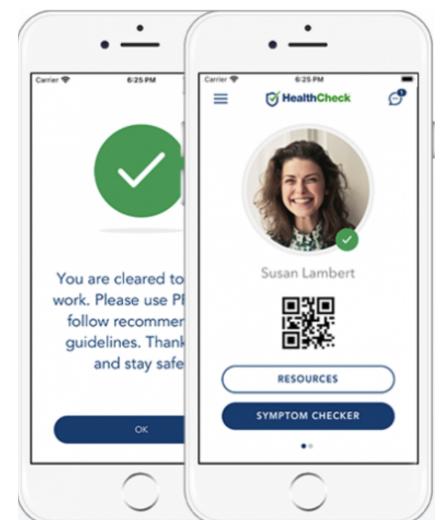


### Symptom Screener

No

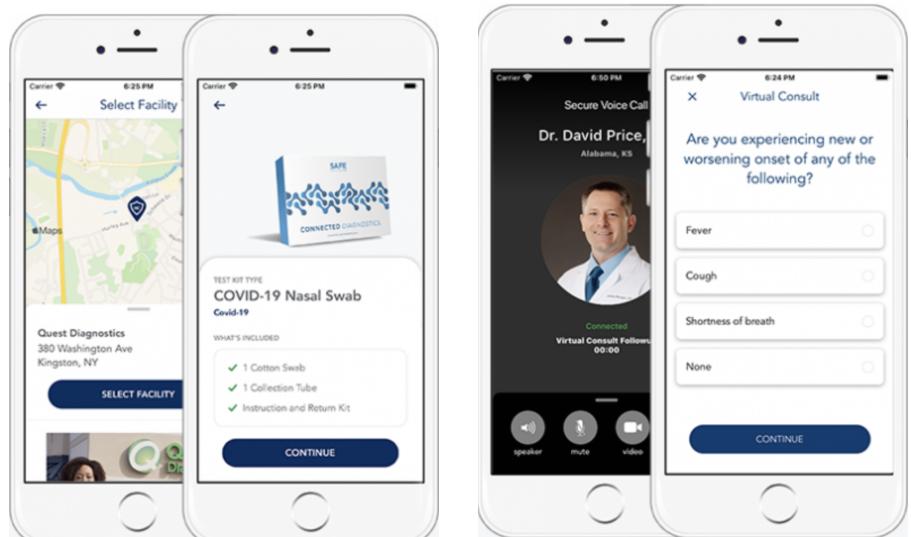
### Features

- Display info on the travel requirements for user's desired destination
- Helps users locate COVID-19 testing centers
- Users can verify that they have the appropriate information in accordance to their destination's regulations
- order a COVID-19 test kit



### Status

Unclear, it may be available for healthcare providers but the app hasn't been released to the public.



### Source

<https://healthcheck.com/>

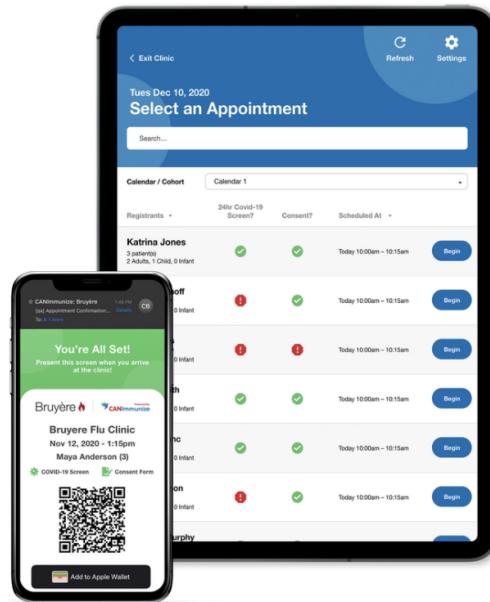
# CANImmunize

Public Health Agency of Canada

This app has a sister app: ClinicFlow. ClinicFlow is used by hospitals and clinic staff to schedule appointments and screen for COVID-19. It integrates with CANImmunize to store vaccination records.

## Open or Closed

Closed



## Vaccine Credentials

Undetermined. The system stores vaccination information, but doesn't explicitly mention it's for credential purposes.

## COVID-19 Test Results

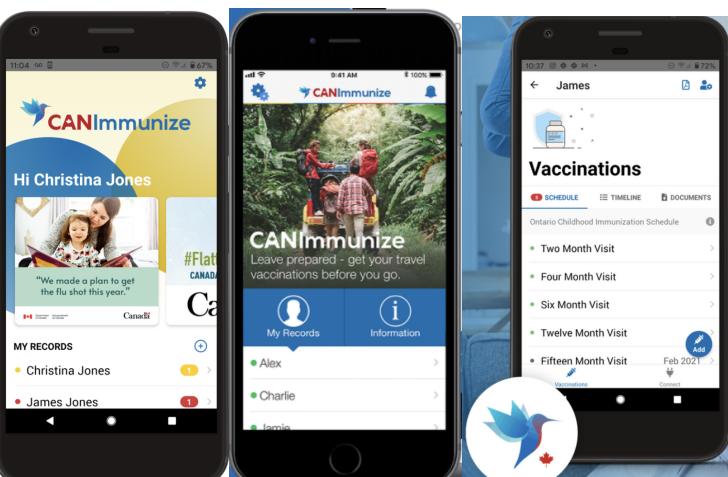
No

## Symptom Screener

No

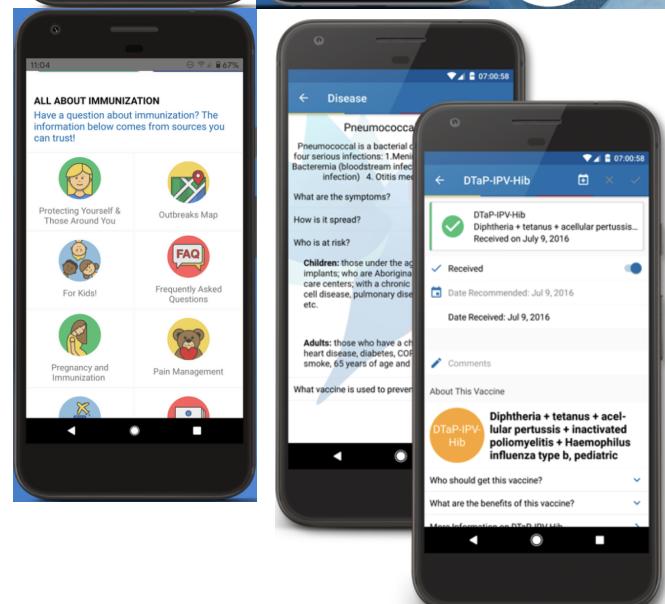
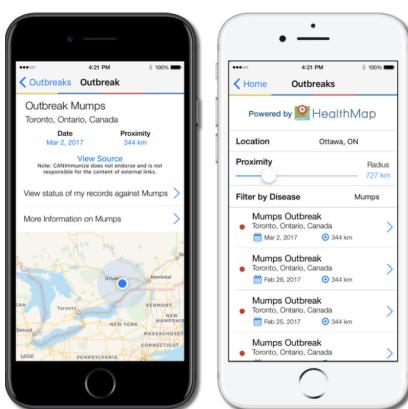
## Features

- Covid-19 screening
- Store vaccination records
- Records for everyone in the family on one account
- Vaccine reminders
- Information about vaccine
- Learn about disease outbreaks in your area



## Status

Released



## Sources

<https://www.canimmunize.ca/en/home>

# Vaxiglobal

Zimbabwe

Note: This is not an app, this is a vaccine information management system. The vaccine administrator enters information in the system, and you get a QR code sent to your phone. This QR code is your credential.

## Open or Closed

Closed

## Vaccine Credentials

Yes

## COVID-19 Test Results

No

## Symptom Screener

No

## Features

- Links with vaccine database management systems
- When vaccine is administered and entered into database, a static QR code gets sent to your phone

## Status

Released

The screenshot shows the Vaxiglobal platform interface. On the left is a sidebar with navigation links: Dashboard, Doctor, Nurse, Certificate, Vaccination, and a three-dot menu icon. The main area has a header with 'VAXIGLOBAL Health & Immunization Verification' and 'AHMED CLINIC'. It features a 'Change Password' button and a 'Watchlist' section. Below this is an 'Update Certificate' section with a 'Vaccination Info' table. The table has columns for Vaccine, Manufacturer & Batch#, Vaccine given by, Date, and Action. A row shows 'Yellow Fever', 'Sanofi 1991', 'Ahmed Clinic', '2-4-2020', and edit/refresh/cross icons. At the bottom, there's a 'Traveller Name' field with 'Integrity Mchechesi', a 'Passport Number' field with 'BN908833', a 'Nationality' field with 'Zimbabwean', and an 'Email' field with 'integritym@live.com'. To the left of these fields is a thumbnail of a passport photo and a full view of a Zimbabwean passport document.

## Sources

<https://www.canimmunize.ca/en/home>

# Accredify

Singapore

## Open or Closed

Open, open source schema from GovTech Singapore

## Vaccine Credentials

Yes

## COVID-19 Test Results

Yes

## Symptom Screener

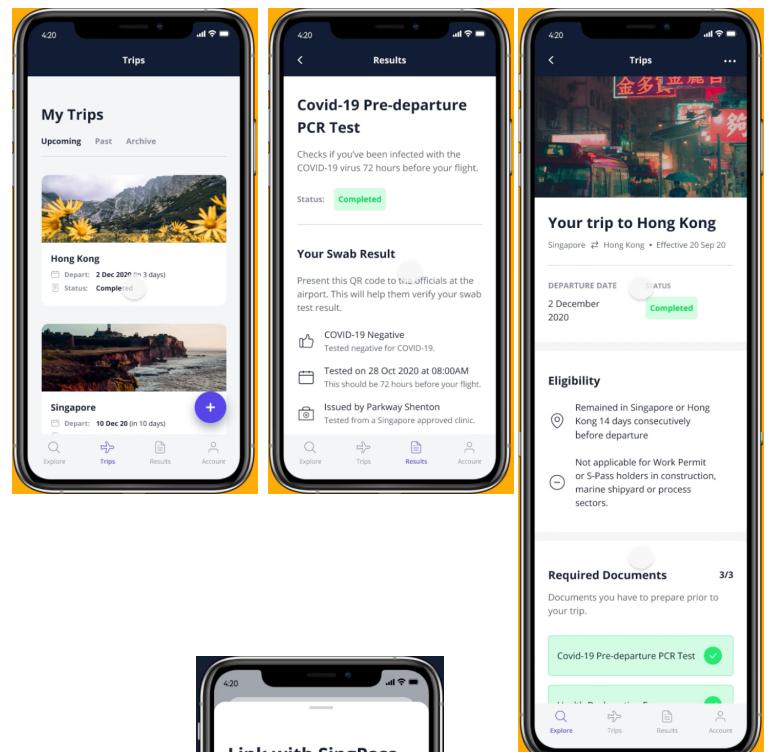
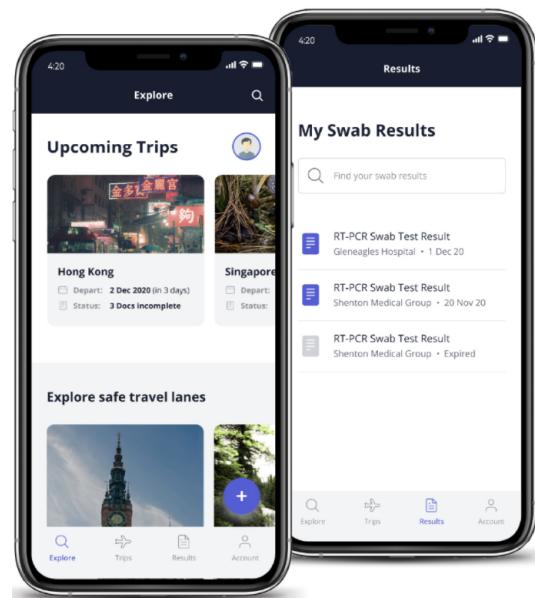
No

## Features

- List of necessary medical documents needed to travel
- QR code that contains COVID-19 medical records
- Shows partner clinics with tamper-proof COVID-19 medical records
- Integrated with SingPass, clinic must use this database management system in order to integrate with the Digital Health Passport

## Status

Released



## Sources

<https://accredify.io/>

# CLEAR Health Pass

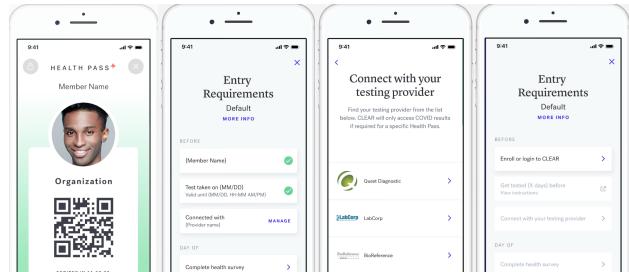
Clear

Open or Closed

Closed

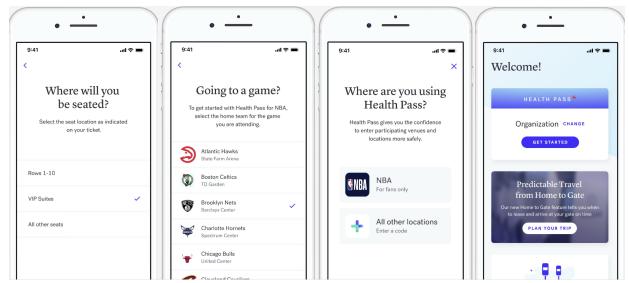
Vaccine Credentials

No, but coming soon



COVID-19 Test Results

Yes

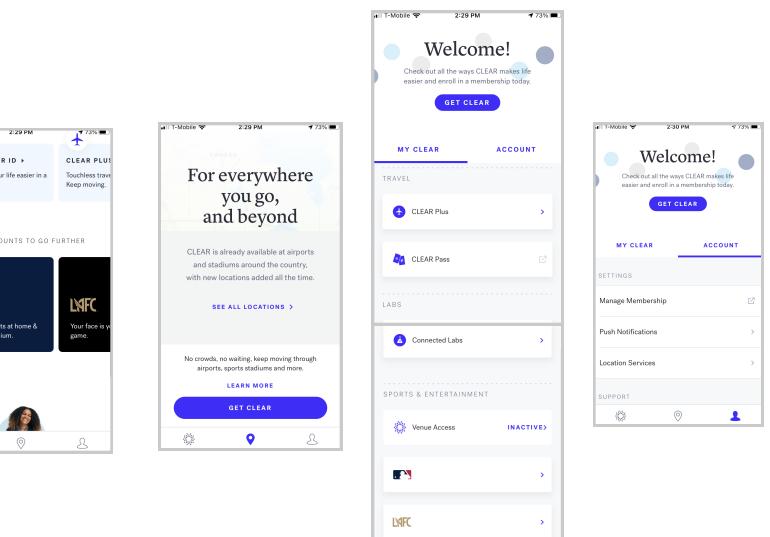


Symptom Screener

Yes

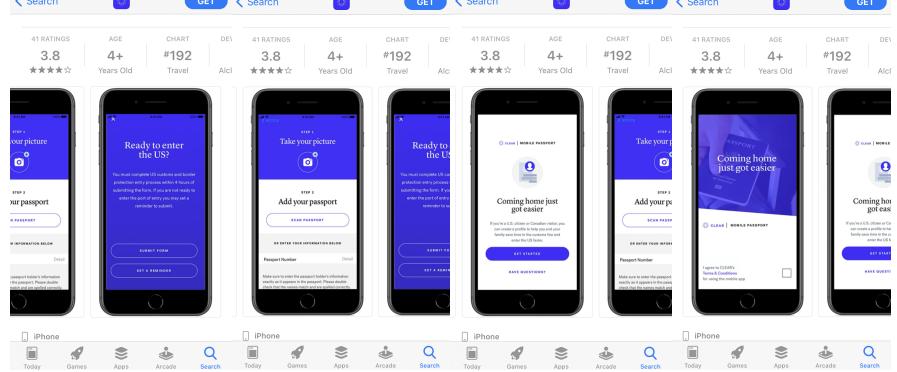
Features

- Integrate COVID-19 lab results with app
- Scanned by kiosks in participating locations



Status

Released

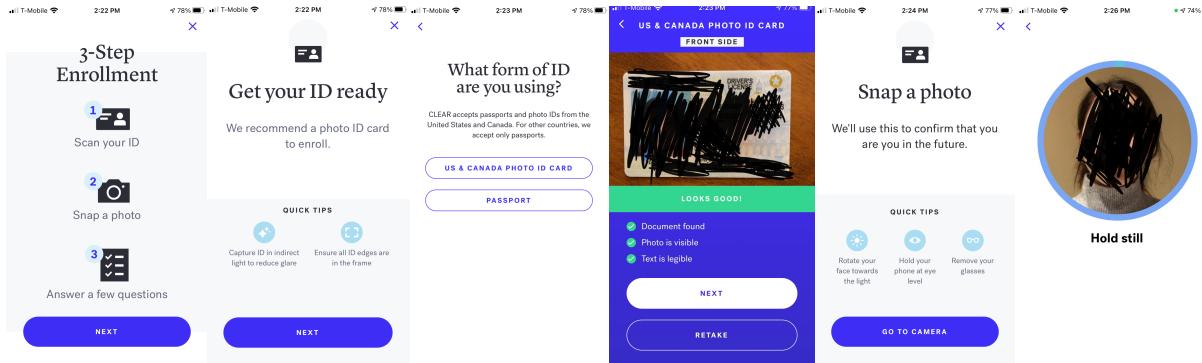


Sources

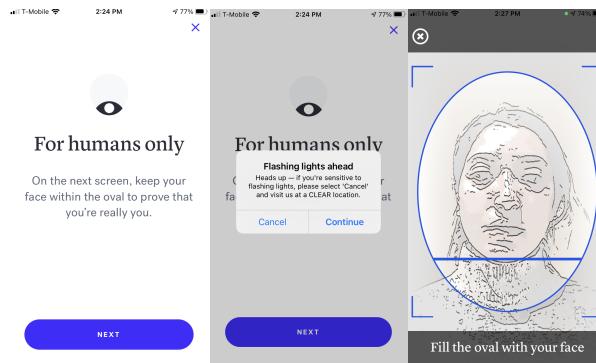
<https://www.clearme.com/healthpass>

# CLEAR Health Pass (cont.)

Clear, New York, USA



The process for enrolling involves scanning your ID, taking a picture of yourself for verification, and answering questions. The app did not allow me to proceed to step 3.



# Use Cases

Vaccine credentials may not be the only line of defense in stopping the pandemic. Consistent symptom checking will continue to play an important role in virus prevention.

The following use cases have been split into 4 categories: high frequency, high traffic; low frequency, low traffic; low traffic, high frequency; and low traffic, low frequency (see Figure 1). These scenarios affect the level of scrutiny and information on the app. For example, a high traffic area that isn't frequented often may require that the user submit information prior to entering the high traffic area. In cases where users are in high traffic, high frequency areas such as a public transit station, it's essential that any credential can be presented swiftly and efficiently.

Some establishments may not have the funds or IT infrastructure to install QR code scanners. Scenarios where no QR code scanners are available have been included.

## Additional Considerations

Many of these use cases are dependent on other precautionary measures in addition to receiving the vaccine. For example, masks are generally required (depending on state regulations) in all areas listed in Figure 1. It is assumed that masks will still be required in these areas until the virus is declared to be contained.

No credentials are required for the grocery store at this time.

## Planned Revisions

Planned revisions may include integrations with third party systems. For example, Ticketmaster is working with CommonPass to require vaccination credentials in order to generate the ticket.

## For users that may not have any form of identification

For high frequency areas, IDs will not be required due to the virus spread being low when everyone in the vicinity is wearing masks. In addition, many of these high frequency areas are considered essential for all members of the population to access.

In areas of low frequency, unique codes will be sent to the vaccinated person prior to entering the establishment.

Establishments that are requiring vaccination credentials should note that an ID should not be necessary, although it can speed up the process if an ID is submitted during set-up. If identification must be verified, this can be indicated when the establishment sets up their credential verification system. When that establishment's QR code is scanned and the user has not submitted an ID, a screen with their photo will appear alongside the credential.

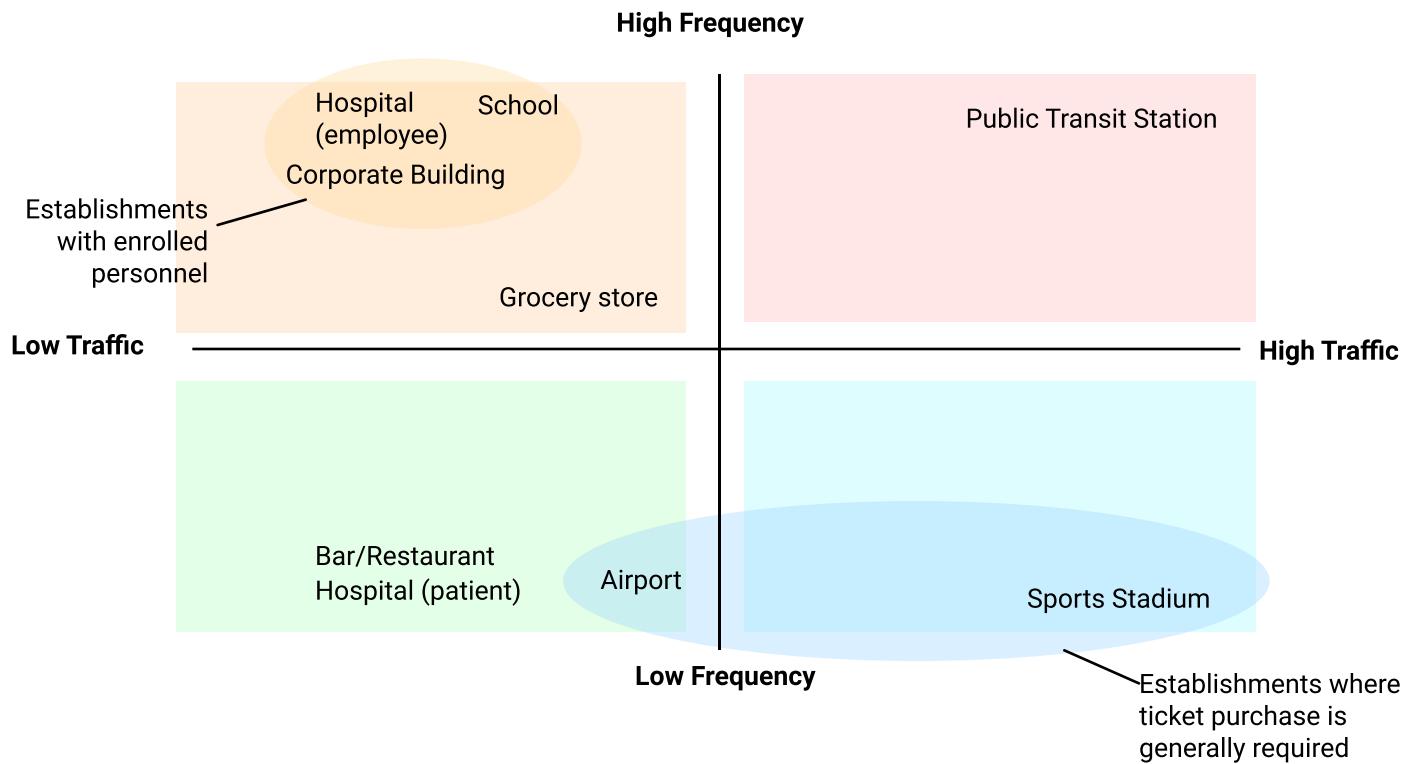


Figure 1: Common establishments frequented by a large number of people at a given time, ranked by rate of frequency and traffic.

