

# Drive-Thru Screening

REPUBLIC OF KOREA



Drive-thru screening is a screening method adopted to address the rising demand for COVID-19 testing. Under the system, a driver is checked for fever or breathing difficulties and has his/her samples taken from inside the car by medical staff in protective suits at a drive-thru coronavirus clinic. The entire process takes less than 10 minutes, which enables authorities to diagnose more people in a short period of time. It has reduced the waiting and testing time and the risk of secondary infection in waiting rooms.

## Features:

- Under the system, a driver is checked for fever or breathing difficulties and has samples taken from inside the car by medical staff in protective suits.
- The entire procedure takes less than 10 minutes.
- Unlike conventional tests, which require the screening room and waiting area to be sterilized every time a patient comes and goes, this system does not need the screening area to be disinfected every time after use.
- In addition, since the patient remains inside the vehicle, there is no need for medical facilities like negative pressure rooms (isolation technique to prevent cross-contamination from room to room).

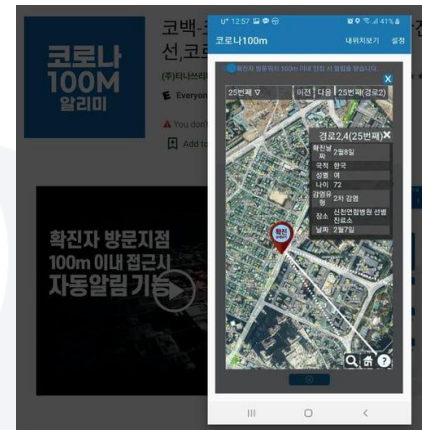
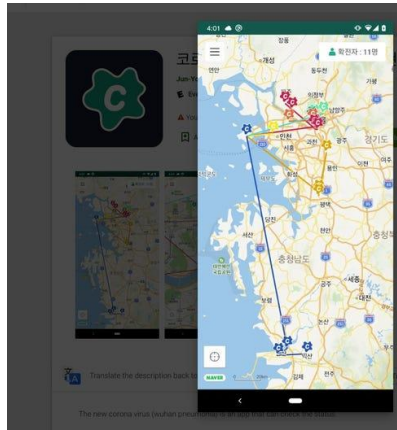
## Ongoing Results:

- Helps save time in testing and minimizes risk of people getting infected in the testing area as it is done inside the car.
- The testing capability of a drive-thru clinic depends on each center's workforce and operating system, but it can generally collect samples from six people per hour, three times more than a normal coronavirus testing clinic.
- There are about 50 drive-thru testing stations in South Korea, but the number is expected to rise as many municipal governments are considering opening them in their regions.
- Many countries including the US and Germany have benchmarked the idea and are rolling out drive-thru testing stations in the hope of keeping potentially infected people away from hospitals.

Sources: CNN, CBS News, BusinessInsider, Reuters

# Smartphone Apps to Avoid Coronavirus

REPUBLIC OF KOREA



As coronavirus cases surge in South Korea, the country is turning to smartphone apps to avoid spreading it further. Recently developed apps using public government data allow users to see how close they are to where a confirmed COVID-19 patient has been. A GPS-based system will set off an alarm when people bring monitored leave their designated locations. They can also see the date a patient was confirmed with the virus, demographic data about the patient, and crucially, some of their history. While identities are not published with the data, web developers are able to use the information to create detailed maps that track the movements of those infected. Coronamap and Corona 100M are apps that receive more than 300,000 views daily.

## Features:

- Allows people to see the date that a coronavirus patient was confirmed, along with that patient's nationality, gender, age, and places visited. A person using the app can also see how close they are to coronavirus patients.
- If a person using the app comes within 100 meters, or about 328 feet, of a place where a person carrying the virus has been, they get a push notification warning.
- Plots the locations where people known to have had COVID-19 have been, to make avoiding these areas easier.
- Backtracks the movements of infected persons via mobile phone location information, credit card usage, and data mining of CCTV footage.

## Ongoing Results:

- People can wander out of their quarantine areas intentionally as well as by mistake, and the app can help block these incidents in a more organized way.
- Can prevent the spread of COVID-19 by advising people not to go to certain places.
- Developers hope that the government develops its own app to pick up from where the project started.
- Travelers from high-risk areas are required to download an app and to report their health status every day for 14 days, post-entry.

Source: Businessinsider, CNN, Technologyreview, Yonhap News

# Mask Rationing System and Mask Inventory Apps

REPUBLIC OF KOREA



South Korea benchmarked Taiwan's mask rationing system and has set up a new rationing system that ensures more stable distribution to consumers and prevents repeated purchases from the same person. The new distribution scheme allows people to purchase two masks per week on designated days based on their birth years in all pharmacies. The South Korean government has released its mask sales data to the public by providing it as an open API. This has encouraged developers to create apps that notify people about the inventory statuses of pharmacies nationwide. Naver, South Korea's largest search portal, and Kakao, the country's largest chat app, have used the data to provide mask inventory services within their respective map apps.

## Features:

- The new distribution system allows people to purchase two masks per week on designated days based on their birth years in all pharmacies, the last digit of one's birth will decide the day he/she can make a purchase.
- Residents are required to present their identification cards to see the customer's mask purchasing history.
- A face mask costs KRW 1,500 (USD 1).
- Government collaborates with the private sector by opening data.
- Developers come up with apps that show mask stocks of each pharmacy in real time.

## Ongoing Results:

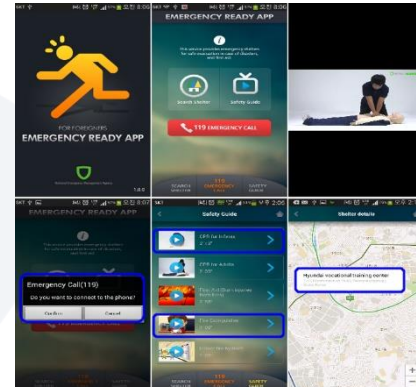
- By taking full control of the distribution of face masks via public channels, the government helps stabilize supply.
- Anyone can purchase face masks at a cheap price.
- Around 23,000 pharmacies nationwide are selling masks and around 22,000 of these pharmacies have agreed to share their data.
- Around 10 app developers have used the data so far, and multiple apps have helped address the complaints that have arisen due to long queues at pharmacies.
- Naver and Kakao have used the data to provide mask inventory services within their respective map apps.

Source: *Businessinsider, CNN, Technologyreview*



# Emergency Text Alert System and Emergency Ready App

REPUBLIC OF KOREA



Emergency text messages are sent to mobile phones for prompt evacuation in the event of a disaster. Emergency text alarms can be sent to people in disaster areas via Cell Broadcasting Service (CBS) system. Short messages, including disaster alerts and areas of occurrence, are sent as transmission content and can include simple public action tips. The National Emergency Management Agency (NEMA) developed 'Emergency Ready' app to satisfy the growing need for emergency information amongst elements of the population that don't fully speak Korean: foreign residents, multicultural households, and tourists. The app can call emergency contact numbers, such as 119, and shows videos on how to perform CPR, provide emergency care, and use a fire extinguisher or a fire hydrant. In the case of a civil defense alert, the app shows on a map the location of the nearest shelter.

## Features:

- The government posts the precise movements (without names) of anyone who has tested positive for COVID-19 – everything from the seat numbers they occupied in movie theaters, to the restaurants where they stopped for lunch.
- The government obtains the information from cellphone records, credit card receipts, and other private data it is authorized to collect in a health emergency.
- Short messages, including disaster alerts and areas of occurrence, are sent as alarm content, and some include simple public action tips.
- People can receive emergency text alerts in Korean, English, and Chinese.

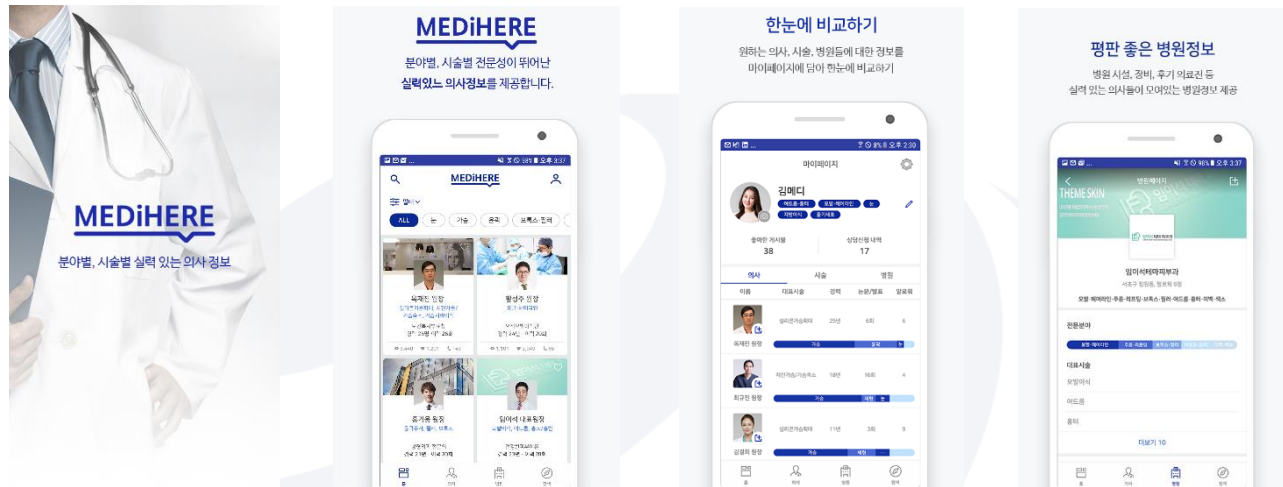
## Ongoing Results:

- People obtain relevant information in a better, faster, and more efficient way.

Source: Namuwiki, Koreanet

# Telemedicine Treatment Application

DAEGU, NORTH GYEONGSANG PROVINCE



Medihere has introduced the nation's first telemedicine treatment application after the government temporarily allowed remote treatment amid the new coronavirus spread. Medihere, a digital healthcare startup, provides its Medihere-Remote Treatment Platform to medical institutions free of charge until the COVID-19 outbreak subsides. Medihere said it developed the application to help prevent the virus from spreading by aiding patients who cannot visit hospitals due to the risk of COVID-19 infection.

## Features:

- Patients can receive remote treatments in emergency medicine, pediatrics, ophthalmology, respiratory disease, etc.
- Patients must download the application and choose the field of medicine, doctor, and treatment method.
- Once the patients register their symptoms and completes an application, the patient should input additional information necessary for medical care and pharmacy data to receive a prescription.
- Doctors can check symptoms during the telemedicine service and send the patient's prescription to the registered pharmacy.

## Ongoing Results:

- Medihere's core function of telemedicine can overcome the limit of on-site treatment and provide more effective and correct communication between patients and practitioners
- Medihere plans to expand the free supply of this application to medical institutions and focus on promoting the application in Daegu and North Gyeongsang Province, the places hit hardest by the coronavirus.
- The application prevents patients from getting easily contaminated from visiting local hospitals.

Sources: Koreabiomed, MEDIHERE

## 3 – Step Fever Check for Outbound Passengers

INCHEON



The Ministry of Land, Infrastructure and Transport (MOLIT) and the Incheon International Airport Corporation have implemented a three-stage health check system for passengers boarding planes to prevent COVID-19 from spreading further. Passengers undergo the first temperature check in front of terminal gates and the second before they enter secured areas. The final check is conducted at departure gates by airlines of countries that have requested such inspections, including the U.S., China and the United Arab Emirates.

### Features:

- First at terminals, airport personnel check passengers' temperature with thermal imaging cameras.
- Next, military personnel report the process in the departure areas on the third floor.
- Finally, at boarding gates, airlines check passengers' temperature again with handheld, noncontact infrared thermometers.
- At terminals, airport personnel guide passengers with temperatures of above 37.5 Celsius to a quarantine station installed inside the airport for contact investigation.
- On the departure floor, airport staff guide passengers with temperatures over 37.5 C to airline personnel to have their temperature checked at the check-in counters or to help with their ticket cancellations.
- Terminal 1 has five entry checkpoint stations and three checkpoint stations on the departure floor; while, Terminal 2 is equipped with three and two checkpoint stations each.

### Ongoing Results:

- It has helped minimize the risk of people getting infected at the airport.
- It has helped minimize the risk of the virus spreading outside the country.

Source: Koreatimes, Koreaherald, Yonhap News



# ‘SAFETY’ Walking-Thru System

SEOUL



‘SAFETY’ also called “walking-thru system” is a screening system adopted to address the rising demand for COVID-19 testing. Under this system, the patient goes into a single-person medical booth that separates him/her and the doctor. Doctors can collect samples without contacting patients using the glove attached to the booth. The examination takes less than 2 minutes, which allows to diagnose more people in a short period of time. Since doctors can examine patients without direct physical contact, the risk of infection of staff can be reduced.

## Features:

- The idea came from ‘BSC’ (Bio Safety Cabinet), which is mainly used for handling hazardous materials in a laboratory.
- Size of booth: .7x.7x2.5m
- In the booth, a sound pressure facility and UV lamp are installed.
- An intercom system is installed as well to enable doctors to communicate with patients during treatment.
- A booth customized for children is also available.

## Ongoing Results:

- Through the system, examination time has shortened, sample collection takes about 1 minute, and disinfection time has shortened to 1-2 minutes.
- As the system allows a more efficient flow of both doctors and patients, waiting times are also decreased.
- The system is helpful especially to those who are unable to use the drive-thru screening system, the elderly, and children.
- Since the doctor examines the patient separately, the risk of infection of staff is reduced.
- 4 booths are operated at the same time, and considering the disinfection time, up to 10 people can be inspected every hour.

Sources: Heraldcorp, Edaily, Docdocdoc

# Supermarkets' "Elderly Hours"

AUSTRALIA



Australia's Woolworths and Coles supermarkets open an hour early to allow elderly and customers with disabilities to shop safely and avoid coronavirus-related panic buying. In addition, due to supply shortages caused by panic buying, four major supermarket chains (Woolworths, Coles, Aldi and IGA) have enacted limits on almost all items that customers can purchase.

## Features:

- Shopping is exclusively available to those with a government-issued identification card from 7am to 8am. Stores will then open to the public from 8am.

## Ongoing Results:

- The most vulnerable people in our communities are able to purchase basic food and household items.
- It has decreased the chance of human interaction with other people during shopping, which reduces the risk of infection.

Sources: CNN, BBC, The Australian, ABC News



# Mask Rationing System Using PharmaCloud

TAIWAN



The Taiwanese government started a rationing system to cope with a face mask shortage caused by coronavirus fears. Under the rationing system, anyone can buy disposable surgical masks on Sundays at designated drugstores and pharmacies upon presentation of their National Health Insurance (NHI) cards, while on the other days of the week, sales are staggered based on the last digit of the ID number on the buyer's NHI card. The NHIA was equipped with strong cloud computing capabilities, making it possible for NHI-contracted pharmacies across the country to track the purchasing history of people buying masks under the rationing system. In addition, the government released NHI data about pharmacy locations, enabling several private citizens with IT skills to create application programming interfaces (APIs) that show data on pharmacy locations and mask stocks. The collaborative efforts between the government and civic society on the mask rationing program is expected to serve as a model that could be used in future endeavors. Moreover, an online ordering mechanism will soon be added to the name-based rationing system to better ensure even distribution and make it more convenient to obtain face masks. The mechanism will allow people to order at a designated website using their NHI card or Citizen Digital Certificate or through the NHI app.

## Features:

- Under the rationing system, anyone can buy disposable surgical masks at designated drugstores and pharmacies upon presenting their National Health Insurance (NHI) cards.
- In order to diminish the number of people swarming stores, those with NHI cards that end with odd numbers are restricted to purchasing on Mondays, Wednesdays, and Fridays; while, those whose cards end with even numbers are limited to buying masks on Tuesdays, Thursdays, and Saturdays. Both are allowed to make purchases on Sundays.
- By digitally scanning the NHI card, pharmacies can quickly see the customer's mask purchase history, which ensures that the quota of two masks per week per person is being maintained.
- An online ordering mechanism will soon be added to the name-based rationing system to better ensure even distribution and make it more convenient to obtain face masks. The mechanism will allow people to order at a designated website using their NHI card or Citizen Digital Certificate or through the NHI app.

## Ongoing Results:

- Anyone can purchase face masks at a cheap price. A face mask costs NT\$ 5 (USD 0.16).
- The CECC estimates that 2.33 million people can purchase about seven million masks over the course of a week.
- Online ordering system is expected to help the problem of long queues.
- Many countries including South Korea have benchmarked the idea and are rolling out mask rationing systems to cope with face mask shortage.

Sources: Taiwan News, Ministry of Health and Welfare, Focus Taiwan