

Drive-through COVID-19 test sites

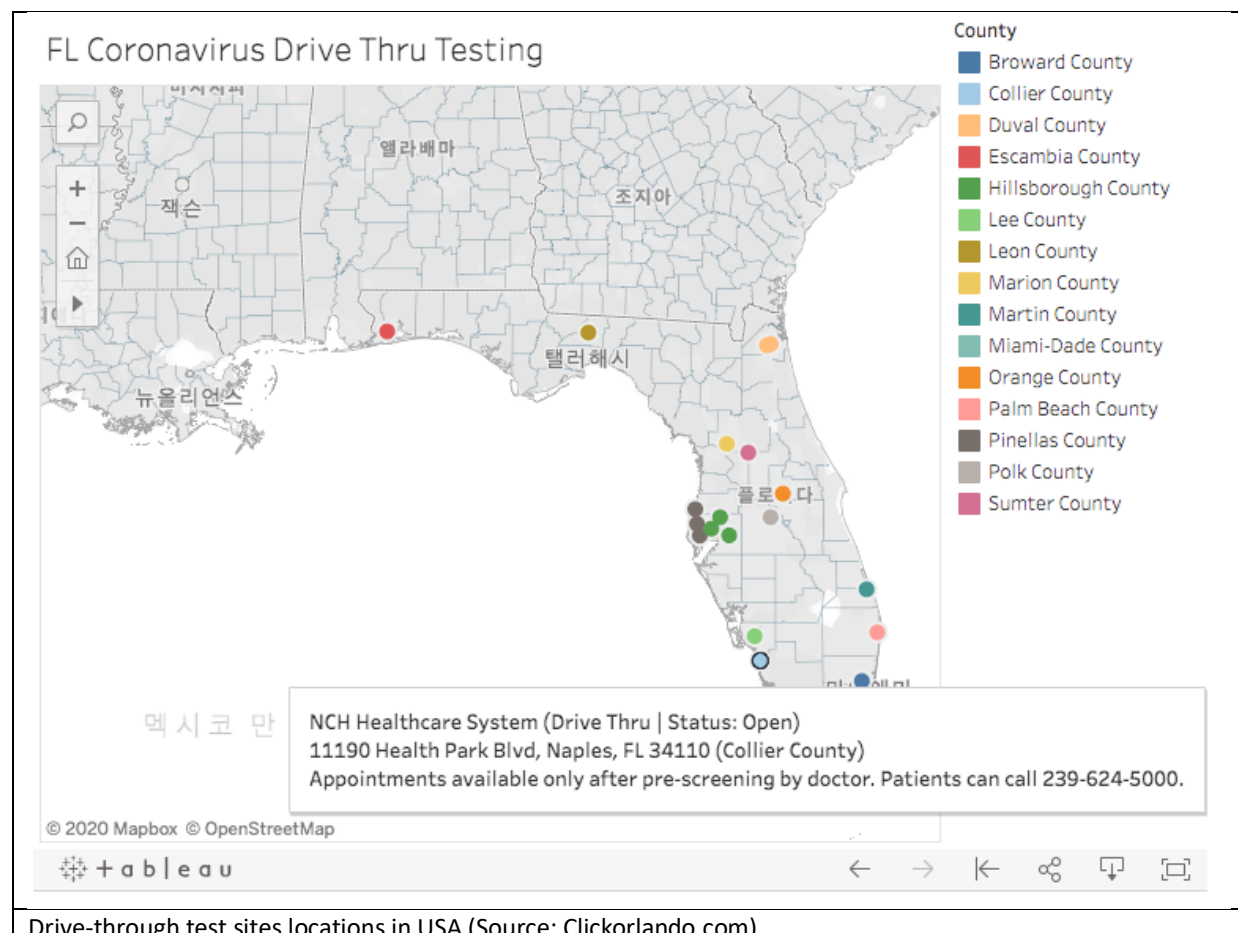
1. Concept

Installation of drive-through test sites for COVID-19 is a new way to save time for medical consultation and a way to reduce the danger of cross-infection between medical patients and medical teams. The medical patients don't have to get out of their cars and can get medical checkup through their windows including checking fever and collecting samples. This type of facility can handle 6 sample collections per hour and a maximum of 60 collections per day. There are 6 driving-through test sites running throughout Korea at the moment.

2. Process

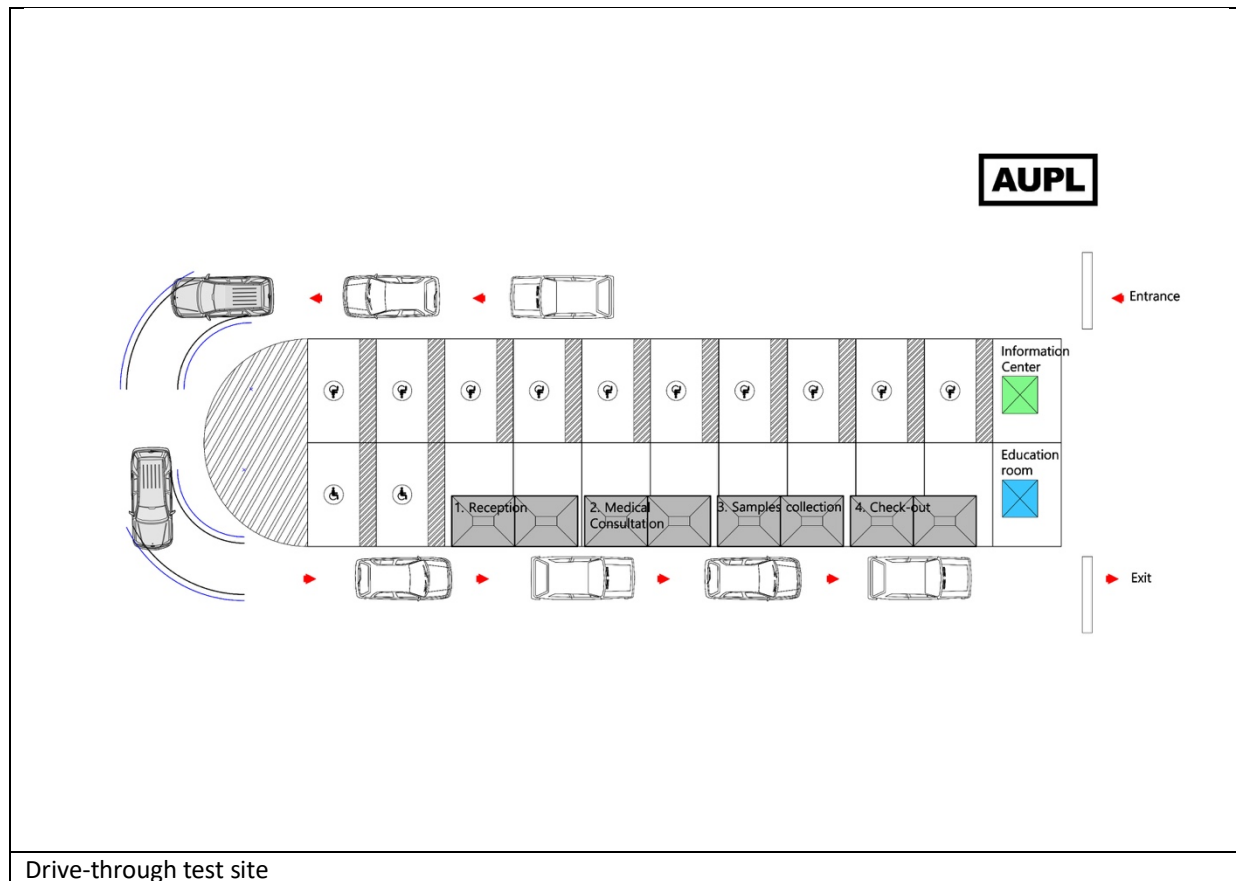
① Booking medical checkup and its location

An online reservation system can prevent people from waiting for a long time in a line. A smartphone application which locates the test sites is needed, and a platform which introduces the system can be implemented. When developing the application, working with local IT companies to develop such systems is needed. If it takes too much time or money make the location information known to citizens and encourage them to make their own application. For those who have difficulties connecting to the internet or use applications, there should be a call-in system.



② Drive through checkup process

Drive-through process has 6 steps in total. There is an information center where the entrance is located and one will be explained the process and their hands will be sanitized. At the first booth, the patient submits his registration including a request for care form (**Test Site Questionnaire, attached below**). Second booth is to measure temperature, and check symptoms, also to be examined by a doctor. Third booth is to collect samples of the upper airway and lower respiratory tract. The 4th station is the cashier to pay for the examination. After the last booth comes the education booth where you are informed about expected time until you get the test result and the ways you will be informed. It will also include ways to isolate yourself and receive a brochure including useful information regarding COVID-19. The result of the examination is out and the patient is informed within 2-3days by text message or by phone service.



3. Application

Once the specimen is collected through nasal discharge or phlegm, using 'Real time reverse transcription polymerase chain reaction, rRT-PCR' patients are examined. When we look at the process of its diagnosis, this could be used on suspected cases of COVID-19 by collecting their specimens with their phlegm using cotton swab collected from nasal or inside of the throat and strong cough to collect.

4. Necessary labor force

Administrative labor 1-3 person (registration, education, maintenance of the site, traffic agent), doctors 1-2 person(examination), nurses 1-2 person for collecting specimen, and disinfection 1 person- depending on operating system it can vary from 4 people to 8 people at the site

To install an examination center, it can get help from volunteers. Seoul city is collecting medical personnels through community service centers. If it's difficult to secure through a community service center, one could reach out to the region's doctor association, medical school alumni association and private hospital cooperation also if in shortage of medical personnel, can reach out to retired doctors or nurses.

5. Installation agent

①Town hall installs drive-through sites. In cooperation with hospitals, recruit medical personnels, administrative personnels from town hall and medical personnels from temporary transfer from hospitals.

②Hospitals can themselves install drive-through test sites. Hospitals with outdoor parking lots can use the space to install and if the hospital does not have outdoor parking space, cooperate with the town hall to secure space to install drive-through test sites.

6. Installation fee

Example from Korea it costs 15,000,000won, 11,700 USD, 10,800 euros

7. Operation hours

It is operated from 9h-18h but can be extended in case of demand.

8. Cautions for installation

① The site requires enough space to operate examination as the cars are constantly moving, and use containers or open-air tents.

② It is for a single driving person, there should not be a passenger and to shorten the waiting time, it is absolutely necessary to use a reservation system.

③ One way traffic in order to avoid overlapping of traffic

④ When you enter the examination center, the air recycler should be set to internal circulation mode.

Test Site Questionnaire Sample

Name		Date of Birth	
Symptoms	Fever	Y/N	
	Pharyngitis		
	Cough		
	Shortness of breath		
	Phlegm		
	Chest pain		
	Muscle ache		
	Headache		
	Runny nose		
	Other Symptoms		
Travel History	Daegu		
	Gyeongbuk province		
	Eunpyeong St. Mary's Hospital		
	Area visited by confirmed patient		
	Others		
	Overseas		
Pre-existing conditions	Diabetes		
	Chronic Kidney Disease		
	Hypertension		
	Organ Transplant		
	Chronic lung disease		
	Cardiac disease		
	Others		
Medication consumed within past 48 hours	Fever medication		
	Antibiotics		
	Anti-inflammatory meds		

(Ewha University Seoul Hospital-COVID-19 test site questionnaire)



(Sources: Hani.co.kr)



영남대병원이 지난 26일부터 코로나19 검사를 위한 드라이브 스루 선별진료소를 운영하고 있다. 영남대병원

(Sources: Espoir-sun.tistory.com/85)



(Sources: Gjtnews.com)



(Sources: Sagye.com)



(Sources: BBC.com)



(Sources: Information center, News.g-enews.com_

Research contributors

1. **SeungCheol, Ohk** (seungcheol.ohk@sciencespo.fr) - Director
 - Oxford university master of public policy, SciencesPo master of public affairs
2. **MuJong, Yoo** (merci.yoomong@gmail.com)
 - Ecole Spéciale d'Architecture Master Architecture, Université Grenoble Alpes Master Urbanisme
3. **SangCheon, Park** (ddachun02@gmail.com)
 - Seoul National University, Master of Urban environment
4. **Eunsung, Cho** (am.tiffanycho@gmail.com)
 - Michigan State University, bachelor of Architecture
5. **Bae Dae Yeon** (Baedaeyeon@gmail.com)
 - National University of Singapore, bachelor of politics
6. **Matthias Gaucher Petitdemange** (Matthias.gaucher.petitdemange@gmail.com)
 - Institut Catholique d'Arts et Métiers, Master of Mechanical Engineering

If you have any question related to this report, please contact (seungcheol.ohk@sciencespo.fr)