COVID-19
Lessons from Korea

Lee Hyorim

Situation Korea

10,423 cases

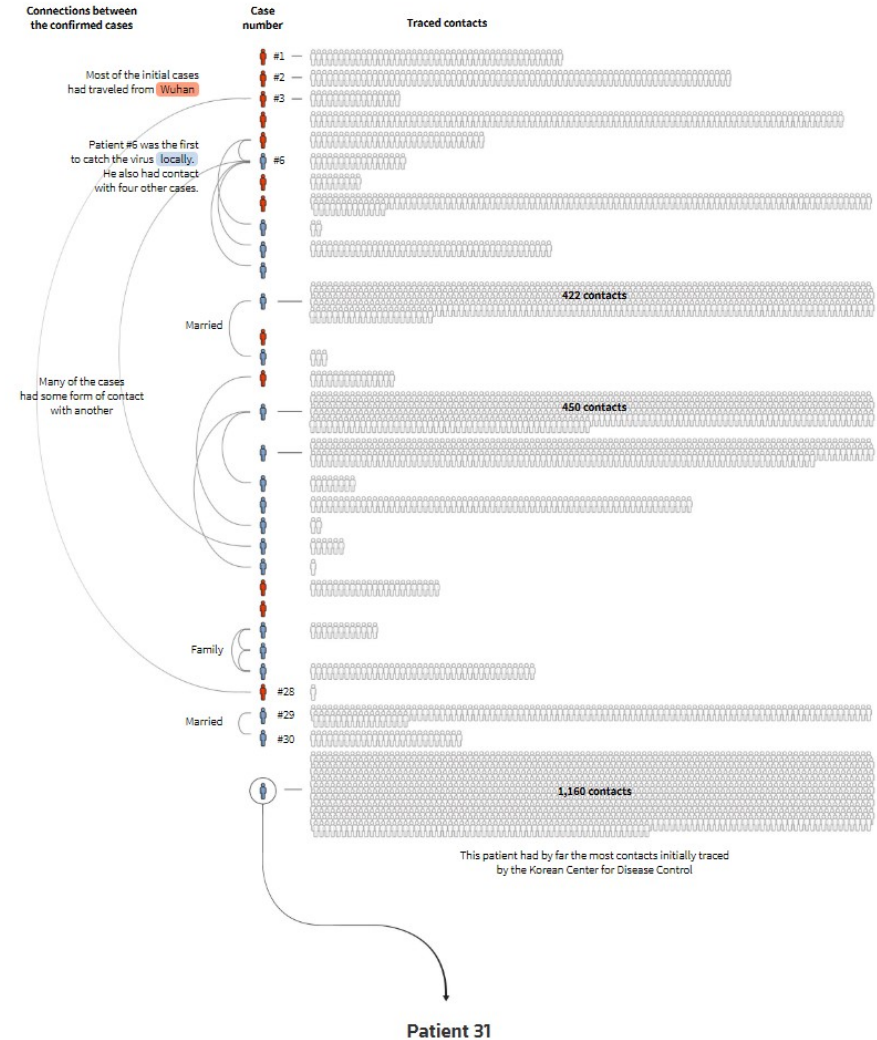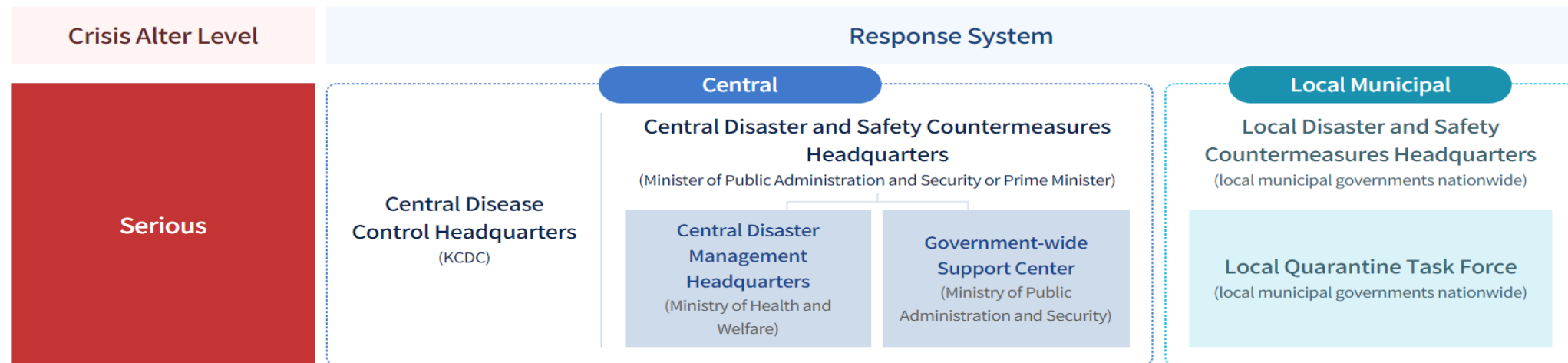Jan 20 — Apr 9
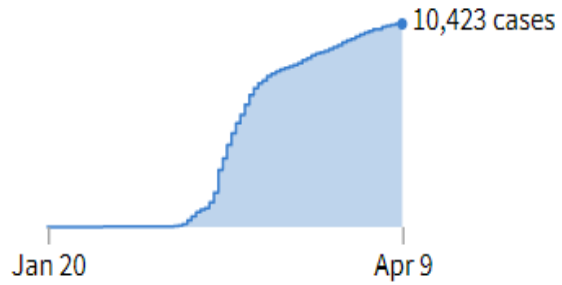
The Korean clusters

How coronavirus cases exploded in South Korean churches and hospitals

UPDATED MARCH 20, 2020

Connections between the confirmed cases

Case number

Traced contacts

Most of the initial cases had traveled from Wuhan

#1
#2
#3

Patient #6 was the first to catch the virus locally. He also had contact with four other cases.

#6

422 contacts

Married

Many of the cases had some form of contact with another

450 contacts

Family

Married

#28
#29
#30

1,160 contacts

This patient had by far the most contacts initially traced by the Korean Center for Disease Control

Patient 31

Korean Government's Response System(as of February 25, 2020)

Crisis Alter Level	Response System			
		Central		**Local Municipal**
Serious	**Central Disease Control Headquarters** (KCDC)	**Central Disaster and Safety Countermeasures Headquarters** (Minister of Public Administration and Security or Prime Minister)		**Local Disaster and Safety Countermeasures Headquarters** (local municipal governments nationwide)
		Central Disaster Management Headquarters (Ministry of Health and Welfare)	**Government-wide Support Center** (Ministry of Public Administration and Security)	**Local Quarantine Task Force** (local municipal governments nationwide)

危机预警级别	应对体系			
		中央		**自治体**
严重	中央防疫对策本部 (疾病管理本部)	中央灾难安全对策本部 (行政安全部长官或国务总理)		地区灾难安全对策本部 (全国自治体)
		中央事故处理本部 (保健福祉部)	泛政府支援本部 (行政安全部)	地区防疫对策班 (全国自治体)

A standard operating procedure (SOP)

- South Korea's SOP essentially calls for five steps:
  - ①　An aggressive and transparent information campaign
  - ②　High volume testing
  - ③　Quarantine of infected individuals
  - ④　Treatment of those in need
 - ⑤　Disinfection of contaminated environments

Justin Fendos, a cell biology Ph.D. from Yale living in Busan, South Korea

Lessons From South Korea's COVID-19 Outbreak: The Good, Bad, and Ugly Where South Korea has succeeded – and where it has struggled – in containing the new epidemic.

https://thediplomat.com/2020/03/lessons-from-south-koreas-covid-19-outbreak-the-good-bad-and-ugly/?fbclid=IwAR0a2R7CBvW1rtUhTHQzXJp592X0Jzs8CZDzNw8-XX3_jaDfp_qMkk2h9YA

'Trace, Test and Treat' – BBC, By Laura Bicker

An aggressive and transparent information campaign
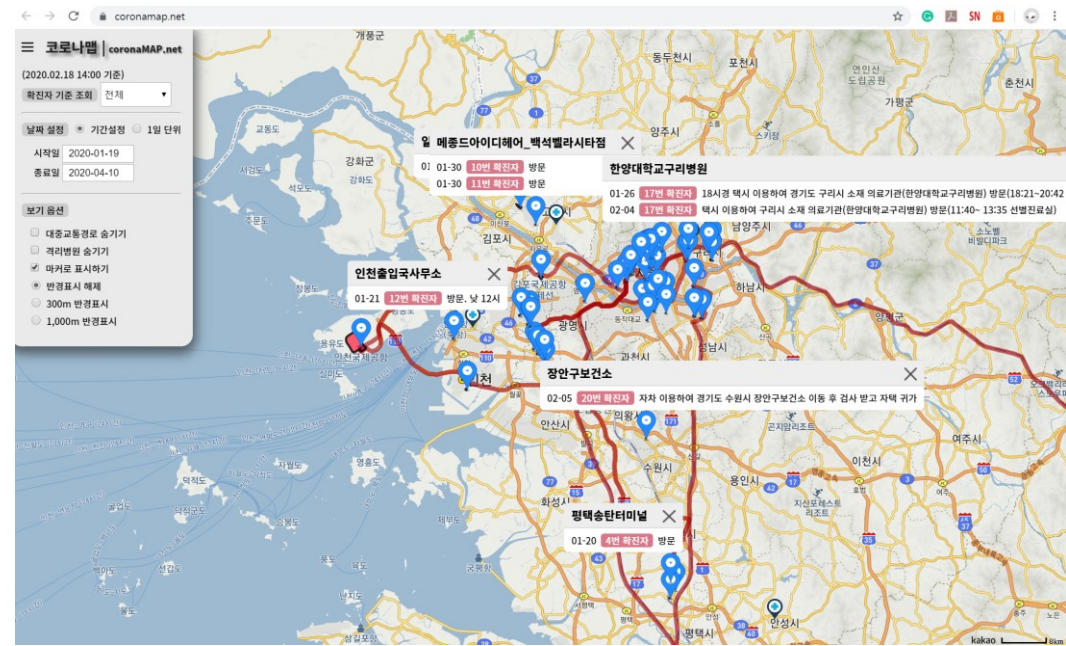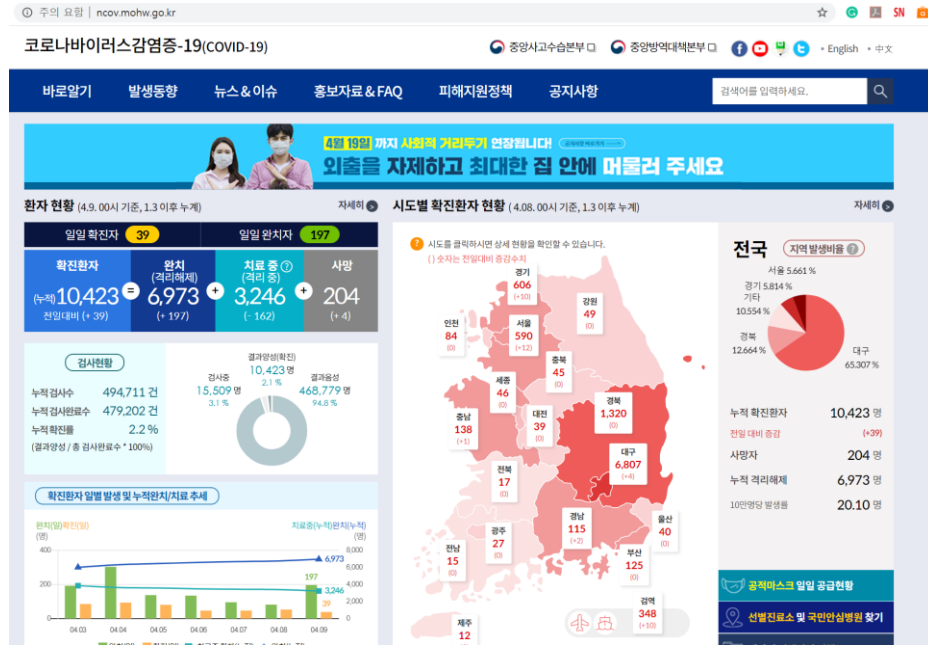
Coronavirus Disease-19, Republic of Korea

Central Disaster Management Headquarters

Central Disease Control Headquarters
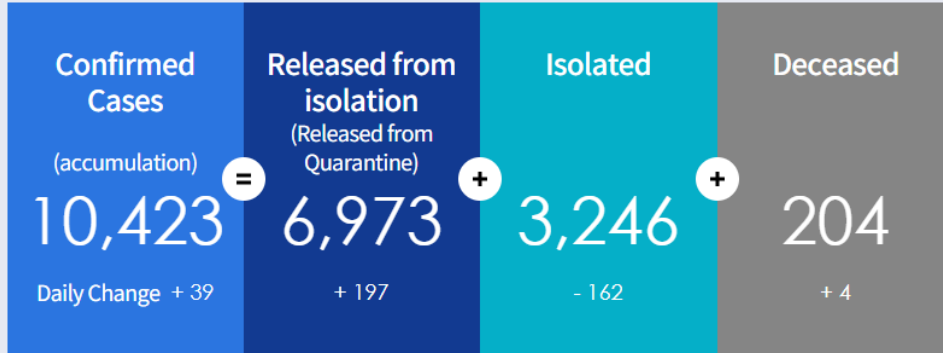
• Korean • Chinese
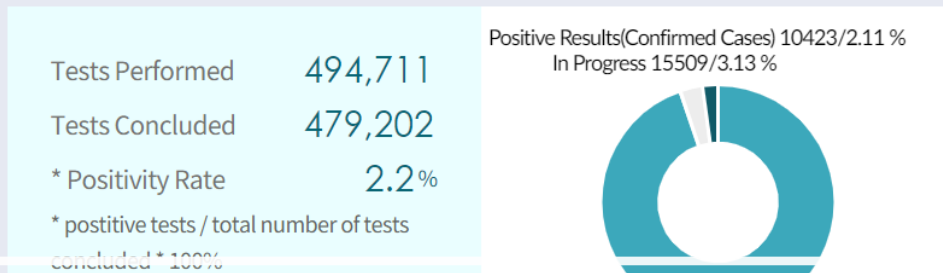
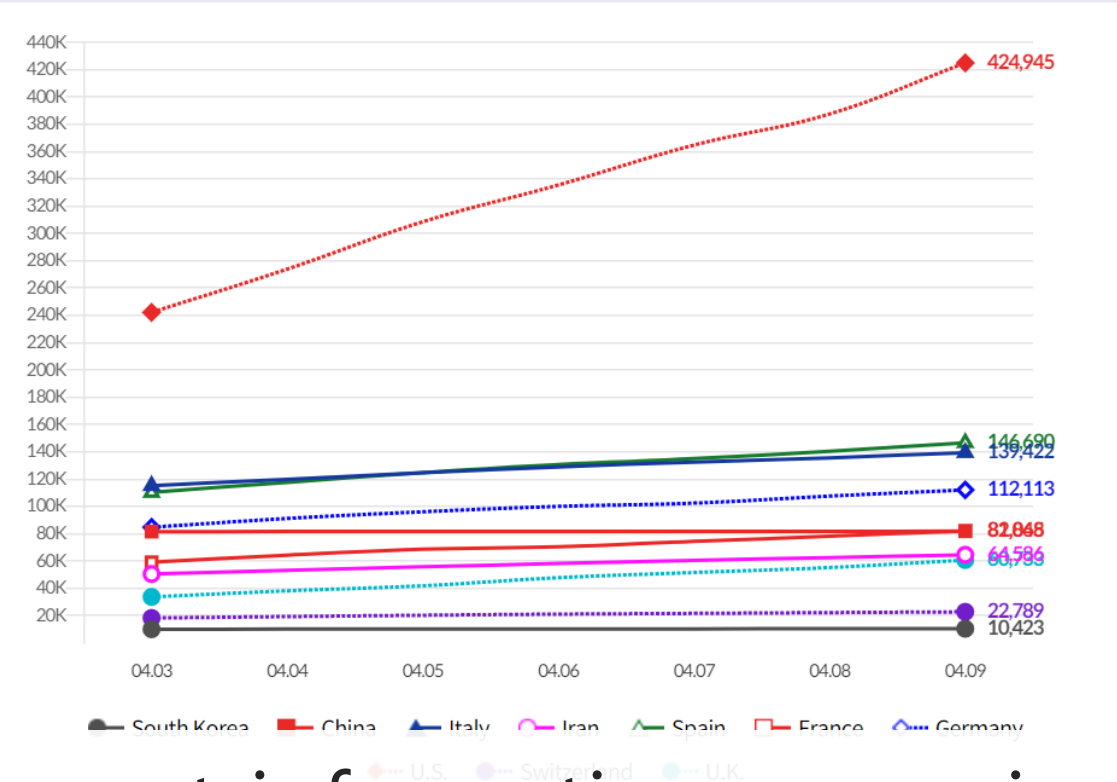About COVID-19   Latest Updates   Media Resources   Public Advice   Notice

Cases in Korea (as of 12am on April 09, 2020, data aggregated from January 3)

Confirmed Cases (accumulation)	Released from isolation (Released from Quarantine)	Isolated	Deceased
= 10,423	+ 6,973	+ 3,246	204
Daily Change + 39	+ 197	− 162	+ 4

Testing in Korea (as of 12am on April 09, 2020, data aggregated from January 3)

Tests Performed	494,711
Tests Concluded	479,202
* Positivity Rate	2.2 %

* postitive tests / total number of tests

Positive Results(Confirmed Cases) 10423/2.11 %
In Progress 15509/3.13 %

Weekly Updates for Countries with Major Outbreaks

440K
420K   424,945
400K
380K
360K
340K
320K
300K
280K
260K
240K
220K
200K
180K
160K
140K   146,690
139,422
120K
100K   112,113
80K   82,048
60K   64,586
60,733
40K
20K   22,789
10,423

04.03 04.04 04.05 04.06 04.07 04.08 04.09

South Korea   China   Italy   Iran   Spain   France   Germany
U.S.   Switzerland   U.K.

An aggressive and transparent information campaign

Coronavirus outbreak (COVID-19)

Media

Public

冠状病毒感染症疫情-19

中央防疫对策本部   中央事故处理本部   • Korean • English

简要了解   发生动向   媒体资料   建议事项   公告事项

韩国患者现状 (截至 2020年04月09日00时, 1月3日以后累计)
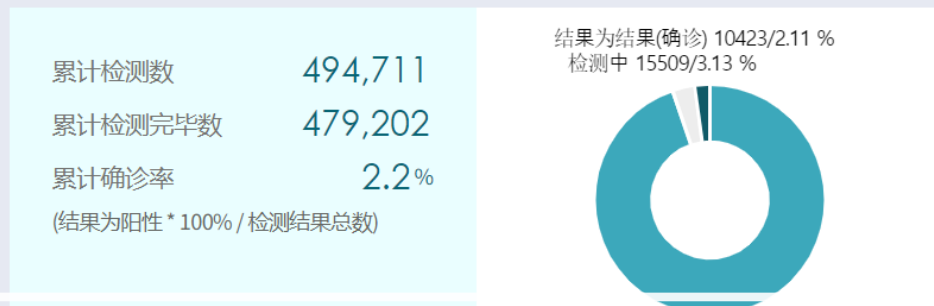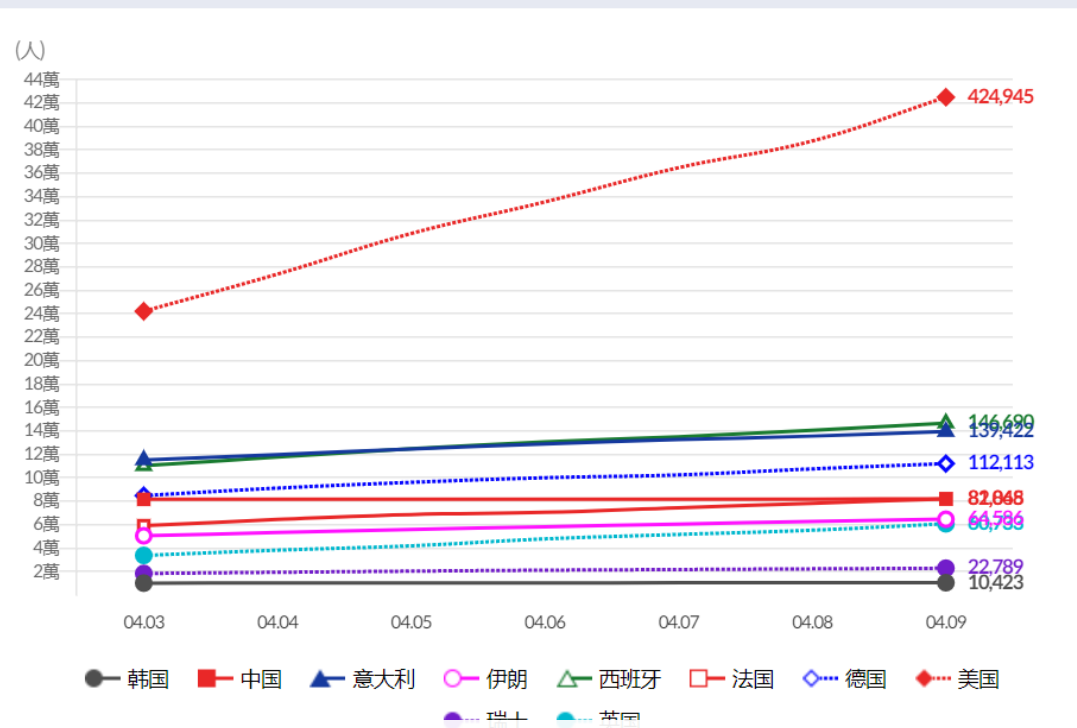
确诊患者 累计		治愈 (隔离解除)		治疗中 (隔离中)		死亡
10,423	=	**6,973**	+	**3,246**	+	**204**
较昨日 +39		+197		− 162		+ 4

韩国检测现状 (截至 2020年04月09日00时, 1月3日以后累计)

累计检测数	494,711
累计检测完毕数	479,202
累计确诊率	2.2%

(结果为阳性 * 100% / 检测结果总数)

结果为结果(确诊) 10423/2.11 %
检测中 15509/3.13 %

结果为阴性 468779/94.76 %

主要发生国家的一周动向

(人)

424,945
146,499
139,422
112,113
82,068
64,586
22,789
10,423

04.03 04.04 04.05 04.06 04.07 04.08 04.09

韩国 中国 意大利 伊朗 西班牙 法国 德国 美国
瑞士 英国

An aggressive and transparent information campaign

Coronavirus outbreak (COVID-19)
COV'T BRIEFS

媒体资料

建议事项

An aggressive and transparent information campaign

- The Korean government thoroughly identifies the whereabouts of confirmed cases based on their credit card use history, CCTV, and mobile phone location information and disclose the information transparently to prevent additional infections and help people learn whether they are contacts themselves.
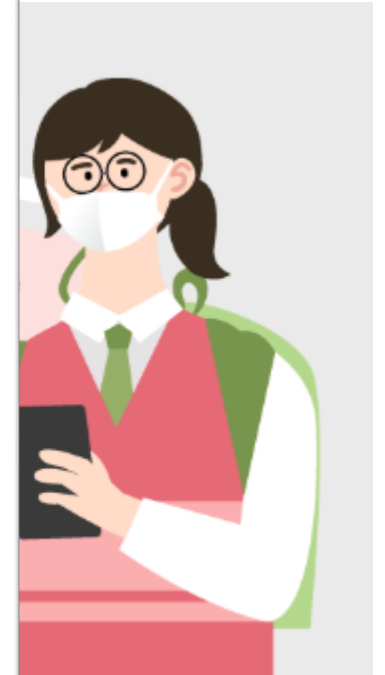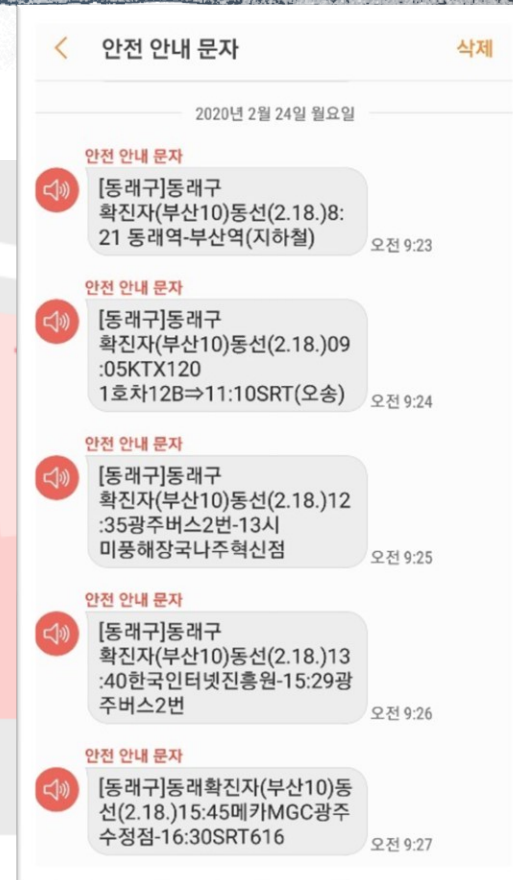
95% 96% 89%
Smartphone   Cashless   VEDR

안전 안내 문자   삭제

2020년 2월 24일 월요일

안전 안내 문자
[동래구]동래구 확진자(부산10)동선(2.18.)8:21 동래역-부산역(지하철)   오전 9:23

안전 안내 문자
[동래구]동래구 확진자(부산10)동선(2.18.)09:05KTX120 1호차12B⇒11:10SRT(오송)   오전 9:24

안전 안내 문자
[동래구]동래구 확진자(부산10)동선(2.18.)12:35광주버스2번-13시 미풍해장국나주혁신점   오전 9:25

안전 안내 문자
[동래구]동래구 확진자(부산10)동선(2.18.)13:40한국인터넷진흥원-15:29광주버스2번   오전 9:26

안전 안내 문자
[동래구]동래확진자(부산10)동선(2.18.)15:45메카MGC광주수정점-16:30SRT616   오전 9:27

High volume testing

- **118 locations** – 23 public facilities, 81 healthcare facilities, and 14 commercial laboratories - that provide testing and diagnosis services

- the maximum daily testing capacity increased from 3,000 people (February 7) to approximately **15,000 people in March.**

- As of March 16, 2020, **635 clinics and screening centers** are in operation, of which 94.8 percent (602 locations) are equipped to collect samples onsite.

Tests Performed	503,051
Tests Concluded	487,753
* Positivity Rate	2.1 %

* postitive tests / total number of tests concluded * 100%

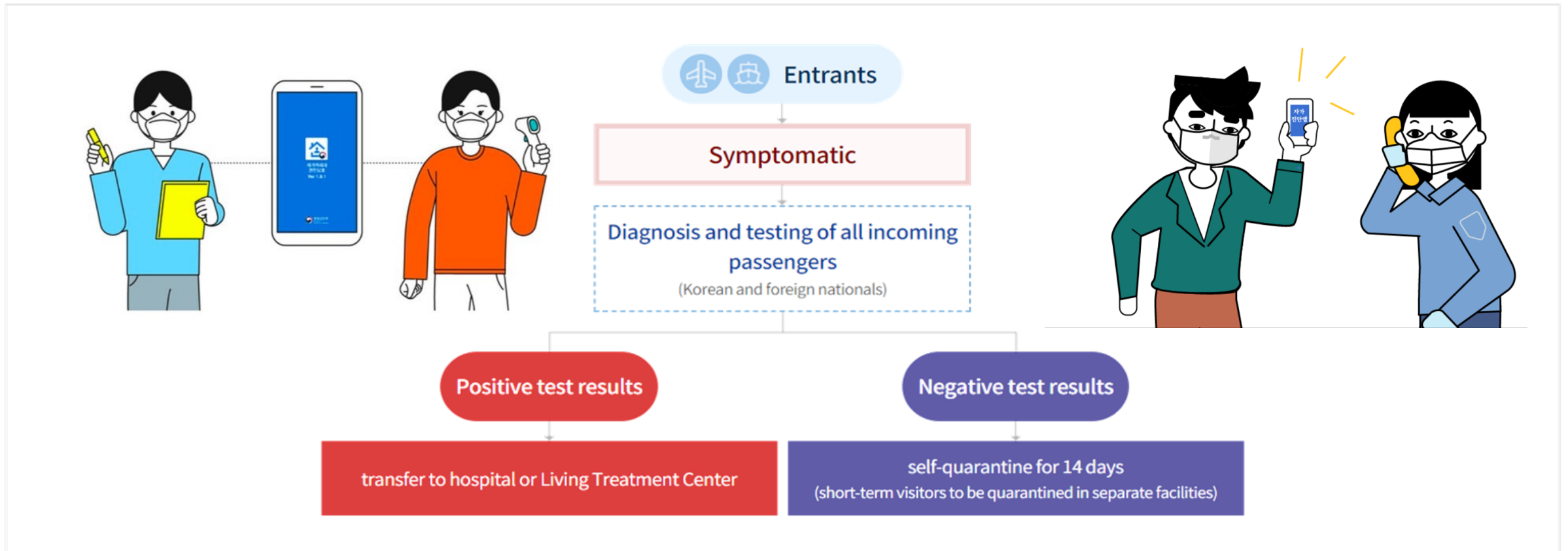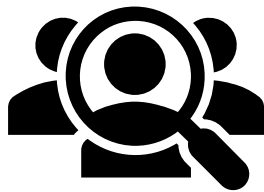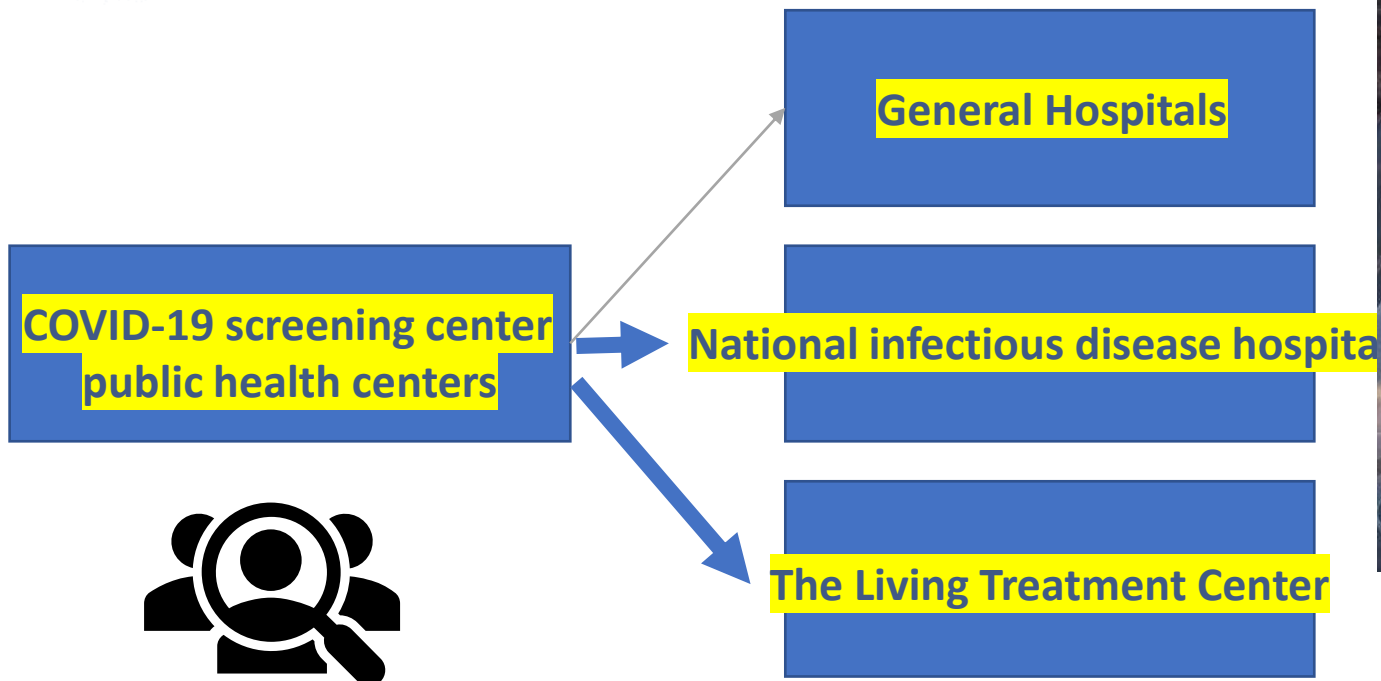| 累计检测数 | 503,051 |
| 累计检测完毕数 | 487,753 |
| 累计确诊率 | 2.1 % |

(结果为阳性 * 100% / 检测结果总数)

High volume testing

24 hours

High volume testing

Quarantine of infected individuals Treatment of those in need

COVID-19 screening center public health centers

→ General Hospitals

→ National infectious disease hospital

→ The Living Treatment Center

Level : mild, moderate, severe, and extremely

Disinfection of contaminated environments

M	T	W	T	F	WEEKEND
1, 6	2, 7	3, 8	4, 9	5, 0	Anyone who didn't buy masks on a weekday.

Customers are allowed to buy

2 masks per person for

$1.20 a mask
(*pre-Covid-19 price $2*)

Source: South Korean government

Disinfection of contaminated environments

What Korea learnt from last disaster

2015 MERS Cases in South Korea
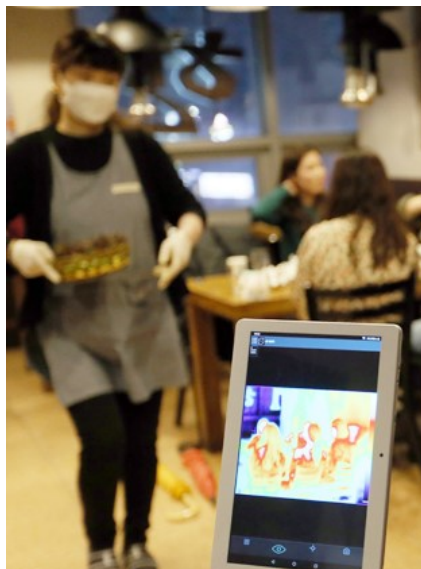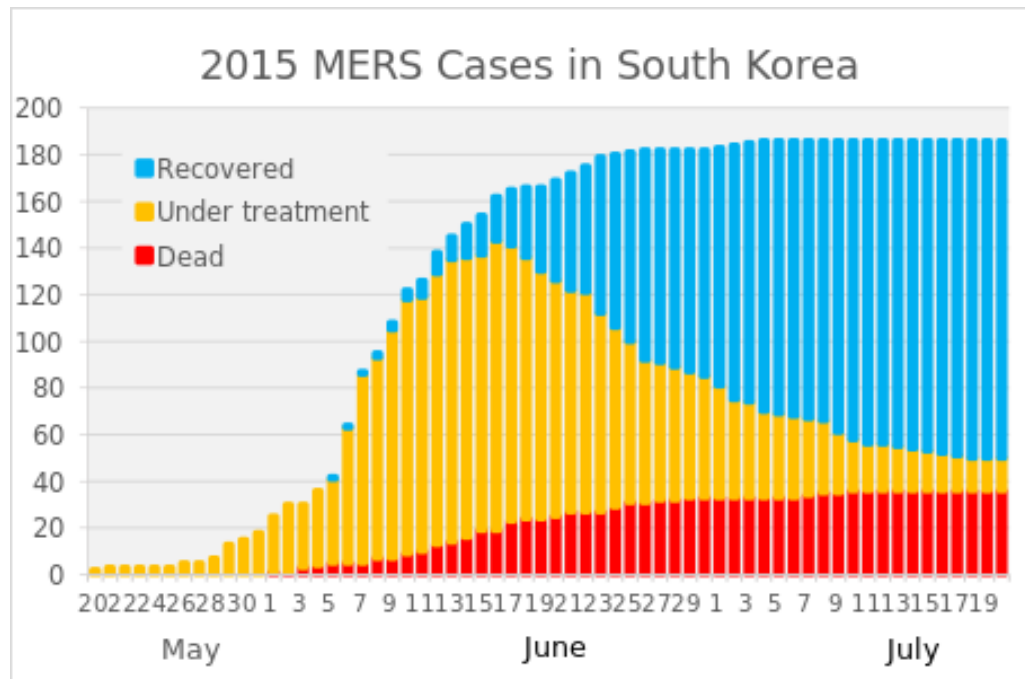
21%

What Korea learnt from last disaster

관심 (Blue)	
해외에서의 신종감염병의 발생 및 유행	2020/01/08 ↓
[정부 대처 보기]	
주의 (Yellow)	
신종감염병의 국내 유입	2020/01/20 ↓
[정부 대처 보기]	
경계 (Orange)	
국내 유입된 해외 신종감염병의 제한적 전파	2020/01/27 ↓
[정부 대처 보기]	
심각 (Red)	
국내 유입된 해외 신종감염병의 지역사회 전파 또는 전국적 확산	✓ 2020/02/23
[정부 대처 보기]	

- 1/20 : Central Disease Control Headquarters中央防疫対策本部
- 1/23 : First Warning Message via Mobile
- 2/12 : Fast Track for RT-PCR
- 2/23 : コロナ19対策特別委員会
- (国会保健福祉委員会) Special Committee on Corona 19 Measures
- 2/27 : (National Assembly Health and Welfare Committee)

Other Backgrounds

References

- http://ncov.mohw.go.kr/en
- http://www.cdc.go.kr/cdc/
- https://thediplomat.com/2020/03/lessons-from-south-koreas-covid-19-outbreak-the-good-bad-and-ugly/?fbclid=IwAR0a2R7CBvW1rtUhTHQzXJp592X0Jzs8CZDzNw8-XX3_jaDfp_qMkk2h9YA