Trace, Test and Treat COVID-19 in Korea

Myongji Hospital, Korea
The Epidemiologic curve in Korea shows the progression of COVID-19 cases from January 20 to March 20. The chart highlights key events such as the first confirmed case on January 20, the first death on January 25, and the rapid increase in cases from February 20 to March 13. The number of confirmed cases peaked around March 18, with a total of 8,652. The curve is divided into three phases:

- **Phase 1** (January 20 to February 28): The initial outbreak with a relatively low number of cases.
- **Phase 2** (February 29 to March 10): A significant increase in cases with over 2,000 confirmed cases reported on February 28.
- **Phase 3** (March 11 to March 20): The number of new cases slowed down, but the total cases continued to rise.

Key events include:
- 169 cases involved the same church and another 111 came from the Cheongdo Daenam Hospital.
- The first death was reported in a mental ward of Cheongdo Daenam Hospital in Cheongdo County.
- Confirmed its 31st case in Daegu, a member of the Shincheonji religious organization.
- WHO declared COVID-19 as a pandemic on March 11.

The chart also notes that the number of recoveries was larger than the number of those who newly tested positive on March 13.

Source: KCDC
Epidemiologic curve in Korea

- Daegu, Gyeongbuk
- Seoul, Gyeonggi, Incheon

Source: KCDC
Demographics & Case fatality rate

- Male 38.6%  Female 61.4%  3,000

Confirmed cases by age:
- 0-9: 103
- 10-19: 460
- 20-29: 2,417
- 30-39: 917
- 40-49: 1,218
- 50-59: 1,702
- 60-69: 1,139
- 70-79: 599
- 80+: 396

Case fatality rate: 1.1%

High risk groups: old age (60 and above, patients with underlying diseases)

Source: KCDC
Epidemiology in Korea

Confirmed Cases

- Gyeonggi: 309
- Gangwon: 30
- Incheon: 36
- Seoul: 299
- Chungbuk: 33
- Chungnam: 119
- Sejong: 41
- Gyungbuk: 1,203
- Deagu: 6,275
- Jeonnam: 5
- Gwangju: 18
- Jeonbuk: 10
- Gyungnam: 87
- Busan: 108

Source: KCDC
Korea’s 4 Key Strategies against COVID-19

1. Transparency & Openness
2. Containment & Mitigation
3. Triage & Treatment system
4. Massive screening & Fast tracking
Transparency & Openness

transparent and open communication
Transparency & Openness

No imposed regional blockade in Daegu

International entry is open
Containment & Mitigation

employs a two-pronged approach to contain the virus namely, containment and mitigation
Containment & Mitigation

Social distancing has been adopting not forcibly but by inducing voluntary civic participation.

Hold on!
Let’s take a break from social life

Social Distancing Campaign to Prevent the Spread of COVID-19

Please keep the following rules for 2 weeks:

1. Refrain from going outdoors and avoid physical contact with others.
2. Keep in touch with people through social media instead of meeting them in person.
3. Keep your personal hygiene by washing your hands and wearing a mask.

This campaign is based on the recommendations of the COVID-19 Countermeasures Committee (Feb. 29) and the Korean Medical Association (Feb. 28).

Before visiting the hospital, please call: 
1330 / 1345 / 120 Seoul Metropolitan Disaster and Safety Countermeasures Headquarters
Triage & treatment system

- Cases that were not identified and not diagnosed
- Mild to Moderate: 81%
- Severe: 14%
- Critical: 5%

- Tertiary hospitals
- National designated isolation hospitals
- Public community hospitals
- Community treatment centers
Massive screening & fast tracking

EUA-granted diagnostic kits in Korea

<table>
<thead>
<tr>
<th>Company</th>
<th>Approved</th>
<th>Weekly supply (kits)</th>
<th>Weekly Diagnostic Capability (people)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kogene Biotech</td>
<td>Feb. 4</td>
<td>10,000</td>
<td>250,000</td>
</tr>
<tr>
<td>Seegene</td>
<td>Feb. 12</td>
<td>1,000</td>
<td>30,000</td>
</tr>
<tr>
<td>Solgent</td>
<td>Feb. 27</td>
<td>1,000</td>
<td>50,000</td>
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<tr>
<td>SD Biosensor</td>
<td>Feb. 27</td>
<td>2,000</td>
<td>100,000</td>
</tr>
<tr>
<td>BioSewoom</td>
<td>Mar. 16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

EUA: Emergency Use Authorizations
Massive screening & fast tracking

Korea developed ‘drive-thru’ and ‘walk-thru’ test centers for COVID-19.
Massive screening & fast tracking

20,000 people are being tested every day

100 laboratories to test for SARS-CoV-2
Myongji Hospital
Cases in Myongji Hospital

n = 19 (as of Mar 19)
- The groups are classified by KCDC
Cases in Myongji Hospital

- Cardiovascular disease: 29%
- Chronic liver disease: 14%
- Diabetes: 29%
- Cancer: 7%
- Pulmonary disease: 7%
- Others: 14%

67% pneumonia developed


1Department of Laboratory Medicine, Myongji Hospital, Hanyang University College of Medicine, Goyang, Korea
2New Horizon Cancer Institute, Myongji Hospital, Goyang, Korea
3Department of Family Medicine, Myongji Hospital, Hanyang University College of Medicine, Goyang, Korea
4Department of Internal Medicine, Myongji Hospital, Goyang, Korea
5Office of Chief Executive Officer and Chairman, Department of General Surgery, Myongji Hospital, Goyang, Korea
6Department of Infectious Diseases, Myongji Hospital, Goyang, Korea
7CancerDSP, Seoul, Korea
8Department of Pulmonary and Critical Care Medicine, Myongji Hospital, Goyang, Korea
Development of RT-PCR Kit & Better Diagnosis Using AI
Thank you

Myongji Hospital, Korea