# Overcoming COVID-19 in Daegu:

The path nobody taught us



**International Affairs & Trade Division** 

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## **Executive Summary**

#### **Epidemic to Pandemic**

The impact of the coronavirus pandemic on Daegu Metropolitan City (hereinafter referred to as Daegu) was far beyond initial expectations. Beginning on February 18<sup>th</sup>, 2020, during the first month of the outbreak in Daegu, the number of cases soared sharply on an unprecedented scale – mainly affecting and spread by the 'Shincheonji (a religious group based in Korea).' In accordance with Korean national policy directions, the city government of Daegu took extreme measures to curve and slow the increase/spread of coronavirus and the associated disease, COVID-19 – in the region. However, challenging issues constantly arose from all corners and proved difficult to cope with effectively since COVID-19 is highly contagious and (especially at that time) an 'unknown' virus at national, regional, and global levels. Furthermore, it was not easy for the city government of Daegu to make a 'thorough & immediate' investigation into the activities of the religious group (Shincheonji) related with the outbreak, as they are a very private organization. Uncovering the secretive activities within the Shincheonji, while establishing causality or correlation between Shincheonji and the outbreak of COVID-19 in Daegu proved challenging in the beginning.

Eventually, the spread of coronavirus influenced the whole of society, from diverse aspects like health, socio-economy, and commerce, to education and international relations. On March 11<sup>th</sup> – three weeks after the first confirmed case was reported in Daegu – the World Health Organization (WHO) finally announced that the outbreak was a global pandemic as the spread of coronavirus was observed in nearly every corner of the world, with the number of confirmed cases and mortality rate having abruptly increased.

#### Daegu's Fight against COVID-19

Due to the high fatality rate of coronavirus, various jointly-created countermeasures were put in place as an 'integrated system' within a very short period by the lead of the city government of Daegu to tackle the spread of the virus across the region. In particular, these implemented measures in Daegu proved to be effective in preventing the virus from spreading further. In these early stages, these measures also played a key role in stabilizing the local economy and can be summarized as follows: drive-through & walk-through testing sites, residential treatment centers (also frequently referred to as community treatment centers)<sup>1</sup>, real-time alert & communication systems (SNS & mobile phone SMS),

<sup>1</sup> 

<sup>&</sup>lt;sup>1</sup> Facilities such as training centers affiliated to public & private organizations and university dormitories were used as Residential Treatment Centers and they were provided on a voluntary basis. Residential Treatment Centers were initially established in Daegu to accommodate the fast-growing numbers of infected patients of COVID-19 and were adopted as a national standard in Korea.

transparent information sharing, ICT-based information dissemination, government-guided but citizendriven social movements, and emergency subsidies. Due to their success, some of these actions were reported as innovative by numerous members of the foreign press.

Economically, Daegu was not as derailed as it might possibly have been, despite substantial degrees of economic downturn reported during the first 3 months since the outbreak (February 18<sup>th</sup>, 2020), the economic stability of Daegu led by the diverse, multifaceted roles of city government. In general, strict policy coherence and a strong intervention by the city government made significant contributions in maintaining economic stability in the region. The implemented financial support by the city government of Daegu can be categorized as follows: 1) financing local business & companies, 2) direct in-kind support to local households, and 3) taxation.

### How did Daegu respond to the unprecedented threats?

#### 1) Prompt, Mass-Scale Testing and Preemptive Response

When the first confirmed case of the coronavirus in Daegu was reported to be from a religious group, the city became fully aware of the seriousness of the situation. As such, an emergency response advisory team consisting of the mayor, professors, and experts in infectious diseases and preventive medicine was immediately formed and then held daily, late night meetings to deal with the situation. Within three days, from February 19<sup>th</sup> to the 21<sup>st</sup>, 9,336 Shincheonji members were reached, and with the help of 170 doctors, 2,700 church members were diagnosed with 1,243 confirmed cases identified. With their symptoms verified, each were reported to public health centers and isolated from the general population. In addition, the city carried out massive testing for vulnerable people, such as patients in care homes, social welfare facilities, and many more. Testing reached a maximum of 7,000 specimens a day with up to 100,000 accumulated samples.

#### 2) Different Tier Classifications of Patients & Real-time Hot-Line among Medical Professionals

Networking for real-time emergency response was a critical strategy for tackling COVID-19 in Daegu. Before the Central Disaster and Safety Countermeasure Headquarters (hereinafter referred to as CDSCH) arrived in Daegu, there were real-time group chat rooms to share and respond to urgent issues already in place. These SNS group chat rooms were used as active communication channels between the city and the hospitals in Daegu. In addition, the SNS system proved very effective for classifying patients into different tiers according to their respective symptoms. This was also a key factor in curving the explosion of infected cases since the coronavirus was highly contagious among people in the early stage of its outbreak in Daegu.

The first group chat room's members were the chief directors of general hospitals in Daegu. After a continuous series of cases tested positive, a group chat room was made for the chief directors and medical professors in Daegu to share information regarding their patients and medical resources. Another group chat room was populated with members from various working groups, including those from the Daegu Medical Association, Korean Hospital Association, and Daegu. The medical societies and the city government in Daegu could now manage and control the growing number of disruptive situations because they immediately shared urgent issues and critical information on the ground.

#### 3) Citizen Engagement and Voluntary Participation

Unlike many other cities and countries, at the municipal level, the city government of Daegu did not implement obligatory policies such as a lockdown and blockade. However, Daegu citizens voluntarily closed their businesses, refrained from social activities, agreed to postpone school openings, and stayed at home without traveling outside Daegu to other regions in order to not spread the virus beyond the city. While enduring these difficult and inconvenient times longer than other Korean nationals, the people of Daegu willingly abided by safety and health guidelines in their daily lives, which became the most significant key to successfully handling the spread of coronavirus across the region.

#### 4) Drive-through & Walk-through

This particular case in Daegu was involved with a cluster case, which gave rise to a full blown spike. What occurred next were massive numbers of suspected patients as well as a growing number of testing facilities scaling up laboratory work. This created a soaring demand for health checks and increased waiting times, raising the risk of infection. For these challenges, Kyungpook National University Chilgok Hospital created a drive-through station for the first time ever, by using an idea from Dr. Kim Jin Yong, the head of infectious diseases. In fact, initially the drive-through method was actually only a paper concept, so there were some doubts. However, given the urgency and severity, it was worthwhile giving it a go to help dramatically reduce testing time and prevent excessive pressure on the healthcare system. The quick implementation of drive-through testing sites established a best practice for finding confirmed cases and to isolate them from the local community. Indeed, it allowed the process of testing to be reduced to within 10 minutes. Meanwhile it minimized both hospital pressure and transmission risks by keeping potential patients out of hospital waiting rooms. At its peak, seven drive-through testing sites were operating in Daegu but have since been reduced to only four. Thanks to this kind of innovative method, testing could dramatically be increased, while preventing hospitals from being overwhelmed.

#### 5) Residential Treatment Center (Community Treatment Center)

In Daegu, Residential Treatment Centers were the key to preventing the collapse of the medical system. After the first confirmed case was reported in the city, the number of patients rapidly spiked, yet the availability of negative pressure rooms, which are crucial for contagious disease containment, was not sufficient. Patients, their families, and even citizens were becoming increasingly more vocal about concerns while those in the medical community expressed the need for special measures. In response, Daegu City consulted with the central government to consider ideas to counter this issue. On March 1<sup>st</sup>, the Central Disaster and Safety Countermeasure Headquarters (hereinafter referred to as CDSCH) made a decision to operate Residential Treatment Centers. Furthermore, to overcome hospital-bed shortages and to treat patients in timely manner, it was decided to classify the patients according to the degree of their symptoms and to treat them separately. The city government, national ministries, and national agencies united and organized the Residential Treatment Center Management Team.

#### 6) Daegu as a Medical Hub and the Selfless Support from Medical Professionals

Daegu – a medical hub in Korea and Northeast Asia – has intensively fostered the medical industry as a 'Medi-city' and in 2009 built a medical network within the city, including 5 associations of doctors, nurses, dentists, pharmacists, and oriental doctors, and 10 high-level hospitals. Through this close network and with universal cooperation, Daegu swiftly dealt with the unprecedented medical crisis efficiently and safely. Even private hospitals transformed themselves into COVID-19 exclusive hospitals, while medical professionals, including doctors and nurses across the nation rushed to Daegu to help with the care of coronavirus-infected patients. Moreover, through the use of group SNS, the heads of hospitals and various experts in the field shared information quickly, identifying hospital bed availability, while greatly assisting with the operational medical responses needed for confirmed cases. This monumental sacrifice by medical professionals and the cooperation of both the public and private sectors enabled Daegu to prevent its medical system from having a total collapse.

## Chapter 1. Daegu's Response to COVID-19

## 1.1. Safety Nets and Countermeasures in Public Health

Shincheonji, based in Gyeonggi province, has over 300,000 believers across the nation. They attend religious services in private locations and frequently attend small group meetings. These behaviors rapidly escalated the spread of the virus among fellow believers, their families, and acquaintances. As of May 25th, 62% or 4,265 out of 6,874 total confirmed cases in Daegu were Shincheonji-related. This rapid increase of confirmed cases in the Shincheonji Daegu branch stigmatized Daegu as a coronavirus epicenter outside China. It became urgent to have a list of potentially infected people to help constrain the spread of the virus in the community. In order to do that, in the beginning of the outbreak, the city had difficulty securing a full list of Shincheonji members because they were asked to cooperate voluntarily. However, newly-confirmed cases continued to rise among those who were not on that list, the city quickly changed its policy and obtained a full list by confiscating relevant documents and then closing down some of their service places.

Nonetheless, Daegu has succeeded in containing the spread of the virus which was initially triggered by the collective infection at Shincheonji. Daegu's successful and rapid recovery from COVID-19 originates from a bold set of measures on public health and enacting immediate response citywide. These initiatives have been successful in flattening the curve and responsible for saving many lives, setting the stage for gradually returning the region back to normal. In response to many inquiries from around the world seeking reasons why and steps for how to duplicate Daegu's fast recovery, key factors for overcoming these challenges in protecting public health in Daegu can be mainly described as 3Ts (Testing, Tracing, and Treating) which is aligned with the national government's policies. However, it is noteworthy that Daegu's 3Ts can be interpreted as being stricter and more expanded since Daegu's initial situation of COVID-19 was even more serious than the other areas in Korea.

#### **Drive-through and Walk-through**

After the first case of coronavirus was reported in Daegu on February 18<sup>th</sup>, a large number of confirmed patients were members of the Shincheonji religious group, nearly overloading the medical system in Daegu to collapse. Some patients went directly to an emergency room instead of going to a screening center. Many were then confirmed as positive. As a result, a few emergency rooms in general hospitals closed and any medical staff who had contact with confirmed patients were put in self-isolation. Fortunately, an innovative idea prevented a worse situation. Dr. Kim, Jin Yong, the head of infectious diseases at Incheon Medical Center, designed an outline for a drive-through testing site on February 21<sup>st</sup>. The drive-through testing site is a screening center where users and medical staff do not have close

face-to-face contact with each other. Dr. Kim expressed that accessibility and privacy were the two most successful features of the design. On February 23<sup>rd</sup>, Dr. Kim's idea was implemented at Kyungpook National University Chilgok Hospital, establishing the first of its kind. As drive-through testing sites are easy to access and protect users' privacy, Shincheonji believers visited the temporary and exclusive sites and received COVID-19 testing.

Not only was drive-through testing enabled, but also mobile testing facilities and door-to-door testing began as ways to collect specimens. Because of these ideas, collecting specimens outside hospitals made it possible to save time and space for tackling the virus. The quick implementation of drive-through testing sites was established as a best practice for finding confirmed cases and to isolate them from the local community. At its peak, seven drive-through testing sites were operating in the city but have since been reduced to only four.

Picture 1. Drive-through testing sites and facilities in Daegu





#### **Surveillance and Tracing**

Surveillance helped find more active cases, while contact tracing and monitoring quarantined and isolated cases was established. On February 18th, 7 out of 10 confirmed cases were identified as members of Shincheonji, so it became vital to find all members and trace them in order to prevent further contagion. To accomplish this mission, rigorous investigations were conducted by task-force comprising of officers teams. public and epidemiologists, utilizing cutting-edge technology/telecommunication information, e.g., credit card-transactions, CCTV footage, and GPS data on mobile phones when necessary. As a result, over 3,000 suspected personnel in the Shincheonji group were investigated, and 544 confirmed cases were identified within just 48 hours. This rapid response broke the chain of the spread, while the tracing information, which was anonymized for the purpose of privacy protection, alerted the public so that they themselves could engage in the containment process.

#### **Treating**

Despite great efforts to control it, the pandemic hit hard the healthcare system. Due to limited capacity, medical establishments were overwhelmed with patients that many could not handle. On February 27<sup>th</sup>, for example, patients were turned away in queues at clinics. The full scale of testing caused a dilemma where the more testing took place the more cases were discovered. To tackle the emergency, a live consultation was held among medical fronts, the discussion lasting through the night. As a contingency, they finally managed to acquire beds at Keimyung University Dongsan Medical Center, which was allocated as a main center for COVID-19.



Picture 2. Clinical staff armoring up for the battle against COVID-19

Further bed shortage management was handled by the surrounding provincial governments along with the participation of the national army hospital, putting together an integrated hospital management system. Additionally, to streamline case management, new facilities - namely community centers - were created for patients with light symptoms and/or no symptoms, which accounted for over 80% of confirmed cases just needing to be quarantined and monitored. By adopting these facilities, treatment demands eased managing beds and eventually returned to baseline precautions.

**Table 1.** Medical workers dispatched in Daegu (as of May 18<sup>th</sup>, 2020)

Doctor	Nurse	Others (care workers, clinic pathologists and medical technicians, etc.)	Sum
966	1,184	298	2,448

As the pandemic progressed, medical staffing also fell in shortage. Clearly, if clinical facilities are understaffed, this could directly damage crucial lifelines of support. Given the severity, Dr. Lee

Seounggu, President of Daegu Medical Doctors' Association, made an urgent call to other city medical workers for help. Upon his request, within 24 hours, 500 medical workers nationwide responded as well as a host of incredible volunteers who stepped forward to fill the gaps, while 350 junior doctors and 75 military nurses further supplemented the force from the public sector. In the meantime, video/teleconsulting began use as a method for dealing with the large numbers of clinical requests, helping patients acknowledge the disease. Another way that medical workers monitored cases and/or cases being consulted with peer-expertise was by receiving highly-qualified medical advice and best practices from medical veterans. Overall, 966 doctors, 1,184 nurses, and 298 paramedics participated, taking the total number to 2,448.

In addition, operational support and logistics were implemented. These were a crucial function in containment to prevent further spreading by confirming the travel of all related vehicles. Nearly 2,670 vehicles, including ambulances with 5,293 fireman and/or first-aiders were involved, bringing the overall number to 3,621 vehicles with 7,195 staff accounted for during containment.

**Table 2.** Operational supports/logistics in Daegu (as of May 18<sup>th</sup>, 2020)

Vehicles		Fir	st-aiders / Firem	nen	
National	Daegu	Sum	National	Daegu	Sum
2,670	951	3,621	5,293	1,902	7,195

#### **Residential Treatment Center**

The Residential Treatment Center was a key practice in helping to prevent the collapse of medical system in Daegu. Since the first confirmed case in Daegu, the number of patients rapidly spiked, but negative pressure beds were severely limited. The fear of patients, their families, and even citizens grew while voices from medical societies raised warnings for special measures.

In response, Daegu city consulted with the central government to counter these issues. On March 1<sup>st</sup>, the Central Disaster and Safety Countermeasure Headquarters made a decision to begin operating Residential Treatment Centers. To overcome hospital-bed shortages and to treat the patients timely, it was decided to classify the patients according to the degree of symptoms and to treat them separately.

The city government, national ministries and national agencies united as one team and organized the Residential Treatment Center Management Team. The National Education Training Institute took the role as the first center on March 2<sup>nd</sup> and accommodated 138 patients and medical staff, public officers and military personnel in the facility.

Not only the public sectors but also private companies and academia worked together to overcome COVID-19. For example, Samsung donated use of its human resources institute and Samsung Life Insurance Co. offered its HR institute. LG Group provided LG Display Co.'s dormitory and its employee leisure facility while the Hyundai Motor Group offered their newly-constructed but unopened human resources institute. Kyungpook National University also provided dormitory facilities for foreign patients.

After two months of operation, 3,025 patients were treated, with 2,957 safely returned back to their homes, and 68 transferred to COVID-19 exclusive hospitals. In all, a total of 15 Residential Treatment Centers operated until April 30<sup>th</sup>. As of May 25<sup>th</sup>, the residential treatment centers were closed but remain ready for possible resurgence.

**Picture 3.** Residential Treatment Center at Daegu Bank Training Facility (City government, medical professionals, police, army, firemen and other supportive staffs)



#### Real-Time Emergency Response: SNS Group Chat

Networking for real-time emergency response was a critical strategy for tackling COVID-19 in Daegu. Before the Central Disaster and Safety Countermeasure Head Quarter arrived in Daegu, there were group chat rooms to share urgent issues and to respond in real-time. These SNS group chat rooms were used as active communication channels between the city and hospitals within Daegu.

The first group chat room's members were the chief directors of general hospitals in Daegu. When a series of positive cases began to increase, the group chat room allowed the chief directors and medical professors in Daegu to quickly share information regarding their patients and medical resources.

Other group chat rooms were filled with members from various working groups including the Daegu Medical Association, Korean Hospital Association, and Daegu. Medical societies and the city government were able to manage and control the situation because they shared urgent issues and critical information on the ground.

Spontaneous and simultaneous communication within medical groups, the city government, and the central government was the most important weapon in fighting COVID-19 and in saving lives. While the number of the patients skyrocketed, the chief directors shared patient numbers and bed availability, and took active measures to address each issue. The quick and timely communication among the medical communities in these group chat rooms became the fast track in finding the best solutions.

#### **Self-Isolation**

Suspected cases that had contact with confirmed cases were directed to stay at home or shelter in place for self-isolation. However, the city government did not leave them on their own. One hundred and seventy medical professionals reached out to 2,700 people by virtual calls to check their health and classify them into four categories, including asymptomatic, mild, serious, or critical. While they were waiting for transfer into different medical facilities, city government officials and volunteers regularly visited them to provide necessary supplies such as food, sanitizers, and daily goods. As the situation in Korea improved, more and more Korean nationals as well as foreigners came to Korea. Therefore, Daegu had to make sure to prevent further contagion from abroad. The city provided isolation for international arrivals, including exclusive transport from Incheon International Airport to Daegu. Also, each was tested for the coronavirus at the city's expense at walk-through screening sites in Dong Daegu Train Station. For those who didn't have mobile phones, the city provided a smart phone with a safety protection app pre-installed, and operated isolation facilities for those who wanted to stay separately during their 14-day isolation period at their own costs. For foreigners, Daegu provided interpretation services in 9 different languages including English, Vietnamese, Chinese, Russian, Thai, Khmer, Burmese, Indonesian, and Sri Lankan. Finally, health authorities ensured that no one left their selfquarantine without valid authorization.

#### Social Distancing but Strong Solidarity

Since February 18<sup>th</sup> when the first confirmed case had occurred in the local community, the citizens of Daegu voluntarily participated in the lockdown, closing their businesses, working from home,

refraining from doing any social activities, and limiting having family gatherings. In addition, there was no mass exodus from Daegu to other regions to escape the deadly virus. Instead, Daegu citizens stayed in the city and tried not to spread the virus outside Daegu, which reduced railway use by 13% and interbus passengers by 20.3%, respectively during the fourth week of February compared to the same period last year. This collective refrainment from movement resulted in reductions in subway ridership by 23.7% and intra-city bus passengers by 29.9%, respectively during the fourth week of February compared to the same period a year earlier.

Religious groups also postponed their religious services or introduced online services. When some churches chose to continue their services, city officers went out to check whether they were abiding by social distancing rules within their religious facilities. Most citizens were very wary of in-person religious services because the outbreak in Daegu had started from a religious group.

The city government took preemptive measures to initiate a campaign on March 15<sup>th</sup> to practice social distancing, prompting Daegu citizens to actively participate. This was prior to the national government's social distancing campaign, which ran from March 28<sup>th</sup> to May 5<sup>th</sup>. Even when the national government shifted its quarantine policy to 'everyday life quarantine', allowing economic activities to resume with social distancing on May 6<sup>th</sup>, Daegu adopted stronger guidelines than the national government because it was thought Daegu should be more alert about reactivated cases, small sporadic outbreaks, and the possibility of a second wave. Therefore, Daegu built a standing quarantine system where health authorities, epidemiological experts, medical sector, and citizens all joined together.

Meanwhile, citizens kept close in their hearts and minds and demonstrated a strong solidarity with neighbors and medical professionals working hard on the frontline. Local food and beverage companies, small business owners, young entrepreneurs, and individual citizens donated a variety of lunch boxes to medical professions, and a range of warmhearted campaigns including #StayStrong, #힘내요 대구 (Go Daegu), and #덕분에 (thank you) were carried out, while family members and friends kept in touch with each other by phone or SNS more frequently than ever.

## 1.2. Economic Impact and Measures Which Sustained Daegu's Economy

The coronavirus outbreak began as a health emergency and then rapidly threatened the financial stability of Daegu. Containment measures have shaken the very foundations of the economy, inducing drastic economic downturns felt by most in our everyday lives, leading to job and income losses. Faced with the ongoing pandemic, Daegu continues to ensure sustainable provisions and financing of basic public services to communities while incurring extraordinary expenditures on containment measures to prevent further spread, along with financial support packages for boosting the economy as well. Both combinations are essential policy options that Daegu has strived to overcome in beating these economic hurdles. Measurements are conducted by fiscal support in various ways by utilizing the reserve funds and supplementary budget to implement economic support. They are summarized in the following:

#### Financial Support for Households and Local 'Small & Medium' Sized Businesses

By measuring Daegu's economic shockwaves, policy actions and coordinated efforts were initiated. One immediate policy was directed towards the household sector to provide liquidity and safeguards for basic livelihood requirements. According to a recent report by the Bank of Korea, Daegu's demand side rate declined sharply. For instance, retail sales shrank 33 percent and job loss rose to 7.4 percent in March, compared with the same period last year.<sup>2</sup>. That's significant as 71.8 percent of Daegu's economy consists of service sectors<sup>3</sup>.

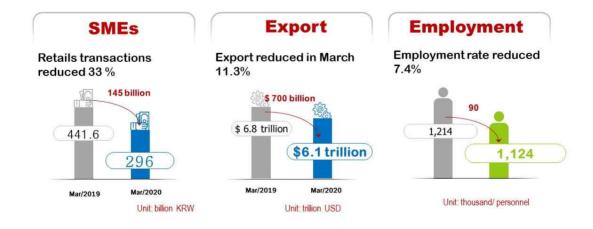


Figure 1. Key Economic Impacts from COVID-19 on Daegu

<sup>&</sup>lt;sup>2</sup> Report for Economic Council on date of April 23<sup>rd</sup>, 2020, Bank of Korea, Daegu Branch

<sup>&</sup>lt;sup>3</sup> CEO Briefing 633, April 13<sup>th</sup>, 2020, Daegu Gyeongbuk Development Institute

Among these, Small and Medium Enterprises (SMEs) account for a large portion of these sectors, mostly hiring labor with informal contracting and/or temporary workers. With the outbreak surging, social distancing measures meant reduced commercial activity. A combination of lower incomes and the fear of contagion resulted in lower private spending, with a resulting drop in demand in unemployment, which then revealed an overall drop of around ninety thousand people over the same period compared to last year.

The impact of this hit hard, especially those with lower incomes and/or the burden of sudden extra work involving the care of families and sick family members. To give them better financial relief, the emergency fund amounted to 423.4 billion won and was distributed for use in essential areas of one's livelihood. The second package<sup>4</sup> put in place directed funds towards citizens who are laid-off workers and/or in need of job insecurity - e.g. temporary/part-time workers and freelancers. The cases were measured by two methods: 1) The employee remains an unpaid worker while their employer is in financial distress, and 2) The employee is in an informal job type that often leads to vulnerability. Both are estimated to be at over eighty-six thousand cases, with payments made of around 67 billion won, the most vulnerable of these cases being the larger beneficiary. Furthermore, the government implemented social distancing and closure of non-essential trading activity. This has had a major impact on local business and the economy. SMEs became relatively vulnerable by their inability to compete, so funds of around 27 billion won were allocated, providing temporary relief from capital requirements, allowing them to utilize some of their current large buffers to facilitate ongoing lending.

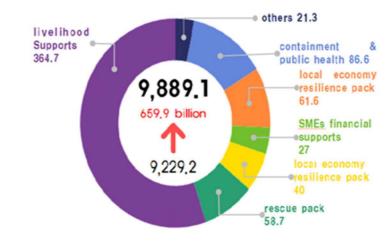


Figure 2. Breakdown of City Government's Spending on COVID-19 (as of March, 2020)

Source: compiled from media briefing materials of Daegu Metropolitan City

<sup>&</sup>lt;sup>4</sup> If the payments are made through a social insurance policy, and the recipients are limited to those households which have contributed to the policy, then they should be recorded as expense/social benefits/social security benefits.

Overall, from budgetary respects, the amount accounted for financial support was around 9.8 trillion won in total, among them, a primary rescue package of over 364.6 billion won for the household sector, a 65 billion won laid-off retention package supporting employment security, and over 61 billion won designated for fiscal stimulation of the local economy.

#### Recovery Measure for Local Businesses and Mitigation Packages

On the supply side, manufacturing took immediate hits because they were forced to either close or operate well below capacity, not to mention a large drop in demand led to less output being produced. Production was further hampered by the lack of intermediate supplies, especially those manufacturers involved in supply chains. In Daegu, manufacturing sector is typically medical devices, automotive parts, and textiles. Sales revenue reported showed a decline of nearly 70 percent, with more than half in these categories of industry reducing their revenue markers over 20 percent<sup>5</sup>.

In terms of export, the pandemic disrupted trade and halted production around the world, with a rising number of countries fully shutting down their borders. Overall exportation of Daegu sank 20.3 percent, which represents an 11.3 percent change from on average term, with intermediate supplies at 17.4 percent and machinery at 26.8 percent<sup>6</sup>.

#### Financial Support and Capital Injections for Financial Liquidity

Concerning their situation, local businesses encountered fiscal pressures in which sudden revenue/income drops resulted in financial insolvencies, with many seeking to solve immediate cash-flow challenges by cutting costs and applying for debt relief and compensation from their bankers/lenders. To supply financial circulation, fiscal support was introduced to local firms, subsidizing inputs, offering temporary debt relief and compensation through special credit lines and guarantees, deferring financial obligations and, where possible, revisiting the conditions for which firms can file for bankruptcy and so forth.

#### **Mitigation Packs for Industrial Sector**

Along with these measures, a set of mitigation packages was introduced to local businesses, especially the export sector that were in desperate need of help due to sudden financial stress. For this, the

<sup>5</sup> Report for Economic Council on the date of April 23<sup>rd</sup>, Daegu Metropolitan City

<sup>6</sup> Survey report on COVID-19 Impacts on exportation in Daegu submitted by Daegu Techno Park on the date of on the date of April 23<sup>rd</sup>, Daegu Metropolitan City International Trade Division of Daegu City Government established an online platform that connects firms to help keep businesses running. The platform offers alternative ways of bridging change for businesses to maintain contacts and provide digital market transactions. This helps the export sector navigate new modes of business for operating during the pandemic, enabling newly-remote customers to trade either from home or in the field and further ensure that critical businesses continue to run.

## 1.3 Challenges in Education and its Breakthrough

#### **Expansion of Online Classes in addition to Traditional Learning Methods**

COVID-19 changed our lives in many ways and education has been a big part of that change. To stop the spread of the virus, the opening date of schools was postponed four times beginning on March 1<sup>st</sup>. The Ministry of Education decided to start schools gradually in parallel with online schools. Colleges and universities opened on March 16<sup>th</sup> and have continued to carry classes on online. Middle and high schools started online classes as well, exploring effective uses, operating differently with grades opening from April 9<sup>th</sup> to the 16<sup>th</sup>.

These online classes are carried out in various ways, including real-time two-way interactions, content-focused or assignment-centric classes, etc. The Daegu Office of Education (hereinafter referred to as DOE) has pulled out all the stops to provide steady, balanced education for all the students, making sure there would be no single student being left behind. For the students, the DOE provided necessities to equip all students. Nine hundred and sixty nine students received smart devices, including smartphones and tablet PCs and 230 students were provided free Internet. Three thousand smart devices, belonging to schools and the DOE, were provided to students, including multi-child families. The DOE strengthened its support for 3<sup>rd</sup> graders in high school so as not weaken their position while preparing for college entrance exams, something notably different when compared to other regions. A total of 66,000 students were each provided \$66 to buy online learning coupons or books, while support task teams created contents for 25 courses, and ran real-time videoconferencing platforms with mobile counseling as well.

For schools, the DOE helped operate online classes systematically by building an online class platform for each school. By the end of March, the DOE distributed to each school an online school opening Manual, and by April 2<sup>nd</sup>, all teachers returned to schools to prepare their online classes. Meanwhile, 98.2% of schools opened 'e- † and 'EBS Online Classes,' which could control learning. In the case of middle and high schools, to strengthen communication capabilities between teachers and students, online counseling for students was utilized with private or teleconferencing platforms such as

'Google Classroom' and 'Classting'. The DOE also provided \$6,000 to each school to purchase devices required for online classes and creating content, including webcams, microphones, etc. For teachers, the DOE supported enhancement of online classes in order to provide students with the highest quality of education. The DOE formed an online class task force team that provided 19 types of video presentations on how to use online class platforms and create contents, including 7 types of contents which they developed, and a variety of online class cases and manuals for teaching online. It also provided customized education for students requiring special education and for multi-cultural students. Furthermore, offers of school letters and text messages in 8 different languages including Vietnamese, Chinese, Japanese, English, Russian, Cambodian, Mongolian, and Pakistani were provided.



Picture 4. Online Classes in Daegu



Source: Daegu Office of Education (DOE)

#### Reopening Schools: National-Level Including Daegu

The Ministry of Education of Korea decided to reopen schools including kindergartens, elementary, middle, and high schools gradually from May 20<sup>th</sup> to June 10<sup>th</sup> to follow up on the Korean government's campaign for, 'distancing in daily life.' High school third graders facing urgent academic issues, such as preparing college entrance exams first went to school on a five-day-a-week basis starting from May 20<sup>th</sup>. To prevent possible contagion, the opening dates differed for each grade.

#### Quarantine Plan on Campus: Keeping Students Safe from Coronavirus as Top Priority

More than 90% of private educational institutions or 'cram schools' closed in February, and despite huge losses, the city urged them to make a safe environment for their students. Daegu provided 858,000 masks, 144,000 hand sanitizers, 85,000 disinfectants, and 1,300 other articles of protective equipment to the DOE and promised to continue to provide masks for all students. It secured 1.54 million masks –

five per student – with plans to obtain an additional 2.8 million to ensure each student is properly stocked. The city, DOE and schools have formed a strong network to tackle any issues and contingencies swiftly and efficiently.

#### Right to Education & Education for All

Due to the unprecedented COVID-19, the entire system of education changed. Online schooling is now the essence of continuing education, as most classes are still carried on online. However, many university and college students appealed to online bulletin boards for requests to refund their high tuitions because they could not attend face-to-face classes. In response, some schools raised scholarships and distributed them to students in hopes of reaching a solution.

In Korea there is a saying: 'Education is the centennial plan.' Adding to this is now the Sustainable Development Goal 4 (SDG 4). It aims to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all as well as right to education of human beings." Therefore, the city government of Daegu and the DOE pledge to continue education for the citizens and people in Daegu by the establishment of hybrid form of online and offline learning methods.

## 1.4. Leadership of City Government

Due to the unexpected outbreak of COVID-19 and the rapid spread of the virus in Daegu, the city government of Daegu immediately organized a control tower comprising relevant departments, offices and other organizations in the region. The control tower was named Daegu Disaster Safety Countermeasure Headquarter and chaired by the Mayor of Daegu Metropolitan City. The Headquarter also cooperates with the central government of Korea on required areas and it aims to secure the city from any prospected dangers and threats from COVID-19.

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<sup>&</sup>lt;sup>7</sup> Sustainable Development Goal 4 (SDG 4), <a href="https://sdg4education2030.org/the-goal">https://sdg4education2030.org/the-goal</a>

Director Mayor Prime Minister Ministry of Health & Welfare, Korea Vice Mayor for Deputy Director Administrative Affairs Geen DG of Citizen's Safety Office Media COVID-19 Spokesperson City Brand Office Field Response COVID-19 Response Covid-19 Support Heads of District & County Public DG of Safety Policy DG of Health & Health Centers Welfare Bureau Office Director of Fire & Safety H.O. Epidemiology cal Living Treatment Isolators School Contact Isolators Camera Opporting Hospital Bodi Managemen Support & Public Center Health

Figure 3. Structure of Daegu Disaster Safety Countermeasure Headquarter

#### **Emergency Response Advisory Committee based on Public-Private Partnership (PPP)**

With the rise in death tolls and facilities overwhelmed with patients, the Daegu medical front urgently needed to cope, especially as negative pressure rooms were limited at only thirty, while waiting numbers of patients continued to soar. An urgent consultation was held with participants from three organizations: the Emergency Response Advisory Committee<sup>8</sup> of Daegu City, the Daegu Medical Association<sup>9</sup>, and the Infectious Diseases Management Support Group<sup>10</sup>. They worked to coordinate critical matters and map challenges, while leading emergency management, speeding up medical response time, and minimizing fatalities. This also included a large-scale effort in undertaking the partnership of Daegu's public and private medical infrastructure, combining 90% private and 10% public owned hospitals. This

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<sup>&</sup>lt;sup>8</sup> The committee is composed of medical professionals/experts, who are specialized in the field of containment and infectious diseases, including 2 MDs (Medical Doctors) and containment specialists and 7 others from infection studies in medical schools in Daegu. The main role of the committee is to navigate the challenges on site and provide remote medical workers effective clinical services.

<sup>&</sup>lt;sup>9</sup> The association consists of over 6,000 medical doctors, who are basically working in and/or associated with medical schools/universities of Daegu. This group gathers for building better job protection and creating innovative roles to better maintain and harness their practices/business operations.

<sup>&</sup>lt;sup>10</sup> This task force (TF) unit was established by medical doctors and administrators to form a quick response against the challenges/problems of contagious sites. Mainly, the team organizes to work closely with the Emergency Response Advisory Committee as a control tower, their primary role to support the medical front's performance effectively and quickly while being a force on the COVID-19 battleground.

platform served as a great source of communication and understanding among all spheres in the medical community as stake holders prioritized critical services in this time of crisis. Against overwhelming numbers of patients and their case management, the PPP played a key role in the lives of those impacted by the pandemic as well as providing guidance for those on the frontline, by leveraging clinical expertise from volunteers and professional organizations. Without such solid collaboration between private and public partnerships, the outcome of this ordeal would have been shaped in a very different way.

Picture 5. Emergency Response Advisory Committee Meeting led by Mayor Kwon

#### **Risk Communication and Public Engagement**

To break the chain of the spread, it became important for the public to get involved with the containment process. For this, Daegu dealt with information about COVID-19 with full transparency in terms of disclosure and communication. Daily briefings were held on air and streamed live across internet services, educating and actively communicating with the public about risks and community engagement.

'Transparency and openness' remained pivotal factors for this, the discussions of emergency committees continually informing the public with daily briefing and explanations for how local government was developing contingency plans. That gave rise to a momentum in public trust, despite many not knowing about the novel disease, at least comforted that professionals and administrators were at the forefront working on plans. This clearly-shared message with the public was able to actively engage them in the earliest stages and prove effective in response to the pandemic.

The mayor of Daegu Metropolitan City gave briefings every day, presenting updates of facts & figures as well as situational analysis, focusing mostly on the media and the public. To make policies for tackling the coronavirus and COVID-19 quickly, every day the city government identified the number of confirmed patients, deceased patients, and waiting patients, and beds for patients in COVID-19-exclusive hospitals and the Residential Treatment Centers. These figures were released daily through briefing materials. "If there was no trust in the quarantine authorities from Daegu citizens, they would not understand our administrative measures at the expense of their inconvenience," Mayor Kwon said.

Based on citizens' trust of city policies, Daegu has been dealing with this infectious disease effectively without initiating compulsory measures such as blockades

Picture 6. Mayor Kwon's first media briefing about COVID19 countermeasures





#### Citizens Countermeasure Committee to Overcome COVID-19

When the national government shifted its quarantine policy to 'everyday life quarantine,' Daegu decided to shift its quarantine system from a government-driven to a citizens-driven operation for the first time in the nation's history. The city invited 204 citizens from all walks of life and launched a citizen's participatory committee, namely, Citizens Countermeasure Committee to Overcome COVID-19. Since then, Daegu has reflected its citizens' opinions on deciding the level and scope of quarantine measures for our city by having regular virtual meetings for decision-making about COVID-19 policies and programs. This is also the first attempt in Korea to have such large-scale virtual meetings where various citizens could attend.

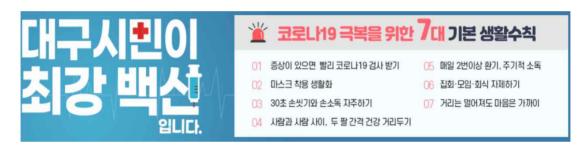
This committee consisted of ten (10) sub-committees, such as quarantine measures, civic movement, citizens' livelihood, culture & sports, care for the physically challenged and seniors, care for children & minors, economy, healthcare, education, and transportation. By sub-committee each sector made sure there would be no blind spots from the quarantine by making disinfection manuals tailored to each sector. Through its first virtual meeting of 200 members, the committee came up with Daegu's 7 Everyday Life Quarantine Guidelines in line with the national government's listed recommendations. With these 7 guidelines, our citizens could go back to their normal life with a degree of caution. Each was based on the national government's rules<sup>11</sup> but the committee added two more guidelines to improve its effectiveness. Daegu's 7 Everyday Life Quarantine Guidelines are as follows:

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<sup>&</sup>lt;sup>11</sup> 1. Stay at home for three to four days if sick, 2. Keep a distance of two arm's length between people, 3. Wash your hands for 30 seconds or more and cover coughing with elbows, 4. Conduct disinfection and ventilation twice or more daily, 5. Stay emotionally connected despite being physically distant

- 1. If you have symptoms, get tested as soon as possible
- 2. Wear a face mask as a daily habit
- 3. Wash your hands for 30 seconds and disinfect hands frequently
- 4. Keep a distance of two-arm's length away from other people
- 5. Ventilate the place where you stay twice a day, and keep it regularly sterilized
- 6. Refrain from rallies, gatherings, or social dinners
- 7. Keep physical distance from people but keep them close in your hearts

Picture 7. Daegu's 7 Everyday Life Quarantine Guidelines in Korean



In relations with the Quarantine Guideline, below is also Mayor Kwon's encouraging message attending StayStrong Campaign organized by the Korean Ministry of Education;

As Mayor of Daegu Metropolitan City, I attend StayStrong Campaign to fully overcome the COVID-19 on behalf of the whole city. I propose to jointly overcome the COVID-19 as one team since we are the very unbeatable vaccine against COVID-19.

Thanks to strictly following these rules, Daegu has avoided further cluster outbreaks, unlike additional outbreaks in Seoul, Incheon, or capital areas such as at an Itaewon nightclub. Daegu has become a safe city from the coronavirus.

Picture 8. The 1st virtual conference of the Citizens Countermeasure Committee

#### **Emergency Economic Council**

To cope with continuing economic issues, Daegu launched the 'Emergency Economic Council' in order to further mitigate the impact of the pandemic. Under the newly-imposed policies to prevent the contagion, local businesses would not be able to cope with the economic downturn on their own. Policy actions and special coordination was put in place for mitigating measures, the purpose of which would be to establish an assembly to hear the voices in the field, reflect on multi-sector analysis, and discuss how to put forward ways to empower better response to business needs and demands through sustainable provision. The council was structured as following:



Figure 4. Organization Chart of Emergency Economic Council

The dialogue presented built on a great sense of understanding where the Daegu economy is, where it needs to be, and how much progress was being made. This greatly underscores the importance of economic initiatives that leverages integrator roles, networks, and rapid mobilization capacity to support industrial sectors. Additionally, it stresses the accompanying relevance and timely analysis of the local market and examination of possible future scenarios of the pandemic.





## 1.5. International partnership

#### **Overseas Offices of Daegu**

Daegu operates three overseas offices, with locations in Shanghai, Ho Chi Minh and Jakarta, each where, since 2013, our local businesses have had high demand for trade. Their main functions are to facilitate local companies' export, support local companies' business activities, attract foreign direct investment, and promote Daegu's tourism in these regions.

In the wake of the global COVID-19 crisis, their roles and activities have become more pivotal. As international trips proved less likely to happen, our overseas offices played more substantial roles, including providing updated news on COVID-19-related local situations, and supporting Daegu citizens living in each relevant city and country by providing personal protective equipment such as face masks and exchanging pertinent news. And for Daegu businesses who couldn't visit China, Vietnam, and Indonesia for their business purposes, these offices further played the role of business ambassadors

since they could move freely within these countries. In addition, through regular virtual meetings between the city government of Daegu and its overseas offices, there could be an exchange of ideas and opinions about how to support people and businesses in this unprecedented crisis.

#### Sister & Friendship City

Daegu's international cooperation has been very active among its 25 overseas sister and friendship cities, local government-related international organizations, cultural networks - including the UNESCO Creative Cities Network in Music - and various international cultural events. When the novel coronavirus outbreak happened in Wuhan, which is one of Daegu's friendship cities, we received a call for help, and provided support for the citizens of Wuhan with 19,000 face masks and a Mayor's letter. Then, after February 18<sup>th</sup>, we began to see increasing numbers of daily confirmed cases in Daegu, and this time our sister and friendship cities sent us their support by providing personal protection equipment as well as financial donations, supporting letters, over 870,000 face masks, 11,700 protective gowns and scrubs, and about \$200,000 in donations.

Since no city could participate in proper international activities, we have promoted our international cooperation and exchanges via virtual meetings. For example, through a virtual conference arranged by the city of Atlanta in May, we shared our experiences in tackling the coronavirus and COVID-19 crisis, exchanging our experiences and insights with members of international organizations such as United Cities and Local Governments and METROPOLIS, to help our sister and friendship cities request for how to cope with the mounting crisis. Also, we further received requests from overseas cities including Brno, Czech and Ho Chi Minh, Vietnam to share our successful measures against contagion by holding in-depth virtual conferences between the mayors.

#### **Foreign Mission**

Daegu city closely worked with foreigners in Korea such as UK, French, Chinese, Indonesia, Japan, and Indian embassies during this pandemic. They worried about the safety of their people living in Daegu, so the city government helped provide relevant and useful information to their residents, assisting with interpretation and more to reduce their stress. We responded to all requests made by individual embassies, exchanging regular phone calls and email correspondence regarding information sharing and cooperation. With the Indonesian embassy, we supported them further by welcoming a dispatch of their personnel to Daegu to help their citizens living in the city. With this strong international cooperation, we experienced no coronavirus-related casualties nor deaths reported regarding foreign visitors or residents in Daegu.

#### **US Army Station in Daegu**

Since the Korean War in the 1950s, we have had a firm ROK-U.S. alliance. Daegu is home to US Army bases stationed here for the last 70 years, of which we have a very good relationship. During the pandemic, Daegu worked very closely with each base, sharing relevant information and city policies and inviting them to attend the city's meeting with extensive relevant organizations and meetings because we strongly believe transparent information sharing is key to stopping the spread of the coronavirus. The US army also shared information on confirmed cases of soldiers and their families with the city government, so proper measures to ward off any potential contagion from them could be taken. Through an exchange of letters and calls to cheer each other up, this partnership will help in overcoming these difficult times.



Picture 10. ROK-US Alliance, Encouraging message from 19th ESC Stationed in Daegu

## Chapter 2. Why was Daegu Successful?

#### **Prompt, Mass-Scale Testing and Preemptive Responses**

Korea Centers for Disease Control and Prevention (KCDC) introduced the Real-Time Polymerase Chain Reaction (RT PCR) testing method on January 30<sup>th</sup>, 2020. This method is considered one of the most accurate tests for COVID-19, and it yields accurate result in just 4 to 6 hours. Now there are other companies coming up with faster-result test kits, including a local company with only 20 minutes to confirm. We have now prepared enough testing kits to handle sharply increasing numbers of suspected cases, and with its valid results, more than 100 countries are now using Korea-produced PCR testing kits. When the first confirmed case was reported as coming from a large religious group, the city became fully aware of the seriousness of the situation. Therefore, an emergency response advisory team consisting of the mayor, professors, and experts in infectious diseases and preventive medicine was immediately formed and had meetings until midnight every single day to tackle this situation. Then, Daegu reached out to 9,336 Shincheonji believers for 3 days from February 19<sup>th</sup> to the 21<sup>st</sup>, and 170 doctors diagnosed 2,700 and identified 1,243 confirmed cases with symptoms, reporting them to public health centers for isolation from the general public. In addition, the city carried out massive testing for vulnerable people, such as those in special care homes, social welfare facilities, and more. At its height, testing reached a maximum of 7,000 specimens a day with up to 100,000 accumulated samples.

#### Medical Breakthroughs Originating from Innovative Idea

When conventional testing methods took hours and required many procedures, Kyungpook National University Chilgok Hospital came up with an innovative idea of introducing drive-through testing sites in its parking lot to reduce testing time and enhance safety for medical professionals. Through this kind of creative method, the number of tests could dramatically increase and was adopted by many other countries including the USA, Germany, France, Spain, Ireland, and many more. Another creative idea was to operate temporary residential treatment facilities in order to accommodate confirmed cases with mild or no symptoms. This method actually contributed immensely to preventing the collapse of the medical system in Daegu as well as Korea. According to legal communicative disease prevention law, every single patient who is infected by contagious diseases should be hospitalized and treated. However, in the case of novel coronavirus there were many people who didn't have symptoms or had only mild symptoms so didn't need to be hospitalized. In Daegu, in the early stages of the outbreak, three patients died of coronavirus symptoms while waiting for hospitalization. Therefore, the city and medical advisory team strongly asked the national government to change this regulation and introduce more

flexible facilities for those with mild symptoms. As a result, all the patients who resided in these 15 temporary treatment facilities fully recovered and returned home.

#### Sacrificing Devotion of Various Stakeholders and Systemized Cooperation

Daegu has intensively fostered the medical industry as a 'Medi-city' and in 2009 built a medical network, including 5 associations of doctors, nurses, dentists, pharmacists and oriental doctors, and 10 high-level hospitals. Through this close network and cooperation, Daegu was able to swiftly deal with this unprecedented medical crisis. Even private hospitals transformed themselves into COVID-19-exclusive hospitals and medical professionals including doctors and nurses across the nation rushed into Daegu to help the shortage of medical personnel for caring for the coronavirus-infected patients. Moreover, through group SNS, the heads of hospitals and experts shared information very quickly, identifying the availability of hospital beds, and helped operate effective medical responses for the confirmed cases. This selfless commitment from our medical professionals and cooperation among the public and private sectors enabled Daegu to prevent reaching a medical system breakdown.

Further, Korean police, firemen and army made great efforts in tackling the spread of COVID-19 in Daegu and they provided extensive ranges of helps, gears and vehicles for months.



Picture 11. Disbanding ambulance paramedics who came to Daegu across the nation and served for 41 days

#### Citizen's Voluntary Participation and Compliance to the Rules & Guidelines

Daegu City didn't enforce a lockdown or a movement ban on Daegu. There were no strikes, unrest, shortages or hoarding of daily commodities in the city. Additionally, with national health authorities

and the Daegu City government's consistent and transparent policies to tackle the deadly virus, Daegu citizens voluntarily participated in social distancing practices by staying at home, closing their businesses, refraining from social activities, and agreeing to postpone school openings. More so, there was no panic-stricken exodus escaping Daegu to other regions in order not to spread the virus beyond the city. While enduring the difficult and inconvenient times longer than any other Korean nationals, Daegu citizens willingly followed the disinfection guidelines and protective policies in their daily life. Without our citizens' voluntary participation, we couldn't have controlled the spread of the virus this early.

#### Non-Discriminative Treatment for Foreign Residents in Daegu

The city treated foreign residents who tested positive for COVID-19 the same as Korean nationals. We offered free testing, and in confirmed cases, provided free medical care at the Residential Treatment Centers along with some living expenses. Also, city officers who speak foreign languages called them often, monitoring their health conditions 2~3 times a week, while providing relevant information. Some foreign patients said they felt relieved by regularly talking about their anxiety or worries with city officers, who then arranged consolation. Through these call-service language barriers were removed. In fact, the city government offered *all* the foreign patients free medical treatment, COVID-19 tests, accommodations, meals, and some living expenses after they were isolated more than 14 days. This allowed them the opportunity to concentrate on their treatment and recovery without worrying about medical fees or living costs. However, beginning in April, with new international arrivals, it was decided to provide medical services at their own expense.

#### Supports from Central Government of Korea and Nation-wide Cooperation

Daegu city, other regional governments, and the central government worked together as one unit. The shortage of beds in the COVID-19-exclusive hospitals worsened as all patients needed treatment in negative pressure rooms in order to follow early protocols. The number of confirmed patients soon exceeded the number of beds in Daegu, so the city requested other regional governments to accept confirmed patients and the central government to establish an authority to manage and support the transfer of patients from Daegu to other regions. Regional governments, including Gwangju city, took in many Daegu City patients while the central government took Daegu's idea and established the Patient Transfer Support Center for transferring patients, quickly established in the National Medical Center. Eventually, over 80 patients transferred from Daegu to other regions so they could be treated timely and safely.

Private sectors, including the Daegu Medical Association and the Korean Hospital Association, were

most supportive as counterparts to Daegu. These medical societies, along with the city government effectively managed and controlled disruptive situations together because they shared urgent issues and critical information on the ground anywhere and at any time.

However, the people of Daegu were the city's most important partners in measuring the COVID-19 situation. They chose to stay at home and became the main agents for why quarantine worked so well. There grew a special sense of citizenship that silently endured through daily inconveniences as a determination to protect the local community become most important. Ultimately, it is these people that prove the potential of this community to overcome any crisis waiting in the future.



Picture 12. Meetings with Prime Minister



## Readiness for the Resurgence of COVID-19

The city of Daegu is preparing plans for the re-influence of COVID-19 and is preparing a scenario based on the current proportion of infected people. The city has created pathways to secure medical resources to protect a local population of 12,500 people (0.5% of citizens) if infected. This stems from a reflection of the confusion experienced in the initial response of the quarantine, when authorities faced a population of confirmed cases that grew to 0.28% of the citizens. "Asymptotic patients can be anywhere. Existing inspection capabilities and functions should be maintained even if the number of confirmed cases decreases. The government should not save budgets for diagnostic tests. We have to continue with active testing to find a confirmed person who doesn't know the route of infection," Mayor Kwon said.

## Chapter 3. Snapshots of Global Media Assessment

#### The Eyes of the Foreign Press were fixed on Daegu's Successful Containment of COVID-19

Over the months prior to and during the pandemic, foreign news coverage sought to illustrate the many changes attributed to the spread of the virus and its impacts on society. By reflecting on their views and opinions, it is noteworthy to review their coverage surrounding Daegu and how our role in raising public awareness and overall response can be applied as a best practice around the world.

#### In the Beginning, Daegu was described as an Epicenter

On February 18<sup>th</sup>, when the 31<sup>st</sup> case was confirmed in Daegu, a full-blown spike occurred as cases rose 25 fold in just five days. Earlier foreign press writings focused on the spike and its impact on society. Interestingly, the main reason for Daegu's jump in cases was the result of a mass gathering, namely the Shincheonji church group. As such, the Washington Post covered the fast spread of the virus while calling Daegu: "an epicenter, now a virtual ghost town" on February 22<sup>nd</sup>. The Wall Street Journal (WSJ) stated how "the epicenter of the pandemic shifted from China to Daegu."

By contrast, BBC's angle was somewhat different. The focus of their coverage centered more on the inside story of Daegu, their observation seizing on the technological aspects in the containment process utilizing GPS systems, credit card usage and so forth. Interest was driven by the handling of privacy issues and related data for dealing with anonymized publications, which highly contrasted with European cases.

Table 3. Foreign Media Coverage on Early days of Daegu's outbreak

'Special management zone' declared as coronavirus overwhelms South Korea city, Daegu	Feb 22 <sup>nd</sup> , 2020,
	Washington Post
'The City Has Been Annihilated': South Korea's Coronavirus Epicenter Is a Virtual Ghost	Feb 23 <sup>rd</sup> , 2020,
Town	WSJ
Correspondence reports, "Daegu tracing the spread of COVID-19 with using cutting-edge	Feb 24th, 2020,
technologyMayor confident on containment despite of full blown spike"	TODAY, BBC

#### Foreign Media's Commentary on Daegu Expanded 3 Ts -Testing, Tracing and Treating

However, as time passed, views changed on Daegu's situation, mostly because the epicenter of the pandemic shifted into Europe and the United States. As their health systems became overwhelmed, their responses forced them make stark trade-offs between lives and livelihoods. Much of their focus centered on watching the pandemic with fear and bracing for the worst. Meanwhile, by March, Daegu contrasted that picture. Foreign media spotlighted our bold set of measurements, especially about large-scale testing. The foreign press stated that early measures make the differences and how public health systems have a chance to respond without getting overwhelmed if countries successfully "flatten the curve" of caseloads.

**'Drive-through'** methods were spotlighted hot item stories. Many correspondents reported on the process and measuring methods of test times, saying that "the whole process takes 10 minutes ... No need to get out of car ... It is a remarkable experience to see how the test can be shortened<sup>12</sup>."

Also, some reporters emphasized Daegu's diagnostic capabilities, with ABC News<sup>13</sup> of the U.S. praising Korea's success, quoting global health experts that the nation has, "exhibited impressive and significant lab capabilities that no other country, including the U.S., can match at the moment."

On March 12<sup>th</sup>, The BBC gave its evaluation in the article "Coronavirus in South Korea: How 'trace, test and treat' may be saving lives. <sup>14</sup>" "Nearly 20,000 people are being tested every day for coronavirus in South Korea, more people per capita than anywhere else in the world," it wrote, adding that "health officials believe this approach may be saving lives." Reuter added, "No shortage of testing kits in Korea," and that the accuracy of the country's COVID-19 test is "around 98%." It continued, "The ability to test so many people has made the country a role model for others to look to in battling their own coronavirus outbreaks.

**Table 4.** Foreign Media Briefs on Daegu 3 Ts- Testing, Tracing and Treating

ABC News of the U.S. praised Korea's diagnostic capabilities, quoting global health	Feb 27 <sup>th</sup> , 2020,
experts as saying the nation has "exhibited impressive and significant lab capabilities that no other countries, including the U.S., can match at the moment."	ABC News of U.S.
The leading Spanish newspaper El Pais on March 16 cited Korea's fast and resolute	Mar 16 <sup>th</sup> , 2020,
response in the article "Korea, a good example of coping with COVID-19 that Spain could not follow."	El Pais of Spain

<sup>&</sup>lt;sup>12</sup> South Korea pioneers coronavirus drive-through testing station Mar 2<sup>nd</sup>, 2020, CNN

<sup>13</sup> Why South Korea may have more coronavirus cases than the US, Feb 27<sup>th</sup>, 2020, ABC news

<sup>&</sup>lt;sup>14</sup> Special report: Italy and South Korea virus outbreaks reveal disparity in death and tactics, Mar 12<sup>th</sup>, 2020, Reuters

The German weekly Der Spiegel reports the Korean government "alerts their citizens about the past whereabouts of infected COVID-19 patients via text." The magazine quoted Michael Mina, an assistant professor of epidemiology at Harvard	Feb 29 <sup>th</sup> , 2020, Der Spiegel of
University, as saying "such detailed information gives specialists from around the world the tools to swiftly stop the spread of the virus."	Germany
Upon questioning with a spike of caseloads in Korea, Minister Dutton of Home	Mar 1 <sup>st</sup> , 2020,
affairs of Australia answered that, "Obviously South Korea has a more advanced health system and they have been reporting numbers for a period of time"	Insiders on ABC
	News of Australia
Under the title "Learning Through Crisis," "Korean health authorities of Korea used	Mar 14 <sup>th</sup> , 2020,
accumulated data earned through the country's experience of coping with contagious diseases in the past," adding, "Korea regularly contacts those confirmed	The daily Berliner
to have the coronavirus until the beds are prepared for them, while checking if they	Zeitung of Germany
are following self-quarantine rules through mobile apps."	
The approach could consequently provide medical researchers around the world	Mar 1 <sup>st</sup> , 2020,
with important information about the novel virus –Korea's strategy of radical transparency.	The press of Austria
'In public health, honesty is worth a lot more than hope' - Lessons from SK's	Feb 27 <sup>th</sup> , 2020,
experiences.	The economist of UK

## Openness, Transparence and Eventually 'Democracy'

As the pandemic shifted from the Asian continent to Europe and the Americas, many people in their own countries grew panicked by the absence of strong containment systems, raising fears in their societies. The U.S. and Europe, for example, observed panicking as growing worries circulated about the unknown virus, with some countries, like Italy, implementing a full lockdown.

Table 5. Foreign media summary on Korea's response against COVID-19

The U.S. magazine Foreign Policy reports Korea lowered its daily number of confirmed cases of the novel coronavirus disease (COVID-19) without resorting to a draconian national lockdown, citing the nation's extensive testing and tracing of infected people.	Mar 23 <sup>rd</sup> , 2020, Foreign Policy of U.S.
The Austrian daily Die Presse hailed the Korean government's response to the outbreak as "transparent, systematic and democratic."	Mar 1 <sup>st</sup> , 2020,  Die Presse of  Austria
The Swedish dailies DN said Korea sufficiently responded to the outbreak without closing borders and that others should learn from the Korean government's measures like transparent disclosure of information.	Mar 23 <sup>rd</sup> , 2020,  DN Dailies of Sweden

ABC news reporter Ian Panell<sup>15</sup> filed a report on Daegu's-handling of the outbreak, saying, "There is no panic here; no rioting, no fearful mobs opposing the housing and care of hundreds of infected patients in their city. Instead, there is a stoic calm and quiet." He describes Daegu as an epicenter but with no total lockdown and a place where people can maintain some sense of normality. "Daegu may be the model for life for many of us in 2020 living with COVID-19", he added.

The Financial Times<sup>16</sup> (FT) pointed out Daegu's "sustainability for openness" because the containment process operated without a lockdown, backed up by a robust public health response based around extensive testing and tech-powered contact tracing. The nation's tally for infections has been kept in control, they reported. Adding that more impressive still, no major lockdown or restrictions on movement were imposed.

**Picture 13.** Daegu was headlined "the model for life for living with COVID-19" (Screen Captured from ABC News Website)



#### No Panic

By the end of March, Daegu successfully flattened the curve and saved many lives, with estimates of up to 50.75%. BBC pointed out this fact by contrasting it with other uprisings where public panic rose, compared with the ordinary lives in Daegu carried out without panic. For example, when COVID-19 hit the EU, the pandemic symptoms stoked fears about the unknown, forcing lockdowns and restrictions,

<sup>&</sup>lt;sup>15</sup> Inside the epicenter of the South Korean coronavirus outbreak: Reporter's Notebook, Feb 24<sup>th</sup>, 2020, ABC news

<sup>&</sup>lt;sup>16</sup> South Korea reports no new local coronavirus cases, Apr 27<sup>th</sup>, 2020, Financial Times

unlike in Korea where there was no panic buying or lockdown. The main reason for Korea keeping open is because it quickly secured a containment process. Also, Korea had a highly developed online food and product shopping and delivery system already in place. Part of Korea's success comes for its quality diagnostic capabilities, its free press, and its strong democratic system.

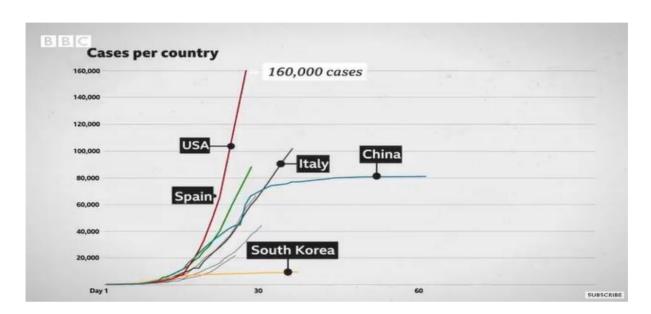


Figure 5. Recited by 'Coronavirus: US death rates v China, Italy and South Korea', (BBC News, Mar 31st, 2020)

#### **Democracy**

On March 11<sup>th</sup>, The Washington Post expressed how open Korea is because of the power of democracy. Comparing it with China's closed and authoritarian decision-making practices, the writer said, "Korea's democratic method is an important strength in overcoming the pandemic". It went on to say that Korea's practice of information transparency and voluntary participation of its citizens within society made it possible to continue daily life without turning Daegu into a prison.

On April 15<sup>th</sup>, the BBC reported about Korea's general elections, held under a tight quarantine policy, they among numerous foreign media that hailed the nation's holding of an election amid the COVID-19 pandemic. This received extensive coverage by the foreign media, as 47 other countries, including the U.S., France, and Russia postponed elections due to the novel COVID-19 pandemic.

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<sup>&</sup>lt;sup>17</sup> South Korea shows that democracies can succeed against the coronavirus, Mar 11<sup>th</sup>, 2020, Washington Post

Washington Post columnist Henry Olsen wrote in his article, "South Korea shows the world how to hold elections during a pandemic." He wrote how South Korean showed the world "how to hold an election and protect public health simultaneously...the system the South Koreans devised protects voters and poll workers," adding, "South Korea has just schooled us on how a real democracy conducts itself under pressure."

Table 6. Foreign Media's Compliments about Korea's Democracy

Special Japanese media, such as the Asahi on April 15th said, "Votes were carried out after one sanitized hands, wore masks and plastic gloves, and got the body temperature checked."	Apr 15 <sup>th</sup> , 2020, Asahi of Japan
U.S. Secretary of State Mike Pompeo also said in a tweet on April 15 <sup>th</sup> , "Congratulations to the Republic of Korea for successful legislative elections, in the face of a global pandemic."	Apr 15th, 2020, Tweets of U.S. SG of State
"South Korea's dedication to democratic values and a free and open society is what the world needs to fight COVID-19."	Apr 15th, 2020, Ch4 News of UK

### **Civic Power**

The WSJ<sup>19</sup> reported that the reason Korea kept calm and carried on elections was most importantly how, "civic awareness is the reason no panicking has taken hold in Korea." Adding, "How civic power leverage shifts in the wake of a crisis and how a public that gains awareness leads to greater leadership and civic engagements on health issues."

### Leadership

Japanese media, such as the Asahi and the Mainichi Shimbun also joined in hails of Korea's battling with COVID-19. Japanese newspapers geared up deeper coverage of COVID-19 when their hosting of the Olympic Games was postponed. Their focus centered on leadership aspects, highlighting the role in local government, as national government response lagged behind, to enforce frontline workers.

<sup>&</sup>lt;sup>18</sup> South Korea shows the world how to hold elections during a pandemic, Apr 16th, 2020, Washington Post

<sup>&</sup>lt;sup>19</sup> Coronavirus Panic Buying: Puppies, 10 Apr, 2020, WSJ

Of particular importance, Asahi interviewed Mr. Kwon, the mayor of Daegu, asking for key factors in achieving the city's successful outcomes, especially when their infection rates were growing severe.<sup>20</sup> The questions were weighted on an investigation of overall progress, risks communicating with the public, and the importance for his persistence. Asked about leadership and his role in a time of crisis, Mayor Kwon replied, "A key is to obtain the public's awareness and trust...openness and transparency. Without them, the public can quickly sense deception, reducing the credibility of the government and trust in their policies."

**Picture 14.** Asahi reports about Mayor Kwon's Leadership during the period of COVID-19 (Screen Captured from Asahi Shimbun Website)



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<sup>&</sup>lt;sup>20</sup>「強制権限、自治体に与えるべき」韓国・大邱市長に聞く, May 4<sup>th</sup>, 2020, Asahi

### Chapter 4. Way Forward: Post-COVID-19

#### **COVID-19** as a Magnifying Glass

After the first confirmed case of COVID-19 was reported on February 18<sup>th</sup>, 2020 in Daegu, the number of infected patients skyrocketed to around 6,000 by the middle of March. Including Daegu, it only took a couple of months for the entire world to see the phase shift of COVID-19 from epidemic to pandemic by the announcement of the WHO. Moreover, the ambiguous nature of COVID-19 escalated the public's fears about the unknown virus, but the risky situation was successfully stabilized from almost all aspects in a relatively short period of time in Daegu.

COVID-19, so the City Government of Daegu has been at the forefront to fight against the unpredictable virus at the municipal level. Particularly, throughout the ongoing battle with the coronavirus and COVID-19, many new findings, databases, and empirical evidence<sup>21</sup> provided lessons for Daegu as reviewed in the previous chapters. These lessons are highly useful for Daegu in preparing for the greatly-expected revival and second wave of the COVID-19 crisis coming in the cold seasons. In this sense, it was a good opportunity for Daegu to highlight areas of vulnerability and other loopholes exposed by the outbreak. The lessons gained in Daegu will be shared by the whole world as it is highly needed for the entire world to cooperate in order to fix the roof together before the rain comes again.

#### Social Solidarity: Leaving No One Behind

All human beings are born free and equal with dignity and rights. Furthermore, every human being has a right to health as stipulated by the United Nations (United Nations Human Rights, Office of the High Commissioner, OHCHR)<sup>22</sup>. The sudden emergence of COVID-19 severely threatened all of humanity. Unfortunately, large death tolls among the elderly and minority groups in society throughout the COVID-19 crisis cast many doubts on the roles of governments and international communities.

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<sup>&</sup>lt;sup>21</sup> For instance, the abrupt spread of COVID-19 in Daegu was initially observed at the service of a religious group called 'Shincheonji' as explained in previous chapters, and the numbers of infected patients exploded due to the collective infection triggered by the mass service. Following the case of Shincheonji, other cases of collective infection were also reported from the densely populated areas such as call-centers and other various types of public gatherings. Additional cases of collective infection were also reported from other cities in Korea and the serial infection was specifically found at churches, schools (private academies in most cases), nightclubs, bars and other places with dense crowds.

<sup>&</sup>lt;sup>22</sup> The right to health is "an inclusive right extending not only to timely and appropriate health care but also to the underlying determinants of health, such as access to safe and potable water and adequate sanitation, an adequate supply of safe food, nutrition and housing, healthy occupational and environmental conditions, and access to health-related education and information..." - Committee on Economic, Social and Cultural Rights.

However, the city government of Daegu took the lead in taking care of and treating all cases, no matter who the patients were, as the abrupt expansion of the coronavirus swept through the region. Despite strain on resources, prompt 24-hour-a-day collaborative supports from the Central Government of Korea brought about the best outcomes in dealing with the spread of COVID-19 both in Daegu and the entire nation.

Among countries and large cities which were most affected by the abrupt spread of the coronavirus and COVID-19 around the world, Daegu stands as an example for not installing a 'lockdown & blockade' policy to control the viral disease in the region. It was not obligatory but the 'sense of obligation' among Daegu citizens helped block the contagion. Transparency remains the key foundation for this voluntary participation and the aroused sense of obligation among Daegu people since necessary facts & figures and other key information were simultaneously shared publically as well as with the entire nation and whole world.

The policy of '(expanded & extended) social distancing' by the city government also played an important role in handling the coronavirus, consolidating the 'social solidarity' and closeness among people in Daegu unlike its literal meaning. The elderly, migrant workers, foreigners, and other minority groups of people were not neglected as we stressed the spirit of 'leave no one behind' by the globally agreed upon framework of Sustainable Development Goals (SDGs).

#### Lessons from Daegu's Fight against COVID-19

Thanks to the settling of the coronavirus spread in the region, Daegu policy directions about COVID-19 shifted from 'strict social distancing' to 'distancing in a daily life.' While the level of social distancing in Daegu has been lowered, it remains enhanced until the very end of COVID-19. Specifically, this is a new phase of daily life in Daegu, what many around the world widely call 'the new normal.' As such, it's important to stay vigilant. Below are the three most prominent and effective measures taken for prevention that worked in Daegu in overcoming the health crisis: 1) Prompt and mass-scale testing by verified testing kits at national and global levels, 2) Different tier classification of patients and immediate large-scale facility isolation, 3) Government-guided but citizen-driven activities and campaigns Daegu is well-aligned with the so-called national policy '3T policy (Testing, Tracing, Treating)' of Korea, but Daegu takes a stricter, larger, and prompter approach. Joint action & collaborative partnerships also played significant roles in tackling the COVID-19 crisis and the cooperation between public and private sectors was crucial to the response. Here are five steps taken:

1) Cooperation between the Central Government of Korea and the City Government of Daegu, 2) Public-Private Partnership (PPP), 3) Policy coherency, 4) Transparency, 5) Voluntary Cooperation and Compliance to the rules and guidelines.

### Inter-Connected & Inter-Dependent World: Sendai to Daegu

The whole world, including Daegu, is still exposed to the dangers of a COVID-19 resurgence since the nature of the coronavirus is still not fully explored and understood. Every country in the world will inevitably have to stand together at the forefront against COVID-19 if the virus explodes again at the global level. In this sense, Daegu is ready and willing to cooperate with organizations, cities, countries, private companies, and international communities around the world to help in the fight. Daegu has compiled massive amounts of empirical findings, related data, socio-economic experiments and other valuable medical evidence in its long-lasting battle against COVID-19, and as such is ready to share and do its part for all of mankind.

Policy dialogue, expert exchanges, joint research and other types of cooperation will be surely taken into consideration and this will be the firm foundation for the peaceful & sustainable prosperity of the whole world. In a globalized and glocalized world, every country and continent is tightly interconnected and inter-dependent as the coronavirus can easily cross national and international boundaries and territories. The Sendai Framework for Disaster Risk Reduction (DRR) was established to respond to and prevent disasters and related issues among international communities. It is time for the whole world to discuss a new framework on health issues, focusing on new and highly contagious diseases such as COVID-19.

Useful Links and Reference

Daegu Metropolitan City (http://www.daegu.go.kr/dgcontent/)

Daegu Metropolitan City Office of Education (http://www.dge.go.kr/eng/main.do)

Ministry of Foreign Affairs (http://www.mofa.go.kr/eng/index.do)

Ministry of Economy and Finance (<a href="http://english.moef.go.kr/">http://english.moef.go.kr/</a>)

Ministry of Education (<a href="http://english.moe.go.kr/">http://english.moe.go.kr/</a>)

Ministry of Health and Welfare (<a href="http://www.mohw.go.kr/eng/">http://www.mohw.go.kr/eng/</a>)

Korea Center for Disease Control and Prevention (<a href="http://www.cdc.go.kr/cdc">http://www.cdc.go.kr/cdc</a> eng/)

Coronavirus Disease-19, Republic of Korea (http://ncov.mohw.go.kr/en/)

Note: For more inquiries on COVID-19 in Daegu and other related issues, please do not hesitate to contact International Affairs and Trade Division via emails and phone-calls.

+82-53-803-3265 (3271, 4411, 3250)

Email: euro321@korea.kr

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# Appendix

**Table 1.** History of COVID-19 Outbreak in Daegu (February  $18^{th} \sim May 31^{st}$ , 2020)

Date	Timeline
Feb 18 <sup>th</sup>	First COVID-19 confirmed case in Daegu
Feb 21st	Opened a Daegu COVID-19 Emergency Response HQ
Feb 23 <sup>rd</sup>	National infectious disease alert level to the highest of "Red" by Korean government
Feb 24 <sup>th</sup>	First death from COVID-19 in Daegu
Feb 26 <sup>th</sup>	First recovered case from COVID-19 in Daegu
Feb 29 <sup>th</sup>	Cases Reached 741 - highest number of newly confirmed cases
Mar 2 <sup>nd</sup>	Operation of Residential Treatment Centers begin
Mar 11 <sup>th</sup>	COVID-19 declared as a pandemic by the WHO
Mar 15 <sup>th</sup>	Started Daegu's March 28 Campaign to overcome COVID-19
Iviai 13	Daegu declared as a Special Disaster Zones by Korean government
Mar 21st	Strict social distancing policy implemented to April 5 <sup>th</sup>
Mar 23 <sup>rd</sup>	Daegu's first statement regarding countermeasures to support COVID-19
	stricken citizens
Apr 6 <sup>th</sup>	Strict social distancing policy extended to April 19 <sup>th</sup>
Apr 7 <sup>th</sup>	Daegu's second statement regarding countermeasures of COVID-19
Apr 10 <sup>th</sup>	First zero newly confirmed cases reported
Apr 19 <sup>th</sup>	Daegu's announcement of Daegu-model social distancing policy
Apr 20 <sup>th</sup>	Relaxed social distancing policy to be carried out to May 5 <sup>th</sup>
Apr 21st	First online video conference of Daegu Citizens Countermeasure Committee to
71pi 21	Overcome COVID-19 held
	Second online video conference of Daegu Citizens Countermeasure Committee
Apr 28 <sup>th</sup>	to Overcome COVID-19 held
	- Decided: Daegu's 7 Everyday Life Quarantine Guidelines
May 5 <sup>th</sup>	Daegu's third statement about national government's shifted coronavirus policy
May 6 <sup>th</sup>	Social distancing in daily life policy to be implemented by national government

Table 2. COVID-19 Status in Daegu and Korea (as of May 31st, 2020)

Confirmed Cases (Daegu)	Quarantined	Recovered	Deceased
6,883	89	6,693	181
Confirmed Cases (Korea)	Quarantined	Recovered	Deceased

793

10,405

270

**Figure 1.** Nation-wide Confirmed Cases in (as of May 31<sup>st</sup>, 2020)

11,468

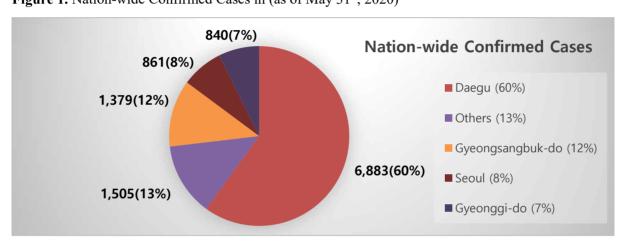


Figure 2. Number of Confirmed Cases in Daegu (as of May 31st, 2020)

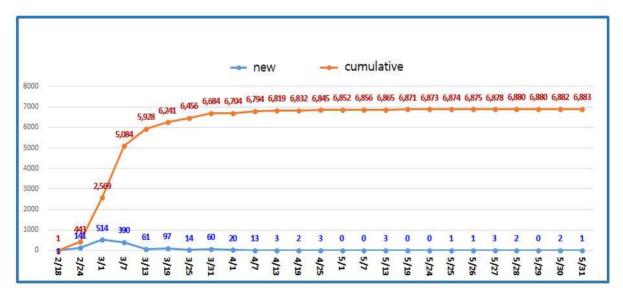
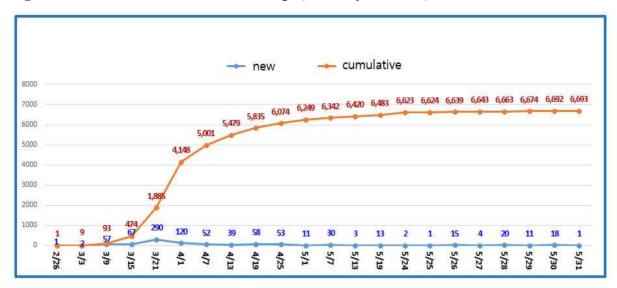


Figure 3. Number of Recovered Cases in Daegu (as of May 31st, 2020)



**Table 3.** The World Status (as of May 31st, 2020)

Country	Confirmed Cases	Deceased	Mortality Rate (%)
USA	1,769,776	103,758	5.9
Brazil	498,440	28,834	5.8
Russia	396,575	4,555	1.1
United Kingdom	272,826	38,376	14.1
Spain	239,228	27,940	11.7
Italy	232,664	33,340	14.3
Germany	183,189	8,530	4.7
India	173,763	4,971	2.9
Turkey	163,103	4,515	2.8
France	151,496	28,771	19
Peru	155,671	4,371	2.8
Iran	148,950	7,734	5.2
China	83,001	4,634	5.6
Pakistan	66,457	1,395	2.1
Bangladesh	42,844	582	1.4
Singapore	34,366	23	0.1
Indonesia	25,216	1,520	6
Japan	16,851	891	5.3
Philippines	16,634	942	5.7
Malaysia	7,732	115	1.5

### Status of medical staff in Daegu (as of May 20th, 2020)

Doctor	Nurse	Others (care workers, clinic pathologists and medical technicians, etc.)	Sum
966	1,184	298	2,448

# Status of screening clinics in Daegu (as of May 20th, 2020)

District	Name of Clinic	Contact
Nam-gu District	Daegu Catholic University Medical Center	+82-53-650-3000
Nam-gu District	Public Health Care Center of Nam-gu District	+82-53-664-3582
Nam-gu District	Dream Hospital	+82-53-640-8800
Dalseo-gu District	Public Health Care Center of Dalseo-gu District	+82-53-667-5953
Dalseo-gu District	Keimyung University Dongsan Medical Center	+82-53-258-7348
Dalseo-gu District	Koo Hospital	+82-53-560-9114
Dalseo-gu District	Samil Hospital	+82-53-659-3100
Dalseo-gu District	Sekang Hospital	+82-53-215-6200
Dalseong County	Public Health Care Center of Dalseong County	+82-53-668-3333
Dong-gu District	Daegu Fatima Hospital	+82-53-940-7098
Dong-gu District	Public Health Care Center of Dong-gu District	+82-53-662-3225
Buk-gu District	Kyungpook National University Chilgok Hospital	+82-53-200-2000
Buk-gu District	Public Health Care Center of Buk-gu District	+82-53-665-2756
Buk-gu District	Daegu Catholic University Chilgok Catholic Hospital	+82-53-320-2186
Seo-gu District	Public Health Care Center of Seo-gu District	+82-53-663-3176
Seo-gu District	Daegu Medical Center	+82-53-560-9480
Suseong-gu District	Public Health Care Center of Suseong-gu District	+82-53-666-3264
Jung-gu District	Public Health Care Center of Jung-gu District	+82-53-661-3804
Jung-gu District	Kyungpook National University Hospital	+82-53-200-4552

# Status of Drive-Through Testing Sites in Daegu (as of May 20th, 2020)

District	Name of Site	Contact
Seo-gu District	Daegu Medical Center	+82-53-560-9480
Nam-gu District	Yeungnam University Hospital	+82-53-623-8001
Buk-gu District	Kyungpook National University Chilgok Hospital	+82-53-200-2000
Suseong-gu District	Daegu Stadium Eastern Parking Lot	+82-53-666-3264

### Status of Walk-through Testing Site overseas entrants (as of April 10<sup>th</sup>, 2020)

District	Name of Site	Working Hour
Dong-gu District	Dongdaegu Station Parking Lot	08:30~24:30

# Status of Residential Treatment Centers in Daegu and Other Areas (as of April 10th, 2020)

Region	Name of Facility	Operation Duration
Daegu	National Education Training Institute	Mar. 2 <sup>nd</sup> ~ Apr. 30 <sup>th</sup>
Gyeongju	Nonghyup Training Institute	Mar. 3 <sup>rd</sup> ~ Apr. 16 <sup>th</sup>
Yeongdeok	Samsung Human Resources Development Institute	Mar. 4 <sup>th</sup> ~ Apr. 30 <sup>th</sup>
Daegu	Hanti Retreat Center of Catholic Archdiocese of Daegu	Mar. 5 <sup>th</sup> ~ Mar. 31 <sup>th</sup>
Daegu	Daegu Bank Training Center	Mar. 6 <sup>th</sup> ~ Apr. 16 <sup>th</sup>
Cheonan	Korea Post Officials Training Institute	Mar. 6 <sup>th</sup> ~ Mar. 27 <sup>th</sup> .
Jecheon	Cheong Pung Resort owned by National Pension Service	Mar. 8 <sup>th</sup> ~ Mar. 29 <sup>th</sup>
Daegu	Kyungpook National University Daegu Campus Dormitory	Mar. 8 <sup>th</sup> ~ Mar. 28 <sup>th</sup>
Gumi	LG Display dormitories	Mar. 9 <sup>th</sup> ~ Apr. 24 <sup>th</sup>
Jecheon	National Health Insurance Service Human Resources Development Institute	Mar. 9 <sup>th</sup> ~ Apr. 5 <sup>th</sup>
Gyeongju	Hyundai Motor Training Institute	Mar. $10^{th} \sim Apr. 20^{th}$
Gimje	Samsung Life Jeonju Training Institute	Mar. 11 <sup>th</sup> ~ Apr. 7 <sup>th</sup>
Chungju	IBK Training Center	Mar. 12 <sup>th</sup> ~ Apr. 8 <sup>th</sup>
Boeun	Social Service Corps Training Center of Military Manpower Administration	Mar. 13 <sup>th</sup> ~ Apr. 10 <sup>th</sup>
Cheongsong	Sono Belle Cheongsong	Mar. 14 <sup>th</sup> ~ Apr. 5 <sup>th</sup>

# **Pictures**

#1 Daegu citizens' queueing outside a pharmacy for buying masks



# #2 Closed Shincheonji religious site



#3 119 ambulances from across the nation to help patient transportation



#4 Disinfection conducted by ROK Army soldiers



#5 Medical professionals preparing for medical service



#6 Cheering messages for medical professionals at Daegu Medical Center



#7 The 1st Emergency Economic Countermeasure meeting in Daegu city hall



#8 "덕분에(Thank you)" Campaign for medical professionals at Keimyung University Dongsan Medical Center

