**"The long-term process of mainstreaming norms of solidarity contributed to citizen compliance and other, more ambitious responses to the COVID-19 pandemic. . . . "**

# Combating COVID-19 in Democratic Taiwan and South Korea

JOSEPH WONG

On April 15, 2020, in the middle of the COVID-19 global pandemic, South Korean voters turned out in record numbers to give the Democratic Party (DP) a majority in the National Assembly. The DP won 180 seats, increasing its number of representatives in the 300-member legislature by 57. Before the coronavirus outbreak, the DP, led by President Moon Jae-in, had not been polling well and was expected to fall short of a majority. But the election became largely a referendum on how the government had managed the crisis. After seeing its effective response to COVID-19, the public gave a resounding vote of confidence to Moon's administration and party.

South Korea recorded its first case of COVID-19 on January 20. Over the next four weeks, the virus's spread appeared to be minimal—only 30 new cases were confirmed—despite Korea's proximity to China, the first epicenter of the pandemic. But that early calm came to an abrupt end on February 18, when "Patient 31," as she has since come to be known, a 61-year-old woman who belonged to a massive church in the city of Daegu, was identified as a superspreader. Over the next ten days, the number of COVID-19 cases in South Korea skyrocketed from 30 to nearly 2,300, with over 900 new cases recorded on February 29 alone.

For a short period, South Korea was one of the hardest hit countries in the pandemic, second only to China. Soon after the peak period in late February, however, South Korea quickly flattened its COVID-19 curve with aggressive testing and contact tracing. By May 14, the country had recorded nearly 11,000 COVID-19 cases and 260 deaths. Comparatively, South Korea's response to the first wave of the COVID-19 pandemic ranks as one of the most effective in the world.

Taiwan's story is even more remarkable. Separated from mainland China by the Taiwan Strait, only about 100 miles wide, Taiwan as of mid-May had confirmed just 440 COVID-19 cases—and even more astoundingly, just seven deaths. The key to its success was the government's rapid response. Right after the Chinese government announced the first case in Wuhan in late December 2019, Taiwan's airport authorities began screening all passengers arriving from that city.

The first case in Taiwan was confirmed on January 21, one day after the government had activated the Central Epidemic Command Center. Taiwan did not record its first death until February 16. The fact that it was able to effectively combat COVID-19 while excluded from the World Health Organization (WHO), and thus from the real-time information sharing and other support to which members are entitled, makes Taiwan's experience all the more extraordinary.

Why were Taiwan and South Korea so successful in combating COVID-19? Neither imposed the sorts of draconian measures seen in China, for instance, where the authoritarian government deployed its security apparatus to quarantine the entire city of Wuhan and the surrounding areas, locking down some 50 million people. In neither Taiwan nor South Korea did armed security officers patrol apartment buildings to keep people in their homes. In fact, neither state imposed a full lockdown. Throughout the winter and spring of 2020, commercial activity largely continued to bustle, Taiwanese children kept going to school (though schools were temporarily closed in South Korea), and most people continued to work.

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Instead of the harsh actions taken in China and other countries that imposed nationwide lockdowns, Taiwan and South Korea responded to the pandemic with early and swift imposition of relatively light-touch measures, such as encouraging social distancing; managing the size of crowds; delivering a constant flow of science-based information to citizens through multiple media channels; making face masks mandatory in public places; and, in South Korea, rapidly rolling out testing. These were not particularly strict measures; they were responses that came early and proved effective.

## Painful Lessons

The governments of both Taiwan and South Korea were prepared for COVID-19 by recent experience. In 2003, Taiwan had been hit hard by the outbreak of Severe Acute Respiratory Syndrome (SARS), a coronavirus epidemic in which nearly 700 people in Taiwan were infected and more than 80 died. Excluded from membership in the WHO, Taiwan was left to fend for itself. It carried those lessons to the COVID-19 pandemic.

For South Koreans, memories of the 2015 Middle East Respiratory Syndrome (MERS) epidemic, in which the country recorded 186 cases and 38 deaths, were even more recent. Citizens had been harshly critical of the government's response and its lack of preparedness. Like their counterparts in Taiwan, Korean officials knew they had to be better prepared for the next health crisis.

Given the speed at which COVID-19 spread, a rapid response was needed. Countries that hesitated soon found themselves in much worse situations, with soaring infection rates and fewer policy instruments at their disposal. Scarred by the trauma and the political fallout from SARS and MERS, the Taiwan and South Korean governments were ready to respond quickly after the COVID-19 outbreak started in neighboring China.

The South Korean government had enacted new legislation, the Infectious Disease Control and Prevention Act, following the MERS outbreak in 2015. It provided public health officials with the authority and coordinative powers to rapidly mount responses to emerging epidemics. In 2004, after SARS, the Taiwan government had passed the Communicable Disease Control Act. Like the subsequent Korean legislation, this measure enabled the government to move swiftly and decisively in its response to COVID-19.

Just a matter of weeks after the 2020 outbreak had been confirmed by Chinese authorities, Taiwan's National Health Command Center activated the Central Epidemic Command Center (CECC), created in 2004 as part of the Communicable Disease Control Act. The CECC immediately took charge of government efforts to contain the spread of COVID-19. Coordinating with other ministries and agencies, the CECC implemented over 120 containment measures during the pandemic, almost all of them within the first month of the global outbreak.

At the end of January, a week after Taiwan had confirmed its first case, domestic medical equipment manufacturers increased face mask production by 400 percent. Daily production capacity rose from fewer than two million masks to eight million, virtually within days. To prevent hoarding, a problem in many other countries, the government implemented a name-based rationing system, limiting the number of masks anyone could purchase at a time. While supplies were low at first, the government distributed and rationed masks.

*Trust in government increased over the course of the pandemic.*

By early February, after production had ramped up, pharmacies began to stock and sell masks. People used their digitized National Health Insurance (NHI) cards to secure weekly rations of masks, which had to be worn in public spaces, including schools, at all times. Later that month, masks became available for sale in the convenience stores that are ubiquitous throughout the island. More innovative fixes were also implemented—notably a map-based app, developed collaboratively by the government and civil society organizations, to inform the public of real-time mask inventory levels at convenience stores. By early March, masks could be purchased online.

## Precise Targeting

Notably, Taiwan did not rely on mass testing of its population. According to its Centers for Disease Control (CDC), as of May 15, fewer than 70,000 people had been tested for COVID-19. This amounts to under 0.3 percent of the total population. By comparison, the United States and Canada had tested over 2 percent of their populations by that time, and many European countries had tested well over 3 percent.

Instead of mass testing, Taiwan's approach to combating COVID-19 was to test those who presented symptoms and those who were at high risk. Its strategy for containment was based on precision: rather than testing low-risk cases, focus on identifying and containing high-probability, high-risk cases.

Taiwan was able to be so precise in its approach because it set up a sophisticated monitoring and quarantine system soon after the coronavirus arrived on the island. Airport authorities conducted thorough health screenings of arriving travelers—initially only for those coming from Wuhan, then for the rest of China, and eventually for all arriving passengers. People deemed high-risk—for instance, those presenting COVID-19 symptoms or those who had arrived from a hotspot—were immediately tested, quarantined, and monitored.

Through a coordinated effort across different ministries and agencies, the government integrated the massive NHI and immigration databases to help identify high-risk individuals based on travel history and health status, including preexisting conditions. The integrated database allowed health authorities to directly contact people who later presented symptoms.

The government also created a "digital fence" to ensure that quarantined patients did not leave their residences during the 14-day isolation period. Using GPS technology, health authorities were able to monitor people's movements. Anyone who moved outside their quarantine location immediately received a text message alerting them that their movements had been tracked and that they could be fined if they did not return to quarantine. In addition, the government provided daily subsidies to those who were quarantined.

## Testing and Tracing

Whereas the Taiwanese approach to combating COVID-19 centered on efforts to enforce quarantines and contain the spread of the coronavirus, the South Korean government adopted a different strategy. Its approach focused on early mass testing, supplemented with contact tracing.

In late January, the government coordinated the transfer and sharing of testing technologies among domestic medical technology manufacturing firms. Approvals for domestically made tests were fast-tracked; in a matter of weeks, Korean companies were producing tens of thousands of tests. By the end of February, close to 100,000 South Koreans had been tested for COVID-19. To put that in perspective, only around 3,000 people in the United States had been tested by that time. As of mid-April, nearly half a million tests had been conducted in South Korea.

The South Korean CDC coordinated with local governments to set up 600 testing facilities. In late February, public health authorities started to open drive-through and walk-through testing sites throughout the country. The tests were simple to administer, and the results were texted to the patient within 24 hours.

Importantly, COVID-19 testing was not restricted to those who were showing symptoms. Asymptomatic people could be tested as well. Those who were at a higher risk of contracting the virus or had a doctor's referral were tested free of charge. The cost of a test for everyone else, even those who were not symptomatic, was about $150. This fee was waived for those unable to afford it.

In addition to mass testing, the government implemented a sophisticated contact-tracing system to alert people who might have been in proximity to an infected patient. If someone tested positive, contact tracing "investigators" reconstructed that person's movements over the past several days. Using a mix of patients' recollections, mobile phone data, credit card and cashless purchase records, and video from security cameras, investigators traced the histories of their activities and whereabouts. Health authorities sent text messages to people living or working in areas a patient had visited, as well as to local governments, warning them of possible exposure to the virus and encouraging testing.

Early on, South Korea also introduced a mobile phone app that notified users when they were within 100 meters of an infected person. To maintain privacy, health authorities did not release any personal information except the patient's age and gender.

## Strong Foundations

These data-intensive approaches—quarantine and contain in Taiwan, test and trace in South Korea—were so effective because both states had made significant investments in their health care systems well before the pandemic. The fact that both had implemented national health insurance programs in the 1990s was critical to their success in combating COVID-19.

During Taiwan's democratic transition, the authoritarian government of the Kuomintang

(KMT) party announced plans to implement a universal and accessible national health insurance program by 1995, one year before the first democratic presidential election. The timing of the NHI's introduction in the midst of democratization was not coincidental. Confronted with a socially liberal opposition in the Democratic Progressive Party, the KMT needed a new strategy. The creation of NHI was a critical plank in the party's platform, contributing to the victory of its presidential candidate, Lee Teng-hui (the incumbent).

The NHI integrated Taiwan's medical insurance system into a single-payer scheme providing universal coverage, managed centrally by the Bureau of National Health Insurance. One administrative consequence was the consolidation and centralization of medical data. Citizens' NHI cards became an important source of "big data," which the government leveraged effectively in the battle against COVID-19.

South Korea similarly universalized its medical insurance program when the country underwent its own democratic transition. Starting in 1988 and 1989, the newly democratic ruling party extended insurance schemes to rural and urban self-employed workers and their dependents, effectively universalizing coverage. As in Taiwan, this made good sense for the ruling party as a way to gain electoral support in the cities and the countryside, especially given the opposition's progressive policy agenda.

*Both Taiwan and South Korea were prepared for COVID-19 by recent experience.*

But the South Korean medical insurance system was decentralized and fragmented; workers in the formal sector were enrolled in separate company-based schemes. In 2000, the democratically elected government led by President Kim Dae-jung integrated these multiple schemes into a single-payer system administered by the publicly managed Korean Health Insurance Corporation (KHIC). Much like the Bureau of National Health Insurance in Taiwan, the KHIC consolidated health data for all citizens. This would be instrumental in South Korea's efforts to introduce mass testing for COVID-19, contact tracing, and patient follow-up.

Over the past several years, the Taiwan and South Korean governments both invested heavily in technological infrastructure to support their big data initiatives. Citizens use e-cards to obtain health care. Providers, including pharmacists, have quick access to patients' health records. Investments in storing and securing data in the cloud have enabled information sharing among governmental ministries and departments. This was critical to their success in implementing data-reliant programs to combat COVID-19, such as the digital fence in Taiwan's quarantine efforts and the digital contact tracing employed by South Korea.

## Clear Communication

Effective communication by government authorities was another critical element in stemming the spread of COVID-19. In many countries, ineffective communication exacerbated the pandemic's effects. There were plenty of tragic examples of government leaders providing contradictory, unclear, inconsistent, or even false information to their citizens.

This was not the case in Taiwan and South Korea. Both governments, using every media platform available to them, delivered early, clear, consistent, and constant streams of information to their citizens about COVID-19, the science of viral transmission, the importance of social distancing and wearing face masks, and other measures to combat the pandemic.

South Korea's deputy minister of health and welfare delivered daily reports broadcast on a variety of traditional and social media channels. Likewise, Taiwan's health minister and leaders from the CECC provided daily reports on the local spread of COVID-19, information on border controls, and updates on workplace and school regulations. The health ministry launched a dedicated website and phone hotline. Taiwan's CDC, using the popular social media platform LINE, started a daily Q&A program. Even the president and vice president reached out on all social media platforms to share information, make public service announcements, and connect with citizens.

Official information about COVID-19 was not only disseminated early, consistently, and clearly by both governments; it was perceived to be legitimate and authoritative. This was especially important in Taiwan, given its political circumstances—notably its exclusion from the WHO and efforts by hackers and foreign netizens to spread disinformation through social media channels. The government relied on and partnered with civil society organizations, such as the Taiwan Fact

Check Center, to verify information. Scientists and public health experts, rather than politicians, were routinely deployed to report information to the public. In both Taiwan and South Korea, such measures mitigated panic and the spread of misleading or false information.

Audrey Tang, a Taiwanese cabinet minister with experience in e-governance and software engineering, was especially effective in bridging the government and civil society and facilitating their collective efforts to combat internet-based disinformation. Vice President Chen Chien-jen was also an authoritative and trusted voice in Taiwan's battle with COVID-19. He was featured in a May *New York Times* profile that described him as "Taiwan's Weapon Against Coronavirus," citing his experience as a health official during the SARS pandemic and his background as a research epidemiologist and virus expert.

## Compliance, Not Coercion

Mostly, what worked well in Taiwan and South Korea to address the pandemic were voluntary actions. People complied with government directives; they were not coerced.

Compliance was possible because ample quantities of necessary medical and public health supplies were available. Other countries had difficulty getting people to wear face masks because low supplies led to hoarding and made masks inaccessible for many people. Through direct communication with health technology firms, the Taiwanese and South Korean governments mitigated these problems and secured the equitable distribution of critical public health supplies such as masks and tests. Thanks to their postwar histories as developmental states, both are experienced in government-led industrial coordination. Over the past two decades, they established medical technology sectors that were able to rapidly ramp up production of the supplies needed to contain COVID-19.

What's more, people in Taiwan and South Korea were used to engaging with their health care systems. Citizens have enjoyed access to high-quality care available to everyone through the national health insurance programs implemented in the 1990s. In both Taiwan and South Korea, people visit their doctors more than 12 times a year on average. In Taiwan, out-of-pocket health costs (copayments or deductibles) are nominal. Fees for outpatient care in South Korea are similarly low. During the COVID-19 pandemic, these health systems remained accessible, and people had faith that they would receive care. Established trust in the system went a long way toward convincing people to comply with public health measures.

This societal trust in publicly managed health care systems translated into trust in government. When reports of the digital fencing technology employed in Taiwan's quarantine efforts and South Korea's contact tracing measures first surfaced in February, some observers, especially in the West, viewed these interventions with cynicism and suspicion. Concerns about privacy and heavy-handed authorities prompted many to warn about government intrusion into society.

Yet Taiwanese and South Korean citizens trusted their governments and the actions they took. In fact, survey data indicate that the level of trust in government increased over the course of the pandemic in both democracies. In part, this trust was built by the public health authorities' consistent and clear communication of information to citizens. It was also due to the ways in which both governments actively reached out to and collaborated with civil society groups to address the crisis.

But something deeper was going on in Taiwan and South Korea during the pandemic to facilitate voluntary compliance without coercion. There was a deep sense of solidarity among citizens, and a feeling that their collective fate depended on their collective compliance. For instance, face masks were perceived as protecting not only those wearing them but everyone in their vicinity. Likewise, adhering to quarantine rules was viewed not so much as an infringement of personal liberties, but as a temporary sacrifice that ensured the well-being of society as a whole.

Some commentators conjectured that this had something to do with Asian values: a cultural proclivity among Asians to uphold the collective over the individual, and a tendency to submit to authoritarian rule or paternalism for the sake of the collective. But this is not convincing; there is ample evidence that many Asians embrace the values of individual liberty and freedom, and reject authoritarianism. Solidarity emerged from something other than essentialized notions of culture. For example, the recent SARS and MERS pandemics, events seared in the collective memories of both societies, made clear the imperative of complying with public health measures for the collective good.

Over a longer period, solidaristic norms were ingrained in Taiwan and South Korea by their developmental experiences. Throughout the postwar developmental state era, Taiwan and Korea

boasted not only rapid economic growth rates, but also an equitable distribution of income. Growth with equity, along with the values that underpin such a developmental path, persisted as an important norm in Taiwan and South Korea, enhanced by democratization.

In my 2004 book *Healthy Democracies*, I contend that their common experiences of equitable economic growth from the 1960s to the 1980s enabled Taiwan and South Korea to universalize health care. These legacies of equitable growth, combined with their transitions to democracy, allowed them to "mainstream" the idea of social welfare and the norm of redistributive solidarity. Public opinion and survey data collected during the 1990s supported that assertion. Democracy deepened the normative consensus among citizens about the importance of equity, solidarity, and the role of government in providing redistributive social welfare.

Over the past two decades, the normative commitment to social solidarity continued to take root, as reflected in social policy reforms in both countries. The Taiwanese and South Korean governments extended their welfare states into more social policy areas. They also deepened their commitments to solidarity in health care specifically. In 1999, for example, Taiwan implemented reforms to the NHI's health delivery system in order to reach rural and aboriginal communities more effectively. Second-generation reforms to the NHI during the 2000s resulted in more equitable health-care financing provisions.

Similarly, the South Korean government continued to strengthen its social safety net at a time when other countries were retrenching their welfare states. The long-term process of mainstreaming norms of solidarity contributed to citizen compliance and other, more ambitious responses to the COVID-19 pandemic: the government and citizens pushed for reforms to extend health care benefits to noncitizens, migrants, and refugees.

## Replicable and Repeatable

One could be tempted to conclude that the pandemic responses of Taiwan and South Korea are so unique that other countries would not be able to emulate them—and therefore that they have no real lessons to offer. But in fact, the conclusion we ought to draw is that the Taiwanese and Korean experiences in combating COVID-19 are both *replicable* and *repeatable*.

These governments' actions to contain the spread of COVID-19 were not complicated. With clear and consistent communication, both states encouraged citizens to comply with social distancing recommendations and to wear masks. Taiwan emphasized respect for quarantine rules; South Korea stressed testing. These were not especially sophisticated interventions. Other countries employed more intrusive measures, ranging from draconian efforts to enforce quarantines (China) to fully enforced lockdowns (Spain, Germany), to contact-tracing mobile apps intended to encompass entire populations (Britain, Israel).

What Taiwan and South Korea did in early 2020 to combat COVID-19 was neither heavy-handed nor difficult to implement. Both governments responded early and communicated information to their citizens quickly, accurately, and constantly. This rapid response and clear communication—and the preparedness that made both possible—were the most important factors in their success. These are certainly replicable lessons.

*Effective communication by government authorities was another critical element.*

The Taiwanese and South Korean responses to the pandemic can also be repeated. This is critically important to recognize as the world, without a vaccine readily available yet, braces itself for second and third waves of infections. As countries began to end lockdowns in May 2020, public health specialists warned that a hasty reopening would almost certainly contribute to new and perhaps even more widespread outbreaks, as evidenced by the disastrous example of the United States during the summer months. To be ready for such outbreaks, we need effective government responses that are repeatable. South Korea has already had to reimpose some of its measures in the wake of an outbreak in May.

What makes the experiences of Taiwan and South Korea repeatable is what they did not do. Two things stand out. First, neither employed the sort of harsh authoritarian measures that predictably foment distrust and opposition. The counterexample to democratic Taiwan and Korea is, of course, China. The Chinese Communist Party regime employed effective COVID-19 containment measures, to be sure—but the way it did so engendered suspicion and distrust, and the regime suppressed criticism of its response. It is unlikely that

the authoritarian approach can be repeated without increased, and potentially unbearable, political, economic, and social costs for both the regime and the Chinese people.

The second major step the Taiwanese and Korean governments chose not to take was imposing a full lockdown on society. Unlike many other countries, they avoided shutting down or stalling their economies. Shops and restaurants remained open, though patrons followed social distancing guidelines. Factories were not closed. Their economies are poised to recover quickly, and neither has had to contend with huge numbers of infections and COVID-19 deaths.

In other countries where strict lockdowns had to be imposed because of community spread of the virus, the pandemic imposed enormous social, economic, and ultimately political costs. For economies around the world that were shut down, recovery is still a distant goal. In many countries, unemployment is at a record high, businesses have shuttered, and rates of poverty and inequality have risen. It is unlikely that full lockdowns can be repeated when the next pandemic hits—they are just too costly. They certainly will not be the desired response.

By responding early, communicating clearly, and facilitating compliance rather than resorting to coercion, the approaches of Taiwan and South Korea to combating the COVID-19 pandemic succeeded. They provide replicable and repeatable models that can and should be emulated elsewhere. ■