

The Taiwan Model of COVID-19 Control and Its Global Implication

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Abstract

In this on-going global pandemic of COVID-19, Taiwan stands out as a leading country in preventing any outbreak. We delineate four non-pharmaceutical interventions —border control, contact tracing, resource allocation (face masks), and social distancing —of the acclaimed Taiwan model of controlling COVID-19. We explain the social-political background of what makes Taiwan's model possible and successful, stressing the most effective measure of the model is the travel ban on visitors from China at the very early stage, due to hard lessons learned from 2003 SARS outbreak. We also demonstrate collaboration among all layers and all ministries of the government in a democratic country that can effectively bring a disease outbreak under control. We also point out political and technological challenges Taiwan is facing to continue its success in the next wave of the pandemic. We conclude that Taiwan's model has a positive implications for COVID-19 control in the world, and Taiwan has an opportunity to play a meaningful role in global health in the future world order where public health is an important global security issue.

Keywords: COVID-19, Pandemic, Global Health, Taiwan, World Health Organization

Coronavirus 2019 (COVID-19) is an infectious disease caused by a newly discovered coronavirus, the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The COVID-19 outbreak occurred in Wuhan City, China, in December 2019, and quickly became the most devastating pandemic the world has seen in a century. As of June 11,

confirmed COVID-19 cases has exceeded 7.3 million, with 416 thousand deaths in 188 countries (Figure 1).¹ The World Health Organization (WHO) declared it a Public Health Emergency of International Concern (PHEIC) on January 30, 2020 and characterized it as a “pandemic” on March 11.² Currently there are no medical treatment or vaccines for COVID-19, therefore governments can only take defensive actions and rely on non-pharmaceutical interventions (NPIs) to control the outbreak.³



Figure 1. Global COVID-19 Confirmed Cases and Fatalities until June 11, 2020

Source: Johns Hopkins University Center for Systems Science and Engineering, “COVID-19 Dashboard.”

I. Taiwan Model

As countries around the world thought over how NPIs could be implemented and when, many looked to Taiwan as the model to follow. Taiwan’s performance during this pandemic has been exemplary. As of June 11, Taiwan recorded relatively low number of confirmed cases (443), deaths (7), and limited locally transmitted cases

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1. Johns Hopkins University Center for Systems Science and Engineering, “COVID-19 Dashboard,” May 18, 2020, accessed, *Johns Hopkins University*, <<https://coronavirus.jhu.edu/map.html>>.
 2. World Health Organization, “Rolling updates on coronavirus disease (COVID-19),” May 14, 2020, accessed, *WHO*, <<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen>>.
 3. World Health Organization, “Non-pharmaceutical public health measures for mitigating the risk and impact of epidemic and pandemic influenza: annex: report of systematic literature reviews,” 2019, *WHO*, <<https://apps.who.int/iris/handle/10665/329439>>.

of COVID-19 over the first few months of the pandemic (Figure 2).⁴ Border control, contact tracing, resource allocation (surgical face masks), and social distancing were four major NPIs that have been successfully implemented to contain the COVID-19 epidemic in Taiwan, and the four cornerstones of what we name the Taiwan Model of COVID-19 control.⁵ Taiwan was one of the first countries to begin border control to contain the COVID-19 outbreak, starting as early as December 31, 2019, with onboard quarantine for direct flights from Wuhan, banning visitors from Wuhan (January 23), then all of China (February 6), and eventually other affected areas in the rest of the world.⁶ Comprehensive and diligent contact tracing was conducted from the beginning to suppress the COVID-19 outbreak, beginning with integrating travel history into the National Health Insurance (NHI) database to identify persons under investigation (PUI), applying information technology to perform digital tracing for those who were in quarantine and isolation, and identifying people who had been in close proximity with confirmed patients.⁷ The government suspended N95 and

4. Taiwan Centers for Disease Control, “COVID-19 (2019-nCoV),” May 18, 2020, accessed, *Taiwan CDC*, <<https://sites.google.com/cdc.gov.tw/2019-ncov/taiwan>>.
5. C. Jason Wang, Chun Y. Ng, & Robert H. Brook, “Response to COVID-19 in Taiwan: Big Data Analytics, New Technology, and Proactive Testing,” *JAMA*, Vol. 323, No. 14, March 2020, pp. 1341-1342.
6. Taiwan Centers for Disease Control, “Two experts from Taiwan visit Wuhan to understand and obtain information on severe special infectious pneumonia outbreak; Taiwan CDC raises travel notice level for Wuhan to Level 2,” January 20, 2020, *Taiwan CDC*, <<https://www.cdc.gov.tw/En/Bulletin/Detail/jFGUVrlLkIuHmzZeyAihHQ?typeid=158>>; Taiwan Centers for Disease Control, “In light of outbreak of 2019-nCoV in China, Central Epidemic Control Center (CECC) stipulates restrictions on entry of Chinese citizens,” January 26, 2020, *Taiwan CDC*, <<https://www.cdc.gov.tw/En/Bulletin/Detail/AbXx37glDFCRtGihlDGOMa?typeid=158>>; Taiwan Centers for Disease Control, “Starting from February 6, 2020, China (including Hong Kong, Macau) to be listed as Level 2 Area or above; Chinese residents to be prohibited from entering Taiwan,” February 5, 2020, *Taiwan CDC*, <https://www.cdc.gov.tw/En/Bulletin/Detail/KMAEC24Yf_5cm94oNL4Jxg?typeid=158>.
7. Chi-Mai Chen, et al., “Containing COVID-19 Among 627,386 Persons in Contact With the Diamond Princess Cruise Ship Passengers Who Disembarked in Taiwan: Big Data Analytics,” *J Med Internet Res.*, Vol. 22, No. 5, May 2020, *JMIR*, <<https://www.jmir.org/2020/5/e19540/>>; Hao-Yuan Cheng, et al., “Contact Tracing Assessment of COVID-19 Transmission Dynamics in Taiwan and Risk at Different Exposure Periods Before and After Symptom Onset,” *JAMA Internal Medicine*, May 1, 2020, pp. 1-8; National Health Insurance Administration, 〈防疫再

surgical mask exports on January 24, and announced nationwide requisition of domestically produced surgical masks on January 30.⁸ On February 6, a name-based mask rationing system began, and the number of masks each person could purchase increased as more production lines were installed (Figure 3).⁹ Taiwan was delayed the start of its spring semester in all schools (February 2-3) and implemented social distancing policies, which allowed governments and schools to have sufficient time to adopt necessary precautionary measures and allocate resources to mitigate potential COVID-19 outbreak in communities.¹⁰

升級健保雲端系統提供高風險地區旅遊史〉, January 27, 2020, *National Health Insurance Administration*, <<https://reurl.cc/QdaxRo>>; National Health Insurance Administration, 〈高風險地區出境轉機資訊納入旅遊提示名單，縮小防疫破口〉, February 16, 2020, *National Health Insurance Administration*, <https://www.nhi.gov.tw/News_Content.aspx?n=FC05EB85BD57C709&s=CD99CFE1CA7DEE26&sms=587F1A3D9A03E2AD>.

8. Bureau of Foreign Trade, 〈公告自109年1月24日起至109年2月23日止CCC6307.90.50.10-6「紡織材料製口罩，過濾效果94%及以上者」及CCC6307.90.50.20-4「其他紡織材料製口罩」2項貨品增列輸出規定代號「111」，並列入「限制輸出貨品表」〉, January 23, 2020, MOEA, R.O.C., <https://www.moea.gov.tw/Mns/populace/news/News.aspx?kind=2&menu_id=41&news_id=88547>; Ministry of Economic Affairs, 〈努力讓大家都買得到，限量購買（3片）政策將持續〉, January 30, 2020, MOEA, R.O.C., <https://www.moea.gov.tw/Mns/populace/news/News.aspx?kind=1&menu_id=40&news_id=88565>.
9. Taiwan Centers for Disease Control, “Name-based rationing system for purchases of masks to be launched on February 6; public to buy masks with their (NHI) cards,” February 4, 2020, *Taiwan CDC*, <<https://www.cdc.gov.tw/En/Bulletin/Detail/ZIJrHunqRjM49LIBn8p6eA?typeid=158>>.
10. Ministry of Education, 〈高級中等以下學校因應武漢肺炎疫情延至2月25日開學〉, February 2, 2020, *Ministry of Education*, <https://www.edu.tw/News_Content.aspx?n=9E7AC85F1954DDA8&s=F430DC0E892811A6&sms=169B8E91BB75571F>; Ministry of Education, 〈大專校院因應武漢肺炎疫情延至2月25日以後開學，暫緩陸生來台，並啟動安心就學措施〉, February 3, 2020, *Ministry of Education*, <https://www.edu.tw/News_Content.aspx?n=9E7AC85F1954DDA8&s=8CFC4B7DD566A8F4&sms=169B8E91BB75571F>.

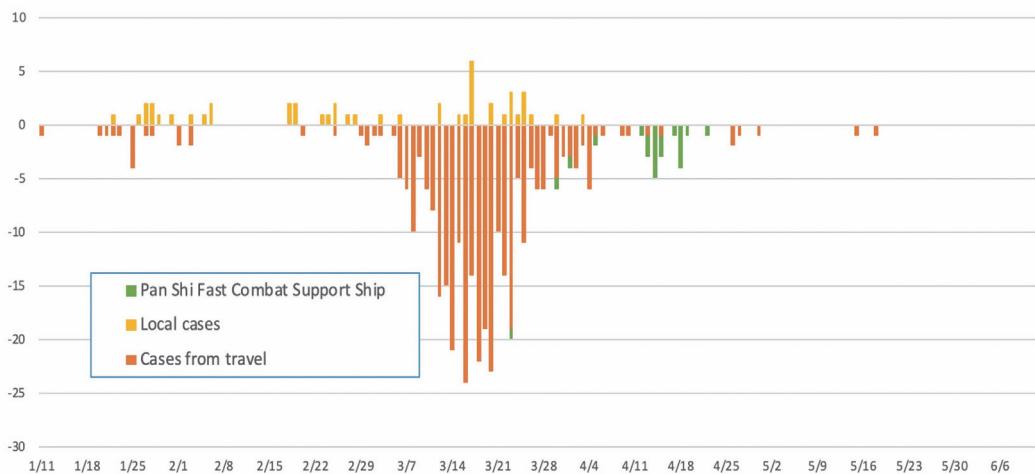


Figure 2. Number of Confirmed Cases of COVID-19 by the Onset Dates During January-May, 2020 in Taiwan

Source: Taiwan Centers for Disease Control, “COVID-19 (2019-nCoV),” June 11, 2020, accessed, Taiwan CDC, <<https://sites.google.com/cdc.gov.tw/2019ncov/taiwan>>.

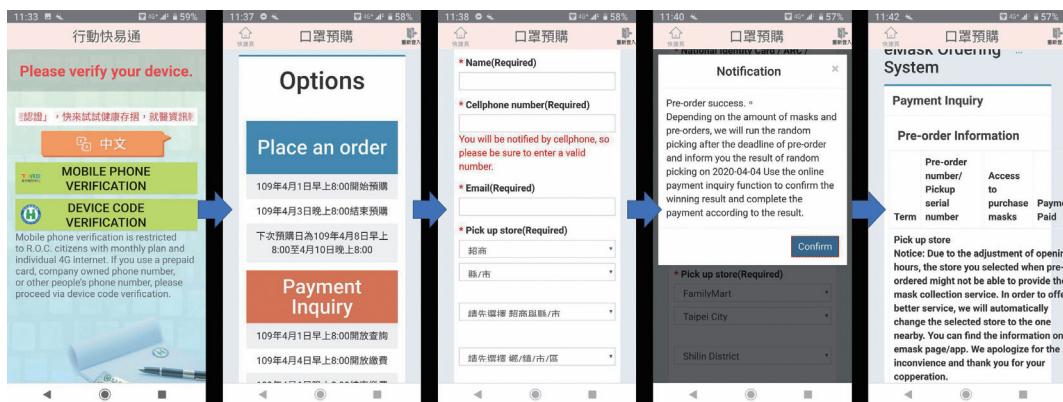


Figure 3. The Process of the Name-Based Mask Distribution System Using a Smart Phone

Source: Screenshot by Chang-chuan Chan.

Taiwan was able to react quickly to COVID-19 because its society as a whole learned lessons from the 2003 severe acute respiratory syndrome (SARS) epidemic. We knew that we should be ready for newly emerging infectious diseases, and that we cannot expect timely and accurate data from China. This is why in the early stages of COVID-19, the Taiwanese government decided to err on the side of caution and take serious actions based on a small number of initial reports. The border control

policy turned out to be the most important and successful containment measure. John Hopkins University (JHU) later predicted a grim outcome for Taiwan because of the high risk of voluminous imported cases, based the trade and travel with China, if border controls had not been implemented early.¹¹ For nearly two decades, we have been preparing for the next epidemic as a vulnerable country, by creating new agencies and scientific institutions at national and local levels, and training medical and scientific personnel for the purpose of guarding against new emerging diseases. SARS also motivated us to improve infection controls in hospitals and clinics by building a large number of negative-pressured intensive care units and conducting medical practice in line with strict infection control guidelines (Figure 4 & 5). These newly established systems for controlling emerging diseases have been repeatedly challenged and improved accordingly by several disease outbreaks over the past few years, including the 2009 H1N1 pandemic and more recently the 2018 African swine flu (ASF) outbreak.



Figure 4. Patients Wait in Line to Have Their Temperatures Checked Before Entering a Hospital, as Per Hospital Infection Control Guidelines

Source: Photograph by Chang-chuan Chan.

11. Lauren Gardner, “Update January 31: Modeling the Spreading Risk of 2019-nCoV, in Center for Systems Science and Engineering,” January 31, 2020, *John Hopkins University*, <<https://systems.jhu.edu/research/public-health/ncov-model-2/>>.



Figure 5. Hospital Staff Wear Different Layers of Protective Equipment during the Pandemic, as Per Hospital Infection Control Guidelines

Source: Photograph by Chang-chuan Chan.

Historically, pandemics and politics has been gone hand in hand, as epidemics were often followed by regime changes and the rise and fall of empires. The approaches that countries take to control disease outbreaks usually reflect the integrity and effectiveness of governments, the credibility of leaders, and the solidarity of societies. Taiwan was in danger of becoming a divided society after the local elections in 2018, when the ruling party (the Democratic Progressive Party, DPP) was heavily defeated by the opposition (the Chinese Nationalist Party, KMT). China's autocratic approach during the 2019 Hong Kong protests served as a warning to Taiwan, unifying the society in fear of China's dominance over Taiwan and loss of democracy in Taiwan. A unified Taiwan as a democratic country with strong solidarity as a pluralistic society was solidified by the landslide victory of incumbent President Tsai Ing-Wen in the 2020 presidential election on January 11, with a record 8.17 million votes and with the highest turnout of a national election (74.9%).¹² President Tsai's consecutive term in office

ensured the stability of cabinet in the Executive Yuan. Meanwhile, the concurrent legislative elections DPP also managed to retain a majority of the seats (61 of 113) in the Legislative Yuan.¹³ On this basis, the government was able to work collectively and to pass disease control policies efficiently. The Taiwanese people have also been very supportive of the government's policies and guidelines. One example of people's high level of compliance with disease control measures is the long but orderly queues waiting to purchase their weekly quota of masks (Figure 6). Another example was the postponement of the Matsu pilgrimage parade, the largest annual religious gathering in Taiwan. Inadvertently, China also helped limit the risk of imported cases by suspending individual tourist visas to Taiwan just five months before, on August 1, 2019.¹⁴



Figure 6. Taiwanese Wait in Line to Purchase Their Weekly Quota of Surgical Face Masks from a Local Pharmacy

Source: Photograph by Chang-chuan Chan.

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12. Central Election Commission, “2020 Presidential and Vice Presidential Election,” January 22, 2020, *Central Election Commission*, <<https://web.cec.gov.tw/english/cms/pe/32471>>.
 13. Central Election Commission, “2020 Legislator Election,” January 22, 2020, *Central Election Commission*, <<https://web.cec.gov.tw/english/cms/le/32472>>.
 14. Ministry of Culture and Tourism of the People’s Republic of China, 〈海峽兩岸旅遊交流協會關於暫停大陸居民赴臺個人遊試點的公告〉, July 31, 2019, *Ministry of Culture and Tourism, PRC*, <https://www.mct.gov.cn/whzx/ggtz/201907/t20190731_845439.htm>.

Taiwan's experience in containing COVID-19 demonstrates how democracy works well for containing pandemic in times uncertainty. Taiwan first set up a response team on January 2, and established level 3 of the Central Epidemic Command Center (CECC) on January 20, led by the Director-General of Taiwan Centers for Disease Control (CDC). The next day, Taiwan had the first confirmed case of COVID-19, leading to the establishment of level 2 CECC on January 23, with the Minister of Health and Welfare serving as commander. As the situation worsened globally, CECC elevated to level 1 on February 27. Level 1 CECC is supposed to be led by the Premier of Executive Yuan under Taiwan's Infectious Control Law, but instead the Premier asked the Minister of Health and Welfare to remain as the commander of CECC.¹⁵ The CECC's deviance from the legal line of command during this pandemic reflected the political reality of Taiwan as a presidential democracy.

Unlike its name, the CECC was not Taiwan's epidemic command center from the beginning of the COVID-19 outbreak. The actual command center is a four-tiered system consisting of the Office of the President, Executive Yuan, Ministry of Health and Welfare, and CDC. Under the President's leadership, this joint-command system cooperates to carry out a series of all-government actions to control COVID-19, including situation evaluation, decision-making, issuing commands, and execution. Such a shared-decision mechanism makes sure all governmental branches work together to execute disease control measures in a timely way. The successful face mask policy exemplifies the way how such a political arrangement bodes well for a democratic country like Taiwan to handle a pandemic. The Ministry of Economic Affairs mobilized companies to increase surgical face mask production rapidly in a very short time to meet, first, domestic demand and, later, global needs, with direct commands from the Executive Yuan by the Deputy-Premier Chi-Mai Chen (Figure 7). A name-based rationing system of surgical masks was developed by Audrey Tang, Minister without Portfolio of the Executive Yuan, and implemented by the Food and Drug Administration (FDA) of the Ministry of Health and Welfare, which oversees the distribution of masks at almost all pharmacies in Taiwan. The Ministry of Foreign Affairs was responsible for the donation of masks to other countries, under the direction of the President, to meet global health demands and Taiwan's diplomatic needs. The

¹⁵. Taiwan Centers for Disease Control, "CECC Organization," May 15, 2020, accessed, *Taiwan CDC*, <<https://www.cdc.gov.tw/En/Category/Page/wqRG3hQfWKFdAu-haoOIAQ>>.

core function of this joint-command center laid the foundation to contain the epidemic domestically in Taiwan and moved the country to a global health donor in the world. The CECC itself served as the face of the government, holding daily public briefings, communicating calmly and efficiently with the public, earning the trust and support of Taiwanese society. This is the backdrop of success of the Taiwan Model: having a majority government in both executive and legislative branches, an efficient command system, collaborative ministries, and good public communication. On this basis, Taiwan has been able to take infection control measures and prevailed in the first stage of COVID-19 outbreak control. Whether or not Tsai's government can maintain this level of energy and efficiency after May 20's inauguration remains to be seen, as cabinet members are expected to be re-shuffled in her new term.



Figure 7. President Tsai Ing-Wen and Taiwan's National Face Mask Production Team

Source: Taiwan Presidential Office, 〈總統訪視「長宏機械公司」，為參與「口罩國家隊」工具機業者打氣〉, March 5, 2020, *Flickr*, <<https://www.flickr.com/photos/presidenti-aloffice/49622095728/>>.

II. Challenges Ahead

As we learn more about the pandemic and the characteristics of the virus, global public health experts predict the possibility of a resurgence of COVID-19 in the winter

this year. A study by Harvard University showed that in the absence of pharmaceutical treatments and vaccines, intermittent social distancing until 2022 may be necessary to avoid overwhelming health care systems, and surveillance should be maintained until 2024.¹⁶ The estimated long duration of the pandemic is likely to increase the social and economic impacts on affected countries and the whole world. To lessen the social and economic impacts of COVID-19, governments in all countries need to adopt even more comprehensive control measures, including expanding health care capacity, the development of treatments and vaccines, and aggressive contact tracing and quarantine. Testing is crucial to understand the infection status and immunity within the population. For Taiwan, widespread viral testing is needed to improve disease surveillance and monitoring in order to find both domestic and imported cases sooner, and execute intermittent social distancing measures to contain the second wave earlier. Serological studies in vulnerable populations, essential workers, and in communities are needed to understand the extent and duration of immunity in Taiwan. Testing results are key to balance pandemic control with economic recovery for Taiwan. The proportion of the population having immunity can serve as the basis for governments to determine the scale of social distancing required in the future. Only by expanding the tests to incoming travelers, essential workers, and vulnerable communities can we get an overall picture of infection prevalence in Taiwan. With this information, government and corporations can apply precise epidemic preventative measures to ensure people's health, economy, trade, and normal lifestyles without resorting to lockdowns.

III. Taiwan's Next Step

With this in mind, the next stage of epidemic control should take a more aggressive approach that Taiwan has not used before, while maintaining the preventative measures that have been effective so far. As this pandemic has developed into a global crisis similar in scale to the previous two World Wars, the weapons humanity needs to overcome the enemy, that is, the SARS-CoV-2 virus, are mass testing, treatments, and vaccines. Countries that possess these strategic weapons first against the virus will become major contributors to global health security and

¹⁶. Stephen M. Kissler, et al., "Projecting the transmission dynamics of SARS-CoV-2 through the postpandemic period," *Science*, 10.1126/science.abb5793, April 2020, pp. 1-18.

key players in the new international politico-economical order during and after the pandemic. Undoubtedly, these countries will ultimately emerge victorious from this war against COVID-19.

A science-based approach is required to develop anti-virus weapons, including testing, treatments, and vaccine development to control the next wave of COVID-19 outbreak. A wartime effort on a national security level is required to coordinate and supervise the collaboration between research institutions, industries, and governments to execute scientific methods of outbreak controls, which unfortunately cannot be accomplished under the current epidemic command system in Taiwan. We still lack development and production capabilities and are falling behind other developed countries in pharmaceutical interventions preparedness of testing kits, treatments and vaccines. We have not obtained sufficient agreements with international organizations, countries and corporations to secure Taiwan's priority in the procurement and of viral and antibody testing reagents, drugs for treatment, and vaccines. Whether or not Taiwan can make up for this breach of epidemic prevention will determine whether the Taiwan Model will continue to be a success or an eventual failure in the next stage of the COVID-19 pandemic.

The effectiveness and progress of COVID-19 controls both domestically and internationally is particularly relevant to the legacy of President Tsai's presidency, as her second term in office until 2024 is expected to overlap with the period of the COVID-19 pandemic, according to a study from Harvard.¹⁷ We can imagine that a worldwide rush to buy testing reagents, treatments, and vaccines will be worse than that for personal protection equipment (PPE). Since Europe, the United States, South Korea, and China are already in the lead for testing reagents, and Europe, the United States, Australia, and China for treatments and in vaccine development, Taiwan's government needs to have a strategic plan to position itself in a key and indispensable role in the global production chain of these pandemic control weapons that could benefit both Taiwan and the world. As part of this, the Executive Yuan should fully take charge of the level 1 CECC as the Infectious Disease Control Law mandates, and implement an "all-government" approach to execute disease outbreak control

¹⁷. Stephen M. Kissler, et al., "Projecting the transmission dynamics of SARS-CoV-2 through the postpandemic period," pp. 1-18.

measures. President Tsai should also shoulder the inevitable responsibility of mobilizing the nation to draw such a whole-country plan and act on it as soon as possible, as speed is key to achieve the new goal of epidemic prevention to protect people's health and well-being, while maintaining national development and prosperity in Taiwan.

IV. Taiwan in Global Health

Taiwan's success in COVID-19 control has had an unforeseen effect on its relationship with the WHO and the global community. Taiwan has been excluded from participating in the WHO since 1972 when the Republic of China (ROC) was expelled from the United Nations (UN). In this pandemic, the WHO has continued its policy of denial of Taiwan by not responding to its warnings of an outbreak of an unknown disease in China from Taiwan CDC.¹⁸ The WHO's delay to responding to Taiwan's warning has cost thousands of unnecessary deaths due to COVID-19 worldwide and disrupted the lives of worldwide populations due to a pandemic-triggered slowdown of the global economy. The WHO has also systematically given incorrect and incomplete information related to Taiwan to the world by intentionally misplacing epidemic data submitted from Taiwan as a part of China under erroneous names, such as "Taiwan, China",¹⁹ "Taipei Municipality, China",²⁰ "Taipei",²¹ and "Taipei and environs".²²

- 18. Taiwan Centers for Disease Control, "The facts regarding Taiwan's email to alert WHO to possible danger of COVID-19," April 11, 2020, *Taiwan CDC*, <https://www.cdc.gov.tw/En/Bulletin/Detail/PAD-lbwDHeN_bLa-viBOuw?typeid=158>.
- 19. WHO, "Novel Coronavirus (2019-nCoV) Situation Report-2," January 22, 2020, pp. 2-4, *WHO*, <<https://apps.who.int/iris/bitstream/handle/10665/330761/nCoVsitrep22Jan2020-eng.pdf?sequence=1&isAllowed=y>>.
- 20. WHO, "Novel Coronavirus (2019-nCoV) Situation Report-3," January 23, 2020, pp. 1-3, *WHO*, <<https://apps.who.int/iris/bitstream/handle/10665/330762/nCoVsitrep23Jan2020-eng.pdf?sequence=1&isAllowed=y>>.
- 21. WHO, "Novel Coronavirus (2019-nCoV) Situation Report-5," January 25, 2020, pp. 1-3, *WHO*, <<https://apps.who.int/iris/bitstream/handle/10665/330769/nCoVsitrep25Jan2020-eng.pdf?sequence=1&isAllowed=y>>.
- 22. WHO, "Novel Coronavirus (2019-nCoV) Situation Report-16," February 5, 2020, pp. 3-4, *WHO*, <<https://apps.who.int/iris/bitstream/handle/10665/330825/nCoVsitrep05Feb2020-eng.pdf?sequence=1&isAllowed=y>>.

The success of COVID-19 control in Taiwan has also put Taiwan back at the center of world affairs in recent months, since the pandemic started in late December, 2019. Taiwan's governmental officials and public health professionals have been widely consulted by governments, global health societies, and research institutions around the world on the Taiwan's experience in controlling COVID-19. Global leaders and the media have recognized and highly praised Taiwan's success in containing the outbreak while maintaining a somewhat normal life for its citizens.²³ The donation of surgical face masks to countries in need further advanced Taiwan's status as a beneficial actor and reliable partner in combating COVID-19 in the global health community.²⁴ This is something the WHO cannot afford to ignore. WHO officials have been repeatedly questioned by journalists of its omission of Taiwan's experience under the name of "Taiwan" to its members, and its obstruction of Taiwan's participation in WHO activities, such as the COVID-19 scientific discussions and World Health Assembly (WHA). Despite China and the WHO's efforts to deny Taiwan's existence, other countries have started to overcome political barriers to urge the WHO to include Taiwan in the dialogue, if not as a Member State, then at least as an observer.²⁵ Even if China's influence on the WHO can not be swayed, Taiwan has now gained legitimacy in this on-going pandemic to formulate better bilateral or multilateral partnerships with international non-governmental organizations (iNGOs) and/or individual countries. Taiwan even has the opportunity of participating in future global health activities as a health entity independent of China, without being completely blocked by China in terms of Taiwan's membership status and name, by sharing Taiwan's successful COVID-19 control measures and excellent public health expertise with countries

²³. Ching-Tse Cheng, "New Zealand to follow Taiwan as model for coronavirus prevention," *Taiwan News*, March 16, 2020, <<https://www.taiwannews.com.tw/en/news/3897972>>; Amanda Connolly, "Coronavirus: Trudeau thanks Taiwan directly for 'generous' mask donation," *Global News*, May 8, 2020, <<https://globalnews.ca/news/6921046/justin-trudeau-taiwan-mask-donation/>>; 〈台灣武漢肺炎防疫全球矚目 德法美日義英等14國媒體借鑑〉, *Central News Agency*, April 8, 2020, <<https://www.cna.com.tw/news/firstnews/202004040083.aspx>>.

²⁴. Ministry of Foreign Affairs, "MOFA announces donation of 10 million face masks to the US, Europe, diplomatic allies to extend humanitarian assistance in wake of COVID-19," April 1, 2020, *MOFA, Taiwan*, <https://www.mofa.gov.tw/en/News_Content.aspx?n=1EADDCCFD4C6EC567&s=2A434037CB463FEE>.

²⁵. Emerson Lim, "Taiwan thanks Abe, Trudeau for supporting WHO bid," *Focus Taiwan*, January 30, 2020, <<https://focustaiwan.tw/politics/202001300018>>.

worldwide. In the future, Taiwan can also play a pivotal role in global health, serving as a major hub in supply chains by producing and distributing PPE, such as face masks, for this pandemic. Taiwan's digital tracing capabilities and technologies established in this pandemic can be readily adopted and deployed in both high- and low-income countries around the world. COVID-19 has shown that Taiwan's inclusion is beneficial to global health and critical to global security, which the post-World War II geo-political framework cannot fully accommodate. The COVID-19 pandemic is changing the world and every one of us. This is a moment to create a "New Normal" for all things. As the world is experiencing the darkest time of falling apart facing the biggest pandemic in a century, Taiwan is given an unprecedented opportunity of returning as a meaningful part of the world by its excellent performance in containing COVID-19.

