

A Snapshot of Taiwanese Actions for Countering the COVID-19 Epidemic

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ABSTRACT

Taiwan was estimated to have COVID-19 infection cases outnumbering other countries except the disease's country of origin, China. As of April 17, 2020, Taiwan has stood out in preventing and containing its spread. The article attempts to provide a snapshot of the measures the Taiwanese government has taken in countering COVID-19. The measures are discussed in three aspects: tightening border security, containing community transmissions, and relevant supports of the social system. While COVID-19 has developed into a pandemic around the world, presenting a general picture of relevant Taiwanese experiences may provide useful lessons for other countries.

Keywords: coronavirus, COVID-19, community transmissions, pandemic, Taiwan.

Since several COVID-19 cases were officially reported in Wuhan, China, on December 31, 2019, it spread to the rest of China and then developed into a global pandemic. As of April 17, 2020, more than 2,200,000 people have contracted the disease across 187 countries and regions and the disease has taken over 152,000 lives (Taiwan Centers for Disease Control [CDC], 2020).

Taiwan has a population of around 24 million and is located 81 miles off Southeast China. Given that over 2,700,000 of Chinese people traveled to Taiwan in 2019 (Focus Taiwan, 2020), it was estimated that the infected cases in Taiwan would outnumber other countries except China (Zlojutro, Rey & Gardner, 2020). Nevertheless, Taiwan has successfully avoided this catastrophic situation. Only 398 confirmed cases have been reported on April 17, among which ten are domestic and 298 are imported. Six have died. The fatal rate is almost 1.5% which is remarkably lower in comparison to the global average of 6.79% (Taiwan CDC, 2020).

The successful experiences in Taiwan may provide inspiration for other countries in taking relevant action. In the context, this article attempts to present the actions Taiwan has taken to fight the COVID-19 epidemic. By March 3, 2020, 124 relevant measures had been adopted

(Wang, Ng, & Brook, 2020), and therefore it is more practical to give a snapshot in the paper, instead of offering all the details.

Tightening Border Security

The first goal for containing COVID-19 is to strengthen border control to ward off community spread because the infected patients are mainly from other countries. A swift response in the very first place is crucial. In fact, Taiwan was the first country to take action in response to the COVID-19 epidemic. According to Taiwan CDC (2020), when several cases of unknown pneumonia, later defined as COVID-19, were publicly reported in Wuhan on December 31, 2019, Taiwan immediately began conducting temperature measurement on the city's incoming travelers. Further, on January 26, Taiwan suspended all flights from Hubei province where Wuhan was located. The flight suspension was expanded to all of China except Hong Kong and Macau by January 28, as the pandemic exploded across China. Chartered flights were scheduled to evacuate business personnel and their families instead. After flying back to Taiwan, they were relocated to three sites for 14-day group quarantine.

From March 19, 2020 onwards, travelers from all countries have been required to undergo two-week home quarantine as COVID-19 became a global pandemic. Those who have a higher fever or other relevant symptoms of COVID-19 are transferred on the spot to the designated hospitals for further testing. The rest are ordered to be in home quarantine and the daily supplies of those under home quarantine are catered by the local government. In addition, they are phoned twice per day and their smart phones are located and monitored 24 hours to guarantee their staying home. Starting from January 29, 2020 electronic monitoring through smart phones has been used to tighten the surveillance of those quarantined.

Containing Community Transmissions

The Taiwanese government had taken many precautionary and proactive measures to prevent and contain the spread of COVID-19 in the community (see Taiwan CDC, 2020). One such remarkable measure is related to facemasks. From January 24 the government started banning facemask exports, and from January 31 the government started supervising the factories' production and distribution of facemasks. Also, the production lines have progressively increased. This has guaranteed medical staff to have sufficient supplies and each resident to have a ration of two pieces per week in the initial stage. The rationed pieces for each adult and for every child were raised to nine pieces and ten pieces every two weeks on April 9, respectively. From March 12, online ordering has been available. The app is able to provide updated information regarding facemask stocks in each pharmacy across the country. These measures implemented in anticipation of a facemask demand have stabilized the facemask price and might successfully alleviate public panic.

Whenever a domestic case is reported, the details of the travel and residency history are collected. The places they visited would be sanitized thoroughly while those they have closely contacted are mandated to go through 14-day quarantine. Their health situations are monitored and when any of them demonstrates COVID-19 symptoms, they are sent to a designated hospital for testing and treatment.

In light of how some COVID-19 patients were shown to be contagious before developing significant, or any, symptoms (World Health Organization, 2020), social distancing guidelines were released. People not wearing facemasks are advised to keep a physical distance to reduce the risk of contracting the infection. At the moment, 1 meter for

indoors and 1.5 meters for outdoors are observed. Also, from April 1, 2020 passengers have been enforced to wear facemasks while taking public transport or entering certain enclosed public places. Furthermore, it has been required to measure the body temperature before entering public places, such as office buildings, shopping malls and schools. Anyone with a temperature 38°C or higher would not be allowed to enter. It is also common that sanitizers are provided freely in stores and buildings.

Social System Supports

The Taiwanese government's actions to fight COVID-19 require the support of relevant social systems. First of all, Taiwan is a democratic country and people are free to access any information, either facts or disinformation. Therefore, Central Epidemic Command Center established on January 9, 2020 has convened daily press briefings to inform the public of updated statistics and knowledge regarding COVID-19, and rules and policies put into practice. Further, the government has strengthened crack-down on spreading disinformation. A phone line was also set up for the public's enquiries or reporting suspicious disinformation.

The national health insurance (NHI) system in Taiwan is critical in fighting the epidemic. NHI was set up in 1995 and covers 99% of the residents. It provides a comprehensive and cheap healthcare (Wu, Majeed & Kuo, 2010). In Taiwan, screenings of COVID-19 and follow-up treatment are free for all patients. This could encourage people to actively seek medical help. Moreover, designated hospitals are used to run the COVID-19 test.

In addition, technological resources were integrated to successfully enforce home quarantine. The movement of people under home quarantine is restrained and monitored through their smart phones. When any of them leaves the house, a text reminder is sent. If the notice is ignored, the policing network activates to search the targeted resident and subsequently, issues a ticket with a maximum up to \$ 1,000,000NT. Therefore, integrating different resources is necessary to counter community transmissions.

Conclusions

Despite the geographic proximity and very frequent interactions between Taiwan and China, Taiwan has effectively controlled the spread of the epidemic with swift responses, at least to date. This may be contributed by

the remarkable measures that have been taken to focus on warding off importation of COVID-19 and containing community transmission. In protecting border security, flights from China and other countries have been progressively suspended. Travelers are mandated to undergo quarantine if necessary and their movements are monitored through smartphones. On the other hand, to avoid the spread of the COVID-19 in the community, comprehensive facemask measures have been anticipated and implemented. When one infected case is reported, his/her travel and residency history is collected and accordingly, quarantine and sanitization are conducted. In addition, fever checking at the entry of public places and social distancing guidelines are important to protect oneself from contracting COVID-19. Keeping the border and community secure needs the support of the social system. These may include information transparency, sound healthcare system, technology advancement, etc. As the world is being severely impacted by COVID-19, the presentation of relevant measures in Taiwan may prove useful for other countries in their battle against the disease.

Competing Interests Statement

The authors have read and approved the manuscript and take full responsibility for its contents. The authors have declared that no competing interest exists.

Biographical Statement of Author

Chi Cheng Wu received the Ph.D. degree in 2010 from Deakin University, Victoria, Australia. He has worked as a special teacher for more than 20 years and for the recent 10 years, he is also lecturing in the Universities. Now he is a causal assistant professor in Tainan University of Technology.



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Dr. Wu's recent research focuses on drawing upon critical theory and postmodernism to frame qualitative studies in exploring life experiences of disabled people. He is now an editorial board member of Horizon Journal of Humanities & Social Sciences Research (JHSSR).

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Po Kuan Wu is a freshman in National Cheng Kung University, Taiwan. He is interested in physics, philosophy and public health. While the world is trying hard to battle against the coronavirus epidemic, he would like to figure out how Taiwan has



successfully contained the epidemic, and share relevant experiences.

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