

The Importance of Early Border Control, Containment and Detection in Taiwan: Avoiding Lockdowns to Prevent an Economic Meltdown

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Abstract: The early, immediate and rapid response of the Taiwanese government to the threat posed by the corona virus disease of 2019 (COVID-19) was responsible for its success in substantially limiting the number of positive cases which were recorded over the past 14 months. Its implementation of strict border controls, quarantine protocols, physical distancing and mask wearing requirements were all independently done at the earliest possible time without having to rely on the confusing and inconsistent pronouncements of the World Health Organization (WHO). The severely delayed pronouncements of the WHO concerning human to human transmission and flight restrictions to and from Wuhan China allowed the corona virus of 2019 to spread rapidly across more than 190 countries. Taiwan acted immediately and did not wait or rely on any assistance, recommendation or pronouncement from the WHO. This decision was crucial to the success of the rapid response strategy that had drastically reduced COVID-19 infections in the country. By not relying on the pronouncements provided by the WHO and placing more trust on the information obtained from its bilateral partners and allies, it implemented a prudent and rapid response strategy that successfully reduced the number of infections and allowed the economy to continue growing because of its prudent approach to avoid locking down schools, businesses, markets and transportation systems. The draconian approach of locking down a society inflicts more damages and costs to the public and this is what Taiwan avoided when it immediately responded to the threat without being dependent on WHO pronouncements. The decision not to impose a lockdown has allowed the Taiwanese economy to grow by 2.8% by the end of 2020 amidst severe economic recessions and meltdowns in many other countries across the globe.

Key Words: border controls; quarantine protocols; covid-19, travel alerts; lockdowns; interagency communication and coordination.

1. INTRODUCTION

Reports of a cluster of seven cases of atypical pneumonia in a hospital in Wuhan China came to the attention of the Taiwanese government last December 31, 2019 (Chen, Chien-Jen, 2020). This was consequently confirmed by the World Health Organization (WHO) as being caused by the novel corona virus, more popularly known as COVID-19,

which has been responsible for the occurrence of a pandemic which has continued over the last 15 months resulting to more than 112 million cases of infections and more than 2.47 million deaths on a global scale (JHU CSSE, 2021). The most common response implemented by almost all countries was to imitate the main strategy used by the People's Republic of China (PROC) which was to impose a lockdown. This involved forcing people to stay inside their homes, keeping businesses closed, shutting

down factories, closing schools and restricting the movement of people by shutting down public transportation systems.

On the surface, this may appear to be a logical approach in containing the spread of COVID-19. Countries which have followed the China based approach justify its implementation by arguing that the lockdowns decrease human to human transmission by reducing physical contact between individuals, and restricting the movement of people. This approach was expected to provide an assurance that after at least 15 days of the lockdown, the spread of infections would have been contained and that hospitals would not be overwhelmed with an overflowing number of COVID-19 cases.

Lockdowns Create More Public Health Problems other than COVID-19 and leads to Economic Ruin

Despite using the China-based lockdown strategy, the actual number of cases and deaths continue to increase and surges in cases frequently occur every time the lockdowns are relaxed. Government's which implement extreme lockdowns will always end up imposing them again when new COVID-19 cases surge after attempting to relax the initial restrictions. This process will continue to repeat itself with the result of further prolonging the duration of the pandemic leading to longer business closures, higher unemployment and a more severe recession.

The rising number of infections and deaths have not stopped despite the implementation of draconian measures which have resulted to massive unemployment, the closure of firms and increasing incidences of hunger and poverty. There is also a rising number of non-COVID sickness and disease being left untreated because of limited access to health care services in hospitals that have allocated most of their facilities for COVID-19 patients. Prohibiting the operation of mass transport systems also has the effect reducing access to hospitals particularly for those who need treatment for dreaded diseases such as cancer, tuberculosis and heart disease.

As the lockdowns lead to more business closures and higher unemployment, the economy slows down, experiences a recession, and worsens, as the duration of the pandemic gets longer. A larger number of people will be more vulnerable to both COVID-19 as well as other illnesses. Individuals

who experience job losses and lost income from business closures under a severe lockdown consequently lose their ability to fight against COVID-19 as well as other illnesses because of the inability to spend on adequate medicine, healthcare and food which leads to poor nutrition, poor health and lower immunity.

Strict lockdowns have practically ruined economies and drastically reduced productive capacity with firm closures and the prohibition of employees to get back to work. Shortages in various goods and services will occur if production is not allowed to resume. This will lead to rising prices which will only get worse if government decides to impose price controls. In addition, the government's practice of spending money which it does not have (by sell selling treasury bonds in exchange for newly created Central Bank currency) will only make the economic situation worse by further increasing inflation, increasing the cost of living, increasing the cost of doing business, discouraging new investments and increasing the number of jobs being lost.

This is the reason why it is necessary to understand the success of Taiwan's approach in controlling the spread of COVID-19 particularly without having to impose a lockdown, allowing the public to continue living normal lives while taking the necessary precautions and preventing an economic meltdown that would have badly affected the ability of individuals to fight the disease.

2. METHODOLOGY

The paper provides a discussion of the immediate responses and the various approaches and strategies used by the Taiwanese government in preventing the spread of COVID-19 within the country without imposing a lockdown.

3. THEORETICAL FRAMEWORK

In a free market economy, the role of government is confined to protecting individual life, liberty and property alongside allowing households and firms to freely engage in the production and exchange of goods and services. The enforcement of laws and contracts and the protection of property rights support the workings of a free market which leads to efficient resource allocation where goods and services are produced based on the interactions of consumers

and firms (Friedman M., 1962).

In the event of an external threat, such as a virus coming from another country, the most effective form of minimal government intervention would be the enforcement of strict border controls to prevent the entry of foreign nationals who may be carriers of the virus. This may temporarily impede international trade, but must be undertaken in order to ensure that at the very least, production and exchange in the domestic economy continues and that business closures and job losses are minimized.

4. RESULTS AND DISCUSSION

An Immediate Response to a Warning Sign

Taiwan Vice President, Dr. Chien Jen Chen (a trained epidemiologist), has frequently provided well-documented descriptions of the events which had transpired leading to the spread of the pandemic. Taiwan's response to COVID-19 initially began on December 31, 2019 when its Centre for Disease Control (CDC) sent an e-mail to the WHO inquiring about seven (7) atypical cases of pneumonia in Wuhan, China that were reported in social media. Health authorities in China stated that they were not cases of Severe Acute Respiratory Syndrome (SARS) and that the cases continued to be examined and remained under isolation. Taiwan requested for more information from both China and the WHO for data on testing results and cases of those that had come in close contact with the pneumonia patients, but none of these were provided and no satisfactory answers were given. By the afternoon of December 31, the Wuhan Municipal Health Commission announced 27 cases of pneumonia related to a seafood market and reported that there was no evidence of human to human transmission (Watt, Louise 2020 May 19).

On Board Quarantine Protocols for Flights from Wuhan China

The Taiwanese CDC was alarmed by this report because the pneumonia cases were clustered, unusual, sudden and incidental which should have called the immediate attention and action of the WHO and the China CDC. On December 31, 2019, passengers on flights coming from Wuhan China

were subject to on board quarantine protocols with the objective of detecting possible early symptoms of an infection (such as fever, cough and colds, body aches and pains) and the consequently isolating potentially infected passengers. The Taiwanese authorities boarded the airplanes carrying passengers coming from Wuhan, China and made certain that before disembarking, all travellers would be checked for symptoms.

Strengthening Suspected Case Reporting, Improving the Coordination of Government Agencies and the formation of an Advisory Committee

On January 2, 2020, the Taiwanese government began implementing policies to strengthen suspected case reporting and hospital infection control under the national health care system. This included using "big data" that connected the data base systems of the National Immigration Agency, the Taiwan Customs Administration and the National Health Insurance System in order to establish better coordination among the different agencies so that information on suspected cases can be efficiently shared and subject to immediate action. Toll free hotlines were made available for reporting suspected cases and individuals coming from Wuhan were electronically monitored along with the people they came in contact with (Glaser, 2020)

This measure allowed government to have efficient interagency coordination. When a physician examines a patient in a health care facility and discovers that the patient had been traveling to different countries, a report is automatically submitted to the National Health Insurance System. The Taiwanese government immediately alerts its Immigration and Customs Agency in order to confirm reports from the health insurance system of a patient which had previously travelled and this provides the opportunity to identify other people who may have come in contact with a confirmed case. The agencies integrate the data and used it for disease detection. If a doctor discovers that the patient came from Wuhan, China, they ask more questions concerning the presence of symptoms (such as fever, cough and colds) and when confirmed, a COVID-19 test is automatically conducted.

On January 5, 2020, the Taiwan CDC organized an Advisory Committee on the Atypical Cases of Pneumonia in China to assess the situation in Wuhan based on the information released by the

China CDC and the Wuhan Municipal Health Commission. The Advisory Committee also expects to get more information from health experts to be sent by the Taiwan CDC to Wuhan and consequently formulate policy recommendations that would compose the appropriate rapid response to address the health threat.

On January 7, 2020, the Taiwan CDC announced a Level 1 travel notice for Wuhan China after the WHO announces that the causal agent of the disease was identified as the 2019 novel coronavirus.

From January 13 to 15, 2020, health experts from Taiwan, Hong Kong and Macau visited Wuhan and discovered a family cluster that appears to indicate human to human transmission of the virus. They discovered that the number of cases have increased compared to the initial report and that doctors and nurses were getting infected which indicates clear signs of human to human transmission (Watt, 2020).

On January 15, 2020, the Taiwan CDC declares COVID-19 as a category 5 infectious disease which threatens to cause a substantial impact on the health of the population through its transmission and will require the formulation of preventive and control measures. All health care institutions were warned and strongly advised to prepare for the possibility of accommodating an increasing number of COVID-19 cases and for the general public to undertake the necessary precautions in order to avoid infection and prevent the transmission of the disease.

It is important to note at this point that the Taiwan CDC declaration of a category 5 infectious disease for COVID-19 effectively ignored the announcement of the WHO that there was limited human to human transmission. In fact the WHO announced that preliminary investigations conducted by the Chinese authorities have found no clear evidence of human to human transmission of the 2019 novel coronavirus identified in Wuhan China (WHO Press Release January 14, 2020). Because Taiwan practically ignored the misleading WHO pronouncement and relied on the findings of its own health experts, it was able to act quickly in order to stop the spread of COVID-19 in the country.

On January 20, 2020, the Central Epidemic Command Center was activated by the Taiwan CDC and an emergency meeting of the Taiwan National Security Council was held by President Tsai Ing

Wen. The Central Epidemic Command Center initially began as a temporary command center during the SARS outbreak of 2003 and was consequently established as a fully functioning unit that was activated during the H1N1 pandemic of 2009.

All of these initiatives implemented by the Taiwanese government between December 31, 2019 and January 20, 2020 were extremely crucial and important in controlling the entry of COVID-19 into the country. These actions were put in place way before the WHO made its pronouncement that COVID-19 was a public health emergency of international concern (PHEIC) on January 30, 2021, four weeks after a cluster of cases spread in Wuhan, China. This very late pronouncement of the WHO provided the opportunity for COVID-19 to spread rapidly across the globe over a four week period and this was further compounded by its announcement on February 29, 2020, advising against the application of travel and trade restrictions to countries experiencing COVID-19 outbreaks (WHO COVID-19 Travel Advice, February 29, 2020).

Taiwan's experience from the SARS outbreak in 2003 and the H1N1 pandemic in 2009 had provided extremely important lessons to learn for both its government as well as the general public. The SARS outbreak had roughly 680 cases of infections and 81 deaths from April to June of 2003 (Ying-Hen Hsieh, Cathy Chen and Sze-Bi Hsu, 2004), while the H1N1 pandemic resulted to 3,159 infections and 39 deaths from June 2009 to January 2010 (Po-Ren Hsueh, Ping-Ing Lee, Allen Wen-Hsiang Chiu and Muh-Yong Yen, 2010). These events forced both government and the general public to take the threat of viral infections seriously, with government setting up the necessary infrastructure, systems and institutions that would help fight and control the spread of a disease alongside the voluntary cooperation of citizens to follow the recommended health protocols and take the necessary precautions in order to protect themselves (Chen, Chien-Jen, 2020). The lessons learned and the government preparations along with the cooperation and voluntary actions of the citizenry have made Taiwan successful in containing the current COVID-19 pandemic with Taiwan having the lowest number of infections in the world at 958 cases, with 926 recoveries, 32 active cases and only 9 deaths as of the end of February 2021 JHU CSSE, (2021). A lockdown was not imposed by the Taiwanese government with schools, businesses, factories, markets and transportation

systems remaining open with normal operations except for the observance of basic health protocols such as temperature checking, wearing masks, physical distancing and the regular washing of hands. Because there was no lockdown imposed, the Taiwanese economy was still able to grow with an increase in real gross domestic product at 2.98 per cent, exports increasing by 18.6 per cent, unemployment at a relatively low rate of 3.9 per cent and inflation at -0.1 per cent. For all intent and purposes the Taiwanese economy has remained stable and healthy relative to all other economies which have gone into a recession because of lockdown policies as a response to the COVID-19 pandemic.

After January 20, 2020, rapid response strategies were implemented, which drew lessons from the SARS and H1N1 outbreaks of 2003 and 2009. The Taiwan CDC in coordination with the Central Epidemic Command Center provide a description of the rapid response strategies:

1. The immediate announcement of travel alerts and warnings and the imposition of strict border controls –
On January 21, 2020, a travel notice level 3 was imposed on flights from Wuhan, China.
On February 6, 2020 a temporary prohibition of travellers from mainland China was implemented including a directive to prohibit foreign flag carrying ships from docking in Taiwan.
On February 11, 2020, a temporary prohibition of travellers from Hong Kong and Macao.
On March 19, 2020 a temporary prohibition on all foreign nationals attempting to enter Taiwan without special permission.
On March 21, 2020, a travel notice level 3 was imposed on all countries and;
On March 24, 2020, a suspension of airline passenger transits through Taiwan.
2. The imposition of border quarantine protocols and on board flight inspections for Taiwanese nationals returning from other countries. This involves physical check-ups along with inquires on the history of travel, occupation, persons in physical contact with and the identification of clusters for persons with symptoms.
3. The enforcement of 14 day home isolation for those in contact with confirmed cases and quarantine for passengers from epidemic areas.
4. The mobilization of the health care system for infectious disease with the provision of 20,000 isolation rooms and 14,000 ventilators.
5. The provision of adequate personal protective equipment, stock piling medical supplies and the mass production of face masks by mobilizing the military along with the use of state funding. Face masks were sold at an affordable price and ensured distribution to everyone.
6. Daily press conferences from the Central Epidemic Command Center to provide transparent information on health education, precautions to take and risk communication.
7. The enforcement of physical distancing in public places, keeping a queue distance and avoiding large gatherings.
8. Economic relief for families that are subject to quarantine protocols and stimulus financial support for businesses in need.
9. Encouraging and supporting research and development in the private sector in the area of rapid diagnostics, anti-viral medication and vaccines.
10. Promoting international collaboration by providing masks and personal protective equipment and sharing technologies and COVID-19 response strategies to other countries particularly with those that have trade relations with Taiwan.

Misleading WHO Pronouncements

No clear evidence of human to human transmission

On January 14, 2020, Dr. Maria Van Kerkhove, acting head of the WHO's emerging diseases unit, stated at a news briefing that there has been limited human to human transmission of the coronavirus. On the same day, the WHO announced that preliminary investigations conducted by the Chinese authorities have found no clear evidence of human to

human transmission of the 2019 novel coronavirus identified in Wuhan China (WHO, 2020).

Recommendations for international traffic

On February 29, 2020, the WHO continues to advise against the application of travel or trade restrictions to countries experiencing COVID-19 outbreaks. The WHO states that there is evidence to show that restricting the movement of people and goods during public health emergencies is ineffective in most situations and may divert resources from other interventions. Travel bans to affected areas or denial of entry to passengers coming from affected areas are usually not effective in preventing the importation of cases but may have a significant economic and social impact (WHO, 2020).

Pronouncements on wearing masks

On February 24, 2020, an official of the WHO stated that they do not recommend mask wearing for healthy members of the population. Dr. Michael J. Ryan, Executive Director of the WHO Health Emergencies Program who leads the team responsible for the international containment and treatment of COVID-19 stated that the wearing of masks by individuals who are not infected is not recommended by the WHO because it is not associated with any particular benefit. Masks should only be worn by those with the disease or those in close contact with the infected (Lacina, 2020).

Misleading Announcements from Chinese Authorities

On December 31, 2019, Chinese Authorities reported that there was no clear evidence of human to human transmission of the disease in Wuhan. On January 7, 2020, the same authorities reported that there were 40 cases of pneumonia in the area and that it was not transmitted through human contact and that the situation was under control with the closure of the wet market which was the suspected source. On January 20, 2020, it was reported that cases had increased by at least 400 per day and Chinese health authorities finally admit to the occurrence of human to human transmission. The Chinese government imposed a lockdown in Wuhan last January 23, 2020, however, it allowed approximately 5 million people to leave the area without implementing any COVID-19 testing or screening procedure before the actual lockdown (Brown and Garrett, 2020).

Taiwan acts independently of WHO and China pronouncements

Taiwan fortunately ignored all of these WHO pronouncements and acted independently and made preparations based on the lessons they had learned from the SARS outbreak of 2003 and the H1N1 pandemic of 2009. Taiwan acted on its own and took the initiative to implement measures without waiting for any recommendations or assistance from the WHO. It has adopted this position because it has not been accepted as a member of the WHO and its status as an observer was revoked by the organization in 2017 after a recommendation from the PROC which imposes its “one China policy” on all meetings conducted on an international level (Glaser 2020)..

Taiwan was an observer in the World Health Assembly which is the decision making branch of the WHO from 2009 to 2016. But after the election of Taiwanese President Tsai Ing Wen, the PROC blocked its participation as an observer in the Assembly. Taiwan does not receive timely information from WHO databases that are only available to members. Its health authorities only rely on bilateral arrangements with friendly governments and non-governmental organizations. It is hampered from sharing its advanced expertise with the rest of the world. A memorandum signed by the PROC and the WHO actually stipulates that Taiwan’s applications to attend the WHO Assembly must first be approved by officials in Beijing. Between 2009 and 2019, Taiwan was only allowed to attend 30 percent of the meetings that it had applied to for (Glaser 2020).

5. CONCLUSIONS

Early border controls as a first and immediate step is crucial in order to ensure that a lockdown to contain the spread of the virus (originating from a foreign source) will not be necessary. As long as foreigners suspected of carrying the communicable disease is identified and isolated before disembarking from a plane or a ship, the spread of the virus and the disease will be limited. Taiwan acted independently and at the early stages of the spread of the virus in Wuhan, China (particularly during the first three weeks of January) without relying on the announcements and recommendations of the WHO. They were very vigilant in detecting possible

infections entering the country. This allowed them to effectively contain the spread of the virus and with the imposition of 14 day quarantine protocols and the effective monitoring of suspected cases and their close contacts, the number of infections have been effectively contained allowing the country to avoid a lockdown and continue with normal day to day operations for schools, businesses, and markets.

The initial pronouncements of the WHO were late and misleading and gave a dangerously false sense of security to many countries that were relying on its recommendations to contain the spread of the virus. Its initial announcement in January 2020 declaring that there was no clear evidence of human to human transmission (based on the investigations of Chinese authorities), and its advice against imposing travel and trade restrictions in February 2020 as well as its pronouncement that it does not recommend mask wearing for the healthy members of the general population has given COVID-19 the opportunity to spread across the world as flights to and from Wuhan China have continued. For countries that did not follow the Taiwanese approach, the spread of COVID-19 has been rapid and the imposition of lockdowns were implemented by many countries as a desperate attempt to control the increasing number of infections. Unfortunately, these lockdowns have led to severe economic downturns and have compromised the ability of individuals to fight the disease because of the loss of livelihoods and income.

Taiwan acted prudently by immediately recognizing a warning sign from the report of atypical pneumonia cases in Wuhan China last December 2019. It responded rapidly by implementing the border controls and border quarantine protocols to limit the entry of the virus by identifying travelers coming from Wuhan, China and effectively used contact tracing and monitoring to ensure that individuals and close contacts suspected of infection remain in quarantine or are given the appropriate health care treatment in order to stop the spread of the disease.

5. REFERENCES

- Brown, Tara and Garrett, Laurie (2020). "Whistle blowers silenced by China could have stopped global coronavirus spread". 60 Minutes Australia Report, March 30, 2020.
- Chen, Chien-Jen (2020). "Inside Taiwan's Response to COVID-19". Presented at the Johns Hopkins Bloomberg School of Public Health. April 25, 2020
- Friedman, Milton (1962). "Capitalism and Freedom". University of Chicago Press, Chicago 60637.
- Glaser, B., (2020). "How is Taiwan Effectively Fighting COVID-19". Presented at the Center for Strategic and International Studies CSIS. Bonnie Glaser is Director of the CSIS China Power Project. April 15, 2020.
- JHU CSSE, (2021). Johns Hopkins University Centre for Systems Science and Engineering.
- Lacina, Linda (2020). "Should you wear a face mask? WHO officials weigh in at today's COVID-19 briefing". World Economic Forum. Linda Lacina is the Digital Editor at the World Economic Forum. March 30, 2020.
- Po-Ren Hsueh, Ping-Ing Lee, Allen Wen-Hsiang Chiu and Muh-Yong Yen, (2010). "Pandemic (H1N1) 2009 Vaccination and Class Suspensions after Outbreaks, Taipei City, Taiwan". Published under the Emerging Infectious Diseases, 2010 Aug. 16(8): 1309-1311.
- Watt, Louise (2020). "Taiwan Says it Tried to Warn the World About Coronavirus. Here is What it Really Knew and When". TIME, USA 2021. May 19, 2020.
- Ying-Hen Hsieh, Cathy W.S. Chen and Sze-Bi Hsu (2004) "SARS Outbreak, Taiwan, 2003". Published under Emerging Infectious Diseases, 2004 Feb; 10(2), 201-206.
- WHO (2020). World Health Organization "Updated WHO recommendations for international traffic in relation to COVID-19 outbreak" WHO COVID-19 Travel Advice. February 29, 2020.
- WHO (2020) World Health Organization "Preliminary investigations conducted by Chinese Authorities have found no clear evidence of human to human transmission of the novel coronavirus (2019 n-CoV) identified in #Wuhan #China." Announcement on twitter, January 14, 2020.