

Covid-19 Containment Strategies: A Comparative Analysis of Hong Kong and Nepal

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ABSTRACT

The new type of corona virus officially named as Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-2 CoV-2) was first reported in Wuhan China in late December 2019. This article aimed at presenting the preventive strategies implemented against COVID-19 by the government of Nepal and the government of Hong Kong and show how the effective policy discourses coupled with careful preventive measures play critical roles in controlling the virus. This discussion paper is based on various print and non-print media that cover the information about the COVID-19 and the adopted strategies to contain the COVID-19 outbreak in Hong Kong and Nepal. It appears that efficient political leadership, notwithstanding democratically elected or not, people's health literacy, and effective strategies of the government play key roles in containing the contagion. Government in jurisdictions like Nepal should invest more resources for development of the skilled manpower and conduct more research studies related to the infection prevention and control to deal with the emergency outbreak in the future.

Keywords: Hong Kong, Nepal, COVID-19, Strategies & Discourse

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BACKGROUND

The new type of corona virus officially named as Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-2 CoV-2) was first reported in Wuhan China in late December 2019. China was the only country initially affected by COVID-19 until February 2020, but from the beginning of March, the disease started to be found in other parts of the world. It was reported in Italy in the second week of March and in other European countries in the third week of March then the virus was reported across the Atlantic and in the United States.^{1,2} Declaration of COVID-19 as a pandemic by World Health Organization (WHO) on 11th March 2020 was greeted with awe and surprise around the globe, particularly creating an emergency situation which led to lockdowns in many countries.^{2,3} As of June 17, 2021, more than 177 million people have been infected with COVID-19 and almost 3.84 million people have lost their lives due to this disease.³ Most of the countries in the world now are struggling with this disease. For example, United State of America (US), an epicenter of the outbreak, reported a total of 600K deaths and approximately 33.5 million people infected as of June 17, 2021.^{4,5} The latest data also show that COVID-19 cases rates are increasing more rapidly in poorer and developing countries than in wealthier and more developed nations.⁶ Some regions or countries such as China, Taiwan, New Zealand, Hong Kong and Germany have been able to successfully contain the spread of the virus (COVID-19).^{3,6} Some academic and media discourse paint a picture that virus has been contained in countries or regions with females in leadership such as Taiwan, New Zealand, Iceland, Finland and Germany.⁷ However, China's model demonstrates that it needs a concerted effort of government and its people to contain the spread of the virus.⁸ The President of China, Xi Jinping has awarded the heroes of the coronavirus pandemic and declared that China had "acted decisively" in containing the outbreak within its borders in an "extraordinary time".³ The purpose of this article is to present the preventive strategies against COVID-19 in Nepal and Hong Kong and show how broader structure, and policy discourses

coupled with effective institutional preventive measures play critical roles in controlling the virus.

METHODOLOGY

Data source: This discussion paper is based on various print and non-print media that cover the information about the COVID-19 and the adopted strategies to contain the COVID-19 outbreak in Hong Kong and Nepal. Different electronic databases such as PubMed, EMBASE, MEDLINE, and gray literatures such as Goggle Scholar were used to locate the relevant literature for this present paper. A total of 40 different relevant news sources and literatures were retrieved and analyzed them for this study.

HONG KONG

GEOGRAPHICAL STRUCTURE AND DEMOGRAPHIC INFORMATION

Hong Kong is known to be one of the densely populated regions in the world with the total area of only 1,106.66 square kilometers. Crowded high-rise buildings are squeezed into almost every available space. The total population of Hong Kong is approximately 7.5 million living in an area of 427 square miles.^{9,10} According to the United Nations Vital Statistics Summary and Life Expectancy at Birth for 2020, Hong Kong ranked first in the world with the highest life expectancy rate (female's life expectancy is 88.17 and male's life expectancy is 82.38 respectively).¹¹ Public health measures that include sanitation and clean water and advanced health care system with people's equal access to the health care system are some attributing factors for the higher life expectancy of people in Hong Kong. Hong Kong is also one of the few cities in the world that has the most cross border traffic with China.¹² More than 2.5 million people came to Hong Kong from Mainland China just in a single month January of 2020.¹² Also, Hong Kong is directly connected to Wuhan city of China, where the first corona virus was reported. Further, no doubt Hong Kong has one of the most efficient transportation systems that includes the trains, bus, minibus, taxi, trams and light rails, which runs every few minutes,

which are some of the attributing factors for the transmission of the virus.¹⁰ Yet, as of June 17, 2021, only 11,880 new cases were confirmed with COVID-19 and 210 deaths have been reported in Hong Kong.³

Health Literacy

Hong Kong people have high health literacy than people from any other countries in the world.¹² According to the definition of World Health Organization (WHO), health literacy implies the achievement of a level of knowledge, personal skills and confidence to take action to improve personal and community health by changing personal lifestyles and living conditions.¹³ Advanced healthcare system of Hong Kong is one of the main factors that contributes to increasing the health literacy among its people. In addition, Hong Kong has a long history of suffering from pandemic and epidemic. In 1968, a pandemic named “Hong Kong flu” killed one million people across the world and it was reportedly started from Hong Kong.¹² In 2003 and 2004, a total of 775 people across the world died due to a severe infectious disease called Severe Acute Respiratory Syndrome (SARS), and 299 people including 8 health care workers died due to the SARS in Hong Kong.¹⁴ Such experiences in dealing with various epidemic and pandemic in the past has made Hong Kong health care system more advanced and the health awareness regarding the outbreak is significantly high among its citizens. Therefore, the people of Hong Kong acted collectively to deal with the present COVID-19 outbreak, and they are efficiently working together to save themselves. Further, the government of Hong Kong particularly Department of Health is working vigorously to disseminate the health information related to the recent pandemic to its public via various means and methods such as websites, regular emails, radio television, its social media etc. The department has set up a special promotional strategy to promote the prevention of the present pandemic to its minority population. The Department of Health translated all the necessary information related to present outbreak in various minority languages in order to provide equal access to the health care system of

Hong Kong.¹⁵ In addition, the government has deliberately invested more resources in educating the people and in the preparation of infection control and infectious disease research capacity.¹²

Leadership

Quality leadership is one of the key components in pandemic preparedness. In Hong Kong, after the outbreak of the pandemic due to COVID-19, the government appointed various leaders to form a scientific committee who collectively provide a broadened perspective to diseases prevention and control. The Board of Scientific Advisers is comprised of medical experts from different organizations and is best placed to formulate comprehensive and effective strategies that reinforce the local health protection system.¹⁵ Further, Hong Kong has formed a special infection control committee that involved the doctors, infection control nurses and representatives from other relevant departments such as laboratory, housekeeping, administration and the community leaders from different communities. The main roles and responsibilities of the committee are to determine the spectrum of the COVID-19, identify the risk factors and protective factors, estimate the health care needs of the population and provide an effective intervention to the people infected with the COVID-19. Further, the frontline health care staffs were encouraged to get the relevant education and training and ensure appropriate infection prevention and control practices were followed. In addition, various universities in Hong Kong are offering various infection control related courses to develop the essential and qualified manpower to work during the pandemic outbreak.

Infrastructures / Resources

Availability of the adequate Personal Protective Equipment's (PPE) is essential for all the health care providers. Hong Kong government has provided all the necessary PPEs to the healthcare providers in both community and hospital settings. Besides that, health care workers and Hong Kong residents are also provided with both single use and reusable masks by the

government. The reusable mask can be used for at least 60 times.¹⁵ Various non-governmental organizations and local ethnic associations also provide the necessary materials such as masks, soaps, hand rub alcohol, tissue papers and sanitizers to its members for free.¹⁶ Government of Hong Kong has advised the public including health care workers to wear appropriate personal protective equipment's (PPEs) while giving care in the patient care areas and while going in the public areas.¹⁵ In addition, all the public members are encouraged to maintain healthy lifestyles including hand hygiene. Hand hygiene practices are recommended as one of the key preventive measures to contain the spread of the microorganism including COVID-19.¹⁷ All the public toilets and private toilets in Hong Kong are equipped with the necessary soap, tissue papers and water so that it is citizen can perform hand hygiene properly. All the public places such as library, schools and restaurants also provide the hand rub alcohol to members. All essential places such as escalators, lifts, and toilets are sterilized with the disinfectants regularly so that the spread of the microorganism can be reduced.

Nepal

Geographical Structure and Demographic Information

Nepal is one the countries in South Asian countries which lies in between two largest countries India and the People's Republic of China and shares its open India in east, south and west. The total population of Nepal is 26,494,504, 0.37% of world population and almost 52% (N=1,36,45,463).¹⁸ The annual population growth rate in Nepal is 1.35 per annum. The average life expectancy rate at birth of the Nepalese people is 71.7 years, 73.2 years for women and 70.1 years for men and more than 82% of the population still lives in the rural areas of Nepal and only 18% of people live in the urban areas.¹⁸ The education level of the Nepalese people is only 65.95%, in which 75.14% of males are literate and less than 58% of the female population is literate. Overall literacy rate of the Nepalese residents in Nepal is significantly low. This illustrates that Nepalese

residents are unlikely to possess sufficient knowledge on the recent pandemic. As of June 17, 2021, approximately 612,699 people were reported to be infected with coronavirus in Nepal.¹⁹ The first case associated with COVID-19 was reported on January 13, 2020, a Nepalese student at the Wuhan University, China returned from China on 9th of January 2020.^{1,20,21} He was presented at outpatient department of the Sukraraj Tropical and Infectious Diseases Hospital, Kathmandu with the cough. However, the second case was reported almost two months later (23 of March 2020).²² Nepal registered first COVID-19 death on 16th of May as a 29-year-old female.^{21,23} Initial data from Nepal suggests that most of the COVID-19 cases were imported from other countries,^{1,21,23} and most of the people suffered from COVID-19 were people in the age group below 50 years.⁶ Older people were found little affected from this pandemic.²¹ Initially town located to India border of Nepal were considered as a hot spot of COVID-19 and Kathmandu capital of Nepal was less affected by this pandemic.

Recently, the number of the cases confirmed with the COVID-19 has been dramatically increasing in Nepal. As of June 17, 2021, 8506 people have died and 5,40,000 recovered. Now, Kathmandu is the epicenters of COVID-19 in Nepal and is now in the worst situation (community transmission) of pandemic. Ministry of Health and Population has projected that the number of people infected with Covid-19 will increase further due to the mobility of people from Kathmandu to countryside to celebrate festivals. The number of actual cases is expected to be more than the reported cases and some of the deaths outside of the hospitals were also not counted in the fatality's cases.⁸ This suggests that the number of infected cases with COVID-19 is higher in Nepal and it is anticipated that the deaths associated with COVID-19 will increase in the upcoming days.

Health Literacy

In Nepal, infectious diseases such as diarrheal diseases, influenza and pneumonia are still the top ten leading causes of death.²⁴ Further, infectious

diseases such as hepatitis A and E, typhoid fever, malaria, dengue fever and Japanese encephalitis are also common infectious diseases in the country. Some types of infectious diseases that are still common in Nepal are already eradicated in other parts of the world. Thus, Nepal is struggling to cope with various infectious diseases. People's awareness and knowledge related to these common infectious diseases are the must to battle against these diseases. Knowledge related to the health and wellbeing is also called health literacy. Factors such as poor health care system, poor accessibility to the health care service providers, centralized health care workers, poverty, and lack of comprehensive education related to various infectious diseases and lack of specialized professionals are contributing to the poor health literacy rate in Nepal. Individuals particularly from rural areas of Nepal still lack necessary health information to prevent and control the pandemic outbreak. Several myths and misconception such as "person infected with corona virus will not be able to spread the virus to others when a fever is not presented" and "corona virus infection is just a simple cough and can be treated with hot water" are spread by people through various social media and personal conversations. In addition to that, persons infected with corona virus experience fear of being segregation and isolation from the society because society also blames him or her for transmitting the virus to the other people. Evidences show that during the outbreak of pandemic, the number of suicide cases are increasing in Nepal. For example, a study by Shrestha et al. (2021), reported that the suicide and self-harm among Nepalese people had significantly increased by 44% and 71.9% during the lockdown period (March 24-June 23, 2020) when compared to the matching periods (March 24-June 23, 2019) and 3 months period prior (December 24 2019- March 23, 2020).²⁵ The presence of myths, misconceptions, and stigma are contributing to the spread of disease, which is also making it difficult to control the outbreaks.

Leadership

Nepal government has formed a High-Level Coordination Committee for the Prevention and

Control of COVID-19 to prepare the necessary action to cope with COVID-19 pandemic. In the committee, most of the team members were the Nepalese political leaders as only a few medical experts are involved. This committee got embroiled in a controversy for not being able to carry out its action properly and transparently- It was accused of wasting proper preparation time and failing to set the priorities to cope with the outbreaks. The government itself got embroiled in allegations of corruption while purchasing Personal Protective Equipment (PPE).²⁶ The government of Nepal also lacks adequately trained and dedicated human resource for the infection prevention and control (IPC) and lack of well-organized IPC committees and teams in both hospital and community settings.²⁴ Further, medical students and health care workers are not provided with comprehensive education and opportunities to excel their skills and knowledge in containing outbreak such as COVID-19. Interestingly, political leaders including the Prime Minister of Nepal who had only limited knowledge and expertise in the medical field were made the focal persons to speak about the COVID-19. For example, Prime Minister K.P. Oli used to update the information related to COVID-19 almost every day. Various news articles reported that the then Prime Minister of Nepal Mr. KP Oli gave his speeches on pandemic at the parliamentary meetings of Nepal and made series of false claims related to COVID-19. For example, on 10th June 2020, the Prime Minister of Nepal claimed that "immunity power of the Nepalese people is exceptionally strong to protect themselves from infectious diseases such as COVID-19 so there is no need to worry about Covid-19". However, medical experts and epidemiologists in the country criticized the Prime Minister for making baseless claims. Although Nepal government had sufficient time to make necessary preparations to contain the pandemic the government could not utilize it. They even failed to mobilize the medical experts to deal with the outbreak and did not provide enough autonomy to medical experts and workers to engage in a systematic preparedness. The government of Nepal also did not allocate enough

resources to train and educate the manpower to work during the pandemic such as COVID-19.

Infrastructures / Resources

Recently those low resources countries including Nepal are traumatized with the COVID-19 outbreaks. Evidence shows that South Asian countries such as India, Pakistan and Nepal have become the new epicenters of coronavirus pandemic. ²⁷Nepal is one of the most vulnerable countries in South Asia for COVID-19 because the government of Nepal is initially did not prepare well to prevent and control the spread. ²⁸

HONG KONG STRATEGIES

Vaccination Programme

The government of Hong Kong has implemented a territory-wide COVID-19 Vaccination Programme and all the residents of Hong Kong of aged 12 or above are provided the vaccination for free. As of August 19, 2021 a total of 3,829,807 (56.9%) of Hong Kong population get 1st dose of Covid-19 vaccination and approximately 44.4.0% of total population of Hong Kong are inoculated with 2nd dose of COVID-19.¹⁵ Mainly two types of COVID-19 vaccines namely Sinovac Biotech (Hong Kong), an inactivated virus technology platform and BioNTech (BNT162b2 mRNA vaccine), mRNA technology platform are available in Hong Kong. Members of public are allowed to choose the vaccine based on their own preference.

Phased and Targeted Closures

In Hong Kong, the first case of COVID-19 was confirmed on 22nd of January 2020, almost a month after the first case of corona virus was reported in Wuhan, China. The patient was reported to have arrived by a high-speed railway from the mainland and he was kept in 14-day quarantine at Princess Margaret Hospital. After the first confirmed case in Hong Kong, Hospital Authority enhanced laboratory surveillance for all the pneumonia cases including the patients with a history of travel to all parts of Mainland China not

just to Wuhan. Hong Kong also took some essentials measures such as using temperature checking at airports and high-speed rail stations and required air passengers to fill in health declaration forms. Government of Hong Kong along with the Leisure and Culture Service Department prepared the camps in the remote parts of Hong Kong as potential quarantine sites. On 3rd of February 2020, the government of Hong Kong closed some of its borders and travel restrictions to non-resident of Hong Kong coming from all the countries were imposed. Further, government of Hong Kong suspended schooling for all student's Lunar New year holiday and until the end of May 2020. The government of Hong Kong also declared a "public emergency situation" on March 27, 2020 preventing people to gather in groups of more than two at all the leisure venues. To contain the virus, social distancing measures were strictly enforced at public and private areas. For example, the number of customers for lunch or dinner tables was limited to two and each table was separated 1.5 meters apart starting from 28th of March 2020. At some point of the year, dining was banned after 6 Pm. Temperature checking and availability of hand sanitizers were made mandatory for all restaurants. Further, government asked the civil servants to work from home for several months and even the private business establishments were encouraged to allow their staff to work from home. Even the members of public strictly implemented the measures announced by the government at the local levels. No residents were seen breaching the government instructions. It was made a kind of stigma not to wear masks or breach the government rules in public places. So general public strictly enforced the measures announced by the government thereby contributing to the containment of the virus.

Arrangement of Medical and Other Supplies

During the outbreak of COVID-19, all the health care workers and all the public members are recommended to wear appropriate personal protective equipment (PPEs) while providing care in the patient care areas and while going in the public areas. Availability of the adequate PPEs is

essential for all the health care providers and Hong Kong has provided all the necessary PPEs to the healthcare providers in both community and hospital settings.

COVID-19 Early Testing and Detection

Hong Kong introduced the Universal Community Testing for COVID-19, which was also named as mass testing scheme that lasted for two weeks. This scheme was started on 1st of September 2020 having tested almost 1.78 million people out of 7.5 million for the COVID-19.³ The test was provided for free and only 32 COVID-19 cases were identified during the mass-testing scheme. The members of public were strictly advised to seek health professional's advice promptly when feeling unwell. This contributed to providing an appropriate diagnosis and management at an early stage of the infection. All the government hospitals including general outpatient's clinics, private clinics and hospitals were providing the testing services to the public for free.¹⁵ The Hospital Authority and health laboratories were carrying out about 5,000 covid-19 tests daily.³ This indicates that one per 1,000 people in the city was tested for the COVID-19 in Hong Kong.

Targeted lockdowns

Hong Kong government imposed a lockdown of the city only on 23rd of the January 2021, more than a year later the COVID-19 disease was identified in Wuhan, China. Since then, the government carried out 26 targeted lockdowns in 11 districts out of 18 districts in the territory. Taking into consideration of people's daily life routines and running of businesses, the government of Hong Kong only imposed the lockdowns in the areas where infection was reported or where the Covid-19 patients were found to have visited. Targeted lockdown was also coupled with mass Covid-19 testing of the residents within that area.

NEPAL STRATEGIES

Vaccination programme

The Ministry of Health and Population, the government of Nepal has reported that as of

August 18, 2021, 3649760 Nepalese fully vaccinated with COVID-19 vaccines.³⁸ Only the high-risk groups such as health workers, elderly, people who are working in postal and telephone services, water supply and distribution, hotels and restaurant and public transportation members are provided the opportunity to get vaccinated against the COVID-19 in the second phase.³¹ Due to its dependency on medical and other supplies, Nepal received aids from different countries such as China, India and the USA for the provision of COVID-19 vaccination.

Arrangement of Medical and Other Supplies

In Nepal, Sukraraj Infectious and Tropical Diseases Hospital (STIDH) in Teku, Kathmandu is an only hospital that designated by the Government as a primary hospital for the infectious diseases. The government of Nepal setup specific COVID-19 health center which were designed to provide the supportive care to the COVID-19 patients. However, these established COVID-19 centers were not well equipped with the adequate resources including skilled human resource and lacked special laboratories for the testing. Limited provision of the supplies including the personal protective equipment (PPEs) were the biggest constraints to contain the COVID-19 in Nepal.¹⁹ Therefore, the risk of spreading the corona virus from patient to the healthcare providers was significantly high.

COVID-19 Early Testing and Detection

In Nepal as of June 17, 2021, a total of 3,240,299 polymerase chain reaction (PCR) tests have been performed to test the COVID-19.¹⁹ However, various news reported that quarantine established by the government of Nepal were not up to the standard because they lacked necessary supplies and skilled manpower to provide the services to the patient kept in the quarantine. For example, news reports showed that at least 10 individuals kept in quarantines died without being tested with COVID-19 and tests were carried out only after their deaths.³³ Further, both health care centers and private hospitals in Nepal lacked adequate resources and manpower to carry out the test for

COVID-19 and cope with an increasing number of cases confirmed with COVID-19.²³ Further, individuals with other health problems such as with chronic diseases or those needing emergency healthcare services were reportedly rejected by the hospitals. Hospitals also rejected to admit the patients due to the fear of COVID-19 infection within their premises.²⁸

Lockdown

Nepal government imposed a series of disproportionate lockdowns at different time since late March 2020 even though the number of Covid-19 cases were significantly low at that time. The country-wide lockdown put into force for several months disproportionately thereby causing a serious problem to the daily lives of the people. Even Nepalese citizens coming from India were stopped at the border without any proper testing and preventive measures in place.³⁵ Therefore, even though some lockdowns lasted more than four months with minimum preparation and provisions to the people who were stranded in the foreign countries and inside the country, the country witnessed the increased spread of Covid-19 in later months.²¹ Instead, working class people were theseverely affected due to the disproportionate lockdown. For example, many people had to walk thousands of miles without proper foods and shelter for several days to return to their homes. People stopped and stranded at Nepal-India border areas sneaked into Nepal through illegal crossings due to the open border between Nepal and India. Shared open border with India became one of the biggest challenges for the government of Nepal in containing the COVID-19 outbreak. India, only the second country to have the highest number of COVID-19 cases in the world, was locked down for several months to contain the outbreak but without with no avail. The government of Nepal also did not arrange any proper quarantines for those returnees. Government also did not have quick contract tracing measures in place for the returnees from India. Therefore, the spread of corona virus in Nepal is rapidly increasing being designated by Hong Kong as one of the “highest risk countries” in the world now.

CONCLUSION

This paper intended to discuss the strategies adopted by the government of Nepal and the government of Hong Kong to contain the spread of Covid-19 in the two jurisdictions and show their effectiveness. Some reports earlier suggested that gender leadership or democratic leadership is more effective in containing the infectious diseases. However, it appears that efficient political leadership, notwithstanding democratically elected or not, people’s health literacy, and effective strategies of the government play key roles in containing the contagion. Although economic resources allocated to prevent the virus seem to be more significant, the level of awareness among the people, effective leadership in managing the human as well as material resources and trained professionals seem to be equally important. As we have shown, despite being one of the mostly densely populated cities in the world, and having the most cross border traffic with the mainland Chinese city Wuhan, the epicenter of the first outbreak, Hong Kong has been able to keep the infection rate the lowest in the world without disrupting the normal life of the people. In contrast, although Nepal is not so densely populated like Hong Kong and has a closed border with mainland China, the spread of the virus has been rapid with no sign of containment soon. In addition, the inefficient and corrupt political leadership and their unprepared as well as disproportionate lockdowns only led to the hardships for the working class people without contributing anything to containing the virus. Developing countries like Nepal with less dense populations could set good examples in containing the contagion, had there been effective policy measures in place. Even though there are economic constraints, effective management and proper allocation of the resources could have contributed to limiting the spread of the infection across the country. Of course, the governments in jurisdictions like Nepal should invest more resources for development of the skilled manpower and conduct more research studies

related to the infection prevention and control to deal with the emergency outbreak in the future

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