The Effect of China's Strict COVID-19 Policies on the Movement of People

Introduction

Following the outbreak of COVID-19 in Wuhan, China, governments across the world implemented control measures to break the chain of the virus transmission. A total of 219 countries, territories and areas imposed 60,711 restrictions, which is unprecedented historically (Ullah, Nawaz, and Chattoraj 2021). Among all countries, China conducted the most aggressive and comprehensive approaches to controlling the virus. These approaches include strict lockdowns, extensive testing and contact tracing, quarantine measures, and strict border controls in Wuhan and other affected regions during the early stages of the pandemic. Consequently, these measures significantly disrupted the movement of people, leading to diverse implications for Chinese society across various domains.

On January 28th, 2022, a user on Chinese Tiktok published a video in which a man named Dong Zhimin dresses his children and eats in his room, while his wife, known as Yang, is chained by Dong to a wall in a dilapidated hut next to the family's large house in the middle of winter (Xuzhou, 2022). As reported by the police's investigation, the incident was a result of human trafficking, a process dependent on the physical movement of people.How did different COVID-19 measures affect the outcome of the movement of people? What implications did the interrelationship of COVID-19 preventive measures and movement of people have on Chinese society? To answer these questions, this research investigates COVID-19 preventive measures from municipal-level administrative directives during the pandemic. Following, the research highlights the implications that the measures had on Chinese society and its potential impact on human trafficking. The research concludes that it is not suggested that countries implement stringent measures because they would not necessarily cease COVID-19 transmission but

deprive fundamental human rights, cause economic downturn, and create opportunities for human trafficking networks.

Literature Review

Mobility is an interdisciplinary subject of study that involves a wide range of factors including social, economic, political, environmental, and cultural dimensions. While the term mobility has different connotations, mobility in this review of context refers to the movement and migration of an individual or a group of people. Its massive scale and global impacts have attracted social scientists and scholars to study its nature with different approaches. Clark (2020) indicates that individuals' migration and movement can "directly change the structure of a society or social context as a whole" (20). They often influence population growth and their relationships with positive economic and social change. Ball-Blakely (2021) builds on Clark's argument that global freedom of movement provides equal opportunities for all individuals. He specifically states, "One of the tools used to present segregation of unequal opportunities is the right to move across space" (Ball-Blakely 2021, 3). Demenchonok (2019) supports both Clark and Ball-Blakely's suggestions by analyzing Immanuel Kant's philosophical ideas on freedom. Demenchonok (2019) emphasizes Kant's contention that individuals naturally desire to be free and prosperous. This will lead to the expansion of democracy and trade; countries in a globalized world encourage the flow of migrants in the hope of the growth of socio-economic significance.

However, mobility comes with a trade-off between freedom and security. The practice of free mobility without any restrictions potentially provides opportunities for criminal activities such as human trafficking. To protect public safety, governments around the world have established policies and regulations. Spijerboer (2018) designates regulation entities on people's migration and movements as mobility infrastructures. They are facilitated by national

governments and international organizations with the purpose of individuals' safety protection while traveling and migrating to new places. However, Spijerboer's emphasis on mobility infrastructures is denied by Dandurand (2017). By analyzing literature on human trafficking victim protection strategies, Dandurand points out that "mobility infrastructures are designed to protect the borders, not the people" (2017). They deviate from the stated purpose of governments' restrictions on individuals' freedom of mobility.

In addition to Dandurand's argument, Haas et al (2019) provide one of their findings that mobility infrastructures have played a significant role in restricting the entry of migrants. Czaika et al. (2018) elaborate on Haas et, al.'s finding with the emphasis that by implementing mobility infrastructure such as visas, citizenship, and identification, state governments across the world "try to monitor and control population mobility, both within and across borders (591)" Chamie (2020) contends that this decelerates international migration and reduces people's right to move. Pecoud (2013) corroborates and illustrates China and its internal migrants as a concrete example of the government utilizing citizenship and residence identification to restrict individuals' freedom of mobility.

The migration control implemented by governments across the world has not only limited people's fundamental rights of movement freedom but has also inadvertently created conditions that facilitate human trafficking. When countries impose strict border controls on migrants, it becomes significantly challenging for individuals fleeing conflict, persecution, or severe economic hardship who may not meet the stringent requirements to migrate through legal channels. Ullah, Nawaz, and Chattoraj (2021) corroborate that the US has issued an Order to prohibit asylum-seekers during the pandemic, which severely limits access to asylum in the US. As such legal avenues become increasingly inaccessible, many migrants turn to alternative

methods to cross borders, often seeking the help of smugglers who are involved in human trafficking networks. Consequently, the control policies can potentially force these migrants to be delivered into situations of forced labor, sexual exploitation, or other forms of modern slavery.

Migration in China

China has one of the largest internal migrant populations in the world. According to the National Bureau of Statistics of China, in 2020 previous to the pandemic, "the number of internal migrants in the country exceeded 281 million, which represented approximately 20 percent of the total population of China" (2020). This massive population significantly impacts the economy and social development which has drawn attention from the Chinese government. Scholars and professionals have established research on the purposes and methods the Chinese government, as an autocratic government, has to manage internal migration. Woodman and Guo (2017) quantify the Chinese migrant population and present their migration records. They state that "about one-fifth of China's population was counted as 'migrants,' defined as being away from their place of *hukou* registration for six months or more". This unveils the hukou (translates as a household) the Chinese government utilizes registration to record and track Chinese citizens' movements. Chan (2021) assists Woodman and Guo with a thorough explanation of the hukou registration system and its classifications of different hukou statuses. By analyzing the required registration rules for Chinese citizens when they reside in a different destination, Chan accentuates that the hukou system serves as a database that manages and tracks information on hukou and non-hukou migrants and residents.

To authenticate the Chinese government's political goal in managing the population through the hukou system, Chan (2021) emphasizes that the hukou system enhances a powerful central government leadership (6). He observes that the hukou system in particular after its 2014

reform requires the central and local governments to share fiscal resources and responsibilities. This urgently needs “the central government’s strong leadership and cannot be left to only local governments” (Chan 2021, 6). Wang and Liu (2018) confirm Chan’s observation by stressing that the “hukou system establishes a hierarchical network of observation over the population (especially migrants)”. More significantly, Wang and Liu (2018) indicate that the hukou system is the foundation for surveillance because it contains detailed information about each individual including one’s name, sex, nationality, birth date, and address. Through the hukou system, Chinese government agencies can easily monitor all registered individuals and their movements.

However, the hukou system lacks the comprehensiveness required to effectively track the unregistered population in China. Many individuals remain unregistered in the hukou system due to various socio-economic and administrative barriers. Their lack of identities makes it difficult for them to access public services and legal protections which increases their vulnerability to crimes. He (2021) contends that the hukou system's limitations contribute to the trafficking of women and children, particularly from rural to urban areas. Traffickers often target young women and children from impoverished rural communities, promising them education, employment, or marriage opportunities in cities. Upon arrival, these individuals may be coerced into prostitution, forced marriages, or exploitative labor conditions. Qu, et al. (2023) support that the restrictive nature of the hukou system, coupled with the victims' unfamiliarity with urban environments and lack of support networks, further entraps them in trafficking situations. Yet, there is a lack of existing research on the interrelationship between the hukou system and human trafficking in China which diminishes the analysis of government utilizing hukou to combat trafficking networks.

During the recent world pandemic, COVID-19, the hukou system serves as a significant tool for controlling people's movements as they contribute to the spread of the virus. Siqueira Cassiano, Haggerty, and Bernot (2021) claim that the hukou system is intertwined with the surveillance technologies that China has utilized to track the spread of the virus during the pandemic. The hukou system's utilization of status classification invisibly guides people's actions under the auspices of "free choice" which is similar to how the health codes have operated during the recent pandemic (Cassino, Haggerty, and Bernot 2021). This ties back to Spijerboer's suggestions that hukou as China's mobility infrastructure lowers the risks to people's lives. Li, et al (2020) support the connection and interdependence between hukou and the surveillance system by suggesting that they were both used in a parallel form to implement lockdown policies. Similarly, Liu and Zhao (2021) contend that the surveillance system contains all the private personal information that the hukou system has. Therefore, they share the same database that tracks individuals' movements.

Context

The COVID-19 pandemic, originated from the novel coronavirus SARS-CoV-2, first emerged in Wuhan, P.R. China in December, 2019. Its characteristics of contagion have quickly spread across China and the world, causing thousands of deaths and infections. In response, governments across the world implemented various measures to contain the spread of the virus, including lockdowns, travel restrictions, social distancing protocols, and mass vaccination campaigns. These measures have led to unprecedented disruptions in virtually all aspects of human life, particularly the movement of people.

The term "movement of people" refers to the act of individuals or groups relocating from one place to another. From the international level, the movement of people was drastically

suspended by the spread of the COVID-19 pandemic and its corresponding government measures of solutions. Among 251 countries and territories in the world, a total of 219 of them have imposed 60,711 restrictions, which is unprecedented historically (Ullah, Nawaz, and Chattoraj, 2021). These extensive restrictions including border closures, travel bans, quarantines, and lockdowns not only curtailed the mobility rights of international migrants but also constrained their autonomy in determining their destination choices. They strikingly diminished people's routine and confidentiality of traveling during the pandemic. Consequently, about 90 percent of the 3.6 billion travelers (counted in 2016) stopped moving after COVID-19 broke out (Ullah, Nawaz, and Chattoraj, 2021). This data indicates that the pandemic has disrupted global connectivity, and thus, COVID-19 has dismantled the normalcy of people's movement and pushed the world to a new order.

Domestically, countries tried to control community virus transmission by implementing varying severity measures in more or less organized ways in their territory. These measures commonly include but are not limited to mask mandates, social distancing, testing and contact tracing, quarantine, vaccination campaigns, and lockdowns. They have been implemented by governmental branches and national institutions worldwide, with varying approaches and levels of coordination, influenced by the political systems of individual countries. China, similar to other countries, responded to the COVID-19 pandemic with commonly executed measures. However, contrary to some countries, China is a centralized state where local governments are directed by the command of the central government. The strengths of crisis coordination in centralized regimes are more salient than in decentralized and democratic regimes (Zhong, Liu, and Christensen, 2022a). The constructed and coordinated implementation of COVID-19 preventive measures effectively contained the virus in a short period.

More specifically, upon the first official confirmation of COVID-19 disease by the World Health Organization (WHO) China Country Office on December 31, 2019, investigative efforts were promptly initiated to ascertain the genesis of the outbreak. These investigations resulted in the discovery of a seafood market, where the sale of live bats was suggested as the origin of the virus. Following the widespread detection of COVID-19 cases, China's central authorities implemented stringent measures, including a lockdown directive issued on January 24, encompassing Wuhan and other cities within Hubei province (AlTakarli, 2020). The prompt implementation of comprehensive measures, including testing and contact tracing protocols, the establishment of quarantine stations, and enhanced surveillance, overseen by the Central Leading Group for Epidemic Response established by the Chinese Central Government on January 25, 2020, facilitated a rapid containment of the pandemic within two months (Shangguan and Wang 2022). Throughout the process, China has gradually formed a zero-tolerance approach to achieve its goal of eliminating the COVID-19 pandemic and having zero COVID-19 cases in the country.

Zero-covid policy is adopted to prevent the spread of the COVID-19 virus. It focuses on achieving zero or near-zero local transmission and infection, thereby efficiently averting widespread outbreaks. China was the first country in the world to adopt the zero-tolerance approach to dealing with COVID-19 and was relatively successful in controlling it (Shangguan and Wang, 2022). China also periodically refined the strategies within the zero-COVID policy to align with the evolving dynamics of the pandemic in different places. For example, as the virus rapidly disseminated throughout Wuhan and posed an imminent threat of transmission to other regions, the Chinese government imposed an extreme lockdown measure lasting over two months. This proactive intervention facilitated swift containment of the virus, effectively curbing its further proliferation. However, this does not necessarily guarantee a sustained absence of

infections within a given area. An example to corroborate this is that until this day, COVID-19 still exists in Wuhan and across China.

The internal movement of people in China had been significantly impacted by the implementation of the zero-covid policy. As reported by Li, et al, "In contrast to the pre-COVID-19 period, the implementation of mobility restrictions resulted in a notable reduction of 63% in inter-provincial in-migration flow and a corresponding decrease of 62% in out-migration flow from late January to early May 2020" (2020). This suggests that the larger population remained within their residence provinces. Later with the Chinese government's development and enforcement of full-scale surveillance, contact tracing, and grid-style management on COVID-19 detection, people's right to move and privacy were restricted. Thus, under the zero-covid policy and its strategic measures, people's central human rights in China relevant to mobility during pandemics have been ignored, underutilized, and even violated.

COVID-19 Control Measures

Alongside surveillance, China executed strict COVID-19 preventive measures that restricted and suspended its internal migration for individuals' safety. The comprehensiveness and complexity of the measures have established research interests for many scholars. Zhou, et al. (2020) present that when the virus was initially identified, Wuhan and other affected regions in China implemented strict lockdowns with nationwide traffic restrictions. Later as the virus spread across China, the Chinese government developed a series of severe COVID-19 preventive measures to control the virus and infection. With detailed interpretations, Liu, et al. (2021) list the measures including detection and investigation, contact management, and medical response. These measures were built into China's Community-Based Crisis Management model which "helped the community-level government reduce the number of infections to zero" (Shangguan

and Wang, 2022). In concurrence, Zhong, Liu, and Christensen (2022) emphasize that the COVID-19 preventative measures were effectively implemented across levels of the Chinese government through their utilization of a coordination strategy and "layered pattern of the four coordination types outlined–centralized, functional, network-based, and comprehensive" (1). This full-scale government censorship and management of its population demonstrates its inhibition of the movement of people due to safety concerns.

However, the actual outcomes of the Chinese government's enforcement of COVID-19 prevention have been challenged by scholars across fields. AITakarli (2020) suggests that although the COVID-19 cases in China have been reducing, all the preventive measures have not dramatically overturned the pandemic situation in China. Martin and Bergmann (2021) took a step further by explicitly stating that "lockdown and control measures did not necessarily reduce the spread of disease" but deprived human mobility. Similarly, Chen and Fang (2023) use the Taiwan model as an example to prove that the control of COVID-19 infections does not have to be achieved through lockdown. The lockdown would only immobilize human activities and lead to negative consequences such as food insecurity and unemployment (Ullah, Nawaz, and Chattoraj, 2021). They are more threatening to individuals' lives than to the infection of COVID-19.

In the meantime, the individuals' immobility positively affected Chinese society throughout the pandemic. According to Qu, et al. (2023), the lockdown and other virus preventive measures have "prevented migrants from committing higher-level crimes such as human trafficking" (1). Chen, et al. (2021) support the emphasis that the reported crime cases were dramatically reduced during the lockdown period for all categories. With the implementation of restricting cross-border people flow and inter-province activities, Zhang, et al

(2020) imply that it was difficult for human traffickers to commit the crime and transfer victims because traffickers' activities and movements were also under the surveillance and the restrictions from COVID-19 prevention policies. Hence, individuals were supposed to be protected from being victimized under the COVID-19 prevention policies.

Nevertheless, the Xuzhou Chained Woman incident broke out as it presents the ongoing human trafficking in China during COVID-19. On January 28th, 2022, a user on Chinese Tiktok published a video in which a man named Dong Zhimin dresses his children and eats in his room, while his wife, Yang, is chained by Dong to a wall in a dilapidated hut next to the family's large house in the middle of winter. This human trafficking incident has sparked public outrage and worldwide conversations about human trafficking during the lockdown period in China. By analyzing the data from the Chinese police center, Dai, Xia, and Han (2021) point out that the COVID-19 lockdown affected the number of calls to the police. They indicate that the average number of weekly calls during the lockdown period was lower than before and after COVID-19. This implies that the lack of communication between individuals and police has created more space for crimes. In disagreement, Xu (2022) emphasizes that China has considered eradicating human trafficking as a goal that needs to be executed at the “policy level intervention, such as governmental support and legal systems” before COVID-19 (2). These legal operations have already been implemented during COVID-19 with the measures of massive surveillance and detection. To clarify why human trafficking was continuing during the pandemic, Christensen and Ma (2020) indicate that Crisis management is highly politicized in China which makes the citizens distrust the government. The distrust has widened the distance between the security and the citizens, making them extra vulnerable to human trafficking.

Methodologies:

This study explored the limitations on the movement of people within mainland China resulting from the stringent COVID-19 preventive measures implemented by the government throughout the pandemic. Since the early 1980s, China's authority has developed from highly centralized into a more dual party-state authority (Zhong, Liu, and Christensen, 2022a). This indicates that the ruling party shares significant power with another political force, in China's case the local governments, when governing the country and cooperatively influencing the decision-making. Hence, when the COVID-19 epidemic occurred in Wuhan, the local government of Wuhan was initially responsible for emergencies in their jurisdictions. However, as the epidemic escalated to a national level, the central government had to intervene in the crisis and take the main leadership in crisis resolution. The local government, sectors, and agencies would carry out the central government's directives adjusted with specific responses based on their distinctive geographical location needs. Thus, the levels of constraints on the movement of people varied across China during the COVID-19 pandemic.

To investigate the intricacies of the movement of people patterns within the framework of centralized governance directives across China, this research selected Tianjin and Chongqing as exemplary geographical focal points. Tianjin, a municipality located in northern China, is governed under the direct administration of China's central government. Due to its enduring historical pivotal role in consolidating the authority of the central government, Tianjin has maintained a steadfast allegiance to central directives during the COVID-19 pandemic without significant adjustments. Its local government, sectors, and agencies carried out unified and cohesive actions to meet the central government's expectations of combating the pandemic. Chongqing, another municipality in central China, historically maintains a more democratic political environment by asserting autonomy through relatively more independent policy

formulation. Contrary to Tianjin's response to the pandemic, Chongqing adapted central government directives with tailored modifications reflecting the virus situation. The cases of Tianjin and Chongqing characterize the major approaches in eliminating the virus across China, demonstrating different constraints on the movement of people throughout the pandemic.

Data Collection

This research utilized a blended research methodology to examine the impacts of China's state and local COVID-19 policies on the movement of people. The researcher first performed an extensive search of government directives on COVID-19 preventive control and measures in Tianjin and Chongqing. All 250 directives collected were published from January 2020 to January 2023 by the Municipal People's Government of Tianjin and Chongqing's official websites. They were instructed by the central government and ordered by the local Health Commission and Epidemic Prevention and Control Committee. Then, the researcher assembled them into a robust database, detailing their executed time, geographical focus, and key contents that reflect the constraints on the movement of people throughout the pandemic. This database is maintained and presented in chronological order by the directives' publication dates.

In the process of collecting and analyzing the directives, the researcher recognized that many of them address repetitive measures. The researcher consolidated the directives by creating a lexicon with weighted criteria to classify the level of strictness the measures in directives had on constraining the movement of people, scoring impacts from Level 0 to 3. More specifically, Level 0 represents directives with no lockdown and no measures of surveillance. For example, the measure of "comprehensive resumption of production and work" is practiced in Level #0 directives. Level 1 classifies directives addressing no lockdown with some sort of measures of surveillance. Level 2 indicates consequential lockdown with intense measures of surveillance,

and Level 3 suggests absolute lockdown with absolute measures of surveillance. In Level 3, all individuals in the designated area have to be locked down in their residences and be inspected by the subdistrict office daily. Thus, the scored levels conclude the measures and represent the severity of constraint that the measures determined on the movement of people during the pandemic.

To explicitly observe the changes in the level of directives that impacted the movement of people in Tianjin and Chongqing, the researcher took an additional step to convert the database into line graphs. The researcher designed dates as the x-axis and the level of severity of constraining the movement of people as the y-axis. The researcher utilized the directives' publication dates as their titles as points on the graph. The line connecting the points then indicates the period one directive lasts. Comprehensively, the line graph visually presents the patterns of movement of people in Tianjin and Chongqing between January 2020 to January 2023. As previously noted, Chongqing's response involved the customization of central government directives. This entailed not only the implementation of measures at the municipal level but also the adoption of diverse strategies at the district level, contingent upon the respective COVID-19 conditions within each district. Upon this situation, the researcher created a separate line graph concentrating specifically on the COVID-19 preventive measures executed on Chongqing's district level. The juxtaposition of this graph with the one illustrating measures implemented at the municipality-wide level exemplifies the intricate nature of policies enforced by various tiers of government, influencing the nuanced dynamics of the movement of people in administrative divisions that practice a more dual party-state authority.

While the approaches employed by Tianjin and Chongqing in combating COVID-19 are selected in this research as representative of strategies utilized by places across China, it is

important to note that they may not offer a comprehensive depiction of all administrative divisions' approach to eliminating virus across the country. When searching for COVID-19 preventive directives published by local governments' websites in each province, the researcher discovered that the directives were missing or concealed in some regions. For example, there were few directives and measures announced on the local governments or agencies' official websites in the northwest region of China such as Xinjiang and Tibet autonomous regions. The absence of this information imposed limitations on the scope of this research, and thus this forces the researcher to speculate the overall performance of the movement of people in China during the pandemic based on the representative cases of Tianjin and Chongqing.

The Levels of COVID-19 Preventive and Control Measures

Following the general instructions of the chief administrative authority, the State Council of the People's Republic of China, the directives issued by the Tianjin and Chongqing Municipal People's Government incorporated the same measures. These measures are classified into levels as they were utilized in targeting different scales of COVID-19 transmission. They as a consequence had direct impacts on the movement of people to various degrees. Level 3 measures contain the highest degree of severity which imposes absolute lockdown with absolute surveillance. They were enforced when COVID-19 cases were widespread in Tianjin and Chongqing. In terms of lockdown, Level #3 measures implemented "closed management in residential neighborhood areas." This signifies that during the measure implementation period, no one is allowed to go outside of their household with the supervision of security personnel. If individuals were living elsewhere such as in boarding schools and nursing homes during measure execution, they had to be locked down at their living places until the measures were lifted. Thus, the movement of people was entirely paused and prohibited during the lockdown period.

As stressed in the directive, the mandated lockdown measures had to be administered through the implementation of "grid-style management," involving the subdivision of larger communities or areas into smaller grid units, each encompassing a defined number of residences or individuals. This strategy facilitated targeted population monitoring, surveillance, and management within each grid, enabling the government and sectors to detect and address potential instances of COVID-19 effectively. Moreover, “carpet management,” a comprehensive management approach that covers a wide area or population, was enforced to supplement grid-style management. It was designated that every corner or individual within the designated area is closely monitored and managed to minimize the risk of virus transmission. It also involved extensive and detailed efforts to conduct mass testing, contact tracing, and health screenings to people during their lockdown periods. Its purpose was to identify and control potential outbreaks by leaving no area or individual unchecked, similar to how a carpet covers every part of a floor. In combination, grid-style management and carpet management indicated that government and community workers had direct censorship with their assigned population during lockdown periods. This emphasized that it would be extremely difficult for anyone to leave their lockdown space under the implementation of measures in Level 3 directives.

While people were forced to be in lockdown under the censor and control of authorities across sectors, Level 3 directives ordered mass COVID-19 testing. The measure is stated as “Comprehensive Nucleic Acid Testing for all personnel: Testing has to cover every single individual, leaving no household or individual untested.” It signifies the government’s commitment to thorough testing coverage, emphasizing the importance of including every individual and household in the testing process. This approach aims to achieve a unified action and effective intervention in response to ceasing the prevalence of COVID-19 transmission.

Accordingly, people were collectively called out to take the Nucleic Acid Test during their lockdown period. After conducting comprehensive testing across the municipality, governmental agencies including grassroots resident committees gained the capacity for direct surveillance of individuals' activities. They were able to detect instances where individuals failed to participate in COVID-19 testing and promptly contacted them to do so. Refusal to comply resulted in the suspension of individuals' health codes, thereby revoking their authorization to access various amenities such as neighborhood egress, transportation services, and public facilities. Consequently, people's absence of the Nucleic Acid Test would determine the suspension of their movements.

Alongside the enforcement of strict protocols, Level 3 directives stipulated the repercussions for non-compliance with the prescribed measures. The directives asserted that "Individuals who refuse to cooperate, do not support nucleic acid testing, disrupt epidemic prevention order, conceal information, make false reports, or fabricate fake information regarding the epidemic will be strictly pursued for legal responsibility by the public security authorities under the law." This indicates that all people during the implementation of Level 3 directives had the legal responsibility to obey and practice the measures. Any of their decisions and actions of not showing up to the COVID-19 test would receive punishment from the police department. This suggests that their choices of movements were absolutely threatened and controlled by the government. The mass COVID-19 test campaign therefore left no privacy and freedom for the movement of people.

Contrary to the measures in Level 3 directives, Level 2 directives lifted the absolute lockdown protocols and mass grid-style and carpet management practices at the municipality level. They also temporarily suspended the mass campaigns of the Nucleic Acid Test. Instead,

Level 2 directives emphasized extensive surveillance measures to ensure the fastest detection of viruses. According to the directives, it is indicated to “Carry out epidemic monitoring and investigation on a household-by-household and person-by-person basis. It is required to register and record in detail the home situation, body temperature, contact with individuals from high-risk areas, and activity history of the subjects under investigation, ensuring complete coverage and no omissions.” This measure underscores the government's ambition to combat the epidemic with meticulous precision at the individual level. This also signifies that the municipal government of Tianjin and Chongqing possesses the capability to monitor, evaluate, and regulate individuals' activities. If an individual carried the virus and had contact with others, the government could promptly identify such instances and implement measures to mitigate the potential spread of the virus.

In the meantime, the measures in Level 2 directives mandate the grassroots-level government agencies and party personnel to “Strict control over personnel movement, including strict management of departures from and returns to Tianjin; Strengthening screening of key individuals”. This straightforwardly informed all government agencies and sectors to regulate and monitor the movement of people within Tianjin and Chongqing. This could be implemented at checkpoints, travel permits, and other mechanisms to track and control who is allowed to move where within the city. By indicating “strengthening screening of key individuals,” the measure implies that there have to be intensified efforts to identify and screen individuals who are considered at high risk of transmitting the virus. With surveillance on the individual level, the implementation of screening people greatly minimized the transmission of the virus. This also allowed Tianjin and Chongqing’s government agencies to have direct and comprehensive

manipulation over the movement of people in addition to tracking their activities on digital formats through people's health codes.

In contrast to Level 2 directives that mandated direct and physical supervision by government agencies and sectors on monitoring the movement of people, Level 1 directives instituted measures exclusively in digital formats. The surveillance and censorship of people's daily activities through technology diminished the strictness of directives. They, on the other hand, reflected the amelioration of COVID-19 transmission within the municipality. The Level 1 directives required every individual to download a "Health Code" in their Wechat App on their electronic devices. As explained previously, the health code identifies and classifies individuals' health status. By scanning their health code at checkpoints at different locations and transportation, people disclose details about their travel history, recent health issues, and any possible COVID-19 exposure. The directives outlined the implications of utilizing health code as "One-time declaration, city-wide applicability, dynamic management, categorized control." These implications are supposed to effectively and accurately target the infected individuals without affecting the movements and daily lives of others.

More specifically, the first phrase "one-time declaration" refers to a streamlined process where individuals are only required to submit their Health Code once, eliminating the need for repetitive actions and submissions elsewhere. "Citywide applicability" indicates that the Health Code is applicable and accessible throughout the entire city, ensuring data consistency and uniformity across different grassroots-level government agencies. This suggests that the Health Code served as the database for all agencies to cohesively combat the epidemic in Tianjin. "Dynamic management" implies the use of real-time monitoring, regular updates, and adaptive approaches to effectively manage and respond to changing circumstances or conditions. This

suggests that residents across the municipality need not undergo lockdown measures while awaiting sporadic case management. This showcased the upgraded centralized management that is more flexible compared to the management in Levels 2 and 3. The last measure, "categorized control" means implementing different levels or measures of control based on specific categories or classifications. It involves classifying or categorizing entities or situations and applying appropriate management or control measures based on those categories. This facilitated government agencies in achieving more precise targeting for the eradication of the virus while ensuring that individuals not infected were not adversely affected by those at high risk. This approach rendered the epidemic prevention efforts more humane, allocating more freedom to the daily movements of people during the pandemic.

In contrast to Level 3, 2, and 1 directives, Level 0 entails the implementation of the least stringent measures, wherein all COVID-19 restrictions are suspended. The directives in level 0 encourage all industries and people the “resumption work and production” while ordering all government agencies to discontinue the barrier and restriction implementation and cease enforcing isolation measures for individuals. This presents that every person’s life went back to normal under the practice of Level 0 directives. Therefore, Level 0 directives represent and demonstrate the non-existence of COVID-19.

Tianjin and Its COVID-19 Preventive and Control Measures

The Municipal People's Government of Tianjin has published a total of 75 directives aimed at mitigating the transmission of COVID-19 within the municipality from January 2020 to December 2022. These directives were issued by Tianjin’s Novel Coronavirus Pneumonia Epidemic Prevention and Control Headquarters established by the Tianjin government. Each directive underscores the municipal level as the focal point, indicating that all measures outlined

therein apply uniformly to the populace of Tianjin. Hence, every individual present in Tianjin during the specified period was collectively expected to adhere to these measures. All pertinent governmental agencies and sectors delineated in the directives were therefore likewise tasked with coordinated enforcement to oversee and monitor compliance among individuals. Under such circumstances, the daily movements of people across Tianjin were stringently monitored and controlled as they directly determined the spread of the virus.

Through Tianjin's directives, it can be analyzed that the municipal government launched both vertical and horizontal coordination to eliminate COVID-19. Vertical coordination is the traditional hierarchical approach. When experiencing complex processes and achieving goals, coordination is achieved in organizations through the use of hierarchical positions, legal-rational authority, specialization of tasks, and merit among members of the organization (Zhong, Liu, and Christensen, 2022). In Tianjin's case, Tianjin's Novel Coronavirus Pneumonia Epidemic Prevention and Control Headquarters played the role of leading the hierarchical coordination, providing directions, and assigning specialized tasks to different agencies and sectors to collectively combat COVID-19. For example, the first measure of the first directive that the Tianjin Government issued was to implement "grid-based management." This has to be achieved by an organizational system that is established by various forces such as family doctors, neighborhood committees, police officers, and civil affairs. All these forces had to collaboratively launch the virus prevention and control work in their community. They were obligated to follow the directives and support the vertical coordination.

The vertical or hierarchical model effectively delineates and assigns responsibilities to various agencies, facilitating the efficient completion of their routine tasks. However, this model is not conducive to addressing societal-wide public health threats as it tends to compartmentalize

agencies, leading them to focus solely on their individual tasks rather than collaborating across sectors. To modify and ameliorate this issue, the implementation of vertical or hierarchical coordination has to be supported by horizontal coordination. According to Zhong, Liu, and Christensen, “Contrary to the hierarchical approach, horizontal coordination among organizations is based on a mutual need to share resources, authority, knowledge, and technology, using negotiation and mutual adjustment instruments” (2022). This can be understood by again utilizing the example of “grid-based management.” It is a tool employed by government agencies and sectors across Tianjin to coordinate management, exchange information, and share resources. It not only kept personnel from various sectors updated simultaneously regarding the latest COVID-19 cases but also embraced them to work together in achieving the goals of COVID-19 prevention. This cohesive approach facilitates governmental oversight in closely monitoring the daily movements of the 13.6 million inhabitants of Tianjin (as recorded in the year 2020 by the World Population Review), enabling vigilant monitoring of individual interactions and preemptive measures to prevent potential virus transmission.

To enhance the “grid-based management”, the Tianjin Government adopted the “quick response health code (Jian Kang Ma)” starting on February 29th, 2020 to track individuals' health status, travel history, and potential exposure to contagious diseases. It is a type of “smart” surveillance technology that was initiated by the Government of Zhejiang Province and supported by the State Council of China. This code, which can be accessed on Chinese citizens' smartphones through the popular apps Alipay and WeChat, classifies a user's risk profile into three categories: red, yellow, or green (Siqueira Cassiano, Haggerty, and Bernot, 2021). These colors indicate whether someone is required to quarantine, self-isolate, or if they can restore their freedom of movement. The health code enabled the local government and agencies to further

understand the physical condition of each individual in detail, thereby regulating their movements and social interactions. On the people's side, it serves as individuals' movement passports. Together, the health code system facilitated communication between the government and the public, serving as a centralized database for authorized agencies to monitor COVID-19 transmission through individuals' daily movements. Therefore, the health code enhanced the horizontal coordination for sectors across Tianjin municipality to combat COVID-19.

COVID-19 prevention started with the practices of measures in Level #3 directives on January 30th, 2020 according to Figure 1. This not only signaled the start of epidemic control efforts in Tianjin but also confirmed the most stringent measures implemented by Tianjin's authorities to regulate the movement of people. After about a month of absolutely suspending the movements and activities of people across Tianjin, the government proceeded to downgrade the severity of regulations from Level 3 to Level 2 starting mid-February 2020. Yet, the movements of people were still strictly controlled with intense surveillance. Each individual's daily activities were tracked by the government. Their privacy and freedom of expression were deprived. As illustrated in Figure 1, Level 3 and Level 2 measures were predominantly enforced throughout the COVID-19 prevention period in Tianjin. This indicates the movement of the entire population in Tianjin was strictly monitored and limited by the government for almost 3 years.

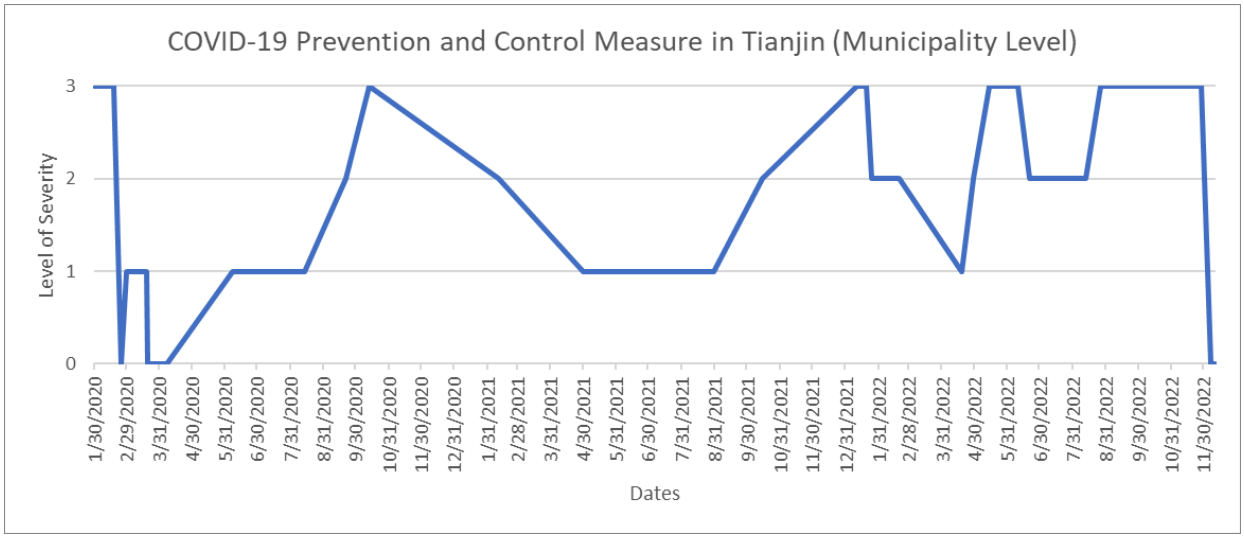

Figure 1

The directive published on March 19, 2020, marked that the start of the Health Code is to be mutually recognized across provinces, establishing a mechanism for the mutual recognition of the 'Health Code' between Tianjin and other provinces, regions, and municipalities. The Health Code has since become a nationwide integrated government service platform. This emphasized that the Health code not only enhanced the horizontal coordination in Tianjin municipality but also across China. This also supported the central government's supervision of all local government. By monitoring, collecting, and processing personal data, the Health Code assisted Chinese governments from all levels with conducting surveillance on people's location, activity, and biometrics (Liu and Zhao, 2021). This showcased the Chinese government's significant power with greater social and political control over the people during the pandemic. The people's fundamental human rights such as freedom of expression and movement, as a consequence, were therefore infringed and eliminated.

As displayed in the figure, the Level 0 directives were only implemented two times throughout Tianjin's epidemic. The first one was announced on February 24, 2020, right after the

COVID-19 breakout was controlled by the Tianjin government. The second one was ordered from March 20 to April 7, 2020 right after the Health Code App was introduced to Tianjin and before it was practiced by the entire municipality. Conclusively, Level 0 directives called for the restart of business operations, industrial activities, and economic productivity in which all people in Tianjin were given back their freedom of expression and movements.

Chongqing and Its COVID-19 Preventive and Control Measures

The Municipal People's Government of Chongqing has published a total of 176 directives aimed at combating COVID-19 within the municipality from January 2020 to January 2023. The virus preventive and control measures in the directives were entailed essentially the same as the ones Tianjin applied except that some of them are worded differently. Thus, Chongqing's levels of measure severity remain the same indications and analysis as in Tianjin's case. However, since Chongqing's Municipal Government changed its strategic geographic focus on combating the virus from the Municipality level to the district level starting in October 2022, Chongqing's directives are interpreted in two classifications of geographic areas.

First, as presented in Figure 2, Chongqing's Municipal Government combated the COVID-19 epidemic on a municipal-wide level from January 28, 2020, to September 30, 2022. the implementation of the Health Code in Level 1 directives during this period was referenced and considered by Chongqing but was not comprehensively practiced by the entire municipality until late November 2021. Prior to this, the government adhered to Level 2 directives under which the movement of people had been extensively monitored and controlled. This situation lasted for a year from mid-February, 2020, to the end of January 2021, without any alterations. People were granted little freedom to extensively practice their daily activities. Subsequent to that, the Chongqing Municipal Government refrained from issuing any directives, leaving the

assessment of the movement of people undisclosed until the execution of the Health Code on November 7, 2021. The practices of the municipality-wide Health Code, however, did not support the government to precisely target the infected people and prevent other non-infected people from being impacted. Instead, the Chongqing government launched the Level 3 directive with absolute lockdown measures, grid-style and carpet-style management, and daily vaccine campaigns a month later on December 15, 2021. This decision of the Chongqing government entirely suspended and infringed on the movement of people. People were trapped in their residences under strict censorship which eliminated their human rights of expression.

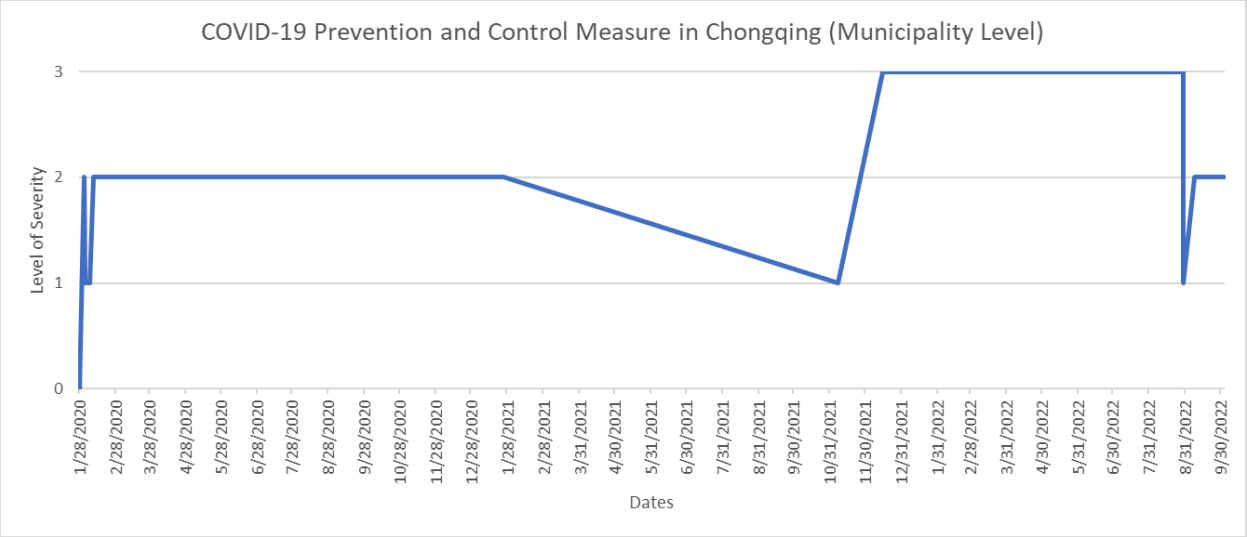

Figure 2

Beginning with the directive issued on October 3, 2022, Chongqing's issued directives shifted their geographical focus from the municipal level to the district level. Their objective was to partition the entire municipality into smaller units, facilitating the acknowledgment that distinct areas may exhibit varying levels of infection. This approach necessitates tailored strategies to address the specific conditions and needs of each district effectively. To better implement targeted interventions and allocate healthcare resources based on each region's

situation, the Chongqing Government classified all districts into three categories including High-Risk Areas, Medium-Risk Areas, and Low-Risk Areas. They did not only represent the number of infected people and virus transmission in the districts but also implied the levels of severity that the measures were implemented by the government. To further elaborate, High-Risk Areas denote districts characterized by the widespread transmission of the virus. Such areas typically exhibit a high prevalence of confirmed cases, thereby presenting an elevated risk of community spread. They were managed under the implementation of the most strict containment in Level 3 directives. Figure 3 indicates that many districts were High-Risk Areas between mid-October 2022 to mid-December 2022. People who resided in the High-Risk Areas were locked down with supervision and investigation until the area became Medium-Risk Areas.

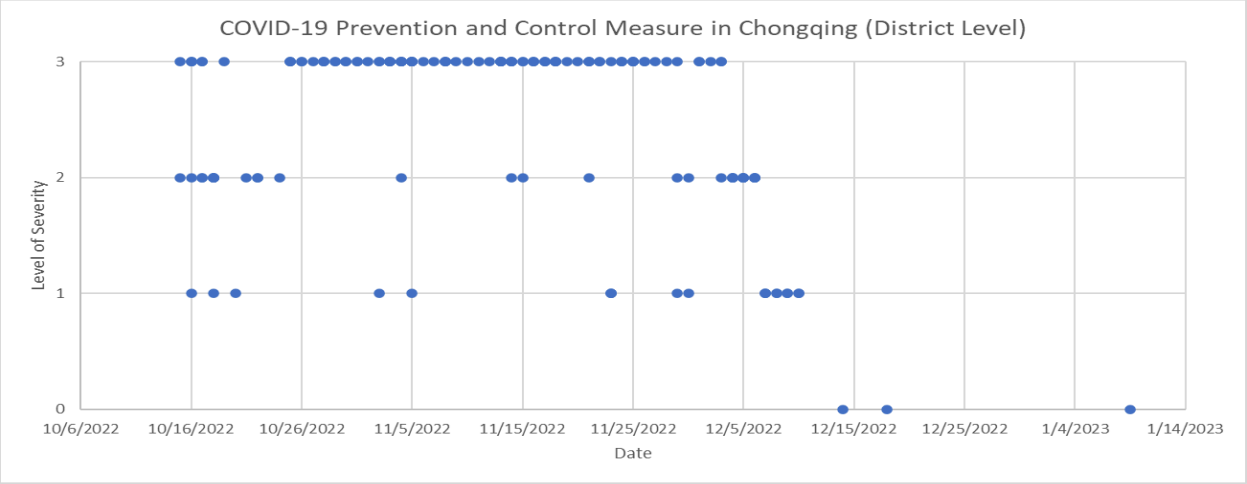

Figure 3

Medium-risk areas have a relatively lower number of cases compared to High-Risk areas, but there is still a significant transmission of the virus and risk of exposure. In contrast to individuals residing in High-Risk Areas, those in Medium-Risk Areas did not have to be in lockdown every day but had to be extensively monitored. They had to follow the Level 2

directives to report their detailed activities to all checkpoints at their residence, public space, and transportation. They are advised to follow strict preventive measures and exercise caution to prevent further transmission. However, people who resided in Low-Risk Areas were able to move and act with more freedom without being extensively supervised. This is because the Low-Risk Areas only implemented the Level 1 directives in which people were required to consistently update their Health Code and report their health status. This lowest level of measure severity reflects that the Low-Risk Areas may have had a few COVID-19 cases and the number of virus transmission was low. According to the directives, only 8 out of 26 districts have labeled or adjusted to Low-Risk Areas starting the geographical focus on the district level from October 3, 2022, to December 10, 2022. This implies that the districts across Chongqing were experiencing mass COVID-19 infections and transmission. This situation, along with the practice of COVID-19 preventive measures, deprived people of human rights in their daily free movements.

The performance of Chongqing in combating the epidemic has reflected its inherent systemic government culture and operations. Similar to the Tianjin government, the Chongqing government also launched both vertical and horizontal coordination to eradicate COVID-19. However, what distinguished the Chongqing government's approach was its significant focus on horizontal coordination between government agencies from different districts, particularly during the latter stages of its epidemic. Despite the stringent measures implemented, which significantly regulated and controlled people's movements, Chongqing's geographic strategies for combating the virus at the district level may have allowed for a greater degree of freedom of movement than anticipated. This is inferred from the lack of evidence from the government presenting the rules for the movement of people commuting between districts. People would have more spaces and

options to practice their daily activities if they were not limited to exclusively staying active in their districts. This uncertain characteristic of horizontal coordination creates more dynamism and inconsistency in the movement of people during the COVID-19 epidemic in Chongqing.

Discussion

Both Tianjin and Chongqing case studies demonstrate their collective goal of achieving the Zero-COVID policy. By implementing aggressive measures with clear indications of accomplishing “zero cases in the community,” the Municipal People's Government of Tianjin and Chongqing strived to eradicate the transmission of COVID-19 and ensure the maintenance of a COVID-free status within their respective administrative divisions. People’s daily lives in both Tianjin and Chongqing were intruded and disrupted significantly by the measures implemented. The movement of people was particularly restricted and deprived, with individuals constantly required to lockdown within designated areas, obtain permits for essential travel, and undergo rigorous screening procedures. The Tianjin and Chongqing governments did not seem to consider the discontinuation of people’s inalienable rights of free movement as a severe issue so they kept enforcing comprehensive COVID-19 preventive measures until when they reached their goal of the Zero-COVID policy. This lasted for three years from the beginning of 2020 to the end of 2022 during which the movement of people collectively experienced the most unprecedented stringent restrictions in Chinese and world history.

As indicated by the directives, the governments of both Tianjin and Chongqing utilized the same measures to achieve the Zero-COVID policy. They include lockdowns with grid-style management, mass vaccine campaigns, health checks and screening, and movement tracking. The overarching goal and outcome of these measures were to minimize the risk of virus transmission by limiting and controlling the movement of potentially infected individuals.

However, the process of targeting the infected individuals affected the rest of the population in Tianjin and Chongqing during the pandemic, and thus the entire municipalities were under suspension. This mass practice of combating the virus was led by vertical and horizontal government coordination in both Tianjin and Chongqing's case. The directives present that the overall direction and general instruction on tackling the pandemic were all informed by the Central Chinese Government. They were later developed into details and published by the Municipal Government for the grassroots government agencies and sectors to implement. Thus, both Tianjin and Chongqing showcased their government's "cross-level, cross-boundary, and cross-sector coordination" in eliminating epidemics (Christensen and Ma, 2018). These government mechanisms decide and regulate people's daily activities during the pandemic. Their coercive corporations exacerbated the restriction of the people's mobility and autonomy.

The difference between Tianjin and Chongqing's case studies is that Chongqing's case has an additional indicator of district-level geographic focus. This indicator facilitates a more dynamic interpretation and understanding of the relationship between government measures and the movement of people in Chongqing. Beginning October 3, 2022, each directive in Chongqing underscored a district-specific approach, mandating adherence to measures tailored to residents of each respective district. Each district had also constantly adjusted measures based on its virus transmission. All measures determined the scale of people's mobility, with the exception of inter-district movement. On one hand, this underscores the fragmented nature of horizontal cooperation among district governments in addressing cross-district regional crises (Christensen and Ma, 2018). On the other hand, it introduces ambiguity regarding the interpretation of inter-district movements of people. This stands in stark contrast to Tianjin's case in which the

movement of people across Tianjin municipality was clearly defined whereas the movement of people in Chongqing could not be accurately interpreted and analyzed.

Implications

The COVID-19 prevention and control measures aimed at combating the transmission of the virus have suspended the people's freedom of movement. The right to freedom of movement is enshrined in various international human rights instruments, including the Universal Declaration of Human Rights (UDHR) and the International Covenant on Civil and Political Rights (ICCPR). Article 13 of the UDHR states that "everyone has the right to freedom of movement and residence within the borders of each state" and "everyone has the right to leave any country, including his own, and to return to his country." Similarly, Article 12 of the ICCPR recognizes the right of everyone to liberty of movement and the freedom to choose their residence. Even though these rights may be subject to restrictions in certain circumstances such as the global pandemic, the Chinese government's absolute lockdown implementation with extensive surveillance for 3 years disproportionately and overly constrained people's right to freedom of movement. They also continued the stringent measures after the COVID-19 vaccines were invented. Their insistence on pursuing a Zero Covid policy by controlling the movement of people was against international law and violated fundamental human rights.

One potential beneficial outcome of regulating the movement of individuals is the mitigation of criminal activities, including personal crime and illicit trade. For instance, travel restrictions and border closures have disrupted established channels for personal crimes and illegal trade, while lockdowns and adherence to social distancing guidelines have constrained social interactions and public gatherings, thereby impeding perpetrators from engaging in in-person criminal activities (Chen et al., 2021). These stringent measures have significantly

contributed to affecting the flow of potential offenders, victims, targets, and guardians, and their convergence in physical space, therefore preventing individuals from falling victim to criminal activities or becoming ensnared in criminal networks.

However, the negative consequences of manipulating the movement of people far outweighed the potential benefits. The disruption of the populational movement had adverse implications on migrant workers and economic downturns. After the outbreak of the COVID-19 pandemic, a sudden proclamation of China's national lockdown to cease the transmission of the virus led to the loss of employment opportunities for migrant workers, particularly those engaged in informal or daily wage labor sectors such as construction and manufacturing. The loss of income not only jeopardized the migrant workers' ability to meet basic needs but forced them to return to their hometowns (Ullah, Nawaz, and Chattoraj, 2021). Under the implementation of strict lockdown and suspension of transportation, the migrant workers found themselves stranded around their workplaces far from their families with limited access to essential services, including food, shelter, and healthcare. This situation caused higher risks for them to become homeless and get infected by the virus. The unemployment of millions of migrant workers also reflected the economic downturns over the pandemic. The restrictions on population movement have led to disruptions in supply chains and a slowdown in economic activities across various sectors. This as a result has exacerbated poverty, inequality, and social vulnerability, posing significant financial and life challenges for all people across not only China but the globe.

While economic downturns themselves do not directly cause human trafficking, they create conditions conducive to exploitation and exacerbate existing vulnerabilities. They led to an increase in the number of people smuggled and fallen victims of human trafficking (Ullah, Nawaz, and Chattoraj, 2021). During economic downturns, numerous individuals faced severe

financial hardships and were driven to support themselves and their families. This desperation increases vulnerability to deceitful employment offers or promises of financial security, which traffickers exploit to ensnare victims in exploitative situations. Moreover, as formal job opportunities become scarce, some individuals resort to informal work to meet their needs, often unaware of the risks of exploitation they might encounter. Traffickers take advantage of this vulnerability by presenting deceptive job prospects or pressuring individuals into exploitative labor arrangements, such as forced or bonded labor. Therefore, many people were trapped in human trafficking networks due to their pressing financial needs during the pandemic.

Conclusion

Initially, China's COVID-19 preventive and control measures were implemented to cease the transmission of the virus and achieve the Zero Covid policy. However, they did not help meet the Chinese Government's purpose but significantly deprived people of fundamental rights to freedom of movement. The suspension of population movement has precipitated extensive social and cultural upheaval, growing economic fallout, and increasing human trafficking cases. These societal disruptions have led to nationwide protests in late November 2022. To respond to the protest, the Chinese government made decisions to finally lift many of the most stringent measures such as lockdown and mass Nucleic Acid Test campaign after 3 years on December 7, 2022. This marked the conclusion and demonstrated the failure of the Zero Covid policy approach.

In terms of effectively combating COVID-19 without largely impacting people's regular lives, Taiwan's case can be investigated and studied. According to Chen and Fang, "Despite never imposing a lockdown, Taiwan achieved COVID-19 zero, with reporting only 56 local coronavirus disease 2019 (COVID-19) cases after testing 126,987 individuals in 2020, and

further contained a large outbreak rapidly and successfully in 2021" (2024). This suggests that lockdowns and other strict population control measures were not necessary when managing the pandemic. People could have maintained their human rights to movement while not getting infected. Thus, Taiwan's case can be a persuasive example to show the Chinese government and the world that a democratic and humane approach to managing COVID-19 can not only be feasible but effective. China could have utilized similar approaches to avoid the aftermath costs of the COVID-19 pandemic.

Reference

AlTakarli, Nourah S. 2020. “China’s Response to the COVID-19 Outbreak: A Model for Epidemic Preparedness and Management.” *Dubai Medical Journal* 3 (2): 44–49. https://doi.org/10.1159/000508448.

Ball-Blakely, Michael. 2021. “Migration, Mobility, and Spatial Segregation: Freedom of Movement as Equal Opportunity.” February 17, 2021. https://www.pdcnet.org/collection/fshow?id=eip_2021_0999_2_16_3&pdfname=eip_2021_0999_2_16_3.pdf&file_type=pdf.

Chamie, Joseph. 2020. “International Migration amid a World in Crisis.” *Journal on Migration and Human Security* 8 (3): 230–45. https://doi.org/10.1177/2331502420948796.

Chan, Kam. 2021. “Internal Migration in China: Integrating Migration with Urbanization Policies and Hukou Reform.” KNOMAD. November 2021. file:///Users/estherz/Downloads/Chan-PolicyBrief16_InternalMigrationinChina.pdf.

Chen, Peng, Justin Kurland, Alexis Piquero, and Herve Borrion. 2021. “Measuring the Impact of the COVID-19 Lockdown on Crime in a Medium-Sized City in China.” *Journal of Experimental Criminology* 19 (November). https://doi.org/10.1007/s11292-021-09486-7.

Chen, Yi-Hsuan, and Chi-Tai Fang. 2024. “Achieving COVID-19 Zero without Lockdown, January 2020 to March 2022: The Taiwan Model Explained.” *Journal of the Formosan Medical Association* 123 (January): S8–16. https://doi.org/10.1016/j.jfma.2023.09.001.

Christensen, Tom, and Liang Ma. 2018. “Coordination Structures and Mechanisms for Crisis Management in China: Challenges of Complexity.” *Public Organization Review* 20 (1): 19–36. https://doi.org/10.1007/s11115-018-0423-9.

Clark, W. 2020. “Human Migration.” *1986*, August. https://researchrepository.wvu.edu/rri-web-book/15/.

Czaika, Mathias, Hein de Haas, and María Villares-Varela. 2018. “The Global Evolution of Travel Visa Regimes.” *Population and Development Review* 44 (3): 589–622. https://doi.org/10.1111/padr.12166.

Dai, Mengliang, Yiwei Xia, and Rongxu Han. 2021. “The Impact of Lockdown on Police Service Calls during the COVID-19 Pandemic in China.” *Policing: A Journal of Policy and Practice* 15 (3). https://doi.org/10.1093/police/paab007.

Dandurand, Yvon. 2017. “Human Trafficking and Police Governance.” *Police Practice and Research* 18 (3): 322–36. https://doi.org/10.1080/15614263.2017.1291599.

Demenchonok, Edward . 2019. “Learning from Kant: On Freedom.” *Revista Portuguesa de Filosofia* 75 (1): 191–230. https://www.jstor.org/stable/26625467.

Haas, Hein, Mathias Czaika, Marie‐Laurence Flahaux, Edo Mahendra, Katharina Natter, Simona Vezzoli, and María Villares‐Varela. 2019. “International Migration: Trends, Determinants, and Policy Effects.” *Population and Development Review* 45 (4). https://doi.org/10.1111/padr.12291.

He, Wenwen. 2021. “Unresolved Issues Regarding Hukou Registration Following Implementation of China’s Universal Two-Child Policy.” *Human Rights Quarterly* 43 (4): 699–713. https://muse.jhu.edu/pub/1/article/837785/pdf?casa_token=ZTjiLHaW3doAAAAA:_f43CUI0I7WyhSzK2jslKnojSrwmT4FaeLPdqFVSrhDwW_TWJKsvzUaS6d2thKPhAYCgfLn7MLQ.

Kiss, Ligia, and Cathy Zimmerman. 2019. “Human Trafficking and Labor Exploitation: Toward Identifying, Implementing, and Evaluating Effective Responses.” *PLOS Medicine* 16 (1): e1002740. https://doi.org/10.1371/journal.pmed.1002740.

Li, Angran, Zhen Liu, Mengsha Luo, and Yan Wang. 2020. "Human Mobility Restrictions and Inter-Provincial Migration during the COVID-19 Crisis in China." *Chinese Sociological Review* 53 (1): 1–27. https://doi.org/10.1080/21620555.2020.1821183.

Liu, Fengfeng, Canjun Zheng, Liping Wang, Mengjie Geng, Hui Chen, Sheng Zhou, Lu Ran, et al. 2021. "Interpretation of the Protocol for Prevention and Control of COVID-19 in China (Edition 8)." *China CDC Weekly* 3 (25): 527–30. https://doi.org/10.46234/ccdcw2021.138.

Liu, Jun, and Hui Zhao. 2021. "Privacy Lost: Appropriating Surveillance Technology in China's Fight against COVID-19." *Business Horizons* 64 (6): 743–56. https://doi.org/10.1016/j.bushor.2021.07.004.

Martin, Susan, and Jonas Bergmann. 2021. "(Im)Mobility in the Age of COVID-19." *International Migration Review* 55 (3): 019791832098410. https://doi.org/10.1177/0197918320984104.

Qu, Jia, Darui Liu, Yuning Wu, Jihong Zhao, Yupeng Fan, and Weidi Liu. 2023. "Hukou, Migration, Strain, and Crime: A Case of Incarcerated Population in China." *Crime & Delinquency*, February, 001112872311538. https://doi.org/10.1177/00111287231153807.

Shangguan, Ziheng, and Mark Wang. 2022. "China's Community-Based Crisis Management Model for COVID-19: A Zero-Tolerance Approach." *Front. Public Health 10:880479* 10-2022 (July). https://doi.org/10.3389/fpubh.2022.880479.

Siqueira Cassiano, Marcella, Kevin Haggerty, and Ausma Bernot. 2021. "China's Response to the COVID-19 Pandemic: Surveillance and Autonomy." *Surveillance & Society* 19 (1): 94–97. https://doi.org/10.24908/ss.v19i1.14550.

Spijkerboer, Thomas. 2018. “The Global Mobility Infrastructure: Reconceptualising the Externalisation of Migration Control.” *European Journal of Migration and Law* 20 (4): 452–69. https://doi.org/10.1163/15718166-12340038.

Ullah, AKM Ahsan, Faraha Nawaz, and Diotima Chattoraj. 2021. “Locked up under Lockdown: The COVID-19 Pandemic and the Migrant Population.” *Social Sciences & Humanities Open* 3 (1): 100126. https://doi.org/10.1016/j.ssaho.2021.100126.

Wang, Fenglong, and Yungang Liu. 2016. “Interpreting Chinese Hukou System from a Foucauldian Perspective.” *Urban Policy and Research* 36 (2): 153–67. https://doi.org/10.1080/08111146.2016.1159190.

Woodman, Sophia, and Zhonghua Guo. 2017. “Introduction: Practicing Citizenship in Contemporary China.” *Citizenship Studies* 21 (7): 737–54. https://doi.org/10.1080/13621025.2017.1353740.

Xu, Jingyu. 2022. “Mechanical Solidarity and Social Anomie. A Case Study on the Chained Mother Fengxian County.” Atlantis Press. December 29, 2022. file:///Users/estherz/Downloads/125982286%20(1).pdf.

Zhang, Linfeng, Huangjun Yang, Kun Wang, Yi Zhan, and Lei Bian. 2020. “Measuring Imported Case Risk of COVID-19 from Inbound International Flights --- a Case Study on China.” *Journal of Air Transport Management* 89 (October): 101918. https://doi.org/10.1016/j.jairtraman.2020.101918.

Zhong, Kaibin, Yihong Liu, and Tom Christensen. 2022. “Crisis Coordination in Centralized Regimes: Explaining China’s Strategy for Combatting the COVID-19 Pandemic.” *International Public Management Journal*, May, 1–20. https://doi.org/10.1080/10967494.2022.2073411.

Zhou, Tong, Thuy-vy Thi Nguyen, Jiayi Zhong, and Junsheng Liu. 2020. “A COVID-19 Descriptive Study of Life after Lockdown in Wuhan, China.” *Royal Society Open Science* 7 (9): 200705. https://doi.org/10.1098/rsos.200705.