

## Local government response during the COVID-19 pandemic in one city in the Peoples Republic of China

Li, Yuanyuan ✉

Graduate School, Lyceum of the Philippines University – Batangas, Philippines  
([yuanyuanli\\_1993@163.com](mailto:yuanyuanli_1993@163.com))

Tamayo, Ma. Rosario B.

Graduate School, Lyceum of the Philippines University – Batangas, Philippines  
([chery\\_tamayo@yahoo.com.ph](mailto:chery_tamayo@yahoo.com.ph))



ISSN: 2243-7770  
Online ISSN: 2243-7789

OPEN ACCESS

**Received:** 1 September 2023

**Revised:** 30 October 2023

**Accepted:** 4 November 2023

**Available Online:** 10 November 2023

**DOI:** 10.5861/ijrsm.2023.1141

### **Abstract**

Nanjing, a critical transportation hub and leader in the Nanjing metropolitan area, faces the litmus test of neighboring cities' emergency response capabilities when dealing with a pandemic outbreak. To address this, the study draws on crisis management and public governance theory, spanning the Covid-19 pandemic events in Nanjing from early 2020 to the end of 2022. Employing documentary analysis, case studies, and questionnaire surveys, the research aims to unearth challenges and deficiencies in Nanjing's public health crisis responses, pinpoint their causes, and lay the groundwork for an optimized emergency response mechanism. The study identifies several areas of concern, including weak public health governance, inadequate emergency reserves, a lack of regional collaborative governance, ineffective multi-stakeholder coordination, struggles in establishing a robust big data platform for public health, and limited participation by various entities in collaborative governance. In response, it recommends a proactive prevention approach as the foundational concept. It proposes the development of a top-down regional collaborative governance mechanism, a prioritized management system for dispatch and command, and scientific urban emergency resource planning. Furthermore, it advocates for the rapid creation of a comprehensive big data platform, encouraging effective interaction for diversified governance. By incorporating these foundational elements, local governments can create comprehensive measures covering capacity, strategy, systems, and monitoring. This will enhance their responsiveness to public health emergencies and overall emergency response capabilities, ensuring the well-being and stability of the region.

**Keywords:** local government, public health emergencies, emergency management, crisis management

## Local government response during the COVID-19 pandemic in one city in the Peoples Republic of China

### 1. Introduction

The coronavirus was discovered in December 2019. Still, the government did not issue an emergency notice until 22 January 2020, and the major public health emergency response was not launched until 23 January 2020. This allowed the outbreak to spread rapidly from Wuhan to all regions of the country. The coronavirus pandemic is a typical public crisis, and from the first day it was discovered, the government should promptly take effective measures to conduct scientific prevention and seize the best opportunity to contain the crisis. Due to some local governments' unclear target orientation, inaccurate policy implementation, and poor information transmission during the fight against the pandemic, sporadic and regional outbreaks across the country are still at risk of a rebound. Most countries have entered a state of "long-term coexistence with the virus," and the pandemic is difficult to restrain in a short time. China faces the risk of a foreign pandemic and domestic transmission.

Taking the pandemic prevention and control work in Nanjing as an example, this thesis uses government emergency management as a tool to study the factors affecting the emergency management of local governments in the process of responding to serious public health emergencies to propose countermeasures to improve the emergency management of local governments. The content of this study is divided into the following parts: First, it mainly introduces the background and significance of the topic of this study and the research status at home and abroad. Secondly, combined with the theme of this study, the core concepts involved are explained, and the relevant theoretical basis is summarized, including public health emergencies, administrative emergency management, crisis management, etc. Then, the researcher compares the implementation of relevant policies and measures of pandemic prevention and control in Nanjing and analyze the causes. Finally, according to the analysis, the researcher put forward suggestions for improving administrative emergency management.

The research is the need for the improvement and development of the local government's emergency response ability, which is also in line with the trend of China's continuous promotion of health and pandemic prevention and disease prevention, and is necessary to ensure the stable operation of society. According to the collation of foreign literature, the study of such emergencies (including health incidents) in foreign countries has formed an independent discipline. In China, the study of such public health emergencies, including the prevention and control of emergency management systems, plans, and local government responses, was mainly formed after 2003, and the SARS epidemic promoted this process. The research on this topic aims to enrich the domestic public health emergency response theory.

**Objectives of the Study** - The study aimed to conduct an analysis of the responses of the local government of Nanjing city in Jiangsu province, China, during the COVID-19 pandemic. More specifically to: conduct an in-depth analysis of the responses of the local government of Nanjing with regard to policies implemented; investment of government in terms of anti-pandemic measures; determine the effects of the policies and anti-pandemic measures; identify the challenges that affected responses of the local government's responses during the COVID-19 pandemic.

### 2. Methods

**Research Design** - The study utilized the descriptive design using documents coming from the Local Government of Nanjing city. Starting from the emergency response measures of public health events in Nanjing City, this thesis analyzed the case of the coronavirus pandemic in Nanjing City, learned the management mechanism established by Nanjing when dealing with public health events, and studied the problems exposed by the local government when choosing plans. Besides, based on the government strategies and specific measures

of Nanjing in the new coronavirus public health event, questionnaire survey was adopted for specific analysis.

**Participants of the Study** - Three groups of people were involved, which were the staff of primary-level pandemic prevention stations, volunteers and ordinary residents in Nanjing. The empirical theory was used as the practical data of this study. The questionnaire involved 10 questions. The filling process of the questionnaire was completed under the face-to-face guidance, and the questionnaires were sent and collected face-to-face, which greatly increased the questionnaire collection rate and improved the credibility of the survey. A total of 294 questionnaires were distributed, and the collection rate was 100%.

**Data Gathering Instrument** - The study utilized case analysis and literature analysis. The researcher combed the relevant literature materials, and constructed the thesis system by means of analysis, comparison, synthesis and induction to ensure the systematization of the research. Meanwhile, the study utilized a questionnaire adapted from the documents prepared by researcher. Wherein, items for the questionnaire were organized in order to assess the efficiency of the pandemic prevention policies undertaken by the local government of Nanjing.

**Data Gathering Procedure** - This study analyzed the public strategies used by Nanjing City which was published on Chinese government website <https://www.gov.cn> and Nanjing government website <https://www.nanjing.gov.cn> in the actual public health events, and summarized the experience and lessons accumulated by the local government in the practice process, found out the shortcomings during the period, and combined its crisis management measures to complete the final summary, and gives valuable suggestions. Furthermore, the researcher constructed a questionnaire and the data collection procedure was carried over a period of two weeks, during which the questionnaires were distributed to the participants under the researcher's supervision.

**Ethical Considerations** - The study was carried out in accordance with ethical standards. Prior to the data collection process, consent will be obtained from the respective authorities of local government concerned. Similarly, permission from respondents was ensured. In which the researcher discussed the parameters of confidentiality with the respondents. Correspondingly, the researcher ensured that the participants fully understand what they were being asked to do and were informed of any potential consequences of their participation. This undertaking was accomplished by attaching an information sheet to the research questionnaire and distributing it to everyone who had been invited to participate. The information sheet also highlighted that participant responses would be kept confidential and/or anonymous. Furthermore, respondents were given sufficient time during the data collection process to complete the questionnaire in their true thoughts and opinions. Regarding utmost confidential documents to be gathered and obtained from the government, the researcher will provide special protection and control, maintain a high sense of confidentiality and responsibility, strictly abide by the confidentiality system and requirements.

**Data Analysis** - The study employed a multimethod approach, encompassing semi structured interviews, nonparticipant observation, and document analysis, adhering to the principles of the grounded theory methodology. Although data in most grounded theory studies come from interviews and observations, entire studies can be conducted with only documents. The documents took the form of reports in newspapers, trade journals, business journals, government publications, broker reviews, annual company documents, and press releases. In this regard, analysis and category generation was commenced at the first paragraph of the report. In this study, it was vital that the voices and views of ordinary people be heard. It was most unlikely that existing documents would be a reservoir or conduit for those voices and views. Observation of community conditions and processes was included as a means to help determine what was being done, how, and by whom. It allowed me to develop a deeper and fuller understanding of how local government of Nanjing with regard to policies implemented. Field observation was done during the same period in which the interviews were conducted.

The documentary data served to ground the research in the context of the effects of the policies and anti-pandemic measures. Apart from providing contextual richness in the research, documents were particularly

useful in pre- and post-interview situations. In that regard, the researcher used data culled from documents to check interview data and vice versa. Documents supplied leads for asking additional, probing questions. Information contained in documents also suggested events or situations that needed to be observed. Therefore, as incomplete and uneven as they were, the reviewed documents augmented the interview and observational data and thus served a useful purpose.

### 3. Results and discussion

*Policies implemented in Nanjing* - Nanjing City now refers to the emergency regulation "Nanjing General Emergency Plan for Emergencies" when dealing with public health incidents. The third and fourth articles of the plan point out that the emergency plan must be specific and standardized, and it is clear who is responsible for each stage, what are the main work, and how to implement various strategies. The government should end the executive body's failure, the management process needs to be clearer, the content is divorced from reality, and the measures need to be in place to ensure that they are effective. In principle, emergency plans should be revised every year and adjusted according to changes in the situation, and when the government finds discrepancies, it must rectify them as soon as possible. In the current emergency plan of Nanjing City, the regulations concerning emergency response have clarified seven major mechanisms, including advance response, social mobilization, establishment of information reporting, command and coordination, emergency response, emergency state, and expansion of emergency response.

Nanjing City now refers to the emergency regulation "Nanjing General Emergency Plan for Emergencies" when dealing with public health incidents. The third and fourth articles of the plan point out that the emergency plan must be specific and standardized, and it is clear who is responsible for each stage, what are the main work, and how to implement various strategies. The government should avoid the executive party's failure, clear the management process, orient to the actual situation and place the measures to ensure they are effective. In principle, emergency plans should be revised every year and adjusted according to changes in the case. When the government finds discrepancies, it must rectify them immediately. In the current emergency plan of Nanjing City, the regulations concerning emergency response have clarified seven major mechanisms, including advance handling, social mobilization, establishment of information reporting, command and coordination, emergency response, emergency state, and expansion of emergency response.

First, information reporting. After the occurrence of an emergency, the local government should report to the superior emergency office step by step, and the reporting principle is to handle urgent events case by case promptly. The superior emergency office shall put forward the responding suggestions and notify the special emergency headquarters of the Municipal Emergency Committee and relevant departments to continue to report.

Second, early handling. The local government and relevant departments should respond immediately, give unified command, coordinate the rescue work of public security departments, medical institutions, emergency departments, fire departments, transportation departments, etc., and promptly report to the higher government.

Third, emergency response. According to the classification and types of emergencies, the Municipal Emergency Office sends emergency technicians and experts to analyze and evaluate the crises and suggest strategies. Suppose the field headquarters has perceived that the danger of the situation is far beyond its control ability. In that case, it should report and issue a request to the municipal Emergency Committee for the first time, and the municipal government is responsible for coordinating other reinforcements. At the same time, the statistical department should provide detailed emergency statistics.

Fourth, command and coordination. The municipal emergency response Office will start the emergency response plan after receiving the document issued by the provincial emergency response office or the execution consent form after approval and seal. If the situation is urgent, it can also implement the emergency plan first and then apply, and then the mayor will arrive at the scene to lead the work and set up an on-site headquarters. The on-site headquarters shall be under the overall command of the mayor, and if necessary, the prominent leaders of

the provincial government may also serve as the overall command, formulate response plans, supervise, coordinate, organize, and guide the work of relevant departments; The municipal expert group shall initiate and participate in the emergency work at the same time, and request the provincial expert group to send guidance when necessary; The relevant headquarters of the Municipal Emergency Response Committee, relevant departments and the relevant leaders of the county (city, district) government in the area of the incident are the general commanders, specifically responsible for the emergency command and handling work.

Fifth, expand emergency response. In a major emergency, the Municipal Emergency Office shall immediately report to the superior emergency office and initiate the corresponding emergency plan. The Municipal Emergency Office may take action first and report later. Suppose the situation further expands and exceeds the city's emergency response capacity, in that case, the municipal emergency committee can coordinate the provincial units or departments and other forces or report to the upper level of the emergency office, according to the procedure to request assistance. If the situation is difficult to control, the municipal emergency committee can requisition necessary disaster relief materials.

Sixth, the state of emergency. When the harm caused by an emergency is no longer under the control of this municipality and a state of emergency must be activated, the municipal government shall first report the specific situation to the provincial government, and The State Council shall approve it.

Seventh, social mobilization. In accordance with the development of the current stage of the emergency, the local government should issue social mobilization orders with different contents to provide information about the incident to the public and organize on-site mobilization. It is necessary to mobilize all forces, gather volunteer teams, enterprises, and various social groups, and implement emergency rescue according to specific steps. However, any social mobilization organized within the city, regardless of the particular situation, must be submitted to the provincial government for approval and obtained by The State Council for the record.

***Investment of government in terms of anti-pandemic measures*** - According to the "Audit Report on the Implementation of Municipal Budget and Other Financial Revenues and Expenditures in Nanjing in 2020", the city arranged funds of 2.09 billion Yuan and actively fought for direct funds of 4.663 billion Yuan from superior governments to fight against the pandemic and protect people's livelihood. According to the "Audit Report on the Implementation of Municipal Budget and Other Financial Revenues and Expenditures in Nanjing in 2021", the city's financial expenditure on people's livelihood accounted for more than 75% of the general public budget expenditure. It actively protected 45 items of people's livelihood, of which health and health increased by 24.36% over the previous year. The city's fiscal budgets allocated 2.432 billion Yuan for COVID-19 prevention and control and improved the financial guarantee mechanism for epidemic prevention and control.

According to the "Audit Report on the Implementation of Municipal Budget and Other Financial Revenues and Expenditures in Nanjing in 2022", the Nanjing government issued the "20 policies to help enterprises rescue" and arranged 600 million Yuan to support service enterprises seriously affected by the pandemic. The researcher systematically collected and analyzed the public disclosure data of financial funds related to COVID-19 prevention and control in Nanjing from 2020 to 2022. From the perspective of information disclosure norms, governments at all levels did not publish accounting norms for financial expenditures related to COVID-19 prevention and control, so there may be differences in the statistics of pandemic prevention and control funds. In terms of the specificity of information disclosure, the disclosed financial information on COVID-19 prevention and control is too general, and the disclosure degree of expenditure on subdivided projects is low. In terms of the timeliness of information disclosure, most counties and cities disclose their financial expenditures for the prevention and control of the Covid-19 pandemic in their annual final accounts reports. Information disclosure is sluggish, and the lack of timely information disclosure further increases the degree of information asymmetry between financial departments and the public.

***Effects of the policies and anti-pandemic measures*** - The specific executive departments carried out their work in accordance with the Law on the Prevention and Control of Infectious Diseases and the Nanjing

Municipal Government's Emergency Plan for Public Emergencies. The local government took early action following the "Emergency Plan." In the early handling stage, due to the neglect of the pandemic and other comprehensive factors, the prevention work of the Nanjing Municipal Government was not satisfactory, and it even did not do the early warning work. From the formulation time of the public emergency plan, it can be found that in recent years, Nanjing has not revised the new plan for relevant public emergencies, nor has it carried out relevant policy summaries and introduced new policies. As a result, the legal basis referred to in the period of early handling of the pandemic cannot correspond to the existing government departments, resulting in the early handling of the pandemic. The functions of various departments were not symmetrical, the division of responsibilities was unclear, and the joint prevention and control was not strong.

After the pandemic's outbreak, the Nanjing Municipal government's emergency response measures in advance were commendable from the system's perspective. For example, relevant departments responded according to the plan's provisions. They urgently cooperated with superior departments to set up a joint prevention and control working group to take over all the work related to the pandemic. The emergency teams of public security, transportation, and medical emergency departments have been coordinated to prevent and control the outbreak. The third and most challenging stage of joint prevention and control is the prevention and control of imported cases. In this case, the government issued a joint defense measure. According to relevant regulations, inbound people are in a closed-loop chain from entry to quarantine. Although Nanjing's emergency response was carried out following the Law on the Prevention and Control of Infectious Diseases and the Emergency Response Plan for Public Emergencies as a whole and in accordance with the emergency response plan for COVID-19, the actual effect could have been more satisfactory. On the contrary, shortcomings in emergency response were exposed, and caused clusters of infections to spread. It showed related problems in the linkage implementation under the strict standard system and the cooperation between the functions of various departments.

#### **4. Challenges in emergency response of pandemic outbreak in Nanjing**

##### *4.1 Weak Emergency Response Capacity*

***Joint prevention and control efforts were not strong.*** First, the government's pandemic prevention measures were dysfunctional. In the questionnaire survey, 31.97% of the respondents thought some anti-pandemic actions were unreasonable, and 34.01% thought they were completely irrational. First, it was shutting down urban mainline buses and urban and rural mainline buses. 51.02% of the respondents were dissatisfied with this action. Because the Yangtze River separates some towns in Nanjing from the central metropolitan area, the main transportation route is the three rivers bridges, but during the pandemic, the government directly blocked the three rivers bridges and stopped the bus line, resulting in the suspension of residents' life and work.

Second, the resettlement of migrants is biased. In the questionnaire survey, 63.94% of the respondents said that the quarantined people should not be placed directly in hotels beside the main roads in the central city, and 50% said that they had not received any notice from the relevant government departments before. Many people did not even know they were living next to the quarantined people after the pandemic prevention vehicle entered the city and installed the quarantine zone. This incident caused panic among the vast majority of the public, questioned the measures the Nanjing Municipal government took to deal with the crisis, and affected the government's credibility.

***Low information transparency.*** First, access to information was complex. The questionnaire survey results show that for elderly citizens, smartphones are not necessary, and some of them do not know how to use smartphones at all, and they cannot obtain relevant pandemic news from the Internet and other ways. More sources were the gathering of neighbors to gossip, which led to frequent meetings in public places. At the same time, their lag in obtaining information about the spread of the pandemic also resulted in their indifference to the

pandemic. According to the questionnaire results, young people also learned the source of pandemic information not through the government portal but through other ways such as short video apps. Therefore, most information acquisition channels came from we-media websites and streets.

Second, the portal website information release was not timely. The survey on the timeliness of information release found that 50% of the respondents believed that the Nanjing Municipal government needed to catch up in releasing information about the pandemic. Often, the portal website information was released after other non-official website operators had announced the latest pandemic news or the trajectory of confirmed cases, with a lag time of about half a working day, resulting in repeated online rumors and the information of various non-governmental websites mostly pulls the public, and they did not know who to believe.

Third, critical information was not disclosed in a timely, accurate and proactive manner. In terms of information openness and timeliness, the Nanjing municipal government's practice in the emergency response to the pandemic has been questioned. As the governor, the local government handled all crisis events and needed to collect first-hand information. However, due to various factors, the relevant departments of the Nanjing Municipal Government did not release the information in a timely manner, and the information was doubted to some extent.

#### *4.2 The daily emergency response system was not sound, affecting the emergency response capacity*

***Lack of reserve thinking.*** First, there was a shortage of professional personnel. In the questionnaire survey, 51.7% of the public believed that the Nanjing Municipal Government needed to increase the number of professional prevention and control personnel to deal with public health security crises. Compared with volunteers and the staff of community pandemic prevention stations, the professionals' handling of public health security crises was more convincing to the public. It made the public more confident in dealing with crisis events. Second, there was a lack of corresponding material reserves. In the interview, a staff of the Health Supervision Bureau said there were supplies, but not sure how much it would be; after all, it had never encountered such a situation before, and there was a shortage of supplies across the whole country. Temperature volunteers responded differently, saying that materials were not enough, not to mention N95 masks; disposable masks could only be provided once in 3 or 4 days and could only continue to be used by alcohol disinfection at ordinary times.

***The construction of big data systems for public health management was not sufficient.*** The data intranet of the hospital in our city is not connected with the big data network of the pandemic control Center. That is, the outpatient patients with fever in the hospital cannot directly connect with the big data of the pandemic control center on the data, but can only update the data manually. It resulted in a lag in timeliness and a certain degree of unpreparedness. Moreover, the big data network of the pandemic control center did not play a real role in early warning and prevention.

### **5. Analysis of the causes of weak emergency management ability**

#### *5.1 Regional collaborative governance mechanisms was not sound*

In modern society, the cross-regional flow of people is unavoidable; with the development of the social economy and the improvement of traffic conditions, China has established a huge network that includes all materials, people, information, funds, and other related elements, supporting high-speed flow and convenient for efficient contact. Especially in more developed cities, the more frequent the flow of people, the faster the spread of the virus. However, the spread of the virus is not entirely caused by the flow of people but depends more on the level and strength of joint prevention and control. Suppose there are strong and refined regional coordinated governance and regional prevention and control measures in the urban area. In that case, the scope of harm can be minimized, and large-scale chain reactions can be avoided. But the reality is that events are not subject to

human will, nor are they confined to a single jurisdiction. Due to the chain effect of emergencies, there will also be derivative events, resulting in economic losses and other social problems in the region. Even if a safety and health incident occurs in one jurisdiction, the emergency response capacity and resources of the jurisdiction are limited, and the help and support of other jurisdictions are needed to solve it.

### *5.2 Lack of effective linkage*

Coordination in emergency response is an inevitable requirement for dealing with increasingly complex systemic risks and crises, and it is also an important conclusion drawn from practical emergency response experience. The linkage coordination mechanism in our country is constantly improving. In 2018, China established a new Ministry of Emergency Management, and provinces (municipalities and districts) have also established new emergency management agencies, which have played an important role in strengthening the coordination of departments. However, due to the need for more common equipment and a high-level emergency management system, avoiding shirking and reducing "departmentalism" is more complicated. At the same time, government departments are reluctant to share core information based on their own interests in actual crisis response. To a certain extent, these problems affect the role of coordination and linkage. However, the departments involved in the crisis are unwilling to play a supporting role. How to start from the overall situation, correctly understand the relationship between the primary and secondary responsibility, accurately grasp the department's positioning in the emergency handling, porting role actively cooperate, is also an urgent problem in the current coordination mechanism.

### *5.3 Different parts of the society did not have the awareness to participate in collaborative governance*

Due to the influence of the all-powerful government model, local governments take responsibility for the governance crisis alone and rely on the vertical mobilization model from the central to the local government to carry out revolutionary administrative mobilization from top to bottom. Therefore, it does not really recognize the value of enterprises, citizens and public organizations in managing public health crises. The government's lack of awareness of collaborative governance has hindered the smooth development of the work of the government and major institutions. Even if the local government can mobilize the whole society's power to participate in crisis management, it cannot deal with it, give play to the cooperative strength of the main body, and ultimately still fight alone. Similarly, the participation of the media in the new environment also needs to handle the relationship with the government well, not only to accurately, comprehensively, and timely convey the crisis information to the public, increase the guidance of public opinion, and develop it into a direction conducive to the thorough solution of the crisis but also to truly understand the intention of the government and reach friendly cooperation with it to deal with future crises jointly.

### *5.4 Insufficient construction of a daily emergency management system*

**Weak public health governance.** First, the public health system is weak. After SARS in 2003, China attached great importance to the public health system and did a lot of construction work, not only set up the "one plan and three systems", but also established the emergency management department in 2008, managing emergencies from a single disaster classification to all disasters. However, the awareness of the construction of the public health system is still not enough, and it has not been really paid attention to. In particular, the emergency plan of primary medical institutions is not strong, not enough to adapt to local conditions, and most cities in the country are weak in public health resource coordination, system construction. In general, the ability to face significant outbreaks of infectious diseases is far from enough, and they cannot play a leading role in pandemic control. At the same time, the problem of "focusing on treatment while ignoring prevention" has not been solved for a long time. The data shows that in 2019, the national medical and health funding accounted for 95.3% of clinical investment. Public health only accounted for 4.7%, a severe shortage of funds and a profound loss of talent, and cannot meet the development needs.



Second, there are defects in the public health operation mechanism and management system. In 2002, Nanjing divided the pandemic prevention station into two departments: the Health Supervision and Administration Bureau and the Nanjing Pandemic Control Center. Health resources are dispersed. Although the two departments supervise and restrict each other, it is challenging to effectively integrate resources, especially during this pandemic period, and it is difficult to respond quickly.

*The emergency reserve was insufficient.* At present, local governments lack storage thinking in urban management. In fact, it is not difficult to see from the emergency response of the pandemic most cities have a single goal, lack of risk awareness, and are not adequately prepared for the crisis that is not coming. Since SARS, the government should have a new understanding of crisis emergency management, especially in terms of supplies, but this outbreak has exposed the opposite side. After the occurrence of an urban public health emergency, the "material flow" of the city is under major changes. There is no storage to adjust this chaotic "material flow," and the overall emergency response system of the city is in a state of disorder, which eventually leads to the paralysis of the local emergency response system, requiring the mobilization of materials nationwide and social donations for relief.

*It was difficult to build a big data platform for public health management.* In 2003, SARS exposed the problem of infectious disease surveillance in China. After 2003, China began to build an emergency management system, set the core as "one plan and three systems," and set up "national comprehensive coordination, unified leadership, hierarchical responsibility and classified management of emergency management system." At the beginning of 2004, relying on modern network technology, a disease pre-control information system covering all regions of the country was established. However, after the outbreak of the new coronavirus in 2020, the network reporting system could not collect relevant data because it could not directly connect to the hospital's internal network, and the role of the system could not be played. The performance of the system still needs to be improved.

Building a new system for big data requires addressing many challenges simultaneously—first, system security, confidentiality, sharing, and other medical privacy issues. Since health big data inevitably involves citizens' private information, including physical health status, disease history, personal information, and other private data, if revealed, it will cause a huge intrusion on patients' daily lives. In 2018, the Personal Information Security Code proposed that personal information protection should be carried out in accordance with certain principles. Still, it did not set more detailed legal rules on medical privacy protection. Second, the problem of data information island is always widespread, and technical and non-technical difficulties such as standardization are difficult to implement and effectively solve.

## **6. Conclusions and recommendations**

The COVID-19 pandemic has significantly impacted China's political, economic, and social people, and all departments of the Chinese government, including all social strata, have made outstanding contributions to the prevention and control of the pandemic. Now that China has made new progress in preventing and controlling the pandemic, it is all the more critical to safeguard what we have achieved and earnestly protect the people's lives, safety, and health. The pandemic began to spread rapidly around the world, and to do a good job of prevention and control, we must first prevent imported virus. In addition, it is also essential to establish a regular prevention and control mentality and be prepared for a protracted battle against the pandemic.

As the leader of social and public affairs, whether the Nanjing Government can respond to the pandemic and other public health events promptly and effectively is a major challenge to the government's public health emergency response capability. The response plan adopted by the government for public health emergencies directly affects the degree of public trust in the government. The Nanjing government is also revising and adding relevant laws, regulations, and systems. However, some deficiencies are still exposed in the prevention and control. This study introduces the shortcomings of the Nanjing Government in the emergency response measures

for the prevention and control of COVID-19, analyzes the causes affecting the improper public health emergency response in Nanjing, and finds out the practical and feasible response methods suitable for the Nanjing government, and finally provides some valuable reference suggestions for Nanjing City.

In improving Emergency Response Capacity during Pandemic, it proposes a comprehensive approach to address this issue. Firstly, the study recommends the establishment of a coordinated regional governance mechanism to foster cross-regional collaboration and joint prevention and control measures. This includes the creation of a governance structure, information monitoring systems, and unified deployment of medical supplies, aiming to enhance crisis response not only in Nanjing but also in neighboring cities. Secondly, the study underscores the importance of systematic prioritization of functions and the transparent sharing of information. It suggests the implementation of an efficient emergency command system, optimized functional allocation among departments, and simplified processes to ensure effective coordination and connectivity during pandemic response efforts.

Additionally, the study advocates for a diversified governance system that involves various stakeholders, such as government bodies, volunteer organizations, enterprises, and communities. Each entity can contribute to pandemic response in unique ways, from disseminating scientific knowledge to providing essential supplies. To ensure efficient response, the study emphasizes the importance of information sharing and interaction among these stakeholders. Furthermore, it encourages the transition from traditional "management" to more inclusive "governance" approaches, mobilizing the collective strength of society to participate in pandemic prevention and control efforts. This multifaceted strategy seeks to enhance emergency response capacity, ultimately improving the preparedness and resilience of Nanjing and neighboring regions during public health emergencies.

In strengthen the construction of daily emergency management to enhance the emergency response capacity, the first recommendation emphasizes the need to shift from a reactive "occurrence-response" model to a proactive approach in managing public health crises. It highlights the limitations of passive response and the importance of recognizing the urgency and significance of active governance.

The second key recommendation focuses on scientific planning and management of urban emergency resources. It suggests the establishment of a unified material allocation organization, coordinated by the municipal Emergency Management Bureau and its relevant departments. This organization would be responsible for resource reserves, allocation, and full supervision, ensuring efficient resource management during crises. Furthermore, it recommends the implementation of a classification management system for emergency materials, with a focus on enriching material varieties and expanding resources. The study underscores the importance of mobilizing society to manage material reserves and incorporating market mechanisms to control costs and enhance efficiency. The final recommendation advocates for the accelerated development of big data platforms for public health systems, utilizing data to optimize resource allocation, improve the management of essential materials and medical resources, and enhance pandemic response. These recommendations collectively aim to improve daily emergency management and overall emergency response capacity in the face of public health crises.

## 7. References

- Barton, & Xu, C. (2009). Crisis Management: A simple and irreplaceable crisis management scheme. *The Oriental Press*.
- Central People's Government of the People's Republic of China (2011) Regulations on Public Health Emergencies [https://www.gov.cn/gongbao/content/2011/content\\_1860801.htm](https://www.gov.cn/gongbao/content/2011/content_1860801.htm)
- Central People's Government of the People's Republic of China (2004) Law of the People's Republic of China on the Prevention and Control of Infectious Diseases (2004) [https://www.gov.cn/gongbao/content/2004/content\\_62975.htm](https://www.gov.cn/gongbao/content/2004/content_62975.htm)
- Cui Y. (2016). Research on international cooperation mechanism of public crisis management based on global

- governance theory [D]. Shijiazhuang: Hebei Normal University.
- Health science Review Council. The 3rd Meeting of the Health Crisis Management Department [EB/OL]. (2009-03-09) [2014-06-10].
- Heath, R. L. (2004). Crisis preparation: Planning for the inevitable. *Responding to crisis: A rhetorical approach to crisis communication*, 33-35.
- Jaques, T. (2009). Issue and crisis management: Quicksand in the definitional landscape. *Public Relations Review*, 35(3), 280-286.
- Keeley, M. (2002). *Benchmarking in the Public Sector: Breaking the bottleneck of government Performance*. China Renmin University Press.
- Liu C. (2004). A Global perspective on crisis response: A Comparative study of crisis response mechanisms and practices in different countries.
- Liu T. (2011). Conceptual design of emergency response plan system. *China Work Safety Science and Technology*, 7(8), 5-13.
- Nanjing Municipal Government (2020) "Ten Measures for Preventing and Controlling the Epidemic, Ensuring Economic Development, and Maintaining Social Stability"  
[http://www.nanjing.gov.cn/zt/yqfk/zccs/202002/t20200222\\_1796491.html](http://www.nanjing.gov.cn/zt/yqfk/zccs/202002/t20200222_1796491.html)
- Nanjing Municipal People's Government (2020) Nanjing General Emergency Plan for Public Emergencies  
[http://www.nanjing.gov.cn/xxgkn/zfgb/202010/t20201028\\_2463849.html](http://www.nanjing.gov.cn/xxgkn/zfgb/202010/t20201028_2463849.html)
- National Health and Family Planning Commission of the People's Republic of China (2007) "Emergency Treatment Plan for Diseases of Unknown Cause (Trial)".  
<http://www.nhc.gov.cn/wsb/pzcjd/200804/20679.shtml>
- National Health Committee (2006) "Measures for the Administration of Information Reporting on Public Health Emergencies and Infectious Diseases"  
<http://www.nhc.gov.cn/wjw/c100022/202201/31c538d5c99843b5b8beb9591180444e/files/3299b0826d094421a3507d17a479f5f2.pdf>
- Notice of Nanjing Pneumonitis Prevention and Control Headquarters of Novel Coronavirus Infection (2020) "Nanjing Circular No. 1" [http://www.nanjing.gov.cn/zt/yqfk/zccs/202001/t20200127\\_1782809.html](http://www.nanjing.gov.cn/zt/yqfk/zccs/202001/t20200127_1782809.html)
- Pearson, C. M., & Mitroff, I. I. (2019). *From crisis prone to crisis prepared: A framework for crisis management*. *In Risk management* (pp. 185-196). Routledge.
- Regulations of the People's Republic of China on Government Information Disclosure [Z].2019-05.
- The Central People's Government of the People's Republic of China (2007) Emergency Response Law of the People's Republic of China.  
<http://www.npc.gov.cn/npc/c198/200708/91cd75de0e74484bb912f9b6c96af839.shtml>
- Tsinghua University Crisis Management Research Group (2003). Emergency management of public health emergencies in the United States and China [J]. *World Knowledge*, (10), 11.
- Uriel, R., & Charles Michael, T. (1989). *Coping with crises: The management of disasters, riots and terrorism*. Springfield: Charles C. Thomas, 10.
- Wang L. (2008). Emergency management of public health emergencies -- Theory and practice.
- Wang Y, & Liu T. (2010). Development status and prospect of emergency management theory. *China Emergency Management*, (6), 24-30.
- Xu P. (2007). *Doctoral dissertation and its Supporting System for Handling Public Health Emergencies in China* (Shanghai: Fudan University).
- Yu Y. (2010). *Theoretical research and Empirical Analysis of Emergency Management System in universities and colleges* (Doctoral dissertation, Wuhan: Wuhan University of Technology).
- Zhang H. (2010). *Research on Key Issues of Emergency Management* (Doctoral dissertation, Changchun: Jilin University).

