

Research and Analysis on the Evolution and Development Dilemma of Emergent Public Health Governance in the United States

Yu Sun^{1,a,*}

¹Anhui Normal University, Anhui, China

^a3129683612@qq.com

*Corresponding author

Abstract: *The public health governance in the United States has a long history, and with the continuous advancement of medical technology and the continuous update of the concept of health and epidemic prevention, a vertical hierarchy of "federal-state-local" and a horizontal division of labor of "government agencies-private sector-voluntary groups" have been formed. Multi-agent composite governance framework. However, in the specific practice of dealing with severe influenza and the new crown pneumonia epidemic, American public health governance still exposes the see-saw of federal and state powers and the differences in implementation between regions, the conflict between public health professional arrangements and political operations, the structural shortage of public health resources, and the lack of fairness and other dilemmas. The U.S. government has deliberately turned health governance into a highly politicized tool, making the current situation of public health security in the United States more complicated.*

Keywords: *public health events; emergencies; American public health management; management mechanism*

1. Introduction

Human beings have struggled against infectious diseases for thousands of years. Smallpox, the Black Death, and the 1918 New York flu have all engraved eerie fears in human history. In addition to the natural outbreak of public health emergencies, some infectious diseases such as smallpox and cholera can also become biological warfare agents and weapons of war, that is, biological weapons. Especially after the Cold War, American political security, military security, economic security and public security constituted a growing threat. The end of the Cold War has continuously injected new factors into national security issues, thus continuously deriving new problems and contradictions. The public health emergencies and biological terrorism caused by infectious diseases have great impact on the formulation of national security policies of various countries. had a profound impact.

Act, PL106-505 passed by the U.S. Congress in 2000 pointed out that public health emergencies include not only public health emergencies caused by diseases or turmoil, but also public health emergencies caused by major infectious disease outbreaks or attacks by biological terrorists. event. The National Disaster Medical System Memorandum of Agreement defines public health emergencies as "events that provide medical and medical assistance in response to major or catastrophic crises caused by natural disasters, major infectious disease outbreaks, and bioterrorist attacks. "

The United States is one of the countries in the world with a relatively sound public health system and a relatively solid public health foundation, and it is also one of the countries in the world where various public health emergencies occur frequently [1]. Over the past 200 years since the founding of the United States, in the process of urbanization, industrialization, modernization and globalization, it has experienced public health incidents of outbreaks of infectious diseases of various sizes, various disasters (tornadoes, hurricanes, forest fires, floods, terrorism) Attacks, etc.) also occur frequently, thus forming a relatively complete public health emergency management mechanism. Since the beginning of the 21st century, with the frequent occurrence of new and recurrent infectious diseases and the increasing threat to global health security, the US disease control system and public health emergency management system have effectively responded to the epidemic and maintained their own health security, also accumulated valuable experience. Although public health is a prominent subject in the

United States, the research focuses on the history of public health, public health policy, public health law—including specific public health issues such as emerging infectious diseases, and global public health security, there are relatively few research results on the American public health emergency management system from the perspective of mechanism. China's research on American public health policy and its mechanism for responding to public health emergencies is even more insufficient, and it is necessary to study this. At present, the new crown virus pneumonia epidemic is spreading in many parts of the world, posing a serious threat to global health security and human life and health. Understand the mechanism of the United States to respond to public health emergencies, analyze and learn from the valuable experience of the United States in responding to public health emergencies, and strengthen China's U.S. cooperation in health security is of great significance to effectively prevent and control the outbreak of new infectious diseases and enhance global public health security.

2. Changes in the concept of emergency public health management in the United States

2.1. The concept of the early post-war period: health security incidents are marginalized

As the birthplace of the 1929-1932 economic crisis in the United States, the unemployment rate in the United States rose from 3.2% in 1932 to 24.9% in 1933, and the gross domestic product dropped from 314.7 billion US dollars in 1929 to 239.4 billion US dollars in 1933, 5 In 1933 the consumer price index fell by 24.6 % compared to 1929. Affected by the enormous destructive power of the economic crisis in the 1930s, the American people generally believed that national security was economic security in a sense [2]. However, the serious economic crisis has gradually deteriorated the public health situation in the United States, and the impact of various public health emergencies on national security has become increasingly prominent, prompting the federal government to strengthen the macro-control of the capitalist free market economy unprecedentedly. Intervention in social life has also been strengthened, and public health and social security affairs have begun to transfer from the private and social spheres to governments at all levels. The Social Security Act was enacted by Congress in August 1935, to help states, local governments, health districts, and the overseas territories of the United States of America establish and maintain adequate public health service capacity. The sixth chapter of the law, "Public Health Work", allows the government to undertake the heavy burden of managing social security and public health affairs and responding to public health emergencies, which opened the beginning for governments at all levels to master the leadership of emergency management of public health emergencies.

On April 25, 1939, that is, three weeks after the Agency Reorganization Act was passed by Congress, the President handed over the No. 1 Agency Reorganization Plan to Congress. one of the institutions. Judging from the public statements made by President Roosevelt during his second term, most of the "security" he talked about had nothing to do with pensions and unemployment benefits. The U.S. government also sees a clear change in the concept of national security: more emphasis is placed on security in the international and geopolitical sense, and occasionally involves regional national security issues. Facing the increasingly severe international situation at that time, only by effectively strengthening the response capabilities of domestic administrative agencies can we effectively resist external threats and protect the national security of the United States. To this end, Roosevelt infiltrated the idea of reducing domestic governance risks into the concept of national security, and creatively extended national security in the traditional sense to social security, economic security, public health, and geopolitics. In the case of increasingly close links between public health emergencies and the military and national defense, the focus of the public health policy of the US government has gradually expanded from enhancing military medical defense capabilities to various public health emergencies at the forefront of the country. In terms of the comprehensive ability to respond to the incident, protecting the safety of the king of the United States became the starting point for the reform of the federal government during this period. But the actual situation is that the federal government's ability to control the huge administrative agencies is gradually weakening, and it is unable to more effectively integrate the resources of various administrative agencies at all levels to directly, quickly and effectively meet domestic and foreign challenges and protect the national security of the United States [3]. Therefore, on the eve of the establishment of the Federal Security Service, the Roosevelt administration raised public health and economic security to the same level as war, emphasizing that the 1939 Agency Reorganization Act was proposed for issues such as public health and economic security, and it could be more effective during wartime. Strongly support national defense work and ensure national security, but the ability to safeguard US national security comes from an organized and effective government, and efficiency and responsibility are the guarantees for accomplishing this goal. On the other hand,

under the pressure of more and more people who are extremely concerned about national security, conservative Democrats and Republican lawmakers, even supporters of isolationism, have also begun to support this defense-related agency restructuring bill. Since then, in the U.S. government's policy of responding to public health emergencies, the difference between domestic affairs and international affairs in the traditional sense has gradually narrowed, and this boundary has almost completely disappeared during the Bush administration.

2.2. Concept before the end of the Cold War: Begin to realize the importance of unified management

In the United States, malaria is a seasonal disease. Although its "power" was greatly reduced at the end of the nineteenth century, it spread to almost all parts of the United States, and the states in the southeastern United States became the hardest hit areas for malaria. Before the CDC was established, the Rockefeller Foundation played a very important role in controlling malaria in the southeastern United States. The foundation not only vigorously supports malaria control activities in the United States, but also cooperates with the later established CDC and the Malaria Committee of the League of Nations to actively seek to use government means to control malaria in countries around the world. In 1942, in order to control and treat the increasingly serious malaria on the battlefield and reduce the casualties of the U.S. military, the Roosevelt administration established the Office of National Defense Malaria Control Activities, which was renamed Office of Malaria Control in War Areas (1942-1946) in the same year.), after the establishment of this agency, the characteristics of the US federal government 's malaria control policy have undergone significant changes, from passive control to active elimination [4]. Malaria was eliminated from the continental United States in 1951. Since then, CDC has gradually shifted its main resources from mosquito control projects to malaria monitoring. In 1952, CDC completely ended the malaria control project in the United States. CDC has grown considerably since the founding of the Ministry of Health, Education and Welfare in 1953. In addition to responding to disease denials, Joseph Mountain, director of the Center for Infectious Diseases, has continued to guide the agency to participate in other public affairs in the United States, expanding the functions of the Center for Infectious Diseases to many other infectious diseases. The growing influence of responding to public health emergencies caused by infectious diseases has led to the integration of other infectious disease research institutions into the infectious disease center. In 1963, the Infectious Diseases Immunization Program was also introduced. On July 1, 1967, the Center for Infectious Diseases officially changed its name to the National Communicable Disease Center (NCDC), and then changed its name several times. On October 27, 1992, the U.S. Congress passed a law after the name of the Centers for Disease Control (Centers for Disease Control). The word "prevention", the Centers for Disease Control and Prevention has become the official name of this institution. However, because of its long history, Congress ordered that the CDC abbreviation of the agency's name be retained.

After the establishment of the Ministry of Health, Education and Welfare, the federal government of the United States began to commit itself to the prevention, control and eradication of major public health emergencies caused by infectious diseases that have had a long-term impact on public health security. The eradication of polio in the United States is a classic example of this. Speaking of polio in the United States, one must mention the "Carter Vaccine Incident". The Carter Vaccine Incident is an extremely important event in the history of vaccine production and government supervision in the United States. The occurrence of this incident is not accidental. It is caused by the long -term lack of a strict clinical trial system by the U.S. government regulatory department, that is, the safety tests of all vaccines are concentrated in three laboratories repeatedly. On this basis, health, education and welfare The Ministry of Health (HEW) confirms whether the manufacturing company could continue to produce safely, and there is no need to issue a commercial license to produce vaccines. In the end, the Carter vaccine incident directly led to the expansion of the Bureau of Public Health's role in the supervision of biological agents, and at the same time, the regulations for more accurate assessment of vaccine safety have also been improved. In January 1967, a respiratory disease first broke out in Fort Dix, New Jersey, USA. After the first death occurred on February 6, this public health emergency caused another 13 cases and 500 recruits be infected. Despite preventive vaccination efforts in the United States prior to the 1957 and 1968 Hong Kong flu outbreaks, influenza viruses continue to circulate in the United States, suggesting that most Americans do not have effective influenza immunity. With neither immunity nor sufficient vaccines, people are generally worried that the re-emergence of influenza will inevitably evolve into a national public health emergency, and it is very likely to evolve into a worldwide pandemic, even worse than humans Worse than any plague in history. Panic began to develop into social unrest. To this end, in 1976, President Ford applied to the U.S. Congress for a special appropriation to manufacture an effective swine flu vaccine and vaccinate every American with

the vaccine. This is the largest swine flu vaccination program in the history of the United States. Its original intention is to prevent the spread of swine flu, suppress public panic, and prevent swine flu before it causes many casualties and hundreds of millions of dollars in economic losses and spreads to the whole country and even the world.

But to a certain extent, it has caused a social crisis and a political crisis. First, vulnerable groups are generally neglected, and many lawsuits appear, causing serious divisions in the society. Poor blacks in the ghettos were vaccinated at far lower rates than middle-class whites in the suburbs during the swine flu vaccination program without any real remedial action by the SHS or CDC. Second, they miscalculated the situation, acted arbitrarily, and responded improperly, which caused the government to lose its credibility and authority, and even triggered a political crisis to a certain extent. During the period from the 1950s to the 1970s, the agencies responsible for emergency management in the federal government and their competent departments have been unstable, and many agencies have been in flux, reflecting the coexistence of emergency assistance, national preparedness, and civil defense functions in the US national emergency management system. Poorly managed conditions. In May 1978, in order to solve various problems faced by the emergency management system in the United States, President Carter proposed a restructuring plan, suggesting that the Disaster Assistance Administration, the Federal Bureau of Preparedness and the Civil Defense Preparedness Bureau be merged to form an independent disaster relief agency. (Emergency) Emergency assistance agency. In June 1978, the Federal Emergency Management Agency was formally established.

2.3. Philosophy of the Clinton era: the opinions of professionals began to be respected

In 1993, President Bill Clinton appointed James Lee Witt, who had extensive experience in emergency management, as director of the Federal Emergency Management Agency. After accumulating experience in emergency management of numerous emergencies, the Federal Emergency Management Agency revised and improved the Federal Response Plan in 1999, specifying the emergency management agencies responsible for health and medical service support functions, implementation conditions, and start-up program [5]. In response to public health emergencies, HHS can mobilize support from within the Department of Health and Human Services (HHS), the National Disaster Medical System (NDMS), and large pharmaceutical companies, Emergency medical resources from nonfederal agencies such as hospitals, the National Funeral Foundation, International Disaster Response, and the World Health Organization. The end of the Cold War enabled the Federal Emergency Management Agency to downplay the civil defense function and focus its work on responding to various disasters, especially natural disasters and public health emergencies caused by them, providing timely assistance to disaster areas in distress. Effective help has enabled FEMA to be reborn from the ashes. The anti-terrorism annex was added to the "1999 Federal Response Plan" formulated two years before the September 11 terrorist attack, which cannot but show that the "1999 Federal Response Plan" formulated by the Director of the Emergency Management Bureau under his leadership has a distinct strategic and forward-looking perspective, which has had a profound impact on the future policy formulation and implementation of public health emergencies in the United States.

In the 1970s, the incidence of measles in the United States dropped by 80% to 90% due to strict implementation of the measles immunization program in schools and kindergartens. However, since 1989, there has been another outbreak of measles in the United States. This measles outbreak presents two characteristics: one is that the outbreak is concentrated in the middle school entrance season; the other is that the outbreak is concentrated in low-income communities, and most of the infected people are unimmunized preschool children in low-income communities. Because, vaccinating young children in low-income communities, and even younger babies, such as the Edmonston - Zagreb Strain V vaccine has become an important part of the Clinton administration's public health emergency response policy. direction. In order to prevent another large-scale outbreak of public health emergencies such as measles and other infectious diseases and eliminate the serious threat of measles to the national public health security of the United States, the Clinton administration urged Congress to immediately consider and pass the Comprehensive Child Immunization Act (Comprehensive Child Immunization Act of 1993). Because it is economically cost-effective to carry out preventive immunization of children, "children are most vulnerable before the age of 2, and about 80% of vaccines should be vaccinated before that (at this stage) for every dollar invested in the medical immune system, (in the future) can save more than \$10 in health care costs" [6]. However, many Hispanic, Asian and African American children in low-income communities do not have the most basic immunizations at this age. The U.S. federal government must eliminate the financial barriers to immunization for these poor children, increase the immunization rate of school-age children, and promote the development of a national

immunization tracking system to ensure that American children receive appropriate immunizations at the youngest age. To this end, this proposal proposes that the HHS minister directly purchase vaccines to prevent fatal infectious diseases, and provide free of charge to state-registered medical institutions participating in the National Vaccine Injury Compensation Program. Provide corresponding vaccines. For states that have not participated in the National Vaccine Injury Compensation Program, the Federal Department of Health and Human Services will also provide free vaccines to the federal health care centers located in the states. The designated medical institutions and federal health care centers in each state Children under the age of 2 shall be vaccinated with corresponding vaccines free of charge, and the vaccinators shall not be charged for the vaccines. In order to solve the problems of funding and vaccine distribution and supply during the implementation of the children's immunization program, the US Congress successively issued the "Revenue Reconciliation Act of 1993" and the "Taxpayer Relief Act of 1997". In order to safeguard the source of funding for the Childhood Immunization Program and the National Vaccine Injury Compensation Program, after the Tax Regulation Act 1993 came into force, diphtheria, pertussis, tetanus, polio, measles, mumps and rubella vaccines were sold before the enactment of the Act Excise tax is levied on manufacturers, producers, importers, and individuals who sell or possess prescribed pediatric vaccines.

2.4. The concept of West Nile virus response: the important position of C and DC is valued

West Nile Virus is a kind of encephalitis virus in tropical and temperate regions. Wild birds are the main storage hosts of WNV. Horses, mosquitoes and human infection hosts. Mosquito bites are the main route of infection. Mosquitoes are born in late summer and early autumn The season of this disease is the high incidence season of this disease. Beginning in 1999, the West Nile virus, which had been prevalent in Africa, the Middle East, and southern Europe in the past, was introduced into the United States. In August of that year, within 4 square miles of Queens, New York City, 25 people contracted West Nile virus encephalitis in just a few days, and 7 of them died. This is the first outbreak of West Nile virus in the Western Hemisphere. In addition to New York State, cases were also found in Connecticut, Maryland and New Jersey. Through hosts such as birds, horses, and humans, West Nile virus spread rapidly west and south into the continental United States. When only 62 people were infected with West Nile virus in 1999, many people underestimated its severity, resulting in 2387 people suffering from West Nile virus in the United States in the three years from 1999 to 2002, 306 people die. Because the West Nile virus broke out in the United States for the first time, and this "virus has a strong adaptability, it can not only quickly adapt to changing society, technological innovation and environmental changes, but also break through the traditional defenses we have built, making people Reminiscent of the worst plague that has ever occurred in history, causing public confusion and panic, the New Yorker magazine even believed that the West Nile virus outbreak in New York State in 1999 was not a natural outbreak, but a Deliberate bioterrorist attack. Aiming at the problems in the implementation of "New York State West Nile Virus Response Plan" in 2000, the New York State Department of Health formulated "New York State West Nile Virus Response Plan - Guidance Document" in May 2001 to improve it. First, given that the earliest forecast of a West Nile virus public health emergency in New York State in 2000 was derived from the experience of dead bird surveillance, the importance of early surveillance was highlighted, especially for birds and mammals, because The results of monitoring and testing of birds and mammals can provide the New York State Government with the latest dynamic map of West Nile virus distribution and other key information and data for monitoring West Nile virus public health emergencies. Secondly, in response to the huge damage caused by mosquito repellents to human health and the ecological environment, the "New York State West Nile Virus Response Plan - Guidance Document" added a new part of monitoring the human health hazards of mosquito repellents, and ordered the New York State Department of Health to be responsible Collect the adverse effects of mosquito killers on residents and medical workers, follow up and investigate serious cases, and summarize all adverse reports after the spraying season is over, and further evaluate the potential harm to health.

In September 2002, the Mosquito Health and Safety Act was submitted to the House of Representatives and Commerce Committee for the first time. The bill believes that West Nile virus is not just an epidemic, and requires the federal government to play an important role in responding to such public health emergencies, providing local governments with policies to control mosquito-borne diseases, providing financial and technical support, and Not just regulating their practice of spraying pesticides; the bill advocates highlighting the role of CDCs, because no agency at the federal level is as uniquely positioned as the CDC to provide state, district, and county The government's mosquito control program provides funding and professional training.

3. The dilemma of the decision-making mechanism of the United States in response to public health emergencies

3.1. Dilemma of decision-making mechanism

The combination of US federalism and decentralization, a dual system of decentralization, has put the decision-making mechanism of the United States in response to a major epidemic into a structural dilemma, and it is unable to make major and complex decisions quickly. Under the constraints of the structure, from the perspective of dynamics, the polarization of political parties in the decision-making process and the lack of government coping capabilities have further hindered the generation and implementation of coordinated and effective coping decisions. Epidemic response belongs to the category of public health rather than diplomacy and national defense. The combination of dual decentralization systems as the basic domestic political system of the United States directly determines the structure of the decision-making mechanism for epidemic response. The design of the dual decentralization system is mainly for the consideration of checking and balancing power and preventing "tyranny", not for improving governance efficiency, and the decentralization of decision-making subjects will also have a negative impact on decision-making efficiency. For the containment of major infectious diseases that is particularly important to grasp the time window, which is measured in days or even seconds, the highly decentralized decision-making mechanism structure determines that the United States cannot respond to changes in the epidemic situation in the first place and Implement measures to slow the spread of the disease. Under the shadow of this dual decentralization combination, there are inherent difficulties in the decision-making mechanism of the US government to deal with the epidemic.

3.2. Goods supply dilemma

The concept of public goods originated from economics, which refers to goods with indivisible supply and non-competitive consumption. Public goods are related to the national economy and the people's livelihood. Since the establishment of the modern state, the policy on the supply of public goods has always been a key area of national policy. The international community has also established various policy rules in this related field to promote the continuity and effectiveness of the supply of public goods such as humanitarian aid, environmental protection, and sustainable development. Public goods are an important part of responding to global public health crises [7]. Experts in the field of medical and health care and material procurement believe that emergency material reserves can play an important role in responding to emergencies, especially in the early stages of events. The fight against the new crown epidemic requires a considerable number of vaccines, public goods such as masks, ventilators, and medical technology. Shi faced the dilemma of shortage of public goods. On March 13, 2020, the United States declared a state of emergency; in April, it signed the "National Defense Production Act" and required the US 3M mask company to supply the N95 masks produced by the US national reserve as a priority to the federal government.

3.3. The dilemma of different actions

Taking the new crown virus epidemic as an example, since the outbreak of the new crown pneumonia epidemic in the United States, different decision-making actors have carried out multiple rounds of decision-making within the structural framework of the decision-making mechanism. The decision-making stages are intertwined and overlapped, presenting an extremely complex and diverse picture. In the case of a highly decentralized decision-making mechanism, decision-making actors proceed from their respective positions and preferences to engage in games and bargaining, which constitutes the decision-making process for the U.S. epidemic response. Responding to the epidemic of major infectious diseases requires national overall coordination. Party polarization in turn utilizes the system of decentralization in the stage of decision-making option selection, thereby exacerbating decision-making differentiation and weakening checks and balances. This has led to the fact that after entering the pandemic period, the various decision-making actors in the decision-making mechanism are scattered in specific fields, and they are fragmented. There is no decision-maker responsible for overall planning and coordination of specific affairs, and the cost of external docking and coordination is relatively high.

4. The possible path for the mechanism to get out of the predicament

As far as the control of the infectious disease pandemic itself is concerned, a national overall coordinated response decision-making is required. If it is difficult to shake the structure of the decision-making mechanism, is it possible for the decision-making subject to use its initiative to overcome the predicament? There are three possible paths to give full play to the initiative of the decision-making subject. One is that the federal government binds federal funds to conditions that meet the federal government's decision-making goals and preferences and requires the states that use the funds and corresponding resources to meet the corresponding conditions. In fact, since the founding of the United States, the power of the federal government has continued to expand, and so has the power of the president. One of the ways to expand federal power is through the allocation of federal funds, allowing states to receive federal funding and implement federal policies at the same time. The second is to exercise executive privilege (prerogative) in a state of emergency. In theory, the head of state executive (president, monarch, parliamentary prime minister, etc.) has executive privileges during a state of emergency. The third is to transcend party polarization. If the president has strong leadership and willingness, enjoys high prestige, can increase consensus during the epidemic crisis, coordinate overall planning, persuade the two parties to cooperate, and all states to make decisions together, it is still possible to overcome the limitations of structural decentralization and competition in the decision-making mechanism.

5. Summary

With the deepening of globalization and population growth, there may be more infectious disease pandemics in the future. Under the shadow of dual decentralization, there are inherent difficulties in the decision-making mechanism of the US government. The combination of federalism and decentralization restricts the initiative of the strategy to contain the epidemic, making it difficult to form a national game of chess in the fight against the epidemic. Complex and major decisions cannot be made quickly. Coupled with the background of political party polarization, the federal and local governments, the White House and the White House Congress, the government, and the courts have constrained each other in responding to the epidemic. If we want to get rid of the dilemma of the decision-making mechanism to deal with the epidemic, we must either adjust the structure of the decision-making mechanism or adjust the initiative of the decision-making subject. However, the former involves constitutional changes, and the latter involves luck, such as presidential leadership and changes in party politics. From any point of view, it is more difficult to break through this dilemma.

References

- [1] Zhang Yeliang. *Mechanism and Enlightenment of U.S. Response to Public Health Emergencies* [J]. *American Studies*, 2020: 9-43.
- [2] Liu Lina, Qiu Jiayue. *Discussion on the emergency response system and enlightenment of public health emergencies in the United States* [J]. *Shanghai Medicine*, 2006: 45-47.
- [3] Fan Liping, Zhao Qinghua. *The current situation and enlightenment of the emergency management system of public health emergencies in the United States and Japan* [J]. *Nursing Research*, 2011: 9-11.
- [4] Huang Jianshi. *The U.S. Public Health Emergency Response System from the View of the No SARS Pandemic in the U.S.* [J]. *Chinese Medical Journal*, 2003: 5-7.
- [5] Zhao Limei, Yu Qun. *The impact of public health emergencies on the national security of the United States after the war* [J]. *Northern Essays*, 2012: 109-113.
- [6] Ding Yue. *American health management personnel training inspires China* [J]. *Chinese Hospital President*, 2013: 41.
- [7] Liu Dai. *Visiting experience in American health management* [J]. *China Health Talents*, 2019: 45-50.